MITSUBISHI MATERIALS

BOHRWERKZEUGE



DIA EDGE

NEW

MITSUBISHI MATERIALS

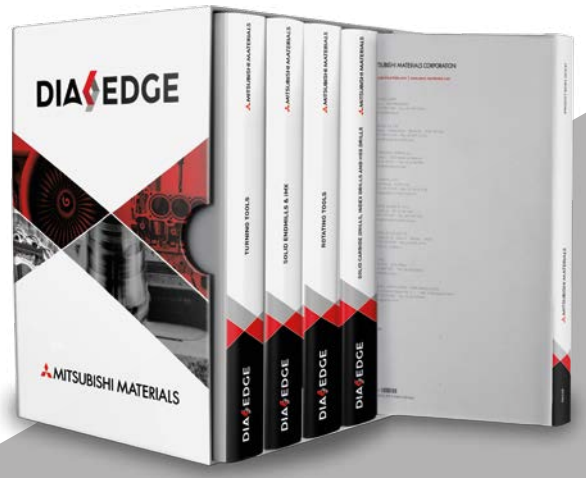
STELLT SEINEN NEUEN GESAMTKATALOG VOR: C008 - 2019/2020

GEZIELT, KOMPAKT, HANDLICH:

Der neue Gesamtkatalog präsentiert nun das umfangreiche Produktsortiment von Mitsubishi Materials in einzelnen Anwendungsbereichen, um Nutzer einen schnelleren, individuellen Informationszugriff zu gewährleisten.

Eine Katalogsammlung im praktischen Kleinformat, die aus den folgenden fünf Bänden besteht:

- **DREHWERKZEUGE**
- **BOHRWERKZEUGE**
- **VOLLHARTMETALL-FRÄSWERKZEUGE**
- **WENDEPLATTEN-FRÄSWERKZEUGE**
- **MPLUS**



NEUES DESIGN

EINFACHE HANDHABUNG

MEHR FLEXIBILITÄT

EINZELNE ANWENDUNGSBEREICHE

Der mitgelieferte Schuber erleichtert die Aufbewahrung der Bücher und bietet Platz für alle weiteren Kataloge, die im Zeitraum 2019-2020 veröffentlicht werden, wie beispielsweise die Produktneuheiten.
Fügen Sie die ergänzenden Kataloge in den vorgesehenen Platz im Schuber hinein, um die Sammlung zu erweitern oder ersetzen Sie ggf. die Kataloge durch die neuen Ausgaben.

HINWEISE:

- Mit Erscheinen dieses Katalogs verlieren alle bisherigen Gesamt- und Neuheiten-Kataloge ihre Gültigkeit.
- Die Produktneuheiten erscheinen zweimal im Jahr, jeweils im April und Oktober.
- Der neue Gesamtkatalog kann nur als komplette Katalogsammlung (fünf Bände) bestellt werden.
  Bestellnummer: C008D

BOHR-WERKZEUGE



LEISTUNG – NEUDEFINITION DER PARAMETER

Die Dynamik der modernen Fertigungsindustrie ist für Mitsubishi Materials ein ständiger Ansporn, im Markt an vorderster Stelle zu stehen.

Im alltäglichen Austausch mit Partnern und Kunden werden Lösungen für jede Situation angeboten.

Ob Wendeplattenbohrer der Serie MVX für Bohrtiefen bis zu 6x D oder Tieflochbohrer der MPS1-Serie, Mitsubishi Materials bietet individuelle Lösungen für alle Bohranwendungen.

DIAEDGE

GEMEINSAM MIT UNSEREN KUNDEN

AUF DEM WEG IN EINE SPANNENDE ZUKUNFT

Wir freuen uns, „DIAEDGE“, unsere neue Produktmarke für Hartmetallwerkzeuge, vorstellen zu dürfen. „DIAEDGE“ vereint all unsere innovativen Technologien, die seit Jahren unsere Kunden begeistern.

Unser Ziel ist es, Kunden weiterhin einen Mehrwert anzubieten, aber auch mit ihnen aktiv zusammenzuarbeiten, sich auszutauschen und von neuen Herausforderungen gegenseitig inspirieren zu lassen.

MITSUBISHI MATERIALS

2019-2020

INHALT



BOHRWERKZEUGE

BOHRWERKZEUGE	L001
ERSATZTEILE	M001
TECHNISCHE INFORMATIONEN	N001
INHALTSVERZEICHNIS	1
ALLGEMEINE INFORMATIONEN	



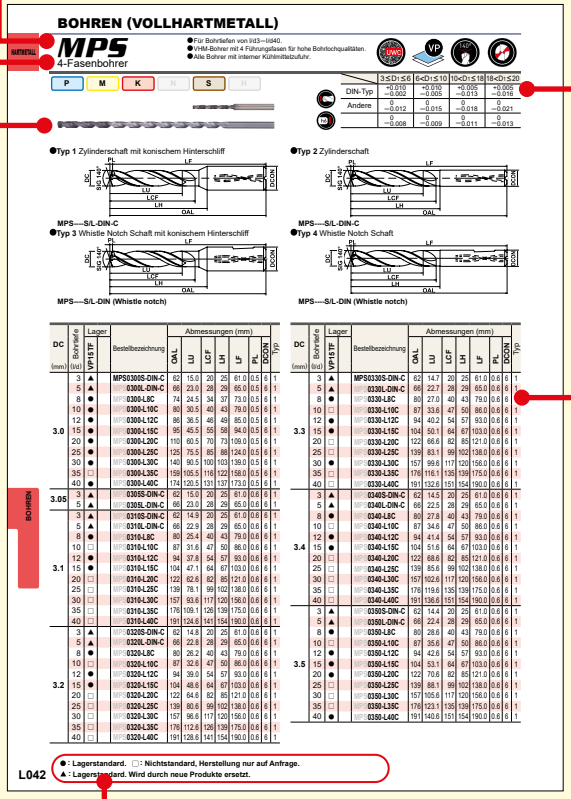
KAPITEL BOHRWERKZEUGE

●Wie ist eine Seite dieses Kapitels aufgebaut

①Sortiert nach Bohranwendung.

PRODUKTFOTO
PRODUKT
PRODUKTBEZEICHNUNG

DURCHMESSER TOLERANZ **ABBILDUNG**
PRODUKTBEZEICHNUNG



BOHREN (VOLLHARTMETALL)

MPS 4-Fasenbohrer

●Für Bohrtiefen von lr3 – lr40.
●VHM-Bohrer mit 4 Führungsfasen für hohe Bohrlochqualitäten.
●Alle Bohrer mit interner Kühlmittelzufuhr.

P M K N S H

	3≤D1≤6	6<D1≤10	10<D1≤18	18<D1≤20
DIN-Typ	+0.010 −0.002	+0.010 −0.005	+0.005 −0.013	+0.005 −0.016
Andere	0 −0.012	0 −0.015	0 −0.018	0 −0.021
	0 −0.008	0 −0.009	0 −0.011	0 −0.013

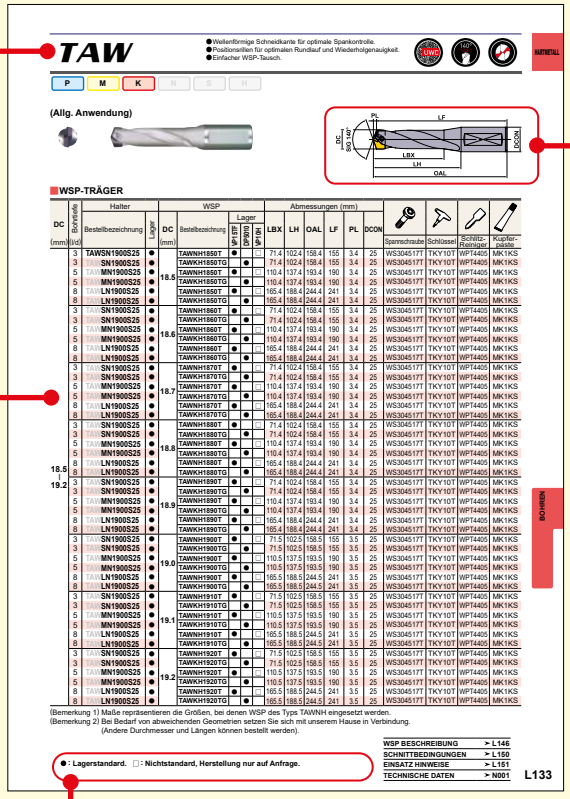
●Typ 1 Zylinderschaft mit konischem Hinterschliff
●Typ 2 Zylinderschaft
●Typ 3 Whistle Notch Schaft mit konischem Hinterschliff
●Typ 4 Whistle Notch Schaft

MPS----S/L-DIN-C
MPS----S/L-DIN (Whistle notch)

DC (mm)	Bohrtiefe (lid)	Lager VP15TF	Bestellbezeichnung	Abmessungen (mm) OAL	LU	LCF	LH	LF	PL	DCON	Typ
3.0	3	▲	MPS0303S-DIN-C	62	15.0	20	25	61.0	0.6	6	1
	5	▲	MPS0305L-DIN-C	66	23.0	28	29	65.0	0.6	6	1
	8	●	MPS0300-L8C	74	24.5	34	37	73.0	0.6	6	1
	10	●	MPS0300-L10C	80	30.5	40	43	79.0	0.6	6	1
	12	●	MPS0300-L12C	86	36.5	46	49	85.0	0.6	6	1
	15	●	MPS0300-L15C	95	45.5	55	58	94.0	0.6	6	1
	20	●	MPS0300-L20C	110	60.5	70	73	109.0	0.6	6	1
	25	●	MPS0300-L25C	125	75.5	85	88	124.0	0.6	6	1
	30	●	MPS0300-L30C	140	90.5	100	103	139.0	0.6	6	1
	35	□	MPS0300-L35C	159	105.5	116	122	158.0	0.6	6	1
	40	●	MPS0300-L40C	174	120.5	131	137	173.0	0.6	6	1
3.05	3	▲	MPS0305S-DIN-C	62	15.0	20	25	61.0	0.6	6	1
	5	▲	MPS0305L-DIN-C	66	23.0	28	29	65.0	0.6	6	1
3.1	3	▲	MPS0310S-DIN-C	62	14.9	20	25	61.0	0.6	6	1
	5	▲	MPS0310L-DIN-C	66	22.9	28	29	65.0	0.6	6	1
	8	●	MPS0310-L8C	80	25.4	40	43	79.0	0.6	6	1
	10	□	MPS0310-L10C	87	31.6	47	50	86.0	0.6	6	1
	12	●	MPS0310-L12C	94	37.8	54	57	93.0	0.6	6	1
	15	●	MPS0310-L15C	104	47.1	64	67	103.0	0.6	6	1
	20	□	MPS0310-L20C	122	62.6	82	85	121.0	0.6	6	1
	25	□	MPS0310-L25C	139	78.1	99	102	138.0	0.6	6	1
	30	□	MPS0310-L30C	157	93.6	117	120	156.0	0.6	6	1
	35	□	MPS0310-L35C	176	109.1	126	139	175.0	0.6	6	1
	40	□	MPS0310-L40C	191	124.6	141	154	190.0	0.6	6	1
3.2	3	▲	MPS0320S-DIN-C	62	14.8	20	25	61.0	0.6	6	1
	5	▲	MPS0320L-DIN-C	66	22.8	28	29	65.0	0.6	6	1
	8	●	MPS0320-L8C	80	26.2	40	43	79.0	0.6	6	1
	10	□	MPS0320-L10C	87	32.6	47	50	86.0	0.6	6	1
	12	●	MPS0320-L12C	94	39.0	54	57	93.0	0.6	6	1
	15	●	MPS0320-L15C	104	48.6	64	67	103.0	0.6	6	1
	20	□	MPS0320-L20C	122	64.6	82	85	121.0	0.6	6	1
	25	□	MPS0320-L25C	139	80.6	99	102	138.0	0.6	6	1
	30	□	MPS0320-L30C	157	96.6	117	120	156.0	0.6	6	1
	35	□	MPS0320-L35C	176	112.6	126	139	175.0	0.6	6	1
	40	□	MPS0320-L40C	191	128.6	141	154	190.0	0.6	6	1
3.3	3	▲	MPS0330S-DIN-C	62	14.7	20	25	61.0	0.6	6	1
	5	▲	MPS0330L-DIN-C	66	22.7	28	29	65.0	0.6	6	1
	8	●	MPS0330-L8C	80	27.0	40	43	79.0	0.6	6	1
	10	□	MPS0330-L10C	87	33.6	47	50	86.0	0.6	6	1
	12	●	MPS0330-L12C	94	40.2	54	57	93.0	0.6	6	1
	15	●	MPS0330-L15C	104	50.1	64	67	103.0	0.6	6	1
	20	□	MPS0330-L20C	122	66.6	82	85	121.0	0.6	6	1
	25	□	MPS0330-L25C	139	83.1	99	102	138.0	0.6	6	1
	30	●	MPS0330-L30C	157	99.6	117	120	156.0	0.6	6	1
	35	□	MPS0330-L35C	176	116.1	135	139	175.0	0.6	6	1
	40	□	MPS0330-L40C	191	132.6	151	154	190.0	0.6	6	1
3.4	3	▲	MPS0340S-DIN-C	62	14.5	20	25	61.0	0.6	6	1
	5	▲	MPS0340L-DIN-C	66	22.5	28	29	65.0	0.6	6	1
	8	●	MPS0340-L8C	80	27.8	40	43	79.0	0.6	6	1
	10	□	MPS0340-L10C	87	34.6	47	50	86.0	0.6	6	1
	12	●	MPS0340-L12C	94	41.4	54	57	93.0	0.6	6	1
	15	●	MPS0340-L15C	104	51.6	64	67	103.0	0.6	6	1
	20	□	MPS0340-L20C	122	68.6	82	85	121.0	0.6	6	1
	25	□	MPS0340-L25C	139	85.6	99	102	138.0	0.6	6	1
	30	□	MPS0340-L30C	157	102.6	117	120	156.0	0.6	6	1
	35	□	MPS0340-L35C	176	119.6	135	139	175.0	0.6	6	1
	40	□	MPS0340-L40C	191	136.6	151	154	190.0	0.6	6	1
3.5	3	▲	MPS0350S-DIN-C	62	14.4	20	25	61.0	0.6	6	1
	5	▲	MPS0350L-DIN-C	66	22.4	28	29	65.0	0.6	6	1
	8	●	MPS0350-L8C	80	28.6	40	43	79.0	0.6	6	1
	10	□	MPS0350-L10C	87	35.6	47	50	86.0	0.6	6	1
	12	●	MPS0350-L12C	94	42.6	54	57	93.0	0.6	6	1
	15	●	MPS0350-L15C	104	53.1	64	67	103.0	0.6	6	1
	20	●	MPS0350-L20C	122	70.6	82	85	121.0	0.6	6	1
	25	□	MPS0350-L25C	139	88.1	99	102	138.0	0.6	6	1
	30	□	MPS0350-L30C	157	105.6	117	120	156.0	0.6	6	1
	35	□	MPS0350-L35C	176	123.1	135	139	175.0	0.6	6	1
	40	●	MPS0350-L40C	191	140.6	151	154	190.0	0.6	6	1

●: Lagerstandard. □: Nichtstandard, Herstellung nur auf Anfrage.
▲: Lagerstandard. Wird durch neue Produkte ersetzt.

L042



TAW

●Wellenförmige Schneidkante für optimale Spankontrolle.
●Positionsrillen für optimalen Rundlauf und Wiederholgenauigkeit.
●Einfacher WSP-Tausch.

P M K N S H

(Allg. Anwendung)

WSP-TRÄGER

DC (mm)	Bohrtiefe (lid)	Halter Bestellbezeichnung	Lager	WSP DC (mm)	WSP Bestellbezeichnung	Lager VP15TF	Lager DP5010	Lager VP15N	LBX	LH	OAL	LF	PL	DCON	Spannschraube	Schlüssel	Schnitz-Reinigungsset	Kupfer-paste
18.5	3	TAWSN1900S25	●	18.5	TAWNH1850T	●		□	71.4	102.4	158.4	155	3.4	25	WS304517T	TKY10T	WPT440S	MK1KS
	3	TAWSN1900S25	●		TAWNH1850TG	●		□	71.4	102.4	158.4	155	3.4	25	WS304517T	TKY10T	WPT440S	MK1KS
	5	TAWMN1900S25	●		TAWNH1850T	●		□	110.4	137.4	193.4	190	3.4	25	WS304517T	TKY10T	WPT440S	MK1KS
	5	TAWMN1900S25	●		TAWNH1850TG		●		110.4	137.4	193.4	190	3.4	25	WS304517T	TKY10T	WPT440S	MK1KS
	8	TAWLN1900S25	●		TAWKH1850T	●		□	165.4	188.4	244.4	241	3.4	25	WS304517T	TKY10T	WPT440S	MK1KS
	8	TAWLN1900S25	●		TAWKH1850TG		●		165.4	188.4	244.4	241	3.4	25	WS304517T	TKY10T	WPT440S	MK1KS
18.6	3	TAWSN1900S25	●	18.6	TAWNH1860T	●		□	71.4	102.4	158.4	155	3.4	25	WS304517T	TKY10T	WPT440S	MK1KS
	3	TAWSN1900S25	●		TAWNH1860TG	●		□	71.4	102.4	158.4	155	3.4	25	WS304517T	TKY10T	WPT440S	MK1KS
	5	TAWMN1900S25	●		TAWNH1860T	●		□	110.4	137.4	193.4	190	3.4	25	WS304517T	TKY10T	WPT440S	MK1KS
	5	TAWMN1900S25	●		TAWNH1860TG		●		110.4	137.4	193.4	190	3.4	25	WS304517T	TKY10T	WPT440S	MK1KS
	8	TAWLN1900S25	●		TAWKH1860T	●		□	165.4	188.4	244.4	241	3.4	25	WS304517T	TKY10T	WPT440S	MK1KS
	8	TAWLN1900S25	●		TAWKH1860TG		●		165.4	188.4	244.4	241	3.4	25	WS304517T	TKY10T	WPT440S	MK1KS
18.7	3	TAWSN1900S25	●	18.7	TAWNH1870T	●		□	71.4	102.4	158.4	155	3.4	25	WS304517T	TKY10T	WPT440S	MK1KS
	3	TAWSN1900S25	●		TAWNH1870TG	●		□	71.4	102.4	158.4	155	3.4	25	WS304517T	TKY10T	WPT440S	MK1KS
	5	TAWMN1900S25	●		TAWNH1870T	●		□	110.4	137.4	193.4	190	3.4	25	WS304517T	TKY10T	WPT440S	MK1KS
	5	TAWMN1900S25	●		TAWNH1870TG		●		110.4	137.4	193.4	190	3.4	25	WS304517T	TKY10T	WPT440S	MK1KS
	8	TAWLN1900S25	●		TAWKH1870T	●		□	165.4	188.4	244.4	241	3.4	25	WS304517T	TKY10T	WPT440S	MK1KS
	8	TAWLN1900S25	●		TAWKH1870TG		●		165.4	188.4	244.4	241	3.4	25	WS304517T	TKY10T	WPT440S	MK1KS
18.8	3	TAWSN1900S25	●	18.8	TAWNH1880T	●		□	71.4	102.4	158.4	155	3.4	25	WS304517T	TKY10T	WPT440S	MK1KS
	3	TAWSN1900S25	●		TAWNH1880TG	●		□	71.4	102.4	158.4	155	3.4	25	WS304517T	TKY10T	WPT440S	MK1KS
	5	TAWMN1900S25	●		TAWNH1880T	●		□	110.4	137.4	193.4	190	3.4	25	WS304517T	TKY10T	WPT440S	MK1KS
	5	TAWMN1900S25	●		TAWNH1880TG		●		110.4	137.4	193.4	190	3.4	25	WS304517T	TKY10T	WPT440S	MK1KS
	8	TAWLN1900S25	●		TAWKH1880T	●		□	165.4	188.4	244.4	241	3.4	25	WS304517T	TKY10T	WPT440S	MK1KS
	8	TAWLN1900S25	●		TAWKH1880TG		●		165.4	188.4	244.4	241	3.4	25	WS304517T	TKY10T	WPT440S	MK1KS
18.9	3	TAWSN1900S25	●	18.9	TAWNH1890T	●		□	71.4	102.4	158.4	155	3.4	25	WS304517T	TKY10T	WPT440S	MK1KS
	3	TAWSN1900S25	●		TAWNH1890TG	●		□	71.4	102.4	158.4	155	3.4	25	WS304517T	TKY10T	WPT440S	MK1KS
	5	TAWMN1900S25	●		TAWNH1890T	●		□	110.4	137.4	193.4	190	3.4	25	WS304517T	TKY10T	WPT440S	MK1KS
	5	TAWMN1900S25	●		TAWNH1890TG		●		110.4	137.4	193.4	190	3.4	25	WS304517T	TKY10T	WPT440S	MK1KS
	8	TAWLN1900S25	●		TAWKH1890T	●		□	165.4	188.4	244.4	241	3.4	25	WS304517T	TKY10T	WPT440S	MK1KS
	8	TAWLN1900S25	●		TAWKH1890TG		●		165.4	188.4	244.4	241	3.4	25	WS304517T	TKY10T	WPT440S	MK1KS
19.0	3	TAWSN1900S25	●	19.0	TAWNH1900T	●		□	71.5	102.5	158.5	155	3.5	25	WS304517T	TKY10T	WPT440S	MK1KS
	3	TAWSN1900S25	●		TAWNH1900TG	●		□	71.5	102.5	158.5	155	3.5	25	WS304517T	TKY10T	WPT440S	MK1KS
	5	TAWMN1900S25	●		TAWNH1900T	●		□	110.5	137.5	193.5	190	3.5	25	WS304517T	TKY10T	WPT440S	MK1KS
	5	TAWMN1900S25	●		TAWNH1900TG		●		110.5	137.5	193.5	190	3.5	25	WS304517T	TKY10T	WPT440S	MK1KS
	8	TAWLN1900S25	●		TAWKH1900T	●		□	165.5	188.5	244.5	241	3.5	25	WS304517T	TKY10T	WPT440S	MK1KS
	8	TAWLN1900S25	●		TAWKH1900TG		●		165.5	188.5	244.5	241	3.5	25	WS304517T	TKY10T	WPT440S	MK1KS
19.1	3	TAWSN1900S25	●	19.1	TAWNH1910T	●		□	71.5	102.5	158.5	155	3.5	25	WS304517T	TKY10T	WPT440S	MK1KS
	3	TAWSN1900S25	●		TAWNH1910TG	●		□	71.5	102.5	158.5	155	3.5	25	WS304517T	TKY10T	WPT440S	MK1KS
	5	TAWMN1900S25	●		TAWNH1910T	●		□	110.5	137.5	193.5	190	3.5	25	WS304517T	TKY10T	WPT440S	MK1KS
	5	TAWMN1900S25	●		TAWNH1910TG		●		110.5	137.5	193.5	190	3.5	25	WS304517T	TKY10T	WPT440S	MK1KS
	8	TAWLN1900S25	●		TAWKH1910T	●		□	165.5	188.5	244.5	241	3.5	25	WS304517T	TKY10T	WPT440S	MK1KS
	8	TAWLN1900S25	●		TAWKH1910TG		●		165.5	188.5	244.5	241	3.5	25	WS304517T	TKY10T	WPT440S	MK1KS
19.2	3	TAWSN1900S25	●	19.2	TAWNH1920T	●		□	71.5	102.5	158.5	155	3.5	25	WS304517T	TKY10T	WPT440S	MK1KS
	3	TAWSN1900S25	●		TAWKH1920TG	●		□	71.5	102.5	158.5	155	3.5	25	WS304517T	TKY10T	WPT440S	MK1KS
	5	TAWMN1900S25	●		TAWNH1920T	●		□	110.5	137.5	193.5	190	3.5	25	WS304517T	TKY10T	WPT440S	MK1KS
	5	TAWMN1900S25	●		TAWNH1920TG		●		110.5	137.5	193.5	190	3.5	25	WS304517T	TKY10T	WPT440S	MK1KS
	8	TAWLN1900S25	●		TAWKH1920T	●		□	165.5	188.5	244.5	241	3.5	25	WS304517T	TKY10T	WPT440S	MK1KS
	8	TAWLN1900S25	●		TAWKH1920TG		●		165.5	188.5	244.5	241	3.5	25	WS304517T	TKY10T	WPT440S	MK1KS

(Bemerkung 1) Maße repräsentieren die Größen, bei denen WSP des Typs TAWNH eingesetzt werden.
(Bemerkung 2) Bei Bedarf von abweichenden Geometrien setzen Sie sich mit unserem Hause in Verbindung.
(Andere Durchmesser und Längen können bestellt werden).

●: Lagerstandard. □: Nichtstandard, Herstellung nur auf Anfrage.

WSP BESCHREIBUNG	➤ L146
SCHNITTBEDINGUNGEN	➤ L160
EINSATZ HINWEISE	➤ L161
TECHNISCHE DATEN	➤ N001

L133

STANDARDPRODUKTE
beinhaltet Durchmesser, Bohrlängen, Bestellbezeichnungen, Lagerstatus, Abmessungen und Ersatzteile.

LEGENDE FÜR LAGERSYMBOLE
wird auf jeder Doppelseite auf der linken Seite gezeigt.

BOHRWERKZEUGE

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SYMBOL BESCHREIBUNG ····· L003
BOHRER AUSWAHL ····· L004

BOHRER STANDARD

VOLLHARTMETALL

MSE ····· [Mikro VHM-Bohrer] ····· L008
MSP ····· [Zentrierbohrer] ····· L011
DLE ····· [Vollhartmetallbohrer zum Zentrieren und Anfasen] ····· L012
MFE ····· [Vollhartmetall-Flachbodenbohrer] ····· L014
MINI MVS ····· [2 Fasen VHM-Bohrer mit interner Kühlmittelzufuhr] ····· L016
MWS ····· [2 Fasen VHM-Bohrer mit interner Kühlmittelzufuhr] ····· L020
MPS1 ····· [Hochleistungs-Vollhartmetall-Bohrer] ····· L024
MPS ····· [4 Fasen & Super Long VHM-Bohrer] ····· L042
MSL ····· [2 Fasen Super Long VHM-Bohrer] ····· L054
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MNS ····· [VHM-Bohrer mit 4 Kühlkanälen für Aluminium] ····· L076
MAE/MAS ····· [VHM-Präzisionsbohrer für Aluminium] ····· L100
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TAW ····· [WSP-Bohrer für allgemeines Bohren] ····· L133
MVX ····· [WSP-Bohrer für hohe Stabilität] ····· L152
TAF ····· [WSP-Bohrer für hohe Stabilität] ····· L162
VERSTELLHÜLSEN ····· L170

HSS-BOHRER

VIOLET (HSS)

VAPDS ····· [HSS-Co Kurzer Bohrer für Stahl] ····· L173
VAPDM ····· [HSS-Co Mittellanger Bohrer für Stahl] ····· L178
VAPDSSUS ····· [HSS-Co Kurzer Bohrer für rostfreien Stahl] ····· L182
VAPDMSUS ····· [HSS-Co Mittellanger Bohrer für rostfreien Stahl] ····· L188
VSD ····· [HSS Langer Bohrer für rostfreien Stahl] ····· L195
VAPDSCB ····· [HSS-Co Bohrer zum Aufbohren] ····· L197

DIAMANTBESCHICHTETER VHM-BOHRER

MCC ····· [Für CNC-Maschine/CFK] ····· L200
MCA ····· [Für CNC-Maschine/CFK + A] ····· L201
MCT ····· [Für CNC-Maschine/CFK + Ti] ····· L202
MCW ····· [Für CNC-Maschine/CFK und Schichtverbundmaterial – Hochpräzision] ····· L203
MCCH ····· [Für Handwerkzeuge/CFK] ····· L204
MCAH ····· [Für Handwerkzeuge/CFK + Al] ····· L205

*Alphabetisches Inhaltsverzeichnis

L012 **DLE**
L170 **JFS (HÜLSE)**
L100 **MAE**
L100 **MAS**
L201 **MCA**
L205 **MCAH**
L200 **MCC**
L204 **MCCH**
L202 **MCT**
L203 **MCW**
L014 **MFE**
L059 **MGS**
L106 **MHS**
L016 **MINI-MVS**
L020 **MINI-MWS**
L062 **MMS**
L076 **MNS**
L042 **MPS**
L024 **MPS1**
L008 **MSE**
L054 **MSL**
L152 **MVX**
L159 **MVX (WSP)**
L011 **MSP**
L117 **STAW**
L127 **STAW (WSP)**
L162 **TAF**
L168 **TAF (WSP)**
L133 **TAW**
L146 **TAW (WSP)**
L178 **VAPDM**
L188 **VAPDMSUS**
L173 **VAPDS**
L197 **VAPDSCB**
L182 **VAPDSSUS**
L195 **VSD**

BOHRER KLASSIFIZIERUNG

BOHRER KLASSIFIZIERUNG



Bohrer Bezeichnung

MV : Die neue Generation für allgemeine Anwendung
DLE : DLE Bohrer
MPS1 : MPS1 Bohrer
MW : MWS Bohrer
MF : MFE Bohrer
MG : MGD Bohrer
MSL : MSL Bohrer
MP : MPS Bohrer
MA : MAE/MAS Bohrer
MS : MSE Bohrer
MM : MMS Bohrer
MN : MNS Bohrer
MH : MHS Bohrer

Kühlmittelzufuhr

E : Externe Kühlung
S : Interne Kühlung

Durchmesser

z.B
0050 → ϕ 0.5
0300 → ϕ 3.0

L/D

S : 2D
M : 3D
L : 5D (MAE/MAS Bohrer - 6 x D)
L8C : 8D
L10C : 10D
L12C : 12D
L15C : 15D
L20C : 20D
L25C : 25D
L30C : 30D
L40C : 40D
X : 12D
X8DB : 8D
X10DB : 10D
X15DB : 15D
X20DB : 20D
X25DB : 25D
X30DB : 30D

Schaftdurchmesser

A : Schaftdurchmesser = Bohrerdurchmesser
B : Schaftdurchmesser siehe Katalogdaten
C : Zylinderschaft

*Abweichungen sind teilweise möglich.



Bohrer Bezeichnung

VA : Violet beschichteter Präzisions - Bohrer (Hochwertige Sorte für den Einsatz bei hohen Drehzahlen)
V : Violet Bohrer

Anwendung

SD : Zylindrischer Bohrer für allgemeine Zwecke
PD : Für Hochpräzisions-bearbeitung

Länge der Bohrnut

S : Kurz
M : Mittel

Werkstoff

SUS : Für rostfreien Stahl

Durchmesser

z.B
D0300 → ϕ 3.0
D0050 → ϕ 0.5

*Abweichungen sind teilweise möglich.

SYMBOL BESCHREIBUNG

Schneidstoff



Ultra feinkörniges Hartmetall



Hoch leg. HSS



Kobalt Hochgeschwindigkeitsstähle



HSS

Kern Anschliff



X Kern Anschliff



XR Kern Anschliff

Anwendungsbereich Werkstoffe

1. Empfehlung

P M K N S H

2. Empfehlung

P M K N S H

Beschichtet



MIRACLE Beschichtung
Original MIRACLE Beschichtung (AlTiN), auch für Trockenbearbeitung einsetzbar.



DP Beschichtung
Neue Beschichtungstechnologie für eine vielzahl an Werkstoffen..



UP Beschichtung



VIOLET Beschichtung
Verbesserte Standzeit um den Faktor 2–3 im Vergleich zu TiN-beschichteten Produkten.



Diamant Beschichtung
Neue CVD-Diamantbeschichtung für das Bohren. Ideal für den Einsatz in CFK-Werkstoffen.



CVD Diamantbeschichtung
Die einzigartige Feinstkorn-Diamantkristallbeschichtung verbessert erheblich den Verschleißwiderstand und reduziert die Oberflächenrauhigkeit.

Winkel und scharfe Schneidkante



Spitzenwinkel
Bezeichnet den Bohrwinkel an der Spitze.

BOHRER AUSWAHL

Schneidstoff	Verfügbare Größen	Bohrtiefe (l/d)	Bezeichnung	Kühlung	Beschichtet	Werkstoff P C. Stahl, leg. Stahl	Werkstoff M Rostfreier Stahl	Werkstoff K Guss	Werkstoff N Leichtmetalle	Werkstoff S Hitzebeständiger Stahl	Werkstoff H Gehärteter Stahl	Form	Seitenverweis Abmessungen	Seitenverweis Schnittbedingungen
Vollhartmetall	ϕ0.1 – ϕ0.99	5 – 12	MSE	Extern	VP	◎	○	◎	○	○	○	MSP = Pilotbohrer für MSE	L008	L009
	ϕ3.0 – ϕ16.0	–	NEW DLE		DP	◎	◎	◎					L012	L013
	ϕ0.75 – ϕ2.95	2	NEW MINI-MFE		DP	◎	◎	◎	◎				L014	L015
	ϕ1.0 – ϕ2.9	*2 – 30	MINI-MVS	Intern	DP	◎	○	○	○		◎		L016	L018
	ϕ0.5 – ϕ0.99	1 – 12	MINI-MWS		VP	◎	◎	◎	○	○			L020	L022
	ϕ3.0 – ϕ20.0	3 – 40	MPS1		DP	◎	○	◎					L024	L039
	ϕ3.0 – ϕ20.0	3 – 40	MPS		VP	◎	○	◎		○			L042	L057
	ϕ3.0 – ϕ14.0	20 – 30	MSL		VP	◎	◎	◎		○			L054	L057
	ϕ0.95 – ϕ12.0	1 – 31	MHS	Intern	VP	○	○			○	◎		L106	L114
	ϕ3.0 – ϕ20.0	3, 5	MMS	Intern	DP		◎						L062	L074
	ϕ0.7 – ϕ3.0	– 80	MGS		–	◎	◎	◎	◎	○	○		L059	L060
	ϕ3.0 – ϕ16.0	3	MAE	Extern	–			○	◎				L100	L105
	ϕ3.0 – ϕ16.0	3, 6	MAS	Intern	–			○	◎				L100	L105
	ϕ3.0 – ϕ20.0	3 – 30	MNS		–				◎				L076	L096
	ϕ4.76 – ϕ11.14	3	NEW MCC		DD	Für CFK							L200	L200

*2=Pilotbohrer: Toleranz +0.014 und Bohrtiefe 2 x D.

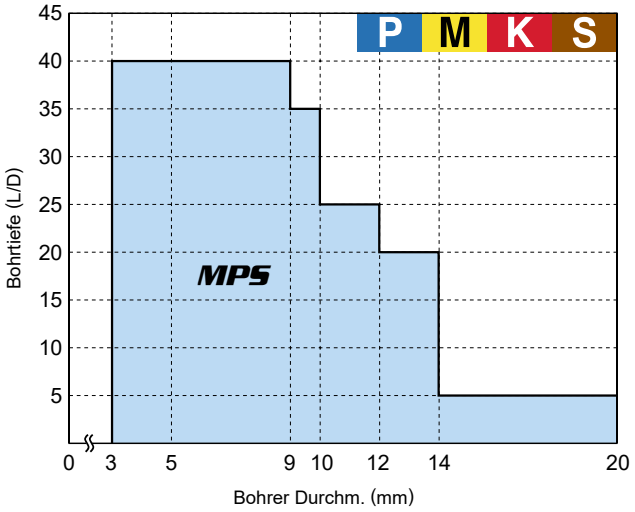
Schneidstoff	Verfügbare Größen	Bohrtiefe (l/d)	Bezeich-nung	Kühlung	Beschichtet	Werkstoff P C. Stahl, leg. Stahl	Werkstoff M Rostfreier Stahl	Werkstoff K Guss	Werkstoff N Leichtmetalle	Werkstoff S Hitzebeständiger Stahl	Werkstoff H Gehärteter Stahl	Form	Seitenverweis Abmessungen	Seitenverweis Schnitt-bedingungen
Vollhartmetall	ϕ6.38 – ϕ9.55	5	NEW MCA		DD	Für CFK							L201	L201
	ϕ6.38 – ϕ9.55	5	NEW MCT			Für CFK + Ti							L202	L202
	ϕ6.38 – ϕ9.55	5	NEW MCW		DD	Für CFK und Schichtverbundmaterial – Hochpräzision							L203	L203
	ϕ2.5 – ϕ9.55	2 – 15	NEW MCCH			Für CFK							L204	
	ϕ2.5 – ϕ9.55	3 – 15	NEW MCAH			Für CFK + Al							L205	
Hochgeschwindigkeits-stahl	ϕ0.5 – ϕ13.0	2 – 3	VAPDS	Extern	V	◎	○	○					L173	L177
	ϕ0.5 – ϕ32.0	3 – 6	VAPDM		V	◎	○	○					L178	L181
	ϕ0.5 – ϕ20.0	2 – 3	VAPDSSUS		V	○	◎	○	○				L182	L194
	ϕ0.5 – ϕ13.0	3 – 6	VAPDMSUS		V	○	◎	○	○				L188	L194
	ϕ0.5 – ϕ13.0	3 – 6	VSD		V	◎	○	○					L195	L196
	ϕ2.0 – ϕ32.0	2 – 3	VAPDSCB		V	◎	○	○					L197	L199
WSP Ausführung	ϕ10.0 – ϕ18.4	1.5 – 8	STAW	Intern	VP	◎	○	◎	○				L117	L131
	ϕ18.5 – ϕ30.4	3 – 8	TAW		VP	◎	○	◎					L133	L150
	ϕ17.0 – ϕ63.0	2 – 6	MVX		–	◎	○	◎					L152	L160
	ϕ12.0 – ϕ56.0	2 – 4	TAF		–	◎	◎	◎					L162	L169

◎ : 1. Empfehlung / ○ : 2. Empfehlung

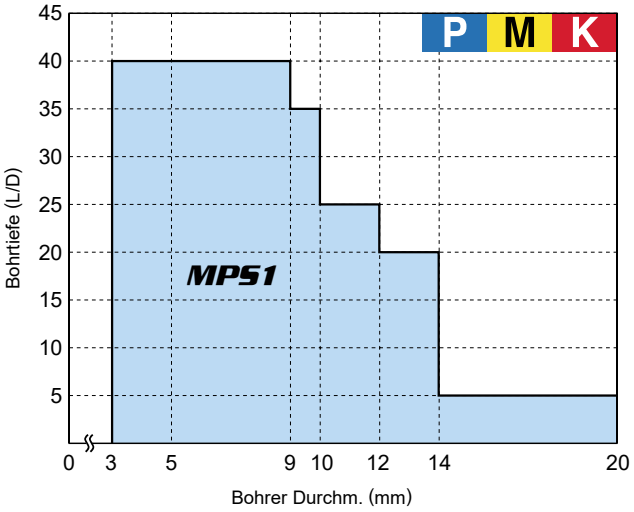
BOHRERSERIE

VOLLHARTMETALL

MPS (4-Fasenbohrer)

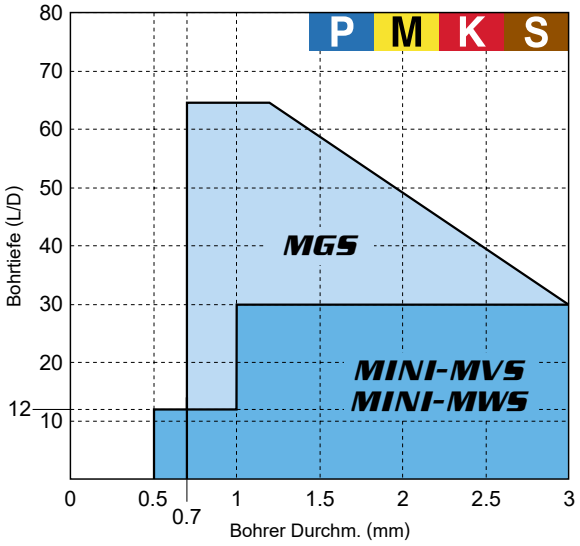


MPS1 (4-Fasenbohrer)



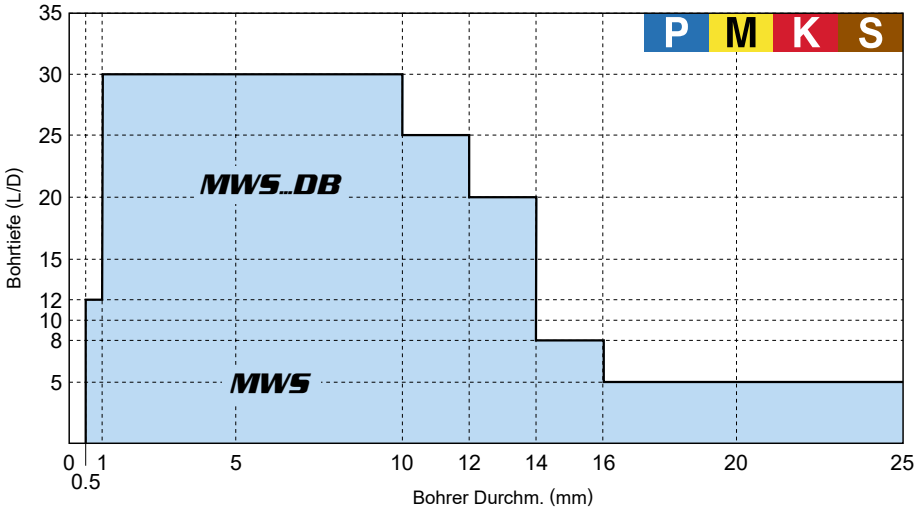
VOLLHARTMETALL

MINI-MVS,MINI-MWS,MGS



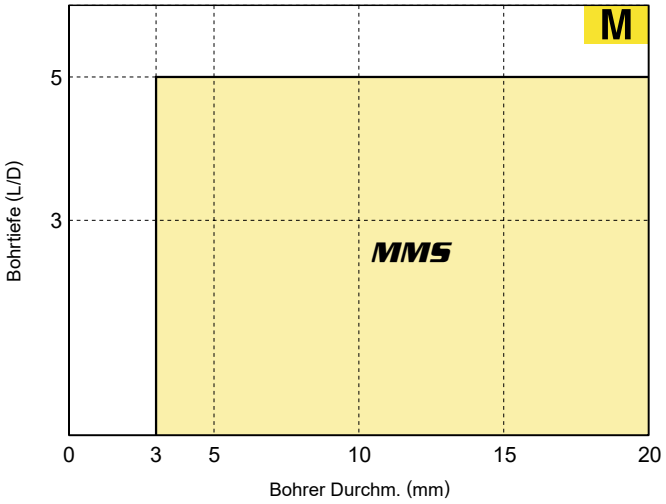
VOLLHARTMETALL

MWS,MWS...DB (SUPER LONG)



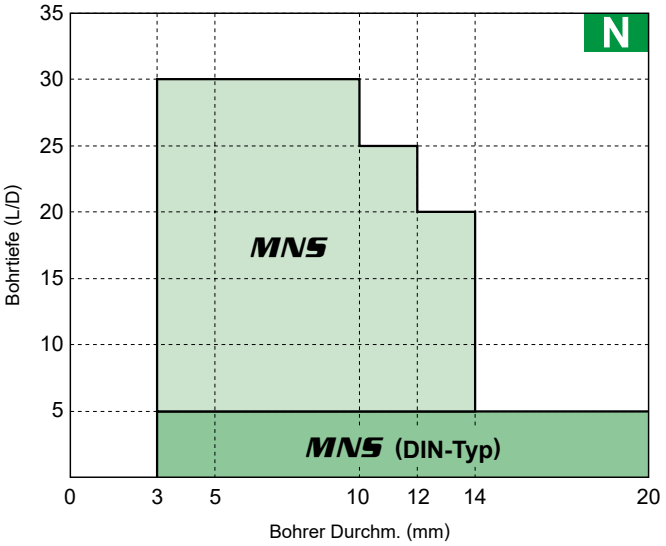
VOLLHARTMETALL

MMS (Für rostfreien Stahl)



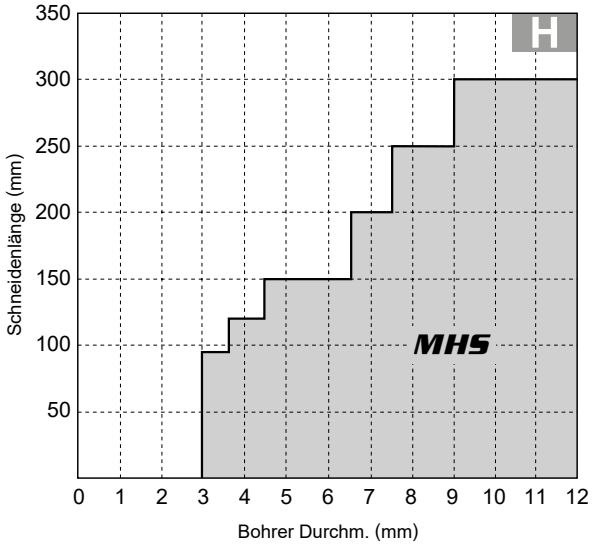
VOLLHARTMETALL

MNS (Für die Bearbeitung von Aluminiumlegierungen)



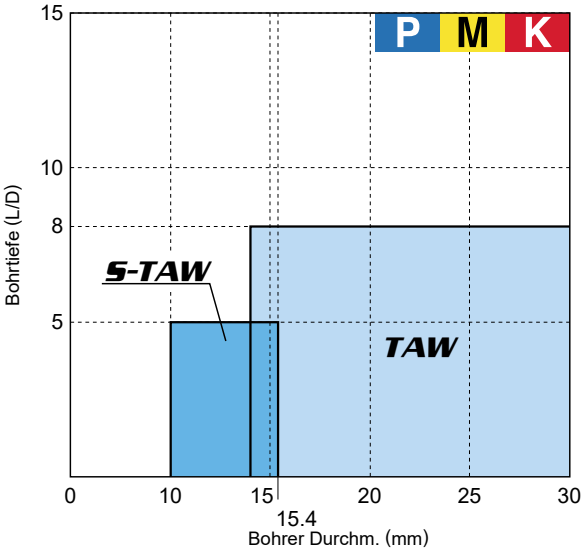
VOLLHARTMETALL

MHS (Für den Werkzeug- und Formenbau)



WSP AUSFÜHRUNG

S-TAW,TAW



BOHREN (VOLLHARTMETALL)

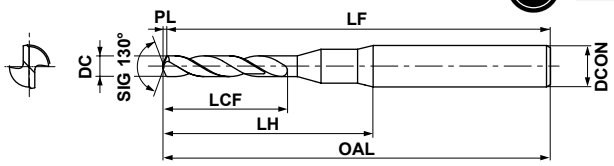
MSE

- Große Spannuten für optimale Spanabfuhr.
- Effiziente Bearbeitung kleinster Bohrungen.

P M K N S H

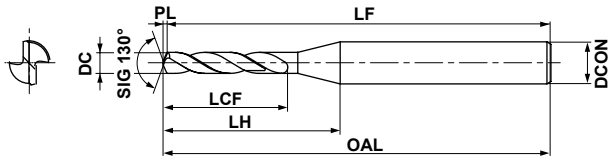
0.1≤DC≤0.99
0 −0.009
h6 0 −0.006





Typ 1





Typ 2

(Bemerkung) MSE Bohrer eignen sich für die Verwendung mit Schrumpfaufnahmen.

Externe Kühlung

DC (mm)	Lager VP20MF	Lager VP15TF	Bestellbezeichnung	Abmessungen (mm) LCF	LH	OAL	LF	PL	DCON	Typ
0.10	●		MSE0010SB	1.22	9.72	38.02	38	0.02	3	1
0.11	★		MSE0011SB	1.23	9.73	38.03	38	0.03	3	1
0.12	★		MSE0012SB	1.43	9.73	38.03	38	0.03	3	1
0.13	★		MSE0013SB	1.43	9.73	38.03	38	0.03	3	1
0.14	★		MSE0014SB	2.03	9.73	38.03	38	0.03	3	1
0.15	●		MSE0015SB	2.03	9.73	38.03	38	0.03	3	1
0.16	★		MSE0016SB	2.04	9.74	38.04	38	0.04	3	1
0.17	★		MSE0017SB	2.04	9.74	38.04	38	0.04	3	1
0.18	★		MSE0018SB	2.04	9.74	38.04	38	0.04	3	1
0.19	★		MSE0019SB	2.04	9.74	38.04	38	0.04	3	1
0.20	●		MSE0020SB	2.55	9.75	38.05	38	0.05	3	1
0.21	★		MSE0021SB	2.55	9.75	38.05	38	0.05	3	1
0.22	★		MSE0022SB	2.55	9.75	38.05	38	0.05	3	1
0.23	★		MSE0023SB	2.55	9.75	38.05	38	0.05	3	1
0.24	★		MSE0024SB	3.06	9.76	38.06	38	0.06	3	1
0.25	●		MSE0025SB	3.06	9.76	38.06	38	0.06	3	1
0.26	★		MSE0026SB	3.06	9.76	38.06	38	0.06	3	1
0.27	★		MSE0027SB	3.06	9.76	38.06	38	0.06	3	1
0.28	★		MSE0028SB	3.07	9.77	38.07	38	0.07	3	1
0.29	★		MSE0029SB	3.07	9.77	38.07	38	0.07	3	1
0.30		●	MSE0030SB	5.07	10.27	38.07	38	0.07	3	2
0.31		★	MSE0031SB	5.07	10.27	38.07	38	0.07	3	2
0.32		★	MSE0032SB	5.07	10.27	38.07	38	0.07	3	2
0.33		★	MSE0033SB	5.08	10.28	38.08	38	0.08	3	2
0.34		★	MSE0034SB	6.08	11.28	38.08	38	0.08	3	2
0.35		●	MSE0035SB	6.08	11.18	38.08	38	0.08	3	2
0.36		★	MSE0036SB	6.08	11.18	38.08	38	0.08	3	2
0.37		★	MSE0037SB	6.09	11.19	38.09	38	0.09	3	2
0.38		★	MSE0038SB	6.09	11.19	38.09	38	0.09	3	2
0.39		★	MSE0039SB	6.09	11.19	38.09	38	0.09	3	2
0.40		●	MSE0040SB	7.09	12.19	38.09	38	0.09	3	2
0.41		★	MSE0041SB	7.10	12.10	38.10	38	0.10	3	2
0.42		★	MSE0042SB	7.10	12.10	38.10	38	0.10	3	2
0.43		★	MSE0043SB	7.10	12.10	38.10	38	0.10	3	2

Externe Kühlung

DC (mm)	Lager VP20MF	Lager VP15TF	Bestellbezeichnung	Abmessungen (mm) LCF	LH	OAL	LF	PL	DCON	Typ
0.44		★	MSE0044SB	7.10	12.10	38.10	38	0.10	3	2
0.45		●	MSE0045SB	7.10	12.10	38.10	38	0.10	3	2
0.46		★	MSE0046SB	7.11	12.01	38.11	38	0.11	3	2
0.47		★	MSE0047SB	7.11	12.01	38.11	38	0.11	3	2
0.48		★	MSE0048SB	7.11	12.01	38.11	38	0.11	3	2
0.49		★	MSE0049SB	7.11	12.01	38.11	38	0.11	3	2
0.50		●	MSE0050SB	7.12	12.02	38.12	38	0.12	3	2
0.51		★	MSE0051SB	7.12	11.92	38.12	38	0.12	3	2
0.52		★	MSE0052SB	7.12	11.92	38.12	38	0.12	3	2
0.53		★	MSE0053SB	7.12	11.92	38.12	38	0.12	3	2
0.54		★	MSE0054SB	7.13	11.93	38.13	38	0.13	3	2
0.55		●	MSE0055SB	7.13	11.93	38.13	38	0.13	3	2
0.56		★	MSE0056SB	7.13	11.93	38.13	38	0.13	3	2
0.57		★	MSE0057SB	7.13	11.83	38.13	38	0.13	3	2
0.58		★	MSE0058SB	7.14	11.84	38.14	38	0.14	3	2
0.59		★	MSE0059SB	7.14	11.84	38.14	38	0.14	3	2
0.60		●	MSE0060SB	7.14	11.84	38.14	38	0.14	3	2
0.61		★	MSE0061SB	7.14	11.84	38.14	38	0.14	3	2
0.62		★	MSE0062SB	7.14	11.74	38.14	38	0.14	3	2
0.63		★	MSE0063SB	7.15	11.75	38.15	38	0.15	3	2
0.64		★	MSE0064SB	7.15	11.75	38.15	38	0.15	3	2
0.65		●	MSE0065SB	7.15	11.75	38.15	38	0.15	3	2
0.66		★	MSE0066SB	7.15	11.75	38.15	38	0.15	3	2
0.67		★	MSE0067SB	7.16	11.66	38.16	38	0.16	3	2
0.68		★	MSE0068SB	7.16	11.66	38.16	38	0.16	3	2
0.69		★	MSE0069SB	7.16	11.66	38.16	38	0.16	3	2
0.70		●	MSE0070SB	8.16	12.66	38.16	38	0.16	3	2
0.71		★	MSE0071SB	8.17	12.67	38.17	38	0.17	3	2
0.72		★	MSE0072SB	8.17	12.67	38.17	38	0.17	3	2
0.73		★	MSE0073SB	8.17	12.57	38.17	38	0.17	3	2
0.74		★	MSE0074SB	8.17	12.57	38.17	38	0.17	3	2
0.75		●	MSE0075SB	8.17	12.57	38.17	38	0.17	3	2
0.76		★	MSE0076SB	8.18	12.58	38.18	38	0.18	3	2
0.77		★	MSE0077SB	8.18	12.58	38.18	38	0.18	3	2

(Bemerkung) Bei Bedarf von abweichenden Geometrien setzen Sie sich mit unserem Hause in Verbindung.
(Andere Durchmesser und Längen können bestellt werden).

● : Lagerstandard. ★ : Lagerstandard in Japan.

Externe Kühlung

DC (mm)	Lager VP20MF	Lager VP15TF	Bestellbezeichnung	Abmessungen (mm) LCF	LH	OAL	LF	PL	DCON	Typ
0.78		★	MSE0078SB	8.18	12.48	38.18	38	0.18	3	2
0.79		★	MSE0079SB	8.18	12.48	38.18	38	0.18	3	2
0.80		●	MSE0080SB	10.19	14.49	38.19	38	0.19	3	2
0.81		★	MSE0081SB	10.19	14.49	38.19	38	0.19	3	2
0.82		★	MSE0082SB	10.19	14.49	38.19	38	0.19	3	2
0.83		★	MSE0083SB	10.19	14.49	38.19	38	0.19	3	2
0.84		★	MSE0084SB	10.20	14.40	38.20	38	0.20	3	2
0.85		●	MSE0085SB	10.20	14.40	38.20	38	0.20	3	2
0.86		★	MSE0086SB	10.20	14.40	38.20	38	0.20	3	2
0.87		★	MSE0087SB	10.20	14.40	38.20	38	0.20	3	2
0.88		★	MSE0088SB	10.21	14.41	38.21	38	0.21	3	2

Externe Kühlung

DC (mm)	Lager VP20MF	Lager VP15TF	Bestellbezeichnung	Abmessungen (mm) LCF	LH	OAL	LF	PL	DCON	Typ
0.89		★	MSE0089SB	10.21	14.31	38.21	38	0.21	3	2
0.90		●	MSE0090SB	10.21	14.31	38.21	38	0.21	3	2
0.91		★	MSE0091SB	10.21	14.31	38.21	38	0.21	3	2
0.92		★	MSE0092SB	10.21	14.31	38.21	38	0.21	3	2
0.93		★	MSE0093SB	10.22	14.32	38.22	38	0.22	3	2
0.94		★	MSE0094SB	10.22	14.22	38.22	38	0.22	3	2
0.95		●	MSE0095SB	10.22	14.22	38.22	38	0.22	3	2
0.96		★	MSE0096SB	10.22	14.22	38.22	38	0.22	3	2
0.97		★	MSE0097SB	10.23	14.23	38.23	38	0.23	3	2
0.98		★	MSE0098SB	10.23	14.23	38.23	38	0.23	3	2
0.99		●	MSE0099SB	10.23	14.23	38.23	38	0.23	3	2

SCHNITTDATENEMPFEHLUNGEN

Werkstoff	P									
	Allg. Baustahl (≤180HB) Ck10					C-Stahl, Leg. Stahl (180−280HB) Ck45, 41CrMo4				
Bohrer Durchm. DC (mm)	Schnittgeschw. (m/min)	Drehzahl (min⁻¹)	Vorschub (min.−max.) (mm/U.)	Bohrstufen (mm)	Tischvorschub (mm/min)	Schnittgeschw. (m/min)	Drehzahl (min⁻¹)	Vorschub (min.−max.) (mm/U.)	Bohrstufen (mm)	Tischvorschub (mm/min)
0.1	6	20000	0.002 (0.001−0.003)	0.02	40	6	20000	0.002 (0.001−0.003)	0.02	40
0.12	8	20000	0.002 (0.001−0.003)	0.02	40	8	20000	0.002 (0.001−0.003)	0.02	40
0.16	10	20000	0.002 (0.001−0.003)	0.02	40	10	20000	0.002 (0.001−0.003)	0.02	40
0.2	13	20000	0.003 (0.002−0.004)	0.04	60	13	20000	0.003 (0.002−0.004)	0.04	60
0.25	16	20000	0.003 (0.002−0.004)	0.04	60	16	20000	0.003 (0.002−0.004)	0.04	60
0.32	20	20000	0.004 (0.003−0.005)	0.05	80	20	20000	0.004 (0.003−0.005)	0.05	80
0.4	25	20000	0.004 (0.003−0.005)	0.05	80	25	20000	0.004 (0.003−0.005)	0.05	80
0.5	31	20000	0.006 (0.005−0.007)	0.1	120	31	20000	0.006 (0.005−0.007)	0.1	120
0.63	40	20000	0.008 (0.006−0.01)	0.1	160	40	20000	0.008 (0.006−0.01)	0.1	160
0.8	50	20000	0.02 (0.015−0.025)	0.3	400	50	20000	0.015 (0.012−0.018)	0.3	300
0.99	62	20000	0.04 (0.03−0.05)	0.3	800	62	20000	0.02 (0.015−0.025)	0.3	400

Werkstoff	P									
	C-Stahl, Leg. Stahl (280−350HB) 36CrNiMo4					Vergüteter Stahl (35−45HRC) X36CrMo17				
Bohrer Durchm. DC (mm)	Schnittgeschw. (m/min)	Drehzahl (min⁻¹)	Vorschub (min.−max.) (mm/U.)	Bohrstufen (mm)	Tischvorschub (mm/min)	Schnittgeschw. (m/min)	Drehzahl (min⁻¹)	Vorschub (min.−max.) (mm/U.)	Bohrstufen (mm)	Tischvorschub (mm/min)
0.1	6	20000	0.002 (0.001−0.003)	0.02	40	6	20000	0.002 (0.001−0.003)	0.02	40
0.12	8	20000	0.002 (0.001−0.003)	0.02	40	8	20000	0.002 (0.001−0.003)	0.02	40
0.16	10	20000	0.002 (0.001−0.003)	0.02	40	10	20000	0.002 (0.001−0.003)	0.02	40
0.2	13	20000	0.003 (0.002−0.004)	0.04	60	13	20000	0.003 (0.002−0.004)	0.04	60
0.25	16	20000	0.003 (0.002−0.004)	0.04	60	16	20000	0.003 (0.002−0.004)	0.04	60
0.32	20	20000	0.004 (0.003−0.005)	0.05	80	20	20000	0.004 (0.003−0.005)	0.05	80
0.4	25	20000	0.004 (0.003−0.005)	0.05	80	25	20000	0.004 (0.003−0.005)	0.05	80
0.5	31	20000	0.006 (0.005−0.007)	0.1	120	31	20000	0.006 (0.005−0.007)	0.1	120
0.63	40	20000	0.008 (0.006−0.01)	0.1	160	40	20000	0.008 (0.006−0.01)	0.1	160
0.8	50	20000	0.015 (0.012−0.018)	0.3	300	50	20000	0.015 (0.012−0.018)	0.3	300
0.99	62	20000	0.02 (0.015−0.025)	0.3	400	62	20000	0.02 (0.015−0.025)	0.3	400

(Bemerkung)
- Der Einsatz des Zentrierbohrers ist empfohlen.
- Die aufgeführten Schnittdaten können je nach Maschinenleistung, Werkstückbeschaffenheit oder Spannung modifiziert werden, und gelten als allgemeine Empfehlung.
- Bei Bohrtiefen > 5DC werden die o.g. Bohrstufen zur Vorschubunterbrechung empfohlen.
- Es wird Emulsion empfohlen. Bei Einsatz von Öl bitte Schnittwerte reduzieren.
- Bei Werkstoffen der Gruppe "S" (-) ist der Einsatz von Bohrern ohne interne Kühlmittelzufuhr nicht empfohlen.

BOHREN (VOLLHARTMETALL)

MSE

- Große Spannuten für optimale Spanabfuhr.
- Effiziente Bearbeitung kleinster Bohrungen.

SCHNITTDATENEMPFEHLUNGEN

Werkstoff	M					K				
	Rostfreier Stahl (austenitisch) (≤200HB) X5CrNi1810, X5CrNiMo17-12-2					Grauguss (≤350MPa) GG30				
Bohrer Durchm. **DC** (mm)	Schnittgeschw. (m/min)	Drehzahl (min^{-1})	Vorschub (min.—max.) (mm/U.)	Bohrstufen (mm)	Tischvorschub (mm/min)	Schnittgeschw. (m/min)	Drehzahl (min^{-1})	Vorschub (min.—max.) (mm/U.)	Bohrstufen (mm)	Tischvorschub (mm/min)
0.1	6	20000	0.002 (0.001—0.003)	0.02	40	6	20000	0.002 (0.001—0.003)	0.02	40
0.12	8	20000	0.002 (0.001—0.003)	0.02	40	8	20000	0.002 (0.001—0.003)	0.02	40
0.16	10	20000	0.002 (0.001—0.003)	0.02	40	10	20000	0.002 (0.001—0.003)	0.02	40
0.2	11	18000	0.003 (0.002—0.004)	0.04	54	13	20000	0.003 (0.002—0.004)	0.04	60
0.25	14	18000	0.003 (0.002—0.004)	0.04	54	16	20000	0.003 (0.002—0.004)	0.04	60
0.32	15	15000	0.004 (0.003—0.005)	0.05	60	20	20000	0.004 (0.003—0.005)	0.05	80
0.4	19	15000	0.004 (0.003—0.005)	0.05	60	25	20000	0.004 (0.003—0.005)	0.05	80
0.5	16	10000	0.006 (0.005—0.007)	0.1	60	31	20000	0.006 (0.005—0.007)	0.1	120
0.63	20	10000	0.008 (0.006—0.01)	0.1	80	40	20000	0.008 (0.006—0.01)	0.1	160
0.8	15	6000	0.015 (0.012—0.018)	0.2	90	50	20000	0.02 (0.015—0.025)	0.3	400
0.99	19	6000	0.02 (0.015—0.025)	0.2	120	62	20000	0.04 (0.03—0.05)	0.3	800

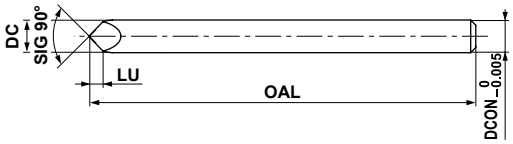
Werkstoff	N					S				
	Aluminium Leg.(Si<5%)					Hitzebeständiger Stahl Inconel718				
Bohrer Durchm. **DC** (mm)	Schnittgeschw. (m/min)	Drehzahl (min^{-1})	Vorschub (min.—max.) (mm/U.)	Bohrstufen (mm)	Tischvorschub (mm/min)	Schnittgeschw. (m/min)	Drehzahl (min^{-1})	Vorschub (min.—max.) (mm/U.)	Bohrstufen (mm)	Tischvorschub (mm/min)
0.1	6	20000	0.002 (0.001—0.003)	0.05	40	2	7000	0.001 (0.0005—0.001)	0.02	7
0.12	8	20000	0.003 (0.002—0.004)	0.05	60	3	7000	0.001 (0.0005—0.001)	0.02	7
0.16	10	20000	0.004 (0.003—0.005)	0.05	80	4	7000	0.001 (0.0005—0.001)	0.02	7
0.2	13	20000	0.006 (0.005—0.007)	0.1	120	3	5000	0.002 (0.001—0.002)	0.04	10
0.25	16	20000	0.008 (0.006—0.01)	0.1	160	4	5000	0.002 (0.001—0.002)	0.04	10
0.32	20	20000	0.01 (0.008—0.012)	0.3	200	4	4000	0.002 (0.001—0.002)	0.05	8
0.4	25	20000	0.02 (0.015—0.025)	0.3	400	5	4000	0.002 (0.001—0.002)	0.05	8
0.5	31	20000	0.03 (0.025—0.035)	0.5	600	5	3000	0.003 (0.001—0.003)	0.1	9
0.63	40	20000	0.04 (0.035—0.045)	0.5	800	6	3000	0.004 (0.002—0.004)	0.1	12
0.8	50	20000	0.05 (0.045—0.055)	0.8	1000	5	1800	0.006 (0.004—0.006)	0.2	10.8
0.99	62	20000	0.06 (0.055—0.065)	0.8	1200	6	1800	0.01 (0.008—0.01)	0.2	18

(Bemerkung)
- Der Einsatz des Zentrierbohrers ist empfohlen.
- Die aufgeführten Schnittdaten können je nach Maschinenleistung, Werkstückbeschaffenheit oder Spannung modifiziert werden, und gelten als allgemeine Empfehlung.
- Bei Bohrtiefen > 5DC werden die o.g. Bohrstufen zur Vorschubunterbrechung empfohlen.
- Es wird Emulsion empfohlen. Bei Einsatz von Öl bitte Schnittwerte reduzieren.
- Bei Werkstoffen der Gruppe "S" (-) ist der Einsatz von Bohrern ohne interne Kühlmittelzufuhr nicht empfohlen.

MSP
PILOTBOHRER FÜR MSE

P M K N S H





Bestellbezeichnung	Sorte	Lager	Abmessungen (mm)				Durchmesser-bereich (mm)
			DC	LU	OAL	DCON	
MSP0300SB	**VP15TF**	●	3	1.5	38	3	**0.1−3.0**

SCHNITTDATENEMPFEHLUNGEN

Bohrdurchmesser (mm)	Drehzahl (min^{-1})	Vorschub (min.−max.) (mm/U.)	Tischvorschub (mm/min)
0.1−3.0	10000	0.0005 (0.00025−0.001)	5

● : **Lagerstandard.**

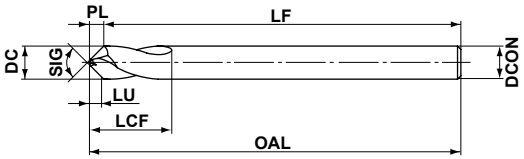
VOLLHARTMETALLBOHRER ZUM ZENTRIEREN UND ANFASEN

DLE NEW
Führende Bohrerserie

P M K N S H

DCON=3	3 < DCON ≤ 6	6 < DCON ≤ 10	10 < DCON ≤ 16
0 −0.010	0 −0.012	0 −0.015	0 −0.018





Externe Kühlung

(mm)

DC	SIG	DP1020	Bestellbezeichnung	LU	LCF	OAL	LF	PL	DCON
3	90°	●	**DLE0300S030P090**	1.2	9	45	43.7	1.3	3
4	90°	●	**DLE0400S040P090**	1.6	12	50	48.3	1.7	4
5	90°	★	**DLE0500S050P090**	2.0	14	60	57.9	2.1	5
6	90°	●	**DLE0600S060P090**	2.4	15	66	63.4	2.6	6
7	90°	★	**DLE0700S070P090**	2.8	18	74	71.0	3.0	7
8	90°	●	**DLE0800S080P090**	3.2	20	74	70.6	3.4	8
10	90°	●	**DLE1000S100P090**	4.1	24	84	79.7	4.3	10
12	90°	★	**DLE1200S120P090**	4.9	28	95	89.9	5.1	12
16	90°	★	**DLE1600S160P090**	6.6	35	113	106.2	6.8	16

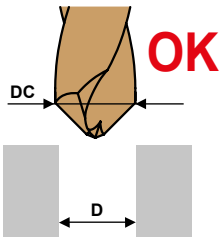
(Hinweis 1) Im Bereich von etwa **DC**/4, dem Bereich der zweistufigen Spitzenwinkel, weist der zentrale Bereich keinen rechtwinkligen Lochboden auf. Das Anfasen ist in diesem Bereich ebenfalls nicht möglich.

(Hinweis 2) Der Zentrierdurchmesser sollte kleiner als der Bohrerdurchmesser (Verarbeitungsdurchmesser) **DC** sein, und die nutzbare Länge **LU** sollte als Richtwert herangezogen werden.

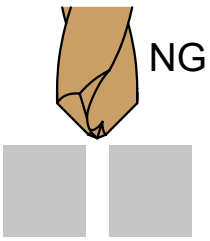
AUSWAHL DES BOHRERDURCHMESSERS

BEIM ANFASEN

Bezogen auf den Bohrdurchmesser **D** wählen Sie den Bohrerdurchmesser (Schnittdurchmesser) **DC** im Bereich von **D** < **DC** < 2**D**.

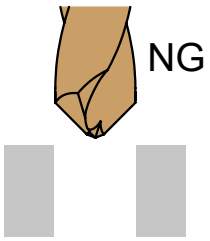


Wenn der Bohrungsdurchmesser **D** 5 mm beträgt: Der Bohrerdurchmesser **DC** sollte gleich oder größer als 6 mm, aber kleiner als 10 mm sein. Wählen Sie einen **DC** von 6 mm, 7 mm oder 8 mm.



Wenn DC gleich oder größer als 2D ist:

Ist der Bohrerdurchmesser **DC** im Vergleich zum Bohrungsdurchmesser **D** (gleich oder größer als 2**D**) zu groß, ist kein Anfasen möglich.

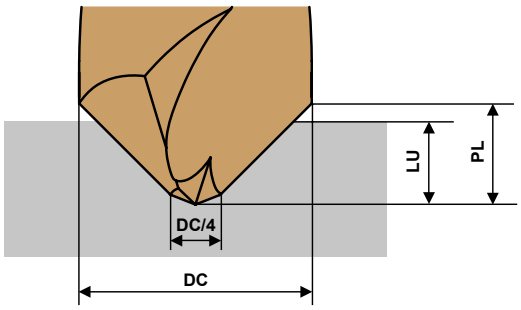


Wenn der Bohrerdurchmesser DC gleich D ist:

Ein Anfasen ist nicht möglich, wenn der Bohrerdurchmesser **DC** gleich dem Bohrlochdurchmesser **D** ist.

BEIM ZENTRIEREN

Das Werkzeug kann nicht für die Bearbeitung verwendet werden, wenn der Zentrierdurchmesser den gleichen Bohrungsdurchmesser wie der Bohrerdurchmesser **DC** hat. Orientieren Sie sich an der nutzbaren Länge **LU** (Seite 12). Im Bereich von etwa **DC**/4, dem Bereich der zweistufigen Spitzenwinkel, weist der zentrale Bereich keinen rechtwinkligen Lochboden auf.



SCHNITTDATENEMPFEHLUNGEN

Werkstoff	P					
	Allg. Baustahl (≤180HB) DIN C10E usw.		C-Stahl, Leg. Stahl (180—280HB) DIN Ck45, 41CrMo4 usw.		C-Stahl, Leg. Stahl (280—350HB) DIN 40CrNiMoA usw.	
DC	Drehzahl (min^{-1})	Vorschub (min.—max.) (mm/U.)	Drehzahl (min^{-1})	Vorschub (min.—max.) (mm/U.)	Drehzahl (min^{-1})	Vorschub (min.—max.) (mm/U.)
3	7900	0.06 (0.04—0.08)	6800	0.06 (0.04—0.08)	6300	0.05 (0.03—0.07)
4	5900	0.06 (0.04—0.08)	5100	0.06 (0.04—0.08)	4700	0.05 (0.03—0.07)
5	5000	0.07 (0.05—0.09)	4400	0.07 (0.05—0.09)	4100	0.06 (0.04—0.08)
6	4200	0.07 (0.05—0.09)	3700	0.07 (0.05—0.09)	3400	0.06 (0.04—0.08)
7	3600	0.08 (0.05—0.10)	3100	0.08 (0.05—0.10)	2900	0.06 (0.04—0.08)
8	3100	0.08 (0.05—0.10)	2700	0.08 (0.05—0.10)	2500	0.06 (0.04—0.08)
10	2700	0.09 (0.05—0.11)	2300	0.09 (0.05—0.11)	2200	0.07 (0.04—0.09)
12	2200	0.09 (0.05—0.11)	1900	0.09 (0.05—0.11)	1800	0.07 (0.04—0.09)
16	1700	0.12 (0.10—0.14)	1500	0.12 (0.10—0.14)	1400	0.08 (0.06—0.10)

Werkstoff	M		K			
	Rostfreier Stahl (austenitisch) (≤200HB) DIN X5CrNi189, X5CrNiMo1810 usw.		Grauguss (≤350MPa) DIN GG30 usw.		Duktiler Guss (≤450MPa) DIN GGG40.3 usw.	
DC	Drehzahl (min^{-1})	Vorschub (min.—max.) (mm/U.)	Drehzahl (min^{-1})	Vorschub (min.—max.) (mm/U.)	Drehzahl (min^{-1})	Vorschub (min.—max.) (mm/U.)
3	1500	0.04 (0.02—0.06)	7900	0.06 (0.04—0.08)	5800	0.06 (0.04—0.08)
4	1100	0.04 (0.02—0.06)	5900	0.06 (0.04—0.08)	4300	0.06 (0.04—0.08)
5	1200	0.06 (0.04—0.08)	5000	0.07 (0.05—0.09)	3800	0.07 (0.05—0.09)
6	1000	0.06 (0.04—0.08)	4200	0.07 (0.05—0.09)	3100	0.07 (0.05—0.09)
7	900	0.06 (0.04—0.08)	3600	0.08 (0.05—0.10)	2700	0.07 (0.05—0.09)
8	790	0.06 (0.04—0.08)	3100	0.08 (0.05—0.10)	2300	0.07 (0.05—0.09)
10	630	0.06 (0.04—0.08)	2700	0.09 (0.05—0.11)	1900	0.08 (0.05—0.10)
12	530	0.06 (0.04—0.08)	2200	0.09 (0.05—0.11)	1500	0.08 (0.05—0.10)
16	390	0.08 (0.06—0.10)	1700	0.12 (0.10—0.14)	1100	0.11 (0.09—0.13)

(Hinweis 1) Beim Anfasen des Umfangs einer Bohrung ist darauf zu achten, dass der Bohrerdurchmesser (**DC**) **D** <**DC** <2**D** ist.
(Hinweis 2) Beim V-Fräsen und Anfasen reduzieren SIe bitte die Schnittbedingungen.

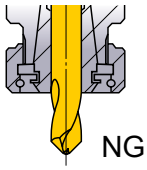
EINSATZ HINWEISE

Bohrer Aufnahme



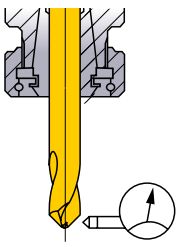
Präzisionsspannzangen können verwendet werden.

Max. Bohrtiefe



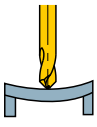
Nicht auf den Nuten spannen.

Rundlauftoleranz

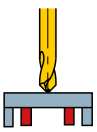


Rundlaufabweichung ≤0.03mm

Dünne Werkstücke

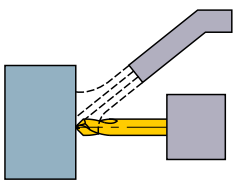


NG
Wenn Werkstücke verbiegen…



OK
unterstützen Sie diese.

Kühlmittelzufuhr



Zwei Kühlmittelleitungen sind ideal. (Bohrerspitze und Bohrermitte)

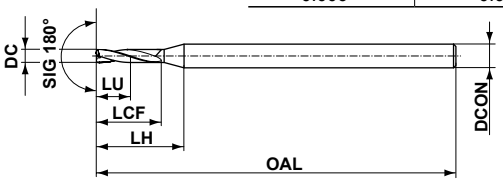
VOLLHARTMETALL-FLACHBODENBOHRER

MINI-MFE NEW für Kleine Durchmesser

P M K N S H

0.75≤DC≤2.95	
0 −0.014	
DCON=3	3 < DCON≤6
0 −0.006	0 −0.008





Typ 1

Externe Kühlung (mm)

DC	Bohrtiefe (L/D)	Lager DP102A	Bestellbezeichnung	LU	LCF	LH	OAL	DCON	Typ
0.75	2	★	MFE0075X02S030	1.5	3	7.7	45	3	1
0.8	2	★	MFE0080X02S030	1.6	3.2	7.8	45	3	1
0.85	2	★	MFE0085X02S030	1.7	3.4	7.9	45	3	1
0.9	2	★	MFE0090X02S030	1.8	3.6	8	45	3	1
0.95	2	★	MFE0095X02S030	1.9	3.8	8.1	45	3	1
1	2	★	MFE0100X02S030	2	4	8.2	45	3	1
1.05	2	★	MFE0105X02S030	2.1	4.2	8.3	45	3	1
1.1	2	★	MFE0110X02S030	2.2	4.4	8.4	45	3	1
1.15	2	★	MFE0115X02S030	2.3	4.6	8.6	45	3	1
1.2	2	★	MFE0120X02S030	2.4	4.8	8.7	45	3	1
1.25	2	★	MFE0125X02S030	2.5	5	8.8	45	3	1
1.3	2	★	MFE0130X02S030	2.6	5.2	8.9	45	3	1
1.35	2	★	MFE0135X02S030	2.7	5.4	9	45	3	1
1.4	2	★	MFE0140X02S030	2.8	5.6	9.1	45	3	1
1.45	2	★	MFE0145X02S030	2.9	5.8	9.2	45	3	1
1.5	2	★	MFE0150X02S030	3	6	9.3	45	3	1
1.55	2	★	MFE0155X02S030	3.1	6.2	9.4	45	3	1
1.6	2	★	MFE0160X02S030	3.2	6.4	9.5	45	3	1
1.65	2	★	MFE0165X02S030	3.3	6.6	9.6	45	3	1
1.7	2	★	MFE0170X02S030	3.4	6.8	9.7	45	3	1
1.75	2	★	MFE0175X02S030	3.5	7	9.8	45	3	1
1.8	2	★	MFE0180X02S030	3.6	7.2	9.9	45	3	1
1.85	2	★	MFE0185X02S030	3.7	7.4	10	45	3	1
1.9	2	★	MFE0190X02S030	3.8	7.6	10.2	45	3	1
1.95	2	★	MFE0195X02S030	3.9	7.8	10.3	45	3	1
2	2	★	MFE0200X02S040	4	8	12.2	50	4	1
2.05	2	★	MFE0205X02S040	4.1	8.2	12.3	50	4	1
2.1	2	★	MFE0210X02S040	4.2	8.4	12.4	50	4	1
2.15	2	★	MFE0215X02S040	4.3	8.6	12.6	50	4	1
2.2	2	★	MFE0220X02S040	4.4	8.8	12.7	50	4	1
2.25	2	★	MFE0225X02S040	4.5	9	12.8	50	4	1
2.3	2	★	MFE0230X02S040	4.6	9.2	12.9	50	4	1
2.35	2	★	MFE0235X02S040	4.7	9.4	13	50	4	1
2.4	2	★	MFE0240X02S040	4.8	9.6	13.1	50	4	1
2.45	2	★	MFE0245X02S040	4.9	9.8	13.2	50	4	1
2.5	2	★	MFE0250X02S040	5	10	13.3	50	4	1
2.55	2	★	MFE0255X02S040	5.1	10.2	13.4	50	4	1
2.6	2	★	MFE0260X02S040	5.2	10.4	13.5	50	4	1
2.65	2	★	MFE0265X02S040	5.3	10.6	13.6	50	4	1
2.7	2	★	MFE0270X02S040	5.4	10.8	13.7	50	4	1
2.75	2	★	MFE0275X02S040	5.5	11	13.8	50	4	1
2.8	2	★	MFE0280X02S040	5.6	11.2	13.9	50	4	1
2.85	2	★	MFE0285X02S040	5.7	11.4	14	50	4	1
2.9	2	★	MFE0290X02S040	5.8	11.6	14.2	50	4	1
2.95	2	★	MFE0295X02S040	5.9	11.8	14.3	50	4	1

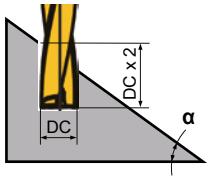
★ : Lagerstandard in Japan.

SCHNITTDATENEMPFEHLUNGEN

Werkstoff		P					
		Allg. Baustahl (≤180HB) C10E usw.		C-Stahl, Leg. Stahl (180−280HB) DIN Ck45, 41CrMo4 usw.		C-Stahl, Leg. Stahl (280−350HB) DIN 40CrNiMoA usw.	
DC	**L/D**	Drehzahl (min^{-1})	α=0° Vorschub (min.−max.) (mm/U.)	Drehzahl (min^{-1})	α=0° Vorschub (min.−max.) (mm/U.)	Drehzahl (min^{-1})	α=0° Vorschub (min.−max.) (mm/U.)
0.75	**≤2**	23300	0.030 (0.010−0.050)	19000	0.030 (0.010−0.050)	16900	0.030 (0.010−0.050)
1.0	**≤2**	17500	0.030 (0.010−0.050)	14300	0.030 (0.010−0.050)	12700	0.030 (0.010−0.050)
1.5	**≤2**	12200	0.035 (0.015−0.055)	10000	0.035 (0.015−0.055)	8400	0.035 (0.015−0.050)
2.0	**≤2**	9500	0.040 (0.020−0.060)	7900	0.040 (0.020−0.060)	6700	0.040 (0.020−0.060)
2.5	**≤2**	7900	0.050 (0.030−0.070)	6600	0.050 (0.030−0.070)	5700	0.050 (0.030−0.070)
2.95	**≤2**	7900	0.060 (0.040−0.080)	7900	0.060 (0.040−0.080)	6800	0.060 (0.040−0.080)

Werkstoff		M		K			
		Rostfreier Stahl (austenitisch) (≤200HB) DIN X5CrNi189, X5CrNiMo1810 usw.		Grauguss (≤350MPa) DIN GG30 usw.		Duktiler Guss (≤450MPa) DIN GGG40.3 usw.	
DC	**L/D**	Drehzahl (min^{-1})	α=0° Vorschub (min.−max.) (mm/U.)	Drehzahl (min^{-1})	α=0° Vorschub (min.−max.) (mm/U.)	Drehzahl (min^{-1})	α=0° Vorschub (min.−max.) (mm/U.)
0.75	**≤2**	10600	0.007 (0.003−0.011)	23300	0.030 (0.010−0.050)	16900	0.010 (0.005−0.015)
1.0	**≤2**	7900	0.007 (0.003−0.011)	17500	0.030 (0.010−0.050)	12700	0.010 (0.005−0.015)
1.5	**≤2**	5300	0.010 (0.005−0.015)	12200	0.035 (0.015−0.055)	10000	0.020 (0.010−0.030)
2.0	**≤2**	4700	0.015 (0.010−0.020)	9500	0.040 (0.020−0.060)	8700	0.030 (0.015−0.045)
2.5	**≤2**	3800	0.015 (0.010−0.020)	7900	0.050 (0.030−0.070)	7300	0.045 (0.025−0.065)
2.95	**≤2**	3100	0.020 (0.010−0.030)	7900	0.060 (0.040−0.080)	6800	0.050 (0.040−0.060)

Werkstoff		N	
		Aluminium Leg. (Si<5%) JIS A6061, A7075 usw.	
DC	**L/D**	Drehzahl (min^{-1})	α=0° Vorschub (min.−max.) (mm/U.)
0.75	**≤2**	42400	0.020 (0.010−0.030)
1.0	**≤2**	31800	0.020 (0.010−0.030)
1.5	**≤2**	21200	0.020 (0.010−0.030)
2.0	**≤2**	17500	0.050 (0.030−0.070)
2.5	**≤2**	14000	0.060 (0.040−0.090)
2.95	**≤2**	11600	0.060 (0.040−0.090)



(Hinweis 1) Die empfohlene Bohrtiefe beträgt DC x 2. Dies sollte die Tiefe ab der obersten Fläche des Werkstücks sein, wenn abgewinkelte Oberflächen bearbeitet werden. (Siehe Diagramm)

(Hinweis 2) Die Schnittdatentabelle oben gilt für Bohrungen auf einer flachen Oberfläche.
Bei Bohrungen auf einer abgewinkelten Fläche muss die Vorschubgeschwindigkeit entsprechend dem Neigungswinkel angepasst werden. Wenn der Neigungswinkel α 30° oder weniger beträgt, muss die Vorschubgeschwindigkeit als Richtwert auf 70 % oder weniger reduziert werden.
Bei einem Neigungswinkel α größer ist als 30°, muss die Vorschubgeschwindigkeit als Richtwert auf 50 % oder weniger reduziert werden.

(Hinweis 3) Bei diesem Produkt handelt es sich um ein Werkzeug, das für Bohrungen gedacht ist. Es kann nicht für Quervorschub- oder Helixbohren verwendet werden.

BOHREN (VOLLHARTMETALL)

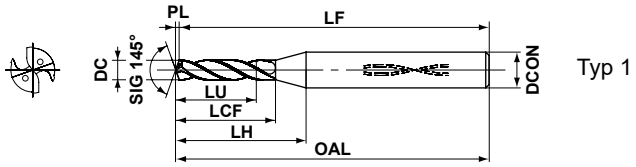
MINI-MVS

- Gerade Schneidkanten für verbesserte Spanabfuhr und erhöhte Schneidkantenstabilität.
- 4 Führungsfasen erzielen eine optimale Bohrlochqualität und Präzision.

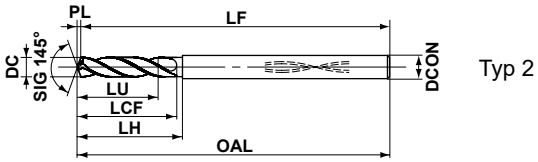
P | M | K | N | S | H

Bestellbezeichnung	1≤DC≤2.9
MVS-**X02-** (Pilotbohrer)	$^{+0.014}_{0}$
Andere	$^{0}_{-0.014}$
Bestellbezeichnung	**DCON**
MVS	$^{0}_{-0.006}$

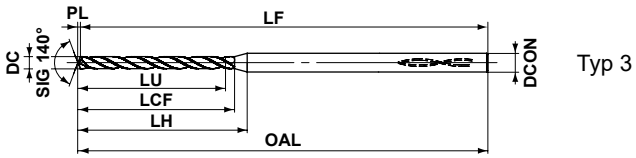




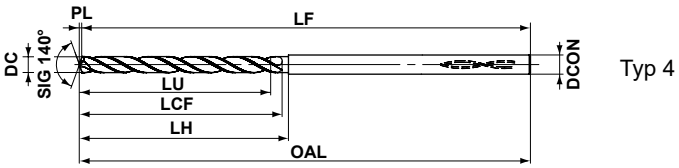
Typ 1



Typ 2



Typ 3



Typ 4

Interne Kühlung

DC (mm)	L/D	Lager DP1020	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
1.0	*2	●	MVS0100X02S030	2.2	5.2	8.9	55.2	55	0.2	3	1
	7	●	MVS0100X07S030	7.2	10.2	14.2	55.2	55	0.2	3	3
	12	●	MVS0100X12S030	12.2	15.2	19.2	55.2	55	0.2	3	3
	20	●	MVS0100X20S030	20.2	24.2	28.2	60.2	60	0.2	3	3
	25	●	MVS0100X25S030	25.2	28.2	32.2	66.2	66	0.2	3	3
	30	●	MVS0100X30S030	30.2	33.2	37.2	72.2	72	0.2	3	3
1.1	*2	●	MVS0110X02S030	2.4	5.6	9.1	55.2	55	0.2	3	1
	7	●	MVS0110X07S030	7.9	11.2	15.2	55.2	55	0.2	3	3
	12	●	MVS0110X12S030	13.4	17.2	21.2	55.2	55	0.2	3	3
	20	●	MVS0110X20S030	22.2	25.2	29.2	60.2	60	0.2	3	3
	25	●	MVS0110X25S030	27.7	31.2	34.2	66.2	66	0.2	3	3
	30	●	MVS0110X30S030	33.2	36.2	40.2	72.2	72	0.2	3	3
1.2	*2	●	MVS0120X02S030	2.6	6.2	9.6	55.2	55	0.2	3	1
	7	●	MVS0120X07S030	8.6	12.2	15.2	55.2	55	0.2	3	3
	12	●	MVS0120X12S030	14.6	18.2	21.2	55.2	55	0.2	3	3
	20	●	MVS0120X20S030	24.2	28.2	31.2	60.2	60	0.2	3	3
	25	●	MVS0120X25S030	30.2	34.2	37.2	66.2	66	0.2	3	3
	30	●	MVS0120X30S030	36.2	40.2	43.2	72.2	72	0.2	3	3
1.3	*2	●	MVS0130X02S030	2.8	6.6	9.8	55.2	55	0.2	3	1
	7	●	MVS0130X07S030	9.3	13.2	16.2	55.2	55	0.2	3	3
	12	●	MVS0130X12S030	15.8	20.2	23.2	55.2	55	0.2	3	3
	20	●	MVS0130X20S030	26.2	30.2	33.2	68.2	68	0.2	3	3
	25	●	MVS0130X25S030	32.7	36.2	40.2	74.2	74	0.2	3	3
	30	●	MVS0130X30S030	39.2	43.2	46.2	82.2	82	0.2	3	3

Interne Kühlung

DC (mm)	L/D	Lager DP1020	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
1.4	*2	●	MVS0140X02S030	3.0	7.2	10.2	55.2	55	0.2	3	1
	7	●	MVS0140X07S030	10.1	14.3	17.3	55.3	55	0.3	3	3
	12	●	MVS0140X12S030	17.1	21.3	24.3	55.3	55	0.3	3	3
	20	●	MVS0140X20S030	28.3	32.3	35.3	68.3	68	0.3	3	3
	25	●	MVS0140X25S030	35.3	39.3	42.3	74.3	74	0.3	3	3
	30	●	MVS0140X30S030	42.3	46.3	49.3	82.3	82	0.3	3	3
1.5	*2	●	MVS0150X02S030	3.2	7.6	10.4	55.2	55	0.2	3	1
	7	●	MVS0150X07S030	10.8	15.3	18.3	55.3	55	0.3	3	3
	12	●	MVS0150X12S030	18.3	23.3	26.3	55.3	55	0.3	3	3
	20	●	MVS0150X20S030	30.3	35.3	37.3	68.3	68	0.3	3	3
	25	●	MVS0150X25S030	37.8	42.3	45.3	74.3	74	0.3	3	3
	30	●	MVS0150X30S030	45.3	50.3	52.3	82.3	82	0.3	3	3
1.6	*2	●	MVS0160X02S030	3.5	8.3	10.9	68.3	68	0.3	3	1
	7	●	MVS0160X07S030	11.5	16.3	19.3	68.3	68	0.3	3	3
	12	●	MVS0160X12S030	19.5	24.3	27.3	68.3	68	0.3	3	3
	20	●	MVS0160X20S030	32.3	37.3	39.3	78.3	78	0.3	3	3
	25	●	MVS0160X25S030	40.3	45.3	47.3	86.3	86	0.3	3	3
	30	●	MVS0160X30S030	48.3	53.3	55.3	95.3	95	0.3	3	3
1.7	*2	●	MVS0170X02S030	3.7	8.7	11.1	68.3	68	0.3	3	1
	7	●	MVS0170X07S030	12.2	17.3	19.3	68.3	68	0.3	3	3
	12	●	MVS0170X12S030	20.7	26.3	28.3	68.3	68	0.3	3	3
	20	●	MVS0170X20S030	34.3	39.3	42.3	78.3	78	0.3	3	3
	25	●	MVS0170X25S030	42.8	48.3	50.3	86.3	86	0.3	3	3
	30	●	MVS0170X30S030	51.3	56.3	59.3	95.3	95	0.3	3	3

*2 = Pilotbohrer: Toleranz +0.014 und Bohrtiefe 2DC.

● : **Lagerstandard.**

Interne Kühlung

DC (mm)	L/D	Lager DP1020	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
1.8	*2	●	MVS0180X02S030	3.9	9.3	11.5	68.3	68	0.3	3	1
	7	●	MVS0180X07S030	12.9	18.3	20.3	68.3	68	0.3	3	3
	12	●	MVS0180X12S030	21.9	27.3	29.3	68.3	68	0.3	3	3
	20	●	MVS0180X20S030	36.3	41.3	44.3	84.3	84	0.3	3	3
	25	●	MVS0180X25S030	45.3	50.3	53.3	94.3	94	0.3	3	3
	30	●	MVS0180X30S030	54.3	59.3	62.3	102.3	102	0.3	3	3
1.9	*2	●	MVS0190X02S030	4.1	9.7	11.8	68.3	68	0.3	3	1
	7	●	MVS0190X07S030	13.6	19.3	21.3	68.3	68	0.3	3	3
	12	●	MVS0190X12S030	23.1	29.3	31.3	68.3	68	0.3	3	3
	20	●	MVS0190X20S030	38.3	44.3	46.3	84.3	84	0.3	3	3
	25	●	MVS0190X25S030	47.8	53.3	55.3	94.3	94	0.3	3	3
	30	●	MVS0190X30S030	57.3	63.3	65.3	102.3	102	0.3	3	3
2.0	*2	●	MVS0200X02S030	4.3	10.3	12.2	68.3	68	0.3	3	1
	7	●	MVS0200X07S030	14.4	20.4	22.4	68.4	68	0.4	3	3
	12	●	MVS0200X12S030	24.4	30.4	32.4	68.4	68	0.4	3	3
	20	●	MVS0200X20S030	40.4	46.4	48.4	84.4	84	0.4	3	3
	25	●	MVS0200X25S030	50.4	56.4	58.4	94.4	94	0.4	3	3
	30	●	MVS0200X30S030	60.4	66.4	68.4	102.4	102	0.4	3	3
2.1	*2	●	MVS0210X02S030	4.5	10.7	12.4	74.3	74	0.3	3	1
	7	●	MVS0210X07S030	15.1	21.4	23.4	74.4	74	0.4	3	3
	12	●	MVS0210X12S030	25.6	32.4	34.4	74.4	74	0.4	3	3
	20	●	MVS0210X20S030	42.4	48.4	50.4	94.4	94	0.4	3	3
	25	●	MVS0210X25S030	52.9	59.4	60.4	107.4	107	0.4	3	3
	30	●	MVS0210X30S030	63.4	69.4	71.4	118.4	118	0.4	3	3
2.2	*2	●	MVS0220X02S030	4.7	11.3	12.8	74.3	74	0.3	3	1
	7	●	MVS0220X07S030	15.8	22.4	23.4	74.4	74	0.4	3	3
	12	●	MVS0220X12S030	26.8	33.4	34.4	74.4	74	0.4	3	3
	20	●	MVS0220X20S030	44.4	51.4	52.4	94.4	94	0.4	3	3
	25	●	MVS0220X25S030	55.4	62.4	63.4	107.4	107	0.4	3	3
	30	●	MVS0220X30S030	66.4	73.4	74.4	118.4	118	0.4	3	3
2.3	*2	●	MVS0230X02S030	5.0	11.8	13.1	74.4	74	0.4	3	1
	7	●	MVS0230X07S030	16.5	23.4	24.4	74.4	74	0.4	3	3
	12	●	MVS0230X12S030	28.0	35.4	36.4	74.4	74	0.4	3	3
	20	●	MVS0230X20S030	46.4	53.4	54.4	94.4	94	0.4	3	3
	25	●	MVS0230X25S030	57.9	64.4	66.4	107.4	107	0.4	3	3
	30	●	MVS0230X30S030	69.4	76.4	77.4	118.4	118	0.4	3	3
2.4	*2	●	MVS0240X02S030	5.2	12.4	13.5	74.4	74	0.4	3	1
	7	●	MVS0240X07S030	17.2	24.4	25.4	74.4	74	0.4	3	3
	12	●	MVS0240X12S030	29.2	36.4	37.4	74.4	74	0.4	3	3
	20	●	MVS0240X20S030	48.4	55.4	56.4	94.4	94	0.4	3	3
	25	●	MVS0240X25S030	60.4	67.4	68.4	107.4	107	0.4	3	3
	30	●	MVS0240X30S030	72.4	79.4	80.4	118.4	118	0.4	3	3
2.5	*2	●	MVS0250X02S030	5.4	12.8	13.7	74.4	74	0.4	3	1
	7	●	MVS0250X07S030	18.0	25.5	26.5	74.5	74	0.5	3	3
	12	●	MVS0250X12S030	30.5	38.5	39.5	74.5	74	0.5	3	3
	20	●	MVS0250X20S030	50.5	58.5	59.5	94.5	94	0.5	3	3
	25	●	MVS0250X25S030	63.0	70.5	71.5	107.5	107	0.5	3	3
	30	●	MVS0250X30S030	75.5	83.5	84.5	118.5	118	0.5	3	3

Interne Kühlung

DC (mm)	L/D	Lager DP1020	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
2.6	*2	●	MVS0260X02S030	5.6	13.4	13.4	81.4	81	0.4	3	2
	7	●	MVS0260X07S030	18.7	26.5	26.5	81.5	81	0.5	3	4
	12	●	MVS0260X12S030	31.7	39.5	39.5	81.5	81	0.5	3	4
	20	●	MVS0260X20S030	52.5	60.5	60.5	103.5	103	0.5	3	4
	25	●	MVS0260X25S030	65.5	73.5	73.5	117.5	117	0.5	3	4
	30	●	MVS0260X30S030	78.5	86.5	86.5	132.5	132	0.5	3	4
2.7	*2	●	MVS0270X02S030	5.8	13.8	13.8	81.4	81	0.4	3	2
	7	●	MVS0270X07S030	19.4	27.5	27.5	81.5	81	0.5	3	4
	12	●	MVS0270X12S030	32.9	41.5	41.5	81.5	81	0.5	3	4
	20	●	MVS0270X20S030	54.5	62.5	62.5	103.5	103	0.5	3	4
	25	●	MVS0270X25S030	68.0	76.5	76.5	117.5	117	0.5	3	4
	30	●	MVS0270X30S030	81.5	89.5	89.5	132.5	132	0.5	3	4
2.8	*2	●	MVS0280X02S030	6.0	14.4	14.4	81.4	81	0.4	3	2
	7	●	MVS0280X07S030	20.1	28.5	28.5	81.5	81	0.5	3	4
	12	●	MVS0280X12S030	34.1	42.5	42.5	81.5	81	0.5	3	4
	20	●	MVS0280X20S030	56.5	64.5	64.5	103.5	103	0.5	3	4
	25	●	MVS0280X25S030	70.5	78.5	78.5	117.5	117	0.5	3	4
	30	●	MVS0280X30S030	84.5	92.5	92.5	132.5	132	0.5	3	4
2.9	*2	●	MVS0290X02S030	6.3	14.9	14.9	81.5	81	0.5	3	2
	7	●	MVS0290X07S030	20.8	29.5	29.5	81.5	81	0.5	3	4
	12	●	MVS0290X12S030	35.3	44.5	44.5	81.5	81	0.5	3	4
	20	●	MVS0290X20S030	58.5	67.5	67.5	103.5	103	0.5	3	4
	25	●	MVS0290X25S030	73.0	81.5	81.5	117.5	117	0.5	3	4
	30	●	MVS0290X30S030	87.5	96.5	96.5	132.5	132	0.5	3	4

*2 = Pilotbohrer: Toleranz +0.014 und Bohrtiefe 2DC.

SCHNITTBEDINGUNGEN ➤ L018
ANWENDUNGSHINWEISE ➤ L019
TECHNISCHE DATEN ➤ N001

MINI-MVS

SCHNITTDATENEMPFEHLUNGEN

Werkstoff		P					
		Allg. Baustahl (≤180HB)		C-Stahl Leg. Stahl (180—280HB)		C-Stahl Leg. Stahl (280—350HB)	
Bohrer Durchm. **DC** (mm)	**L/D**	Drehzahl (min^{-1})	Vorschub (min.—max.) (mm/U.)	Drehzahl (min^{-1})	Vorschub (min.—max.) (mm/U.)	Drehzahl (min^{-1})	Vorschub (min.—max.) (mm/U.)
1.0	**2*,7DC**	15900	0.04 (0.02—0.05)	15900	0.04 (0.02—0.05)	12700	0.04 (0.02—0.05)
	≥ 12DC	15900	0.02 (0.01—0.03)	12700	0.02 (0.01—0.03)	9500	0.02 (0.01—0.03)
1.5	**2*,7DC**	10600	0.05 (0.03—0.08)	10600	0.05 (0.03—0.08)	8400	0.05 (0.03—0.08)
	≥ 12DC	10600	0.05 (0.02—0.08)	8400	0.05 (0.03—0.08)	6300	0.05 (0.02—0.08)
2.0	**2*,7DC**	7900	0.07 (0.04—0.10)	7900	0.07 (0.04—0.10)	6300	0.07 (0.04—0.10)
	≥ 12DC	7900	0.07 (0.04—0.10)	7900	0.07 (0.04—0.10)	7900	0.07 (0.04—0.10)
2.5	**2*,7DC**	7600	0.09 (0.05—0.13)	7600	0.09 (0.05—0.13)	6300	0.09 (0.05—0.13)
	≥ 12DC	7600	0.09 (0.06—0.13)	6300	0.09 (0.06—0.13)	6300	0.08 (0.05—0.13)

Werkstoff		M		K			
		Rostfreier Stahl (austenitisch) (≤200HB)		Grauguss (≤350MPa)		Duktiler Guss (≤450MPa)	
Bohrer Durchm. **DC** (mm)	**L/D**	Drehzahl (min^{-1})	Vorschub (min.—max.) (mm/U.)	Drehzahl (min^{-1})	Vorschub (min.—max.) (mm/U.)	Drehzahl (min^{-1})	Vorschub (min.—max.) (mm/U.)
1.0	**2*,7DC**	9500	0.03 (0.02—0.05)	15900	0.04 (0.02—0.05)	12700	0.04 (0.02—0.05)
	≥ 12DC	9500	0.02 (0.01—0.03)	12700	0.02 (0.01—0.03)	9500	0.02 (0.01—0.03)
1.5	**2*,7DC**	6300	0.05 (0.03—0.07)	10600	0.05 (0.03—0.08)	8400	0.05 (0.03—0.08)
	≥ 12DC	6300	0.05 (0.02—0.08)	8400	0.05 (0.03—0.08)	6300	0.05 (0.02—0.08)
2.0	**2*,7DC**	4700	0.06 (0.04—0.08)	7900	0.07 (0.04—0.10)	6300	0.07 (0.04—0.10)
	≥ 12DC	4700	0.07 (0.04—0.10)	7900	0.07 (0.04—0.10)	7900	0.07 (0.04—0.10)
2.5	**2*,7DC**	5000	0.08 (0.05—0.10)	7600	0.09 (0.05—0.13)	6300	0.09 (0.05—0.13)
	≥ 12DC	3800	0.08 (0.05—0.12)	6300	0.09 (0.06—0.13)	6300	0.08 (0.05—0.12)

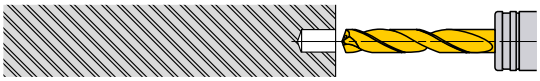
Werkstoff		N		S	
		Aluminium Leg. (Si<5%)		Hitzebeständiger Stahl	
Bohrer Durchm. **DC** (mm)	**L/D**	Drehzahl (min^{-1})	Vorschub (min.—max.) (mm/U.)	Drehzahl (min^{-1})	Vorschub (min.—max.) (mm/U.)
1.0	**2*,7DC**	19000	0.05 (0.03—0.08)	3100	0.02 (0.01—0.03)
	≥ 12DC	15900	0.05 (0.03—0.08)	3100	0.02 (0.01—0.03)
1.5	**2*,7DC**	16900	0.07 (0.05—0.12)	2100	0.03 (0.02—0.04)
	≥ 12DC	14800	0.08 (0.05—0.12)	2100	0.03 (0.02—0.04)
2.0	**2*,7DC**	14300	0.1 (0.06—0.15)	2300	0.04 (0.03—0.05)
	≥ 12DC	12700	0.11 (0.06—0.15)	2300	0.04 (0.03—0.05)
2.5	**2*,7DC**	12700	0.13 (0.08—0.20)	1900	0.05 (0.04—0.06)
	≥ 12DC	11400	0.14 (0.08—0.20)	1900	0.05 (0.04—0.06)

*2 = Pilotbohrer: Die Bohrtiefe beträgt 2DC.

BEDIENHINWEISE FÜR MINI-MVS-LANGBOHRER (L/D ≥ 10)

BOHREN AUF GLATTEN FLÄCHEN

1. Bohren einer Pilotbohrung



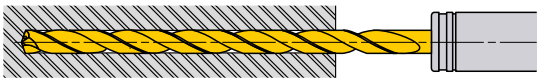
①Verwenden Sie einen Bohrer mit einem größeren (flacheren) Spitzenwinkel. Verwenden Sie die kürzeste Länge.
②Die Pilotbohrung muss mit hoher Präzision gebohrt werden.
③Bohrtiefe: etwa 1DC.
(Passen Sie die Tiefe der Pilotbohrung der Länge Ihres langen Bohrers an)

2. Anfahren mit dem Tieflochbohrer



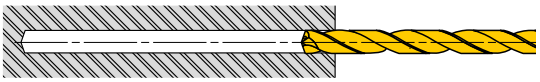
①Eintritt in die Pilotbohrung mit geringer Drehzahl.
(Drehzahl 1000 min^{-1}, Vorschub 0.2—0.3mm/U)
②Tieflochbohrer 0.5—1 mm vor Ende der Pilotbohrung stoppen.

3. Tieflochbohren



①Beginnen Sie mit der empfohlenen Drehzahl und verwenden Sie kontinuierlichen Vorschub (ohne zu lüften).

4. Herausfahren des Bohrers

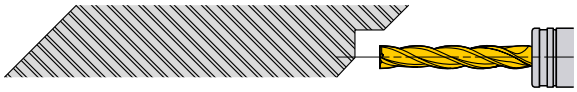


①Senken Sie nach dem Bohren 0.5—1mm über dem Lochboden die Drehzahl. (Drehzahl 1000 min^{-1})
②Ziehen Sie den Bohrer bei einem Vorschub von 3000mm/min bis zum Startpunkt der Pilotbohrung heraus.
③Ziehen Sie schließlich bei einer Schnittgeschwindigkeit von 20—30m/min und einem Vorschub von 0.2—0.3mm/U den Bohrer ganz heraus.

UNTERBROCHENE BOHRUNG

●Bohrungen und Durchbrüche bei ungleichmäßigen Flächen und Winkeln

1. Anspiegeln



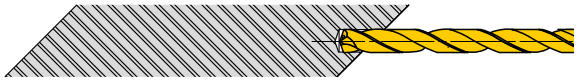
①Bearbeiten Sie die flache oder unebene Fläche mit einem Schaft- oder Nutenfräser, der zum Anspiegeln geeignet ist. Wählen Sie den Durchmesser der Planfläche so groß wie den Durchmesser der Pilotbohrung.

2. Bohren einer Pilotbohrung



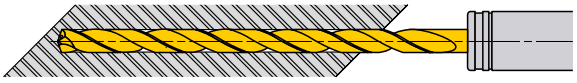
①Verwenden Sie einen Bohrer mit einem größeren (flacheren) Spitzenwinkel. Verwenden Sie die kürzeste Länge.
②Die Pilotbohrung muss mit hoher Präzision gebohrt werden.
③Bohrtiefe: ca. 1DC
(Passen Sie die Tiefe der Pilotbohrung der Länge Ihres langen Bohrers an)

3. Einfahren in die Pilotbohrung



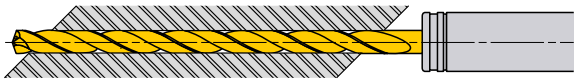
①Mit niedriger Drehzahl in die Pilotbohrung einfahren.
(Drehzahl ca. 1000 min^{-1}, Vorschub 0.2—0.3mm/U)
②Tieflochbohrer 0.5-1 mm vor Ende der Pilotbohrung stoppen.

4. Tieflochbohren



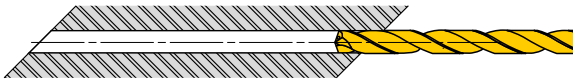
①Beginnen Sie mit der empfohlenen Drehzahl und verwenden Sie kontinuierlichen Vorschub (ohne zu lüften).
②Vorschub bis vor dem Durchbruch beibehalten.

5. Durchbruch



①Beim Durchbruch kann die Schneidkante beschädigt werden.
②Beim Durchbohren empfiehlt sich etwa die halbe Vorschubgeschwindigkeit.

6. Herausfahren des Bohrers



①Dann Tieflochbohrer mit einer Umdrehungsgeschwindigkeit von 1000 min^{-1} aus der Bohrung herausfahren.
②Ziehen Sie den Bohrer bei einem Vorschub von 3000mm/min bis zum Startpunkt die Pilotbohrung heraus.
③Ziehen Sie schließlich bei einer Schnittgeschwindigkeit von 20—30m/min und einem Vorschub von 0.2—0.3mm/U den Bohrer ganz heraus.

BOHREN (VOLLHARTMETALL)

MINI-MWS

- Mini VHM-Bohrer mit internen Kühlmittelkanälen für stabiles Tieflochbohren.
- Für äußerst präzises und effizientes Bohren, von C-Stahl bis hin zu schwer zu bearbeitenden Werkstoffen.

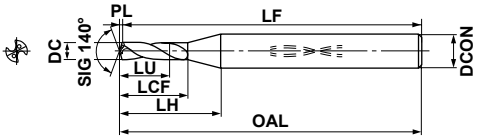
UWC | VP | 140° | 135° | 0.5≤DC≤1 | 0.5≤DC≤1

P M K N S H

0.5≤DC<1
+0.009
0
h6
0
−0.006

Typ SB
(Für Pilotbohrungen)



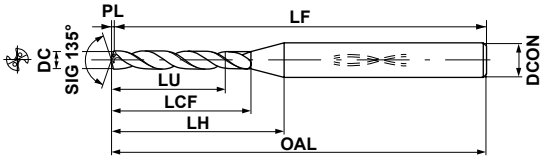


Typ 1

0.5≤DC<1
0
−0.009
h6
0
−0.006

Typ LB/XB





Typ 2

(Bemerkung) MWS Bohrer eignen sich für die Verwendung mit Schrumpfaufnahmen.

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager VP15TF	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
0.50	1	●	MWS0050SB	0.50	2.59	7.29	47.09	47	0.09	3	1
	5	★	MWS0050LB	2.50	8.09	13.09	47.10	47	0.10	3	2
	12	★	MWS0050XB	6.00	16.09	21.09	47.10	47	0.10	3	2
0.51	1	★	MWS0051SB	0.50	2.69	7.29	47.09	47	0.09	3	1
	5	★	MWS0051LB	2.50	8.09	13.09	47.11	47	0.11	3	2
	12	★	MWS0051XB	6.00	16.09	21.09	47.11	47	0.11	3	2
0.52	1	★	MWS0052SB	0.50	2.69	7.29	47.09	47	0.09	3	1
	5	★	MWS0052LB	2.50	8.09	13.09	47.11	47	0.11	3	2
	12	★	MWS0052XB	6.00	16.09	21.09	47.11	47	0.11	3	2
0.53	1	★	MWS0053SB	0.50	2.70	7.30	47.10	47	0.10	3	1
	5	★	MWS0053LB	2.50	8.10	13.10	47.11	47	0.11	3	2
	12	★	MWS0053XB	6.00	16.10	21.10	47.11	47	0.11	3	2
0.54	1	★	MWS0054SB	0.50	2.70	7.30	47.10	47	0.10	3	1
	5	★	MWS0054LB	2.50	8.10	13.10	47.11	47	0.11	3	2
	12	★	MWS0054XB	6.00	16.10	21.10	47.11	47	0.11	3	2
0.55	1	●	MWS0055SB	0.50	2.70	7.30	47.10	47	0.10	3	1
	5	★	MWS0055LB	2.50	8.10	13.10	47.11	47	0.11	3	2
	12	★	MWS0055XB	6.00	16.10	21.10	47.11	47	0.11	3	2
0.56	1	★	MWS0056SB	0.50	3.00	7.60	47.10	47	0.10	3	1
	5	★	MWS0056LB	2.50	8.10	13.10	47.12	47	0.12	3	2
	12	★	MWS0056XB	6.00	16.10	21.10	47.12	47	0.12	3	2
0.57	1	★	MWS0057SB	0.50	3.00	7.50	47.10	47	0.10	3	1
	5	★	MWS0057LB	2.50	8.10	13.10	47.12	47	0.12	3	2
	12	★	MWS0057XB	6.00	16.10	21.10	47.12	47	0.12	3	2

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager VP15TF	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
0.58	1	★	MWS0058SB	0.50	3.01	7.51	47.11	47	0.11	3	1
	5	★	MWS0058LB	2.50	8.11	13.11	47.12	47	0.12	3	2
	12	★	MWS0058XB	6.00	16.11	21.11	47.12	47	0.12	3	2
0.59	1	★	MWS0059SB	0.50	3.01	7.51	47.11	47	0.11	3	1
	5	★	MWS0059LB	2.50	8.11	12.11	47.12	47	0.12	3	2
	12	★	MWS0059XB	6.00	16.11	20.11	47.12	47	0.12	3	2
0.60	1	●	MWS0060SB	0.60	3.01	7.51	47.11	47	0.11	3	1
	5	★	MWS0060LB	3.00	8.11	12.11	47.12	47	0.12	3	2
	12	★	MWS0060XB	7.20	16.11	20.11	47.12	47	0.12	3	2
0.61	1	★	MWS0061SB	0.60	3.21	7.71	47.11	47	0.11	3	1
	5	★	MWS0061LB	3.00	8.11	12.11	47.13	47	0.13	3	2
	12	★	MWS0061XB	7.20	16.11	20.11	47.13	47	0.13	3	2
0.62	1	★	MWS0062SB	0.60	3.21	7.61	47.11	47	0.11	3	1
	5	★	MWS0062LB	3.00	8.11	12.11	47.13	47	0.13	3	2
	12	★	MWS0062XB	7.20	16.11	20.11	47.13	47	0.13	3	2
0.63	1	★	MWS0063SB	0.60	3.21	7.61	47.11	47	0.11	3	1
	5	★	MWS0063LB	3.00	8.11	12.11	47.13	47	0.13	3	2
	12	★	MWS0063XB	7.20	16.11	20.11	47.13	47	0.13	3	2
0.64	1	★	MWS0064SB	0.60	3.22	7.62	47.12	47	0.12	3	1
	5	★	MWS0064LB	3.00	8.12	12.12	47.13	47	0.13	3	2
	12	★	MWS0064XB	7.20	16.12	20.12	47.13	47	0.13	3	2
0.65	1	●	MWS0065SB	0.60	3.22	7.62	47.12	47	0.12	3	1
	5	★	MWS0065LB	3.00	8.12	12.12	47.13	47	0.13	3	2
	12	★	MWS0065XB	7.20	16.12	20.12	47.13	47	0.13	3	2

(Bemerkung) Bei Bedarf von abweichenden Geometrien setzen Sie sich mit unserem Hause in Verbindung.
(Andere Durchmesser und Längen können bestellt werden).

● : Lagerstandard. ★ : Lagerstandard in Japan.

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager VP15TF	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
	1	★	**MWS0066SB**	0.60	3.52	7.92	47.12	47	0.12	3	1
0.66	5	★	**MWS0066LB**	3.00	8.12	12.12	47.14	47	0.14	3	2
	12	★	**MWS0066XB**	7.20	16.12	20.12	47.14	47	0.14	3	2
	1	★	**MWS0067SB**	0.60	3.52	7.82	47.12	47	0.12	3	1
0.67	5	★	**MWS0067LB**	3.00	8.12	12.12	47.14	47	0.14	3	2
	12	★	**MWS0067XB**	7.20	16.12	20.12	47.14	47	0.14	3	2
	1	★	**MWS0068SB**	0.60	3.52	7.82	47.12	47	0.12	3	1
0.68	5	★	**MWS0068LB**	3.00	8.12	12.12	47.14	47	0.14	3	2
	12	★	**MWS0068XB**	7.20	16.12	20.12	47.14	47	0.14	3	2
	1	★	**MWS0069SB**	0.60	3.53	7.83	47.13	47	0.13	3	1
0.69	5	★	**MWS0069LB**	3.00	8.13	12.13	47.14	47	0.14	3	2
	12	★	**MWS0069XB**	7.20	16.13	20.13	47.14	47	0.14	3	2
	1	●	**MWS0070SB**	0.70	3.53	7.83	47.13	47	0.13	3	1
0.70	5	★	**MWS0070LB**	3.50	8.13	12.13	47.14	47	0.14	3	2
	12	★	**MWS0070XB**	8.40	16.13	20.13	47.14	47	0.14	3	2
	1	★	**MWS0071SB**	0.70	3.73	8.03	50.13	50	0.13	3	1
0.71	5	★	**MWS0071LB**	3.50	10.13	14.13	50.15	50	0.15	3	2
	12	★	**MWS0071XB**	8.40	20.13	24.13	50.15	50	0.15	3	2
	1	★	**MWS0072SB**	0.70	3.73	8.03	50.13	50	0.13	3	1
0.72	5	★	**MWS0072LB**	3.50	10.13	14.13	50.15	50	0.15	3	2
	12	★	**MWS0072XB**	8.40	20.13	24.13	50.15	50	0.15	3	2
	1	★	**MWS0073SB**	0.70	3.73	7.93	50.13	50	0.13	3	1
0.73	5	★	**MWS0073LB**	3.50	10.13	14.13	50.15	50	0.15	3	2
	12	★	**MWS0073XB**	8.40	20.13	24.13	50.15	50	0.15	3	2
	1	★	**MWS0074SB**	0.70	3.73	7.93	50.13	50	0.13	3	1
0.74	5	★	**MWS0074LB**	3.50	10.13	14.13	50.15	50	0.15	3	2
	12	★	**MWS0074XB**	8.40	20.13	24.13	50.15	50	0.15	3	2
	1	●	**MWS0075SB**	0.70	3.74	7.94	50.14	50	0.14	3	1
0.75	5	★	**MWS0075LB**	3.50	10.14	14.14	50.16	50	0.16	3	2
	12	★	**MWS0075XB**	8.40	20.14	24.14	50.16	50	0.16	3	2
	1	★	**MWS0076SB**	0.70	4.04	8.24	50.14	50	0.14	3	1
0.76	5	★	**MWS0076LB**	3.50	10.14	14.14	50.16	50	0.16	3	2
	12	★	**MWS0076XB**	8.40	20.14	24.14	50.16	50	0.16	3	2
	1	★	**MWS0077SB**	0.70	4.04	8.24	50.14	50	0.14	3	1
0.77	5	★	**MWS0077LB**	3.50	10.14	14.14	50.16	50	0.16	3	2
	12	★	**MWS0077XB**	8.40	20.14	24.14	50.16	50	0.16	3	2
	1	★	**MWS0078SB**	0.70	4.04	8.14	50.14	50	0.14	3	1
0.78	5	★	**MWS0078LB**	3.50	10.14	14.14	50.16	50	0.16	3	2
	12	★	**MWS0078XB**	8.40	20.14	24.14	50.16	50	0.16	3	2
	1	★	**MWS0079SB**	0.70	4.04	8.14	50.14	50	0.14	3	1
0.79	5	★	**MWS0079LB**	3.50	10.14	14.14	50.16	50	0.16	3	2
	12	★	**MWS0079XB**	8.40	20.14	24.14	50.16	50	0.16	3	2
	1	●	**MWS0080SB**	0.80	4.05	8.15	50.15	50	0.15	3	1
0.80	5	★	**MWS0080LB**	4.00	10.15	14.15	50.17	50	0.17	3	2
	12	★	**MWS0080XB**	9.60	20.15	24.15	50.17	50	0.17	3	2
	1	★	**MWS0081SB**	0.80	4.25	8.35	50.15	50	0.15	3	1
0.81	5	★	**MWS0081LB**	4.00	10.15	14.15	50.17	50	0.17	3	2
	12	★	**MWS0081XB**	9.60	20.15	24.15	50.17	50	0.17	3	2
	1	★	**MWS0082SB**	0.80	4.25	8.35	50.15	50	0.15	3	1
0.82	5	★	**MWS0082LB**	4.00	10.15	14.15	50.17	50	0.17	3	2
	12	★	**MWS0082XB**	9.60	20.15	24.15	50.17	50	0.17	3	2

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager VP15TF	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
	1	★	**MWS0083SB**	0.80	4.25	8.25	50.15	50	0.15	3	1
0.83	5	★	**MWS0083LB**	4.00	10.15	14.15	50.17	50	0.17	3	2
	12	★	**MWS0083XB**	9.60	20.15	24.15	50.17	50	0.17	3	2
	1	★	**MWS0084SB**	0.80	4.25	8.25	50.15	50	0.15	3	1
0.84	5	★	**MWS0084LB**	4.00	10.15	14.15	50.17	50	0.17	3	2
	12	★	**MWS0084XB**	9.60	20.15	24.15	50.17	50	0.17	3	2
	1	●	**MWS0085SB**	0.80	4.25	8.25	50.15	50	0.15	3	1
0.85	5	★	**MWS0085LB**	4.00	10.15	14.15	50.18	50	0.18	3	2
	12	★	**MWS0085XB**	9.60	20.15	24.15	50.18	50	0.18	3	2
	1	★	**MWS0086SB**	0.80	4.56	8.56	50.16	50	0.16	3	1
0.86	5	★	**MWS0086LB**	4.00	10.16	14.16	50.18	50	0.18	3	2
	12	★	**MWS0086XB**	9.60	20.16	24.16	50.18	50	0.18	3	2
	1	★	**MWS0087SB**	0.80	4.56	8.56	50.16	50	0.16	3	1
0.87	5	★	**MWS0087LB**	4.00	10.16	14.16	50.18	50	0.18	3	2
	12	★	**MWS0087XB**	9.60	20.16	24.16	50.18	50	0.18	3	2
	1	★	**MWS0088SB**	0.80	4.56	8.56	50.16	50	0.16	3	1
0.88	5	★	**MWS0088LB**	4.00	10.16	14.16	50.18	50	0.18	3	2
	12	★	**MWS0088XB**	9.60	20.16	24.16	50.18	50	0.18	3	2
	1	★	**MWS0089SB**	0.80	4.56	8.46	50.16	50	0.16	3	1
0.89	5	★	**MWS0089LB**	4.00	10.16	14.16	50.18	50	0.18	3	2
	12	★	**MWS0089XB**	9.60	20.16	24.16	50.18	50	0.18	3	2
	1	●	**MWS0090SB**	0.90	4.56	8.46	50.16	50	0.16	3	1
0.90	5	★	**MWS0090LB**	4.50	10.16	14.16	50.19	50	0.19	3	2
	12	★	**MWS0090XB**	10.80	20.16	24.16	50.19	50	0.19	3	2
	1	★	**MWS0091SB**	0.90	4.77	8.67	50.17	50	0.17	3	1
0.91	5	★	**MWS0091LB**	4.50	10.17	14.17	50.19	50	0.19	3	2
	12	★	**MWS0091XB**	10.80	20.17	24.17	50.19	50	0.19	3	2
	1	★	**MWS0092SB**	0.90	4.77	8.67	50.17	50	0.17	3	1
0.92	5	★	**MWS0092LB**	4.50	10.17	14.17	50.19	50	0.19	3	2
	12	★	**MWS0092XB**	10.80	20.17	24.17	50.19	50	0.19	3	2
	1	★	**MWS0093SB**	0.90	4.77	8.67	50.17	50	0.17	3	1
0.93	5	★	**MWS0093LB**	4.50	10.17	14.17	50.19	50	0.19	3	2
	12	★	**MWS0093XB**	10.80	20.17	24.17	50.19	50	0.19	3	2
	1	★	**MWS0094SB**	0.90	4.77	8.57	50.17	50	0.17	3	1
0.94	5	★	**MWS0094LB**	4.50	10.17	14.17	50.19	50	0.19	3	2
	12	★	**MWS0094XB**	10.80	20.17	24.17	50.19	50	0.19	3	2
	1	●	**MWS0095SB**	0.90	4.77	8.57	50.17	50	0.17	3	1
0.95	5	★	**MWS0095LB**	4.50	10.17	14.17	50.20	50	0.20	3	2
	12	★	**MWS0095XB**	10.80	20.17	24.17	50.20	50	0.20	3	2
	1	★	**MWS0096SB**	0.90	5.07	8.87	50.17	50	0.17	3	1
0.96	5	★	**MWS0096LB**	4.50	10.17	14.17	50.20	50	0.20	3	2
	12	★	**MWS0096XB**	10.80	20.17	24.17	50.20	50	0.20	3	2
	1	★	**MWS0097SB**	0.90	5.08	8.88	50.18	50	0.18	3	1
0.97	5	★	**MWS0097LB**	4.50	10.18	14.18	50.20	50	0.20	3	2
	12	★	**MWS0097XB**	10.80	20.18	24.18	50.20	50	0.20	3	2
	1	★	**MWS0098SB**	0.90	5.08	8.88	50.18	50	0.18	3	1
0.98	5	★	**MWS0098LB**	4.50	10.18	14.18	50.20	50	0.20	3	2
	12	★	**MWS0098XB**	10.80	20.18	24.18	50.20	50	0.20	3	2
	1	★	**MWS0099SB**	0.90	5.08	8.88	50.18	50	0.18	3	1
0.99	5	★	**MWS0099LB**	4.50	10.18	14.18	50.21	50	0.21	3	2
	12	★	**MWS0099XB**	10.80	20.18	24.18	50.21	50	0.21	3	2

(Bemerkung) Bei Bedarf von abweichenden Geometrien setzen Sie sich mit unserem Hause in Verbindung. (Andere Durchmesser und Längen können bestellt werden).

SCHNITTBEDINGUNGEN ➤ L022
ANWENDUNGSHINWEISE ➤ L023
TECHNISCHE DATEN ➤ N001

MINI-MWS

SCHNITTDATENEMPFEHLUNGEN

SB/LB/XB-Bohrer (l/d<10)

Werkstoff	P				P			
	Allg. Baustahl (≤180HB) Ck10				C-Stahl, Leg. Stahl (180—280HB) Ck45, 42CrMo4			
Bohrer Durchm. **DC** (mm)	Schnittgeschw. (m/min)	Drehzahl (min^{-1})	Vorschub (min.—max.) (mm/U.)	Tischvorschub (mm/min)	Schnittgeschw. (m/min)	Drehzahl (min^{-1})	Vorschub (min.—max.) (mm/U.)	Tischvorschub (mm/min)
0.5	40	25400	0.01 (0.005—0.015)	250	40	25400	0.01 (0.005—0.015)	250
0.63	40	20200	0.014 (0.008—0.020)	280	40	20200	0.014 (0.008—0.020)	280
0.8	45	17900	0.028 (0.016—0.040)	500	45	17900	0.028 (0.016—0.040)	500
1.0	50	15900	0.035 (0.020—0.050)	555	50	15900	0.035 (0.020—0.050)	555

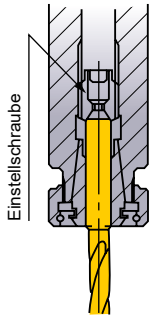
Werkstoff	P				M			
	C-Stahl, Leg. Stahl (280—350HB) 36CrNiMo4				Rostfreier Stahl (austenitisch) (≤200HB) X5CrNi1810, X5CrNiMo17-12-2			
Bohrer Durchm. **DC** (mm)	Schnittgeschw. (m/min)	Drehzahl (min^{-1})	Vorschub (min.—max.) (mm/U.)	Tischvorschub (mm/min)	Schnittgeschw. (m/min)	Drehzahl (min^{-1})	Vorschub (min.—max.) (mm/U.)	Tischvorschub (mm/min)
0.5	30	19000	0.01 (0.005—0.015)	190	20	12700	0.008 (0.005—0.010)	100
0.63	30	15100	0.014 (0.008—0.020)	210	20	10100	0.01 (0.008—0.013)	100
0.8	35	13900	0.028 (0.016—0.040)	385	25	9900	0.02 (0.016—0.026)	195
1.0	40	12700	0.035 (0.020—0.050)	440	30	9500	0.03 (0.020—0.044)	285

Werkstoff	K				K			
	Grauguss (≤350MPa) GG30				Duktiler Guss (≤450MPa) GGG45			
Bohrer Durchm. **DC** (mm)	Schnittgeschw. (m/min)	Drehzahl (min^{-1})	Vorschub (min.—max.) (mm/U.)	Tischvorschub (mm/min)	Schnittgeschw. (m/min)	Drehzahl (min^{-1})	Vorschub (min.—max.) (mm/U.)	Tischvorschub (mm/min)
0.5	40	25400	0.01 (0.005—0.015)	250	30	19000	0.01 (0.005—0.015)	190
0.63	40	20200	0.014 (0.008—0.020)	280	30	15100	0.014 (0.008—0.020)	210
0.8	45	17900	0.028 (0.016—0.040)	500	35	13900	0.028 (0.016—0.040)	385
1.0	50	15900	0.035 (0.020—0.050)	555	40	12700	0.035 (0.020—0.050)	440

Werkstoff	N				S			
	Aluminium Leg. (Si<5%)				Hitzebeständiger Stahl Inconel718			
Bohrer Durchm. **DC** (mm)	Schnittgeschw. (m/min)	Drehzahl (min^{-1})	Vorschub (min.—max.) (mm/U.)	Tischvorschub (mm/min)	Schnittgeschw. (m/min)	Drehzahl (min^{-1})	Vorschub (min.—max.) (mm/U.)	Tischvorschub (mm/min)
0.5	40	25400	0.014 (0.008—0.020)	355	10	6300	0.006 (0.004—0.008)	35
0.63	40	20200	0.02 (0.012—0.030)	400	10	5000	0.008 (0.007—0.010)	40
0.8	45	17900	0.036 (0.024—0.050)	640	10	3900	0.016 (0.013—0.021)	60
1.0	60	19000	0.05 (0.030—0.075)	950	10	3100	0.02 (0.016—0.027)	60

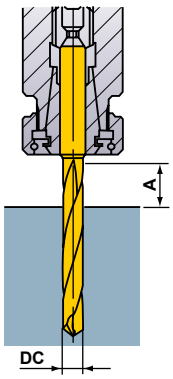
EINSATZ HINWEISE

Bohrer Aufnahme



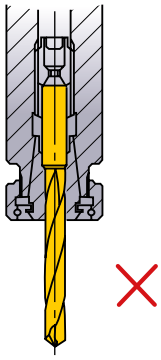
Präzisionsspannzangen können verwendet werden.

Max. Bohrtiefe



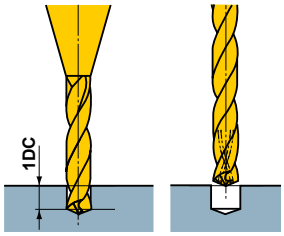
A ≥ DC x 2.0

Bohrer Einstellung



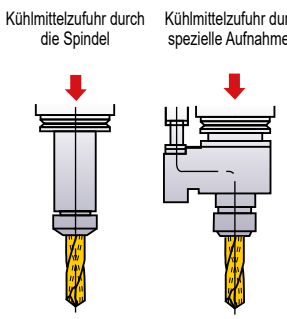
Nicht auf den Nuten spannen.

Bohrer Einstellung



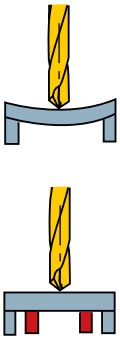
①Für die Pilotbohrung verwenden Sie bitte Bohrer mit SB-Ausführung.
②Verwenden Sie die Pilotbohrung als Führung. Je nach Schnittdaten empfiehlt es sich mit Vorschubunterbrechung zu arbeiten.

Interne Kühlmittelzufuhr



Empfohlener Kühlmitteldruck:
≥30 bar
Mindestens 15 bar erforderlich.

Dünne Werkstücke



Wenn Werkstücke verbiegen…

unterstützen Sie diese.

Handling mit Kühlmittel

1) Kleine Partikel können die Kühlmittelbohrungen verstopfen. Verwenden Sie daher bitte einen Kühlmittelfilter.

2) Stark verschmutztes Kühlmittel reduziert den Spänefluss. Wir empfehlen ein regelmäßiges Wechseln des Kühlmittels. Bitte prüfen Sie eine einwandfreie Kühlmittelzufuhr!

GEBRAUCHSANLEITUNG

●Bitte verwenden Sie einen Kühlmittelfilter (≤3μm) um Kühlmittelstau zu verhindern.

BOHREN (VOLLHARTMETALL)

MPS1
4-Fasenbohrer

- Neue PVD-Beschichtung auf AlTiCrN-Basis.
- VHM-Bohrer mit 4 Führungsfasen für hohe Bohrlochqualitäten.
- Alle Bohrer mit interner Kühlmittelzufuhr.

UWC | DP | 145° l/d=2 PC | 140° l/d=3–5 l/d=10–40 | 135° l/d=8

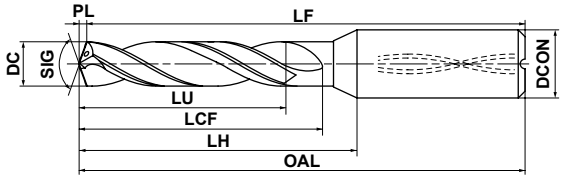
P M K N S H



	3≤DC≤6	6<DC≤10	10<DC≤18	18<DC≤20
DIN / PC	+0.010 −0.002	+0.010 −0.005	+0.005 −0.013	+0.005 −0.016
L___C	0 −0.002	0 −0.015	0 −0.018	0 −0.021
	0 −0.008	0 −0.009	0 −0.011	0 −0.013

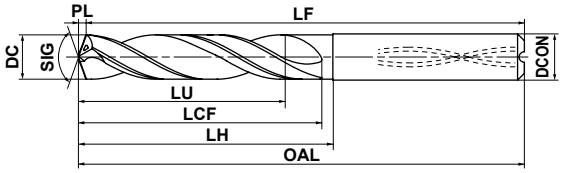
*Die Kühlmittelbohrungen bei Bohrern mit ø4,9 mm oder weniger haben eine runde Form.
*SIG : l/d 3−5 und 10−40=140°,8=135°, PC = 145°

●Typ 1 Zylinderschaft mit konischem Hinterschliff



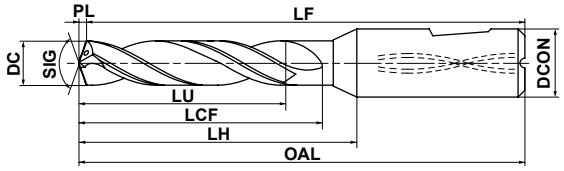
MPS1----S/L-DIN-C

●Typ 2 Zylinderschaft



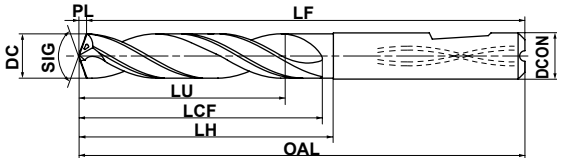
MPS1----S/L-DIN-C

●Typ 3 Whistle Notch Schaft mit konischem Hinterschliff



MPS1----S/L-DIN (Weldon)

●Typ 4 Whistle Notch Schaft



MPS1----S/L-DIN (Weldon)

DC (mm)	Bohrtiefe (l/d)	Lager DP1021	Bestellbezeichnung	Abmessungen (mm) OAL	LU	LCF	LH	LF	PL	DCON	Typ
	3	□	**MPS1-0300S-DIN**	62	15.0	20	26	61.5	0.5	6	3
	3	●	MPS1-0300S-DIN-C	62	15.0	20	26	61.5	0.5	6	1
	5	□	MPS1-0300L-DIN	66	20.0	25	30	65.5	0.5	6	3
	5	●	MPS1-0300L-DIN-C	66	20.0	25	30	65.5	0.5	6	1
NEW	2	●	MPS1-0300-PC	55	6.5	16.5	19.22	55	0.5	6	1
	8	●	MPS1-0300-L8C	77	24.6	34	41	76	0.5	6	1
NEW	10	□	MPS1-0300-L10C	80	30.5	37.5	43	79	0.5	6	1
NEW 3.0	12	●	MPS1-0300-L12C	86	36.5	43.5	49	85	0.5	6	1
NEW	15	●	MPS1-0300-L15C	95	45.5	52.5	58	94	0.5	6	1
NEW	20	●	MPS1-0300-L20C	110	60.5	67.5	73	109	0.5	6	1
NEW	25	●	MPS1-0300-L25C	125	75.5	82.5	88	124	0.5	6	1
NEW	30	●	MPS1-0300-L30C	140	90.5	97.5	103	139	0.5	6	1
NEW	35	□	MPS1-0300-L35C	159	105.5	113.5	122	158	0.5	6	1
NEW	40	●	MPS1-0300-L40C	174	120.5	128.5	137	173	0.5	6	1
	3	□	MPS1-0305S-DIN	62	15.0	20	26	61.4	0.6	6	3
3.05	3	●	MPS1-0305S-DIN-C	62	15.0	20	26	61.4	0.6	6	1
	5	□	MPS1-0305L-DIN	66	20.0	25	30	65.4	0.6	6	3
	5	●	MPS1-0305L-DIN-C	66	20.0	25	30	65.4	0.6	6	1
	3	□	MPS1-0310S-DIN	62	14.9	20	26	61.4	0.6	6	3
	3	●	MPS1-0310S-DIN-C	62	14.9	20	26	61.4	0.6	6	1
	5	□	MPS1-0310L-DIN	66	19.9	25	30	65.4	0.6	6	3
	5	●	MPS1-0310L-DIN-C	66	19.9	25	30	65.4	0.6	6	1
NEW	2	□	MPS1-0310-PC	55	6.7	18.5	21.11	55	0.5	6	1
	8	●	MPS1-0310-L8C	83	25.4	40	47	82	0.6	6	1
NEW	10	□	MPS1-0310-L10C	87	31.6	44.6	50	86	0.6	6	1
NEW 3.1	12	□	MPS1-0310-L12C	94	37.8	51.6	57	93	0.6	6	1
NEW	15	□	MPS1-0310-L15C	104	47.1	61.6	67	103	0.6	6	1
NEW	20	□	MPS1-0310-L20C	122	62.6	79.6	85	121	0.6	6	1
NEW	25	□	MPS1-0310-L25C	139	78.1	96.6	102	138	0.6	6	1
NEW	30	□	MPS1-0310-L30C	157	93.6	114.6	120	156	0.6	6	1
NEW	35	□	MPS1-0310-L35C	176	109.1	123.6	139	175	0.6	6	1
NEW	40	□	MPS1-0310-L40C	191	124.6	138.6	154	190	0.6	6	1

DC (mm)	Bohrtiefe (l/d)	Lager DP1021	Bestellbezeichnung	Abmessungen (mm) OAL	LU	LCF	LH	LF	PL	DCON	Typ
	3	□	**MPS1-0320S-DIN**	62	14.8	20	26	61.4	0.6	6	3
	3	●	MPS1-0320S-DIN-C	62	14.8	20	26	61.4	0.6	6	1
	5	□	MPS1-0320L-DIN	66	19.8	25	30	65.4	0.6	6	3
	5	●	MPS1-0320L-DIN-C	66	19.8	25	30	65.4	0.6	6	1
NEW	2	□	MPS1-0320-PC	56	6.9	18.5	22	55	0.5	6	1
	8	●	MPS1-0320-L8C	83	26.3	40	47	82	0.6	6	1
NEW	10	□	MPS1-0320-L10C	87	32.6	44.6	50	86	0.6	6	1
3.2	12	□	MPS1-0320-L12C	94	39	51.6	57	93	0.6	6	1
NEW	15	□	MPS1-0320-L15C	104	48.6	61.6	67	103	0.6	6	1
NEW	20	□	MPS1-0320-L20C	122	64.6	79.6	85	121	0.6	6	1
NEW	25	□	MPS1-0320-L25C	139	80.6	96.6	102	138	0.6	6	1
NEW	30	□	MPS1-0320-L30C	157	96.6	114.6	120	156	0.6	6	1
NEW	35	□	MPS1-0320-L35C	176	112.6	123.6	139	175	0.6	6	1
NEW	40	□	MPS1-0320-L40C	191	128.6	138.6	154	190	0.6	6	1
	3	□	MPS1-0330S-DIN	62	14.7	20	26	61.4	0.6	6	3
	3	●	MPS1-0330S-DIN-C	62	14.7	20	26	61.4	0.6	6	1
	5	□	MPS1-0330L-DIN	66	20.2	25	30	65.4	0.6	6	3
	5	●	MPS1-0330L-DIN-C	66	20.2	25	30	65.4	0.6	6	1
NEW	2	□	MPS1-0330-PC	56	7.1	18.5	21.9	55	0.5	6	1
	8	●	MPS1-0330-L8C	83	27.1	40	47	82	0.6	6	1
NEW	10	□	MPS1-0330-L10C	87	33.6	44.6	50	86	0.6	6	1
3.3	12	□	MPS1-0330-L12C	94	40.2	51.6	57	93	0.6	6	1
NEW	15	□	MPS1-0330-L15C	104	50.1	61.6	67	103	0.6	6	1
NEW	20	□	MPS1-0330-L20C	122	66.6	79.6	85	121	0.6	6	1
NEW	25	□	MPS1-0330-L25C	139	83.1	96.6	102	138	0.6	6	1
NEW	30	□	MPS1-0330-L30C	157	99.6	114.6	120	156	0.6	6	1
NEW	35	□	MPS1-0330-L35C	176	116.1	132.6	139	175	0.6	6	1
NEW	40	□	MPS1-0330-L40C	191	132.6	148.6	154	190	0.6	6	1

● : Lagerstandard. □ : Nichtstandard, Herstellung nur auf Anfrage.

DC (mm)	Bohrtiefe (l/d)	Lager DP1021	Bestellbezeichnung	Abmessungen (mm) OAL	LU	LCF	LH	LF	PL	DCON	Typ
3.4	3	□	MPS1-0340S-DIN	62	14.5	20	26	61.4	0.6	6	3
	3	●	MPS1-0340S-DIN-C	62	14.5	20	26	61.4	0.6	6	1
	5	□	MPS1-0340L-DIN	66	20.0	25	30	65.4	0.6	6	3
	5	●	MPS1-0340L-DIN-C	66	20.0	25	30	65.4	0.6	6	1
NEW	2	□	MPS1-0340-PC	56	7.3	18.5	21.79	55	0.5	6	1
	8	●	MPS1-0340-L8C	83	27.9	40	47	82	0.6	6	1
NEW	10	□	MPS1-0340-L10C	87	34.6	44.6	50	86	0.6	6	1
NEW	12	□	MPS1-0340-L12C	94	41.4	51.6	57	93	0.6	6	1
NEW	15	□	MPS1-0340-L15C	104	51.6	61.6	67	103	0.6	6	1
NEW	20	□	MPS1-0340-L20C	122	68.6	79.6	85	121	0.6	6	1
NEW	25	□	MPS1-0340-L25C	139	85.6	96.6	102	138	0.6	6	1
NEW	30	□	MPS1-0340-L30C	157	102.6	114.6	120	156	0.6	6	1
NEW	35	□	MPS1-0340-L35C	176	119.6	132.6	139	175	0.6	6	1
NEW	40	□	MPS1-0340-L40C	191	136.6	148.6	154	190	0.6	6	1
3.5	3	□	MPS1-0350S-DIN	62	14.4	20	26	61.4	0.6	6	3
	3	●	MPS1-0350S-DIN-C	62	14.4	20	26	61.4	0.6	6	1
	5	□	MPS1-0350L-DIN	66	19.9	25	30	65.4	0.6	6	3
	5	●	MPS1-0350L-DIN-C	66	19.9	25	30	65.4	0.6	6	1
NEW	2	●	MPS1-0350-PC	56	7.6	18.6	21.68	55	0.6	6	1
	8	●	MPS1-0350-L8C	83	28.7	40	47	82	0.6	6	1
NEW	10	□	MPS1-0350-L10C	87	35.6	44.6	50	86	0.6	6	1
NEW	12	●	MPS1-0350-L12C	94	42.6	51.6	57	93	0.6	6	1
NEW	15	●	MPS1-0350-L15C	104	53.1	61.6	67	103	0.6	6	1
NEW	20	●	MPS1-0350-L20C	122	70.6	79.6	85	121	0.6	6	1
NEW	25	●	MPS1-0350-L25C	139	88.1	96.6	102	138	0.6	6	1
NEW	30	●	MPS1-0350-L30C	157	105.6	114.6	120	156	0.6	6	1
NEW	35	□	MPS1-0350-L35C	176	123.1	132.6	139	175	0.6	6	1
NEW	40	●	MPS1-0350-L40C	191	140.6	148.6	154	190	0.6	6	1
3.6	3	□	MPS1-0360S-DIN	62	14.3	20	26	61.3	0.7	6	3
	3	●	MPS1-0360S-DIN-C	62	14.3	20	26	61.3	0.7	6	1
	5	□	MPS1-0360L-DIN	66	19.8	25	30	65.3	0.7	6	3
	5	●	MPS1-0360L-DIN-C	66	19.8	25	30	65.3	0.7	6	1
NEW	2	□	MPS1-0360-PC	56	7.8	20.6	23.57	55	0.6	6	1
	8	●	MPS1-0360-L8C	88	29.5	45	51	87	0.7	6	1
NEW	10	□	MPS1-0360-L10C	93	36.7	50.7	56	92	0.7	6	1
NEW	12	□	MPS1-0360-L12C	101	43.9	58.7	64	100	0.7	6	1
NEW	15	□	MPS1-0360-L15C	113	54.7	70.7	76	112	0.7	6	1
NEW	20	□	MPS1-0360-L20C	133	72.7	90.7	96	132	0.7	6	1
NEW	25	□	MPS1-0360-L25C	153	90.7	110.7	116	152	0.7	6	1
NEW	30	□	MPS1-0360-L30C	173	108.7	130.7	136	172	0.7	6	1
NEW	35	□	MPS1-0360-L35C	193	126.7	143.7	156	192	0.7	6	1
NEW	40	□	MPS1-0360-L40C	213	144.7	160.7	176	212	0.7	6	1
3.7	3	□	MPS1-0370S-DIN	62	14.1	20	26	61.3	0.7	6	3
	3	●	MPS1-0370S-DIN-C	62	14.1	20	26	61.3	0.7	6	1
	5	□	MPS1-0370L-DIN	66	20.1	26	30	65.3	0.7	6	3
	5	●	MPS1-0370L-DIN-C	66	20.1	26	30	65.3	0.7	6	1
NEW	2	□	MPS1-0370-PC	56	8	20.6	23.47	55	0.6	6	1
	8	●	MPS1-0370-L8C	88	30.4	45	51	87	0.7	6	1
NEW	10	□	MPS1-0370-L10C	93	37.7	50.7	56	92	0.7	6	1
NEW	12	□	MPS1-0370-L12C	101	45.1	58.7	64	100	0.7	6	1
NEW	15	□	MPS1-0370-L15C	113	56.2	70.7	76	112	0.7	6	1
NEW	20	□	MPS1-0370-L20C	133	74.7	90.7	96	132	0.7	6	1
NEW	25	□	MPS1-0370-L25C	153	93.2	110.7	116	152	0.7	6	1
NEW	30	□	MPS1-0370-L30C	173	111.7	130.7	136	172	0.7	6	1
NEW	35	□	MPS1-0370-L35C	193	130.2	143.7	156	192	0.7	6	1
NEW	40	□	MPS1-0370-L40C	213	148.7	160.7	176	212	0.7	6	1

DC (mm)	Bohrtiefe (l/d)	Lager DP1021	Bestellbezeichnung	Abmessungen (mm) OAL	LU	LCF	LH	LF	PL	DCON	Typ
3.8	3	□	MPS1-0380S-DIN	66	18.0	24	30	65.3	0.7	6	3
	3	●	MPS1-0380S-DIN-C	66	18.0	24	30	65.3	0.7	6	1
	5	□	MPS1-0380L-DIN	74	28.0	34	38	73.3	0.7	6	3
	5	●	MPS1-0380L-DIN-C	74	28.0	34	38	73.3	0.7	6	1
NEW	2	□	MPS1-0380-PC	56	8.2	20.6	23.36	55	0.6	6	1
	8	●	MPS1-0380-L8C	88	31.2	45	51	87	0.7	6	1
NEW	10	□	MPS1-0380-L10C	93	38.7	50.7	56	92	0.7	6	1
NEW	12	□	MPS1-0380-L12C	101	46.3	58.7	64	100	0.7	6	1
NEW	15	□	MPS1-0380-L15C	113	57.7	70.7	76	112	0.7	6	1
NEW	20	□	MPS1-0380-L20C	133	76.7	90.7	96	132	0.7	6	1
NEW	25	□	MPS1-0380-L25C	153	95.7	110.7	116	152	0.7	6	1
NEW	30	□	MPS1-0380-L30C	173	114.7	130.7	136	172	0.7	6	1
NEW	35	□	MPS1-0380-L35C	193	133.7	150.7	156	192	0.7	6	1
NEW	40	□	MPS1-0380-L40C	213	152.7	170.7	176	212	0.7	6	1
3.9	3	□	MPS1-0390S-DIN	66	17.9	24	30	65.3	0.7	6	3
	3	●	MPS1-0390S-DIN-C	66	17.9	24	30	65.3	0.7	6	1
	5	□	MPS1-0390L-DIN	74	27.9	34	38	73.3	0.7	6	3
	5	●	MPS1-0390L-DIN-C	74	27.9	34	38	73.3	0.7	6	1
NEW	2	□	MPS1-0390-PC	56	8.4	20.6	23.25	55	0.6	6	1
	8	●	MPS1-0390-L8C	88	32.0	45	51	87	0.7	6	1
NEW	10	□	MPS1-0390-L10C	93	39.7	50.7	56	92	0.7	6	1
NEW	12	□	MPS1-0390-L12C	101	47.5	58.7	64	100	0.7	6	1
NEW	15	□	MPS1-0390-L15C	113	59.2	70.7	76	112	0.7	6	1
NEW	20	□	MPS1-0390-L20C	133	78.7	90.7	96	132	0.7	6	1
NEW	25	□	MPS1-0390-L25C	153	98.2	110.7	116	152	0.7	6	1
NEW	30	□	MPS1-0390-L30C	173	117.7	130.7	136	172	0.7	6	1
NEW	35	□	MPS1-0390-L35C	193	137.2	150.7	156	192	0.7	6	1
NEW	40	□	MPS1-0390-L40C	213	156.7	170.7	176	212	0.7	6	1
4.0	3	□	MPS1-0400S-DIN	66	17.7	24	30	65.3	0.7	6	3
	3	●	MPS1-0400S-DIN-C	66	17.7	24	30	65.3	0.7	6	1
	5	□	MPS1-0400L-DIN	74	27.7	34	38	73.3	0.7	6	3
	5	●	MPS1-0400L-DIN-C	74	27.7	34	38	73.3	0.7	6	1
NEW	2	●	MPS1-0400-PC	56	8.6	20.6	23.14	55	0.6	6	1
	8	●	MPS1-0400-L8C	88	32.8	45	51	87	0.7	6	1
NEW	10	□	MPS1-0400-L10C	93	40.7	50.7	56	92	0.7	6	1
NEW	12	●	MPS1-0400-L12C	101	48.7	58.7	64	100	0.7	6	1
NEW	15	●	MPS1-0400-L15C	113	60.7	70.7	76	112	0.7	6	1
NEW	20	●	MPS1-0400-L20C	133	80.7	90.7	96	132	0.7	6	1
NEW	25	●	MPS1-0400-L25C	153	100.7	110.7	116	152	0.7	6	1
NEW	30	●	MPS1-0400-L30C	173	120.7	130.7	136	172	0.7	6	1
NEW	35	□	MPS1-0400-L35C	193	140.7	150.7	156	192	0.7	6	1
NEW	40	●	MPS1-0400-L40C	213	160.7	170.7	176	212	0.7	6	1
4.05	3	□	MPS1-0405S-DIN	66	17.7	24	30	65.3	0.7	6	3
	3	●	MPS1-0405S-DIN-C	66	17.7	24	30	65.3	0.7	6	1
	5	□	MPS1-0405L-DIN	74	27.7	34	38	73.3	0.7	6	3
	5	●	MPS1-0405L-DIN-C	74	27.7	34	38	73.3	0.7	6	1

BOHREN

SCHNITTBEDINGUNGEN ➤ L039
ANWENDUNGSHINWEISE ➤ L040
TECHNISCHE DATEN ➤ N001

BOHREN (VOLLHARTMETALL)

MPS1

4-Fasenbohrer

	DC (mm)	Bohrtiefe (l/d)	Lager DP1021	Bestellbezeichnung	Abmessungen (mm) OAL	LU	LCF	LH	LF	PL	DCON	Typ
		3	□	MPS1-0410S-DIN	66	17.6	24	30	65.3	0.7	6	3
		3	●	MPS1-0410S-DIN-C	66	17.6	24	30	65.3	0.7	6	1
		5	□	MPS1-0410L-DIN	74	27.6	34	38	73.3	0.7	6	3
		5	●	MPS1-0410L-DIN-C	74	27.6	34	38	73.3	0.7	6	1
NEW		2	□	MPS1-0410-PC	63	8.8	22.6	25.04	62	0.6	6	1
		8	●	MPS1-0410-L8C	93	33.6	51	56	92	0.7	6	1
NEW		10	□	MPS1-0410-L10C	100	41.7	58.7	63	99	0.7	6	1
NEW	4.1	12	□	MPS1-0410-L12C	109	49.9	67.7	72	108	0.7	6	1
NEW		15	□	MPS1-0410-L15C	122	62.2	80.7	85	121	0.7	6	1
NEW		20	□	MPS1-0410-L20C	145	82.7	103.7	108	144	0.7	6	1
NEW		25	□	MPS1-0410-L25C	167	103.2	125.7	130	166	0.7	6	1
NEW		30	□	MPS1-0410-L30C	190	123.7	148.7	153	189	0.7	6	1
NEW		35	□	MPS1-0410-L35C	212	144.2	164.7	175	211	0.7	6	1
NEW		40	□	MPS1-0410-L40C	236	164.7	184.7	199	235	0.7	6	1
		3	□	MPS1-0420S-DIN	66	17.5	24	30	65.2	0.8	6	3
		3	●	MPS1-0420S-DIN-C	66	17.5	24	30	65.2	0.8	6	1
		5	□	MPS1-0420L-DIN	74	28.0	34	38	73.2	0.8	6	3
		5	●	MPS1-0420L-DIN-C	74	28.0	34	38	73.2	0.8	6	1
NEW		2	□	MPS1-0420-PC	63	9.1	22.7	24.93	62	0.7	6	1
		8	●	MPS1-0420-L8C	93	34.5	51	56	92	0.8	6	1
NEW		10	□	MPS1-0420-L10C	100	42.8	58.8	63	99	0.8	6	1
NEW	4.2	12	□	MPS1-0420-L12C	109	51.2	67.8	72	108	0.8	6	1
NEW		15	□	MPS1-0420-L15C	122	63.8	80.8	85	121	0.8	6	1
NEW		20	□	MPS1-0420-L20C	145	84.8	103.8	108	144	0.8	6	1
NEW		25	□	MPS1-0420-L25C	167	105.8	125.8	130	166	0.8	6	1
NEW		30	□	MPS1-0420-L30C	190	126.8	148.8	153	189	0.8	6	1
NEW		35	□	MPS1-0420-L35C	212	147.8	164.8	175	211	0.8	6	1
NEW		40	□	MPS1-0420-L40C	236	168.8	184.8	199	235	0.8	6	1
		3	□	MPS1-0430S-DIN	66	17.3	24	30	65.2	0.8	6	3
		3	●	MPS1-0430S-DIN-C	66	17.3	24	30	65.2	0.8	6	1
		5	□	MPS1-0430L-DIN	74	27.8	34	38	73.2	0.8	6	3
		5	●	MPS1-0430L-DIN-C	74	27.8	34	38	73.2	0.8	6	1
NEW		2	□	MPS1-0430-PC	63	9.3	22.7	24.82	62	0.7	6	1
		8	●	MPS1-0430-L8C	93	35.3	51	56	92	0.8	6	1
NEW		10	□	MPS1-0430-L10C	100	43.8	58.8	63	99	0.8	6	1
NEW	4.3	12	□	MPS1-0430-L12C	109	52.4	67.8	72	108	0.8	6	1
NEW		15	□	MPS1-0430-L15C	122	65.3	80.8	85	121	0.8	6	1
NEW		20	□	MPS1-0430-L20C	145	86.8	103.8	108	144	0.8	6	1
NEW		25	□	MPS1-0430-L25C	167	108.3	125.8	130	166	0.8	6	1
NEW		30	□	MPS1-0430-L30C	190	129.8	148.8	153	189	0.8	6	1
NEW		35	□	MPS1-0430-L35C	212	151.3	170.8	175	211	0.8	6	1
NEW		40	□	MPS1-0430-L40C	236	172.8	194.8	199	235	0.8	6	1
		3	□	MPS1-0440S-DIN	66	17.2	24	30	65.2	0.8	6	3
		3	●	MPS1-0440S-DIN-C	66	17.2	24	30	65.2	0.8	6	1
		5	□	MPS1-0440L-DIN	74	27.7	34	38	73.2	0.8	6	3
		5	●	MPS1-0440L-DIN-C	74	27.7	34	38	73.2	0.8	6	1
NEW		2	□	MPS1-0440-PC	63	9.5	22.7	24.72	62	0.7	6	1
		8	●	MPS1-0440-L8C	93	36.1	51	56	92	0.8	6	1
NEW		10	□	MPS1-0440-L10C	100	44.8	58.8	63	99	0.8	6	1
NEW	4.4	12	□	MPS1-0440-L12C	109	53.6	67.8	72	108	0.8	6	1
NEW		15	□	MPS1-0440-L15C	122	66.8	80.8	85	121	0.8	6	1
NEW		20	□	MPS1-0440-L20C	145	88.8	103.8	108	144	0.8	6	1
NEW		25	□	MPS1-0440-L25C	167	110.8	125.8	130	166	0.8	6	1
NEW		30	□	MPS1-0440-L30C	190	132.8	148.8	153	189	0.8	6	1
NEW		35	□	MPS1-0440-L35C	212	154.8	170.8	175	211	0.8	6	1
NEW		40	□	MPS1-0440-L40C	236	176.8	194.8	199	235	0.8	6	1

	DC (mm)	Bohrtiefe (l/d)	Lager DP1021	Bestellbezeichnung	Abmessungen (mm) OAL	LU	LCF	LH	LF	PL	DCON	Typ
		3	□	MPS1-0450S-DIN	66	17.1	24	30	65.2	0.8	6	3
		3	●	MPS1-0450S-DIN-C	66	17.1	24	30	65.2	0.8	6	1
		5	□	MPS1-0450L-DIN	74	27.6	34	38	73.2	0.8	6	3
		5	●	MPS1-0450L-DIN-C	74	27.6	34	38	73.2	0.8	6	1
NEW		2	●	MPS1-0450-PC	63	9.7	22.7	24.61	62	0.7	6	1
		8	●	MPS1-0450-L8C	93	36.9	51	56	92	0.8	6	1
NEW		10	□	MPS1-0450-L10C	100	45.8	58.8	63	99	0.8	6	1
NEW	4.5	12	●	MPS1-0450-L12C	109	54.8	67.8	72	108	0.8	6	1
NEW		15	●	MPS1-0450-L15C	122	68.3	80.8	85	121	0.8	6	1
NEW		20	●	MPS1-0450-L20C	145	90.8	103.8	108	144	0.8	6	1
NEW		25	●	MPS1-0450-L25C	167	113.3	125.8	130	166	0.8	6	1
NEW		30	●	MPS1-0450-L30C	190	135.8	148.8	153	189	0.8	6	1
NEW		35	□	MPS1-0450-L35C	212	158.3	170.8	175	211	0.8	6	1
NEW		40	●	MPS1-0450-L40C	236	180.8	194.8	199	235	0.8	6	1
		3	□	MPS1-0460S-DIN	66	16.9	24	30	65.2	0.8	6	4
		3	●	MPS1-0460S-DIN-C	66	16.9	24	30	65.2	0.8	6	2
		5	□	MPS1-0460L-DIN	74	28.9	36	38	73.2	0.8	6	4
		5	●	MPS1-0460L-DIN-C	74	28.9	36	38	73.2	0.8	6	2
NEW		2	□	MPS1-0460-PC	63	9.9	24.7	28	62	0.7	6	2
		8	●	MPS1-0460-L8C	96	37.8	55	59	95	0.8	6	2
NEW		10	□	MPS1-0460-L10C	106	46.8	65.8	69	105	0.8	6	2
NEW	4.6	12	□	MPS1-0460-L12C	116	56	75.8	79	115	0.8	6	2
NEW		15	□	MPS1-0460-L15C	131	69.8	90.8	94	130	0.8	6	2
NEW		20	□	MPS1-0460-L20C	156	92.8	115.8	119	155	0.8	6	2
NEW		25	□	MPS1-0460-L25C	181	115.8	140.8	144	180	0.8	6	2
NEW		30	□	MPS1-0460-L30C	206	138.8	165.8	169	205	0.8	6	2
NEW		35	□	MPS1-0460-L35C	230	161.8	184.8	193	229	0.8	6	2
NEW		40	□	MPS1-0460-L40C	255	184.8	204.8	218	254	0.8	6	2
		3	□	MPS1-0465S-DIN	66	16.9	24	30	65.2	0.8	6	4
		3	●	MPS1-0465S-DIN-C	66	16.9	24	30	65.2	0.8	6	2
	4.65	5	□	MPS1-0465L-DIN	74	28.9	36	38	73.2	0.8	6	4
		5	●	MPS1-0465L-DIN-C	74	28.9	36	38	73.2	0.8	6	2
		3	□	MPS1-0470S-DIN	66	16.8	24	30	65.1	0.9	6	4
		3	●	MPS1-0470S-DIN-C	66	16.8	24	30	65.1	0.9	6	2
		5	□	MPS1-0470L-DIN	74	28.8	36	38	73.1	0.9	6	4
		5	●	MPS1-0470L-DIN-C	74	28.8	36	38	73.1	0.9	6	2
NEW		2	□	MPS1-0470-PC	63	10.1	24.7	28	62	0.7	6	2
		8	●	MPS1-0470-L8C	96	38.6	55	59	95	0.9	6	2
NEW		10	□	MPS1-0470-L10C	106	47.9	65.9	69	105	0.9	6	2
NEW	4.7	12	□	MPS1-0470-L12C	116	57.3	75.9	79	115	0.9	6	2
NEW		15	□	MPS1-0470-L15C	131	71.4	90.9	94	130	0.9	6	2
NEW		20	□	MPS1-0470-L20C	156	94.9	115.9	119	155	0.9	6	2
NEW		25	□	MPS1-0470-L25C	181	118.4	140.9	144	180	0.9	6	2
NEW		30	□	MPS1-0470-L30C	206	141.9	165.9	169	205	0.9	6	2
NEW		35	□	MPS1-0470-L35C	230	165.4	184.9	193	229	0.9	6	2
NEW		40	□	MPS1-0470-L40C	255	188.9	204.9	218	254	0.9	6	2

● : Lagerstandard. □ : Nichtstandard, Herstellung nur auf Anfrage.

DC (mm)	Bohrtiefe (l/d)	Lager DP1021	Bestellbezeichnung	Abmessungen (mm) OAL	LU	LCF	LH	LF	PL	DCON	Typ
4.8	3	□	MPS1-0480S-DIN	66	20.7	28	30	65.1	0.9	6	4
	3	●	MPS1-0480S-DIN-C	66	20.7	28	30	65.1	0.9	6	2
	5	□	MPS1-0480L-DIN	82	36.7	44	46	81.1	0.9	6	4
	5	●	MPS1-0480L-DIN-C	82	36.7	44	46	81.1	0.9	6	2
NEW	2	□	MPS1-0480-PC	63	10.4	24.8	28	62	0.8	6	2
	8	●	MPS1-0480-L8C	96	39.4	55	59	95	0.9	6	2
NEW	10	□	MPS1-0480-L10C	106	48.9	65.9	69	105	0.9	6	2
NEW	12	□	MPS1-0480-L12C	116	58.5	75.9	79	115	0.9	6	2
NEW	15	□	MPS1-0480-L15C	131	72.9	90.9	94	130	0.9	6	2
NEW	20	□	MPS1-0480-L20C	156	96.9	115.9	119	155	0.9	6	2
NEW	25	□	MPS1-0480-L25C	181	120.9	140.9	144	180	0.9	6	2
NEW	30	□	MPS1-0480-L30C	206	144.9	165.9	169	205	0.9	6	2
NEW	35	□	MPS1-0480-L35C	230	168.9	190.9	193	229	0.9	6	2
NEW	40	□	MPS1-0480-L40C	255	192.9	215.9	218	254	0.9	6	2
4.9	3	□	MPS1-0490S-DIN	66	20.5	28	30	65.1	0.9	6	4
	3	●	MPS1-0490S-DIN-C	66	20.5	28	30	65.1	0.9	6	2
	5	□	MPS1-0490L-DIN	82	36.5	44	46	81.1	0.9	6	4
	5	●	MPS1-0490L-DIN-C	82	36.5	44	46	81.1	0.9	6	2
NEW	2	□	MPS1-0490-PC	63	10.6	24.8	28	62	0.8	6	2
	8	●	MPS1-0490-L8C	96	40.2	55	59	95	0.9	6	2
NEW	10	□	MPS1-0490-L10C	106	49.9	65.9	69	105	0.9	6	2
NEW	12	□	MPS1-0490-L12C	116	59.7	75.9	79	115	0.9	6	2
NEW	15	□	MPS1-0490-L15C	131	74.4	90.9	94	130	0.9	6	2
NEW	20	□	MPS1-0490-L20C	156	98.9	115.9	119	155	0.9	6	2
NEW	25	□	MPS1-0490-L25C	181	123.4	140.9	144	180	0.9	6	2
NEW	30	□	MPS1-0490-L30C	206	147.9	165.9	169	205	0.9	6	2
NEW	35	□	MPS1-0490-L35C	230	172.4	190.9	193	229	0.9	6	2
NEW	40	□	MPS1-0490-L40C	255	196.9	215.9	218	254	0.9	6	2
5.0	3	□	MPS1-0500S-DIN	66	20.4	28	30	65.1	0.9	6	4
	3	●	MPS1-0500S-DIN-C	66	20.4	28	30	65.1	0.9	6	2
	5	□	MPS1-0500L-DIN	82	36.4	44	46	81.1	0.9	6	4
	5	●	MPS1-0500L-DIN-C	82	36.4	44	46	81.1	0.9	6	2
NEW	2	●	MPS1-0500-PC	63	10.8	24.8	26	62	0.8	6	2
	8	●	MPS1-0500-L8C	96	41.0	55	59	95	0.9	6	2
NEW	10	□	MPS1-0500-L10C	106	50.9	65.9	69	105	0.9	6	2
NEW	12	●	MPS1-0500-L12C	116	60.9	75.9	79	115	0.9	6	2
NEW	15	●	MPS1-0500-L15C	131	75.9	90.9	94	130	0.9	6	2
NEW	20	●	MPS1-0500-L20C	156	100.9	115.9	119	155	0.9	6	2
NEW	25	●	MPS1-0500-L25C	181	125.9	140.9	144	180	0.9	6	2
NEW	30	●	MPS1-0500-L30C	206	150.9	165.9	169	205	0.9	6	2
NEW	35	□	MPS1-0500-L35C	230	175.9	190.9	193	229	0.9	6	2
NEW	40	●	MPS1-0500-L40C	255	200.9	215.9	218	254	0.9	6	2
5.05	3	□	MPS1-0505S-DIN	66	20.3	28	30	65.1	0.9	6	4
	3	●	MPS1-0505S-DIN-C	66	20.3	28	30	65.1	0.9	6	2
	5	□	MPS1-0505L-DIN	82	36.3	44	46	81.1	0.9	6	4
	5	●	MPS1-0505L-DIN-C	82	36.3	44	46	81.1	0.9	6	2

DC (mm)	Bohrtiefe (l/d)	Lager DP1021	Bestellbezeichnung	Abmessungen (mm) OAL	LU	LCF	LH	LF	PL	DCON	Typ
5.1	3	□	MPS1-0510S-DIN	66	20.3	28	30	65.1	0.9	6	4
	3	●	MPS1-0510S-DIN-C	66	20.3	28	30	65.1	0.9	6	2
	5	□	MPS1-0510L-DIN	82	36.3	44	46	81.1	0.9	6	4
	5	●	MPS1-0510L-DIN-C	82	36.3	44	46	81.1	0.9	6	2
NEW	2	□	MPS1-0510-PC	67	11	26.8	29	66	0.8	6	2
	8	●	MPS1-0510-L8C	102	41.9	62	65	101	0.9	6	2
NEW	10	□	MPS1-0510-L10C	113	51.9	72.9	76	112	0.9	6	2
NEW	12	□	MPS1-0510-L12C	124	62.1	83.9	87	123	0.9	6	2
NEW	15	□	MPS1-0510-L15C	140	77.4	99.9	103	139	0.9	6	2
NEW	20	□	MPS1-0510-L20C	168	102.9	127.9	131	167	0.9	6	2
NEW	25	□	MPS1-0510-L25C	195	128.4	154.9	158	194	0.9	6	2
NEW	30	□	MPS1-0510-L30C	223	153.9	182.9	186	222	0.9	6	2
NEW	35	□	MPS1-0510-L35C	249	179.4	203.9	212	248	0.9	6	2
NEW	40	□	MPS1-0510-L40C	279	204.9	230.9	242	278	0.9	6	2
5.2	3	□	MPS1-0520S-DIN	66	20.1	28	30	65.1	0.9	6	4
	3	●	MPS1-0520S-DIN-C	66	20.1	28	30	65.1	0.9	6	2
	5	□	MPS1-0520L-DIN	82	36.1	44	46	81.1	0.9	6	4
	5	●	MPS1-0520L-DIN-C	82	36.1	44	46	81.1	0.9	6	2
NEW	2	□	MPS1-0520-PC	67	11.2	26.8	29	66	0.8	6	2
	8	●	MPS1-0520-L8C	102	42.7	62	65	101	0.9	6	2
NEW	10	□	MPS1-0520-L10C	113	52.9	72.9	76	112	0.9	6	2
NEW	12	□	MPS1-0520-L12C	124	63.3	83.9	87	123	0.9	6	2
NEW	15	□	MPS1-0520-L15C	140	78.9	99.9	103	139	0.9	6	2
NEW	20	□	MPS1-0520-L20C	168	104.9	127.9	131	167	0.9	6	2
NEW	25	□	MPS1-0520-L25C	195	130.9	154.9	158	194	0.9	6	2
NEW	30	□	MPS1-0520-L30C	223	156.9	182.9	186	222	0.9	6	2
NEW	35	□	MPS1-0520-L35C	249	182.9	203.9	212	248	0.9	6	2
NEW	40	□	MPS1-0520-L40C	279	208.9	230.9	242	278	0.9	6	2
5.3	3	□	MPS1-0530S-DIN	66	20.0	28	30	65	1	6	4
	3	●	MPS1-0530S-DIN-C	66	20.0	28	30	65	1	6	2
	5	□	MPS1-0530L-DIN	82	36.0	44	46	81	1	6	4
	5	●	MPS1-0530L-DIN-C	82	36.0	44	46	81	1	6	2
NEW	2	□	MPS1-0530-PC	67	11.4	26.8	29	66	0.8	6	2
	8	●	MPS1-0530-L8C	102	43.5	62	65	101	1	6	2
NEW	10	□	MPS1-0530-L10C	113	54	73	76	112	1	6	2
NEW	12	□	MPS1-0530-L12C	124	64.6	84	87	123	1	6	2
NEW	15	□	MPS1-0530-L15C	140	80.5	100	103	139	1	6	2
NEW	20	□	MPS1-0530-L20C	168	107	128	131	167	1	6	2
NEW	25	□	MPS1-0530-L25C	195	133.5	155	158	194	1	6	2
NEW	30	□	MPS1-0530-L30C	223	160	183	186	222	1	6	2
NEW	35	□	MPS1-0530-L35C	249	186.5	210	212	248	1	6	2
NEW	40	□	MPS1-0530-L40C	279	213	241	242	278	1	6	2
5.4	3	□	MPS1-0540S-DIN	66	19.9	28	30	65	1	6	2
	3	●	MPS1-0540S-DIN-C	66	19.9	28	30	65	1	6	4
	5	□	MPS1-0540L-DIN	82	35.9	44	46	81	1	6	4
	5	●	MPS1-0540L-DIN-C	82	35.9	44	46	81	1	6	2
NEW	2	□	MPS1-0540-PC	67	11.7	26.9	29	66	0.9	6	2
	8	●	MPS1-0540-L8C	102	44.3	62	65	101	1	6	2
NEW	10	□	MPS1-0540-L10C	113	55	73	76	112	1	6	2
NEW	12	□	MPS1-0540-L12C	124	65.8	84	87	123	1	6	2
NEW	15	□	MPS1-0540-L15C	140	82	100	103	139	1	6	2
NEW	20	□	MPS1-0540-L20C	168	109	128	131	167	1	6	2
NEW	25	□	MPS1-0540-L25C	195	136	155	158	194	1	6	2
NEW	30	□	MPS1-0540-L30C	223	163	183	186	222	1	6	2
NEW	35	□	MPS1-0540-L35C	249	190	210	212	248	1	6	2
NEW	40	□	MPS1-0540-L40C	279	217	241	242	278	1	6	2

BOHREN

SCHNITTBEDINGUNGEN ➤ L039
ANWENDUNGSHINWEISE ➤ L040
TECHNISCHE DATEN ➤ N001

MPS1

4-Fasenbohrer

DC (mm)	Bohrtiefe (l/d)	Lager DP1021	Bestellbezeichnung	Abmessungen (mm) OAL	LU	LCF	LH	LF	PL	DCON	Typ
5.5	3	□	MPS1-0550S-DIN	66	19.8	28	30	65	1	6	4
	3	●	MPS1-0550S-DIN-C	66	19.8	28	30	65	1	6	2
	5	□	MPS1-0550L-DIN	82	35.8	44	46	81	1	6	4
	5	●	MPS1-0550L-DIN-C	82	35.8	44	46	81	1	6	2
NEW	2	●	MPS1-0550-PC	67	11.9	26.9	29	66	0.9	6	2
	8	●	MPS1-0550-L8C	102	45.1	62	65	101	1	6	2
NEW	10	□	MPS1-0550-L10C	113	56	73	76	112	1	6	2
NEW	12	●	MPS1-0550-L12C	124	67	84	87	123	1	6	2
NEW	15	●	MPS1-0550-L15C	140	83.5	100	103	139	1	6	2
NEW	20	●	MPS1-0550-L20C	168	111	128	131	167	1	6	2
NEW	25	●	MPS1-0550-L25C	195	138.5	155	158	194	1	6	2
NEW	30	●	MPS1-0550-L30C	223	166	183	186	222	1	6	2
NEW	35	□	MPS1-0550-L35C	249	193.5	210	212	248	1	6	2
NEW	40	●	MPS1-0550-L40C	279	221	241	242	278	1	6	2
5.55	3	□	MPS1-0555S-DIN	66	19.7	28	30	65	1	6	4
	3	●	MPS1-0555S-DIN-C	66	19.7	28	30	65	1	6	2
	5	□	MPS1-0555L-DIN	82	35.7	44	46	81	1	6	4
	5	●	MPS1-0555L-DIN-C	82	35.7	44	46	81	1	6	2
	3	□	MPS1-0560S-DIN	66	19.6	28	30	65	1	6	4
	3	●	MPS1-0560S-DIN-C	66	19.6	28	30	65	1	6	2
	5	□	MPS1-0560L-DIN	82	35.6	44	46	81	1	6	4
	5	●	MPS1-0560L-DIN-C	82	35.6	44	46	81	1	6	2
NEW	2	□	MPS1-0560-PC	67	12.1	28.9	29	66	0.9	6	2
	8	●	MPS1-0560-L8C	107	46.0	67	70	106	1	6	2
NEW	10	□	MPS1-0560-L10C	119	57	79	82	118	1	6	2
NEW	12	□	MPS1-0560-L12C	131	68.2	91	94	130	1	6	2
NEW	15	□	MPS1-0560-L15C	149	85	109	112	148	1	6	2
NEW	20	□	MPS1-0560-L20C	179	113	139	142	178	1	6	2
NEW	25	□	MPS1-0560-L25C	209	141	169	172	208	1	6	2
NEW	30	□	MPS1-0560-L30C	239	169	199	202	238	1	6	2
NEW	35	□	MPS1-0560-L35C	268	197	223	231	267	1	6	2
NEW	40	□	MPS1-0560-L40C	299	225	251	262	298	1	6	2
5.7	3	□	MPS1-0570S-DIN	66	19.5	28	30	65	1	6	4
	3	●	MPS1-0570S-DIN-C	66	19.5	28	30	65	1	6	2
	5	□	MPS1-0570L-DIN	82	35.5	44	46	81	1	6	4
	5	●	MPS1-0570L-DIN-C	82	35.5	44	46	81	1	6	2
NEW	2	□	MPS1-0570-PC	67	12.3	28.9	29	66	0.9	6	2
	8	●	MPS1-0570-L8C	107	46.8	67	70	106	1	6	2
NEW	10	□	MPS1-0570-L10C	119	58	79	82	118	1	6	2
NEW	12	□	MPS1-0570-L12C	131	69.4	91	94	130	1	6	2
NEW	15	□	MPS1-0570-L15C	149	86.5	109	112	148	1	6	2
NEW	20	□	MPS1-0570-L20C	179	115	139	142	178	1	6	2
NEW	25	□	MPS1-0570-L25C	209	143.5	169	172	208	1	6	2
NEW	30	□	MPS1-0570-L30C	239	172	199	202	238	1	6	2
NEW	35	□	MPS1-0570-L35C	268	200.5	223	231	267	1	6	2
NEW	40	□	MPS1-0570-L40C	299	229	251	262	298	1	6	2
5.8	3	□	MPS1-0580S-DIN	66	19.4	28	30	64.9	1.1	6	4
	3	●	MPS1-0580S-DIN-C	66	19.4	28	30	64.9	1.1	6	2
	5	□	MPS1-0580L-DIN	82	35.4	44	46	80.9	1.1	6	4
	5	●	MPS1-0580L-DIN-C	82	35.4	44	46	80.9	1.1	6	2
NEW	2	□	MPS1-0580-PC	67	12.5	28.9	29	66	0.9	6	2
	8	●	MPS1-0580-L8C	107	47.6	67	70	106	1.1	6	2
NEW	10	□	MPS1-0580-L10C	119	59.1	79.1	82	118	1.1	6	2
NEW	12	□	MPS1-0580-L12C	131	70.7	91.1	94	130	1.1	6	2
NEW	15	□	MPS1-0580-L15C	149	88.1	109.1	112	148	1.1	6	2
NEW	20	□	MPS1-0580-L20C	179	117.1	139.1	142	178	1.1	6	2
NEW	25	□	MPS1-0580-L25C	209	146.1	169.1	172	208	1.1	6	2
NEW	30	□	MPS1-0580-L30C	239	175.1	199.1	202	238	1.1	6	2
NEW	35	□	MPS1-0580-L35C	268	204.1	229.1	231	267	1.1	6	2
NEW	40	□	MPS1-0580-L40C	299	233.1	261.1	262	298	1.1	6	2
5.9	3	□	MPS1-0590S-DIN	66	19.2	28	30	64.9	1.1	6	4
	3	●	MPS1-0590S-DIN-C	66	19.2	28	30	64.9	1.1	6	2
	5	□	MPS1-0590L-DIN	82	35.2	44	46	80.9	1.1	6	4
	5	●	MPS1-0590L-DIN-C	82	35.2	44	46	80.9	1.1	6	2
NEW	2	□	MPS1-0590-PC	67	12.7	28.9	29	66	0.9	6	2
	8	●	MPS1-0590-L8C	107	48.4	67	70	106	1.1	6	2
NEW	10	□	MPS1-0590-L10C	119	60.1	79.1	82	118	1.1	6	2
NEW	12	□	MPS1-0590-L12C	131	71.9	91.1	94	130	1.1	6	2
NEW	15	□	MPS1-0590-L15C	149	89.6	109.1	112	148	1.1	6	2
NEW	20	□	MPS1-0590-L20C	179	119.1	139.1	142	178	1.1	6	2
NEW	25	□	MPS1-0590-L25C	209	148.6	169.1	172	208	1.1	6	2
NEW	30	□	MPS1-0590-L30C	239	178.1	199.1	202	238	1.1	6	2
NEW	35	□	MPS1-0590-L35C	268	207.6	229.1	231	267	1.1	6	2
NEW	40	□	MPS1-0590-L40C	299	237.1	261.1	262	298	1.1	6	2
6.0	3	□	MPS1-0600S-DIN	66	19.1	28	30	64.9	1.1	6	4
	3	●	MPS1-0600S-DIN-C	66	19.1	28	30	64.9	1.1	6	2
	5	□	MPS1-0600L-DIN	82	35.1	44	46	80.9	1.1	6	4
	5	●	MPS1-0600L-DIN-C	82	35.1	44	46	80.9	1.1	6	2
NEW	2	●	MPS1-0600-PC	67	12.9	28.9	29	66	0.9	6	2
	8	●	MPS1-0600-L8C	107	49.2	67	70	106	1.1	6	2
NEW	10	□	MPS1-0600-L10C	119	61.1	79.1	82	118	1.1	6	2
NEW	12	●	MPS1-0600-L12C	131	73.1	91.1	94	130	1.1	6	2
NEW	15	●	MPS1-0600-L15C	149	91.1	109.1	112	148	1.1	6	2
NEW	20	●	MPS1-0600-L20C	179	121.1	139.1	142	178	1.1	6	2
NEW	25	●	MPS1-0600-L25C	209	151.1	169.1	172	208	1.1	6	2
NEW	30	●	MPS1-0600-L30C	239	181.1	199.1	202	238	1.1	6	2
NEW	35	□	MPS1-0600-L35C	268	211.1	229.1	231	267	1.1	6	2
NEW	40	●	MPS1-0600-L40C	299	241.1	261.1	262	298	1.1	6	2
6.05	3	□	MPS1-0605S-DIN	79	25.0	34	43	77.9	1.1	8	4
	3	●	MPS1-0605S-DIN-C	79	25.0	34	43	77.9	1.1	8	2
	5	□	MPS1-0605L-DIN	91	44.0	53	55	89.9	1.1	8	4
	5	●	MPS1-0605L-DIN-C	91	44.0	53	55	89.9	1.1	8	2

● : Lagerstandard. □ : Nichtstandard, Herstellung nur auf Anfrage.

DC (mm)	Bohrtiefe (l/d)	Lager DP1021	Bestellbezeichnung	Abmessungen (mm) OAL	LU	LCF	LH	LF	PL	DCON	Typ
6.1	3	□	MPS1-0610S-DIN	79	25.0	34	43	77.9	1.1	8	4
	3	●	MPS1-0610S-DIN-C	79	25.0	34	43	77.9	1.1	8	2
	5	□	MPS1-0610L-DIN	91	44.0	53	55	89.9	1.1	8	4
	5	●	MPS1-0610L-DIN-C	91	44.0	53	55	89.9	1.1	8	2
NEW	2	□	MPS1-0610-PC	75	13.2	32	35	74	1	8	2
	8	●	MPS1-0610-L8C	113	50.1	73	76	112	1.1	8	2
NEW	10	□	MPS1-0610-L10C	126	62.1	86.1	89	125	1.1	8	2
NEW	12	□	MPS1-0610-L12C	139	74.3	99.1	102	138	1.1	8	2
NEW	15	□	MPS1-0610-L15C	158	92.6	118.1	121	157	1.1	8	2
NEW	20	□	MPS1-0610-L20C	191	123.1	151.1	154	190	1.1	8	2
NEW	25	□	MPS1-0610-L25C	223	153.6	183.1	186	222	1.1	8	2
NEW	30	□	MPS1-0610-L30C	256	184.1	216.1	219	255	1.1	8	2
NEW	35	□	MPS1-0610-L35C	287	214.6	241.1	250	286	1.1	8	2
NEW	40	□	MPS1-0610-L40C	321	245.1	271.1	284	320	1.1	8	2
6.2	3	□	MPS1-0620S-DIN	79	24.8	34	43	77.9	1.1	8	4
	3	●	MPS1-0620S-DIN-C	79	24.8	34	43	77.9	1.1	8	2
	5	□	MPS1-0620L-DIN	91	43.8	53	55	89.9	1.1	8	4
	5	●	MPS1-0620L-DIN-C	91	43.8	53	55	89.9	1.1	8	2
NEW	2	□	MPS1-0620-PC	75	13.4	32	35	74	1	8	2
	8	●	MPS1-0620-L8C	113	50.9	73	76	112	1.1	8	2
NEW	10	□	MPS1-0620-L10C	126	63.1	86.1	89	125	1.1	8	2
NEW	12	□	MPS1-0620-L12C	139	75.5	99.1	102	138	1.1	8	2
NEW	15	□	MPS1-0620-L15C	158	94.1	118.1	121	157	1.1	8	2
NEW	20	□	MPS1-0620-L20C	191	125.1	151.1	154	190	1.1	8	2
NEW	25	□	MPS1-0620-L25C	223	156.1	183.1	186	222	1.1	8	2
NEW	30	□	MPS1-0620-L30C	256	187.1	216.1	219	255	1.1	8	2
NEW	35	□	MPS1-0620-L35C	287	218.1	241.1	250	286	1.1	8	2
NEW	40	□	MPS1-0620-L40C	321	249.1	271.1	284	320	1.1	8	2
6.3	3	□	MPS1-0630S-DIN	79	24.7	34	43	77.9	1.1	8	4
	3	●	MPS1-0630S-DIN-C	79	24.7	34	43	77.9	1.1	8	2
	5	□	MPS1-0630L-DIN	91	43.7	53	55	89.9	1.1	8	4
	5	●	MPS1-0630L-DIN-C	91	43.7	53	55	89.9	1.1	8	2
NEW	2	□	MPS1-0630-PC	75	13.6	32	35	74	1	8	2
	8	●	MPS1-0630-L8C	113	51.7	73	76	112	1.1	8	2
NEW	10	□	MPS1-0630-L10C	126	64.1	86.1	89	125	1.1	8	2
NEW	12	□	MPS1-0630-L12C	139	76.7	99.1	102	138	1.1	8	2
NEW	15	□	MPS1-0630-L15C	158	95.6	118.1	121	157	1.1	8	2
NEW	20	□	MPS1-0630-L20C	191	127.1	151.1	154	190	1.1	8	2
NEW	25	□	MPS1-0630-L25C	223	158.6	183.1	186	222	1.1	8	2
NEW	30	□	MPS1-0630-L30C	256	190.1	216.1	219	255	1.1	8	2
NEW	35	□	MPS1-0630-L35C	287	221.6	248.1	250	286	1.1	8	2
NEW	40	□	MPS1-0630-L40C	321	253.1	281.1	284	320	1.1	8	2
6.4	3	□	MPS1-0640S-DIN	79	24.6	34	43	77.8	1.2	8	4
	3	●	MPS1-0640S-DIN-C	79	24.6	34	43	77.8	1.2	8	2
	5	□	MPS1-0640L-DIN	91	43.6	53	55	89.8	1.2	8	4
	5	●	MPS1-0640L-DIN-C	91	43.6	53	55	89.8	1.2	8	2
NEW	2	□	MPS1-0640-PC	75	13.8	32	35	74	1	8	2
	8	●	MPS1-0640-L8C	113	52.5	73	76	112	1.2	8	2
NEW	10	□	MPS1-0640-L10C	126	65.2	86.2	89	125	1.2	8	2
NEW	12	□	MPS1-0640-L12C	139	78	99.2	102	138	1.2	8	2
NEW	15	□	MPS1-0640-L15C	158	97.2	118.2	121	157	1.2	8	2
NEW	20	□	MPS1-0640-L20C	191	129.2	151.2	154	190	1.2	8	2
NEW	25	□	MPS1-0640-L25C	223	161.2	183.2	186	222	1.2	8	2
NEW	30	□	MPS1-0640-L30C	256	193.2	216.2	219	255	1.2	8	2
NEW	35	□	MPS1-0640-L35C	287	225.2	248.2	250	286	1.2	8	2
NEW	40	□	MPS1-0640-L40C	321	257.2	281.2	284	320	1.2	8	2
6.5	3	□	MPS1-0650S-DIN	79	24.4	34	43	77.8	1.2	8	4
	3	●	MPS1-0650S-DIN-C	79	24.4	34	43	77.8	1.2	8	2
	5	□	MPS1-0650L-DIN	91	43.4	53	55	89.8	1.2	8	4
	5	●	MPS1-0650L-DIN-C	91	43.4	53	55	89.8	1.2	8	2
NEW	2	●	MPS1-0650-PC	75	14	32	35	74	1	8	2
	8	●	MPS1-0650-L8C	113	53.3	73	76	112	1.2	8	2
NEW	10	□	MPS1-0650-L10C	126	66.2	86.2	89	125	1.2	8	2
NEW	12	●	MPS1-0650-L12C	139	79.2	99.2	102	138	1.2	8	2
NEW	15	●	MPS1-0650-L15C	158	98.7	118.2	121	157	1.2	8	2
NEW	20	●	MPS1-0650-L20C	191	131.2	151.2	154	190	1.2	8	2
NEW	25	●	MPS1-0650-L25C	223	163.7	183.2	186	222	1.2	8	2
NEW	30	●	MPS1-0650-L30C	256	196.2	216.2	219	255	1.2	8	2
NEW	35	□	MPS1-0650-L35C	287	228.7	248.2	250	286	1.2	8	2
NEW	40	●	MPS1-0650-L40C	321	261.2	281.2	284	320	1.2	8	2
6.6	3	□	MPS1-0660S-DIN	79	24.3	34	43	77.8	1.2	8	4
	3	●	MPS1-0660S-DIN-C	79	24.3	34	43	77.8	1.2	8	2
	5	□	MPS1-0660L-DIN	91	43.3	53	55	89.8	1.2	8	4
	5	●	MPS1-0660L-DIN-C	91	43.3	53	55	89.8	1.2	8	2
NEW	2	□	MPS1-0660-PC	75	14.2	35	37	74	1	8	2
	8	●	MPS1-0660-L8C	118	54.2	78	81	117	1.2	8	2
NEW	10	□	MPS1-0660-L10C	132	67.2	92.2	95	131	1.2	8	2
NEW	12	□	MPS1-0660-L12C	146	80.4	106.2	109	145	1.2	8	2
NEW	15	□	MPS1-0660-L15C	167	100.2	127.2	130	166	1.2	8	2
NEW	20	□	MPS1-0660-L20C	202	133.2	162.2	165	201	1.2	8	2
NEW	25	□	MPS1-0660-L25C	237	166.2	197.2	200	236	1.2	8	2
NEW	30	□	MPS1-0660-L30C	272	199.2	232.2	235	271	1.2	8	2
NEW	35	□	MPS1-0660-L35C	306	232.2	267.2	269	305	1.2	8	2
NEW	40	□	MPS1-0660-L40C	341	265.2	301.2	304	340	1.2	8	2
6.7	3	□	MPS1-0670S-DIN	79	24.2	34	43	77.8	1.2	8	4
	3	●	MPS1-0670S-DIN-C	79	24.2	34	43	77.8	1.2	8	2
	5	□	MPS1-0670L-DIN	91	43.2	53	55	89.8	1.2	8	4
	5	●	MPS1-0670L-DIN-C	91	43.2	53	55	89.8	1.2	8	2
NEW	2	□	MPS1-0670-PC	75	14.5	35.1	37	74	1.1	8	2
	8	●	MPS1-0670-L8C	118	55	78	81	117	1.2	8	2
NEW	10	□	MPS1-0670-L10C	132	68.2	92.2	95	131	1.2	8	2
NEW	12	□	MPS1-0670-L12C	146	81.6	106.2	109	145	1.2	8	2
NEW	15	□	MPS1-0670-L15C	167	101.7	127.2	130	166	1.2	8	2
NEW	20	□	MPS1-0670-L20C	202	135.2	162.2	165	201	1.2	8	2
NEW	25	□	MPS1-0670-L25C	237	168.7	197.2	200	236	1.2	8	2
NEW	30	□	MPS1-0670-L30C	272	202.2	232.2	235	271	1.2	8	2
NEW	35	□	MPS1-0670-L35C	306	235.7	267.2	269	305	1.2	8	2
NEW	40	□	MPS1-0670-L40C	341	269.2	301.2	304	340	1.2	8	2
6.8	3	□	MPS1-0680S-DIN	79	24.0	34	43	77.8	1.2	8	4
	3	●	MPS1-0680S-DIN-C	79	24.0	34	43	77.8	1.2	8	2
	5	□	MPS1-0680L-DIN	91	43.0	53	55	89.8	1.2	8	4
	5	●	MPS1-0680L-DIN-C	91	43.0	53	55	89.8	1.2	8	2
NEW	2	□	MPS1-0680-PC	75	14.7	35.1	37	74	1.1	8	2
	8	●	MPS1-0680-L8C	118	55.8	78	81	117	1.2	8	2
NEW	10	□	MPS1-0680-L10C	132	69.2	92.2	95	131	1.2	8	2
NEW	12	□	MPS1-0680-L12C	146	82.8	106.2	109	145	1.2	8	2
NEW	15	□	MPS1-0680-L15C	167	103.2	127.2	130	166	1.2	8	2
NEW	20	□	MPS1-0680-L20C	202	137.2	162.2	165	201	1.2	8	2
NEW	25	□	MPS1-0680-L25C	237	171.2	197.2	200	236	1.2	8	2
NEW	30	□	MPS1-0680-L30C	272	205.2	232.2	235	271	1.2	8	2
NEW	35	□	MPS1-0680-L35C	306	239.2	267.2	269	305	1.2	8	2
NEW	40	□	MPS1-0680-L40C	341	273.2	301.2	304	340	1.2	8	2

SCHNITTBEDINGUNGEN ➤ L039
ANWENDUNGSHINWEISE ➤ L040
TECHNISCHE DATEN ➤ N001

BOHREN (VOLLHARTMETALL)

MPS1

4-Fasenbohrer

DC (mm)	Bohrtiefe (l/d)	Lager DP1021	Bestellbezeichnung	Abmessungen (mm) OAL	LU	LCF	LH	LF	PL	DCON	Typ
6.9	3	□	MPS1-0690S-DIN	79	23.9	34	43	77.7	1.3	8	4
	3	●	MPS1-0690S-DIN-C	79	23.9	34	43	77.7	1.3	8	2
	5	□	MPS1-0690L-DIN	91	42.9	53	55	89.7	1.3	8	4
	5	●	MPS1-0690L-DIN-C	91	42.9	53	55	89.7	1.3	8	2
NEW	2	□	MPS1-0690-PC	75	14.9	35.1	37	74	1.1	8	2
	8	●	MPS1-0690-L8C	118	56.6	78	81	117	1.3	8	2
NEW	10	□	MPS1-0690-L10C	132	70.3	92.3	95	131	1.3	8	2
NEW	12	□	MPS1-0690-L12C	146	84.1	106.3	109	145	1.3	8	2
NEW	15	□	MPS1-0690-L15C	167	104.8	127.3	130	166	1.3	8	2
NEW	20	□	MPS1-0690-L20C	202	139.3	162.3	165	201	1.3	8	2
NEW	25	□	MPS1-0690-L25C	237	173.8	197.3	200	236	1.3	8	2
NEW	30	□	MPS1-0690-L30C	272	208.3	232.3	235	271	1.3	8	2
NEW	35	□	MPS1-0690-L35C	306	242.8	267.3	269	305	1.3	8	2
NEW	40	□	MPS1-0690-L40C	341	277.3	301.3	304	340	1.3	8	2
7.0	3	□	MPS1-0700S-DIN	79	23.8	34	43	77.7	1.3	8	4
	3	●	MPS1-0700S-DIN-C	79	23.8	34	43	77.7	1.3	8	2
	5	□	MPS1-0700L-DIN	91	42.8	53	55	89.7	1.3	8	4
	5	●	MPS1-0700L-DIN-C	91	42.8	53	55	89.7	1.3	8	2
NEW	2	●	MPS1-0700-PC	75	15.1	35.1	37	74	1.1	8	2
	8	●	MPS1-0700-L8C	118	57.4	78	81	117	1.3	8	2
NEW	10	□	MPS1-0700-L10C	132	71.3	92.3	95	131	1.3	8	2
NEW	12	●	MPS1-0700-L12C	146	85.3	106.3	109	145	1.3	8	2
NEW	15	●	MPS1-0700-L15C	167	106.3	127.3	130	166	1.3	8	2
NEW	20	●	MPS1-0700-L20C	202	141.3	162.3	165	201	1.3	8	2
NEW	25	●	MPS1-0700-L25C	237	176.3	197.3	200	236	1.3	8	2
NEW	30	●	MPS1-0700-L30C	272	211.3	232.3	235	271	1.3	8	2
NEW	35	□	MPS1-0700-L35C	306	246.3	267.3	269	305	1.3	8	2
NEW	40	●	MPS1-0700-L40C	341	281.3	301.3	304	340	1.3	8	2
7.1	3	□	MPS1-0710S-DIN	79	30.6	41	43	77.7	1.3	8	4
	3	●	MPS1-0710S-DIN-C	79	30.6	41	43	77.7	1.3	8	2
	5	□	MPS1-0710L-DIN	91	42.6	53	55	89.7	1.3	8	4
	5	●	MPS1-0710L-DIN-C	91	42.6	53	55	89.7	1.3	8	2
NEW	2	□	MPS1-0710-PC	80	15.3	35.1	38	79	1.1	8	2
	8	●	MPS1-0710-L8C	124	58.3	84	87	123	1.3	8	2
NEW	10	□	MPS1-0710-L10C	139	72.3	99.3	102	138	1.3	8	2
NEW	12	□	MPS1-0710-L12C	154	86.5	114.3	117	153	1.3	8	2
NEW	15	□	MPS1-0710-L15C	176	107.8	136.3	139	175	1.3	8	2
NEW	20	□	MPS1-0710-L20C	214	143.3	174.3	177	213	1.3	8	2
NEW	25	□	MPS1-0710-L25C	251	178.8	211.3	214	250	1.3	8	2
NEW	30	□	MPS1-0710-L30C	289	214.3	249.3	252	288	1.3	8	2
NEW	35	□	MPS1-0710-L35C	325	249.8	286.3	288	324	1.3	8	2
NEW	40	□	MPS1-0710-L40C	360	285.3	321.3	323	359	1.3	8	2
7.2	3	□	MPS1-0720S-DIN	79	30.5	41	43	77.7	1.3	8	4
	3	●	MPS1-0720S-DIN-C	79	30.5	41	43	77.7	1.3	8	2
	5	□	MPS1-0720L-DIN	91	42.5	53	55	89.7	1.3	8	4
	5	●	MPS1-0720L-DIN-C	91	42.5	53	55	89.7	1.3	8	2
NEW	2	□	MPS1-0720-PC	80	15.5	35.1	38	79	1.1	8	2
	8	●	MPS1-0720-L8C	124	59.1	84	87	123	1.3	8	2
NEW	10	□	MPS1-0720-L10C	139	73.3	99.3	102	138	1.3	8	2
NEW	12	□	MPS1-0720-L12C	154	87.7	114.3	117	153	1.3	8	2
NEW	15	□	MPS1-0720-L15C	176	109.3	136.3	139	175	1.3	8	2
NEW	20	□	MPS1-0720-L20C	214	145.3	174.3	177	213	1.3	8	2
NEW	25	□	MPS1-0720-L25C	251	181.3	211.3	214	250	1.3	8	2
NEW	30	□	MPS1-0720-L30C	289	217.3	249.3	252	288	1.3	8	2
NEW	35	□	MPS1-0720-L35C	325	253.3	286.3	288	324	1.3	8	2
NEW	40	□	MPS1-0720-L40C	360	289.3	321.3	323	359	1.3	8	2
7.3	3	□	MPS1-0730S-DIN	79	30.4	41	43	77.7	1.3	8	4
	3	●	MPS1-0730S-DIN-C	79	30.4	41	43	77.7	1.3	8	2
	5	□	MPS1-0730L-DIN	91	42.4	53	55	89.7	1.3	8	4
	5	●	MPS1-0730L-DIN-C	91	42.4	53	55	89.7	1.3	8	2
NEW	2	□	MPS1-0730-PC	80	15.8	35.2	38	79	1.2	8	2
	8	●	MPS1-0730-L8C	125	59.9	84	88	123	1.3	8	2
NEW	10	□	MPS1-0730-L10C	139	74.3	99.3	102	138	1.3	8	2
NEW	12	□	MPS1-0730-L12C	154	88.9	114.3	117	153	1.3	8	2
NEW	15	□	MPS1-0730-L15C	176	110.8	136.3	139	175	1.3	8	2
NEW	20	□	MPS1-0730-L20C	214	147.3	174.3	177	213	1.3	8	2
NEW	25	□	MPS1-0730-L25C	251	183.8	211.3	214	250	1.3	8	2
NEW	30	□	MPS1-0730-L30C	289	220.3	249.3	252	288	1.3	8	2
NEW	35	□	MPS1-0730-L35C	325	256.8	286.3	288	324	1.3	8	2
NEW	40	□	MPS1-0730-L40C	360	293.3	321.3	323	359	1.3	8	2
7.4	3	□	MPS1-0740S-DIN	79	30.2	41	43	77.7	1.3	8	4
	3	●	MPS1-0740S-DIN-C	79	30.2	41	43	77.7	1.3	8	2
	5	□	MPS1-0740L-DIN	91	42.2	53	55	89.7	1.3	8	4
	5	●	MPS1-0740L-DIN-C	91	42.2	53	55	89.7	1.3	8	2
NEW	2	□	MPS1-0740-PC	80	16	35.2	38	79	1.2	8	2
	8	●	MPS1-0740-L8C	125	60.7	84	88	123	1.3	8	2
NEW	10	□	MPS1-0740-L10C	139	75.3	99.3	102	138	1.3	8	2
NEW	12	□	MPS1-0740-L12C	154	90.1	114.3	117	153	1.3	8	2
NEW	15	□	MPS1-0740-L15C	176	112.3	136.3	139	175	1.3	8	2
NEW	20	□	MPS1-0740-L20C	214	149.3	174.3	177	213	1.3	8	2
NEW	25	□	MPS1-0740-L25C	251	186.3	211.3	214	250	1.3	8	2
NEW	30	□	MPS1-0740-L30C	289	223.3	249.3	252	288	1.3	8	2
NEW	35	□	MPS1-0740-L35C	325	260.3	286.3	288	324	1.3	8	2
NEW	40	□	MPS1-0740-L40C	360	297.3	321.3	323	359	1.3	8	2
7.5	3	□	MPS1-0750S-DIN	79	30.1	41	43	77.6	1.4	8	4
	3	●	MPS1-0750S-DIN-C	79	30.1	41	43	77.6	1.4	8	2
	5	□	MPS1-0750L-DIN	91	42.1	53	55	89.6	1.4	8	4
	5	●	MPS1-0750L-DIN-C	91	42.1	53	55	89.6	1.4	8	2
NEW	2	●	MPS1-0750-PC	80	16.2	35.2	38	79	1.2	8	2
	8	●	MPS1-0750-L8C	125	61.6	84	88	123	1.4	8	2
NEW	10	□	MPS1-0750-L10C	139	76.4	99.4	102	138	1.4	8	2
NEW	12	●	MPS1-0750-L12C	154	91.4	114.4	117	153	1.4	8	2
NEW	15	●	MPS1-0750-L15C	176	113.9	136.4	139	175	1.4	8	2
NEW	20	●	MPS1-0750-L20C	214	151.4	174.4	177	213	1.4	8	2
NEW	25	●	MPS1-0750-L25C	251	188.9	211.4	214	250	1.4	8	2
NEW	30	●	MPS1-0750-L30C	289	226.4	249.4	252	288	1.4	8	2
NEW	35	□	MPS1-0750-L35C	325	263.9	286.4	288	324	1.4	8	2
NEW	40	●	MPS1-0750-L40C	360	301.4	321.4	323	359	1.4	8	2
7.6	3	□	MPS1-0760S-DIN	79	30.0	41	43	77.6	1.4	8	4
	3	●	MPS1-0760S-DIN-C	79	30.0	41	43	77.6	1.4	8	2
	5	□	MPS1-0760L-DIN	91	42.0	53	55	89.6	1.4	8	4
	5	●	MPS1-0760L-DIN-C	91	42.0	53	55	89.6	1.4	8	2
NEW	2	□	MPS1-0760-PC	80	16.4	38.2	38	79	1.2	8	2
	8	●	MPS1-0760-L8C	130	62.4	89	93	128	1.4	8	2
NEW	10	□	MPS1-0760-L10C	145	77.4	105.4	108	144	1.4	8	2
NEW	12	□	MPS1-0760-L12C	161	92.6	121.4	124	160	1.4	8	2
NEW	15	□	MPS1-0760-L15C	185	115.4	145.4	148	184	1.4	8	2
NEW	20	□	MPS1-0760-L20C	225	153.4	185.4	188	224	1.4	8	2
NEW	25	□	MPS1-0760-L25C	265	191.4	225.4	228	264	1.4	8	2
NEW	30	□	MPS1-0760-L30C	305	229.4	265.4	268	304	1.4	8	2
NEW	35	□	MPS1-0760-L35C	344	267.4	305.4	307	343	1.4	8	2
NEW	40	□	MPS1-0760-L40C	379	305.4	341.4	342	378	1.4	8	2

● : Lagerstandard. □ : Nichtstandard, Herstellung nur auf Anfrage.

DC (mm)	Bohrtiefe (l/d)	Lager DP1021	Bestellbezeichnung	Abmessungen (mm) OAL	LU	LCF	LH	LF	PL	DCON	Typ
7.7	3	□	MPS1-0770S-DIN	79	29.9	41	43	77.6	1.4	8	4
	3	●	MPS1-0770S-DIN-C	79	29.9	41	43	77.6	1.4	8	2
	5	□	MPS1-0770L-DIN	91	41.9	53	55	89.6	1.4	8	4
	5	●	MPS1-0770L-DIN-C	91	41.9	53	55	89.6	1.4	8	2
NEW	2	□	MPS1-0770-PC	80	16.6	38.2	38	79	1.2	8	2
	8	●	MPS1-0770-L8C	130	63.2	89	93	128	1.4	8	2
NEW	10	□	MPS1-0770-L10C	145	78.4	105.4	108	144	1.4	8	2
NEW	12	□	MPS1-0770-L12C	161	93.8	121.4	124	160	1.4	8	2
NEW	15	□	MPS1-0770-L15C	185	116.9	145.4	148	184	1.4	8	2
NEW	20	□	MPS1-0770-L20C	225	155.4	185.4	188	224	1.4	8	2
NEW	25	□	MPS1-0770-L25C	265	193.9	225.4	228	264	1.4	8	2
NEW	30	□	MPS1-0770-L30C	305	232.4	265.4	268	304	1.4	8	2
NEW	35	□	MPS1-0770-L35C	344	270.9	305.4	307	343	1.4	8	2
NEW	40	□	MPS1-0770-L40C	379	309.4	341.4	342	378	1.4	8	2
7.8	3	□	MPS1-0780S-DIN	79	29.7	41	43	77.6	1.4	8	4
	3	●	MPS1-0780S-DIN-C	79	29.7	41	43	77.6	1.4	8	2
	5	□	MPS1-0780L-DIN	91	41.7	53	55	89.6	1.4	8	4
	5	●	MPS1-0780L-DIN-C	91	41.7	53	55	89.6	1.4	8	2
NEW	2	□	MPS1-0780-PC	80	16.8	38.2	38	79	1.2	8	2
	8	●	MPS1-0780-L8C	130	64	89	93	128	1.4	8	2
NEW	10	□	MPS1-0780-L10C	145	79.4	105.4	108	144	1.4	8	2
NEW	12	□	MPS1-0780-L12C	161	95	121.4	124	160	1.4	8	2
NEW	15	□	MPS1-0780-L15C	185	118.4	145.4	148	184	1.4	8	2
NEW	20	□	MPS1-0780-L20C	225	157.4	185.4	188	224	1.4	8	2
NEW	25	□	MPS1-0780-L25C	265	196.4	225.4	228	264	1.4	8	2
NEW	30	□	MPS1-0780-L30C	305	235.4	265.4	268	304	1.4	8	2
NEW	35	□	MPS1-0780-L35C	344	274.4	305.4	307	343	1.4	8	2
NEW	40	□	MPS1-0780-L40C	379	313.4	341.4	342	378	1.4	8	2
7.9	3	□	MPS1-0790S-DIN	79	29.6	41	43	77.6	1.4	8	4
	3	●	MPS1-0790S-DIN-C	79	29.6	41	43	77.6	1.4	8	2
	5	□	MPS1-0790L-DIN	91	41.6	53	55	89.6	1.4	8	4
	5	●	MPS1-0790L-DIN-C	91	41.6	53	55	89.6	1.4	8	2
NEW	2	□	MPS1-0790-PC	80	17	38.2	38	79	1.2	8	2
	8	●	MPS1-0790-L8C	130	64.8	89	93	128	1.4	8	2
NEW	10	□	MPS1-0790-L10C	145	80.4	105.4	108	144	1.4	8	2
NEW	12	□	MPS1-0790-L12C	161	96.2	121.4	124	160	1.4	8	2
NEW	15	□	MPS1-0790-L15C	185	119.9	145.4	148	184	1.4	8	2
NEW	20	□	MPS1-0790-L20C	225	159.4	185.4	188	224	1.4	8	2
NEW	25	□	MPS1-0790-L25C	265	198.9	225.4	228	264	1.4	8	2
NEW	30	□	MPS1-0790-L30C	305	238.4	265.4	268	304	1.4	8	2
NEW	35	□	MPS1-0790-L35C	344	277.9	305.4	307	343	1.4	8	2
NEW	40	□	MPS1-0790-L40C	379	317.4	341.4	342	378	1.4	8	2
8.0	3	□	MPS1-0800S-DIN	79	29.5	41	43	77.5	1.5	8	4
	3	●	MPS1-0800S-DIN-C	79	29.5	41	43	77.5	1.5	8	2
	5	□	MPS1-0800L-DIN	91	41.5	53	55	89.5	1.5	8	4
	5	●	MPS1-0800L-DIN-C	91	41.5	53	55	89.5	1.5	8	2
NEW	2	●	MPS1-0800-PC	80	17.3	38.3	38	79	1.3	8	2
	8	●	MPS1-0800-L8C	130	65.7	89	93	128	1.5	8	2
NEW	10	□	MPS1-0800-L10C	145	81.5	105.5	108	144	1.5	8	2
NEW	12	●	MPS1-0800-L12C	161	97.5	121.5	124	160	1.5	8	2
NEW	15	●	MPS1-0800-L15C	185	121.5	145.5	148	184	1.5	8	2
NEW	20	●	MPS1-0800-L20C	225	161.5	185.5	188	224	1.5	8	2
NEW	25	●	MPS1-0800-L25C	265	201.5	225.5	228	264	1.5	8	2
NEW	30	●	MPS1-0800-L30C	305	241.5	265.5	268	304	1.5	8	2
NEW	35	□	MPS1-0800-L35C	344	281.5	305.5	307	343	1.5	8	2
NEW	40	●	MPS1-0800-L40C	379	321.5	341.5	342	378	1.5	8	2

DC (mm)	Bohrtiefe (l/d)	Lager DP1021	Bestellbezeichnung	Abmessungen (mm) OAL	LU	LCF	LH	LF	PL	DCON	Typ
8.05	3	□	MPS1-0805S-DIN	88	34.4	46	48	86.5	1.5	10	4
	3	●	MPS1-0805S-DIN-C	88	34.4	46	48	86.5	1.5	10	2
	5	□	MPS1-0805L-DIN	102	48.4	60	62	100.5	1.5	10	4
	5	●	MPS1-0805L-DIN-C	102	48.4	60	62	100.5	1.5	10	2
8.1	3	□	MPS1-0810S-DIN	88	34.3	46	48	86.5	1.5	10	4
	3	●	MPS1-0810S-DIN-C	88	34.3	46	48	86.5	1.5	10	2
	5	□	MPS1-0810L-DIN	102	48.3	60	62	100.5	1.5	10	4
	5	●	MPS1-0810L-DIN-C	102	48.3	60	62	100.5	1.5	10	2
NEW	2	□	MPS1-0810-PC	85	17.5	38.3	41	84	1.3	10	2
	8	●	MPS1-0810-L8C	140	66.5	95	99	138	1.5	10	2
NEW	10	□	MPS1-0810-L10C	156	82.5	112.5	115	155	1.5	10	2
NEW	12	□	MPS1-0810-L12C	173	98.7	129.5	132	172	1.5	10	2
NEW	15	□	MPS1-0810-L15C	198	123	154.5	157	197	1.5	10	2
NEW	20	□	MPS1-0810-L20C	241	163.5	197.5	200	240	1.5	10	2
NEW	25	□	MPS1-0810-L25C	283	204	239.5	242	282	1.5	10	2
NEW	30	□	MPS1-0810-L30C	325	244.5	282.5	284	324	1.5	10	2
NEW	35	□	MPS1-0810-L35C	367	285	324.5	326	366	1.5	10	2
NEW	40	□	MPS1-0810-L40C	411	325.5	366.5	370	410	1.5	10	2
8.2	3	□	MPS1-0820S-DIN	88	34.2	46	48	86.5	1.5	10	4
	3	●	MPS1-0820S-DIN-C	88	34.2	46	48	86.5	1.5	10	2
	5	□	MPS1-0820L-DIN	102	48.2	60	62	100.5	1.5	10	4
	5	●	MPS1-0820L-DIN-C	102	48.2	60	62	100.5	1.5	10	2
NEW	2	□	MPS1-0820-PC	85	17.7	38.3	41	84	1.3	10	2
	8	●	MPS1-0820-L8C	140	67.3	95	99	138	1.5	10	2
NEW	10	□	MPS1-0820-L10C	156	83.5	112.5	115	155	1.5	10	2
NEW	12	□	MPS1-0820-L12C	173	99.9	129.5	132	172	1.5	10	2
NEW	15	□	MPS1-0820-L15C	198	124.5	154.5	157	197	1.5	10	2
NEW	20	□	MPS1-0820-L20C	241	165.5	197.5	200	240	1.5	10	2
NEW	25	□	MPS1-0820-L25C	283	206.5	239.5	242	282	1.5	10	2
NEW	30	□	MPS1-0820-L30C	325	247.5	282.5	284	324	1.5	10	2
NEW	35	□	MPS1-0820-L35C	367	288.5	324.5	326	366	1.5	10	2
NEW	40	□	MPS1-0820-L40C	411	329.5	366.5	370	410	1.5	10	2
8.3	3	□	MPS1-0830S-DIN	88	34.1	46	48	86.5	1.5	10	4
	3	●	MPS1-0830S-DIN-C	88	34.1	46	48	86.5	1.5	10	2
	5	□	MPS1-0830L-DIN	102	48.1	60	62	100.5	1.5	10	4
	5	●	MPS1-0830L-DIN-C	102	48.1	60	62	100.5	1.5	10	2
NEW	2	□	MPS1-0830-PC	85	17.9	38.3	41	84	1.3	10	2
	8	●	MPS1-0830-L8C	140	68.1	95	99	138	1.5	10	2
NEW	10	□	MPS1-0830-L10C	157	84.5	112.5	116	155	1.5	10	2
NEW	12	□	MPS1-0830-L12C	174	101.1	129.5	133	172	1.5	10	2
NEW	15	□	MPS1-0830-L15C	199	126	154.5	158	197	1.5	10	2
NEW	20	□	MPS1-0830-L20C	242	167.5	197.5	201	240	1.5	10	2
NEW	25	□	MPS1-0830-L25C	284	209	239.5	243	282	1.5	10	2
NEW	30	□	MPS1-0830-L30C	326	250.5	282.5	285	324	1.5	10	2
NEW	35	□	MPS1-0830-L35C	368	292	324.5	327	366	1.5	10	2
NEW	40	□	MPS1-0830-L40C	412	333.5	366.5	371	410	1.5	10	2

BOHREN

SCHNITTBEDINGUNGEN ➤ L039
ANWENDUNGSHINWEISE ➤ L040
TECHNISCHE DATEN ➤ N001

BOHREN (VOLLHARTMETALL)

MPS1
4-Fasenbohrer

DC (mm)	Bohrtiefe (l/d)	Lager DP1021	Bestellbezeichnung	Abmessungen (mm) OAL	LU	LCF	LH	LF	PL	DCON	Typ
	3	□	MPS1-0840S-DIN	88	33.9	46	48	86.5	1.5	10	4
	3	●	MPS1-0840S-DIN-C	88	33.9	46	48	86.5	1.5	10	2
	5	□	MPS1-0840L-DIN	102	47.9	60	62	100.5	1.5	10	4
	5	●	MPS1-0840L-DIN-C	102	47.9	60	62	100.5	1.5	10	2
	2	□	MPS1-0840-PC	85	18.1	38.3	41	84	1.3	10	2
	8	●	MPS1-0840-L8C	140	68.9	95	99	138	1.5	10	2
	10	□	MPS1-0840-L10C	157	85.5	112.5	116	155	1.5	10	2
8.4	12	□	MPS1-0840-L12C	174	102.3	129.5	133	172	1.5	10	2
	15	□	MPS1-0840-L15C	199	127.5	154.5	158	197	1.5	10	2
	20	□	MPS1-0840-L20C	242	169.5	197.5	201	240	1.5	10	2
	25	□	MPS1-0840-L25C	284	211.5	239.5	243	282	1.5	10	2
	30	□	MPS1-0840-L30C	326	253.5	282.5	285	324	1.5	10	2
	35	□	MPS1-0840-L35C	368	295.5	324.5	327	366	1.5	10	2
	40	□	MPS1-0840-L40C	412	337.5	366.5	371	410	1.5	10	2
	3	□	MPS1-0850S-DIN	88	33.8	46	48	86.5	1.5	10	4
	3	●	MPS1-0850S-DIN-C	88	33.8	46	48	86.5	1.5	10	2
	5	□	MPS1-0850L-DIN	102	47.8	60	62	100.5	1.5	10	4
	5	●	MPS1-0850L-DIN-C	102	47.8	60	62	100.5	1.5	10	2
	2	●	MPS1-0850-PC	85	18.3	38.3	41	84	1.3	10	2
	8	●	MPS1-0850-L8C	140	69.8	95	99	138	1.5	10	2
	10	□	MPS1-0850-L10C	157	86.5	112.5	116	155	1.5	10	2
8.5	12	●	MPS1-0850-L12C	174	103.5	129.5	133	172	1.5	10	2
	15	●	MPS1-0850-L15C	199	129	154.5	158	197	1.5	10	2
	20	●	MPS1-0850-L20C	242	171.5	197.5	201	240	1.5	10	2
	25	●	MPS1-0850-L25C	284	214	239.5	243	282	1.5	10	2
	30	●	MPS1-0850-L30C	326	256.5	282.5	285	324	1.5	10	2
	35	□	MPS1-0850-L35C	368	299	324.5	327	366	1.5	10	2
	40	●	MPS1-0850-L40C	412	341.5	366.5	371	410	1.5	10	2
	3	□	MPS1-0860S-DIN	88	33.7	46	48	86.4	1.6	10	4
	3	●	MPS1-0860S-DIN-C	88	33.7	46	48	86.4	1.6	10	2
	5	□	MPS1-0860L-DIN	102	47.7	60	62	100.4	1.6	10	4
	5	●	MPS1-0860L-DIN-C	102	47.7	60	62	100.4	1.6	10	2
	2	□	MPS1-0860-PC	85	18.6	41.4	43	84	1.4	10	2
	8	●	MPS1-0860-L8C	145	70.6	100	104	143	1.6	10	2
	10	□	MPS1-0860-L10C	163	87.6	118.6	122	161	1.6	10	2
8.6	12	□	MPS1-0860-L12C	181	104.8	136.6	140	179	1.6	10	2
	15	□	MPS1-0860-L15C	208	130.6	163.6	167	206	1.6	10	2
	20	□	MPS1-0860-L20C	253	173.6	208.6	212	251	1.6	10	2
	25	□	MPS1-0860-L25C	298	216.6	253.6	257	296	1.6	10	2
	30	□	MPS1-0860-L30C	342	259.6	298.6	301	340	1.6	10	2
	35	□	MPS1-0860-L35C	387	302.6	343.6	346	385	1.6	10	2
	40	□	MPS1-0860-L40C	436	345.6	391.6	395	434	1.6	10	2
	3	□	MPS1-0870S-DIN	88	33.5	46	48	86.4	1.6	10	4
	3	●	MPS1-0870S-DIN-C	88	33.5	46	48	86.4	1.6	10	2
	5	□	MPS1-0870L-DIN	102	47.5	60	62	100.4	1.6	10	4
	5	●	MPS1-0870L-DIN-C	102	47.5	60	62	100.4	1.6	10	2
	2	□	MPS1-0870-PC	85	18.8	41.4	43	84	1.4	10	2
	8	●	MPS1-0870-L8C	145	71.4	100	104	143	1.6	10	2
	10	□	MPS1-0870-L10C	163	88.6	118.6	122	161	1.6	10	2
8.7	12	□	MPS1-0870-L12C	181	106	136.6	140	179	1.6	10	2
	15	□	MPS1-0870-L15C	208	132.1	163.6	167	206	1.6	10	2
	20	□	MPS1-0870-L20C	253	175.6	208.6	212	251	1.6	10	2
	25	□	MPS1-0870-L25C	298	219.1	253.6	257	296	1.6	10	2
	30	□	MPS1-0870-L30C	342	262.6	298.6	301	340	1.6	10	2
	35	□	MPS1-0870-L35C	387	306.1	343.6	346	385	1.6	10	2
	40	□	MPS1-0870-L40C	436	349.6	391.6	395	434	1.6	10	2
	3	□	MPS1-0880S-DIN	88	33.4	46	48	86.4	1.6	10	4
	3	●	MPS1-0880S-DIN-C	88	33.4	46	48	86.4	1.6	10	2
	5	□	MPS1-0880L-DIN	102	47.4	60	62	100.4	1.6	10	4
	5	●	MPS1-0880L-DIN-C	102	47.4	60	62	100.4	1.6	10	2
	2	□	MPS1-0880-PC	85	19	41.4	43	84	1.4	10	2
	8	●	MPS1-0880-L8C	145	72.2	100	104	143	1.6	10	2
	10	□	MPS1-0880-L10C	163	89.6	118.6	122	161	1.6	10	2
8.8	12	□	MPS1-0880-L12C	181	107.2	136.6	140	179	1.6	10	2
	15	□	MPS1-0880-L15C	208	133.6	163.6	167	206	1.6	10	2
	20	□	MPS1-0880-L20C	253	177.6	208.6	212	251	1.6	10	2
	25	□	MPS1-0880-L25C	298	221.6	253.6	257	296	1.6	10	2
	30	□	MPS1-0880-L30C	342	265.6	298.6	301	340	1.6	10	2
	35	□	MPS1-0880-L35C	387	309.6	343.6	346	385	1.6	10	2
	40	□	MPS1-0880-L40C	436	353.6	391.6	395	434	1.6	10	2
	3	□	MPS1-0890S-DIN	88	33.3	46	48	86.4	1.6	10	4
	3	●	MPS1-0890S-DIN-C	88	33.3	46	48	86.4	1.6	10	2
	5	□	MPS1-0890L-DIN	102	47.3	60	62	100.4	1.6	10	4
	5	●	MPS1-0890L-DIN-C	102	47.3	60	62	100.4	1.6	10	2
	2	□	MPS1-0890-PC	85	19.2	41.4	43	84	1.4	10	2
	8	●	MPS1-0890-L8C	145	73	100	104	143	1.6	10	2
	10	□	MPS1-0890-L10C	163	90.6	118.6	122	161	1.6	10	2
8.9	12	□	MPS1-0890-L12C	181	108.4	136.6	140	179	1.6	10	2
	15	□	MPS1-0890-L15C	208	135.1	163.6	167	206	1.6	10	2
	20	□	MPS1-0890-L20C	253	179.6	208.6	212	251	1.6	10	2
	25	□	MPS1-0890-L25C	298	224.1	253.6	257	296	1.6	10	2
	30	□	MPS1-0890-L30C	342	268.6	298.6	301	340	1.6	10	2
	35	□	MPS1-0890-L35C	387	313.1	343.6	346	385	1.6	10	2
	40	□	MPS1-0890-L40C	436	357.6	391.6	395	434	1.6	10	2
	3	□	MPS1-0900S-DIN	88	33.1	46	48	86.4	1.6	10	4
	3	●	MPS1-0900S-DIN-C	88	33.1	46	48	86.4	1.6	10	2
	5	□	MPS1-0900L-DIN	102	47.1	60	62	100.4	1.6	10	4
	5	●	MPS1-0900L-DIN-C	102	47.1	60	62	100.4	1.6	10	2
	2	●	MPS1-0900-PC	85	19.4	41.4	43	84	1.4	10	2
	8	●	MPS1-0900-L8C	145	73.9	100	104	143	1.6	10	2
	10	□	MPS1-0900-L10C	163	91.6	118.6	122	161	1.6	10	2
9.0	12	●	MPS1-0900-L12C	181	109.6	136.6	140	179	1.6	10	2
	15	●	MPS1-0900-L15C	208	136.6	163.6	167	206	1.6	10	2
	20	●	MPS1-0900-L20C	253	181.6	208.6	212	251	1.6	10	2
	25	●	MPS1-0900-L25C	298	226.6	253.6	257	296	1.6	10	2
	30	●	MPS1-0900-L30C	342	271.6	298.6	301	340	1.6	10	2
	35	□	MPS1-0900-L35C	387	316.6	343.6	346	385	1.6	10	2
	40	●	MPS1-0900-L40C	436	361.6	391.6	395	434	1.6	10	2
	3	□	MPS1-0910S-DIN	89	33.0	47	49	87.3	1.7	10	4
	3	●	MPS1-0910S-DIN-C	89	33.0	47	49	87.3	1.7	10	2
	5	□	MPS1-0910L-DIN	103	47.0	62	63	101.3	1.7	10	4
	5	●	MPS1-0910L-DIN-C	103	47.0	62	63	101.3	1.7	10	2
	2	□	MPS1-0910-PC	90	19.6	41.4	44	89	1.4	10	2
	8	●	MPS1-0910-L8C	151	74.7	107	110	149	1.7	10	2
	10	□	MPS1-0910-L10C	170	92.7	125.7	129	168	1.7	10	2
9.1	12	□	MPS1-0910-L12C	189	110.9	144.7	148	187	1.7	10	2
	15	□	MPS1-0910-L15C	217	138.2	172.7	176	215	1.7	10	2
	20	□	MPS1-0910-L20C	265	183.7	220.7	224	263	1.7	10	2
	25	□	MPS1-0910-L25C	312	229.2	267.7	271	310	1.7	10	2
	30	□	MPS1-0910-L30C	360	274.7	315.7	319	358	1.7	10	2
	35	□	MPS1-0910-L35C	406	320.2	362.7	365	404	1.7	10	2

● : Lagerstandard. □ : Nichtstandard, Herstellung nur auf Anfrage.

DC (mm)	Bohrtiefe (l/d)	Lager DP1021	Bestellbezeichnung	Abmessungen (mm) OAL	LU	LCF	LH	LF	PL	DCON	Typ
	3	□	MPS1-0920S-DIN	89	32.9	47	49	87.3	1.7	10	4
	3	●	MPS1-0920S-DIN-C	89	32.9	47	49	87.3	1.7	10	2
	5	□	MPS1-0920L-DIN	103	46.9	62	63	101.3	1.7	10	4
	5	●	MPS1-0920L-DIN-C	103	46.9	62	63	101.3	1.7	10	2
NEW	2	□	MPS1-0920-PC	90	19.9	41.5	44	89	1.5	10	2
	8	●	MPS1-0920-L8C	151	75.5	107	110	149	1.7	10	2
NEW 9.2	10	□	MPS1-0920-L10C	170	93.7	125.7	129	168	1.7	10	2
NEW	12	□	MPS1-0920-L12C	189	112.1	144.7	148	187	1.7	10	2
NEW	15	□	MPS1-0920-L15C	217	139.7	172.7	176	215	1.7	10	2
NEW	20	□	MPS1-0920-L20C	265	185.7	220.7	224	263	1.7	10	2
NEW	25	□	MPS1-0920-L25C	312	231.7	267.7	271	310	1.7	10	2
NEW	30	□	MPS1-0920-L30C	360	277.7	315.7	319	358	1.7	10	2
NEW	35	□	MPS1-0920-L35C	406	323.7	362.7	365	404	1.7	10	2
	3	□	MPS1-0930S-DIN	89	32.7	47	49	87.3	1.7	10	4
	3	●	MPS1-0930S-DIN-C	89	32.7	47	49	87.3	1.7	10	2
	5	□	MPS1-0930L-DIN	103	46.7	62	63	101.3	1.7	10	4
	5	●	MPS1-0930L-DIN-C	103	46.7	62	63	101.3	1.7	10	2
NEW	2	□	MPS1-0930-PC	90	20.1	41.5	44	89	1.5	10	2
	8	●	MPS1-0930-L8C	151	76.3	107	110	149	1.7	10	2
NEW 9.3	10	□	MPS1-0930-L10C	170	94.7	125.7	129	168	1.7	10	2
NEW	12	□	MPS1-0930-L12C	189	113.3	144.7	148	187	1.7	10	2
NEW	15	□	MPS1-0930-L15C	217	141.2	172.7	176	215	1.7	10	2
NEW	20	□	MPS1-0930-L20C	265	187.7	220.7	224	263	1.7	10	2
NEW	25	□	MPS1-0930-L25C	312	234.2	267.7	271	310	1.7	10	2
NEW	30	□	MPS1-0930-L30C	360	280.7	315.7	319	358	1.7	10	2
NEW	35	□	MPS1-0930-L35C	406	327.2	362.7	365	404	1.7	10	2
	3	□	MPS1-0940S-DIN	89	32.6	47	49	87.3	1.7	10	4
	3	●	MPS1-0940S-DIN-C	89	32.6	47	49	87.3	1.7	10	2
	5	□	MPS1-0940L-DIN	103	46.6	62	63	101.3	1.7	10	4
	5	●	MPS1-0940L-DIN-C	103	46.6	62	63	101.3	1.7	10	2
NEW	2	□	MPS1-0940-PC	90	20.3	41.5	44	89	1.5	10	2
	8	●	MPS1-0940-L8C	151	77.1	107	110	149	1.7	10	2
NEW 9.4	10	□	MPS1-0940-L10C	170	95.7	125.7	129	168	1.7	10	2
NEW	12	□	MPS1-0940-L12C	189	114.5	144.7	148	187	1.7	10	2
NEW	15	□	MPS1-0940-L15C	216	142.7	172.7	175	215	1.7	10	2
NEW	20	□	MPS1-0940-L20C	264	189.7	220.7	223	263	1.7	10	2
NEW	25	□	MPS1-0940-L25C	311	236.7	267.7	270	310	1.7	10	2
NEW	30	□	MPS1-0940-L30C	359	283.7	315.7	318	358	1.7	10	2
NEW	35	□	MPS1-0940-L35C	406	330.7	362.7	365	404	1.7	10	2
	3	□	MPS1-0950S-DIN	89	32.5	47	49	87.3	1.7	10	4
	3	●	MPS1-0950S-DIN-C	89	32.5	47	49	87.3	1.7	10	2
	5	□	MPS1-0950L-DIN	103	46.5	62	63	101.3	1.7	10	4
	5	●	MPS1-0950L-DIN-C	103	46.5	62	63	101.3	1.7	10	2
NEW	2	●	MPS1-0950-PC	90	20.5	41.5	44	89	1.5	10	2
	8	●	MPS1-0950-L8C	151	78	107	110	149	1.7	10	2
NEW 9.5	10	□	MPS1-0950-L10C	169	96.7	125.7	128	168	1.7	10	2
NEW	12	●	MPS1-0950-L12C	188	115.7	144.7	147	187	1.7	10	2
NEW	15	●	MPS1-0950-L15C	216	144.2	172.7	175	215	1.7	10	2
NEW	20	●	MPS1-0950-L20C	265	191.7	220.7	224	263	1.7	10	2
NEW	25	●	MPS1-0950-L25C	311	239.2	267.7	270	310	1.7	10	2
NEW	30	●	MPS1-0950-L30C	359	286.7	315.7	318	358	1.7	10	2
NEW	35	□	MPS1-0950-L35C	405	334.2	362.7	364	404	1.7	10	2

DC (mm)	Bohrtiefe (l/d)	Lager DP1021	Bestellbezeichnung	Abmessungen (mm) OAL	LU	LCF	LH	LF	PL	DCON	Typ
	3	□	MPS1-0960S-DIN	89	32.3	47	49	87.3	1.7	10	4
	3	●	MPS1-0960S-DIN-C	89	32.3	47	49	87.3	1.7	10	2
	5	□	MPS1-0960L-DIN	103	46.3	62	63	101.3	1.7	10	4
	5	●	MPS1-0960L-DIN-C	103	46.3	62	63	101.3	1.7	10	2
NEW	2	□	MPS1-0960-PC	90	20.7	44.5	44	89	1.5	10	2
	8	●	MPS1-0960-L8C	156	78.8	112	115	154	1.7	10	2
NEW 9.6	10	□	MPS1-0960-L10C	176	97.7	131.7	135	174	1.7	10	2
NEW	12	□	MPS1-0960-L12C	195	116.9	151.7	154	194	1.7	10	2
NEW	15	□	MPS1-0960-L15C	225	145.7	181.7	184	224	1.7	10	2
NEW	20	□	MPS1-0960-L20C	275	193.7	231.7	234	274	1.7	10	2
NEW	25	□	MPS1-0960-L25C	325	241.7	281.7	284	324	1.7	10	2
NEW	30	□	MPS1-0960-L30C	375	289.7	331.7	334	374	1.7	10	2
NEW	35	□	MPS1-0960-L35C	424	337.7	381.7	383	423	1.7	10	2
	3	□	MPS1-0970S-DIN	89	32.2	47	49	87.2	1.8	10	4
	3	●	MPS1-0970S-DIN-C	89	32.2	47	49	87.2	1.8	10	2
	5	□	MPS1-0970L-DIN	103	46.2	62	63	101.2	1.8	10	4
	5	●	MPS1-0970L-DIN-C	103	46.2	62	63	101.2	1.8	10	2
NEW	2	□	MPS1-0970-PC	90	20.9	44.5	44	89	1.5	10	2
	8	●	MPS1-0970-L8C	156	79.6	112	115	154	1.8	10	2
NEW 9.7	10	□	MPS1-0970-L10C	175	98.8	131.8	134	174	1.8	10	2
NEW	12	□	MPS1-0970-L12C	195	118.2	151.8	154	194	1.8	10	2
NEW	15	□	MPS1-0970-L15C	225	147.3	181.8	184	224	1.8	10	2
NEW	20	□	MPS1-0970-L20C	275	195.8	231.8	234	274	1.8	10	2
NEW	25	□	MPS1-0970-L25C	325	244.3	281.8	284	324	1.8	10	2
NEW	30	□	MPS1-0970-L30C	376	292.8	331.8	335	374	1.8	10	2
NEW	35	□	MPS1-0970-L35C	425	341.3	381.8	384	423	1.8	10	2
	3	□	MPS1-0980S-DIN	89	32.1	47	49	87.2	1.8	10	4
	3	●	MPS1-0980S-DIN-C	89	32.1	47	49	87.2	1.8	10	2
	5	□	MPS1-0980L-DIN	103	46.1	62	63	101.2	1.8	10	4
	5	●	MPS1-0980L-DIN-C	103	46.1	62	63	101.2	1.8	10	2
NEW	2	□	MPS1-0980-PC	91	21.1	44.5	45	89	1.5	10	2
	8	●	MPS1-0980-L8C	156	80.4	112	115	154	1.8	10	2
NEW 9.8	10	□	MPS1-0980-L10C	176	99.8	131.8	135	174	1.8	10	2
NEW	12	□	MPS1-0980-L12C	196	119.4	151.8	155	194	1.8	10	2
NEW	15	□	MPS1-0980-L15C	226	148.8	181.8	185	224	1.8	10	2
NEW	20	□	MPS1-0980-L20C	276	197.8	231.8	235	274	1.8	10	2
NEW	25	□	MPS1-0980-L25C	326	246.8	281.8	285	324	1.8	10	2
NEW	30	□	MPS1-0980-L30C	376	295.8	331.8	335	374	1.8	10	2
NEW	35	□	MPS1-0980-L35C	425	344.8	381.8	384	423	1.8	10	2
	3	□	MPS1-0990S-DIN	89	32.0	47	49	87.2	1.8	10	4
	3	●	MPS1-0990S-DIN-C	89	32.0	47	49	87.2	1.8	10	2
	5	□	MPS1-0990L-DIN	103	46.0	62	63	101.2	1.8	10	4
	5	●	MPS1-0990L-DIN-C	103	46.0	62	63	101.2	1.8	10	2
NEW	2	□	MPS1-0990-PC	91	21.4	44.6	45	89	1.6	10	2
	8	●	MPS1-0990-L8C	156	81.3	112	115	154	1.8	10	2
NEW 9.9	10	□	MPS1-0990-L10C	176	100.8	131.8	135	174	1.8	10	2
NEW	12	□	MPS1-0990-L12C	196	120.6	151.8	155	194	1.8	10	2
NEW	15	□	MPS1-0990-L15C	226	150.3	181.8	185	224	1.8	10	2
NEW	20	□	MPS1-0990-L20C	276	199.8	231.8	235	274	1.8	10	2
NEW	25	□	MPS1-0990-L25C	326	249.3	281.8	285	324	1.8	10	2
NEW	30	□	MPS1-0990-L30C	376	298.8	331.8	335	374	1.8	10	2
NEW	35	□	MPS1-0990-L35C	425	348.3	381.8	384	423	1.8	10	2

SCHNITTBEDINGUNGEN ➤ L039
ANWENDUNGSHINWEISE ➤ L040
TECHNISCHE DATEN ➤ N001

BOHREN (VOLLHARTMETALL)

MPS1
4-Fasenbohrer

DC (mm)	Bohrtiefe (l/d)	Lager DP1021	Bestellbezeichnung	Abmessungen (mm) OAL	LU	LCF	LH	LF	PL	DCON	Typ
	3	□	MPS1-1000S-DIN	89	31.8	47	49	87.2	1.8	10	4
	3	●	MPS1-1000S-DIN-C	89	31.8	47	49	87.2	1.8	10	2
	5	□	MPS1-1000L-DIN	103	45.8	62	63	101.2	1.8	10	4
	5	●	MPS1-1000L-DIN-C	103	45.8	62	63	101.2	1.8	10	2
NEW	2	□	MPS1-1000-PC	91	21.6	44.6	45	89	1.6	10	2
	8	●	MPS1-1000-L8C	156	82.1	112	115	154	1.8	10	2
NEW 10.0	10	□	MPS1-1000-L10C	176	101.8	131.8	135	174	1.8	10	2
NEW	12	●	MPS1-1000-L12C	196	121.8	151.8	155	194	1.8	10	2
NEW	15	●	MPS1-1000-L15C	226	151.8	181.8	185	224	1.8	10	2
NEW	20	●	MPS1-1000-L20C	276	201.8	231.8	235	274	1.8	10	2
NEW	25	●	MPS1-1000-L25C	326	251.8	281.8	285	324	1.8	10	2
NEW	30	●	MPS1-1000-L30C	376	301.8	331.8	335	374	1.8	10	2
NEW	35	□	MPS1-1000-L35C	425	351.8	381.8	384	423	1.8	10	2
	3	□	MPS1-1005S-DIN	102	39.8	55	57	100.2	1.8	12	4
	3	●	MPS1-1005S-DIN-C	102	39.8	55	57	100.2	1.8	12	2
10.05	5	□	MPS1-1005L-DIN	118	55.8	71	73	116.2	1.8	12	4
	5	●	MPS1-1005L-DIN-C	118	55.8	71	73	116.2	1.8	12	2
	3	□	MPS1-1010S-DIN	102	39.7	55	57	100.2	1.8	12	4
	3	●	MPS1-1010S-DIN-C	102	39.7	55	57	100.2	1.8	12	2
	5	□	MPS1-1010L-DIN	118	55.7	71	73	116.2	1.8	12	4
	5	●	MPS1-1010L-DIN-C	118	55.7	71	73	116.2	1.8	12	2
NEW	2	□	MPS1-1010-PC	97	21.8	44.6	48	95	1.6	12	2
10.1	8	●	MPS1-1010-L8C	167	82.9	118	121	165	1.8	12	2
NEW	10	□	MPS1-1010-L10C	188	102.8	138.8	142	186	1.8	12	2
NEW	12	□	MPS1-1010-L12C	209	123	159.8	163	207	1.8	12	2
NEW	15	□	MPS1-1010-L15C	240	153.3	190.8	194	238	1.8	12	2
NEW	20	□	MPS1-1010-L20C	293	203.8	243.8	247	291	1.8	12	2
NEW	25	□	MPS1-1010-L25C	345	254.3	295.8	299	343	1.8	12	2
	3	□	MPS1-1020S-DIN	102	39.6	55	57	100.1	1.9	12	4
	3	●	MPS1-1020S-DIN-C	102	39.6	55	57	100.1	1.9	12	2
	5	□	MPS1-1020L-DIN	118	55.6	71	73	116.1	1.9	12	4
	5	●	MPS1-1020L-DIN-C	118	55.6	71	73	116.1	1.9	12	2
NEW	2	□	MPS1-1020-PC	96	22	44.6	47	95	1.6	12	2
10.2	8	●	MPS1-1020-L8C	167	83.7	118	121	165	1.9	12	2
NEW	10	□	MPS1-1020-L10C	187	103.9	138.9	141	186	1.9	12	2
NEW	12	□	MPS1-1020-L12C	208	124.3	159.9	162	207	1.9	12	2
NEW	15	□	MPS1-1020-L15C	239	154.9	190.9	193	238	1.9	12	2
NEW	20	□	MPS1-1020-L20C	292	205.9	243.9	246	291	1.9	12	2
NEW	25	□	MPS1-1020-L25C	344	256.9	295.9	298	343	1.9	12	2
	3	□	MPS1-1030S-DIN	102	39.4	55	57	100.1	1.9	12	4
	3	●	MPS1-1030S-DIN-C	102	39.4	55	57	100.1	1.9	12	2
	5	□	MPS1-1030L-DIN	118	55.4	71	73	116.1	1.9	12	4
	5	●	MPS1-1030L-DIN-C	118	55.4	71	73	116.1	1.9	12	2
NEW	2	□	MPS1-1030-PC	96	22.2	44.6	47	95	1.6	12	2
10.3	8	●	MPS1-1030-L8C	167	84.5	118	121	165	1.9	12	2
NEW	10	□	MPS1-1030-L10C	187	104.9	138.9	141	186	1.9	12	2
NEW	12	□	MPS1-1030-L12C	208	125.5	159.9	162	207	1.9	12	2
NEW	15	□	MPS1-1030-L15C	239	156.4	190.9	193	238	1.9	12	2
NEW	20	□	MPS1-1030-L20C	292	207.9	243.9	246	291	1.9	12	2
NEW	25	□	MPS1-1030-L25C	344	259.4	295.9	298	343	1.9	12	2

DC (mm)	Bohrtiefe (l/d)	Lager DP1021	Bestellbezeichnung	Abmessungen (mm) OAL	LU	LCF	LH	LF	PL	DCON	Typ
	3	□	MPS1-1040S-DIN	102	39.3	55	57	100.1	1.9	12	4
	3	●	MPS1-1040S-DIN-C	102	39.3	55	57	100.1	1.9	12	2
	5	□	MPS1-1040L-DIN	118	55.3	71	73	116.1	1.9	12	4
	5	●	MPS1-1040L-DIN-C	118	55.3	71	73	116.1	1.9	12	2
NEW	2	□	MPS1-1040-PC	96	22.4	44.6	47	95	1.6	12	2
10.4	8	●	MPS1-1040-L8C	167	85.4	118	121	165	1.9	12	2
NEW	10	□	MPS1-1040-L10C	187	105.9	138.9	141	186	1.9	12	2
NEW	12	□	MPS1-1040-L12C	208	126.7	159.9	162	207	1.9	12	2
NEW	15	□	MPS1-1040-L15C	239	157.9	190.9	193	238	1.9	12	2
NEW	20	□	MPS1-1040-L20C	292	209.9	243.9	246	291	1.9	12	2
NEW	25	□	MPS1-1040-L25C	344	261.9	295.9	298	343	1.9	12	2
	3	□	MPS1-1050S-DIN	102	39.2	55	57	100.1	1.9	12	4
	3	●	MPS1-1050S-DIN-C	102	39.2	55	57	100.1	1.9	12	2
	5	□	MPS1-1050L-DIN	118	55.2	71	73	116.1	1.9	12	4
	5	●	MPS1-1050L-DIN-C	118	55.2	71	73	116.1	1.9	12	2
NEW	2	□	MPS1-1050-PC	96	22.7	44.7	47	95	1.7	12	2
10.5	8	●	MPS1-1050-L8C	167	86.2	118	121	165	1.9	12	2
NEW	10	□	MPS1-1050-L10C	187	106.9	138.9	141	186	1.9	12	2
NEW	12	□	MPS1-1050-L12C	208	127.9	159.9	162	207	1.9	12	2
NEW	15	□	MPS1-1050-L15C	239	159.4	190.9	193	238	1.9	12	2
NEW	20	□	MPS1-1050-L20C	292	211.9	243.9	246	291	1.9	12	2
NEW	25	□	MPS1-1050-L25C	344	264.4	295.9	298	343	1.9	12	2
	3	□	MPS1-1060S-DIN	102	39.0	55	57	100.1	1.9	12	4
	3	●	MPS1-1060S-DIN-C	102	39.0	55	57	100.1	1.9	12	2
	5	□	MPS1-1060L-DIN	118	55.0	71	73	116.1	1.9	12	4
	5	●	MPS1-1060L-DIN-C	118	55.0	71	73	116.1	1.9	12	2
NEW	2	□	MPS1-1060-PC	96	22.9	48.7	49	95	1.7	12	2
10.6	8	●	MPS1-1060-L8C	172	87.0	123	126	170	1.9	12	2
NEW	10	□	MPS1-1060-L10C	193	107.9	144.9	147	192	1.9	12	2
NEW	12	□	MPS1-1060-L12C	215	129.1	166.9	169	214	1.9	12	2
NEW	15	□	MPS1-1060-L15C	248	160.9	199.9	202	247	1.9	12	2
NEW	20	□	MPS1-1060-L20C	303	213.9	254.9	257	302	1.9	12	2
NEW	25	□	MPS1-1060-L25C	358	266.9	309.9	312	357	1.9	12	2
	3	□	MPS1-1070S-DIN	102	38.9	55	57	100.1	1.9	12	4
	3	●	MPS1-1070S-DIN-C	102	38.9	55	57	100.1	1.9	12	2
	5	□	MPS1-1070L-DIN	118	54.9	71	73	116.1	1.9	12	4
	5	●	MPS1-1070L-DIN-C	118	54.9	71	73	116.1	1.9	12	2
NEW	2	□	MPS1-1070-PC	96	23.1	48.7	49	95	1.7	12	2
10.7	8	●	MPS1-1070-L8C	172	87.8	123	126	170	1.9	12	2
NEW	10	□	MPS1-1070-L10C	193	108.9	144.9	147	192	1.9	12	2
NEW	12	□	MPS1-1070-L12C	215	130.3	166.9	169	214	1.9	12	2
NEW	15	□	MPS1-1070-L15C	248	162.4	199.9	202	247	1.9	12	2
NEW	20	□	MPS1-1070-L20C	303	215.9	254.9	257	302	1.9	12	2
NEW	25	□	MPS1-1070-L25C	358	269.4	309.9	312	357	1.9	12	2
	3	□	MPS1-1080S-DIN	102	38.8	55	57	100	2	12	4
	3	●	MPS1-1080S-DIN-C	102	38.8	55	57	100	2	12	2
	5	□	MPS1-1080L-DIN	118	54.8	71	73	116	2	12	4
	5	●	MPS1-1080L-DIN-C	118	54.8	71	73	116	2	12	2
NEW	2	□	MPS1-1080-PC	96	23.3	48.7	49	95	1.7	12	2
10.8	8	●	MPS1-1080-L8C	172	88.6	123	126	170	2	12	2
NEW	10	□	MPS1-1080-L10C	193	110	145	147	192	2	12	2
NEW	12	□	MPS1-1080-L12C	215	131.6	167	169	214	2	12	2
NEW	15	□	MPS1-1080-L15C	248	164	200	202	247	2	12	2
NEW	20	□	MPS1-1080-L20C	303	218	255	257	302	2	12	2
NEW	25	□	MPS1-1080-L25C	358	272	310	312	357	2	12	2

● : Lagerstandard. □ : Nichtstandard, Herstellung nur auf Anfrage.

DC (mm)	Bohrtiefe (l/d)	Lager DP1021	Bestellbezeichnung	Abmessungen (mm) OAL	LU	LCF	LH	LF	PL	DCON	Typ
	3	□	MPS1-1090S-DIN	102	38.6	55	57	100	2	12	4
	3	●	MPS1-1090S-DIN-C	102	38.6	55	57	100	2	12	2
	5	□	MPS1-1090L-DIN	118	54.6	71	73	116	2	12	4
	5	●	MPS1-1090L-DIN-C	118	54.6	71	73	116	2	12	2
NEW	2	□	MPS1-1090-PC	96	23.5	48.7	49	95	1.7	12	2
10.9	8	●	MPS1-1090-L8C	172	89.5	123	126	170	2	12	2
NEW	10	□	MPS1-1090-L10C	193	111	145	147	192	2	12	2
NEW	12	□	MPS1-1090-L12C	215	132.8	167	169	214	2	12	2
NEW	15	□	MPS1-1090-L15C	248	165.5	200	202	247	2	12	2
NEW	20	□	MPS1-1090-L20C	303	220	255	257	302	2	12	2
NEW	25	□	MPS1-1090-L25C	358	274.5	310	312	357	2	12	2
	3	□	MPS1-1100S-DIN	102	38.5	55	57	100	2	12	4
	3	●	MPS1-1100S-DIN-C	102	38.5	55	57	100	2	12	2
	5	□	MPS1-1100L-DIN	118	54.5	71	73	116	2	12	4
	5	●	MPS1-1100L-DIN-C	118	54.5	71	73	116	2	12	2
NEW	2	□	MPS1-1100-PC	96	23.7	48.7	49	95	1.7	12	2
11.0	8	●	MPS1-1100-L8C	172	90.3	123	126	170	2	12	2
NEW	10	□	MPS1-1100-L10C	194	112	145	148	192	2	12	2
NEW	12	□	MPS1-1100-L12C	216	134	167	170	214	2	12	2
NEW	15	□	MPS1-1100-L15C	249	167	200	203	247	2	12	2
NEW	20	□	MPS1-1100-L20C	304	222	255	258	302	2	12	2
NEW	25	□	MPS1-1100-L25C	359	277	310	313	357	2	12	2
	3	□	MPS1-1110S-DIN	102	38.4	55	57	100	2	12	4
	3	●	MPS1-1110S-DIN-C	102	38.4	55	57	100	2	12	2
	5	□	MPS1-1110L-DIN	118	54.4	71	73	116	2	12	4
	5	●	MPS1-1110L-DIN-C	118	54.4	71	73	116	2	12	2
NEW	2	□	MPS1-1110-PC	96	23.9	48.7	51	95	1.7	12	2
11.1	8	●	MPS1-1110-L8C	178	91.1	129	132	176	2	12	2
NEW	10	□	MPS1-1110-L10C	201	113	152	155	199	2	12	2
NEW	12	□	MPS1-1110-L12C	224	135.2	175	178	222	2	12	2
NEW	15	□	MPS1-1110-L15C	258	168.5	209	212	256	2	12	2
NEW	20	□	MPS1-1110-L20C	316	224	267	270	314	2	12	2
NEW	25	□	MPS1-1110-L25C	373	279.5	324	327	371	2	12	2
	3	□	MPS1-1120S-DIN	102	38.2	55	57	100	2	12	4
	3	●	MPS1-1120S-DIN-C	102	38.2	55	57	100	2	12	2
	5	□	MPS1-1120L-DIN	118	54.2	71	73	116	2	12	4
	5	●	MPS1-1120L-DIN-C	118	54.2	71	73	116	2	12	2
NEW	2	□	MPS1-1120-PC	96	24.2	48.8	51	95	1.8	12	2
11.2	8	●	MPS1-1120-L8C	178	91.9	129	132	176	2	12	2
NEW	10	□	MPS1-1120-L10C	201	114	152	155	199	2	12	2
NEW	12	□	MPS1-1120-L12C	224	136.4	175	178	222	2	12	2
NEW	15	□	MPS1-1120-L15C	258	170	209	212	256	2	12	2
NEW	20	□	MPS1-1120-L20C	316	226	267	270	314	2	12	2
NEW	25	□	MPS1-1120-L25C	373	282	324	327	371	2	12	2
	3	□	MPS1-1130S-DIN	102	38.1	55	57	99.9	2.1	12	4
	3	●	MPS1-1130S-DIN-C	102	38.1	55	57	99.9	2.1	12	2
	5	□	MPS1-1130L-DIN	118	54.1	71	73	115.9	2.1	12	4
	5	●	MPS1-1130L-DIN-C	118	54.1	71	73	115.9	2.1	12	2
NEW	2	□	MPS1-1130-PC	96	24.4	48.8	51	95	1.8	12	2
11.3	8	●	MPS1-1130-L8C	178	92.7	129	132	176	2.1	12	2
NEW	10	□	MPS1-1130-L10C	201	115.1	152.1	155	199	2.1	12	2
NEW	12	□	MPS1-1130-L12C	224	137.7	175.1	178	222	2.1	12	2
NEW	15	□	MPS1-1130-L15C	258	171.6	209.1	212	256	2.1	12	2
NEW	20	□	MPS1-1130-L20C	316	228.1	267.1	270	314	2.1	12	2
NEW	25	□	MPS1-1130-L25C	373	284.6	324.1	327	371	2.1	12	2

DC (mm)	Bohrtiefe (l/d)	Lager DP1021	Bestellbezeichnung	Abmessungen (mm) OAL	LU	LCF	LH	LF	PL	DCON	Typ
	3	□	MPS1-1140S-DIN	102	38.0	55	57	99.9	2.1	12	4
	3	●	MPS1-1140S-DIN-C	102	38.0	55	57	99.9	2.1	12	2
	5	□	MPS1-1140L-DIN	118	54.0	71	73	115.9	2.1	12	4
	5	●	MPS1-1140L-DIN-C	118	54.0	71	73	115.9	2.1	12	2
NEW	2	□	MPS1-1140-PC	96	24.6	48.8	51	95	1.8	12	2
11.4	8	●	MPS1-1140-L8C	178	93.6	129	132	176	2.1	12	2
NEW	10	□	MPS1-1140-L10C	201	116.1	152.1	155	199	2.1	12	2
NEW	12	□	MPS1-1140-L12C	224	138.9	175.1	178	222	2.1	12	2
NEW	15	□	MPS1-1140-L15C	258	173.1	209.1	212	256	2.1	12	2
NEW	20	□	MPS1-1140-L20C	316	230.1	267.1	270	314	2.1	12	2
NEW	25	□	MPS1-1140-L25C	373	287.1	324.1	327	371	2.1	12	2
	3	□	MPS1-1150S-DIN	102	37.8	55	57	99.9	2.1	12	4
	3	●	MPS1-1150S-DIN-C	102	37.8	55	57	99.9	2.1	12	2
	5	□	MPS1-1150L-DIN	118	53.8	71	73	115.9	2.1	12	4
	5	●	MPS1-1150L-DIN-C	118	53.8	71	73	115.9	2.1	12	2
NEW	2	□	MPS1-1150-PC	96	24.8	48.8	51	95	1.8	12	2
11.5	8	●	MPS1-1150-L8C	178	94.4	129	132	176	2.1	12	2
NEW	10	□	MPS1-1150-L10C	201	117.1	152.1	155	199	2.1	12	2
NEW	12	□	MPS1-1150-L12C	224	140.1	175.1	178	222	2.1	12	2
NEW	15	□	MPS1-1150-L15C	258	174.6	209.1	212	256	2.1	12	2
NEW	20	□	MPS1-1150-L20C	316	232.1	267.1	270	314	2.1	12	2
NEW	25	□	MPS1-1150-L25C	373	289.6	324.1	327	371	2.1	12	2
	3	□	MPS1-1160S-DIN	102	37.7	55	57	99.9	2.1	12	4
	3	●	MPS1-1160S-DIN-C	102	37.7	55	57	99.9	2.1	12	2
	5	□	MPS1-1160L-DIN	118	53.7	71	73	115.9	2.1	12	4
	5	●	MPS1-1160L-DIN-C	118	53.7	71	73	115.9	2.1	12	2
NEW	2	□	MPS1-1160-PC	96	25	48.8	48	95	1.8	12	2
11.6	8	●	MPS1-1160-L8C	183	95.2	134	137	181	2.1	12	2
NEW	10	□	MPS1-1160-L10C	207	118.1	158.1	161	205	2.1	12	2
NEW	12	□	MPS1-1160-L12C	231	141.3	182.1	185	229	2.1	12	2
NEW	15	□	MPS1-1160-L15C	267	176.1	218.1	221	265	2.1	12	2
NEW	20	□	MPS1-1160-L20C	327	234.1	278.1	281	325	2.1	12	2
NEW	25	□	MPS1-1160-L25C	387	292.1	338.1	341	385	2.1	12	2
	3	□	MPS1-1170S-DIN	102	37.6	55	57	99.9	2.1	12	4
	3	●	MPS1-1170S-DIN-C	102	37.6	55	57	99.9	2.1	12	2
	5	□	MPS1-1170L-DIN	118	53.6	71	73	115.9	2.1	12	4
	5	●	MPS1-1170L-DIN-C	118	53.6	71	73	115.9	2.1	12	2
NEW	2	□	MPS1-1170-PC	96	25.2	48.8	48	95	1.8	12	2
11.7	8	●	MPS1-1170-L8C	183	96.0	134	137	181	2.1	12	2
NEW	10	□	MPS1-1170-L10C	207	119.1	158.1	161	205	2.1	12	2
NEW	12	□	MPS1-1170-L12C	231	142.5	182.1	185	229	2.1	12	2
NEW	15	□	MPS1-1170-L15C	267	177.6	218.1	221	265	2.1	12	2
NEW	20	□	MPS1-1170-L20C	327	236.1	278.1	281	325	2.1	12	2
NEW	25	□	MPS1-1170-L25C	387	294.6	338.1	341	385	2.1	12	2
	3	□	MPS1-1180S-DIN	102	37.4	55	57	99.9	2.1	12	4
	3	●	MPS1-1180S-DIN-C	102	37.4	55	57	99.9	2.1	12	2
	5	□	MPS1-1180L-DIN	118	53.4	71	73	115.9	2.1	12	4
	5	●	MPS1-1180L-DIN-C	118	53.4	71	73	115.9	2.1	12	2
NEW	2	□	MPS1-1180-PC	96	25.5	48.9	48	95	1.9	12	2
11.8	8	●	MPS1-1180-L8C	183	96.8	134	137	181	2.1	12	2
NEW	10	□	MPS1-1180-L10C	207	120.1	158.1	161	205	2.1	12	2
NEW	12	□	MPS1-1180-L12C	231	143.7	182.1	185	229	2.1	12	2
NEW	15	□	MPS1-1180-L15C	267	179.1	218.1	221	265	2.1	12	2
NEW	20	□	MPS1-1180-L20C	327	238.1	278.1	281	325	2.1	12	2
NEW	25	□	MPS1-1180-L25C	387	297.1	338.1	341	385	2.1	12	2

SCHNITTBEDINGUNGEN ➤ L039
ANWENDUNGSHINWEISE ➤ L040
TECHNISCHE DATEN ➤ N001

BOHREN (VOLLHARTMETALL)

MPS1
4-Fasenbohrer

DC (mm)	Bohrtiefe (l/d)	Lager DP1021	Bestellbezeichnung	Abmessungen (mm) OAL	LU	LCF	LH	LF	PL	DCON	Typ
	3	□	MPS1-1190S-DIN	102	37.3	55	57	99.8	2.2	12	4
	3	●	MPS1-1190S-DIN-C	102	37.3	55	57	99.8	2.2	12	2
	5	□	MPS1-1190L-DIN	118	53.3	71	73	115.8	2.2	12	4
	5	●	MPS1-1190L-DIN-C	118	53.3	71	73	115.8	2.2	12	2
NEW	2	□	MPS1-1190-PC	96	25.7	48.9	48	95	1.9	12	2
11.9	8	●	MPS1-1190-L8C	183	97.7	134	137	181	2.2	12	2
NEW	10	□	MPS1-1190-L10C	207	121.2	158.2	161	205	2.2	12	2
NEW	12	□	MPS1-1190-L12C	231	145	182.2	185	229	2.2	12	2
NEW	15	□	MPS1-1190-L15C	267	180.7	218.2	221	265	2.2	12	2
NEW	20	□	MPS1-1190-L20C	327	240.2	278.2	281	325	2.2	12	2
NEW	25	□	MPS1-1190-L25C	387	299.7	338.2	341	385	2.2	12	2
	3	□	MPS1-1200S-DIN	102	37.2	55	57	99.8	2.2	12	4
	3	●	MPS1-1200S-DIN-C	102	37.2	55	57	99.8	2.2	12	2
	5	□	MPS1-1200L-DIN	118	53.2	71	73	115.8	2.2	12	4
	5	●	MPS1-1200L-DIN-C	118	53.2	71	73	115.8	2.2	12	2
NEW	2	□	MPS1-1200-PC	96	25.9	48.9	48	95	1.9	12	2
12.0	8	●	MPS1-1200-L8C	183	98.5	134	137	181	2.2	12	2
NEW	10	□	MPS1-1200-L10C	207	122.2	158.2	161	205	2.2	12	2
NEW	12	□	MPS1-1200-L12C	231	146.2	182.2	185	229	2.2	12	2
NEW	15	□	MPS1-1200-L15C	267	182.2	218.2	221	265	2.2	12	2
NEW	20	□	MPS1-1200-L20C	327	242.2	278.2	281	325	2.2	12	2
NEW	25	□	MPS1-1200-L25C	387	302.2	338.2	341	385	2.2	12	2
	3	□	MPS1-1205S-DIN	107	42.1	60	62	104.8	2.2	14	4
12.05	3	●	MPS1-1205S-DIN-C	107	42.1	60	62	104.8	2.2	14	2
	5	□	MPS1-1205L-DIN	124	59.1	77	79	121.8	2.2	14	4
	5	●	MPS1-1205L-DIN-C	124	59.1	77	79	121.8	2.2	14	2
	3	□	MPS1-1210S-DIN	107	42.1	60	62	104.8	2.2	14	4
	3	●	MPS1-1210S-DIN-C	107	42.1	60	62	104.8	2.2	14	2
	5	□	MPS1-1210L-DIN	124	59.1	77	79	121.8	2.2	14	4
	5	●	MPS1-1210L-DIN-C	124	59.1	77	79	121.8	2.2	14	2
NEW	2	□	MPS1-1210-PC	103	26.1	52.9	55	102	1.9	14	2
12.1	8	●	MPS1-1210-L8C	190	99.3	140	144	187	2.2	14	2
NEW	10	□	MPS1-1210-L10C	214	123.2	165.2	168	212	2.2	14	2
NEW	12	□	MPS1-1210-L12C	239	147.4	190.2	193	237	2.2	14	2
NEW	15	□	MPS1-1210-L15C	276	183.7	227.2	230	274	2.2	14	2
NEW	20	□	MPS1-1210-L20C	339	244.2	290.2	293	337	2.2	14	2
	3	□	MPS1-1220S-DIN	107	41.9	60	62	104.8	2.2	14	4
	3	●	MPS1-1220S-DIN-C	107	41.9	60	62	104.8	2.2	14	2
	5	□	MPS1-1220L-DIN	124	58.9	77	79	121.8	2.2	14	4
	5	●	MPS1-1220L-DIN-C	124	58.9	77	79	121.8	2.2	14	2
NEW	2	□	MPS1-1220-PC	103	26.3	52.9	55	102	1.9	14	2
12.2	8	●	MPS1-1220-L8C	190	100.1	140	144	187	2.2	14	2
NEW	10	□	MPS1-1220-L10C	214	124.2	165.2	168	212	2.2	14	2
NEW	12	□	MPS1-1220-L12C	239	148.6	190.2	193	237	2.2	14	2
NEW	15	□	MPS1-1220-L15C	276	185.2	227.2	230	274	2.2	14	2
NEW	20	□	MPS1-1220-L20C	339	246.2	290.2	293	337	2.2	14	2
	3	□	MPS1-1230S-DIN	107	41.8	60	62	104.8	2.2	14	4
	3	●	MPS1-1230S-DIN-C	107	41.8	60	62	104.8	2.2	14	2
	5	□	MPS1-1230L-DIN	124	58.8	77	79	121.8	2.2	14	4
	5	●	MPS1-1230L-DIN-C	124	58.8	77	79	121.8	2.2	14	2
NEW	2	□	MPS1-1230-PC	103	26.5	52.9	55	102	1.9	14	2
12.3	8	●	MPS1-1230-L8C	190	100.9	140	144	187	2.2	14	2
NEW	10	□	MPS1-1230-L10C	214	125.2	165.2	168	212	2.2	14	2
NEW	12	□	MPS1-1230-L12C	239	149.8	190.2	193	237	2.2	14	2
NEW	15	□	MPS1-1230-L15C	276	186.7	227.2	230	274	2.2	14	2
NEW	20	□	MPS1-1230-L20C	339	248.2	290.2	293	337	2.2	14	2

DC (mm)	Bohrtiefe (l/d)	Lager DP1021	Bestellbezeichnung	Abmessungen (mm) OAL	LU	LCF	LH	LF	PL	DCON	Typ
	3	□	MPS1-1240S-DIN	107	41.7	60	62	104.7	2.3	14	4
	3	●	MPS1-1240S-DIN-C	107	41.7	60	62	104.7	2.3	14	2
	5	□	MPS1-1240L-DIN	124	58.7	77	79	121.7	2.3	14	4
	5	●	MPS1-1240L-DIN-C	124	58.7	77	79	121.7	2.3	14	2
NEW	2	□	MPS1-1240-PC	103	26.8	53	55	102	2	14	2
12.4	8	●	MPS1-1240-L8C	190	101.8	140	144	187	2.3	14	2
NEW	10	□	MPS1-1240-L10C	214	126.3	165.3	168	212	2.3	14	2
NEW	12	□	MPS1-1240-L12C	239	151.1	190.3	193	237	2.3	14	2
NEW	15	□	MPS1-1240-L15C	276	188.3	227.3	230	274	2.3	14	2
NEW	20	□	MPS1-1240-L20C	339	250.3	290.3	293	337	2.3	14	2
	3	□	MPS1-1250S-DIN	107	41.5	60	62	104.7	2.3	14	4
	3	●	MPS1-1250S-DIN-C	107	41.5	60	62	104.7	2.3	14	2
	5	□	MPS1-1250L-DIN	124	58.5	77	79	121.7	2.3	14	4
	5	●	MPS1-1250L-DIN-C	124	58.5	77	79	121.7	2.3	14	2
NEW	2	□	MPS1-1250-PC	103	27	53	55	102	2	14	2
12.5	8	●	MPS1-1250-L8C	190	102.6	140	144	187	2.3	14	2
NEW	10	□	MPS1-1250-L10C	214	127.3	165.3	168	212	2.3	14	2
NEW	12	□	MPS1-1250-L12C	239	152.3	190.3	193	237	2.3	14	2
NEW	15	□	MPS1-1250-L15C	276	189.8	227.3	230	274	2.3	14	2
NEW	20	□	MPS1-1250-L20C	339	252.3	290.3	293	337	2.3	14	2
	3	□	MPS1-1260S-DIN	107	41.4	60	62	104.7	2.3	14	4
	3	●	MPS1-1260S-DIN-C	107	41.4	60	62	104.7	2.3	14	2
	5	□	MPS1-1260L-DIN	124	58.4	77	79	121.7	2.3	14	4
	5	●	MPS1-1260L-DIN-C	124	58.4	77	79	121.7	2.3	14	2
NEW	2	□	MPS1-1260-PC	103	27.2	53	54	102	2	14	2
12.6	8	●	MPS1-1260-L8C	195	103.4	145	149	192	2.3	14	2
NEW	10	□	MPS1-1260-L10C	220	128.3	171.3	174	218	2.3	14	2
NEW	12	□	MPS1-1260-L12C	246	153.5	197.3	200	244	2.3	14	2
NEW	15	□	MPS1-1260-L15C	285	191.3	236.3	239	283	2.3	14	2
NEW	20	□	MPS1-1260-L20C	350	254.3	301.3	304	348	2.3	14	2
	3	□	MPS1-1270S-DIN	107	41.3	60	62	104.7	2.3	14	4
	3	●	MPS1-1270S-DIN-C	107	41.3	60	62	104.7	2.3	14	2
	5	□	MPS1-1270L-DIN	124	58.3	77	79	121.7	2.3	14	4
	5	●	MPS1-1270L-DIN-C	124	58.3	77	79	121.7	2.3	14	2
NEW	2	□	MPS1-1270-PC	104	27.4	53	55	102	2	14	2
12.7	8	●	MPS1-1270-L8C	195	104.2	145	149	192	2.3	14	2
NEW	10	□	MPS1-1270-L10C	220	129.3	171.3	174	218	2.3	14	2
NEW	12	□	MPS1-1270-L12C	246	154.7	197.3	200	244	2.3	14	2
NEW	15	□	MPS1-1270-L15C	285	192.8	236.3	239	283	2.3	14	2
NEW	20	□	MPS1-1270-L20C	350	256.3	301.3	304	348	2.3	14	2
	3	□	MPS1-1280S-DIN	107	41.1	60	62	104.7	2.3	14	4
	3	●	MPS1-1280S-DIN-C	107	41.1	60	62	104.7	2.3	14	2
	5	□	MPS1-1280L-DIN	124	58.1	77	79	121.7	2.3	14	4
	5	●	MPS1-1280L-DIN-C	124	58.1	77	79	121.7	2.3	14	2
NEW	2	□	MPS1-1280-PC	104	27.6	53	55	102	2	14	2
12.8	8	●	MPS1-1280-L8C	195	105.1	145	149	192	2.3	14	2
NEW	10	□	MPS1-1280-L10C	220	130.3	171.3	174	218	2.3	14	2
NEW	12	□	MPS1-1280-L12C	246	155.9	197.3	200	244	2.3	14	2
NEW	15	□	MPS1-1280-L15C	285	194.3	236.3	239	283	2.3	14	2
NEW	20	□	MPS1-1280-L20C	350	258.3	301.3	304	348	2.3	14	2

● : Lagerstandard. □ : Nichtstandard, Herstellung nur auf Anfrage.

DC (mm)	Bohrtiefe (l/d)	Lager DP1021	Bestellbezeichnung	Abmessungen (mm) OAL	LU	LCF	LH	LF	PL	DCON	Typ
12.9	3	□	MPS1-1290S-DIN	107	41.0	60	62	104.7	2.3	14	4
	3	●	MPS1-1290S-DIN-C	107	41.0	60	62	104.7	2.3	14	2
	5	□	MPS1-1290L-DIN	124	58.0	77	79	121.7	2.3	14	4
	5	●	MPS1-1290L-DIN-C	124	58.0	77	79	121.7	2.3	14	2
NEW	2	□	MPS1-1290-PC	104	27.8	53	55	102	2	14	2
	8	●	MPS1-1290-L8C	195	105.9	145	149	192	2.3	14	2
NEW	10	□	MPS1-1290-L10C	220	131.3	171.3	174	218	2.3	14	2
NEW	12	□	MPS1-1290-L12C	246	157.1	197.3	200	244	2.3	14	2
NEW	15	□	MPS1-1290-L15C	285	195.8	236.3	239	283	2.3	14	2
NEW	20	□	MPS1-1290-L20C	350	260.3	301.3	304	348	2.3	14	2
13.0	3	□	MPS1-1300S-DIN	107	40.9	60	62	104.6	2.4	14	4
	3	●	MPS1-1300S-DIN-C	107	40.9	60	62	104.6	2.4	14	2
	5	□	MPS1-1300L-DIN	124	57.9	77	79	121.6	2.4	14	4
	5	●	MPS1-1300L-DIN-C	124	57.9	77	79	121.6	2.4	14	2
NEW	2	□	MPS1-1300-PC	104	28	53	55	102	2	14	2
	8	●	MPS1-1300-L8C	195	106.7	145	149	192	2.4	14	2
NEW	10	□	MPS1-1300-L10C	220	132.4	171.4	174	218	2.4	14	2
NEW	12	□	MPS1-1300-L12C	246	158.4	197.4	200	244	2.4	14	2
NEW	15	□	MPS1-1300-L15C	285	197.4	236.4	239	283	2.4	14	2
NEW	20	□	MPS1-1300-L20C	350	262.4	301.4	304	348	2.4	14	2
13.1	3	□	MPS1-1310S-DIN	107	40.7	60	62	104.6	2.4	14	4
	3	●	MPS1-1310S-DIN-C	107	40.7	60	62	104.6	2.4	14	2
	5	□	MPS1-1310L-DIN	124	57.7	77	79	121.6	2.4	14	4
	5	●	MPS1-1310L-DIN-C	124	57.7	77	79	121.6	2.4	14	2
NEW	2	□	MPS1-1310-PC	109	28.3	56.1	59	107	2.1	14	2
	8	●	MPS1-1310-L8C	201	107.5	151	155	198	2.4	14	2
NEW	10	□	MPS1-1310-L10C	227	133.4	178.4	181	225	2.4	14	2
NEW	12	□	MPS1-1310-L12C	254	159.6	205.4	208	252	2.4	14	2
NEW	15	□	MPS1-1310-L15C	294	198.9	245.4	248	292	2.4	14	2
NEW	20	□	MPS1-1310-L20C	362	264.4	313.4	316	360	2.4	14	2
13.2	3	□	MPS1-1320S-DIN	107	40.6	60	62	104.6	2.4	14	4
	3	●	MPS1-1320S-DIN-C	107	40.6	60	62	104.6	2.4	14	2
	5	□	MPS1-1320L-DIN	124	57.6	77	79	121.6	2.4	14	4
	5	●	MPS1-1320L-DIN-C	124	57.6	77	79	121.6	2.4	14	2
NEW	2	□	MPS1-1320-PC	109	28.5	56.1	59	107	2.1	14	2
	8	●	MPS1-1320-L8C	201	108.3	151	155	198	2.4	14	2
NEW	10	□	MPS1-1320-L10C	227	134.4	178.4	181	225	2.4	14	2
NEW	12	□	MPS1-1320-L12C	254	160.8	205.4	208	252	2.4	14	2
NEW	15	□	MPS1-1320-L15C	294	200.4	245.4	248	292	2.4	14	2
NEW	20	□	MPS1-1320-L20C	362	266.4	313.4	316	360	2.4	14	2
13.3	3	□	MPS1-1330S-DIN	107	40.5	60	62	104.6	2.4	14	4
	3	●	MPS1-1330S-DIN-C	107	40.5	60	62	104.6	2.4	14	2
	5	□	MPS1-1330L-DIN	124	57.5	77	79	121.6	2.4	14	4
	5	●	MPS1-1330L-DIN-C	124	57.5	77	79	121.6	2.4	14	2
NEW	2	□	MPS1-1330-PC	109	28.7	56.1	59	107	2.1	14	2
	8	●	MPS1-1330-L8C	201	109.2	151	155	198	2.4	14	2
NEW	10	□	MPS1-1330-L10C	227	135.4	178.4	181	225	2.4	14	2
NEW	12	□	MPS1-1330-L12C	254	162	205.4	208	252	2.4	14	2
NEW	15	□	MPS1-1330-L15C	294	201.9	245.4	248	292	2.4	14	2
NEW	20	□	MPS1-1330-L20C	362	268.4	313.4	316	360	2.4	14	2
13.4	3	□	MPS1-1340S-DIN	107	40.3	60	62	104.6	2.4	14	4
	3	●	MPS1-1340S-DIN-C	107	40.3	60	62	104.6	2.4	14	2
	5	□	MPS1-1340L-DIN	124	57.3	77	79	121.6	2.4	14	4
	5	●	MPS1-1340L-DIN-C	124	57.3	77	79	121.6	2.4	14	2
NEW	2	□	MPS1-1340-PC	109	28.9	56.1	59	107	2.1	14	2
	8	●	MPS1-1340-L8C	201	110.0	151	155	198	2.4	14	2
NEW	10	□	MPS1-1340-L10C	227	136.4	178.4	181	225	2.4	14	2
NEW	12	□	MPS1-1340-L12C	254	163.2	205.4	208	252	2.4	14	2
NEW	15	□	MPS1-1340-L15C	294	203.4	245.4	248	292	2.4	14	2
NEW	20	□	MPS1-1340-L20C	362	270.4	313.4	316	360	2.4	14	2
13.5	3	□	MPS1-1350S-DIN	107	40.2	60	62	104.5	2.5	14	4
	3	●	MPS1-1350S-DIN-C	107	40.2	60	62	104.5	2.5	14	2
	5	□	MPS1-1350L-DIN	124	57.2	77	79	121.5	2.5	14	4
	5	●	MPS1-1350L-DIN-C	124	57.2	77	79	121.5	2.5	14	2
NEW	2	□	MPS1-1350-PC	109	29.1	56.1	59	107	2.1	14	2
	8	●	MPS1-1350-L8C	201	110.8	151	155	198	2.5	14	2
NEW	10	□	MPS1-1350-L10C	227	137.5	178.5	181	225	2.5	14	2
NEW	12	□	MPS1-1350-L12C	254	164.5	205.5	208	252	2.5	14	2
NEW	15	□	MPS1-1350-L15C	294	205	245.5	248	292	2.5	14	2
NEW	20	□	MPS1-1350-L20C	362	272.5	313.5	316	360	2.5	14	2
13.6	3	□	MPS1-1360S-DIN	107	40.1	60	62	104.5	2.5	14	4
	3	●	MPS1-1360S-DIN-C	107	40.1	60	62	104.5	2.5	14	2
	5	□	MPS1-1360L-DIN	124	57.1	77	79	121.5	2.5	14	4
	5	●	MPS1-1360L-DIN-C	124	57.1	77	79	121.5	2.5	14	2
NEW	2	□	MPS1-1360-PC	109	29.3	56.1	56	107	2.1	14	2
	8	●	MPS1-1360-L8C	206	111.6	156	160	203	2.5	14	2
NEW	10	□	MPS1-1360-L10C	233	138.5	184.5	187	231	2.5	14	2
NEW	12	□	MPS1-1360-L12C	261	165.7	212.5	215	259	2.5	14	2
NEW	15	□	MPS1-1360-L15C	303	206.5	254.5	257	301	2.5	14	2
NEW	20	□	MPS1-1360-L20C	373	274.5	324.5	327	371	2.5	14	2
13.7	3	□	MPS1-1370S-DIN	107	39.9	60	62	104.5	2.5	14	4
	3	●	MPS1-1370S-DIN-C	107	39.9	60	62	104.5	2.5	14	2
	5	□	MPS1-1370L-DIN	124	56.9	77	79	121.5	2.5	14	4
	5	●	MPS1-1370L-DIN-C	124	56.9	77	79	121.5	2.5	14	2
NEW	2	□	MPS1-1370-PC	109	29.6	56.2	56	107	2.2	14	2
	8	●	MPS1-1370-L8C	206	112.4	156	160	203	2.5	14	2
NEW	10	□	MPS1-1370-L10C	233	139.5	184.5	187	231	2.5	14	2
NEW	12	□	MPS1-1370-L12C	261	166.9	212.5	215	259	2.5	14	2
NEW	15	□	MPS1-1370-L15C	303	208	254.5	257	301	2.5	14	2
NEW	20	□	MPS1-1370-L20C	373	276.5	324.5	327	371	2.5	14	2
13.8	3	□	MPS1-1380S-DIN	107	39.8	60	62	104.5	2.5	14	4
	3	●	MPS1-1380S-DIN-C	107	39.8	60	62	104.5	2.5	14	2
	5	□	MPS1-1380L-DIN	124	56.8	77	79	121.5	2.5	14	4
	5	●	MPS1-1380L-DIN-C	124	56.8	77	79	121.5	2.5	14	2
NEW	2	□	MPS1-1380-PC	109	29.8	56.2	56	107	2.2	14	2
	8	●	MPS1-1380-L8C	206	113.3	156	160	203	2.5	14	2
NEW	10	□	MPS1-1380-L10C	233	140.5	184.5	187	231	2.5	14	2
NEW	12	□	MPS1-1380-L12C	261	168.1	212.5	215	259	2.5	14	2
NEW	15	□	MPS1-1380-L15C	303	209.5	254.5	257	301	2.5	14	2
NEW	20	□	MPS1-1380-L20C	373	278.5	324.5	327	371	2.5	14	2

SCHNITTBEDINGUNGEN ➤ L039
ANWENDUNGSHINWEISE ➤ L040
TECHNISCHE DATEN ➤ N001

MPS1

4-Fasenbohrer

DC (mm)	Bohrtiefe (l/d)	Lager DP1021	Bestellbezeichnung	Abmessungen (mm) OAL	LU	LCF	LH	LF	PL	DCON	Typ
13.9	3	□	MPS1-1390S-DIN	107	39.7	60	62	104.5	2.5	14	4
	3	●	MPS1-1390S-DIN-C	107	39.7	60	62	104.5	2.5	14	2
	5	□	MPS1-1390L-DIN	124	56.7	77	79	121.5	2.5	14	4
	5	●	MPS1-1390L-DIN-C	124	56.7	77	79	121.5	2.5	14	2
NEW	2	□	MPS1-1390-PC	109	30	56.2	56	107	2.2	14	2
	8	●	MPS1-1390-L8C	206	114.1	156	160	203	2.5	14	2
NEW	10	□	MPS1-1390-L10C	233	141.5	184.5	187	231	2.5	14	2
NEW	12	□	MPS1-1390-L12C	261	169.3	212.5	215	259	2.5	14	2
NEW	15	□	MPS1-1390-L15C	303	211	254.5	257	301	2.5	14	2
NEW	20	□	MPS1-1390-L20C	373	280.5	324.5	327	371	2.5	14	2
14.0	3	□	MPS1-1400S-DIN	107	39.5	60	62	104.5	2.5	14	4
	3	●	MPS1-1400S-DIN-C	107	39.5	60	62	104.5	2.5	14	2
	5	□	MPS1-1400L-DIN	124	56.5	77	79	121.5	2.5	14	4
	5	●	MPS1-1400L-DIN-C	124	56.5	77	79	121.5	2.5	14	2
NEW	2	□	MPS1-1400-PC	109	30.2	56.2	56	107	2.2	14	2
	8	●	MPS1-1400-L8C	206	114.9	156	160	203	2.5	14	2
NEW	10	□	MPS1-1400-L10C	233	142.5	184.5	187	231	2.5	14	2
NEW	12	□	MPS1-1400-L12C	261	170.5	212.5	215	259	2.5	14	2
NEW	15	□	MPS1-1400-L15C	303	212.5	254.5	257	301	2.5	14	2
NEW	20	□	MPS1-1400-L20C	373	282.5	324.5	327	371	2.5	14	2
14.2	3	□	MPS1-1420S-DIN	114	43.3	64	66	111.4	2.6	16	4
	3	●	MPS1-1420S-DIN-C	114	43.3	64	66	111.4	2.6	16	2
	5	□	MPS1-1420L-DIN	132	61.3	82	84	129.4	2.6	16	4
	5	●	MPS1-1420L-DIN-C	132	61.3	82	84	129.4	2.6	16	2
14.5	3	□	MPS1-1450S-DIN	114	42.9	64	66	111.4	2.6	16	4
	3	●	MPS1-1450S-DIN-C	114	42.9	64	66	111.4	2.6	16	2
	5	□	MPS1-1450L-DIN	132	60.9	82	84	129.4	2.6	16	4
	5	●	MPS1-1450L-DIN-C	132	60.9	82	84	129.4	2.6	16	2
15.0	3	□	MPS1-1500S-DIN	114	42.2	64	66	111.3	2.7	16	4
	3	●	MPS1-1500S-DIN-C	114	42.2	64	66	111.3	2.7	16	2
	5	□	MPS1-1500L-DIN	132	60.2	82	84	129.3	2.7	16	4
	5	●	MPS1-1500L-DIN-C	132	60.2	82	84	129.3	2.7	16	2
15.5	3	□	MPS1-1550S-DIN	115	41.6	65	67	112.2	2.8	16	4
	3	●	MPS1-1550S-DIN-C	115	41.6	65	67	112.2	2.8	16	2
	5	□	MPS1-1550L-DIN	133	59.6	83	85	130.2	2.8	16	4
	5	●	MPS1-1550L-DIN-C	133	59.6	83	85	130.2	2.8	16	2
16.0	3	□	MPS1-1600S-DIN	115	40.9	65	67	112.1	2.9	16	4
	3	●	MPS1-1600S-DIN-C	115	40.9	65	67	112.1	2.9	16	2
	5	□	MPS1-1600L-DIN	133	58.9	83	85	130.1	2.9	16	4
	5	●	MPS1-1600L-DIN-C	133	58.9	83	85	130.1	2.9	16	2
16.5	3	□	MPS1-1650S-DIN	123	48.3	73	75	120	3	18	4
	3	●	MPS1-1650S-DIN-C	123	48.3	73	75	120	3	18	2
	5	□	MPS1-1650L-DIN	143	68.3	93	95	140	3	18	4
	5	●	MPS1-1650L-DIN-C	143	68.3	93	95	140	3	18	2
17.0	3	□	MPS1-1700S-DIN	123	47.6	73	75	119.9	3.1	18	4
	3	●	MPS1-1700S-DIN-C	123	47.6	73	75	119.9	3.1	18	2
	5	□	MPS1-1700L-DIN	143	67.6	93	95	139.9	3.1	18	4
	5	●	MPS1-1700L-DIN-C	143	67.6	93	95	139.9	3.1	18	2
17.5	3	□	MPS1-1750S-DIN	123	46.9	73	75	119.8	3.2	18	4
	3	●	MPS1-1750S-DIN-C	123	46.9	73	75	119.8	3.2	18	2
	5	□	MPS1-1750L-DIN	143	66.9	93	95	139.8	3.2	18	4
	5	●	MPS1-1750L-DIN-C	143	66.9	93	95	139.8	3.2	18	2
18.0	3	□	MPS1-1800S-DIN	123	46.3	73	75	119.7	3.3	18	4
	3	●	MPS1-1800S-DIN-C	123	46.3	73	75	119.7	3.3	18	2
	5	□	MPS1-1800L-DIN	143	66.3	93	95	139.7	3.3	18	4
	5	●	MPS1-1800L-DIN-C	143	66.3	93	95	139.7	3.3	18	2
18.5	3	□	MPS1-1850S-DIN	131	51.6	79	81	127.6	3.4	20	4
	3	●	MPS1-1850S-DIN-C	131	51.6	79	81	127.6	3.4	20	2
	5	□	MPS1-1850L-DIN	153	73.6	101	103	149.6	3.4	20	4
	5	●	MPS1-1850L-DIN-C	153	73.6	101	103	149.6	3.4	20	2
19.0	3	□	MPS1-1900S-DIN	131	51.0	79	81	127.5	3.5	20	4
	3	●	MPS1-1900S-DIN-C	131	51.0	79	81	127.5	3.5	20	2
	5	□	MPS1-1900L-DIN	153	73.0	101	103	149.5	3.5	20	4
	5	●	MPS1-1900L-DIN-C	153	73.0	101	103	149.5	3.5	20	2
19.5	3	□	MPS1-1950S-DIN	131	50.3	79	81	127.5	3.5	20	4
	3	●	MPS1-1950S-DIN-C	131	50.3	79	81	127.5	3.5	20	2
	5	□	MPS1-1950L-DIN	153	72.3	101	103	149.5	3.5	20	4
	5	●	MPS1-1950L-DIN-C	153	72.3	101	103	149.5	3.5	20	2
20.0	3	□	MPS1-2000S-DIN	131	49.6	79	81	127.4	3.6	20	4
	3	●	MPS1-2000S-DIN-C	131	49.6	79	81	127.4	3.6	20	2
	5	□	MPS1-2000L-DIN	153	71.6	101	103	149.4	3.6	20	4
	5	●	MPS1-2000L-DIN-C	153	71.6	101	103	149.4	3.6	20	2

● : Lagerstandard. □ : Nichtstandard, Herstellung nur auf Anfrage.

SCHNITTDATENEMPFEHLUNGEN

MPS1 (3xD – 40xD)

DC	L x DC		P			M	K		
			Allg. Baustahl, C-Stahl, Leg. Stahl			Rostfreier Stahl	Guss		
			≤ 180 HB	180–250 HB	280–350 HB		≤ 350 MPa	≤ 450 MPa	≤ 800 MPa
3	3–8	Vc m/min	100 (60–150)	90 (60–140)	80 (50–110)	40 (20–50)	90 (60–100)	80 (50–90)	60 (40–80)
		f mm/U.	0.15 (0.1–0.2)	0.15 (0.1–0.19)	0.12 (0.1–0.14)	0.08 (0.06–0.12)	0.15 (0.1–0.2)	0.12 (0.08–0.16)	0.09 (0.06–0.12)
	10–25	Vc m/min	90 (40–110)	90 (40–110)	80 (40–90)	40 (20–60)	90 (40–110)	90 (40–110)	—
		f mm/U.	0.17 (0.1–0.24)	0.17 (0.1–0.24)	0.15 (0.09–0.22)	0.07 (0.05–0.09)	0.19 (0.11–0.26)	0.17 (0.1–0.24)	—
	30–40	Vc m/min	75 (40–95)	75 (40–85)	65 (40–75)	30 (20–50)	75 (45–95)	30 (20–50)	—
		f mm/U.	0.14 (0.08–0.19)	0.14 (0.08–0.19)	0.15 (0.07–0.18)	0.06 (0.04–0.07)	0.15 (0.09–0.21)	0.14 (0.08–0.19)	—
4	3–8	Vc m/min	120 (70–170)	100 (70–160)	90 (60–120)	40 (30–50)	100 (70–110)	90 (60–100)	70 (50–90)
		f mm/U.	0.19 (0.12–0.25)	0.18 (0.12–0.24)	0.15 (0.12–0.18)	0.09 (0.07–0.13)	0.21 (0.12–0.3)	0.17 (0.1–0.24)	0.13 (0.08–0.18)
	10–25	Vc m/min	90 (40–110)	90 (40–110)	80 (40–90)	40 (20–60)	90 (40–110)	90 (40–110)	—
		f mm/U.	0.2 (0.12–0.3)	0.2 (0.12–0.3)	0.18 (0.11–0.27)	0.08 (0.06–0.1)	0.22(0.13–0.33)	0.2 (0.12–0.3)	—
	30–40	Vc m/min	75 (40–95)	75 (40–85)	65 (40–75)	30 (20–50)	75 (45–95)	30 (20–50)	—
		f mm/U.	0.16 (0.1–0.24)	0.16 (0.1–0.24)	0.18 (0.09–0.22)	0.06 (0.05–0.08)	0.18 (0.1–0.26)	0.16 (0.1–0.24)	—
5	3–8	Vc m/min	130 (80–190)	110 (80–180)	90 (70–140)	40 (30–50)	110 (80–130)	90 (70–120)	70 (60–100)
		f mm/U.	0.23 (0.15–0.3)	0.22 (0.15–0.29)	0.19 (0.15–0.22)	0.11 (0.08–0.16)	0.25 (0.15–0.35)	0.21 (0.14–0.28)	0.17 (0.12–0.22)
	10–25	Vc m/min	90 (40–110)	90 (40–110)	80 (40–90)	40 (20–60)	90 (40–110)	90 (40–110)	—
		f mm/U.	0.25 (0.15–0.35)	0.25 (0.15–0.35)	0.22 (0.14–0.32)	0.1 (0.07–0.12)	0.28 (0.17–0.39)	0.25 (0.15–0.35)	—
	30–40	Vc m/min	75 (40–95)	75 (40–85)	65 (40–75)	30 (20–50)	75 (45–95)	30 (20–50)	—
		f mm/U.	0.2 (0.12–0.28)	0.2 (0.12–0.28)	0.22 (0.11–0.26)	0.08 (0.06–0.1)	0.22 (0.13–0.31)	0.2 (0.12–0.28)	—
6	3–8	Vc m/min	140 (90–210)	120 (90–190)	100 (80–150)	50 (40–70)	120 (90–140)	100 (80–130)	80 (70–110)
		f mm/U.	0.27 (0.18–0.35)	0.26 (0.18–0.33)	0.22 (0.18–0.25)	0.14 (0.11–0.18)	0.29 (0.18–0.4)	0.25 (0.16–0.34)	0.2 (014–0.26)
	10–25	Vc m/min	110 (70–120)	100 (60–110)	90 (40–110)	50 (20–60)	100 (60–110)	100 (60–110)	—
		f mm/U.	0.27 (0.17–0.37)	0.24 (0.15–0.33)	0.24 (0.15–0.33)	0.12 (0.08–0.16)	0.3 (0.19–0.41)	0.27 (0.17–0.37)	—
	30–40	Vc m/min	90 (40–110)	80 (40–90)	75 (40–85)	40 (20–60)	90 (60–110)	40 (30–60)	—
		f mm/U.	0.22 (0.14–0.3)	0.22 (0.14–0.3)	0.24 (0.12–0.26)	0.1 (0.06–0.13)	0.24 (0.15–0.33)	0.22 (0.14–0.3)	—
8	3–8	Vc m/min	160 (100–240)	140 (100–220)	120 (90–170)	50 (40–70)	140 (100–160)	120 (90–150)	100 (80–130)
		f mm/U.	0.3 (0.2–0.4)	0.29 (0.2–0.38)	0.24 (0.2–0.27)	0.15 (0.12–0.2)	0.33 (0.2–0.45)	0.28 (0.18–0.38)	0.23 (0.16–0.3)
	10–25	Vc m/min	110 (70–120)	100 (60–110)	90 (40–110)	50 (20–60)	100 (60–110)	100 (60–110)	—
		f mm/U.	0.3 (0.2–0.4)	0.3 (0.2–0.4)	0.27 (0.18–0.36)	0.14 (0.1–0.17)	0.33 (0.22–0.44)	0.3 (0.2–0.4)	—
	30–40	Vc m/min	90 (40–110)	80 (40–90)	75 (40–85)	40 (20–50)	90 (60–100)	40 (30–60)	—
		f mm/U.	0.24 (0.16–0.32)	0.24 (0.16–0.32)	0.27 (0.14–0.29)	0.11 (0.08–0.14)	0.26 (0.18–0.35)	0.24 (0.16–0.32)	—
10	3–8	Vc m/min	170 (100–250)	150 (100–230)	130 (90–180)	50 (40–70)	150 (100–170)	130 (90–160)	110 (80–140)
		f mm/U.	0.33 (0.2–0.45)	0.32 (0.2–0.43)	0.25 (0.2–0.3)	0.16 (0.12–0.22)	0.35 (0.2–0.5)	0.29 (0.18–0.4)	0.24 (0.16–0.32)
	10–25	Vc m/min	110 (70–120)	100 (60–110)	90 (40–110)	50 (20–60)	100 (60–110)	100 (60–110)	—
		f mm/U.	0.32 (0.22–0.42)	0.32 (0.22–0.42)	0.29 (0.2–0.38)	0.15 (0.12–0.18)	0.35 (0.24–0.46)	0.32 (0.22–0.42)	—
	30–40	Vc m/min	90 (40–110)	80 (40–90)	75 (40–95)	40 (20–50)	90 (60–100)	40 (30–60)	—
		f mm/U.	0.26 (0.18–0.34)	0.26 (0.18–0.34)	0.29 (0.16–0.3)	0.12 (0.1–0.14)	0.28 (0.19–0.37)	0.26 (0.18–0.34)	—
12	3–8	Vc m/min	180 (100–250)	160 (100–230)	140 (90–180)	50 (40–70)	160 (100–170)	140 (90–160)	110 (80–140)
		f mm/U.	0.35 (0.2–0.5)	0.34 (0.2–0.48)	0.27 (0.2–0.34)	0.18 (0.14–0.24)	0.4 (0.2–0.6)	0.31 (0.18–0.44)	0.25 (0.16–0.34)
	10–25	Vc m/min	130 (90–150)	120 (80–140)	100 (60–110)	60 (25–65)	120 (90–140)	120 (90–140)	—
		f mm/U.	0.34 (0.24–0.44)	0.34 (0.24–0.44)	0.3 (0.22–0.4)	0.17 (0.14–0.19)	0.37 (0.26–0.48)	0.34 (0.24–0.44)	—
	30–40	Vc m/min	105 (55–125)	95 (55–105)	80 (40–100)	50 (20–60)	105 (65–115)	50 (40–70)	—
		f mm/U.	0.27 (0.19–0.35)	0.27 (0.19–0.35)	0.3 (0.18–0.32)	0.14 (0.11–0.15)	0.3 (0.21–0.38)	0.27 (0.19–0.35)	—
16	3–8	Vc m/min	180 (100–250)	160 (100–230)	140 (90–180)	50 (40–70)	160 (100–170)	140 (90–160)	110 (80–140)
		f mm/U.	0.38 (0.2–0.55)	0.36 (0.2–0.52)	0.28 (0.2–0.36)	0.19 (0.15–0.26)	0.43 (0.2–0..65)	0.33 (0.18–0.48)	0.27 (0.16–0.38)
	10–25	Vc m/min	130 (90–150)	120 (80–140)	100 (60–110)	60 (25–65)	120 (90–140)	120 (90–140)	—
		f mm/U.	0.36 (0.26–0.46)	0.36 (0.26–0.46)	0.32 (0.23–0.41)	0.17 (0.14–0.19)	0.4 (0.29–0.48)	0.36 (0.26–0.46)	—
20	3–8	Vc m/min	180 (100–250)	160 (100–230)	140 (90–180)	50 (40–70)	160 (100–170)	140 (90–160)	110 (80–140)
		f mm/U.	0.4 (0.2–0.6)	0.39 (0.2–0.57)	0.3 (0.2–0.4)	0.21 (0.16–0.28)	0.45 (0.2–0.7)	0.35 (0.18–0.52)	0.28 (0.16–0.4)

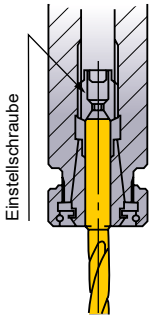
ANWENDUNGSHINWEISE ➤ L040
TECHNISCHE DATEN ➤ N001

BOHREN (VOLLHARTMETALL)

MPS1
4-Fasenbohrer

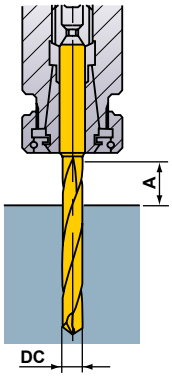
BEDIENHINWEISE FÜR MPS1-LANGBOHRER

Bohrer Aufnahme



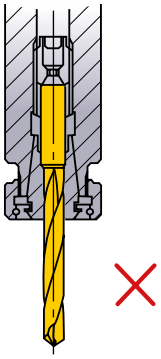
Präzisionsspannzangen können verwendet werden.

Max. Bohrtiefe



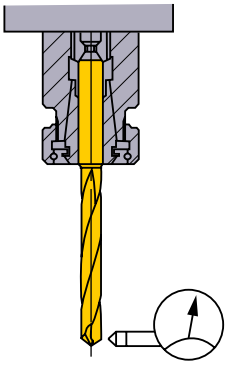
A ≥ DC x 1.5

Bohrer Einstellung



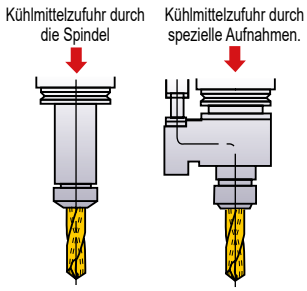
Nicht auf den Nuten spannen.

Rundlauftoleranz



Rundlaufabweichung ≤0.03mm

Interne Kühlmittelzufuhr



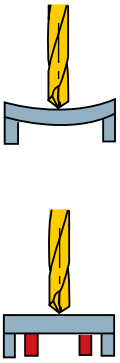
Kühlmitteldruck liegt bei etwa: 5—10 bar (<ϕ5:2—30 bar).

Handling mit Kühlmittel

1) Kleine Partikel können die Kühlmittelbohrungen verstopfen. Verwenden Sie daher bitte einen Kühlmittelfilter.

2) Stark verschmutztes Kühlmittel reduziert den Spänefluss. Wir empfehlen ein regelmäßiges Wechseln des Kühlmittels. Bitte prüfen Sie eine einwandfreie Kühlmittelzufuhr!

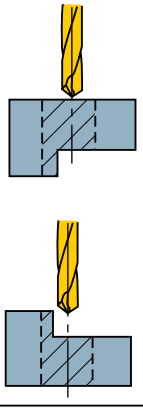
Dünne Werkstücke



× Wenn Werkstücke verbiegen…

○ unterstützen Sie diese.

Unterbrochene Bearbeitung



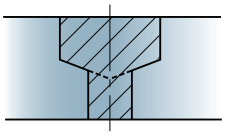
Ohne Vorbearbeitung

○ ①Reduzieren Sie den Vorschub an der unterbrochenen Stelle.

Benötigt Vorbearbeitung

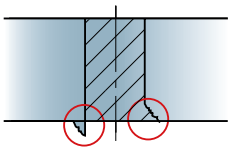
△ ①Planen Sie die Fläche mit einem Fräser vorab.

Stufenbohrungen



①Geteilt in 2 Prozesse.
②Bohren Sie das größere Loch zuerst.
*Auf Anfrage bieten wir auch Stufenboher an, die Stufenbohrungen in einem Prozess herstellen können.

Gratbildung oder Ausbrüche am Werkstück



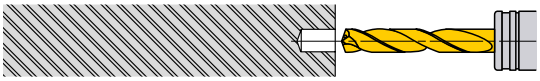
①Reduzieren Sie den Vorschub um ca. 50% beim Austritt.
②Schleifen Sie eine 45° Fase an den Bohrer.
③Tauschen Sie den Bohrer durch einen anderen mit größerem Spitzenwinkel.

TECHNISCHE DATEN ➢ N001

VERWENDUNG VON SUPER LONG BOHRERN

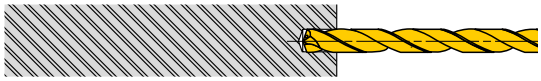
●Sacklochbohrung setzen

1. Pilotbohrung setzen



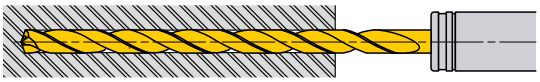
①Für die Pilotbohrungen empfehlen wir den Einsatz von Mitsubishi Bohrern Typ MPS1 (PC).
②Bitte stellen Sie eine präzise Pilotbohrung her, um einen einwandfreien Prozess beim Tieflochbohren zu gewährleisten.
③Pilotbohrung : Min. 1 x DC oder tiefer.
(Passen Sie die Tiefe der Pilotbohrung der Länge Ihres SuperLong Bohrers an)

2. Einfahren in die Pilotbohrung



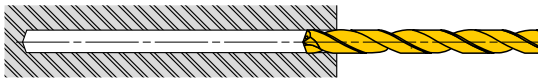
①Mit niedriger Drehzahl in das Führungsloch eindringen.
(Schnittgeschwindigkeit 20－30m/min, Vorschub 0.2－0.3mm/U)
②Langbohrer 1－3mm vor dem Boden des Führungslochs stoppen.

3. Tieflochbohren



①Erhöhen Sie die Drehzahl und den Vorschub auf einen Zyklus und bohren Sie bis zur gewünschten Bohrtiefe.

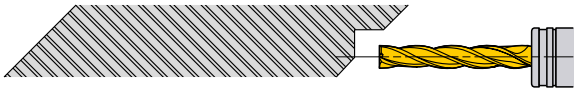
4. Herausfahren des Bohrers



①Nach dem Bohren Schnittgeschwindigkeit etwa 1－2mm vom Bohrungsende entfernt reduzieren (Schnittgeschwindigkeit 20－30m/min.)
②Fahren Sie den Bohrer bis zur Tiefe der Pilotbohrung heraus (Vf=3000mm/min.)
③Fahren Sie den Bohrer aus der Pilotbohrung mit geringer Drehzahl (n=300, Vf=3000mm/min)

●Bohrungen in angewinkelten Werkstücken

1. Planfräsen



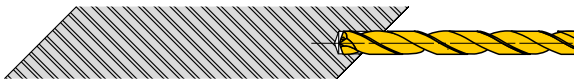
①Fräsen Sie eine ebene Fläche in das Werkstück und setzen Sie einen Fräser mit gleichem Durchmesser wie die gewünschte Bohrung ein.

2. Pilotbohrung setzen



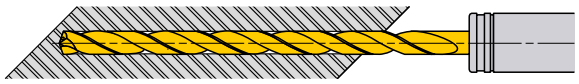
①Für die Pilotbohrungen empfehlen wir den Einsatz von Mitsubishi Bohrern Typ MPS1 (PC).
②Bitte stellen Sie eine präzise Pilotbohrung her, um einen einwandfreien Prozess beim Tieflochbohren zu gewährleisten.
③Pilotbohrung : Min. 1 x DC oder tiefer.
(Passen Sie die Tiefe der Pilotbohrung der Länge Ihres SuperLong Bohrers an)

3. Einfahren in die Pilotbohrung



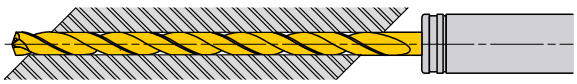
①Mit niedriger Drehzahl in das Führungsloch eindringen.
(Schnittgeschwindigkeit 20－30m/min, Vorschub 0.2－0.3mm/U)
②Langbohrer 1－3mm vor dem Boden des Führungslochs stoppen.

4. Tieflochbohren



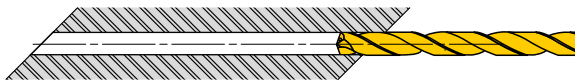
①Erhöhen Sie die Drehzahl und den Vorschub auf einen Zyklus und bohren Sie bis zur gewünschten Bohrtiefe.
②Vorschub bis vor dem Durchbruch beibehalten.

5. Durchgangsbohren



①Beim Austritt aus dem Werkstück kann die Schneidkante des Bohrers ausbrechen.
②Reduzieren Sie den Vorschub auf Vf=0.05mm－0.1mm/U

6. Herausfahren des Bohrers



①Bohrer auf Pilotbohrung-Startpunkttiefe herausziehen bei einem Vorschub von 3000mm/min.
②Dann Bohrung mit einer Schnittgeschwindigkeit von 20－30m/min und einem Vorschub von 0.2－0.3mm/U bearbeiten.

BOHREN (VOLLHARTMETALL)

MPS
4-Fasenbohrer

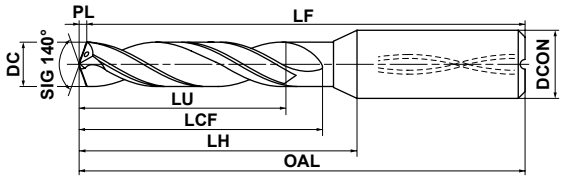
- Für Bohrtiefen von l/d3—l/d40.
- VHM-Bohrer mit 4 Führungsfasen für hohe Bohrlochqualitäten.
- Alle Bohrer mit interner Kühlmittelzufuhr.

P M K N S H



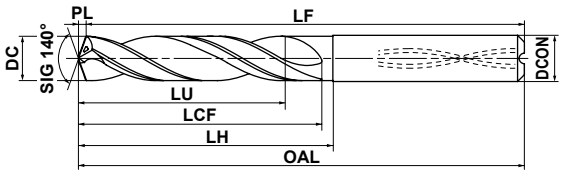
	3≤D1≤6	6<D1≤10	10<D1≤18	18<D1≤20
DIN-Typ	+0.010 −0.002	+0.010 −0.005	+0.005 −0.013	+0.005 −0.016
Andere	0 −0.012	0 −0.015	0 −0.018	0 −0.021
h6	0 −0.008	0 −0.009	0 −0.011	0 −0.013

●Typ 1 Zylinderschaft mit konischem Hinterschliff



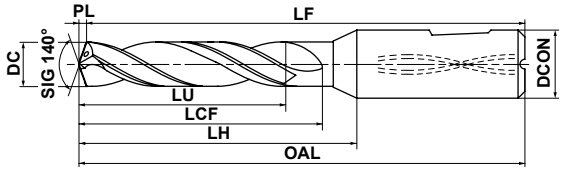
MPS----S/L-DIN-C

●Typ 2 Zylinderschaft



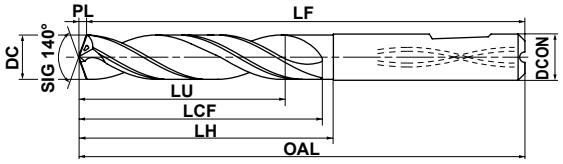
MPS----S/L-DIN-C

●Typ 3 Whistle Notch Schaft mit konischem Hinterschliff



MPS----S/L-DIN (Weldon)

●Typ 4 Whistle Notch Schaft



MPS----S/L-DIN (Weldon)

DC (mm)	Bohrtiefe (l/d)	Lager VP15TF		Bestellbezeichnung	Abmessungen (mm) OAL	LU	LCF	LH	LF	PL	DCON	Typ
	3	●		MPS0300S-DIN-C	62	15.0	20	25	61.0	0.5	6	1
	5	●		MPS0300L-DIN-C	66	23.0	28	29	65.0	0.5	6	1
	8	●		MPS0300-L8C	74	24.5	34	37	73.0	0.5	6	1
	10	●		MPS0300-L10C	80	30.5	40	43	79.0	0.5	6	1
	12	●		MPS0300-L12C	86	36.5	46	49	85.0	0.5	6	1
3.0	15	●		MPS0300-L15C	95	45.5	55	58	94.0	0.5	6	1
	20	●		MPS0300-L20C	110	60.5	70	73	109.0	0.5	6	1
	25	●		MPS0300-L25C	125	75.5	85	88	124.0	0.5	6	1
	30	●		MPS0300-L30C	140	90.5	100	103	139.0	0.5	6	1
	35	□		MPS0300-L35C	159	105.5	116	122	158.0	0.5	6	1
	40	●		MPS0300-L40C	174	120.5	131	137	173.0	0.5	6	1
3.05	3	●		MPS0305S-DIN-C	62	15.0	20	25	61.0	0.6	6	1
	5	●		MPS0305L-DIN-C	66	23.0	28	29	65.0	0.6	6	1
	3	●		MPS0310S-DIN-C	62	14.9	20	25	61.0	0.6	6	1
	5	●		MPS0310L-DIN-C	66	22.9	28	29	65.0	0.6	6	1
	8	●		MPS0310-L8C	80	25.4	40	43	79.0	0.6	6	1
	10	□		MPS0310-L10C	87	31.6	47	50	86.0	0.6	6	1
	12	●		MPS0310-L12C	94	37.8	54	57	93.0	0.6	6	1
3.1	15	●		MPS0310-L15C	104	47.1	64	67	103.0	0.6	6	1
	20	□		MPS0310-L20C	122	62.6	82	85	121.0	0.6	6	1
	25	□		MPS0310-L25C	139	78.1	99	102	138.0	0.6	6	1
	30	□		MPS0310-L30C	157	93.6	117	120	156.0	0.6	6	1
	35	□		MPS0310-L35C	176	109.1	126	139	175.0	0.6	6	1
	40	□		MPS0310-L40C	191	124.6	141	154	190.0	0.6	6	1
	3	●		MPS0320S-DIN-C	62	14.8	20	25	61.0	0.6	6	1
	5	●		MPS0320L-DIN-C	66	22.8	28	29	65.0	0.6	6	1
	8	●		MPS0320-L8C	80	26.2	40	43	79.0	0.6	6	1
	10	□		MPS0320-L10C	87	32.6	47	50	86.0	0.6	6	1
	12	●		MPS0320-L12C	94	39.0	54	57	93.0	0.6	6	1
3.2	15	●		MPS0320-L15C	104	48.6	64	67	103.0	0.6	6	1
	20	□		MPS0320-L20C	122	64.6	82	85	121.0	0.6	6	1
	25	□		MPS0320-L25C	139	80.6	99	102	138.0	0.6	6	1
	30	□		MPS0320-L30C	157	96.6	117	120	156.0	0.6	6	1
	35	□		MPS0320-L35C	176	112.6	126	139	175.0	0.6	6	1
	40	□		MPS0320-L40C	191	128.6	141	154	190.0	0.6	6	1

DC (mm)	Bohrtiefe (l/d)	Lager VP15TF		Bestellbezeichnung	Abmessungen (mm) OAL	LU	LCF	LH	LF	PL	DCON	Typ
	3	●		MPS0330S-DIN-C	62	14.7	20	25	61.0	0.6	6	1
	5	●		MPS0330L-DIN-C	66	22.7	28	29	65.0	0.6	6	1
	8	●		MPS0330-L8C	80	27.0	40	43	79.0	0.6	6	1
	10	□		MPS0330-L10C	87	33.6	47	50	86.0	0.6	6	1
	12	●		MPS0330-L12C	94	40.2	54	57	93.0	0.6	6	1
3.3	15	●		MPS0330-L15C	104	50.1	64	67	103.0	0.6	6	1
	20	□		MPS0330-L20C	122	66.6	82	85	121.0	0.6	6	1
	25	□		MPS0330-L25C	139	83.1	99	102	138.0	0.6	6	1
	30	●		MPS0330-L30C	157	99.6	117	120	156.0	0.6	6	1
	35	□		MPS0330-L35C	176	116.1	135	139	175.0	0.6	6	1
	40	□		MPS0330-L40C	191	132.6	151	154	190.0	0.6	6	1
	3	●		MPS0340S-DIN-C	62	14.5	20	25	61.0	0.6	6	1
	5	●		MPS0340L-DIN-C	66	22.5	28	29	65.0	0.6	6	1
	8	●		MPS0340-L8C	80	27.8	40	43	79.0	0.6	6	1
	10	□		MPS0340-L10C	87	34.6	47	50	86.0	0.6	6	1
	12	●		MPS0340-L12C	94	41.4	54	57	93.0	0.6	6	1
3.4	15	●		MPS0340-L15C	104	51.6	64	67	103.0	0.6	6	1
	20	□		MPS0340-L20C	122	68.6	82	85	121.0	0.6	6	1
	25	□		MPS0340-L25C	139	85.6	99	102	138.0	0.6	6	1
	30	□		MPS0340-L30C	157	102.6	117	120	156.0	0.6	6	1
	35	□		MPS0340-L35C	176	119.6	135	139	175.0	0.6	6	1
	40	□		MPS0340-L40C	191	136.6	151	154	190.0	0.6	6	1
	3	●		MPS0350S-DIN-C	62	14.4	20	25	61.0	0.6	6	1
	5	●		MPS0350L-DIN-C	66	22.4	28	29	65.0	0.6	6	1
	8	●		MPS0350-L8C	80	28.6	40	43	79.0	0.6	6	1
	10	□		MPS0350-L10C	87	35.6	47	50	86.0	0.6	6	1
	12	●		MPS0350-L12C	94	42.6	54	57	93.0	0.6	6	1
3.5	15	●		MPS0350-L15C	104	53.1	64	67	103.0	0.6	6	1
	20	●		MPS0350-L20C	122	70.6	82	85	121.0	0.6	6	1
	25	□		MPS0350-L25C	139	88.1	99	102	138.0	0.6	6	1
	30	□		MPS0350-L30C	157	105.6	117	120	156.0	0.6	6	1
	35	□		MPS0350-L35C	176	123.1	135	139	175.0	0.6	6	1
	40	●		MPS0350-L40C	191	140.6	151	154	190.0	0.6	6	1

● : Lagerstandard. □ : Nichtstandard, Herstellung nur auf Anfrage.

DC (mm)	Bohrtiefe (l/d)	Lager VP15TF		Bestellbezeichnung	Abmessungen (mm) OAL	LU	LCF	LH	LF	PL	DCON	Typ
	3	●		MPS0360S-DIN-C	62	14.3	20	25	61.0	0.7	6	1
	5	●		MPS0360L-DIN-C	66	22.3	28	29	65.0	0.7	6	1
	8	●		MPS0360-L8C	85	29.5	45	48	84.0	0.7	6	1
	10	□		MPS0360-L10C	93	36.7	53	56	92.0	0.7	6	1
	12	●		MPS0360-L12C	101	43.9	61	64	100.0	0.7	6	1
3.6	15	●		MPS0360-L15C	113	54.7	73	76	112.0	0.7	6	1
	20	□		MPS0360-L20C	133	72.7	93	96	132.0	0.7	6	1
	25	□		MPS0360-L25C	153	90.7	113	116	152.0	0.7	6	1
	30	□		MPS0360-L30C	173	108.7	133	136	172.0	0.7	6	1
	35	□		MPS0360-L35C	193	126.7	146	156	192.0	0.7	6	1
	40	□		MPS0360-L40C	213	144.7	163	176	212.0	0.7	6	1
	3	●		MPS0370S-DIN-C	62	14.1	20	25	61.0	0.7	6	1
	5	●		MPS0370L-DIN-C	66	22.1	28	29	65.0	0.7	6	1
	8	●		MPS0370-L8C	85	30.3	45	48	84.0	0.7	6	1
	10	□		MPS0370-L10C	93	37.7	53	56	92.0	0.7	6	1
	12	●		MPS0370-L12C	101	45.1	61	64	100.0	0.7	6	1
3.7	15	●		MPS0370-L15C	113	56.2	73	76	112.0	0.7	6	1
	20	□		MPS0370-L20C	133	74.7	93	96	132.0	0.7	6	1
	25	□		MPS0370-L25C	153	93.2	113	116	152.0	0.7	6	1
	30	□		MPS0370-L30C	173	111.7	133	136	172.0	0.7	6	1
	35	□		MPS0370-L35C	193	130.2	146	156	192.0	0.7	6	1
	40	□		MPS0370-L40C	213	148.7	163	176	212.0	0.7	6	1
	3	●		MPS0380S-DIN-C	66	18.0	24	29	65.0	0.7	6	1
	5	●		MPS0380L-DIN-C	74	30.0	36	37	73.0	0.7	6	1
	8	●		MPS0380-L8C	85	31.1	45	48	84.0	0.7	6	1
	10	□		MPS0380-L10C	93	38.7	53	56	92.0	0.7	6	1
	12	●		MPS0380-L12C	101	46.3	61	64	100.0	0.7	6	1
3.8	15	●		MPS0380-L15C	113	57.7	73	76	112.0	0.7	6	1
	20	□		MPS0380-L20C	133	76.7	93	96	132.0	0.7	6	1
	25	□		MPS0380-L25C	153	95.7	113	116	152.0	0.7	6	1
	30	□		MPS0380-L30C	173	114.7	133	136	172.0	0.7	6	1
	35	□		MPS0380-L35C	193	133.7	153	156	192.0	0.7	6	1
	40	□		MPS0380-L40C	213	152.7	173	176	212.0	0.7	6	1
	3	●		MPS0390S-DIN-C	66	17.9	24	29	65.0	0.7	6	1
	5	●		MPS0390L-DIN-C	74	29.9	36	37	73.0	0.7	6	1
	8	●		MPS0390-L8C	85	31.9	45	48	84.0	0.7	6	1
	10	□		MPS0390-L10C	93	39.7	53	56	92.0	0.7	6	1
	12	●		MPS0390-L12C	101	47.5	61	64	100.0	0.7	6	1
3.9	15	●		MPS0390-L15C	113	59.2	73	76	112.0	0.7	6	1
	20	□		MPS0390-L20C	133	78.7	93	96	132.0	0.7	6	1
	25	□		MPS0390-L25C	153	98.2	113	116	152.0	0.7	6	1
	30	□		MPS0390-L30C	173	117.7	133	136	172.0	0.7	6	1
	35	□		MPS0390-L35C	193	137.2	153	156	192.0	0.7	6	1
	40	□		MPS0390-L40C	213	156.7	173	176	212.0	0.7	6	1
	3	●		MPS0400S-DIN-C	66	17.7	24	29	65.0	0.7	6	1
	5	●		MPS0400L-DIN-C	74	29.7	36	37	73.0	0.7	6	1
	8	●		MPS0400-L8C	85	32.7	45	48	84.0	0.7	6	1
	10	●		MPS0400-L10C	93	40.7	53	56	92.0	0.7	6	1
	12	●		MPS0400-L12C	101	48.7	61	64	100.0	0.7	6	1
4.0	15	●		MPS0400-L15C	113	60.7	73	76	112.0	0.7	6	1
	20	●		MPS0400-L20C	133	80.7	93	96	132.0	0.7	6	1
	25	●		MPS0400-L25C	153	100.7	113	116	152.0	0.7	6	1
	30	●		MPS0400-L30C	173	120.7	133	136	172.0	0.7	6	1
	35	□		MPS0400-L35C	193	140.7	153	156	192.0	0.7	6	1
	40	●		MPS0400-L40C	213	160.7	173	176	212.0	0.7	6	1

DC (mm)	Bohrtiefe (l/d)	Lager VP15TF		Bestellbezeichnung	Abmessungen (mm) OAL	LU	LCF	LH	LF	PL	DCON	Typ
4.05	3	●		MPS0405S-DIN-C	66	17.7	24	29	65.0	0.7	6	1
	5	●		MPS0405L-DIN-C	74	29.7	36	37	73.0	0.7	6	1
	3	●		MPS0410S-DIN-C	66	17.6	24	29	65.0	0.7	6	1
	5	●		MPS0410L-DIN-C	74	29.6	36	37	73.0	0.7	6	1
	8	●		MPS0410-L8C	91	33.5	51	54	90.0	0.7	6	1
	10	□		MPS0410-L10C	100	41.7	60	63	99.0	0.7	6	1
	12	●		MPS0410-L12C	109	49.9	69	72	108.0	0.7	6	1
4.1	15	●		MPS0410-L15C	122	62.2	82	85	121.0	0.7	6	1
	20	□		MPS0410-L20C	145	82.7	105	108	144.0	0.7	6	1
	25	□		MPS0410-L25C	167	103.2	127	130	166.0	0.7	6	1
	30	□		MPS0410-L30C	190	123.7	150	153	189.0	0.7	6	1
	35	□		MPS0410-L35C	212	144.2	166	175	211.0	0.7	6	1
	40	□		MPS0410-L40C	236	164.7	186	199	235.0	0.7	6	1
	3	●		MPS0420S-DIN-C	66	17.5	24	29	65.0	0.8	6	1
	5	●		MPS0420L-DIN-C	74	29.5	36	37	73.0	0.8	6	1
	8	●		MPS0420-L8C	91	34.4	51	54	90.0	0.8	6	1
	10	□		MPS0420-L10C	100	42.8	60	63	99.0	0.8	6	1
	12	●		MPS0420-L12C	109	51.2	69	72	108.0	0.8	6	1
4.2	15	●		MPS0420-L15C	122	63.8	82	85	121.0	0.8	6	1
	20	□		MPS0420-L20C	145	84.8	105	108	144.0	0.8	6	1
	25	□		MPS0420-L25C	167	105.8	127	130	166.0	0.8	6	1
	30	□		MPS0420-L30C	190	126.8	150	153	189.0	0.8	6	1
	35	●		MPS0420-L35C	212	147.8	166	175	211.0	0.8	6	1
	40	●		MPS0420-L40C	236	168.8	186	199	235.0	0.8	6	1
	3	●		MPS0430S-DIN-C	66	17.3	24	29	65.0	0.8	6	1
	5	●		MPS0430L-DIN-C	74	29.3	36	37	73.0	0.8	6	1
	8	●		MPS0430-L8C	91	35.2	51	54	90.0	0.8	6	1
	10	□		MPS0430-L10C	100	43.8	60	63	99.0	0.8	6	1
	12	●		MPS0430-L12C	109	52.4	69	72	108.0	0.8	6	1
4.3	15	●		MPS0430-L15C	122	65.3	82	85	121.0	0.8	6	1
	20	□		MPS0430-L20C	145	86.8	105	108	144.0	0.8	6	1
	25	□		MPS0430-L25C	167	108.3	127	130	166.0	0.8	6	1
	30	□		MPS0430-L30C	190	129.8	150	153	189.0	0.8	6	1
	35	□		MPS0430-L35C	212	151.3	172	175	211.0	0.8	6	1
	40	□		MPS0430-L40C	236	172.8	196	199	235.0	0.8	6	1
	3	●		MPS0440S-DIN-C	66	17.2	24	29	65.0	0.8	6	1
	5	●		MPS0440L-DIN-C	74	29.2	36	37	73.0	0.8	6	1
	8	●		MPS0440-L8C	91	36.0	51	54	90.0	0.8	6	1
	10	□		MPS0440-L10C	100	44.8	60	63	99.0	0.8	6	1
	12	●		MPS0440-L12C	109	53.6	69	72	108.0	0.8	6	1
4.4	15	●		MPS0440-L15C	122	66.8	82	85	121.0	0.8	6	1
	20	□		MPS0440-L20C	145	88.8	105	108	144.0	0.8	6	1
	25	□		MPS0440-L25C	167	110.8	127	130	166.0	0.8	6	1
	30	□		MPS0440-L30C	190	132.8	150	153	189.0	0.8	6	1
	35	□		MPS0440-L35C	212	154.8	172	175	211.0	0.8	6	1
	40	□		MPS0440-L40C	236	176.8	196	199	235.0	0.8	6	1
	3	●		MPS0450S-DIN-C	66	17.1	24	29	65.0	0.8	6	1
	5	●		MPS0450L-DIN-C	74	29.1	36	37	73.0	0.8	6	1
	8	●		MPS0450-L8C	91	36.8	51	54	90.0	0.8	6	1
	10	□		MPS0450-L10C	100	45.8	60	63	99.0	0.8	6	1
	12	●		MPS0450-L12C	109	54.8	69	72	108.0	0.8	6	1
4.5	15	●		MPS0450-L15C	122	68.3	82	85	121.0	0.8	6	1
	20	□		MPS0450-L20C	145	90.8	105	108	144.0	0.8	6	1
	25	□		MPS0450-L25C	167	113.3	127	130	166.0	0.8	6	1
	30	□		MPS0450-L30C	190	135.8	150	153	189.0	0.8	6	1
	35	□		MPS0450-L35C	212	158.3	172	175	211.0	0.8	6	1
	40	●		MPS0450-L40C	236	180.8	196	199	235.0	0.8	6	1

SCHNITTBEDINGUNGEN ➤ L057
TECHNISCHE DATEN ➤ N001

BOHREN (VOLLHARTMETALL)

MPS
4-Fasenbohrer

DC (mm)	Bohrtiefe (l/d)	Lager VP15TF		Bestellbezeichnung	Abmessungen (mm) OAL	LU	LCF	LH	LF	PL	DCON	Typ
	3	●		MPS0460S-DIN-C	66	16.9	24	29	65.0	0.8	6	1
	5	●		MPS0460L-DIN-C	74	28.9	36	37	73.0	0.8	6	1
	8	●		MPS0460-L8C	96	37.6	56	59	95.0	0.8	6	1
	10	□		MPS0460-L10C	106	46.8	66	69	105.0	0.8	6	1
	12	●		MPS0460-L12C	116	56.0	76	79	115.0	0.8	6	1
4.6	15	●		MPS0460-L15C	131	69.8	91	94	130.0	0.8	6	1
	20	□		MPS0460-L20C	156	92.8	116	119	155.0	0.8	6	1
	25	□		MPS0460-L25C	181	115.8	141	144	180.0	0.8	6	1
	30	□		MPS0460-L30C	206	138.8	166	169	205.0	0.8	6	1
	35	□		MPS0460-L35C	230	161.8	185	193	229.0	0.8	6	1
	40	□		MPS0460-L40C	255	184.8	205	218	254.0	0.8	6	1
4.65	3	●		MPS0465S-DIN-C	66	16.9	24	29	65.0	0.8	6	1
	5	●		MPS0465L-DIN-C	74	28.9	36	37	73.0	0.8	6	1
	3	●		MPS0470S-DIN-C	66	16.8	24	29	65.0	0.9	6	1
	5	●		MPS0470L-DIN-C	74	28.8	36	37	73.0	0.9	6	1
	8	●		MPS0470-L8C	96	38.5	56	59	95.0	0.9	6	1
	10	□		MPS0470-L10C	106	47.9	66	69	105.0	0.9	6	1
	12	●		MPS0470-L12C	116	57.3	76	79	115.0	0.9	6	1
4.7	15	●		MPS0470-L15C	131	71.4	91	94	130.0	0.9	6	1
	20	□		MPS0470-L20C	156	94.9	116	119	155.0	0.9	6	1
	25	□		MPS0470-L25C	181	118.4	141	144	180.0	0.9	6	1
	30	□		MPS0470-L30C	206	141.9	166	169	205.0	0.9	6	1
	35	□		MPS0470-L35C	230	165.4	185	193	229.0	0.9	6	1
	40	□		MPS0470-L40C	255	188.9	205	218	254.0	0.9	6	1
	3	●		MPS0480S-DIN-C	66	20.7	28	29	65.0	0.9	6	1
	5	●		MPS0480L-DIN-C	82	36.7	44	45	81.0	0.9	6	1
	8	●		MPS0480-L8C	96	39.3	56	59	95.0	0.9	6	1
	10	□		MPS0480-L10C	106	48.9	66	69	105.0	0.9	6	1
	12	●		MPS0480-L12C	116	58.5	76	79	115.0	0.9	6	1
4.8	15	●		MPS0480-L15C	131	72.9	91	94	130.0	0.9	6	1
	20	□		MPS0480-L20C	156	96.9	116	119	155.0	0.9	6	1
	25	□		MPS0480-L25C	181	120.9	141	144	180.0	0.9	6	1
	30	□		MPS0480-L30C	206	144.9	166	169	205.0	0.9	6	1
	35	□		MPS0480-L35C	230	168.9	191	193	229.0	0.9	6	1
	40	□		MPS0480-L40C	255	192.9	216	218	254.0	0.9	6	1
	3	●		MPS0490S-DIN-C	66	20.5	28	29	65.0	0.9	6	1
	5	●		MPS0490L-DIN-C	82	36.5	44	45	81.0	0.9	6	1
	8	●		MPS0490-L8C	96	40.1	56	59	95.0	0.9	6	1
	10	□		MPS0490-L10C	106	49.9	66	69	105.0	0.9	6	1
	12	●		MPS0490-L12C	116	59.7	76	79	115.0	0.9	6	1
4.9	15	●		MPS0490-L15C	131	74.4	91	94	130.0	0.9	6	1
	20	□		MPS0490-L20C	156	98.9	116	119	155.0	0.9	6	1
	25	□		MPS0490-L25C	181	123.4	141	144	180.0	0.9	6	1
	30	□		MPS0490-L30C	206	147.9	166	169	205.0	0.9	6	1
	35	□		MPS0490-L35C	230	172.4	191	193	229.0	0.9	6	1
	40	□		MPS0490-L40C	255	196.9	216	218	254.0	0.9	6	1
	3	●		MPS0500S-DIN-C	66	20.4	28	29	65.0	0.9	6	1
	5	●		MPS0500L-DIN-C	82	36.4	44	45	81.0	0.9	6	1
	8	●		MPS0500-L8C	96	40.9	56	59	95.0	0.9	6	1
	10	●		MPS0500-L10C	106	50.9	66	69	105.0	0.9	6	1
	12	●		MPS0500-L12C	116	60.9	76	79	115.0	0.9	6	1
5.0	15	●		MPS0500-L15C	131	75.9	91	94	130.0	0.9	6	1
	20	●		MPS0500-L20C	156	100.9	116	119	155.0	0.9	6	1
	25	●		MPS0500-L25C	181	125.9	141	144	180.0	0.9	6	1
	30	●		MPS0500-L30C	206	150.9	166	169	205.0	0.9	6	1
	35	□		MPS0500-L35C	230	175.9	191	193	229.0	0.9	6	1
	40	●		MPS0500-L40C	255	200.9	216	218	254.0	0.9	6	1
5.05	3	●		MPS0505S-DIN-C	66	20.3	28	29	65.0	0.9	6	1
	5	●		MPS0505L-DIN-C	82	36.3	44	45	81.0	0.9	6	1
	3	●		MPS0510S-DIN-C	66	20.3	28	29	65.0	0.9	6	1
	5	●		MPS0510L-DIN-C	82	36.3	44	45	81.0	0.9	6	1
	8	●		MPS0510-L8C	102	41.7	62	65	101.0	0.9	6	1
	10	□		MPS0510-L10C	113	51.9	73	76	112.0	0.9	6	1
	12	●		MPS0510-L12C	124	62.1	84	87	123.0	0.9	6	1
5.1	15	●		MPS0510-L15C	140	77.4	100	103	139.0	0.9	6	1
	20	□		MPS0510-L20C	168	102.9	128	131	167.0	0.9	6	1
	25	□		MPS0510-L25C	195	128.4	155	158	194.0	0.9	6	1
	30	□		MPS0510-L30C	223	153.9	183	186	222.0	0.9	6	1
	35	□		MPS0510-L35C	249	179.4	204	212	248.0	0.9	6	1
	40	□		MPS0510-L40C	279	204.9	231	242	278.0	0.9	6	1
	3	●		MPS0520S-DIN-C	66	20.1	28	29	65.0	0.9	6	1
	5	●		MPS0520L-DIN-C	82	36.1	44	45	81.0	0.9	6	1
	8	●		MPS0520-L8C	102	42.5	62	65	101.0	0.9	6	1
	10	□		MPS0520-L10C	113	52.9	73	76	112.0	0.9	6	1
	12	●		MPS0520-L12C	124	63.3	84	87	123.0	0.9	6	1
5.2	15	●		MPS0520-L15C	140	78.9	100	103	139.0	0.9	6	1
	20	□		MPS0520-L20C	168	104.9	128	131	167.0	0.9	6	1
	25	□		MPS0520-L25C	195	130.9	155	158	194.0	0.9	6	1
	30	□		MPS0520-L30C	223	156.9	183	186	222.0	0.9	6	1
	35	□		MPS0520-L35C	249	182.9	204	212	248.0	0.9	6	1
	40	□		MPS0520-L40C	279	208.9	231	242	278.0	0.9	6	1
	3	●		MPS0530S-DIN-C	66	20.0	28	29	65.0	1.0	6	1
	5	●		MPS0530L-DIN-C	82	36.0	44	45	81.0	1.0	6	1
	8	●		MPS0530-L8C	102	43.4	62	65	101.0	1.0	6	1
	10	□		MPS0530-L10C	113	54.0	73	76	112.0	1.0	6	1
	12	●		MPS0530-L12C	124	64.6	84	87	123.0	1.0	6	1
5.3	15	●		MPS0530-L15C	140	80.5	100	103	139.0	1.0	6	1
	20	□		MPS0530-L20C	168	107.0	128	131	167.0	1.0	6	1
	25	□		MPS0530-L25C	195	133.5	155	158	194.0	1.0	6	1
	30	□		MPS0530-L30C	223	160.0	183	186	222.0	1.0	6	1
	35	□		MPS0530-L35C	249	186.5	210	212	248.0	1.0	6	1
	40	□		MPS0530-L40C	279	213.0	241	242	278.0	1.0	6	1
	3	●		MPS0540S-DIN-C	66	19.9	28	29	65.0	1.0	6	1
	5	●		MPS0540L-DIN-C	82	35.9	44	45	81.0	1.0	6	1
	8	●		MPS0540-L8C	102	44.2	62	65	101.0	1.0	6	1
	10	□		MPS0540-L10C	113	55.0	73	76	112.0	1.0	6	1
	12	●		MPS0540-L12C	124	65.8	84	87	123.0	1.0	6	1
5.4	15	●		MPS0540-L15C	140	82.0	100	103	139.0	1.0	6	1
	20	□		MPS0540-L20C	168	109.0	128	131	167.0	1.0	6	1
	25	□		MPS0540-L25C	195	136.0	155	158	194.0	1.0	6	1
	30	□		MPS0540-L30C	223	163.0	183	186	222.0	1.0	6	1
	35	□		MPS0540-L35C	249	190.0	210	212	248.0	1.0	6	1
	40	□		MPS0540-L40C	279	217.0	241	242	278.0	1.0	6	1
	3	●		MPS0550S-DIN-C	66	19.8	28	29	65.0	1.0	6	1
	5	●		MPS0550L-DIN-C	82	35.8	44	45	81.0	1.0	6	1
	8	●		MPS0550-L8C	102	45.0	62	65	101.0	1.0	6	1
	10	□		MPS0550-L10C	113	56.0	73	76	112.0	1.0	6	1
	12	●		MPS0550-L12C	124	67.0	84	87	123.0	1.0	6	1
5.5	15	●		MPS0550-L15C	140	83.5	100	103	139.0	1.0	6	1
	20	□		MPS0550-L20C	168	111.0	128	131	167.0	1.0	6	1
	25	□		MPS0550-L25C	195	138.5	155	158	194.0	1.0	6	1
	30	□		MPS0550-L30C	223	166.0	183	186	222.0	1.0	6	1
	35	□		MPS0550-L35C	249	193.5	210	212	248.0	1.0	6	1
	40	●		MPS0550-L40C	279	221.0	241	242	278.0	1.0	6	1

● : Lagerstandard. □ : Nichtstandard, Herstellung nur auf Anfrage.

DC (mm)	Bohrtiefe (l/d)	Lager VP15TF		Bestellbezeichnung	Abmessungen (mm) OAL	LU	LCF	LH	LF	PL	DCON	Typ
5.55	3	●		MPS0555S-DIN-C	66	19.7	28	29	65.0	1.0	6	1
	5	●		MPS0555L-DIN-C	82	35.7	44	45	81.0	1.0	6	1
5.6	3	●		MPS0560S-DIN-C	66	19.6	28	29	65.0	1.0	6	1
	5	●		MPS0560L-DIN-C	82	35.6	44	45	81.0	1.0	6	1
	8	●		MPS0560-L8C	107	45.8	67	70	106.0	1.0	6	1
	10	□		MPS0560-L10C	119	57.0	79	82	118.0	1.0	6	1
	12	●		MPS0560-L12C	131	68.2	91	94	130.0	1.0	6	1
	15	●		MPS0560-L15C	149	85.0	109	112	148.0	1.0	6	1
	20	□		MPS0560-L20C	179	113.0	139	142	178.0	1.0	6	1
	25	□		MPS0560-L25C	209	141.0	169	172	208.0	1.0	6	1
	30	□		MPS0560-L30C	239	169.0	199	202	238.0	1.0	6	1
	35	□		MPS0560-L35C	268	197.0	223	231	267.0	1.0	6	1
	40	□		MPS0560-L40C	299	225.0	251	262	298.0	1.0	6	1
5.7	3	●		MPS0570S-DIN-C	66	19.5	28	29	65.0	1.0	6	1
	5	●		MPS0570L-DIN-C	82	35.5	44	45	81.0	1.0	6	1
	8	●		MPS0570-L8C	107	46.6	67	70	106.0	1.0	6	1
	10	□		MPS0570-L10C	119	58.0	79	82	118.0	1.0	6	1
	12	●		MPS0570-L12C	131	69.4	91	94	130.0	1.0	6	1
	15	●		MPS0570-L15C	149	86.5	109	112	148.0	1.0	6	1
	20	□		MPS0570-L20C	179	115.0	139	142	178.0	1.0	6	1
	25	□		MPS0570-L25C	209	143.5	169	172	208.0	1.0	6	1
	30	□		MPS0570-L30C	239	172.0	199	202	238.0	1.0	6	1
	35	□		MPS0570-L35C	268	200.5	223	231	267.0	1.0	6	1
	40	□		MPS0570-L40C	299	229.0	251	262	298.0	1.0	6	1
5.8	3	●		MPS0580S-DIN-C	66	19.4	28	29	65.0	1.1	6	1
	5	●		MPS0580L-DIN-C	82	35.4	44	45	81.0	1.1	6	1
	8	●		MPS0580-L8C	107	47.5	67	70	106.0	1.1	6	1
	10	□		MPS0580-L10C	119	59.1	79	82	118.0	1.1	6	1
	12	●		MPS0580-L12C	131	70.7	91	94	130.0	1.1	6	1
	15	●		MPS0580-L15C	149	88.1	109	112	148.0	1.1	6	1
	20	□		MPS0580-L20C	179	117.1	139	142	178.0	1.1	6	1
	25	□		MPS0580-L25C	209	146.1	169	172	208.0	1.1	6	1
	30	□		MPS0580-L30C	239	175.1	199	202	238.0	1.1	6	1
	35	□		MPS0580-L35C	268	204.1	229	231	267.0	1.1	6	1
	40	□		MPS0580-L40C	299	233.1	261	262	298.0	1.1	6	1
5.9	3	●		MPS0590S-DIN-C	66	19.2	28	29	65.0	1.1	6	1
	5	●		MPS0590L-DIN-C	82	35.2	44	45	81.0	1.1	6	1
	8	●		MPS0590-L8C	107	48.3	67	70	106.0	1.1	6	1
	10	□		MPS0590-L10C	119	60.1	79	82	118.0	1.1	6	1
	12	●		MPS0590-L12C	131	71.9	91	94	130.0	1.1	6	1
	15	●		MPS0590-L15C	149	89.6	109	112	148.0	1.1	6	1
	20	□		MPS0590-L20C	179	119.1	139	142	178.0	1.1	6	1
	25	□		MPS0590-L25C	209	148.6	169	172	208.0	1.1	6	1
	30	□		MPS0590-L30C	239	178.1	199	202	238.0	1.1	6	1
	35	□		MPS0590-L35C	268	207.6	229	231	267.0	1.1	6	1
	40	□		MPS0590-L40C	299	237.1	261	262	298.0	1.1	6	1
6.0	3	●		MPS0600S-DIN-C	66	19.1	28	29	65.0	1.1	6	2
	5	●		MPS0600L-DIN-C	82	35.1	44	45	81.0	1.1	6	2
	8	●		MPS0600-L8C	107	49.1	67	70	106.0	1.1	6	2
	10	●		MPS0600-L10C	119	61.1	79	82	118.0	1.1	6	2
	12	●		MPS0600-L12C	131	73.1	91	94	130.0	1.1	6	2
	15	●		MPS0600-L15C	149	91.1	109	112	148.0	1.1	6	2
	20	●		MPS0600-L20C	179	121.1	139	142	178.0	1.1	6	2
	25	●		MPS0600-L25C	209	151.1	169	172	208.0	1.1	6	2
	30	●		MPS0600-L30C	239	181.1	199	202	238.0	1.1	6	2
	35	□		MPS0600-L35C	268	211.1	229	231	267.0	1.1	6	2
	40	●		MPS0600-L40C	299	241.1	261	262	298.0	1.1	6	2

DC (mm)	Bohrtiefe (l/d)	Lager VP15TF		Bestellbezeichnung	Abmessungen (mm) OAL	LU	LCF	LH	LF	PL	DCON	Typ
6.05	3	●		MPS0605S-DIN-C	79	25.0	34	42	78.0	1.1	8	1
	5	●		MPS0605L-DIN-C	91	44.0	53	54	90.0	1.1	8	1
6.1	3	●		MPS0610S-DIN-C	79	25.0	34	42	78.0	1.1	8	1
	5	●		MPS0610L-DIN-C	91	44.0	53	54	90.0	1.1	8	1
	8	●		MPS0610-L8C	113	49.9	73	76	112.0	1.1	8	1
	10	□		MPS0610-L10C	126	62.1	86	89	125.0	1.1	8	1
	12	●		MPS0610-L12C	139	74.3	99	102	138.0	1.1	8	1
	15	●		MPS0610-L15C	158	92.6	118	121	157.0	1.1	8	1
	20	□		MPS0610-L20C	191	123.1	151	154	190.0	1.1	8	1
	25	□		MPS0610-L25C	223	153.6	183	186	222.0	1.1	8	1
	30	□		MPS0610-L30C	256	184.1	216	219	255.0	1.1	8	1
	35	□		MPS0610-L35C	287	214.6	241	250	286.0	1.1	8	1
	40	□		MPS0610-L40C	321	245.1	271	284	320.0	1.1	8	1
6.2	3	●		MPS0620S-DIN-C	79	24.8	34	42	78.0	1.1	8	1
	5	●		MPS0620L-DIN-C	91	43.8	53	54	90.0	1.1	8	1
	8	●		MPS0620-L8C	113	50.7	73	76	112.0	1.1	8	1
	10	□		MPS0620-L10C	126	63.1	86	89	125.0	1.1	8	1
	12	●		MPS0620-L12C	139	75.5	99	102	138.0	1.1	8	1
	15	●		MPS0620-L15C	158	94.1	118	121	157.0	1.1	8	1
	20	□		MPS0620-L20C	191	125.1	151	154	190.0	1.1	8	1
	25	□		MPS0620-L25C	223	156.1	183	186	222.0	1.1	8	1
	30	□		MPS0620-L30C	256	187.1	216	219	255.0	1.1	8	1
	35	□		MPS0620-L35C	287	218.1	241	250	286.0	1.1	8	1
	40	□		MPS0620-L40C	321	249.1	271	284	320.0	1.1	8	1
6.3	3	●		MPS0630S-DIN-C	79	24.7	34	42	78.0	1.1	8	1
	5	●		MPS0630L-DIN-C	91	43.7	53	54	90.0	1.1	8	1
	8	●		MPS0630-L8C	113	51.5	73	76	112.0	1.1	8	1
	10	□		MPS0630-L10C	126	64.1	86	89	125.0	1.1	8	1
	12	●		MPS0630-L12C	139	76.7	99	102	138.0	1.1	8	1
	15	●		MPS0630-L15C	158	95.6	118	121	157.0	1.1	8	1
	20	□		MPS0630-L20C	191	127.1	151	154	190.0	1.1	8	1
	25	□		MPS0630-L25C	223	158.6	183	186	222.0	1.1	8	1
	30	□		MPS0630-L30C	256	190.1	216	219	255.0	1.1	8	1
	35	□		MPS0630-L35C	287	221.6	248	250	286.0	1.1	8	1
	40	□		MPS0630-L40C	321	253.1	281	284	320.0	1.1	8	1
6.4	3	●		MPS0640S-DIN-C	79	24.6	34	42	78.0	1.2	8	1
	5	●		MPS0640L-DIN-C	91	43.6	53	54	90.0	1.2	8	1
	8	●		MPS0640-L8C	113	52.4	73	76	112.0	1.2	8	1
	10	□		MPS0640-L10C	126	65.2	86	89	125.0	1.2	8	1
	12	●		MPS0640-L12C	139	78.0	99	102	138.0	1.2	8	1
	15	●		MPS0640-L15C	158	97.2	118	121	157.0	1.2	8	1
	20	□		MPS0640-L20C	191	129.2	151	154	190.0	1.2	8	1
	25	□		MPS0640-L25C	223	161.2	183	186	222.0	1.2	8	1
	30	□		MPS0640-L30C	256	193.2	216	219	255.0	1.2	8	1
	35	□		MPS0640-L35C	287	225.2	248	250	286.0	1.2	8	1
	40	□		MPS0640-L40C	321	257.2	281	284	320.0	1.2	8	1
6.5	3	●		MPS0650S-DIN-C	79	24.4	34	42	78.0	1.2	8	1
	5	●		MPS0650L-DIN-C	91	43.4	53	54	90.0	1.2	8	1
	8	●		MPS0650-L8C	113	53.2	73	76	112.0	1.2	8	1
	10	□		MPS0650-L10C	126	66.2	86	89	125.0	1.2	8	1
	12	●		MPS0650-L12C	139	79.2	99	102	138.0	1.2	8	1
	15	●		MPS0650-L15C	158	98.7	118	121	157.0	1.2	8	1
	20	□		MPS0650-L20C	191	131.2	151	154	190.0	1.2	8	1
	25	□		MPS0650-L25C	223	163.7	183	186	222.0	1.2	8	1
	30	□		MPS0650-L30C	256	196.2	216	219	255.0	1.2	8	1
	35	□		MPS0650-L35C	287	228.7	248	250	286.0	1.2	8	1
	40	●		MPS0650-L40C	321	261.2	281	284	320.0	1.2	8	1

BOHREN

SCHNITTBEDINGUNGEN ➤ L057
TECHNISCHE DATEN ➤ N001

BOHREN (VOLLHARTMETALL)

MPS
4-Fasenbohrer

DC (mm)	Bohrtiefe (l/d)	Lager VP15TF		Bestellbezeichnung	Abmessungen (mm) OAL	LU	LCF	LH	LF	PL	DCON	Typ
	3	●		MPS0660S-DIN-C	79	24.3	34	42	78.0	1.2	8	1
	5	●		MPS0660L-DIN-C	91	43.3	53	54	90.0	1.2	8	1
	8	●		MPS0660-L8C	118	54.0	78	81	117.0	1.2	8	1
	10	□		MPS0660-L10C	132	67.2	92	95	131.0	1.2	8	1
	12	●		MPS0660-L12C	146	80.4	106	109	145.0	1.2	8	1
6.6	15	●		MPS0660-L15C	167	100.2	127	130	166.0	1.2	8	1
	20	□		MPS0660-L20C	202	133.2	162	165	201.0	1.2	8	1
	25	□		MPS0660-L25C	237	166.2	197	200	236.0	1.2	8	1
	30	□		MPS0660-L30C	272	199.2	232	235	271.0	1.2	8	1
	35	□		MPS0660-L35C	306	232.2	267	269	305.0	1.2	8	1
	40	□		MPS0660-L40C	341	265.2	301	304	340.0	1.2	8	1
	3	●		MPS0670S-DIN-C	79	24.2	34	42	78.0	1.2	8	1
	5	●		MPS0670L-DIN-C	91	43.2	53	54	90.0	1.2	8	1
	8	●		MPS0670-L8C	118	54.8	78	81	117.0	1.2	8	1
	10	□		MPS0670-L10C	132	68.2	92	95	131.0	1.2	8	1
	12	●		MPS0670-L12C	146	81.6	106	109	145.0	1.2	8	1
6.7	15	●		MPS0670-L15C	167	101.7	127	130	166.0	1.2	8	1
	20	□		MPS0670-L20C	202	135.2	162	165	201.0	1.2	8	1
	25	□		MPS0670-L25C	237	168.7	197	200	236.0	1.2	8	1
	30	□		MPS0670-L30C	272	202.2	232	235	271.0	1.2	8	1
	35	□		MPS0670-L35C	306	235.7	267	269	305.0	1.2	8	1
	40	□		MPS0670-L40C	341	269.2	301	304	340.0	1.2	8	1
	3	●		MPS0680S-DIN-C	79	24.0	34	42	78.0	1.2	8	1
	5	●		MPS0680L-DIN-C	91	43.0	53	54	90.0	1.2	8	1
	8	●		MPS0680-L8C	118	55.6	78	81	117.0	1.2	8	1
	10	□		MPS0680-L10C	132	69.2	92	95	131.0	1.2	8	1
	12	●		MPS0680-L12C	146	82.8	106	109	145.0	1.2	8	1
6.8	15	●		MPS0680-L15C	167	103.2	127	130	166.0	1.2	8	1
	20	□		MPS0680-L20C	202	137.2	162	165	201.0	1.2	8	1
	25	□		MPS0680-L25C	237	171.2	197	200	236.0	1.2	8	1
	30	□		MPS0680-L30C	272	205.2	232	235	271.0	1.2	8	1
	35	□		MPS0680-L35C	306	239.2	267	269	305.0	1.2	8	1
	40	●		MPS0680-L40C	341	273.2	301	304	340.0	1.2	8	1
	3	●		MPS0690S-DIN-C	79	23.9	34	42	78.0	1.3	8	1
	5	●		MPS0690L-DIN-C	91	42.9	53	54	90.0	1.3	8	1
	8	●		MPS0690-L8C	118	56.5	78	81	117.0	1.3	8	1
	10	□		MPS0690-L10C	132	70.3	92	95	131.0	1.3	8	1
	12	●		MPS0690-L12C	146	84.1	106	109	145.0	1.3	8	1
6.9	15	●		MPS0690-L15C	167	104.8	127	130	166.0	1.3	8	1
	20	□		MPS0690-L20C	202	139.3	162	165	201.0	1.3	8	1
	25	□		MPS0690-L25C	237	173.8	197	200	236.0	1.3	8	1
	30	□		MPS0690-L30C	272	208.3	232	235	271.0	1.3	8	1
	35	□		MPS0690-L35C	306	242.8	267	269	305.0	1.3	8	1
	40	□		MPS0690-L40C	341	277.3	301	304	340.0	1.3	8	1
	3	●		MPS0700S-DIN-C	79	23.8	34	42	78.0	1.3	8	1
	5	●		MPS0700L-DIN-C	91	42.8	53	54	90.0	1.3	8	1
	8	●		MPS0700-L8C	118	57.3	78	81	117.0	1.3	8	1
	10	●		MPS0700-L10C	132	71.3	92	95	131.0	1.3	8	1
	12	●		MPS0700-L12C	146	85.3	106	109	145.0	1.3	8	1
7.0	15	●		MPS0700-L15C	167	106.3	127	130	166.0	1.3	8	1
	20	●		MPS0700-L20C	202	141.3	162	165	201.0	1.3	8	1
	25	□		MPS0700-L25C	237	176.3	197	200	236.0	1.3	8	1
	30	●		MPS0700-L30C	272	211.3	232	235	271.0	1.3	8	1
	35	□		MPS0700-L35C	306	246.3	267	269	305.0	1.3	8	1
	40	●		MPS0700-L40C	341	281.3	301	304	340.0	1.3	8	1

DC (mm)	Bohrtiefe (l/d)	Lager VP15TF		Bestellbezeichnung	Abmessungen (mm) OAL	LU	LCF	LH	LF	PL	DCON	Typ
	3	●		MPS0710S-DIN-C	79	30.6	41	42	78.0	1.3	8	1
	5	●		MPS0710L-DIN-C	91	42.6	53	54	90.0	1.3	8	1
	8	●		MPS0710-L8C	124	58.1	84	87	123.0	1.3	8	1
	10	□		MPS0710-L10C	139	72.3	99	102	138.0	1.3	8	1
	12	●		MPS0710-L12C	154	86.5	114	117	153.0	1.3	8	1
7.1	15	●		MPS0710-L15C	176	107.8	136	139	175.0	1.3	8	1
	20	□		MPS0710-L20C	214	143.3	174	177	213.0	1.3	8	1
	25	□		MPS0710-L25C	251	178.8	211	214	250.0	1.3	8	1
	30	□		MPS0710-L30C	289	214.3	249	252	288.0	1.3	8	1
	35	□		MPS0710-L35C	325	249.8	286	288	324.0	1.3	8	1
	40	□		MPS0710-L40C	360	285.3	321	323	359.0	1.3	8	1
	3	●		MPS0720S-DIN-C	79	30.5	41	42	78.0	1.3	8	1
	5	●		MPS0720L-DIN-C	91	42.5	53	54	90.0	1.3	8	1
	8	●		MPS0720-L8C	124	58.9	84	87	123.0	1.3	8	1
	10	□		MPS0720-L10C	139	73.3	99	102	138.0	1.3	8	1
	12	●		MPS0720-L12C	154	87.7	114	117	153.0	1.3	8	1
7.2	15	□		MPS0720-L15C	176	109.3	136	139	175.0	1.3	8	1
	20	□		MPS0720-L20C	214	145.3	174	177	213.0	1.3	8	1
	25	□		MPS0720-L25C	251	181.3	211	214	250.0	1.3	8	1
	30	□		MPS0720-L30C	289	217.3	249	252	288.0	1.3	8	1
	35	□		MPS0720-L35C	325	253.3	286	288	324.0	1.3	8	1
	40	□		MPS0720-L40C	360	289.3	321	323	359.0	1.3	8	1
	3	●		MPS0730S-DIN-C	79	30.4	41	42	78.0	1.3	8	1
	5	●		MPS0730L-DIN-C	91	42.4	53	54	90.0	1.3	8	1
	8	●		MPS0730-L8C	124	59.7	84	87	123.0	1.3	8	1
	10	□		MPS0730-L10C	139	74.3	99	102	138.0	1.3	8	1
	12	●		MPS0730-L12C	154	88.9	114	117	153.0	1.3	8	1
7.3	15	□		MPS0730-L15C	176	110.8	136	139	175.0	1.3	8	1
	20	□		MPS0730-L20C	214	147.3	174	177	213.0	1.3	8	1
	25	□		MPS0730-L25C	251	183.8	211	214	250.0	1.3	8	1
	30	□		MPS0730-L30C	289	220.3	249	252	288.0	1.3	8	1
	35	□		MPS0730-L35C	325	256.8	286	288	324.0	1.3	8	1
	40	□		MPS0730-L40C	360	293.3	321	323	359.0	1.3	8	1
	3	●		MPS0740S-DIN-C	79	30.2	41	42	78.0	1.3	8	1
	5	●		MPS0740L-DIN-C	91	42.2	53	54	90.0	1.3	8	1
	8	●		MPS0740-L8C	124	60.5	84	87	123.0	1.3	8	1
	10	□		MPS0740-L10C	139	75.3	99	102	138.0	1.3	8	1
	12	●		MPS0740-L12C	154	90.1	114	117	153.0	1.3	8	1
7.4	15	□		MPS0740-L15C	176	112.3	136	139	175.0	1.3	8	1
	20	□		MPS0740-L20C	214	149.3	174	177	213.0	1.3	8	1
	25	□		MPS0740-L25C	251	186.3	211	214	250.0	1.3	8	1
	30	□		MPS0740-L30C	289	223.3	249	252	288.0	1.3	8	1
	35	□		MPS0740-L35C	325	260.3	286	288	324.0	1.3	8	1
	40	□		MPS0740-L40C	360	297.3	321	323	359.0	1.3	8	1
	3	●		MPS0750S-DIN-C	79	30.1	41	42	78.0	1.4	8	1
	5	●		MPS0750L-DIN-C	91	42.1	53	54	90.0	1.4	8	1
	8	●		MPS0750-L8C	124	61.4	84	87	123.0	1.4	8	1
	10	□		MPS0750-L10C	139	76.4	99	102	138.0	1.4	8	1
	12	●		MPS0750-L12C	154	91.4	114	117	153.0	1.4	8	1
7.5	15	●		MPS0750-L15C	176	113.9	136	139	175.0	1.4	8	1
	20	□		MPS0750-L20C	214	151.4	174	177	213.0	1.4	8	1
	25	□		MPS0750-L25C	251	188.9	211	214	250.0	1.4	8	1
	30	□		MPS0750-L30C	289	226.4	249	252	288.0	1.4	8	1
	35	□		MPS0750-L35C	325	263.9	286	288	324.0	1.4	8	1
	40	●		MPS0750-L40C	360	301.4	321	323	359.0	1.4	8	1

● : Lagerstandard. □ : Nichtstandard, Herstellung nur auf Anfrage.

DC (mm)	Bohrtiefe (l/d)	Lager VP15TF		Bestellbezeichnung	Abmessungen (mm) OAL	LU	LCF	LH	LF	PL	DCON	Typ
	3	●		MPS0760S-DIN-C	79	30.0	41	42	78.0	1.4	8	1
	5	●		MPS0760L-DIN-C	91	42.0	53	54	90.0	1.4	8	1
	8	●		MPS0760-L8C	129	62.2	89	92	128.0	1.4	8	1
	10	□		MPS0760-L10C	145	77.4	105	108	144.0	1.4	8	1
	12	●		MPS0760-L12C	161	92.6	121	124	160.0	1.4	8	1
7.6	15	●		MPS0760-L15C	185	115.4	145	148	184.0	1.4	8	1
	20	□		MPS0760-L20C	225	153.4	185	188	224.0	1.4	8	1
	25	□		MPS0760-L25C	265	191.4	225	228	264.0	1.4	8	1
	30	□		MPS0760-L30C	305	229.4	265	268	304.0	1.4	8	1
	35	□		MPS0760-L35C	344	267.4	305	307	343.0	1.4	8	1
	40	□		MPS0760-L40C	379	305.4	341	342	378.0	1.4	8	1
	3	●		MPS0770S-DIN-C	79	29.9	41	42	78.0	1.4	8	1
	5	●		MPS0770L-DIN-C	91	41.9	53	54	90.0	1.4	8	1
	8	●		MPS0770-L8C	129	63.0	89	92	128.0	1.4	8	1
	10	□		MPS0770-L10C	145	78.4	105	108	144.0	1.4	8	1
	12	●		MPS0770-L12C	161	93.8	121	124	160.0	1.4	8	1
7.7	15	●		MPS0770-L15C	185	116.9	145	148	184.0	1.4	8	1
	20	□		MPS0770-L20C	225	155.4	185	188	224.0	1.4	8	1
	25	□		MPS0770-L25C	265	193.9	225	228	264.0	1.4	8	1
	30	□		MPS0770-L30C	305	232.4	265	268	304.0	1.4	8	1
	35	□		MPS0770-L35C	344	270.9	305	307	343.0	1.4	8	1
	40	□		MPS0770-L40C	379	309.4	341	342	378.0	1.4	8	1
	3	●		MPS0780S-DIN-C	79	29.7	41	42	78.0	1.4	8	1
	5	●		MPS0780L-DIN-C	91	41.7	53	54	90.0	1.4	8	1
	8	●		MPS0780-L8C	129	63.8	89	92	128.0	1.4	8	1
	10	□		MPS0780-L10C	145	79.4	105	108	144.0	1.4	8	1
	12	●		MPS0780-L12C	161	95.0	121	124	160.0	1.4	8	1
7.8	15	●		MPS0780-L15C	185	118.4	145	148	184.0	1.4	8	1
	20	□		MPS0780-L20C	225	157.4	185	188	224.0	1.4	8	1
	25	□		MPS0780-L25C	265	196.4	225	228	264.0	1.4	8	1
	30	□		MPS0780-L30C	305	235.4	265	268	304.0	1.4	8	1
	35	□		MPS0780-L35C	344	274.4	305	307	343.0	1.4	8	1
	40	□		MPS0780-L40C	379	313.4	341	342	378.0	1.4	8	1
	3	●		MPS0790S-DIN-C	79	29.6	41	42	78.0	1.4	8	1
	5	●		MPS0790L-DIN-C	91	41.6	53	54	90.0	1.4	8	1
	8	●		MPS0790-L8C	129	64.6	89	92	128.0	1.4	8	1
	10	□		MPS0790-L10C	145	80.4	105	108	144.0	1.4	8	1
	12	●		MPS0790-L12C	161	96.2	121	124	160.0	1.4	8	1
7.9	15	□		MPS0790-L15C	185	119.9	145	148	184.0	1.4	8	1
	20	□		MPS0790-L20C	225	159.4	185	188	224.0	1.4	8	1
	25	□		MPS0790-L25C	265	198.9	225	228	264.0	1.4	8	1
	30	□		MPS0790-L30C	305	238.4	265	268	304.0	1.4	8	1
	35	□		MPS0790-L35C	344	277.9	305	307	343.0	1.4	8	1
	40	□		MPS0790-L40C	379	317.4	341	342	378.0	1.4	8	1
	3	●		MPS0800S-DIN-C	79	29.5	41	42	78.0	1.5	8	2
	5	●		MPS0800L-DIN-C	91	41.5	53	54	90.0	1.5	8	2
	8	●		MPS0800-L8C	129	65.5	89	92	128.0	1.5	8	2
	10	●		MPS0800-L10C	145	81.5	105	108	144.0	1.5	8	2
	12	●		MPS0800-L12C	161	97.5	121	124	160.0	1.5	8	2
8.0	15	●		MPS0800-L15C	185	121.5	145	148	184.0	1.5	8	2
	20	●		MPS0800-L20C	225	161.5	185	188	224.0	1.5	8	2
	25	●		MPS0800-L25C	265	201.5	225	228	264.0	1.5	8	2
	30	●		MPS0800-L30C	305	241.5	265	268	304.0	1.5	8	2
	35	□		MPS0800-L35C	344	281.5	305	307	343.0	1.5	8	2
	40	●		MPS0800-L40C	379	321.5	341	342	378.0	1.5	8	2

DC (mm)	Bohrtiefe (l/d)	Lager VP15TF		Bestellbezeichnung	Abmessungen (mm) OAL	LU	LCF	LH	LF	PL	DCON	Typ
8.05	3	●		MPS0805S-DIN-C	88	34.4	46	47	87.0	1.5	10	1
	5	●		MPS0805L-DIN-C	102	48.4	60	61	101.0	1.5	10	1
	3	●		MPS0810S-DIN-C	88	34.3	46	47	87.0	1.5	10	1
	5	●		MPS0810L-DIN-C	102	48.3	60	61	101.0	1.5	10	1
	8	●		MPS0810-L8C	139	66.3	95	98	138.0	1.5	10	1
	10	□		MPS0810-L10C	156	82.5	112	115	155.0	1.5	10	1
	12	●		MPS0810-L12C	173	98.7	129	132	172.0	1.5	10	1
8.1	15	●		MPS0810-L15C	198	123.0	154	157	197.0	1.5	10	1
	20	□		MPS0810-L20C	241	163.5	197	200	240.0	1.5	10	1
	25	□		MPS0810-L25C	283	204.0	239	242	282.0	1.5	10	1
	30	□		MPS0810-L30C	325	244.5	281	284	324.0	1.5	10	1
	35	□		MPS0810-L35C	367	285.0	324	326	366.0	1.5	10	1
	40	□		MPS0810-L40C	411	325.5	366	370	410.0	1.5	10	1
	3	●		MPS0820S-DIN-C	88	34.2	46	47	87.0	1.5	10	1
	5	●		MPS0820L-DIN-C	102	48.2	60	61	101.0	1.5	10	1
	8	●		MPS0820-L8C	139	67.1	95	98	138.0	1.5	10	1
	10	□		MPS0820-L10C	156	83.5	112	115	155.0	1.5	10	1
	12	●		MPS0820-L12C	173	99.9	129	132	172.0	1.5	10	1
8.2	15	●		MPS0820-L15C	198	124.5	154	157	197.0	1.5	10	1
	20	□		MPS0820-L20C	241	165.5	197	200	240.0	1.5	10	1
	25	□		MPS0820-L25C	283	206.5	239	242	282.0	1.5	10	1
	30	□		MPS0820-L30C	325	247.5	281	284	324.0	1.5	10	1
	35	□		MPS0820-L35C	367	288.5	324	326	366.0	1.5	10	1
	40	□		MPS0820-L40C	411	329.5	366	370	410.0	1.5	10	1
	3	●		MPS0830S-DIN-C	89	34.1	47	48	87.0	1.5	10	1
	5	●		MPS0830L-DIN-C	103	48.1	61	62	101.0	1.5	10	1
	8	●		MPS0830-L8C	140	67.9	96	99	138.0	1.5	10	1
	10	□		MPS0830-L10C	157	84.5	113	116	155.0	1.5	10	1
	12	●		MPS0830-L12C	174	101.1	130	133	172.0	1.5	10	1
8.3	15	□		MPS0830-L15C	199	126.0	155	158	197.0	1.5	10	1
	20	□		MPS0830-L20C	242	167.5	198	201	240.0	1.5	10	1
	25	□		MPS0830-L25C	284	209.0	240	243	282.0	1.5	10	1
	30	□		MPS0830-L30C	326	250.5	282	285	324.0	1.5	10	1
	35	□		MPS0830-L35C	368	292.0	325	327	366.0	1.5	10	1
	40	□		MPS0830-L40C	412	333.5	367	371	410.0	1.5	10	1
	3	●		MPS0840S-DIN-C	89	33.9	47	48	87.0	1.5	10	1
	5	●		MPS0840L-DIN-C	103	47.9	61	62	101.0	1.5	10	1
	8	●		MPS0840-L8C	140	68.7	96	99	138.0	1.5	10	1
	10	□		MPS0840-L10C	157	85.5	113	116	155.0	1.5	10	1
	12	●		MPS0840-L12C	174	102.3	130	133	172.0	1.5	10	1
8.4	15	●		MPS0840-L15C	199	127.5	155	158	197.0	1.5	10	1
	20	□		MPS0840-L20C	242	169.5	198	201	240.0	1.5	10	1
	25	□		MPS0840-L25C	284	211.5	240	243	282.0	1.5	10	1
	30	□		MPS0840-L30C	326	253.5	282	285	324.0	1.5	10	1
	35	□		MPS0840-L35C	368	295.5	325	327	366.0	1.5	10	1
	40	□		MPS0840-L40C	412	337.5	367	371	410.0	1.5	10	1
	3	●		MPS0850S-DIN-C	89	33.8	47	48	87.0	1.5	10	1
	5	●		MPS0850L-DIN-C	103	47.8	61	62	101.0	1.5	10	1
	8	●		MPS0850-L8C	140	69.5	96	99	138.0	1.5	10	1
	10	□		MPS0850-L10C	157	86.5	113	116	155.0	1.5	10	1
	12	●		MPS0850-L12C	174	103.5	130	133	172.0	1.5	10	1
8.5	15	●		MPS0850-L15C	199	129.0	155	158	197.0	1.5	10	1
	20	●		MPS0850-L20C	242	171.5	198	201	240.0	1.5	10	1
	25	□		MPS0850-L25C	284	214.0	240	243	282.0	1.5	10	1
	30	□		MPS0850-L30C	326	256.5	282	285	324.0	1.5	10	1
	35	□		MPS0850-L35C	368	299.0	325	327	366.0	1.5	10	1
	40	●		MPS0850-L40C	412	341.5	367	371	410.0	1.5	10	1

SCHNITTBEDINGUNGEN ➤ L057
TECHNISCHE DATEN ➤ N001

BOHREN (VOLLHARTMETALL)

MPS
4-Fasenbohrer

DC (mm)	Bohrtiefe (l/d)	Lager VP15TF		Bestellbezeichnung	Abmessungen (mm) OAL	LU	LCF	LH	LF	PL	DCON	Typ
8.6	3	●		MPS0860S-DIN-C	89	33.7	47	48	87.0	1.6	10	1
	5	●		MPS0860L-DIN-C	103	47.7	61	62	101.0	1.6	10	1
	8	●		MPS0860-L8C	145	70.4	101	104	143.0	1.6	10	1
	10	□		MPS0860-L10C	163	87.6	119	122	161.0	1.6	10	1
	12	●		MPS0860-L12C	181	104.8	137	140	179.0	1.6	10	1
	15	●		MPS0860-L15C	208	130.6	164	167	206.0	1.6	10	1
	20	□		MPS0860-L20C	253	173.6	209	212	251.0	1.6	10	1
	25	□		MPS0860-L25C	298	216.6	254	257	296.0	1.6	10	1
	30	□		MPS0860-L30C	342	259.6	298	301	340.0	1.6	10	1
	35	□		MPS0860-L35C	387	302.6	344	346	385.0	1.6	10	1
	40	□		MPS0860-L40C	436	345.6	392	395	434.0	1.6	10	1
8.7	3	●		MPS0870S-DIN-C	89	33.5	47	48	87.0	1.6	10	1
	5	●		MPS0870L-DIN-C	103	47.5	61	62	101.0	1.6	10	1
	8	●		MPS0870-L8C	145	71.2	101	104	143.0	1.6	10	1
	10	□		MPS0870-L10C	163	88.6	119	122	161.0	1.6	10	1
	12	●		MPS0870-L12C	181	106.0	137	140	179.0	1.6	10	1
	15	●		MPS0870-L15C	208	132.1	164	167	206.0	1.6	10	1
	20	□		MPS0870-L20C	253	175.6	209	212	251.0	1.6	10	1
	25	□		MPS0870-L25C	298	219.1	254	257	296.0	1.6	10	1
	30	□		MPS0870-L30C	342	262.6	298	301	340.0	1.6	10	1
	35	□		MPS0870-L35C	387	306.1	344	346	385.0	1.6	10	1
	40	□		MPS0870-L40C	436	349.6	392	395	434.0	1.6	10	1
8.8	3	●		MPS0880S-DIN-C	89	33.4	47	48	87.0	1.6	10	1
	5	●		MPS0880L-DIN-C	103	47.4	61	62	101.0	1.6	10	1
	8	●		MPS0880-L8C	145	72.0	101	104	143.0	1.6	10	1
	10	□		MPS0880-L10C	163	89.6	119	122	161.0	1.6	10	1
	12	●		MPS0880-L12C	181	107.2	137	140	179.0	1.6	10	1
	15	●		MPS0880-L15C	208	133.6	164	167	206.0	1.6	10	1
	20	□		MPS0880-L20C	253	177.6	209	212	251.0	1.6	10	1
	25	□		MPS0880-L25C	298	221.6	254	257	296.0	1.6	10	1
	30	□		MPS0880-L30C	342	265.6	298	301	340.0	1.6	10	1
	35	□		MPS0880-L35C	387	309.6	344	346	385.0	1.6	10	1
	40	□		MPS0880-L40C	436	353.6	392	395	434.0	1.6	10	1
8.9	3	●		MPS0890S-DIN-C	89	33.3	47	48	87.0	1.6	10	1
	5	●		MPS0890L-DIN-C	103	47.3	61	62	101.0	1.6	10	1
	8	●		MPS0890-L8C	145	72.8	101	104	143.0	1.6	10	1
	10	□		MPS0890-L10C	163	90.6	119	122	161.0	1.6	10	1
	12	●		MPS0890-L12C	181	108.4	137	140	179.0	1.6	10	1
	15	□		MPS0890-L15C	208	135.1	164	167	206.0	1.6	10	1
	20	□		MPS0890-L20C	253	179.6	209	212	251.0	1.6	10	1
	25	□		MPS0890-L25C	298	224.1	254	257	296.0	1.6	10	1
	30	□		MPS0890-L30C	342	268.6	298	301	340.0	1.6	10	1
	35	□		MPS0890-L35C	387	313.1	344	346	385.0	1.6	10	1
	40	□		MPS0890-L40C	436	357.6	392	395	434.0	1.6	10	1
9.0	3	●		MPS0900S-DIN-C	89	33.1	47	48	87.0	1.6	10	1
	5	●		MPS0900L-DIN-C	103	47.1	61	62	101.0	1.6	10	1
	8	●		MPS0900-L8C	145	73.6	101	104	143.0	1.6	10	1
	10	●		MPS0900-L10C	163	91.6	119	122	161.0	1.6	10	1
	12	●		MPS0900-L12C	181	109.6	137	140	179.0	1.6	10	1
	15	●		MPS0900-L15C	208	136.6	164	167	206.0	1.6	10	1
	20	●		MPS0900-L20C	253	181.6	209	212	251.0	1.6	10	1
	25	□		MPS0900-L25C	298	226.6	254	257	296.0	1.6	10	1
	30	□		MPS0900-L30C	342	271.6	298	301	340.0	1.6	10	1
	35	□		MPS0900-L35C	387	316.6	344	346	385.0	1.6	10	1
	40	●		MPS0900-L40C	436	361.6	392	395	434.0	1.6	10	1

DC (mm)	Bohrtiefe (l/d)	Lager VP15TF		Bestellbezeichnung	Abmessungen (mm) OAL	LU	LCF	LH	LF	PL	DCON	Typ
9.1	3	●		MPS0910S-DIN-C	89	33.0	47	48	87.0	1.7	10	1
	5	●		MPS0910L-DIN-C	103	47.0	61	62	101.0	1.7	10	1
	8	●		MPS0910-L8C	151	74.5	107	110	149.0	1.7	10	1
	10	□		MPS0910-L10C	170	92.7	126	129	168.0	1.7	10	1
	12	●		MPS0910-L12C	189	110.9	145	148	187.0	1.7	10	1
	15	●		MPS0910-L15C	217	138.2	173	176	215.0	1.7	10	1
	20	□		MPS0910-L20C	265	183.7	221	224	263.0	1.7	10	1
	25	□		MPS0910-L25C	312	229.2	268	271	310.0	1.7	10	1
	30	□		MPS0910-L30C	360	274.7	316	319	358.0	1.7	10	1
	35	□		MPS0910-L35C	406	320.2	363	365	404.0	1.7	10	1
9.2	3	●		MPS0920S-DIN-C	89	32.9	47	48	87.0	1.7	10	1
	5	●		MPS0920L-DIN-C	103	46.9	61	62	101.0	1.7	10	1
	8	●		MPS0920-L8C	151	75.3	107	110	149.0	1.7	10	1
	10	□		MPS0920-L10C	170	93.7	126	129	168.0	1.7	10	1
	12	●		MPS0920-L12C	189	112.1	145	148	187.0	1.7	10	1
	15	●		MPS0920-L15C	217	139.7	173	176	215.0	1.7	10	1
	20	□		MPS0920-L20C	265	185.7	221	224	263.0	1.7	10	1
	25	□		MPS0920-L25C	312	231.7	268	271	310.0	1.7	10	1
	30	□		MPS0920-L30C	360	277.7	316	319	358.0	1.7	10	1
	35	□		MPS0920-L35C	406	323.7	363	365	404.0	1.7	10	1
9.3	3	●		MPS0930S-DIN-C	89	32.7	47	48	87.0	1.7	10	1
	5	●		MPS0930L-DIN-C	103	46.7	61	62	101.0	1.7	10	1
	8	●		MPS0930-L8C	151	76.1	107	110	149.0	1.7	10	1
	10	□		MPS0930-L10C	170	94.7	126	129	168.0	1.7	10	1
	12	●		MPS0930-L12C	189	113.3	145	148	187.0	1.7	10	1
	15	□		MPS0930-L15C	217	141.2	173	176	215.0	1.7	10	1
	20	□		MPS0930-L20C	265	187.7	221	224	263.0	1.7	10	1
	25	□		MPS0930-L25C	312	234.2	268	271	310.0	1.7	10	1
	30	□		MPS0930-L30C	360	280.7	316	319	358.0	1.7	10	1
	35	□		MPS0930-L35C	406	327.2	363	365	404.0	1.7	10	1
9.4	3	●		MPS0940S-DIN-C	89	32.6	47	48	87.0	1.7	10	1
	5	●		MPS0940L-DIN-C	103	46.6	61	62	101.0	1.7	10	1
	8	●		MPS0940-L8C	151	76.9	107	110	149.0	1.7	10	1
	10	□		MPS0940-L10C	170	95.7	126	129	168.0	1.7	10	1
	12	●		MPS0940-L12C	189	114.5	145	148	187.0	1.7	10	1
	15	□		MPS0940-L15C	217	142.7	173	176	215.0	1.7	10	1
	20	□		MPS0940-L20C	265	189.7	221	224	263.0	1.7	10	1
	25	□		MPS0940-L25C	312	236.7	268	271	310.0	1.7	10	1
	30	□		MPS0940-L30C	360	283.7	316	319	358.0	1.7	10	1
	35	□		MPS0940-L35C	406	330.7	363	365	404.0	1.7	10	1
9.5	3	●		MPS0950S-DIN-C	89	32.5	47	48	87.0	1.7	10	1
	5	●		MPS0950L-DIN-C	103	46.5	61	62	101.0	1.7	10	1
	8	●		MPS0950-L8C	151	77.7	107	110	149.0	1.7	10	1
	10	□		MPS0950-L10C	170	96.7	126	129	168.0	1.7	10	1
	12	●		MPS0950-L12C	189	115.7	145	148	187.0	1.7	10	1
	15	●		MPS0950-L15C	217	144.2	173	176	215.0	1.7	10	1
	20	□		MPS0950-L20C	265	191.7	221	224	263.0	1.7	10	1
	25	□		MPS0950-L25C	312	239.2	268	271	310.0	1.7	10	1
	30	□		MPS0950-L30C	360	286.7	316	319	358.0	1.7	10	1
	35	□		MPS0950-L35C	406	334.2	363	365	404.0	1.7	10	1
9.6	3	●		MPS0960S-DIN-C	89	32.3	47	48	87.0	1.7	10	1
	5	●		MPS0960L-DIN-C	103	46.3	61	62	101.0	1.7	10	1
	8	●		MPS0960-L8C	156	78.5	112	115	154.0	1.7	10	1
	10	□		MPS0960-L10C	176	97.7	132	135	174.0	1.7	10	1
	12	●		MPS0960-L12C	196	116.9	152	155	194.0	1.7	10	3
	15	●		MPS0960-L15C	226	145.7	182	185	224.0	1.7	10	1

● : Lagerstandard. □ : Nichtstandard, Herstellung nur auf Anfrage.

DC (mm)	Bohrtiefe (l/d)	Lager VP15TF		Bestellbezeichnung	Abmessungen (mm) OAL	LU	LCF	LH	LF	PL	DCON	Typ
9.6	20	□		MPS0960-L20C	276	193.7	232	235	274.0	1.7	10	3
	25	□		MPS0960-L25C	326	241.7	282	285	324.0	1.7	10	1
	30	□		MPS0960-L30C	376	289.7	332	335	374.0	1.7	10	1
	35	□		MPS0960-L35C	425	337.7	382	384	423.0	1.7	10	1
9.7	3	●		MPS0970S-DIN-C	89	32.2	47	48	87.0	1.8	10	1
	5	●		MPS0970L-DIN-C	103	46.2	61	62	101.0	1.8	10	1
	8	●		MPS0970-L8C	156	79.4	112	115	154.0	1.8	10	1
	10	□		MPS0970-L10C	176	98.8	132	135	174.0	1.8	10	1
	12	●		MPS0970-L12C	196	118.2	152	155	194.0	1.8	10	1
	15	●		MPS0970-L15C	226	147.3	182	185	224.0	1.8	10	1
	20	□		MPS0970-L20C	276	195.8	232	235	274.0	1.8	10	1
	25	□		MPS0970-L25C	326	244.3	282	285	324.0	1.8	10	1
	30	□		MPS0970-L30C	376	292.8	332	335	374.0	1.8	10	1
	35	□		MPS0970-L35C	425	341.3	382	384	423.0	1.8	10	1
9.8	3	●		MPS0980S-DIN-C	89	32.1	47	48	87.0	1.8	10	1
	5	●		MPS0980L-DIN-C	103	46.1	61	62	101.0	1.8	10	1
	8	●		MPS0980-L8C	156	80.2	112	115	154.0	1.8	10	1
	10	□		MPS0980-L10C	176	99.8	132	135	174.0	1.8	10	1
	12	●		MPS0980-L12C	196	119.4	152	155	194.0	1.8	10	1
	15	●		MPS0980-L15C	226	148.8	182	185	224.0	1.8	10	1
	20	□		MPS0980-L20C	276	197.8	232	235	274.0	1.8	10	1
	25	□		MPS0980-L25C	326	246.8	282	285	324.0	1.8	10	1
	30	□		MPS0980-L30C	376	295.8	332	335	374.0	1.8	10	1
	35	□		MPS0980-L35C	425	344.8	382	384	423.0	1.8	10	1
9.9	3	●		MPS0990S-DIN-C	89	32.0	47	48	87.0	1.8	10	1
	5	●		MPS0990L-DIN-C	103	46.0	61	62	101.0	1.8	10	1
	8	●		MPS0990-L8C	156	81.0	112	115	154.0	1.8	10	1
	10	□		MPS0990-L10C	176	100.8	132	135	174.0	1.8	10	1
	12	●		MPS0990-L12C	196	120.6	152	155	194.0	1.8	10	1
	15	●		MPS0990-L15C	226	150.3	182	185	224.0	1.8	10	1
	20	□		MPS0990-L20C	276	199.8	232	235	274.0	1.8	10	1
	25	□		MPS0990-L25C	326	249.3	282	285	324.0	1.8	10	1
	30	□		MPS0990-L30C	376	298.8	332	335	374.0	1.8	10	1
	35	□		MPS0990-L35C	425	348.3	382	384	423.0	1.8	10	1
10.0	3	●		MPS1000S-DIN-C	89	31.8	47	48	87.0	1.8	10	2
	5	●		MPS1000L-DIN-C	103	45.8	61	62	101.0	1.8	10	2
	8	●		MPS1000-L8C	156	81.8	112	115	154.0	1.8	10	2
	10	●		MPS1000-L10C	176	101.8	132	135	174.0	1.8	10	2
	12	●		MPS1000-L12C	196	121.8	152	155	194.0	1.8	10	2
	15	●		MPS1000-L15C	226	151.8	182	185	224.0	1.8	10	2
	20	●		MPS1000-L20C	276	201.8	232	235	274.0	1.8	10	2
	25	□		MPS1000-L25C	326	251.8	282	285	324.0	1.8	10	2
	30	□		MPS1000-L30C	376	301.8	332	335	374.0	1.8	10	2
	35	□		MPS1000-L35C	425	351.8	382	384	423.0	1.8	10	2
10.05	3	●		MPS1005S-DIN-C	102	39.8	55	56	100.0	1.8	12	1
	5	●		MPS1005L-DIN-C	118	55.8	71	72	116.0	1.8	12	1
10.1	3	●		MPS1010S-DIN-C	102	39.7	55	56	100.0	1.8	12	1
	5	●		MPS1010L-DIN-C	118	55.7	71	72	116.0	1.8	12	1
	8	●		MPS1010-L8C	167	82.6	118	121	165.0	1.8	12	1
	10	□		MPS1010-L10C	188	102.8	139	142	186.0	1.8	12	1
	12	●		MPS1010-L12C	209	123.0	160	163	207.0	1.8	12	1
	15	●		MPS1010-L15C	240	153.3	191	194	238.0	1.8	12	1
	20	□		MPS1010-L20C	293	203.8	244	247	291.0	1.8	12	1
	25	□		MPS1010-L25C	345	254.3	296	299	343.0	1.8	12	1

DC (mm)	Bohrtiefe (l/d)	Lager VP15TF		Bestellbezeichnung	Abmessungen (mm) OAL	LU	LCF	LH	LF	PL	DCON	Typ
10.2	3	●		MPS1020S-DIN-C	102	39.6	55	56	100.0	1.9	12	1
	5	●		MPS1020L-DIN-C	118	55.6	71	72	116.0	1.9	12	1
	8	●		MPS1020-L8C	167	83.5	118	121	165.0	1.9	12	1
	10	□		MPS1020-L10C	188	103.9	139	142	186.0	1.9	12	1
	12	●		MPS1020-L12C	209	124.3	160	163	207.0	1.9	12	1
	15	●		MPS1020-L15C	240	154.9	191	194	238.0	1.9	12	1
	20	□		MPS1020-L20C	293	205.9	244	247	291.0	1.9	12	1
	25	□		MPS1020-L25C	345	256.9	296	299	343.0	1.9	12	1
10.3	3	●		MPS1030S-DIN-C	102	39.4	55	56	100.0	1.9	12	1
	5	●		MPS1030L-DIN-C	118	55.4	71	72	116.0	1.9	12	1
	8	●		MPS1030-L8C	167	84.3	118	121	165.0	1.9	12	1
	10	□		MPS1030-L10C	188	104.9	139	142	186.0	1.9	12	1
	12	●		MPS1030-L12C	209	125.5	160	163	207.0	1.9	12	1
	15	□		MPS1030-L15C	240	156.4	191	194	238.0	1.9	12	1
	20	□		MPS1030-L20C	293	207.9	244	247	291.0	1.9	12	1
	25	□		MPS1030-L25C	345	259.4	296	299	343.0	1.9	12	1
10.4	3	●		MPS1040S-DIN-C	102	39.3	55	56	100.0	1.9	12	1
	5	●		MPS1040L-DIN-C	118	55.3	71	72	116.0	1.9	12	1
	8	●		MPS1040-L8C	167	85.1	118	121	165.0	1.9	12	1
	10	□		MPS1040-L10C	188	105.9	139	142	186.0	1.9	12	1
	12	●		MPS1040-L12C	209	126.7	160	163	207.0	1.9	12	1
	15	□		MPS1040-L15C	240	157.9	191	194	238.0	1.9	12	1
	20	□		MPS1040-L20C	293	209.9	244	247	291.0	1.9	12	1
	25	□		MPS1040-L25C	345	261.9	296	299	343.0	1.9	12	1
10.5	3	●		MPS1050S-DIN-C	102	39.2	55	56	100.0	1.9	12	1
	5	●		MPS1050L-DIN-C	118	55.2	71	72	116.0	1.9	12	1
	8	●		MPS1050-L8C	167	85.9	118	121	165.0	1.9	12	1
	10	□		MPS1050-L10C	188	106.9	139	142	186.0	1.9	12	1
	12	●		MPS1050-L12C	209	127.9	160	163	207.0	1.9	12	1
	15	●		MPS1050-L15C	240	159.4	191	194	238.0	1.9	12	1
	20	□		MPS1050-L20C	293	211.9	244	247	291.0	1.9	12	1
	25	□		MPS1050-L25C	345	264.4	296	299	343.0	1.9	12	1
10.6	3	●		MPS1060S-DIN-C	102	39.0	55	56	100.0	1.9	12	1
	5	●		MPS1060L-DIN-C	118	55.0	71	72	116.0	1.9	12	1
	8	●		MPS1060-L8C	172	86.7	123	126	170.0	1.9	12	1
	10	□		MPS1060-L10C	194	107.9	145	148	192.0	1.9	12	1
	12	□		MPS1060-L12C	216	129.1	167	170	214.0	1.9	12	1
	15	□		MPS1060-L15C	249	160.9	198	203	247.0	1.9	12	1
	20	□		MPS1060-L20C	304	213.9	255	258	302.0	1.9	12	1
	25	□		MPS1060-L25C	359	266.9	310	313	357.0	1.9	12	1
10.7	3	●		MPS1070S-DIN-C	102	38.9	55	56	100.0	1.9	12	1
	5	●		MPS1070L-DIN-C	118	54.9	71	72	116.0	1.9	12	1
	8	●		MPS1070-L8C	172	87.5	123	126	170.0	1.9	12	1
	10	□		MPS1070-L10C	194	108.9	145	148	192.0	1.9	12	1
	12	●		MPS1070-L12C	216	130.3	167	170	214.0	1.9	12	1
	15	□		MPS1070-L15C	249	162.4	198	203	247.0	1.9	12	1
	20	□		MPS1070-L20C	304	215.9	255	258	302.0	1.9	12	1
	25	□		MPS1070-L25C	359	269.4	310	313	357.0	1.9	12	1
10.8	3	●		MPS1080S-DIN-C	102	38.8	55	56	100.0	2.0	12	1
	5	●		MPS1080L-DIN-C	118	54.8	71	72	116.0	2.0	12	1
	8	●		MPS1080-L8C	172	88.4	123	126	170.0	2.0	12	1
	10	□		MPS1080-L10C	194	110.0	145	148	192.0	2.0	12	1
	12	●		MPS1080-L12C	216	131.6	167	170	214.0	2.0	12	1
	15	□		MPS1080-L15C	249	164.0	198	203	247.0	2.0	12	1
	20	□		MPS1080-L20C	304	218.0	255	258	302.0	2.0	12	1
	25	□		MPS1080-L25C	359	272.0	310	313	357.0	2.0	12	1

SCHNITTBEDINGUNGEN ➤ L057
TECHNISCHE DATEN ➤ N001

BOHREN (VOLLHARTMETALL)

MPS
4-Fasenbohrer

DC (mm)	Bohrtiefe (l/d)	Lager VP15TF		Bestellbezeichnung	Abmessungen (mm) OAL	LU	LCF	LH	LF	PL	DCON	Typ
10.9	3	●		MPS1090S-DIN-C	102	38.6	55	56	100.0	2.0	12	1
	5	●		MPS1090L-DIN-C	118	54.6	71	72	116.0	2.0	12	1
	8	●		MPS1090-L8C	172	89.2	123	126	170.0	2.0	12	1
	10	□		MPS1090-L10C	194	111.0	145	148	192.0	2.0	12	1
	12	□		MPS1090-L12C	216	132.8	167	170	214.0	2.0	12	1
	15	□		MPS1090-L15C	249	165.5	198	203	247.0	2.0	12	1
	20	□		MPS1090-L20C	304	220.0	255	258	302.0	2.0	12	1
	25	□		MPS1090-L25C	359	274.5	310	313	357.0	2.0	12	1
11.0	3	●		MPS1100S-DIN-C	102	38.5	55	56	100.0	2.0	12	1
	5	●		MPS1100L-DIN-C	118	54.5	71	72	116.0	2.0	12	1
	8	●		MPS1100-L8C	172	90.0	123	126	170.0	2.0	12	1
	10	□		MPS1100-L10C	194	112.0	145	148	192.0	2.0	12	1
	12	●		MPS1100-L12C	216	134.0	167	170	214.0	2.0	12	1
	15	●		MPS1100-L15C	249	167.0	198	203	247.0	2.0	12	1
	20	□		MPS1100-L20C	304	222.0	255	258	302.0	2.0	12	1
	25	□		MPS1100-L25C	359	277.0	310	313	357.0	2.0	12	1
11.1	3	●		MPS1110S-DIN-C	102	38.4	55	56	100.0	2.0	12	1
	5	●		MPS1110L-DIN-C	118	54.4	71	72	116.0	2.0	12	1
	8	●		MPS1110-L8C	178	90.8	129	132	176.0	2.0	12	1
	10	□		MPS1110-L10C	201	113.0	152	155	199.0	2.0	12	1
	12	●		MPS1110-L12C	224	135.2	175	178	222.0	2.0	12	1
	15	●		MPS1110-L15C	258	168.5	209	212	256.0	2.0	12	1
	20	□		MPS1110-L20C	316	224.0	267	270	314.0	2.0	12	1
	25	□		MPS1110-L25C	373	279.5	324	327	371.0	2.0	12	1
11.2	3	●		MPS1120S-DIN-C	102	38.2	55	56	100.0	2.0	12	1
	5	●		MPS1120L-DIN-C	118	54.2	71	72	116.0	2.0	12	1
	8	●		MPS1120-L8C	178	91.6	129	132	176.0	2.0	12	1
	10	□		MPS1120-L10C	201	114.0	152	155	199.0	2.0	12	1
	12	□		MPS1120-L12C	224	136.4	175	178	222.0	2.0	12	1
	15	●		MPS1120-L15C	258	170.0	209	212	256.0	2.0	12	1
	20	□		MPS1120-L20C	316	226.0	267	270	314.0	2.0	12	1
	25	□		MPS1120-L25C	373	282.0	324	327	371.0	2.0	12	1
11.3	3	●		MPS1130S-DIN-C	102	38.1	55	56	100.0	2.1	12	1
	5	●		MPS1130L-DIN-C	118	54.1	71	72	116.0	2.1	12	1
	8	●		MPS1130-L8C	178	92.5	129	132	176.0	2.1	12	1
	10	□		MPS1130-L10C	201	115.1	152	155	199.0	2.1	12	1
	12	□		MPS1130-L12C	224	137.7	175	178	221.9	2.1	12	1
	15	□		MPS1130-L15C	258	171.6	209	212	256.0	2.1	12	1
	20	□		MPS1130-L20C	316	228.1	267	270	314.0	2.1	12	1
	25	□		MPS1130-L25C	373	284.6	324	327	371.0	2.1	12	1
11.4	3	●		MPS1140S-DIN-C	102	38.0	55	56	100.0	2.1	12	1
	5	●		MPS1140L-DIN-C	118	54.0	71	72	116.0	2.1	12	1
	8	●		MPS1140-L8C	178	93.3	129	132	176.0	2.1	12	1
	10	□		MPS1140-L10C	201	116.1	152	155	199.0	2.1	12	1
	12	□		MPS1140-L12C	224	138.9	175	178	221.9	2.1	12	1
	15	□		MPS1140-L15C	258	173.1	209	212	256.0	2.1	12	1
	20	□		MPS1140-L20C	316	230.1	267	270	314.0	2.1	12	1
	25	□		MPS1140-L25C	373	287.1	324	327	371.0	2.1	12	1
11.5	3	●		MPS1150S-DIN-C	102	37.8	55	56	100.0	2.1	12	1
	5	●		MPS1150L-DIN-C	118	53.8	71	72	116.0	2.1	12	1
	8	●		MPS1150-L8C	178	94.1	129	132	176.0	2.1	12	1
	10	□		MPS1150-L10C	201	117.1	152	155	199.0	2.1	12	1
	12	●		MPS1150-L12C	224	140.1	175	178	221.9	2.1	12	1
	15	●		MPS1150-L15C	258	174.6	209	212	256.0	2.1	12	1
	20	□		MPS1150-L20C	316	232.1	267	270	314.0	2.1	12	1
	25	□		MPS1150-L25C	373	289.6	324	327	371.0	2.1	12	1
11.6	3	●		MPS1160S-DIN-C	102	37.7	55	56	100.0	2.1	12	1
	5	●		MPS1160L-DIN-C	118	53.7	71	72	116.0	2.1	12	1
	8	●		MPS1160-L8C	183	94.9	134	137	181.0	2.1	12	1
	10	□		MPS1160-L10C	207	118.1	158	161	205.0	2.1	12	1
	12	□		MPS1160-L12C	231	141.3	182	185	229.0	2.1	12	1
	15	□		MPS1160-L15C	267	176.1	218	221	265.0	2.1	12	1
	20	□		MPS1160-L20C	327	234.1	278	281	325.0	2.1	12	1
	25	□		MPS1160-L25C	387	292.1	338	341	385.0	2.1	12	1
11.7	3	●		MPS1170S-DIN-C	102	37.6	55	56	100.0	2.1	12	1
	5	●		MPS1170L-DIN-C	118	53.6	71	72	116.0	2.1	12	1
	8	●		MPS1170-L8C	183	95.7	134	137	181.0	2.1	12	1
	10	□		MPS1170-L10C	207	119.1	158	161	205.0	2.1	12	1
	12	●		MPS1170-L12C	231	142.5	182	185	229.0	2.1	12	1
	15	●		MPS1170-L15C	267	177.6	218	221	265.0	2.1	12	1
	20	□		MPS1170-L20C	327	236.1	278	281	325.0	2.1	12	1
	25	□		MPS1170-L25C	387	294.6	338	341	385.0	2.1	12	1
11.8	3	●		MPS1180S-DIN-C	102	37.4	55	56	100.0	2.1	12	1
	5	●		MPS1180L-DIN-C	118	53.4	71	72	116.0	2.1	12	1
	8	●		MPS1180-L8C	183	96.5	134	137	181.0	2.1	12	1
	10	□		MPS1180-L10C	207	120.1	158	161	205.0	2.1	12	1
	12	●		MPS1180-L12C	231	143.7	182	185	229.0	2.1	12	1
	15	●		MPS1180-L15C	267	179.1	218	221	265.0	2.1	12	1
	20	□		MPS1180-L20C	327	238.1	278	281	325.0	2.1	12	1
	25	□		MPS1180-L25C	387	297.1	338	341	385.0	2.1	12	1
11.9	3	●		MPS1190S-DIN-C	102	37.3	55	56	100.0	2.2	12	1
	5	●		MPS1190L-DIN-C	118	53.3	71	72	116.0	2.2	12	1
	8	●		MPS1190-L8C	183	97.4	134	137	181.0	2.2	12	1
	10	□		MPS1190-L10C	207	121.2	158	161	205.0	2.2	12	1
	12	□		MPS1190-L12C	231	145.0	182	185	229.0	2.2	12	1
	15	□		MPS1190-L15C	267	180.7	218	221	265.0	2.2	12	1
	20	□		MPS1190-L20C	327	240.2	278	281	325.0	2.2	12	1
	25	□		MPS1190-L25C	387	299.7	338	341	385.0	2.2	12	1
12.0	3	●		MPS1200S-DIN-C	102	37.2	55	56	100.0	2.2	12	2
	5	●		MPS1200L-DIN-C	118	53.2	71	72	116.0	2.2	12	2
	8	●		MPS1200-L8C	183	98.2	134	137	181.0	2.2	12	2
	10	□		MPS1200-L10C	207	122.2	158	161	205.0	2.2	12	2
	12	●		MPS1200-L12C	231	146.2	182	185	229.0	2.2	12	2
	15	●		MPS1200-L15C	267	182.2	218	221	265.0	2.2	12	2
	20	□		MPS1200-L20C	327	242.2	278	281	325.0	2.2	12	2
	25	□		MPS1200-L25C	387	302.2	338	341	385.0	2.2	12	2
12.05	3	●		MPS1205S-DIN-C	107	42.1	60	61	105.0	2.2	14	1
	5	●		MPS1205L-DIN-C	124	59.1	77	78	122.0	2.2	14	1
12.1	3	●		MPS1210S-DIN-C	107	42.1	60	61	105.0	2.2	14	1
	5	●		MPS1210L-DIN-C	124	59.1	77	78	122.0	2.2	14	1
	8	●		MPS1210-L8C	189	99.0	140	143	187.0	2.2	14	1
	10	□		MPS1210-L10C	214	123.2	165	168	212.0	2.2	14	1
	12	●		MPS1210-L12C	239	147.4	190	193	237.0	2.2	14	1
	15	●		MPS1210-L15C	276	183.7	227	230	274.0	2.2	14	1
	20	□		MPS1210-L20C	339	244.2	290	293	337.0	2.2	14	1
12.2	3	●		MPS1220S-DIN-C	107	41.9	60	61	105.0	2.2	14	1
	5	●		MPS1220L-DIN-C	124	58.9	77	78	122.0	2.2	14	1
	8	●		MPS1220-L8C	189	99.8	140	143	187.0	2.2	14	1
	10	□		MPS1220-L10C	214	124.2	165	168	212.0	2.2	14	1
	12	●		MPS1220-L12C	239	148.6	190	193	237.0	2.2	14	1
	15	●		MPS1220-L15C	276	185.2	227	230	274.0	2.2	14	1
	20	□		MPS1220-L20C	339	246.2	290	293	337.0	2.2	14	1

● : Lagerstandard. □ : Nichtstandard, Herstellung nur auf Anfrage.

DC (mm)	Bohrtiefe (l/d)	Lager VP15TF		Bestellbezeichnung	Abmessungen (mm) OAL	LU	LCF	LH	LF	PL	DCON	Typ
	3	●		MPS1230S-DIN-C	107	41.8	60	61	105.0	2.2	14	1
	5	●		MPS1230L-DIN-C	124	58.8	77	78	122.0	2.2	14	1
	8	●		MPS1230-L8C	189	100.6	140	143	187.0	2.2	14	1
12.3	10	□		MPS1230-L10C	214	125.2	165	168	212.0	2.2	14	1
	12	□		MPS1230-L12C	239	149.8	190	193	237.0	2.2	14	1
	15	□		MPS1230-L15C	276	186.7	227	230	274.0	2.2	14	1
	20	□		MPS1230-L20C	339	248.2	290	293	337.0	2.2	14	1
	3	●		MPS1240S-DIN-C	107	41.7	60	61	105.0	2.3	14	1
	5	●		MPS1240L-DIN-C	124	58.7	77	78	122.0	2.3	14	1
	8	●		MPS1240-L8C	189	101.5	140	143	187.0	2.3	14	1
12.4	10	□		MPS1240-L10C	214	126.3	165	168	212.0	2.3	14	1
	12	□		MPS1240-L12C	239	151.1	190	193	237.0	2.3	14	1
	15	□		MPS1240-L15C	276	188.3	227	230	274.0	2.3	14	1
	20	□		MPS1240-L20C	339	250.3	290	293	337.0	2.3	14	1
	3	●		MPS1250S-DIN-C	107	41.5	60	61	105.0	2.3	14	1
	5	●		MPS1250L-DIN-C	124	58.5	77	78	122.0	2.3	14	1
	8	●		MPS1250-L8C	189	102.3	140	143	187.0	2.3	14	1
12.5	10	□		MPS1250-L10C	214	127.3	165	168	212.0	2.3	14	1
	12	●		MPS1250-L12C	239	152.3	190	193	237.0	2.3	14	1
	15	●		MPS1250-L15C	276	189.8	227	230	274.0	2.3	14	1
	20	□		MPS1250-L20C	339	252.3	290	293	337.0	2.3	14	1
	3	●		MPS1260S-DIN-C	107	41.4	60	61	105.0	2.3	14	1
	5	●		MPS1260L-DIN-C	124	58.4	77	78	122.0	2.3	14	1
	8	●		MPS1260-L8C	194	103.1	145	148	192.0	2.3	14	1
12.6	10	□		MPS1260-L10C	220	128.3	171	174	218.0	2.3	14	1
	12	□		MPS1260-L12C	246	153.5	197	200	244.0	2.3	14	1
	15	□		MPS1260-L15C	285	191.3	236	239	283.0	2.3	14	1
	20	□		MPS1260-L20C	350	254.3	301	304	348.0	2.3	14	1
	3	●		MPS1270S-DIN-C	107	41.3	60	61	105.0	2.3	14	1
	5	●		MPS1270L-DIN-C	124	58.3	77	78	122.0	2.3	14	1
	8	●		MPS1270-L8C	194	103.9	145	148	192.0	2.3	14	1
12.7	10	□		MPS1270-L10C	220	129.3	171	174	218.0	2.3	14	1
	12	●		MPS1270-L12C	246	154.7	197	200	244.0	2.3	14	1
	15	□		MPS1270-L15C	285	192.8	236	239	283.0	2.3	14	1
	20	□		MPS1270-L20C	350	256.3	301	304	348.0	2.3	14	1
	3	●		MPS1280S-DIN-C	107	41.1	60	61	105.0	2.3	14	1
	5	●		MPS1280L-DIN-C	124	58.1	77	78	122.0	2.3	14	1
	8	●		MPS1280-L8C	194	104.7	145	148	192.0	2.3	14	1
12.8	10	□		MPS1280-L10C	220	130.3	171	174	218.0	2.3	14	1
	12	●		MPS1280-L12C	246	155.9	197	200	244.0	2.3	14	1
	15	□		MPS1280-L15C	285	194.3	236	239	283.0	2.3	14	1
	20	□		MPS1280-L20C	350	258.3	301	304	348.0	2.3	14	1
	3	●		MPS1290S-DIN-C	107	41.0	60	61	105.0	2.3	14	1
	5	●		MPS1290L-DIN-C	124	58.0	77	78	122.0	2.3	14	1
	8	●		MPS1290-L8C	194	105.5	145	148	192.0	2.3	14	1
12.9	10	□		MPS1290-L10C	220	131.3	171	174	218.0	2.3	14	1
	12	□		MPS1290-L12C	246	157.1	197	200	244.0	2.3	14	1
	15	□		MPS1290-L15C	285	195.8	236	239	283.0	2.3	14	1
	20	□		MPS1290-L20C	350	260.3	301	304	348.0	2.3	14	1
	3	●		MPS1300S-DIN-C	107	40.9	60	61	105.0	2.4	14	1
	5	●		MPS1300L-DIN-C	124	57.9	77	78	122.0	2.4	14	1
	8	●		MPS1300-L8C	194	106.4	145	148	192.0	2.4	14	1
13.0	10	□		MPS1300-L10C	220	132.4	171	174	218.0	2.4	14	1
	12	●		MPS1300-L12C	246	158.4	197	200	244.0	2.4	14	1
	15	●		MPS1300-L15C	285	197.4	236	239	283.0	2.4	14	1
	20	□		MPS1300-L20C	350	262.4	301	304	348.0	2.4	14	1

DC (mm)	Bohrtiefe (l/d)	Lager VP15TF		Bestellbezeichnung	Abmessungen (mm) OAL	LU	LCF	LH	LF	PL	DCON	Typ
	3	●		MPS1310S-DIN-C	107	40.7	60	61	105.0	2.4	14	1
	5	●		MPS1310L-DIN-C	124	57.7	77	78	122.0	2.4	14	1
	8	●		MPS1310-L8C	200	107.2	151	154	198.0	2.4	14	1
13.1	10	□		MPS1310-L10C	227	133.4	178	181	225.0	2.4	14	1
	12	□		MPS1310-L12C	254	159.6	205	208	252.0	2.4	14	1
	15	□		MPS1310-L15C	294	198.9	245	248	292.0	2.4	14	1
	20	□		MPS1310-L20C	362	264.4	313	316	360.0	2.4	14	1
	3	●		MPS1320S-DIN-C	107	40.6	60	61	105.0	2.4	14	1
	5	●		MPS1320L-DIN-C	124	57.6	77	78	122.0	2.4	14	1
	8	●		MPS1320-L8C	200	108.0	151	154	198.0	2.4	14	1
13.2	10	□		MPS1320-L10C	227	134.4	178	181	225.0	2.4	14	1
	12	●		MPS1320-L12C	254	160.8	205	208	252.0	2.4	14	1
	15	□		MPS1320-L15C	294	200.4	245	248	292.0	2.4	14	1
	20	□		MPS1320-L20C	362	266.4	313	316	360.0	2.4	14	1
	3	●		MPS1330S-DIN-C	107	40.5	60	61	105.0	2.4	14	1
	5	●		MPS1330L-DIN-C	124	57.5	77	78	122.0	2.4	14	1
	8	●		MPS1330-L8C	200	108.8	151	154	198.0	2.4	14	1
13.3	10	□		MPS1330-L10C	227	135.4	178	181	225.0	2.4	14	1
	12	□		MPS1330-L12C	254	162.0	205	208	252.0	2.4	14	1
	15	□		MPS1330-L15C	294	201.9	245	248	292.0	2.4	14	1
	20	□		MPS1330-L20C	362	268.4	313	316	360.0	2.4	14	1
	3	●		MPS1340S-DIN-C	107	40.3	60	61	105.0	2.4	14	1
	5	●		MPS1340L-DIN-C	124	57.3	77	78	122.0	2.4	14	1
	8	●		MPS1340-L8C	200	109.6	151	154	198.0	2.4	14	1
13.4	10	□		MPS1340-L10C	227	136.4	178	181	225.0	2.4	14	1
	12	□		MPS1340-L12C	254	163.2	205	208	252.0	2.4	14	1
	15	□		MPS1340-L15C	294	203.4	245	248	292.0	2.4	14	1
	20	□		MPS1340-L20C	362	270.4	313	316	360.0	2.4	14	1
	3	●		MPS1350S-DIN-C	107	40.2	60	61	105.0	2.5	14	1
	5	●		MPS1350L-DIN-C	124	57.2	77	78	122.0	2.5	14	1
	8	●		MPS1350-L8C	200	110.5	151	154	198.0	2.5	14	1
13.5	10	□		MPS1350-L10C	227	137.5	178	181	225.0	2.5	14	1
	12	●		MPS1350-L12C	254	164.5	205	208	252.0	2.5	14	1
	15	□		MPS1350-L15C	294	205.0	245	248	292.0	2.5	14	1
	20	□		MPS1350-L20C	362	272.5	313	316	360.0	2.5	14	1
	3	●		MPS1360S-DIN-C	107	40.1	60	61	105.0	2.5	14	1
	5	●		MPS1360L-DIN-C	124	57.1	77	78	122.0	2.5	14	1
	8	●		MPS1360-L8C	205	111.3	156	159	203.0	2.5	14	1
13.6	10	□		MPS1360-L10C	233	138.5	184	187	231.0	2.5	14	1
	12	□		MPS1360-L12C	261	165.7	212	215	259.0	2.5	14	1
	15	□		MPS1360-L15C	303	206.5	254	257	301.0	2.5	14	1
	20	□		MPS1360-L20C	373	274.5	324	327	371.0	2.5	14	1
	3	●		MPS1370S-DIN-C	107	39.9	60	61	105.0	2.5	14	1
	5	●		MPS1370L-DIN-C	124	56.9	77	78	122.0	2.5	14	1
	8	●		MPS1370-L8C	205	112.1	156	159	203.0	2.5	14	1
13.7	10	□		MPS1370-L10C	233	139.5	184	187	231.0	2.5	14	1
	12	□		MPS1370-L12C	261	166.9	212	215	259.0	2.5	14	1
	15	□		MPS1370-L15C	303	208.0	254	257	301.0	2.5	14	1
	20	□		MPS1370-L20C	373	276.5	324	327	371.0	2.5	14	1
	3	●		MPS1380S-DIN-C	108	39.8	61	62	105.0	2.5	14	1
	5	●		MPS1380L-DIN-C	125	56.8	78	79	122.0	2.5	14	1
	8	●		MPS1380-L8C	206	112.9	157	160	203.0	2.5	14	1
13.8	10	□		MPS1380-L10C	234	140.5	185	188	231.0	2.5	14	1
	12	□		MPS1380-L12C	262	168.1	213	216	259.0	2.5	14	1
	15	□		MPS1380-L15C	304	209.5	255	258	301.0	2.5	14	1
	20	□		MPS1380-L20C	374	278.5	325	328	371.0	2.5	14	1

SCHNITTBEDINGUNGEN ➤ L057
TECHNISCHE DATEN ➤ N001

BOHREN (VOLLHARTMETALL)

MPS
4-Fasenbohrer

DC (mm)	Bohrtiefe (l/d)	Lager VP15TF		Bestellbezeichnung	Abmessungen (mm) OAL	LU	LCF	LH	LF	PL	DCON	Typ
13.9	3	●		MPS1390S-DIN-C	108	39.7	61	62	105.0	2.5	14	1
	5	●		MPS1390L-DIN-C	125	56.7	78	79	122.0	2.5	14	1
	8	●		MPS1390-L8C	206	113.7	157	160	203.0	2.5	14	1
	10	□		MPS1390-L10C	234	141.5	185	188	231.0	2.5	14	1
	12	□		MPS1390-L12C	262	169.3	213	216	259.0	2.5	14	1
	15	□		MPS1390-L15C	304	211.0	255	258	301.0	2.5	14	1
	20	□		MPS1390-L20C	374	280.5	325	328	371.0	2.5	14	1
14.0	3	●		MPS1400S-DIN-C	108	39.5	61	62	105.0	2.5	14	2
	5	●		MPS1400L-DIN-C	125	56.5	78	79	122.0	2.5	14	2
	8	●		MPS1400-L8C	206	114.5	157	160	203.0	2.5	14	2
	10	□		MPS1400-L10C	234	142.5	185	188	231.0	2.5	14	2
	12	●		MPS1400-L12C	262	170.5	213	216	259.0	2.5	14	2
	15	●		MPS1400-L15C	304	212.5	255	258	301.0	2.5	14	2
	20	□		MPS1400-L20C	374	282.5	325	328	371.0	2.5	14	2
14.1	3	□		MPS1410S-DIN-C	115	43.4	65	66	112.0	2.6	16	1
	5	□		MPS1410L-DIN-C	133	61.4	83	84	130.0	2.6	16	1
14.2	3	●		MPS1420S-DIN-C	115	43.3	65	66	112.0	2.6	16	1
	5	●		MPS1420L-DIN-C	133	61.3	83	84	130.0	2.6	16	1
14.3	3	□		MPS1430S-DIN-C	115	43.2	65	66	112.0	2.6	16	1
	5	□		MPS1430L-DIN-C	133	61.2	83	84	130.0	2.6	16	1
14.4	3	□		MPS1440S-DIN-C	115	43.0	65	66	112.0	2.6	16	1
	5	□		MPS1440L-DIN-C	133	61.0	83	84	130.0	2.6	16	1
14.5	3	●		MPS1450S-DIN-C	115	42.9	65	66	112.0	2.6	16	1
	5	●		MPS1450L-DIN-C	133	60.9	83	84	130.0	2.6	16	1
14.6	3	□		MPS1460S-DIN-C	115	42.8	65	66	112.0	2.7	16	1
	5	□		MPS1460L-DIN-C	133	60.8	83	84	130.0	2.7	16	1
14.7	3	□		MPS1470S-DIN-C	115	42.6	65	66	112.0	2.7	16	1
	5	□		MPS1470L-DIN-C	133	60.6	83	84	130.0	2.7	16	1
14.8	3	□		MPS1480S-DIN-C	115	42.5	65	66	112.0	2.7	16	1
	5	□		MPS1480L-DIN-C	133	60.5	83	84	130.0	2.7	16	1
14.9	3	□		MPS1490S-DIN-C	115	42.4	65	66	112.0	2.7	16	1
	5	□		MPS1490L-DIN-C	133	60.4	83	84	130.0	2.7	16	1
15.0	3	●		MPS1500S-DIN-C	115	42.2	65	66	112.0	2.7	16	1
	5	●		MPS1500L-DIN-C	133	60.2	83	84	130.0	2.7	16	1
15.1	3	□		MPS1510S-DIN-C	115	42.1	65	66	112.0	2.7	16	1
	5	□		MPS1510L-DIN-C	133	60.1	83	84	130.0	2.7	16	1
15.2	3	□		MPS1520S-DIN-C	115	42.0	65	66	112.0	2.8	16	1
	5	□		MPS1520L-DIN-C	133	60.0	83	84	130.0	2.8	16	1
15.3	3	□		MPS1530S-DIN-C	115	41.8	65	66	112.0	2.8	16	1
	5	□		MPS1530L-DIN-C	133	59.8	83	84	130.0	2.8	16	1
15.4	3	□		MPS1540S-DIN-C	115	41.7	65	66	112.0	2.8	16	1
	5	□		MPS1540L-DIN-C	133	59.7	83	84	130.0	2.8	16	1
15.5	3	●		MPS1550S-DIN-C	115	41.6	65	66	112.0	2.8	16	1
	5	●		MPS1550L-DIN-C	133	59.6	83	84	130.0	2.8	16	1
15.6	3	□		MPS1560S-DIN-C	115	41.4	65	66	112.0	2.8	16	1
	5	□		MPS1560L-DIN-C	133	59.4	83	84	130.0	2.8	16	1
15.7	3	□		MPS1570S-DIN-C	115	41.3	65	66	112.0	2.9	16	1
	5	□		MPS1570L-DIN-C	133	59.3	83	84	130.0	2.9	16	1
15.8	3	□		MPS1580S-DIN-C	115	41.2	65	66	112.0	2.9	16	1
	5	□		MPS1580L-DIN-C	133	59.2	83	84	130.0	2.9	16	1
15.9	3	□		MPS1590S-DIN-C	115	41.0	65	66	112.0	2.9	16	1
	5	□		MPS1590L-DIN-C	133	59.0	83	84	130.0	2.9	16	1
16.0	3	●		MPS1600S-DIN-C	115	40.9	65	66	112.0	2.9	16	2
	5	●		MPS1600L-DIN-C	133	58.9	83	84	130.0	2.9	16	2
16.1	3	□		MPS1610S-DIN-C	123	48.8	73	74	120.0	2.9	18	1
	5	□		MPS1610L-DIN-C	143	68.8	93	94	140.0	2.9	18	1
16.2	3	□		MPS1620S-DIN-C	123	48.6	73	74	120.0	2.9	18	1
	5	□		MPS1620L-DIN-C	143	68.6	93	94	140.0	2.9	18	1
16.3	3	□		MPS1630S-DIN-C	123	48.5	73	74	120.0	3.0	18	1
	5	□		MPS1630L-DIN-C	143	68.5	93	94	140.0	3.0	18	1
16.4	3	□		MPS1640S-DIN-C	123	48.4	73	74	120.0	3.0	18	1
	5	□		MPS1640L-DIN-C	143	68.4	93	94	140.0	3.0	18	1
16.5	3	●		MPS1650S-DIN-C	123	48.3	73	74	120.0	3.0	18	1
	5	●		MPS1650L-DIN-C	143	68.3	93	94	140.0	3.0	18	1
16.6	3	□		MPS1660S-DIN-C	123	48.1	73	74	120.0	3.0	18	1
	5	□		MPS1660L-DIN-C	143	68.1	93	94	140.0	3.0	18	1
16.7	3	□		MPS1670S-DIN-C	123	48.0	73	74	120.0	3.0	18	1
	5	□		MPS1670L-DIN-C	143	68.0	93	94	140.0	3.0	18	1
16.8	3	□		MPS1680S-DIN-C	123	47.9	73	74	120.0	3.1	18	1
	5	□		MPS1680L-DIN-C	143	67.9	93	94	140.0	3.1	18	1
16.9	3	□		MPS1690S-DIN-C	123	47.7	73	74	120.0	3.1	18	1
	5	□		MPS1690L-DIN-C	143	67.7	93	94	140.0	3.1	18	1
17.0	3	●		MPS1700S-DIN-C	123	47.6	73	74	120.0	3.1	18	1
	5	●		MPS1700L-DIN-C	143	67.6	93	94	140.0	3.1	18	1
17.1	3	□		MPS1710S-DIN-C	123	47.5	73	74	120.0	3.1	18	1
	5	□		MPS1710L-DIN-C	143	67.5	93	94	140.0	3.1	18	1
17.2	3	□		MPS1720S-DIN-C	123	47.3	73	74	120.0	3.1	18	1
	5	□		MPS1720L-DIN-C	143	67.3	93	94	140.0	3.1	18	1
17.3	3	□		MPS1730S-DIN-C	123	47.2	73	74	120.0	3.1	18	1
	5	□		MPS1730L-DIN-C	143	67.2	93	94	140.0	3.1	18	1
17.4	3	□		MPS1740S-DIN-C	123	47.1	73	74	120.0	3.2	18	1
	5	□		MPS1740L-DIN-C	143	67.1	93	94	140.0	3.2	18	1
17.5	3	●		MPS1750S-DIN-C	123	46.9	73	74	120.0	3.2	18	1
	5	●		MPS1750L-DIN-C	143	66.9	93	94	140.0	3.2	18	1
17.6	3	□		MPS1760S-DIN-C	123	46.8	73	74	120.0	3.2	18	1
	5	□		MPS1760L-DIN-C	143	66.8	93	94	140.0	3.2	18	1
17.7	3	□		MPS1770S-DIN-C	123	46.7	73	74	120.0	3.2	18	1
	5	□		MPS1770L-DIN-C	143	66.7	93	94	140.0	3.2	18	1
17.8	3	□		MPS1780S-DIN-C	123	46.5	73	74	120.0	3.2	18	1
	5	□		MPS1780L-DIN-C	143	66.5	93	94	140.0	3.2	18	1
17.9	3	□		MPS1790S-DIN-C	123	46.4	73	74	120.0	3.3	18	1
	5	□		MPS1790L-DIN-C	143	66.4	93	94	140.0	3.3	18	1
18.0	3	●		MPS1800S-DIN-C	123	46.3	73	74	120.0	3.3	18	2
	5	●		MPS1800L-DIN-C	143	66.3	93	94	140.0	3.3	18	2
18.1	3	□		MPS1810S-DIN-C	131	52.1	79	80	128.0	3.3	20	1
	5	□		MPS1810L-DIN-C	153	74.1	101	102	150.0	3.3	20	1
18.2	3	□		MPS1820S-DIN-C	131	52.0	79	80	128.0	3.3	20	1
	5	□		MPS1820L-DIN-C	153	74.0	101	102	150.0	3.3	20	1
18.3	3	□		MPS1830S-DIN-C	131	51.9	79	80	128.0	3.3	20	1
	5	□		MPS1830L-DIN-C	153	73.9	101	102	150.0	3.3	20	1
18.4	3	□		MPS1840S-DIN-C	131	51.7	79	80	128.0	3.3	20	1
	5	□		MPS1840L-DIN-C	153	73.7	101	102	150.0	3.3	20	1
18.5	3	●		MPS1850S-DIN-C	131	51.6	79	80	128.0	3.4	20	1
	5	●		MPS1850L-DIN-C	153	73.6	101	102	150.0	3.4	20	1
18.6	3	□		MPS1860S-DIN-C	131	51.5	79	80	128.0	3.4	20	1
	5	□		MPS1860L-DIN-C	153	73.5	101	102	150.0	3.4	20	1
18.7	3	□		MPS1870S-DIN-C	131	51.4	79	80	128.0	3.4	20	1
	5	□		MPS1870L-DIN-C	153	73.4	101	102	150.0	3.4	20	1
18.8	3	□		MPS1880S-DIN-C	131	51.2	79	80	128.0	3.4	20	1
	5	□		MPS1880L-DIN-C	153	73.2	101	102	150.0	3.4	20	1
18.9	3	□		MPS1890S-DIN-C	131	51.1	79	80	128.0	3.4	20	1
	5	□		MPS1890L-DIN-C	153	73.1	101	102	150.0	3.4	20	1

● : Lagerstandard. □ : Nichtstandard, Herstellung nur auf Anfrage.

DC (mm)	Bohrtiefe (l/d)	Lager VP15TF		Bestellbezeichnung	Abmessungen (mm) OAL	LU	LCF	LH	LF	PL	DCON	Typ
19.0	3	●		**MPS1900S-DIN-C**	131	51.0	79	80	128.0	3.5	20	1
	5	●		MPS**1900L-DIN-C**	153	73.0	101	102	150.0	3.5	20	1
19.1	3	□		MPS**1910S-DIN-C**	131	50.8	79	80	128.0	3.5	20	1
	5	□		MPS**1910L-DIN-C**	153	72.8	101	102	150.0	3.5	20	1
19.2	3	□		MPS**1920S-DIN-C**	131	50.7	79	80	128.0	3.5	20	1
	5	□		MPS**1920L-DIN-C**	153	72.7	101	102	150.0	3.5	20	1
19.3	3	□		MPS**1930S-DIN-C**	132	50.6	80	81	128.0	3.5	20	1
	5	□		MPS**1930L-DIN-C**	154	72.6	102	103	150.0	3.5	20	1
19.4	3	□		MPS**1940S-DIN-C**	132	50.4	80	81	128.0	3.5	20	1
	5	□		MPS**1940L-DIN-C**	154	72.4	102	103	150.0	3.5	20	1
19.5	3	□		MPS**1950S-DIN-C**	132	50.3	80	81	128.0	3.5	20	1
	5	●		MPS**1950L-DIN-C**	154	72.3	102	103	150.0	3.5	20	1
19.6	3	□		MPS**1960S-DIN-C**	132	50.2	80	81	128.0	3.6	20	1
	5	□		MPS**1960L-DIN-C**	154	72.2	102	103	150.0	3.6	20	1
19.7	3	□		MPS**1970S-DIN-C**	132	50.0	80	81	128.0	3.6	20	1
	5	□		MPS**1970L-DIN-C**	154	72.0	102	103	150.0	3.6	20	1
19.8	3	□		MPS**1980S-DIN-C**	132	49.9	80	81	128.0	3.6	20	1
	5	□		MPS**1980L-DIN-C**	154	71.9	102	103	150.0	3.6	20	1
19.9	3	□		MPS**1990S-DIN-C**	132	49.8	80	81	128.0	3.6	20	1
	5	□		MPS**1990L-DIN-C**	154	71.8	102	103	150.0	3.6	20	1
20.0	3	●		MPS**2000S-DIN-C**	132	49.6	80	81	128.0	3.6	20	2
	5	●		MPS**2000L-DIN-C**	154	71.6	102	103	150.0	3.6	20	2

SCHNITTBEDINGUNGEN ➤ L057
TECHNISCHE DATEN ➤ N001

BOHREN (VOLLHARTMETALL)

MSL
2-Fasenbohrer

- Für Bohrtiefen von l/d20—l/d30.
- 2-Fasen VHM-Bohrer für präzises und prozesssicheres Bohren.
- Alle Bohrer mit interner Kühlmittelzufuhr.

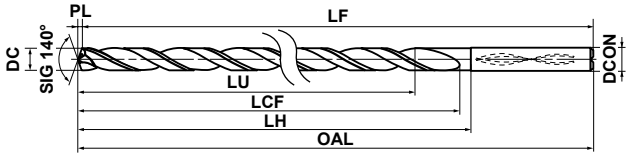


P M K N S H

	3.0≤DC≤6.0	6.0<DC≤10.0	10.0<DC≤18.0	18.0<DC≤20.0
	0 −0.012	0 −0.015	0 −0.018	0 −0.021
h6	0 −0.008	0 −0.009	0 −0.011	0 −0.013



●Zylind. Schaft



MSL (l/d 20—30)

DC (mm)	Bohrtiefe (l/d)	Lager VP15TF		Bestellbezeichnung	Abmessungen (mm) OAL	LU	LCF	LH	LF	PL	DCON
3.0	20	●		MSL0300-L20C	110	60.0	70	74	109.5	0.5	6
	25	●		MSL0300-L25C	125	75.0	85	89	124.5	0.5	6
	30	●		MSL0300-L30C	140	90.0	100	104	139.5	0.5	6
3.1	20	●		MSL0310-L20C	122	62.0	82	86	121.4	0.6	6
	25	●		MSL0310-L25C	139	77.5	99	103	138.4	0.6	6
	30	●		MSL0310-L30C	157	93.0	117	121	156.4	0.6	6
3.2	20	●		MSL0320-L20C	122	64.0	82	86	121.4	0.6	6
	25	●		MSL0320-L25C	139	80.0	99	103	138.4	0.6	6
	30	●		MSL0320-L30C	157	96.0	117	121	156.4	0.6	6
3.3	20	●		MSL0330-L20C	122	66.0	82	86	121.4	0.6	6
	25	●		MSL0330-L25C	139	82.5	99	103	138.4	0.6	6
	30	●		MSL0330-L30C	157	99.0	117	121	156.4	0.6	6
3.4	20	●		MSL0340-L20C	122	68.0	82	86	121.4	0.6	6
	25	●		MSL0340-L25C	139	85.0	99	103	138.4	0.6	6
	30	●		MSL0340-L30C	157	102.0	117	121	156.4	0.6	6
3.5	20	●		MSL0350-L20C	122	70.0	82	86	121.4	0.6	6
	25	●		MSL0350-L25C	139	87.5	99	103	138.4	0.6	6
	30	●		MSL0350-L30C	157	105.0	117	121	156.4	0.6	6
3.6	20	●		MSL0360-L20C	133	72.0	93	97	132.3	0.7	6
	25	□		MSL0360-L25C	153	90.0	113	117	152.3	0.7	6
	30	●		MSL0360-L30C	173	108.0	133	137	172.3	0.7	6
3.7	20	●		MSL0370-L20C	133	74.0	93	97	132.3	0.7	6
	25	□		MSL0370-L25C	153	92.5	113	117	152.3	0.7	6
	30	●		MSL0370-L30C	173	111.0	133	137	172.3	0.7	6
3.8	20	●		MSL0380-L20C	133	76.0	93	97	132.3	0.7	6
	25	●		MSL0380-L25C	153	95.0	113	117	152.3	0.7	6
	30	●		MSL0380-L30C	173	114.0	133	137	172.3	0.7	6
3.9	20	●		MSL0390-L20C	133	78.0	93	97	132.3	0.7	6
	25	□		MSL0390-L25C	153	97.5	113	117	152.3	0.7	6
	30	●		MSL0390-L30C	173	117.0	133	137	172.3	0.7	6
4.0	20	●		MSL0400-L20C	133	80.0	93	97	132.3	0.7	6
	25	●		MSL0400-L25C	153	100.0	113	117	152.3	0.7	6
	30	●		MSL0400-L30C	173	120.0	133	137	172.3	0.7	6
4.1	20	●		MSL0410-L20C	145	82.0	105	109	144.3	0.7	6
	25	●		MSL0410-L25C	167	102.5	127	131	166.3	0.7	6
	30	●		MSL0410-L30C	190	123.0	150	154	189.3	0.7	6
4.2	20	●		MSL0420-L20C	145	84.0	105	109	144.2	0.8	6
	25	●		MSL0420-L25C	167	105.0	127	131	166.2	0.8	6
	30	●		MSL0420-L30C	190	126.0	150	154	189.2	0.8	6
4.3	20	●		MSL0430-L20C	145	86.0	105	109	144.2	0.8	6
	25	●		MSL0430-L25C	167	107.5	127	131	166.2	0.8	6
	30	●		MSL0430-L30C	190	129.0	150	154	189.2	0.8	6
4.4	20	□		MSL0440-L20C	145	88.0	105	109	144.2	0.8	6
	25	□		MSL0440-L25C	167	110.0	127	131	166.2	0.8	6
	30	□		MSL0440-L30C	190	132.0	150	154	189.2	0.8	6
4.5	20	●		MSL0450-L20C	145	90.0	105	109	144.2	0.8	6
	25	●		MSL0450-L25C	167	112.5	127	131	166.2	0.8	6
	30	●		MSL0450-L30C	190	135.0	150	154	189.2	0.8	6
4.6	20	●		MSL0460-L20C	156	92.0	116	120	155.2	0.8	6
	25	●		MSL0460-L25C	181	115.0	141	145	180.2	0.8	6
	30	●		MSL0460-L30C	206	138.0	166	170	205.2	0.8	6
4.7	20	●		MSL0470-L20C	156	94.0	116	120	155.1	0.9	6
	25	●		MSL0470-L25C	181	117.5	141	145	180.1	0.9	6
	30	●		MSL0470-L30C	206	141.0	166	170	205.1	0.9	6
4.8	20	●		MSL0480-L20C	156	96.0	116	120	155.1	0.9	6
	25	●		MSL0480-L25C	181	120.0	141	145	180.1	0.9	6
	30	●		MSL0480-L30C	206	144.0	166	170	205.1	0.9	6
4.9	20	□		MSL0490-L20C	156	98.0	116	120	155.1	0.9	6
	25	●		MSL0490-L25C	181	122.5	141	145	180.1	0.9	6
	30	●		MSL0490-L30C	206	147.0	166	170	205.1	0.9	6
5.0	20	●		MSL0500-L20C	156	100.0	116	120	155.1	0.9	6
	25	●		MSL0500-L25C	181	125.0	141	145	180.1	0.9	6
	30	●		MSL0500-L30C	206	150.0	166	170	205.1	0.9	6
5.1	20	●		MSL0510-L20C	168	102.0	128	132	167.1	0.9	6
	25	●		MSL0510-L25C	195	127.5	155	159	194.1	0.9	6
	30	●		MSL0510-L30C	223	153.0	183	187	222.1	0.9	6
5.2	20	●		MSL0520-L20C	168	104.0	128	132	167.1	0.9	6
	25	●		MSL0520-L25C	195	130.0	155	159	194.1	0.9	6
	30	●		MSL0520-L30C	223	156.0	183	187	222.1	0.9	6
5.3	20	□		MSL0530-L20C	168	106.0	128	132	167.0	1.0	6
	25	●		MSL0530-L25C	195	132.5	155	159	194.0	1.0	6
	30	□		MSL0530-L30C	223	159.0	183	187	222.0	1.0	6
5.4	20	●		MSL0540-L20C	168	108.0	128	132	167.0	1.0	6
	25	□		MSL0540-L25C	195	135.0	155	159	194.0	1.0	6
	30	□		MSL0540-L30C	223	162.0	183	187	222.0	1.0	6
5.5	20	●		MSL0550-L20C	168	110.0	128	132	167.0	1.0	6
	25	●		MSL0550-L25C	195	137.5	155	159	194.0	1.0	6
	30	●		MSL0550-L30C	223	165.0	183	187	222.0	1.0	6
5.6	20	□		MSL0560-L20C	179	112.0	139	143	178.0	1.0	6
	25	□		MSL0560-L25C	209	140.0	169	173	208.0	1.0	6
	30	●		MSL0560-L30C	239	168.0	199	203	238.0	1.0	6
5.7	20	□		MSL0570-L20C	179	114.0	139	143	178.0	1.0	6
	25	●		MSL0570-L25C	209	142.5	169	173	208.0	1.0	6
	30	□		MSL0570-L30C	239	171.0	199	203	238.0	1.0	6

● : Lagerstandard. □ : Nichtstandard, Herstellung nur auf Anfrage.

DC (mm)	Bohrtiefe (l/d)	Lager VP15TF		Bestellbezeichnung	Abmessungen (mm) OAL	LU	LCF	LH	LF	PL	DCON
	20	●		MSL0580-L20C	179	116.0	139	143	177.9	1.1	6
5.8	25	□		MSL0580-L25C	209	145.0	169	173	207.9	1.1	6
	30	●		MSL0580-L30C	239	174.0	199	203	237.9	1.1	6
	20	●		MSL0590-L20C	179	118.0	139	143	177.9	1.1	6
5.9	25	●		MSL0590-L25C	209	147.5	169	173	207.9	1.1	6
	30	□		MSL0590-L30C	239	177.0	199	203	237.9	1.1	6
	20	●		MSL0600-L20C	179	120.0	139	143	177.9	1.1	6
6.0	25	●		MSL0600-L25C	209	150.0	169	173	207.9	1.1	6
	30	●		MSL0600-L30C	239	180.0	199	203	237.9	1.1	6
	20	●		MSL0610-L20C	191	122.0	151	155	189.9	1.1	8
6.1	25	●		MSL0610-L25C	223	152.5	183	187	221.9	1.1	8
	30	●		MSL0610-L30C	256	183.0	216	220	254.9	1.1	8
	20	●		MSL0620-L20C	191	124.0	151	155	189.9	1.1	8
6.2	25	□		MSL0620-L25C	223	155.0	183	187	221.9	1.1	8
	30	□		MSL0620-L30C	256	186.0	216	220	254.9	1.1	8
	20	●		MSL0630-L20C	191	126.0	151	155	189.9	1.1	8
6.3	25	□		MSL0630-L25C	223	157.5	183	187	221.9	1.1	8
	30	●		MSL0630-L30C	256	189.0	216	220	254.9	1.1	8
	20	●		MSL0640-L20C	191	128.0	151	155	189.8	1.2	8
6.4	25	●		MSL0640-L25C	223	160.0	183	187	221.8	1.2	8
	30	●		MSL0640-L30C	256	192.0	216	220	254.8	1.2	8
	20	●		MSL0650-L20C	191	130.0	151	155	189.8	1.2	8
6.5	25	●		MSL0650-L25C	223	162.5	183	187	221.8	1.2	8
	30	●		MSL0650-L30C	256	195.0	216	220	254.8	1.2	8
	20	□		MSL0660-L20C	202	132.0	162	166	200.8	1.2	8
6.6	25	●		MSL0660-L25C	237	165.0	197	201	235.8	1.2	8
	30	●		MSL0660-L30C	272	198.0	232	236	270.8	1.2	8
	20	□		MSL0670-L20C	202	134.0	162	166	200.8	1.2	8
6.7	25	□		MSL0670-L25C	237	167.5	197	201	235.8	1.2	8
	30	●		MSL0670-L30C	272	201.0	232	236	270.8	1.2	8
	20	●		MSL0680-L20C	202	136.0	162	166	200.8	1.2	8
6.8	25	●		MSL0680-L25C	237	170.0	197	201	235.8	1.2	8
	30	●		MSL0680-L30C	272	204.0	232	236	270.8	1.2	8
	20	●		MSL0690-L20C	202	138.0	162	166	200.7	1.3	8
6.9	25	●		MSL0690-L25C	237	172.5	197	201	235.7	1.3	8
	30	●		MSL0690-L30C	272	207.0	232	236	270.7	1.3	8
	20	●		MSL0700-L20C	202	140.0	162	166	200.7	1.3	8
7.0	25	●		MSL0700-L25C	237	175.0	197	201	235.7	1.3	8
	30	●		MSL0700-L30C	272	210.0	232	236	270.7	1.3	8
	20	●		MSL0710-L20C	214	142.0	174	178	212.7	1.3	8
7.1	25	●		MSL0710-L25C	251	177.5	211	215	249.7	1.3	8
	30	□		MSL0710-L30C	289	213.0	249	253	287.7	1.3	8
	20	□		MSL0720-L20C	214	144.0	174	178	212.7	1.3	8
7.2	25	□		MSL0720-L25C	251	180.0	211	215	249.7	1.3	8
	30	□		MSL0720-L30C	289	216.0	249	253	287.7	1.3	8
	20	□		MSL0730-L20C	214	146.0	174	178	212.7	1.3	8
7.3	25	□		MSL0730-L25C	251	182.5	211	215	249.7	1.3	8
	30	□		MSL0730-L30C	289	219.0	249	253	287.7	1.3	8
	20	□		MSL0740-L20C	214	148.0	174	178	212.7	1.3	8
7.4	25	□		MSL0740-L25C	251	185.0	211	215	249.7	1.3	8
	30	□		MSL0740-L30C	289	222.0	249	253	287.7	1.3	8
	20	●		MSL0750-L20C	214	150.0	174	178	212.6	1.4	8
7.5	25	●		MSL0750-L25C	251	187.5	211	215	249.6	1.4	8
	30	●		MSL0750-L30C	289	225.0	249	253	287.6	1.4	8

DC (mm)	Bohrtiefe (l/d)	Lager VP15TF		Bestellbezeichnung	Abmessungen (mm) OAL	LU	LCF	LH	LF	PL	DCON
	20	□		MSL0760-L20C	225	152.0	185	189	223.6	1.4	8
7.6	25	●		MSL0760-L25C	265	190.0	225	229	263.6	1.4	8
	30	□		MSL0760-L30C	305	228.0	265	269	303.6	1.4	8
	20	□		MSL0770-L20C	225	154.0	185	189	223.6	1.4	8
7.7	25	●		MSL0770-L25C	265	192.5	225	229	263.6	1.4	8
	30	□		MSL0770-L30C	305	231.0	265	269	303.6	1.4	8
	20	□		MSL0780-L20C	225	156.0	185	189	223.6	1.4	8
7.8	25	□		MSL0780-L25C	265	195.0	225	229	263.6	1.4	8
	30	●		MSL0780-L30C	305	234.0	265	269	303.6	1.4	8
	20	□		MSL0790-L20C	225	158.0	185	189	223.6	1.4	8
7.9	25	●		MSL0790-L25C	265	197.5	225	229	263.6	1.4	8
	30	□		MSL0790-L30C	305	237.0	265	269	303.6	1.4	8
	20	●		MSL0800-L20C	225	160.0	185	189	223.5	1.5	8
8.0	25	●		MSL0800-L25C	265	200.0	225	229	263.5	1.5	8
	30	●		MSL0800-L30C	305	240.0	265	269	303.5	1.5	8
	20	●		MSL0810-L20C	241	162.0	197	201	239.5	1.5	10
8.1	25	□		MSL0810-L25C	283	202.5	239	243	281.5	1.5	10
	30	□		MSL0810-L30C	326	243.0	282	286	324.5	1.5	10
	20	●		MSL0820-L20C	241	164.0	197	201	239.5	1.5	10
8.2	25	□		MSL0820-L25C	283	205.0	239	243	281.5	1.5	10
	30	□		MSL0820-L30C	326	246.0	282	286	324.5	1.5	10
	20	□		MSL0830-L20C	241	166.0	197	201	239.5	1.5	10
8.3	25	□		MSL0830-L25C	283	207.5	239	243	281.5	1.5	10
	30	□		MSL0830-L30C	326	249.0	282	286	324.5	1.5	10
	20	□		MSL0840-L20C	241	168.0	197	201	239.5	1.5	10
8.4	25	□		MSL0840-L25C	283	210.0	239	243	281.5	1.5	10
	30	□		MSL0840-L30C	326	252.0	282	286	324.5	1.5	10
	20	●		MSL0850-L20C	241	170.0	197	201	239.5	1.5	10
8.5	25	●		MSL0850-L25C	283	212.5	239	243	281.5	1.5	10
	30	●		MSL0850-L30C	326	255.0	282	286	324.5	1.5	10
	20	□		MSL0860-L20C	252	172.0	208	212	250.4	1.6	10
8.6	25	●		MSL0860-L25C	297	215.0	253	257	295.4	1.6	10
	30	●		MSL0860-L30C	342	258.0	298	302	340.4	1.6	10
	20	□		MSL0870-L20C	252	174.0	208	212	250.4	1.6	10
8.7	25	●		MSL0870-L25C	297	217.5	253	257	295.4	1.6	10
	30	□		MSL0870-L30C	342	261.0	298	302	340.4	1.6	10
	20	●		MSL0880-L20C	252	176.0	208	212	250.4	1.6	10
8.8	25	●		MSL0880-L25C	297	220.0	253	257	295.4	1.6	10
	30	●		MSL0880-L30C	342	264.0	298	302	340.4	1.6	10
	20	□		MSL0890-L20C	252	178.0	208	212	250.4	1.6	10
8.9	25	□		MSL0890-L25C	297	222.5	253	257	295.4	1.6	10
	30	□		MSL0890-L30C	342	267.0	298	302	340.4	1.6	10
	20	●		MSL0900-L20C	252	180.0	208	212	250.4	1.6	10
9.0	25	●		MSL0900-L25C	297	225.0	253	257	295.4	1.6	10
	30	●		MSL0900-L30C	342	270.0	298	302	340.4	1.6	10
	20	□		MSL0910-L20C	265	182.0	221	225	263.3	1.7	10
9.1	25	□		MSL0910-L25C	312	227.5	268	272	310.3	1.7	10
	30	□		MSL0910-L30C	360	273.0	316	320	358.3	1.7	10
	20	□		MSL0920-L20C	265	184.0	221	225	263.3	1.7	10
9.2	25	□		MSL0920-L25C	312	230.0	268	272	310.3	1.7	10
	30	□		MSL0920-L30C	360	276.0	316	320	358.3	1.7	10
	20	□		MSL0930-L20C	265	186.0	221	225	263.3	1.7	10
9.3	25	□		MSL0930-L25C	312	232.5	268	272	310.3	1.7	10
	30	□		MSL0930-L30C	360	279.0	316	320	358.3	1.7	10

SCHNITTBEDINGUNGEN ➤ L057
TECHNISCHE DATEN ➤ N001

MSL
2-Fasenbohrer

DC (mm)	Bohrtiefe (l/d)	Lager VP15TF		Bestellbezeichnung	Abmessungen (mm) OAL	LU	LCF	LH	LF	PL	DCON
9.4	20	□		MSL0940-L20C	265	188.0	221	225	263.3	1.7	10
	25	□		MSL0940-L25C	312	235.0	268	272	310.3	1.7	10
	30	□		MSL0940-L30C	360	282.0	316	320	358.3	1.7	10
9.5	20	●		MSL0950-L20C	265	190.0	221	225	263.3	1.7	10
	25	●		MSL0950-L25C	312	237.5	268	272	310.3	1.7	10
	30	●		MSL0950-L30C	360	285.0	316	320	358.3	1.7	10
9.6	20	□		MSL0960-L20C	276	192.0	232	236	274.3	1.7	10
	25	□		MSL0960-L25C	326	240.0	282	286	324.3	1.7	10
	30	□		MSL0960-L30C	376	288.0	332	336	374.3	1.7	10
9.7	20	□		MSL0970-L20C	276	194.0	232	236	274.2	1.8	10
	25	□		MSL0970-L25C	326	242.5	282	286	324.2	1.8	10
	30	□		MSL0970-L30C	376	291.0	332	336	374.2	1.8	10
9.8	20	●		MSL0980-L20C	276	196.0	232	236	274.2	1.8	10
	25	□		MSL0980-L25C	326	245.0	282	286	324.2	1.8	10
	30	●		MSL0980-L30C	376	294.0	332	336	374.2	1.8	10
9.9	20	□		MSL0990-L20C	276	198.0	232	236	274.2	1.8	10
	25	□		MSL0990-L25C	326	247.5	282	286	324.2	1.8	10
	30	□		MSL0990-L30C	376	297.0	332	336	374.2	1.8	10
10.0	20	●		MSL1000-L20C	276	200.0	232	236	274.2	1.8	10
	25	●		MSL1000-L25C	326	250.0	282	286	324.2	1.8	10
	30	●		MSL1000-L30C	376	300.0	332	336	374.2	1.8	10
10.1	20	●		MSL1010-L20C	293	202.0	244	248	291.2	1.8	12
	25	□		MSL1010-L25C	345	252.5	296	300	343.2	1.8	12
10.2	20	●		MSL1020-L20C	293	204.0	244	248	291.1	1.9	12
	25	□		MSL1020-L25C	345	255.0	296	300	343.1	1.9	12
10.3	20	□		MSL1030-L20C	293	206.0	244	248	291.1	1.9	12
	25	□		MSL1030-L25C	345	257.5	296	300	343.1	1.9	12
10.4	20	□		MSL1040-L20C	293	208.0	244	248	291.1	1.9	12
	25	□		MSL1040-L25C	345	260.0	296	300	343.1	1.9	12
10.5	20	●		MSL1050-L20C	293	210.0	244	248	291.1	1.9	12
	25	●		MSL1050-L25C	345	262.5	296	300	343.1	1.9	12
10.6	20	□		MSL1060-L20C	304	212.0	255	259	302.1	1.9	12
	25	□		MSL1060-L25C	359	265.0	310	314	357.1	1.9	12
10.7	20	□		MSL1070-L20C	304	214.0	255	259	302.1	1.9	12
	25	□		MSL1070-L25C	359	267.5	310	314	357.1	1.9	12
10.8	20	□		MSL1080-L20C	304	216.0	255	259	302.0	2.0	12
	25	□		MSL1080-L25C	359	270.0	310	314	357.0	2.0	12
10.9	20	□		MSL1090-L20C	304	218.0	255	259	302.0	2.0	12
	25	□		MSL1090-L25C	359	272.5	310	314	357.0	2.0	12
11.0	20	●		MSL1100-L20C	304	220.0	255	259	302.0	2.0	12
	25	●		MSL1100-L25C	359	275.0	310	314	357.0	2.0	12
11.1	20	□		MSL1110-L20C	316	222.0	267	271	314.0	2.0	12
	25	□		MSL1110-L25C	373	277.5	324	328	371.0	2.0	12
11.2	20	□		MSL1120-L20C	316	224.0	267	271	314.0	2.0	12
	25	□		MSL1120-L25C	373	280.0	324	328	371.0	2.0	12
11.3	20	□		MSL1130-L20C	316	226.0	267	271	313.9	2.1	12
	25	□		MSL1130-L25C	373	282.5	324	328	370.9	2.1	12
11.4	20	□		MSL1140-L20C	316	228.0	267	271	313.9	2.1	12
	25	□		MSL1140-L25C	373	285.0	324	328	370.9	2.1	12
11.5	20	●		MSL1150-L20C	316	230.0	267	271	313.9	2.1	12
	25	●		MSL1150-L25C	373	287.5	324	328	370.9	2.1	12
11.6	20	□		MSL1160-L20C	327	232.0	278	282	324.9	2.1	12
	25	□		MSL1160-L25C	387	290.0	338	342	384.9	2.1	12
11.7	20	□		MSL1170-L20C	327	234.0	278	282	324.9	2.1	12
	25	□		MSL1170-L25C	387	292.5	338	342	384.9	2.1	12
11.8	20	□		MSL1180-L20C	327	236.0	278	282	324.9	2.1	12
	25	□		MSL1180-L25C	387	295.0	338	342	384.9	2.1	12
11.9	20	□		MSL1190-L20C	327	238.0	278	282	324.8	2.2	12
	25	□		MSL1190-L25C	387	297.5	338	342	384.8	2.2	12
12.0	20	●		MSL1200-L20C	327	240.0	278	282	324.8	2.2	12
	25	●		MSL1200-L25C	387	300.0	338	342	384.8	2.2	12
12.1	20	□		MSL1210-L20C	339	242.0	290	294	336.8	2.2	14
12.2	20	□		MSL1220-L20C	339	244.0	290	294	336.8	2.2	14
12.3	20	□		MSL1230-L20C	339	246.0	290	294	336.8	2.2	14
12.4	20	□		MSL1240-L20C	339	248.0	290	294	336.7	2.3	14
12.5	20	□		MSL1250-L20C	339	250.0	290	294	336.7	2.3	14
12.6	20	□		MSL1260-L20C	350	252.0	301	305	347.7	2.3	14
12.7	20	□		MSL1270-L20C	350	254.0	301	305	347.7	2.3	14
12.8	20	□		MSL1280-L20C	350	256.0	301	305	347.7	2.3	14
12.9	20	□		MSL1290-L20C	350	258.0	301	305	347.7	2.3	14
13.0	20	●		MSL1300-L20C	350	260.0	301	305	347.6	2.4	14
13.1	20	□		MSL1310-L20C	362	262.0	313	317	359.6	2.4	14
13.2	20	□		MSL1320-L20C	362	264.0	313	317	359.6	2.4	14
13.3	20	□		MSL1330-L20C	362	266.0	313	317	359.6	2.4	14
13.4	20	□		MSL1340-L20C	362	268.0	313	317	359.6	2.4	14
13.5	20	□		MSL1350-L20C	362	270.0	313	317	359.5	2.5	14
13.6	20	□		MSL1360-L20C	373	272.0	324	328	370.5	2.5	14
13.7	20	□		MSL1370-L20C	373	274.0	324	328	370.5	2.5	14
13.8	20	□		MSL1380-L20C	373	276.0	324	328	370.5	2.5	14
13.9	20	□		MSL1390-L20C	373	278.0	324	328	370.5	2.5	14
14.0	20	●		MSL1400-L20C	373	280.0	324	328	370.5	2.5	14

● : Lagerstandard. □ : Nichtstandard, Herstellung nur auf Anfrage.

SCHNITTDATENEMPFEHLUNGEN

MPS (3xD, 5xD, 8xD, 12xD)

Werkstoff		Bohrer Durchm. / Bedingung / Härte	ϕ3.0—ϕ6.0		ϕ6.0—ϕ10.0		ϕ10.0—ϕ14.0		ϕ14.0—ϕ20.0	
			Schnittgeschw. (m/min)	Vorschub (mm/U.)	Schnittgeschw. (m/min)	Vorschub (mm/U.)	Schnittgeschw. (m/min)	Vorschub (mm/U.)	Schnittgeschw. (m/min)	Vorschub (mm/U.)
P	Allg. Baustahl	≤180HB	110 (50—120)	0.20 (0.15—0.25)	130 (80—140)	0.25 (0.20—0.35)	150 (90—170)	0.30 (0.20—0.40)	160 (100—180)	0.35 (0.20—0.40)
	C-Stahl Leg. Stahl	180—280HB	90 (50—100)	0.20 (0.15—0.25)	110 (70—120)	0.25 (0.20—0.35)	130 (80—140)	0.25 (0.20—0.40)	140 (100—150)	0.30 (0.20—0.40)
		280—350HB	80 (40—90)	0.20 (0.15—0.30)	90 (60—110)	0.25 (0.15—0.30)	110 (70—130)	0.25 (0.15—0.40)	120 (90—140)	0.30 (0.20—0.40)
M	Rostfreier Stahl	≤200HB	50 (20—100)	0.10 (0.05—0.15)	60 (40—120)	0.20 (0.10—0.25)	70 (50—120)	0.25 (0.15—0.30)	80 (60—120)	0.25 (0.15—0.30)
K	Guss	Zugfestigkeit ≤350MPa	100 (70—120)	0.25 (0.15—0.30)	130 (100—140)	0.30 (0.20—0.35)	150 (110—160)	0.35 (0.25—0.40)	160 (120—170)	0.35 (0.25—0.40)
	Duktiler Guss	Zugfestigkeit ≤450MPa	60 (30—80)	0.20 (0.15—0.25)	70 (40—90)	0.20 (0.15—0.30)	90 (50—110)	0.25 (0.20—0.40)	100 (60—110)	0.3 (0.20—0.40)
S	Hitzebeständiger Stahl	—	20 (10—25)	0.10 (0.05—0.15)	25 (15—30)	0.12 (0.05—0.15)	25 (15—30)	0.15 (0.10—0.20)	30 (25—35)	0.15 (0.10—0.20)

MPS (l/d=15—30), MSL (l/d=20—30)

Werkstoff		Bohrer Durchm. / Bedingung / Härte	ϕ3.0—ϕ6.0		ϕ6.0—ϕ10.0		ϕ10.0—ϕ14.0	
			Schnittgeschw. (m/min)	Vorschub (mm/U.)	Schnittgeschw. (m/min)	Vorschub (mm/U.)	Schnittgeschw. (m/min)	Vorschub (mm/U.)
P	Allg. Baustahl	≤180HB	85 (35—100)	0.20 (0.15—0.25)	85 (45—120)	0.25 (0.15—0.35)	90 (55—120)	0.30 (0.20—0.35)
	C-Stahl Leg. Stahl	180—280HB	80 (40—95)	0.20 (0.15—0.25)	90 (50—120)	0.25 (0.20—0.35)	90 (60—130)	0.30 (0.15—0.35)
		280—350HB	75 (35—80)	0.15 (0.15—0.20)	80 (45—115)	0.20 (0.15—0.25)	85 (55—115)	0.25 (0.15—0.30)
M	Rostfreier Stahl	≤200HB	50 (20—80)	0.10 (0.05—0.15)	60 (20—90)	0.12 (0.05—0.15)	70 (20—90)	0.15 (0.10—0.20)
K	Guss	Zugfestigkeit ≤350MPa	70 (40—85)	0.25 (0.15—0.30)	75 (50—90)	0.30 (0.20—0.35)	80 (50—95)	0.35 (0.20—0.40)
	Duktiler Guss	Zugfestigkeit ≤450MPa	65 (35—80)	0.20 (0.15—0.25)	70 (45—85)	0.25 (0.15—0.30)	75 (45—90)	0.30 (0.20—0.35)
S	Hitzebeständiger Stahl	—	20 (10—25)	0.10 (0.05—0.15)	25 (15—30)	0.12 (0.05—0.15)	25 (15—30)	0.15 (0.10—0.20)

MPS (l/d=35—40)

Werkstoff		Bohrer Durchm. / Bedingung / Härte	ϕ3.0—ϕ4.0		ϕ5.0—ϕ6.0		ϕ6.0—ϕ9.0	
			Schnittgeschw. (m/min)	Vorschub (mm/U.)	Schnittgeschw. (m/min)	Vorschub (mm/U.)	Schnittgeschw. (m/min)	Vorschub (mm/U.)
P	Allg. Baustahl	≤180HB	60 (50—70)	0.18 (0.13—0.20)	70 (55—80)	0.20 (0.15—0.23)	75 (60—85)	0.25 (0.18—0.28)
	C-Stahl Leg. Stahl	180—280HB	55 (40—65)	0.15 (0.10—0.18)	65 (45—75)	0.18 (0.13—0.22)	70 (55—80)	0.23 (0.15—0.25)
		280—350HB	50 (40—60)	0.12 (0.08—0.15)	55 (40—65)	0.17 (0.13—0.20)	60 (40—75)	0.20 (0.15—0.23)
M	Rostfreier Stahl	≤200HB	35 (30—45)	0.10 (0.07—0.15)	40 (30—50)	0.12 (0.08—0.15)	45 (30—60)	0.15 (0.13—0.20)
K	Guss	Zugfestigkeit ≤350MPa	55 (35—70)	0.15 (0.10—0.20)	60 (40—65)	0.20 (0.15—0.23)	60 (45—70)	0.23 (0.18—0.28)
	Duktiler Guss	Zugfestigkeit ≤450MPa	45 (30—60)	0.12 (0.08—0.15)	50 (40—60)	0.17 (0.13—0.20)	55 (40—65)	0.20 (0.15—0.23)
S	Hitzebeständiger Stahl	—	15 (10—25)	0.07 (0.05—0.10)	20 (10—25)	0.07 (0.05—0.10)	20 (10—25)	0.10 (0.06—0.12)

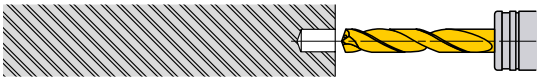
Die aufgeführten Schnittdaten können je nach Maschinenleistung, Werkstückbeschaffenheit oder Spannung modifiziert werden, und gelten als allgemeine Empfehlung. Für Bohrtiefen > l/d10 empfehlen wir eine Pitotbohrung.

MPS.MSL

VERWENDUNG VON MPS/MSL-LANGBOHRER

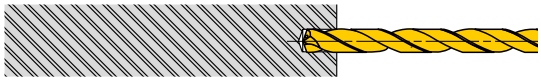
●Sacklochbohrung setzen

1. Pilotbohrung setzen



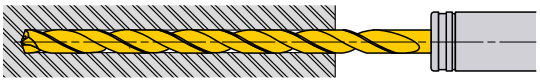
①Für die Pilotbohrungen empfehlen wir den Einsatz von Mitsubishi Bohrern Typ MPS.
②Bitte stellen Sie eine präzise Pilotbohrung her, um einen einwandfreien Prozess beim Tieflochbohren zu gewährleisten.
③Pilotbohrung : Min. 1 x DC oder tiefer.
(Passen Sie die Tiefe der Pilotbohrung der Länge Ihres SuperLong Bohrers an)

2. Einfahren in die Pilotbohrung



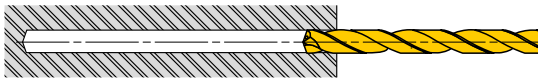
①Mit niedriger Drehzahl in das Führungsloch eindringen.
(Schnittgeschwindigkeit 20—30m/min, Vorschub 0.2—0.3mm/U)
②Langbohrer 1—3mm vor dem Boden des Führungslochs stoppen.

3. Tieflochbohren



①Erhöhen Sie die Drehzahl und den Vorschub auf einen Zyklus und bohren Sie bis zur gewünschten Bohrtiefe.

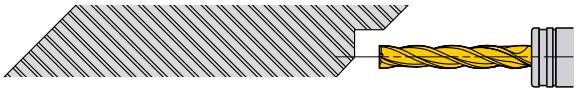
4. Herausfahren des Bohrers



①Nach dem Bohren Schnittgeschwindigkeit etwa 1—2mm vom Bohrungsende entfernt reduzieren (Schnittgeschwindigkeit 20—30m/min.)
②Fahren Sie den Bohrer bis zur Tiefe der Pilotbohrung heraus (Vf=3000mm/min.)
③Fahren Sie den Bohrer aus der Pilotbohrung mit geringer Drehzahl (n=300, Vf=3000mm/min)

●Bohrungen in angewinkelten Werkstücken

1. Planfräsen



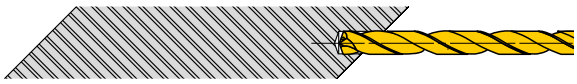
①Fräsen Sie eine ebene Fläche in das Werkstück und setzen Sie einen Fräser mit gleichem Durchmesser wie die gewünschte Bohrung ein.

2. Pilotbohrung setzen



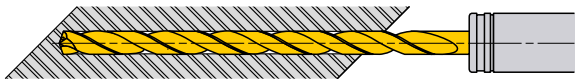
①Für die Pilotbohrungen empfehlen wir den Einsatz von Mitsubishi Bohrern Typ MPS.
②Bitte stellen Sie eine präzise Pilotbohrung her, um einen einwandfreien Prozess beim Tieflochbohren zu gewährleisten.
③Pilotbohrung : Min. 1 x DC oder tiefer.
(Passen Sie die Tiefe der Pilotbohrung der Länge Ihres SuperLong Bohrers an)

3. Einfahren in die Pilotbohrung



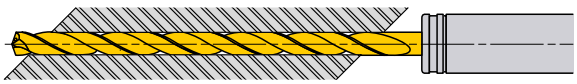
①Mit niedriger Drehzahl in das Führungsloch eindringen.
(Schnittgeschwindigkeit 20—30m/min, Vorschub 0.2—0.3mm/U)
②Langbohrer 1—3mm vor dem Boden des Führungslochs stoppen.

4. Tieflochbohren



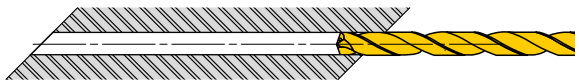
①Erhöhen Sie die Drehzahl und den Vorschub auf einen Zyklus und bohren Sie bis zur gewünschten Bohrtiefe.

5. Durchgangsbohren



①Beim Austritt aus dem Werkstück kann die Schneidkante des Bohrers ausbrechen.
②Reduzieren Sie den Vorschub auf Vf=0.05mm—0.1mm/U

6. Herausfahren des Bohrers



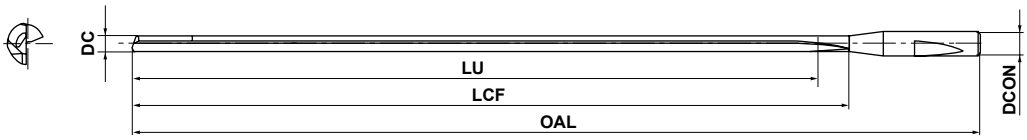
①Bohrer auf Pilotbohrung-Startpunkttiefe herausziehen bei einem Vorschub von 3000mm/min.
②Dann Bohrung mit einer Schnittgeschwindigkeit von 20—30m/min und einem Vorschub von 0.2—0.3mm/U bearbeiten.

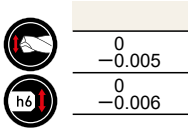
MICRO-MGS

- VHM-Einlippenbohrer mit interner Kühlmittelzufuhr.
- Hervorragende Rundlaufgenauigkeit gewährleistet hochpräzises Bohren.

P M K N S H







(Bemerkung) MGS Bohrer eignen sich für die Verwendung mit Schrumpfaufnahmen.

DC (mm)	Bohrtiefe (l/d)	Kühlung (Int./Ext.)	Lager HTi10	Bestellbezeichnung	Abmessungen (mm) LU	LCF	OAL	DCON
0.7	50	Int.	★	**MGS0070L040B**	35.0	40	80	3
	80	Int.	★	MGS0070L060B	56.0	60	100	3
0.8	45	Int.	★	MGS0080L040B	36.0	40	80	3
	70	Int.	★	MGS0080L060B	56.0	60	100	3
0.9	40	Int.	★	MGS0090L040B	36.0	40	80	3
	60	Int.	★	MGS0090L060B	54.0	60	100	3
1.0	35	Int.	★	MGS0100L040B	35.0	40	80	3
	55	Int.	★	MGS0100L060B	55.0	60	100	3
	75	Int.	★	MGS0100L080B	75.0	80	120	3
1.1	30	Int.	★	MGS0110L040B	33.0	40	80	3
	50	Int.	★	MGS0110L060B	55.0	60	100	3
	65	Int.	★	MGS0110L080B	71.5	80	120	3
1.2	30	Int.	★	MGS0120L040B	36.0	40	80	3
	45	Int.	★	MGS0120L060B	54.0	60	100	3
	60	Int.	★	MGS0120L080B	72.0	80	120	3
1.3	40	Int.	★	MGS0130L060B	52.0	60	100	3
	55	Int.	★	MGS0130L080B	71.5	80	120	3
	70	Int.	★	MGS0130L100B	91.0	100	140	3
1.4	35	Int.	★	MGS0140L060B	49.0	60	100	3
	50	Int.	★	MGS0140L080B	70.0	80	120	3
	65	Int.	★	MGS0140L100B	91.0	100	140	3
1.5	35	Int.	★	MGS0150L060B	52.5	60	100	3
	50	Int.	★	MGS0150L080B	75.0	80	120	3
	60	Int.	★	MGS0150L100B	90.0	100	140	3
1.6	30	Int.	★	MGS0160L060B	48.0	60	100	3
	45	Int.	★	MGS0160L080B	72.0	80	120	3
	55	Int.	★	MGS0160L100B	88.0	100	140	3
1.7	30	Int.	★	MGS0170L060B	51.0	60	100	3
	40	Int.	★	MGS0170L080B	68.0	80	120	3
	55	Int.	★	MGS0170L100B	93.5	100	140	3
1.8	30	Int.	★	**MGS0180L060B**	54.0	60	100	3
	40	Int.	★	MGS0180L080B	72.0	80	120	3
	50	Int.	★	MGS0180L100B	90.0	100	140	3
1.9	25	Int.	★	MGS0190L060B	47.5	60	100	3
	35	Int.	★	MGS0190L080B	66.5	80	120	3
	45	Int.	★	MGS0190L100B	85.5	100	140	3
2.0	25	Int.	★	MGS0200L060B	50.0	60	100	3
	35	Int.	★	MGS0200L080B	70.0	80	120	3
	45	Int.	★	MGS0200L100B	90.0	100	140	3
2.1	35	Int.	★	MGS0210L080B	73.5	80	120	3
	40	Int.	★	MGS0210L100B	84.0	100	140	3
2.2	30	Int.	★	MGS0220L080B	66.0	80	120	3
	40	Int.	★	MGS0220L100B	88.0	100	140	3
2.3	30	Int.	★	MGS0230L080B	69.0	80	120	3
	40	Int.	★	MGS0230L100B	92.0	100	140	3
2.4	30	Int.	★	MGS0240L080B	72.0	80	120	3
	35	Int.	★	MGS0240L100B	84.0	100	140	3
2.5	25	Int.	★	MGS0250L080B	62.5	80	120	3
	35	Int.	★	MGS0250L100B	87.5	100	140	3
2.6	25	Int.	★	MGS0260L080B	65.0	80	120	3
	35	Int.	★	MGS0260L100B	91.0	100	140	3
2.7	25	Int.	★	MGS0270L080B	67.5	80	120	3
	30	Int.	★	MGS0270L100B	81.0	100	140	3
2.8	25	Int.	★	MGS0280L080B	70.0	80	120	3
	30	Int.	★	MGS0280L100B	84.0	100	140	3
2.9	20	Int.	★	MGS0290L080B	58.0	80	120	3
	30	Int.	★	MGS0290L100B	87.0	100	140	3
3.0	20	Int.	★	MGS0300L080B	60.0	80	120	3
	30	Int.	★	MGS0300L100B	90.0	100	140	3

(Bemerkung) Bitte setzen Sie sich mit uns in Verbindung, um Informationen zu beschichteten Bohrern zu erhalten.
(***VP***, ***GP*** und ***UP*** besch. Hartmetall).

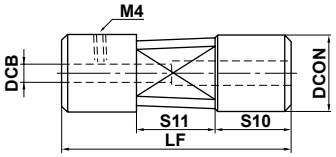
★ : Lagerstandard in Japan.

SCHNITTBEDINGUNGEN ➢ L060
TECHNISCHE DATEN ➢ N001

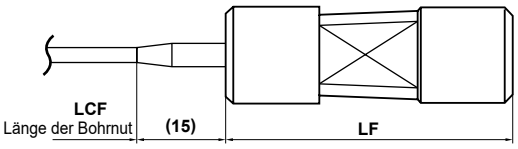
BOHREN (VOLLHARTMETALL)

MICRO-MGS

SCHRAUBENDREHER



BEI VERWENDUNG EINER BOHRBUCHSE



Bestellbezeichnung	Lager	Abmessungen (mm)					Schraube	Schlüssel
		DCON	DCB	LF	S10	S11		
MGD38	★	12.7	3.0	38.1	12.6	12.7	HSS04004	HKY20F
MGD70	★	12.7	3.0	70.0	25.0	20.0	HSS04004	HKY20F

SCHNITTDATENEMPFEHLUNGEN

Werkstoff	P				P			
	Allg. Baustahl (≤180HB) Ck10				C-Stahl Leg. Stahl (180−280HB) Ck45, 42CrMo4			
Kühlmittel	Nicht wasserlösliche Emulsion				Nicht wasserlösliche Emulsion			
Bohrer Durchm. **DC** (mm)	Schnittgeschw. (m/min)	Drehzahl (min^{-1})	Vorschub (min.−max.) (mm/U.)	Tischvorschub (mm/min)	Schnittgeschw. (m/min)	Drehzahl (min^{-1})	Vorschub (min.−max.) (mm/U.)	Tischvorschub (mm/min)
0.8	50	19800	0.01 (0.005−0.016)	195	40	15900	0.01 (0.005−0.016)	155
1.0	50	15900	0.01 (0.007−0.020)	155	40	12700	0.01 (0.007−0.020)	125
1.2	60	15900	0.015 (0.008−0.024)	235	50	13200	0.015 (0.008−0.024)	195
1.6	60	11900	0.02 (0.011−0.032)	235	50	9900	0.02 (0.011−0.032)	195
2.0	60	9500	0.025 (0.013−0.040)	235	50	7900	0.025 (0.013−0.040)	195
2.5	70	8900	0.03 (0.017−0.050)	265	60	7600	0.03 (0.017−0.050)	225
3.0	70	7400	0.04 (0.020−0.060)	295	60	6300	0.04 (0.020−0.060)	250

Werkstoff	P				M			
	C-Stahl Leg. Stahl (280−350HB) 36CrNiMo4				Rostfreier Stahl (austenitisch) (≤200HB) X5CrNi1810, X5CrNiMo17-12-2			
Kühlmittel	Nicht wasserlösliche Emulsion				Nicht wasserlösliche Emulsion			
Bohrer Durchm. **DC** (mm)	Schnittgeschw. (m/min)	Drehzahl (min^{-1})	Vorschub (min.−max.) (mm/U.)	Tischvorschub (mm/min)	Schnittgeschw. (m/min)	Drehzahl (min^{-1})	Vorschub (min.−max.) (mm/U.)	Tischvorschub (mm/min)
0.8	30	11900	0.005 (0.004−0.005)	55	30	11900	0.01 (0.005−0.016)	115
1.0	30	9500	0.005 (0.005−0.007)	45	30	9500	0.01 (0.007−0.020)	95
1.2	40	10600	0.005 (0.006−0.008)	50	30	7900	0.015 (0.008−0.024)	115
1.6	40	7900	0.01 (0.008−0.011)	75	40	7900	0.02 (0.011−0.032)	155
2.0	40	6300	0.01 (0.010−0.013)	60	40	6300	0.025 (0.013−0.040)	155
2.5	50	6300	0.015 (0.013−0.017)	90	40	5000	0.03 (0.017−0.050)	150
3.0	50	5300	0.015 (0.015−0.020)	75	40	4200	0.04 (0.020−0.060)	165

Werkstoff	K				K			
	Grauguß (≤350MPa) GG30				Duktiler Guss (≤450MPa) GGG45			
Kühlmittel	Nicht wasserlösliche Emulsion • Wasserlösliche Emulsion				Nicht wasserlösliche Emulsion • Wasserlösliche Emulsion			
Bohrer Durchm. **DC** (mm)	Schnittgeschw. (m/min)	Drehzahl (min^{-1})	Vorschub (min.−max.) (mm/U.)	Tischvorschub (mm/min)	Schnittgeschw. (m/min)	Drehzahl (min^{-1})	Vorschub (min.−max.) (mm/U.)	Tischvorschub (mm/min)
0.8	50	19800	0.01 (0.008−0.016)	195	40	15900	0.005 (0.005−0.008)	75
1.0	50	15900	0.015 (0.010−0.020)	235	40	12700	0.005 (0.007−0.010)	60
1.2	60	15900	0.015 (0.012−0.024)	235	50	13200	0.01 (0.008−0.012)	130
1.6	60	11900	0.02 (0.016−0.032)	235	50	9900	0.01 (0.011−0.016)	95
2.0	60	9500	0.03 (0.020−0.040)	285	50	7900	0.015 (0.013−0.020)	115
2.5	70	8900	0.035 (0.025−0.050)	310	60	7600	0.02 (0.017−0.025)	150
3.0	70	7400	0.045 (0.030−0.060)	330	60	6300	0.025 (0.020−0.030)	155

1) Zur Verbesserung der Prozesssicherheit und Produktivität wird der Einsatz eines Kühlmittels empfohlen. (Mindestkühlmitteldruck = 1000 PSI)
2) Der Kühlmittelfilter muss feiner als 5 Mikrometer sein.
   Eine Feinfilterung ist notwendig, um die Blockierung der Kühlmittelleitungen zu vermeiden.
3) Eine Pilotbohrung oder Führungsbuchse ist erforderlich.

★ : Lagerstandard in Japan.

SCHNITTDATENEMPFEHLUNGEN

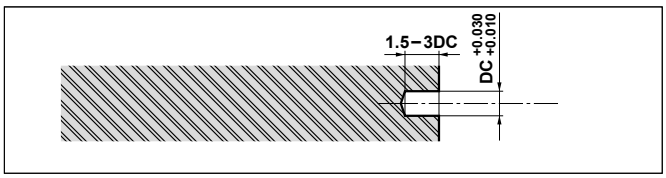
Werkstoff	N							
	Aluminium Leg.(Si<5%)				Kupfer • Kupfer Leg.			
Kühlmittel	Nicht wasserlösliche Emulsion • Wasserlösliche Emulsion				Nicht wasserlösliche Emulsion • Wasserlösliche Emulsion			
Bohrer Durchm. **DC** (mm)	Schnittgeschw. (m/min)	Drehzahl (min^{-1})	Vorschub (min.—max.) (mm/U.)	Tischvorschub (mm/min)	Schnittgeschw. (m/min)	Drehzahl (min^{-1})	Vorschub (min.—max.) (mm/U.)	Tischvorschub (mm/min)
0.8	50	19800	0.01 (0.008—0.016)	195	40	15900	0.01 (0.008—0.016)	155
1.0	60	19000	0.015 (0.010—0.020)	285	50	15900	0.015 (0.010—0.020)	235
1.2	70	18500	0.015 (0.012—0.024)	275	60	15900	0.015 (0.012—0.024)	235
1.6	80	15900	0.02 (0.016—0.032)	315	70	13900	0.02 (0.016—0.032)	275
2.0	90	14300	0.03 (0.020—0.040)	425	80	12700	0.03 (0.020—0.040)	380
2.5	100	12700	0.035 (0.025—0.050)	440	90	11400	0.035 (0.025—0.050)	395
3.0	100	10600	0.045 (0.030—0.060)	475	100	10600	0.045 (0.030—0.060)	475

1) Zur Verbesserung der Prozesssicherheit und Produktivität wird der Einsatz eines Kühlmittels empfohlen. (Mindestkühlmitteldruck = 70 bar)
2) Der Kühlmittelfilter muss feiner als 5 Mikrometer sein.
Eine Feinfilterung ist notwendig, um die Blockierung der Kühlmittelleitungen zu vermeiden.
3) Eine Pilotbohrung oder Führungsbuchse ist erforderlich.

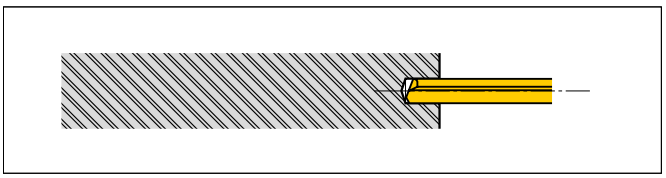
HINWEISE ZU SPEZIALANWENDUNGEN

- Eine Pilotbohrung oder Führungsbuchse ist erforderlich.
- Der Kühlmittelfilter muss feiner als 5 Mikrometer sein.
  Eine Feinfilterung ist notwendig, um die Blockierung der Kühlmittelleitungen zu vermeiden.
- Es muss Hochdruckkühlmittel verwendet werden. Mindestens 100 bar.
  (Bei zu niedrigem Druck können Späne die Öffnungen blockieren).

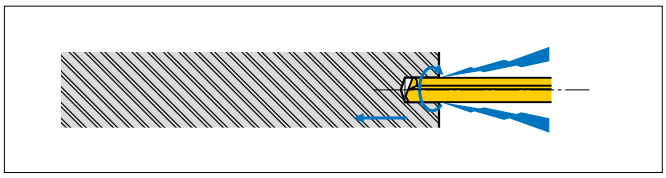
ANWENDUNGSANLEITUNG



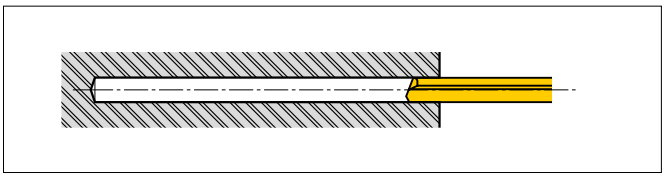
1. Pilotbohrung.
(MWE-, MWS-Bohrer von Mitsubishi empfohlen.)



2 Eintritt in die Pilotbohrung im Stillstand oder mit gegenläufiger Drezahl von < 300 U/Min.



3. Kühlmittelzufuhr einschalten, Schnittgeschwindigkeit und Vorschub auf die empfohlenen Schnittdaten einstellen und mit dem Bohren beginnen.



4. Nach dem Bohren die Maschine auf Position 2 zurücksetzen, Kühlmittelzufuhr stoppen und Drehzahl ausschalten.

BOHREN (VOLLHARTMETALL)

MMS

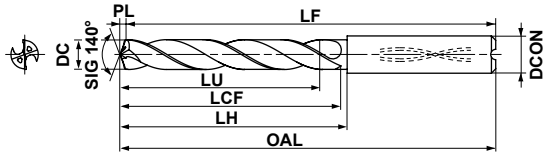
- Für das hochpräzise und effiziente Bohren von rostfreien Stahlsorten.
- Trigon-Bohrungen beginnen ab einem Durchmesser von 4.60 mm.

P | **M** | K | N | S | H



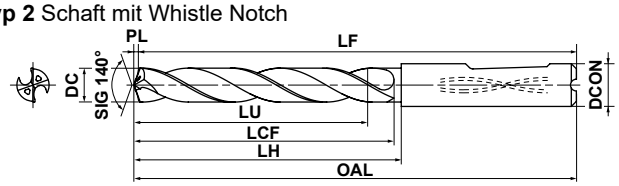
	DC=3	3<DC≤6	6<DC≤10	10<DC≤18	18<DC≤20
DIN-Typ (m7)	+0.012 +0.002	+0.016 +0.004	+0.021 +0.006	+0.025 +0.007	+0.029 +0.008
Andere (h8)	0 −0.014	0 −0.018	0 −0.022	0 −0.027	0 −0.033
		0 −0.008	0 −0.009	0 −0.011	0 −0.013

●Typ 1 Zylind. Schaft



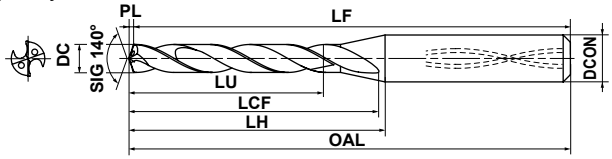
MMS----S/L-DIN-C (l/d 3−5)
MMS----X3/X5DB (l/d 3−5)

●Typ 2 Schaft mit Whistle Notch



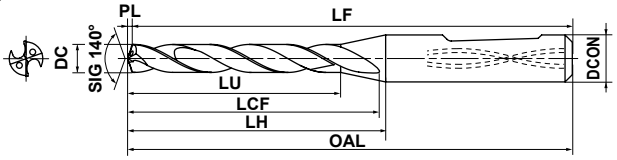
MMS----S/L-DIN (l/d 3−5)

●Typ 3 Zylind. Schaft mit konischer Hinterschliff



MMS----S/L-DIN-C (l/d 3−5)
MMS----X3/X5DB (l/d 3−5)

●Typ 4 Schaft mit Whistle Notch mit konischer Hinterschliff



MMS----S/L-DIN (l/d 3−5)

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager DP7020	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
3.0	3	●	MMS0300S-DIN-C	9.0	20.0	26.0	62.0	61.5	0.5	6	3
	5	●	MMS0300L-DIN-C	15.0	28.0	30.0	66.0	65.5	0.5	6	3
	3	★	MMS0300X3DB	9.0	22.0	24.0	70.5	70.0	0.5	6	3
	5	★	MMS0300X5DB	15.0	29.0	32.0	78.5	78.0	0.5	6	3
3.05	3	□	MMS0305S-DIN	9.2	20.0	26.0	62.0	61.4	0.6	6	4
	3	●	MMS0305S-DIN-C	9.2	20.0	26.0	62.0	61.4	0.6	6	3
	5	□	MMS0305L-DIN	15.3	28.0	30.0	66.0	65.4	0.6	6	4
	5	●	MMS0305L-DIN-C	15.3	28.0	30.0	66.0	65.4	0.6	6	3
3.1	3	□	MMS0310S-DIN	9.3	20.0	26.0	62.0	61.4	0.6	6	4
	3	●	MMS0310S-DIN-C	9.3	20.0	26.0	62.0	61.4	0.6	6	3
	5	□	MMS0310L-DIN	15.5	28.0	30.0	66.0	65.4	0.6	6	4
	5	●	MMS0310L-DIN-C	15.5	28.0	30.0	66.0	65.4	0.6	6	3
	3	★	MMS0310X3DB	9.3	22.0	24.0	70.6	70.0	0.6	6	3
	5	★	MMS0310X5DB	15.5	29.0	32.0	78.6	78.0	0.6	6	3
3.2	3	□	MMS0320S-DIN	9.6	20.0	26.0	62.0	61.4	0.6	6	4
	3	●	MMS0320S-DIN-C	9.6	20.0	26.0	62.0	61.4	0.6	6	3
	5	□	MMS0320L-DIN	16.0	28.0	30.0	66.0	65.4	0.6	6	4
	5	●	MMS0320L-DIN-C	16.0	28.0	30.0	66.0	65.4	0.6	6	3
	3	★	MMS0320X3DB	9.6	22.0	24.0	70.6	70.0	0.6	6	3
	5	★	MMS0320X5DB	16.0	29.0	32.0	78.6	78.0	0.6	6	3
3.3	3	□	MMS0330S-DIN	9.9	20.0	26.0	62.0	61.4	0.6	6	4
	3	●	MMS0330S-DIN-C	9.9	20.0	26.0	62.0	61.4	0.6	6	3
	5	□	MMS0330L-DIN	16.5	28.0	30.0	66.0	65.4	0.6	6	4
	5	●	MMS0330L-DIN-C	16.5	28.0	30.0	66.0	65.4	0.6	6	3
	3	★	MMS0330X3DB	9.9	22.0	24.0	70.6	70.0	0.6	6	3
	5	★	MMS0330X5DB	16.5	29.0	32.0	78.6	78.0	0.6	6	3
3.4	3	□	MMS0340S-DIN	10.2	20.0	26.0	62.0	61.4	0.6	6	4
	3	●	MMS0340S-DIN-C	10.2	20.0	26.0	62.0	61.4	0.6	6	3
	5	□	MMS0340L-DIN	17.0	28.0	30.0	66.0	65.4	0.6	6	4

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager DP7020	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
3.4	5	●	MMS0340L-DIN-C	17.0	28.0	30.0	66.0	65.4	0.6	6	3
	3	★	MMS0340X3DB	10.2	22.0	24.0	70.6	70.0	0.6	6	3
	5	★	MMS0340X5DB	17.0	29.0	32.0	78.6	78.0	0.6	6	3
3.5	3	□	MMS0350S-DIN	10.5	20.0	26.0	62.0	61.4	0.6	6	4
	3	●	MMS0350S-DIN-C	10.5	20.0	26.0	62.0	61.4	0.6	6	3
	5	□	MMS0350L-DIN	17.5	28.0	30.0	66.0	65.4	0.6	6	4
	5	●	MMS0350L-DIN-C	17.5	28.0	30.0	66.0	65.4	0.6	6	3
	3	★	MMS0350X3DB	10.5	22.0	24.0	70.6	70.0	0.6	6	3
	5	★	MMS0350X5DB	17.5	29.0	32.0	78.6	78.0	0.6	6	3
3.6	3	□	MMS0360S-DIN	10.8	20.0	26.0	62.0	61.3	0.7	6	4
	3	●	MMS0360S-DIN-C	10.8	20.0	26.0	62.0	61.3	0.7	6	3
	5	□	MMS0360L-DIN	18.0	28.0	30.0	66.0	65.3	0.7	6	4
	5	●	MMS0360L-DIN-C	18.0	28.0	30.0	66.0	65.3	0.7	6	3
	3	★	MMS0360X3DB	10.8	23.0	24.0	70.7	70.0	0.7	6	3
	5	★	MMS0360X5DB	18.0	31.0	32.0	78.7	78.0	0.7	6	3
3.7	3	□	MMS0370S-DIN	11.1	20.0	26.0	62.0	61.3	0.7	6	4
	3	●	MMS0370S-DIN-C	11.1	20.0	26.0	62.0	61.3	0.7	6	3
	5	□	MMS0370L-DIN	18.5	28.0	30.0	66.0	65.3	0.7	6	4
	5	●	MMS0370L-DIN-C	18.5	28.0	30.0	66.0	65.3	0.7	6	3
	3	★	MMS0370X3DB	11.1	23.0	24.0	70.7	70.0	0.7	6	3
	5	★	MMS0370X5DB	18.5	31.0	32.0	78.7	78.0	0.7	6	3
3.8	3	□	MMS0380S-DIN	11.4	24.0	30.0	66.0	65.3	0.7	6	4
	3	●	MMS0380S-DIN-C	11.4	24.0	30.0	66.0	65.3	0.7	6	3
	5	□	MMS0380L-DIN	19.0	36.0	38.0	74.0	73.3	0.7	6	4
	5	●	MMS0380L-DIN-C	19.0	36.0	38.0	74.0	73.3	0.7	6	3
	3	★	MMS0380X3DB	11.4	23.0	24.0	70.7	70.0	0.7	6	3
	5	★	MMS0380X5DB	19.0	31.0	32.0	78.7	78.0	0.7	6	3
3.9	3	□	MMS0390S-DIN	11.7	24.0	30.0	66.0	65.3	0.7	6	4
	3	●	MMS0390S-DIN-C	11.7	24.0	30.0	66.0	65.3	0.7	6	3
	5	□	MMS0390L-DIN	19.5	36.0	38.0	74.0	73.3	0.7	6	4
	5	●	MMS0390L-DIN-C	19.5	36.0	38.0	74.0	73.3	0.7	6	3

● : Lagerstandard. ★ : Lagerstandard in Japan.
□ : Nichtstandard, Herstellung nur auf Anfrage.

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager DP7020	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
3.9	3	★	MMS0390X3DB	11.7	23.0	24.0	70.7	70.0	0.7	6	3
	5	★	MMS0390X5DB	19.5	31.0	32.0	78.7	78.0	0.7	6	3
4.0	3	●	MMS0400S-DIN-C	12.0	24.0	30.0	66.0	65.3	0.7	6	3
	5	●	MMS0400L-DIN-C	20.0	36.0	38.0	74.0	73.3	0.7	6	3
	3	★	MMS0400X3DB	12.0	23.0	24.0	70.7	70.0	0.7	6	3
	5	★	MMS0400X5DB	2 0.0	31.0	32.0	78.7	78.0	0.7	6	3
4.05	3	□	MMS0405S-DIN	12.2	24.0	30.0	66.0	65.3	0.7	6	4
	3	●	MMS0405S-DIN-C	12.2	24.0	30.0	66.0	65.3	0.7	6	3
	5	□	MMS0405L-DIN	20.3	36.0	38.0	74.0	73.3	0.7	6	4
	5	●	MMS0405L-DIN-C	20.3	36.0	38.0	74.0	73.3	0.7	6	3
4.1	3	□	MMS0410S-DIN	12.3	24.0	30.0	66.0	65.3	0.7	6	4
	3	●	MMS0410S-DIN-C	12.3	24.0	30.0	66.0	65.3	0.7	6	3
	5	□	MMS0410L-DIN	20.5	36.0	38.0	74.0	73.3	0.7	6	4
	5	●	MMS0410L-DIN-C	20.5	36.0	38.0	74.0	73.3	0.7	6	3
	3	★	MMS0410X3DB	12.3	25.0	27.0	73.7	73.0	0.7	6	3
	5	★	MMS0410X5DB	20.5	34.0	36.0	82.7	82.0	0.7	6	3
4.2	3	●	MMS0420S-DIN-C	12.6	24.0	30.0	66.0	65.2	0.8	6	3
	5	●	MMS0420L-DIN-C	21.0	36.0	38.0	74.0	73.2	0.8	6	3
	3	★	MMS0420X3DB	12.6	25.0	27.0	73.8	73.0	0.8	6	3
	5	★	MMS0420X5DB	21.0	34.0	36.0	82.8	82.0	0.8	6	3
4.3	3	□	MMS0430S-DIN	12.9	24.0	30.0	66.0	65.2	0.8	6	4
	3	●	MMS0430S-DIN-C	12.9	24.0	30.0	66.0	65.2	0.8	6	3
	5	□	MMS0430L-DIN	21.5	36.0	38.0	74.0	73.2	0.8	6	4
	5	●	MMS0430L-DIN-C	21.5	36.0	38.0	74.0	73.2	0.8	6	3
	3	★	MMS0430X3DB	12.9	25.0	27.0	73.8	73.0	0.8	6	3
	5	★	MMS0430X5DB	21.5	34.0	36.0	82.8	82.0	0.8	6	3
4.4	3	□	MMS0440S-DIN	13.2	24.0	30.0	66.0	65.2	0.8	6	4
	3	□	MMS0440S-DIN-C	13.2	24.0	30.0	66.0	65.2	0.8	6	3
	5	□	MMS0440L-DIN	22.0	36.0	38.0	74.0	73.2	0.8	6	4
	5	□	MMS0440L-DIN-C	22.0	36.0	38.0	74.0	73.2	0.8	6	3
	3	★	MMS0440X3DB	13.2	25.0	27.0	73.8	73.0	0.8	6	3
	5	★	MMS0440X5DB	22.0	34.0	36.0	82.8	82.0	0.8	6	3
4.5	3	□	MMS0450S-DIN	13.5	24.0	30.0	66.0	65.2	0.8	6	4
	3	●	MMS0450S-DIN-C	13.5	24.0	30.0	66.0	65.2	0.8	6	3
	5	□	MMS0450L-DIN	22.5	36.0	38.0	74.0	73.2	0.8	6	4
	5	●	MMS0450L-DIN-C	22.5	36.0	38.0	74.0	73.2	0.8	6	3
	3	★	MMS0450X3DB	13.5	25.0	27.0	73.8	73.0	0.8	6	3
	5	★	MMS0450X5DB	22.5	34.0	36.0	82.8	82.0	0.8	6	3
4.6	3	□	MMS0460S-DIN	13.8	24.0	30.0	66.0	65.2	0.8	6	2
	3	●	MMS0460S-DIN-C	13.8	24.0	30.0	66.0	65.2	0.8	6	1
	5	□	MMS0460L-DIN	23.0	36.0	38.0	74.0	73.2	0.8	6	2
	5	●	MMS0460L-DIN-C	23.0	36.0	38.0	74.0	73.2	0.8	6	1
	3	★	MMS0460X3DB	13.8	26.0	29.0	75.8	75.0	0.8	6	1
	5	★	MMS0460X5DB	23.0	36.0	39.0	85.8	85.0	0.8	6	1
4.65	3	□	MMS0465S-DIN	14.0	24.0	30.0	66.0	65.2	0.8	6	2
	3	●	MMS0465S-DIN-C	14.0	24.0	30.0	66.0	65.2	0.8	6	1
4.65	5	□	MMS0465L-DIN	23.3	36.0	38.0	74.0	73.2	0.8	6	2
	5	●	MMS0465L-DIN-C	23.3	36.0	38.0	74.0	73.2	0.8	6	1

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager DP7020	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
4.7	3	□	MMS0470S-DIN	14.1	24.0	30.0	66.0	65.1	0.9	6	2
	3	□	MMS0470S-DIN-C	14.1	24.0	30.0	66.0	65.1	0.9	6	1
	5	□	MMS0470L-DIN	23.5	36.0	38.0	74.0	73.1	0.9	6	2
	5	□	MMS0470L-DIN-C	23.5	36.0	38.0	74.0	73.1	0.9	6	1
	3	★	MMS0470X3DB	14.1	26.0	29.0	75.9	75.0	0.9	6	1
	5	★	MMS0470X5DB	23.5	36.0	39.0	85.9	85.0	0.9	6	1
4.8	3	□	MMS0480S-DIN	14.4	28.0	30.0	66.0	65.1	0.9	6	2
	3	●	MMS0480S-DIN-C	14.4	28.0	30.0	66.0	65.1	0.9	6	1
	5	□	MMS0480L-DIN	24.0	44.0	46.0	82.0	81.1	0.9	6	2
	5	●	MMS0480L-DIN-C	24.0	44.0	46.0	82.0	81.1	0.9	6	1
	3	★	MMS0480X3DB	14.4	26.0	29.0	75.9	75.0	0.9	6	1
	5	★	MMS0480X5DB	24.0	36.0	39.0	85.9	85.0	0.9	6	1
4.9	3	□	MMS0490S-DIN	14.7	28.0	30.0	66.0	65.1	0.9	6	2
	3	□	MMS0490S-DIN-C	14.7	28.0	30.0	66.0	65.1	0.9	6	1
	5	□	MMS0490L-DIN	24.5	44.0	46.0	82.0	81.1	0.9	6	2
	5	□	MMS0490L-DIN-C	24.5	44.0	46.0	82.0	81.1	0.9	6	1
	3	★	MMS0490X3DB	14.7	26.0	29.0	75.9	75.0	0.9	6	1
	5	★	MMS0490X5DB	24.5	36.0	39.0	85.9	85.0	0.9	6	1
5.0	3	●	MMS0500S-DIN-C	15.0	28.0	30.0	66.0	65.1	0.9	6	1
	5	●	MMS0500L-DIN-C	25.0	44.0	46.0	82.0	81.1	0.9	6	1
	3	★	MMS0500X3DB	15.0	26.0	29.0	75.9	75.0	0.9	6	1
	5	★	MMS0500X5DB	25.0	36.0	39.0	85.9	85.0	0.9	6	1
5.05	3	□	MMS0505S-DIN	15.2	28.0	30.0	66.0	65.1	0.9	6	2
	3	●	MMS0505S-DIN-C	15.2	28.0	30.0	66.0	65.1	0.9	6	1
	5	□	MMS0505L-DIN	25.3	44.0	46.0	82.0	81.1	0.9	6	2
	5	●	MMS0505L-DIN-C	25.3	44.0	46.0	82.0	81.1	0.9	6	1
5.1	3	□	MMS0510S-DIN	15.3	28.0	30.0	66.0	65.1	0.9	6	2
	3	●	MMS0510S-DIN-C	15.3	28.0	30.0	66.0	65.1	0.9	6	1
	5	□	MMS0510L-DIN	25.5	44.0	46.0	82.0	81.1	0.9	6	2
	5	●	MMS0510L-DIN-C	25.5	44.0	46.0	82.0	81.1	0.9	6	1
	3	★	MMS0510X3DB	15.3	29.0	31.0	81.9	81.0	0.9	6	1
	5	★	MMS0510X5DB	25.5	40.0	43.0	89.9	89.0	0.9	6	1
5.2	3	□	MMS0520S-DIN	15.6	28.0	30.0	66.0	65.1	0.9	6	2
	3	●	MMS0520S-DIN-C	15.6	28.0	30.0	66.0	65.1	0.9	6	1
	5	□	MMS0520L-DIN	26.0	44.0	46.0	82.0	81.1	0.9	6	2
	5	●	MMS0520L-DIN-C	26.0	44.0	46.0	82.0	81.1	0.9	6	1
	3	★	MMS0520X3DB	15.6	29.0	31.0	81.9	81.0	0.9	6	1
	5	★	MMS0520X5DB	26.0	40.0	43.0	89.9	89.0	0.9	6	1
5.3	3	□	MMS0530S-DIN	15.9	28.0	30.0	66.0	65.0	1.0	6	2
	3	□	MMS0530S-DIN-C	15.9	28.0	30.0	66.0	65.0	1.0	6	1
	5	□	MMS0530L-DIN	26.5	44.0	46.0	82.0	81.0	1.0	6	2
	5	□	MMS0530L-DIN-C	26.5	44.0	46.0	82.0	81.0	1.0	6	1
	3	★	MMS0530X3DB	15.9	29.0	31.0	82.0	81.0	1.0	6	1
	5	★	MMS0530X5DB	26.5	40.0	43.0	90.0	89.0	1.0	6	1
5.4	3	□	MMS0540S-DIN	16.2	28.0	30.0	66.0	65.0	1.0	6	2
	3	□	MMS0540S-DIN-C	16.2	28.0	30.0	66.0	65.0	1.0	6	1
5.4	5	□	MMS0540L-DIN	27.0	44.0	46.0	82.0	81.0	1.0	6	2
	5	□	MMS0540L-DIN-C	27.0	44.0	46.0	82.0	81.0	1.0	6	1
	3	★	MMS0540X3DB	16.2	29.0	31.0	82.0	81.0	1.0	6	1
	5	★	MMS0540X5DB	27.0	40.0	43.0	90.0	89.0	1.0	6	1

BOHREN

SCHNITTBEDINGUNGEN ➤ L074
ANWENDUNGSHINWEISE ➤ L073
TECHNISCHE DATEN ➤ N001

BOHREN (VOLLHARTMETALL)

MMS

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager DP7020	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
5.5	3	□	MMS0550S-DIN	16.5	28.0	30.0	66.0	65.0	1.0	6	2
	3	●	MMS0550S-DIN-C	16.5	28.0	30.0	66.0	65.0	1.0	6	1
	5	□	MMS0550L-DIN	27.5	44.0	46.0	82.0	81.0	1.0	6	2
	5	●	MMS0550L-DIN-C	27.5	44.0	46.0	82.0	81.0	1.0	6	1
	3	★	MMS0550X3DB	16.5	29.0	31.0	82.0	81.0	1.0	6	1
	5	★	MMS0550X5DB	27.5	40.0	43.0	90.0	89.0	1.0	6	1
5.55	3	□	MMS0555S-DIN	16.7	28.0	30.0	66.0	65.0	1.0	6	2
	3	●	MMS0555S-DIN-C	16.7	28.0	30.0	66.0	65.0	1.0	6	1
	5	●	MMS0555L-DIN-C	27.8	44.0	46.0	82.0	81.0	1.0	6	1
5.6	3	□	MMS0560S-DIN	16.8	28.0	30.0	66.0	65.0	1.0	6	2
	3	●	MMS0560S-DIN-C	16.8	28.0	30.0	66.0	65.0	1.0	6	1
	5	□	MMS0560L-DIN	28.0	44.0	46.0	82.0	81.0	1.0	6	2
	5	●	MMS0560L-DIN-C	28.0	44.0	46.0	82.0	81.0	1.0	6	1
	3	★	MMS0560X3DB	16.8	31.0	31.0	82.0	81.0	1.0	6	1
	5	★	MMS0560X5DB	28.0	43.0	43.0	90.0	89.0	1.0	6	1
5.7	3	□	MMS0570S-DIN	17.1	28.0	30.0	66.0	65.0	1.0	6	2
	3	●	MMS0570S-DIN-C	17.1	28.0	30.0	66.0	65.0	1.0	6	1
	5	□	MMS0570L-DIN	28.5	44.0	46.0	82.0	81.0	1.0	6	2
	5	●	MMS0570L-DIN-C	28.5	44.0	46.0	82.0	81.0	1.0	6	1
	3	★	MMS0570X3DB	17.1	31.0	31.0	82.0	81.0	1.0	6	1
	5	★	MMS0570X5DB	28.5	43.0	43.0	90.0	89.0	1.0	6	1
5.8	3	□	MMS0580S-DIN	17.4	28.0	30.0	66.0	64.9	1.1	6	2
	3	●	MMS0580S-DIN-C	17.4	28.0	30.0	66.0	64.9	1.1	6	1
	5	□	MMS0580L-DIN	29.0	44.0	46.0	82.0	80.9	1.1	6	2
	5	●	MMS0580L-DIN-C	29.0	44.0	46.0	82.0	80.9	1.1	6	1
	3	★	MMS0580X3DB	17.4	31.0	31.0	82.1	81.0	1.1	6	1
	5	★	MMS0580X5DB	29.0	43.0	43.0	90.1	89.0	1.1	6	1
5.9	3	□	MMS0590S-DIN	17.7	28.0	30.0	66.0	64.9	1.1	6	2
	3	□	MMS0590S-DIN-C	17.7	28.0	30.0	66.0	64.9	1.1	6	1
	5	□	MMS0590L-DIN	29.5	44.0	46.0	82.0	80.9	1.1	6	2
	5	□	MMS0590L-DIN-C	29.5	44.0	46.0	82.0	80.9	1.1	6	1
	3	★	MMS0590X3DB	17.7	31.0	31.0	82.1	81.0	1.1	6	1
	5	★	MMS0590X5DB	29.5	43.0	43.0	90.1	89.0	1.1	6	1
6.0	3	●	MMS0600S-DIN-C	18.0	28.0	30.0	66.0	64.9	1.1	6	1
	5	●	MMS0600L-DIN-C	30.0	44.0	46.0	82.0	80.9	1.1	6	1
	3	★	MMS0600X3DB	18.0	31.0	31.0	82.1	81.0	1.1	6	1
	5	★	MMS0600X5DB	30.0	43.0	43.0	90.1	89.0	1.1	6	1
6.05	3	□	MMS0605S-DIN	18.2	34.0	43.0	79.0	77.9	1.1	8	2
	3	●	MMS0605S-DIN-C	18.2	34.0	43.0	79.0	77.9	1.1	8	1
	5	□	MMS0605L-DIN	30.3	53.0	55.0	91.0	89.9	1.1	8	2
	5	●	MMS0605L-DIN-C	30.3	53.0	55.0	91.0	89.9	1.1	8	1
6.1	3	□	MMS0610S-DIN	18.3	34.0	43.0	79.0	77.9	1.1	8	2
	3	●	MMS0610S-DIN-C	18.3	34.0	43.0	79.0	77.9	1.1	8	1
	5	□	MMS0610L-DIN	30.5	53.0	55.0	91.0	89.9	1.1	8	2
	5	●	MMS0610L-DIN-C	30.5	53.0	55.0	91.0	89.9	1.1	8	1
	3	★	MMS0610X3DB	18.3	34.0	36.0	87.1	86.0	1.1	8	1
	5	★	MMS0610X5DB	30.5	47.0	49.0	96.1	95.0	1.1	8	1

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager DP7020	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
6.2	3	□	MMS0620S-DIN	18.6	34.0	43.0	79.0	77.9	1.1	8	2
	3	●	MMS0620S-DIN-C	18.6	34.0	43.0	79.0	77.9	1.1	8	1
	5	□	MMS0620L-DIN	31.0	53.0	55.0	91.0	89.9	1.1	8	2
	5	●	MMS0620L-DIN-C	31.0	53.0	55.0	91.0	89.9	1.1	8	1
	3	★	MMS0620X3DB	18.6	34.0	36.0	87.1	86.0	1.1	8	1
	5	★	MMS0620X5DB	31.0	47.0	49.0	96.1	95.0	1.1	8	1
6.3	3	□	MMS0630S-DIN	18.9	34.0	43.0	79.0	77.9	1.1	8	2
	3	□	MMS0630S-DIN-C	18.9	34.0	43.0	79.0	77.9	1.1	8	1
	5	□	MMS0630L-DIN	31.5	53.0	55.0	91.0	89.9	1.1	8	2
	5	□	MMS0630L-DIN-C	31.5	53.0	55.0	91.0	89.9	1.1	8	1
	3	★	MMS0630X3DB	18.9	34.0	36.0	87.1	86.0	1.1	8	1
	5	★	MMS0630X5DB	31.5	47.0	49.0	96.1	95.0	1.1	8	1
6.4	3	□	MMS0640S-DIN	19.2	34.0	43.0	79.0	77.8	1.2	8	2
	3	□	MMS0640S-DIN-C	19.2	34.0	43.0	79.0	77.8	1.2	8	1
	5	□	MMS0640L-DIN	32.0	53.0	55.0	91.0	89.8	1.2	8	2
	5	□	MMS0640L-DIN-C	32.0	53.0	55.0	91.0	89.8	1.2	8	1
	3	★	MMS0640X3DB	19.2	34.0	36.0	87.2	86.0	1.2	8	1
	5	★	MMS0640X5DB	32.0	47.0	49.0	96.2	95.0	1.2	8	1
6.5	3	□	MMS0650S-DIN	19.5	34.0	43.0	79.0	77.8	1.2	8	2
	3	●	MMS0650S-DIN-C	19.5	34.0	43.0	79.0	77.8	1.2	8	1
	5	□	MMS0650L-DIN	32.5	53.0	55.0	91.0	89.8	1.2	8	2
	5	●	MMS0650L-DIN-C	32.5	53.0	55.0	91.0	89.8	1.2	8	1
	3	★	MMS0650X3DB	19.5	34.0	36.0	87.2	86.0	1.2	8	1
	5	★	MMS0650X5DB	32.5	47.0	49.0	96.2	95.0	1.2	8	1
6.6	3	□	MMS0660S-DIN	19.8	34.0	43.0	79.0	77.8	1.2	8	2
	3	●	MMS0660S-DIN-C	19.8	34.0	43.0	79.0	77.8	1.2	8	1
	5	□	MMS0660L-DIN	33.0	53.0	55.0	91.0	89.8	1.2	8	2
	5	●	MMS0660L-DIN-C	33.0	53.0	55.0	91.0	89.8	1.2	8	1
	3	★	MMS0660X3DB	19.8	36.0	38.0	91.2	90.0	1.2	8	1
	5	★	MMS0660X5DB	33.0	50.0	52.0	99.2	98.0	1.2	8	1
6.7	3	□	MMS0670S-DIN	20.1	34.0	43.0	79.0	77.8	1.2	8	2
	3	□	MMS0670S-DIN-C	20.1	34.0	43.0	79.0	77.8	1.2	8	1
	5	□	MMS0670L-DIN	33.5	53.0	55.0	91.0	89.8	1.2	8	2
	5	□	MMS0670L-DIN-C	33.5	53.0	55.0	91.0	89.8	1.2	8	1
	3	★	MMS0670X3DB	20.1	36.0	38.0	91.2	90.0	1.2	8	1
	5	★	MMS0670X5DB	33.5	50.0	52.0	99.2	98.0	1.2	8	1
6.8	3	●	MMS0680S-DIN-C	20.4	34.0	43.0	79.0	77.8	1.2	8	1
	5	●	MMS0680L-DIN-C	34.0	53.0	55.0	91.0	89.8	1.2	8	1
	3	★	MMS0680X3DB	20.4	36.0	38.0	91.2	90.0	1.2	8	1
	5	★	MMS0680X5DB	34.0	50.0	52.0	99.2	98.0	1.2	8	1
6.9	3	□	MMS0690S-DIN	20.7	34.0	43.0	79.0	77.7	1.3	8	2
	3	●	MMS0690S-DIN-C	20.7	34.0	43.0	79.0	77.7	1.3	8	1
	5	□	MMS0690L-DIN	34.5	53.0	55.0	91.0	89.7	1.3	8	2
	5	●	MMS0690L-DIN-C	34.5	53.0	55.0	91.0	89.7	1.3	8	1
	3	★	MMS0690X3DB	20.7	36.0	38.0	91.3	90.0	1.3	8	1
	5	★	MMS0690X5DB	34.5	50.0	52.0	99.3	98.0	1.3	8	1
7.0	3	●	MMS0700S-DIN-C	21.0	34.0	43.0	79.0	77.7	1.3	8	1
	5	●	MMS0700L-DIN-C	35.0	53.0	55.0	91.0	89.7	1.3	8	1
	3	★	MMS0700X3DB	21.0	36.0	38.0	91.3	90.0	1.3	8	1
	5	★	MMS0700X5DB	35.0	50.0	52.0	99.3	98.0	1.3	8	1

● : Lagerstandard. ★ : Lagerstandard in Japan.
□ : Nichtstandard, Herstellung nur auf Anfrage.

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager DP7020	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
7.1	3	□	MMS0710S-DIN	21.3	41.0	43.0	79.0	77.7	1.3	8	2
	3	□	MMS0710S-DIN-C	21.3	41.0	43.0	79.0	77.7	1.3	8	1
	5	□	MMS0710L-DIN	35.5	53.0	55.0	91.0	89.7	1.3	8	2
	5	□	MMS0710L-DIN-C	35.5	53.0	55.0	91.0	89.7	1.3	8	1
	3	★	MMS0710X3DB	21.3	39.0	40.0	91.3	90.0	1.3	8	1
	5	★	MMS0710X5DB	35.5	54.0	57.0	104.3	103.0	1.3	8	1
7.2	3	□	MMS0720S-DIN	21.6	41.0	43.0	79.0	77.7	1.3	8	2
	3	□	MMS0720S-DIN-C	21.6	41.0	43.0	79.0	77.7	1.3	8	1
	5	□	MMS0720L-DIN	36.0	53.0	55.0	91.0	89.7	1.3	8	2
	5	□	MMS0720L-DIN-C	36.0	53.0	55.0	91.0	89.7	1.3	8	1
	3	★	MMS0720X3DB	21.6	39.0	40.0	91.3	90.0	1.3	8	1
	5	★	MMS0720X5DB	36.0	54.0	57.0	104.3	103.0	1.3	8	1
7.3	3	□	MMS0730S-DIN	21.9	41.0	43.0	79.0	77.7	1.3	8	2
	3	●	MMS0730S-DIN-C	21.9	41.0	43.0	79.0	77.7	1.3	8	1
	5	□	MMS0730L-DIN	36.5	53.0	55.0	91.0	89.7	1.3	8	2
	5	●	MMS0730L-DIN-C	36.5	53.0	55.0	91.0	89.7	1.3	8	1
	3	★	MMS0730X3DB	21.9	39.0	40.0	91.3	90.0	1.3	8	1
	5	★	MMS0730X5DB	36.5	54.0	57.0	104.3	103.0	1.3	8	1
7.4	3	□	MMS0740S-DIN	22.2	41.0	43.0	79.0	77.7	1.3	8	2
	3	●	MMS0740S-DIN-C	22.2	41.0	43.0	79.0	77.7	1.3	8	1
	5	□	MMS0740L-DIN	37.0	53.0	55.0	91.0	89.7	1.3	8	2
	5	●	MMS0740L-DIN-C	37.0	53.0	55.0	91.0	89.7	1.3	8	1
	3	★	MMS0740X3DB	22.2	39.0	40.0	91.3	90.0	1.3	8	1
	5	★	MMS0740X5DB	37.0	54.0	57.0	104.3	103.0	1.3	8	1
7.5	3	□	MMS0750S-DIN	22.5	41.0	43.0	79.0	77.6	1.4	8	2
	3	●	MMS0750S-DIN-C	22.5	41.0	43.0	79.0	77.6	1.4	8	1
	5	□	MMS0750L-DIN	37.5	53.0	55.0	91.0	89.6	1.4	8	2
	5	●	MMS0750L-DIN-C	37.5	53.0	55.0	91.0	89.6	1.4	8	1
	3	★	MMS0750X3DB	22.5	39.0	40.0	91.4	90.0	1.4	8	1
	5	★	MMS0750X5DB	37.5	54.0	57.0	104.4	103.0	1.4	8	1
7.6	3	□	MMS0760S-DIN	22.8	41.0	43.0	79.0	77.6	1.4	8	2
	3	□	MMS0760S-DIN-C	22.8	41.0	43.0	79.0	77.6	1.4	8	1
	5	□	MMS0760L-DIN	38.0	53.0	55.0	91.0	89.6	1.4	8	2
	5	□	MMS0760L-DIN-C	38.0	53.0	55.0	91.0	89.6	1.4	8	1
	3	★	MMS0760X3DB	22.8	41.0	41.0	91.4	90.0	1.4	8	1
	5	★	MMS0760X5DB	38.0	57.0	57.0	104.4	103.0	1.4	8	1
7.7	3	□	MMS0770S-DIN	23.1	41.0	43.0	79.0	77.6	1.4	8	2
	3	□	MMS0770S-DIN-C	23.1	41.0	43.0	79.0	77.6	1.4	8	1
	5	□	MMS0770L-DIN	38.5	53.0	55.0	91.0	89.6	1.4	8	2
	5	□	MMS0770L-DIN-C	38.5	53.0	55.0	91.0	89.6	1.4	8	1
	3	★	MMS0770X3DB	23.1	41.0	41.0	91.4	90.0	1.4	8	1
	5	★	MMS0770X5DB	38.5	57.0	57.0	104.4	103.0	1.4	8	1
7.8	3	□	MMS0780S-DIN	23.4	41.0	43.0	79.0	77.6	1.4	8	2
	3	●	MMS0780S-DIN-C	23.4	41.0	43.0	79.0	77.6	1.4	8	1
	5	□	MMS0780L-DIN	39.0	53.0	55.0	91.0	89.6	1.4	8	2
	5	●	MMS0780L-DIN-C	39.0	53.0	55.0	91.0	89.6	1.4	8	1
	3	★	MMS0780X3DB	23.4	41.0	41.0	91.4	90.0	1.4	8	1
	5	★	MMS0780X5DB	39.0	57.0	57.0	104.4	103.0	1.4	8	1

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager DP7020	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
7.9	3	□	MMS0790S-DIN	23.7	41.0	43.0	79.0	77.6	1.4	8	2
	3	□	MMS0790S-DIN-C	23.7	41.0	43.0	79.0	77.6	1.4	8	1
	5	□	MMS0790L-DIN	39.5	53.0	55.0	91.0	89.6	1.4	8	2
	5	□	MMS0790L-DIN-C	39.5	53.0	55.0	91.0	89.6	1.4	8	1
	3	★	MMS0790X3DB	23.7	41.0	41.0	91.4	90.0	1.4	8	1
	5	★	MMS0790X5DB	39.5	57.0	57.0	104.4	103.0	1.4	8	1
8.0	3	●	MMS0800S-DIN-C	24.0	41.0	43.0	79.0	77.5	1.5	8	1
	5	●	MMS0800L-DIN-C	40.0	53.0	55.0	91.0	89.5	1.5	8	1
	3	★	MMS0800X3DB	24.0	41.0	41.0	91.5	90.0	1.5	8	1
	5	★	MMS0800X5DB	40.0	57.0	57.0	104.5	103.0	1.5	8	1
8.05	3	□	MMS0805S-DIN	24.2	46.0	48.0	88.0	86.5	1.5	10	2
	3	●	MMS0805S-DIN-C	24.2	46.0	48.0	88.0	86.5	1.5	10	1
	5	□	MMS0805L-DIN	40.3	60.0	62.0	102.0	100.5	1.5	10	2
	5	●	MMS0805L-DIN-C	40.3	60.0	62.0	102.0	100.5	1.5	10	1
8.1	3	□	MMS0810S-DIN	24.3	46.0	48.0	88.0	86.5	1.5	10	2
	3	□	MMS0810S-DIN-C	24.3	46.0	48.0	88.0	86.5	1.5	10	1
	5	□	MMS0810L-DIN	40.5	60.0	62.0	102.0	100.5	1.5	10	2
	5	□	MMS0810L-DIN-C	40.5	60.0	62.0	102.0	100.5	1.5	10	1
	3	★	MMS0810X3DB	24.3	44.0	46.0	97.5	96.0	1.5	10	1
	5	★	MMS0810X5DB	40.5	61.0	63.0	114.5	113.0	1.5	10	1
8.2	3	□	MMS0820S-DIN	24.6	46.0	48.0	88.0	86.5	1.5	10	2
	3	□	MMS0820S-DIN-C	24.6	46.0	48.0	88.0	86.5	1.5	10	1
	5	□	MMS0820L-DIN	41.0	60.0	62.0	102.0	100.5	1.5	10	2
	5	□	MMS0820L-DIN-C	41.0	60.0	62.0	102.0	100.5	1.5	10	1
	3	★	MMS0820X3DB	24.6	44.0	46.0	97.5	96.0	1.5	10	1
	5	★	MMS0820X5DB	41.0	61.0	63.0	114.5	113.0	1.5	10	1
8.3	3	□	MMS0830S-DIN	24.9	46.0	48.0	88.0	86.5	1.5	10	2
	3	●	MMS0830S-DIN-C	24.9	46.0	48.0	88.0	86.5	1.5	10	1
	5	□	MMS0830L-DIN	41.5	60.0	62.0	102.0	100.5	1.5	10	2
	5	●	MMS0830L-DIN-C	41.5	60.0	62.0	102.0	100.5	1.5	10	1
	3	★	MMS0830X3DB	24.9	44.0	46.0	97.5	96.0	1.5	10	1
	5	★	MMS0830X5DB	41.5	61.0	63.0	114.5	113.0	1.5	10	1
8.4	3	□	MMS0840S-DIN	25.2	46.0	48.0	88.0	86.5	1.5	10	2
	3	□	MMS0840S-DIN-C	25.2	46.0	48.0	88.0	86.5	1.5	10	1
	5	□	MMS0840L-DIN	42.0	60.0	62.0	102.0	100.5	1.5	10	2
	5	□	MMS0840L-DIN-C	42.0	60.0	62.0	102.0	100.5	1.5	10	1
	3	★	MMS0840X3DB	25.2	44.0	46.0	97.5	96.0	1.5	10	1
	5	★	MMS0840X5DB	42.0	61.0	63.0	114.5	113.0	1.5	10	1
8.5	3	●	MMS0850S-DIN-C	25.5	46.0	48.0	88.0	86.5	1.5	10	1
	5	●	MMS0850L-DIN-C	42.5	60.0	62.0	102.0	100.5	1.5	10	1
	3	★	MMS0850X3DB	25.5	44.0	46.0	97.5	96.0	1.5	10	1
	5	★	MMS0850X5DB	42.5	61.0	63.0	114.5	113.0	1.5	10	1
8.6	3	□	MMS0860S-DIN	25.8	46.0	48.0	88.0	86.4	1.6	10	2
	3	●	MMS0860S-DIN-C	25.8	46.0	48.0	88.0	86.4	1.6	10	1
	5	□	MMS0860L-DIN	43.0	60.0	62.0	102.0	100.4	1.6	10	2
	5	●	MMS0860L-DIN-C	43.0	60.0	62.0	102.0	100.4	1.6	10	1
	3	★	MMS0860X3DB	25.8	47.0	49.0	102.6	101.0	1.6	10	1
	5	★	MMS0860X5DB	43.0	65.0	67.0	117.6	116.0	1.6	10	1

BOHREN

SCHNITTBEDINGUNGEN ➤ L074
ANWENDUNGSHINWEISE ➤ L073
TECHNISCHE DATEN ➤ N001

MMS

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager DP7020	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
8.7	3	□	MMS0870S-DIN	26.1	46.0	48.0	88.0	86.4	1.6	10	2
	3	●	MMS0870S-DIN-C	26.1	46.0	48.0	88.0	86.4	1.6	10	1
	5	□	MMS0870L-DIN	43.5	60.0	62.0	102.0	100.4	1.6	10	2
	5	●	MMS0870L-DIN-C	43.5	60.0	62.0	102.0	100.4	1.6	10	1
	3	★	MMS0870X3DB	26.1	47.0	49.0	102.6	101.0	1.6	10	1
	5	★	MMS0870X5DB	43.5	65.0	67.0	117.6	116.0	1.6	10	1
8.8	3	□	MMS0880S-DIN	26.4	46.0	48.0	88.0	86.4	1.6	10	2
	3	●	MMS0880S-DIN-C	26.4	46.0	48.0	88.0	86.4	1.6	10	1
	5	□	MMS0880L-DIN	44.0	60.0	62.0	102.0	100.4	1.6	10	2
	5	●	MMS0880L-DIN-C	44.0	60.0	62.0	102.0	100.4	1.6	10	1
	3	★	MMS0880X3DB	26.4	47.0	49.0	102.6	101.0	1.6	10	1
	5	★	MMS0880X5DB	44.0	65.0	67.0	117.6	116.0	1.6	10	1
8.9	3	□	MMS0890S-DIN	26.7	46.0	48.0	88.0	86.4	1.6	10	2
	3	□	MMS0890S-DIN-C	26.7	46.0	48.0	88.0	86.4	1.6	10	1
	5	□	MMS0890L-DIN	44.5	60.0	62.0	102.0	100.4	1.6	10	2
	5	□	MMS0890L-DIN-C	44.5	60.0	62.0	102.0	100.4	1.6	10	1
	3	★	MMS0890X3DB	26.7	47.0	49.0	102.6	101.0	1.6	10	1
	5	★	MMS0890X5DB	44.5	65.0	67.0	117.6	116.0	1.6	10	1
9.0	3	□	MMS0900S-DIN	27.0	46.0	48.0	88.0	86.4	1.6	10	2
	3	●	MMS0900S-DIN-C	27.0	46.0	48.0	88.0	86.4	1.6	10	1
	5	□	MMS0900L-DIN	45.0	60.0	62.0	102.0	100.4	1.6	10	2
	5	●	MMS0900L-DIN-C	45.0	60.0	62.0	102.0	100.4	1.6	10	1
	3	★	MMS0900X3DB	27.0	47.0	49.0	102.6	101.0	1.6	10	1
	5	★	MMS0900X5DB	45.0	65.0	67.0	117.6	116.0	1.6	10	1
9.1	3	□	MMS0910S-DIN	27.3	47.0	49.0	89.0	87.3	1.7	10	2
	3	□	MMS0910S-DIN-C	27.3	47.0	49.0	89.0	87.3	1.7	10	1
	5	□	MMS0910L-DIN	45.5	62.0	63.0	103.0	101.3	1.7	10	2
	5	□	MMS0910L-DIN-C	45.5	62.0	63.0	103.0	101.3	1.7	10	1
	3	★	MMS0910X3DB	27.3	50.0	52.0	102.7	101.0	1.7	10	1
	5	★	MMS0910X5DB	45.5	69.0	72.0	122.7	121.0	1.7	10	1
9.2	3	□	MMS0920S-DIN	27.6	47.0	49.0	89.0	87.3	1.7	10	2
	3	□	MMS0920S-DIN-C	27.6	47.0	49.0	89.0	87.3	1.7	10	1
	5	□	MMS0920L-DIN	46.0	62.0	63.0	103.0	101.3	1.7	10	2
	5	□	MMS0920L-DIN-C	46.0	62.0	63.0	103.0	101.3	1.7	10	1
	3	★	MMS0920X3DB	27.6	50.0	52.0	102.7	101.0	1.7	10	1
	5	★	MMS0920X5DB	46.0	69.0	72.0	122.7	121.0	1.7	10	1
9.3	3	□	MMS0930S-DIN	27.9	47.0	49.0	89.0	87.3	1.7	10	2
	3	●	MMS0930S-DIN-C	27.9	47.0	49.0	89.0	87.3	1.7	10	1
	5	□	MMS0930L-DIN	46.5	62.0	63.0	103.0	101.3	1.7	10	2
	5	●	MMS0930L-DIN-C	46.5	62.0	63.0	103.0	101.3	1.7	10	1
	3	★	MMS0930X3DB	27.9	50.0	52.0	102.7	101.0	1.7	10	1
	5	★	MMS0930X5DB	46.5	69.0	72.0	122.7	121.0	1.7	10	1
9.4	3	□	MMS0940S-DIN	28.2	47.0	49.0	89.0	87.3	1.7	10	2
	3	□	MMS0940S-DIN-C	28.2	47.0	49.0	89.0	87.3	1.7	10	1
	5	□	MMS0940L-DIN	47.0	62.0	63.0	103.0	101.3	1.7	10	2
	5	□	MMS0940L-DIN-C	47.0	62.0	63.0	103.0	101.3	1.7	10	1
	3	★	MMS0940X3DB	28.2	50.0	52.0	102.7	101.0	1.7	10	1
	5	★	MMS0940X5DB	47.0	69.0	72.0	122.7	121.0	1.7	10	1

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager DP7020	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
9.5	3	□	MMS0950S-DIN	28.5	47.0	49.0	89.0	87.3	1.7	10	2
	3	●	MMS0950S-DIN-C	28.5	47.0	49.0	89.0	87.3	1.7	10	1
	5	□	MMS0950L-DIN	47.5	62.0	63.0	103.0	101.3	1.7	10	2
	5	●	MMS0950L-DIN-C	47.5	62.0	63.0	103.0	101.3	1.7	10	1
	3	★	MMS0950X3DB	28.5	50.0	52.0	102.7	101.0	1.7	10	1
	5	★	MMS0950X5DB	47.5	69.0	72.0	122.7	121.0	1.7	10	1
9.6	3	□	MMS0960S-DIN	28.8	47.0	49.0	89.0	87.3	1.7	10	2
	3	□	MMS0960S-DIN-C	28.8	47.0	49.0	89.0	87.3	1.7	10	1
	5	□	MMS0960L-DIN	48.0	62.0	63.0	103.0	101.3	1.7	10	2
	5	□	MMS0960L-DIN-C	48.0	62.0	63.0	103.0	101.3	1.7	10	1
	3	★	MMS0960X3DB	28.8	52.0	52.0	102.7	101.0	1.7	10	1
	5	★	MMS0960X5DB	48.0	72.0	72.0	122.7	121.0	1.7	10	1
9.7	3	□	MMS0970S-DIN	29.1	47.0	49.0	89.0	87.2	1.8	10	2
	3	□	MMS0970S-DIN-C	29.1	47.0	49.0	89.0	87.2	1.8	10	1
	5	□	MMS0970L-DIN	48.5	62.0	63.0	103.0	101.2	1.8	10	2
	5	□	MMS0970L-DIN-C	48.5	62.0	63.0	103.0	101.2	1.8	10	1
	3	★	MMS0970X3DB	29.1	52.0	52.0	102.8	101.0	1.8	10	1
	5	★	MMS0970X5DB	48.5	72.0	72.0	122.8	121.0	1.8	10	1
9.8	3	□	MMS0980S-DIN	29.4	47.0	49.0	89.0	87.2	1.8	10	2
	3	●	MMS0980S-DIN-C	29.4	47.0	49.0	89.0	87.2	1.8	10	1
	5	□	MMS0980L-DIN	49.0	62.0	63.0	103.0	101.2	1.8	10	2
	5	●	MMS0980L-DIN-C	49.0	62.0	63.0	103.0	101.2	1.8	10	1
	3	★	MMS0980X3DB	29.4	52.0	52.0	102.8	101.0	1.8	10	1
	5	★	MMS0980X5DB	49.0	72.0	72.0	122.8	121.0	1.8	10	1
9.9	3	□	MMS0990S-DIN	29.7	47.0	49.0	89.0	87.2	1.8	10	2
	3	□	MMS0990S-DIN-C	29.7	47.0	49.0	89.0	87.2	1.8	10	1
	5	□	MMS0990L-DIN	49.5	62.0	63.0	103.0	101.2	1.8	10	2
	5	□	MMS0990L-DIN-C	49.5	62.0	63.0	103.0	101.2	1.8	10	1
	3	★	MMS0990X3DB	29.7	52.0	52.0	102.8	101.0	1.8	10	1
	5	★	MMS0990X5DB	49.5	72.0	72.0	122.8	121.0	1.8	10	1
10.5	3	●	MMS1000S-DIN-C	30.0	47.0	49.0	89.0	87.2	1.8	10	1
	5	●	MMS1000L-DIN-C	50.0	62.0	63.0	103.0	101.2	1.8	10	1
	3	★	MMS1000X3DB	30.0	52.0	52.0	102.8	101.0	1.8	10	1
	5	★	MMS1000X5DB	50.0	72.0	72.0	122.8	121.0	1.8	10	1
10.05	3	□	MMS1005S-DIN	30.2	55.0	57.0	102.0	100.2	1.8	12	2
	3	●	MMS1005S-DIN-C	30.2	55.0	57.0	102.0	100.2	1.8	12	1
	5	□	MMS1005L-DIN	50.3	71.0	73.0	118.0	116.2	1.8	12	2
	5	●	MMS1005L-DIN-C	50.3	71.0	73.0	118.0	116.2	1.8	12	1
10.1	3	□	MMS1010S-DIN	30.3	55.0	57.0	102.0	100.2	1.8	12	2
	3	□	MMS1010S-DIN-C	30.3	55.0	57.0	102.0	100.2	1.8	12	1
	5	□	MMS1010L-DIN	50.5	71.0	73.0	118.0	116.2	1.8	12	2
	5	□	MMS1010L-DIN-C	50.5	71.0	73.0	118.0	116.2	1.8	12	1
	3	★	MMS1010X3DB	30.3	55.0	57.0	112.8	111.0	1.8	12	1
	5	★	MMS1010X5DB	50.5	76.0	80.0	135.8	134.0	1.8	12	1
10.2	3	□	MMS1020S-DIN	30.6	55.0	57.0	102.0	100.1	1.9	12	2
	3	●	MMS1020S-DIN-C	30.6	55.0	57.0	102.0	100.1	1.9	12	1
	5	□	MMS1020L-DIN	51.0	71.0	73.0	118.0	116.1	1.9	12	2
	5	●	MMS1020L-DIN-C	51.0	71.0	73.0	118.0	116.1	1.9	12	1
	3	★	MMS1020X3DB	30.6	55.0	57.0	112.9	111.0	1.9	12	1
	5	★	MMS1020X5DB	51.0	76.0	80.0	135.9	134.0	1.9	12	1

● : Lagerstandard. ★ : Lagerstandard in Japan.
□ : Nichtstandard, Herstellung nur auf Anfrage.

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager DP7020	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
10.3	3	□	MMS1030S-DIN	30.9	55.0	57.0	102.0	100.1	1.9	12	2
	3	●	MMS1030S-DIN-C	30.9	55.0	57.0	102.0	100.1	1.9	12	1
	5	□	MMS1030L-DIN	51.5	71.0	73.0	118.0	116.1	1.9	12	2
	5	●	MMS1030L-DIN-C	51.5	71.0	73.0	118.0	116.1	1.9	12	1
	3	★	MMS1030X3DB	30.9	55.0	57.0	112.9	111.0	1.9	12	1
	5	★	MMS1030X5DB	51.5	76.0	80.0	135.9	134.0	1.9	12	1
10.4	3	□	MMS1040S-DIN	31.2	55.0	57.0	102.0	100.1	1.9	12	2
	3	●	MMS1040S-DIN-C	31.2	55.0	57.0	102.0	100.1	1.9	12	1
	5	□	MMS1040L-DIN	52.0	71.0	73.0	118.0	116.1	1.9	12	2
	5	●	MMS1040L-DIN-C	52.0	71.0	73.0	118.0	116.1	1.9	12	1
	3	★	MMS1040X3DB	31.2	55.0	57.0	112.9	111.0	1.9	12	1
	5	★	MMS1040X5DB	52.0	76.0	80.0	135.9	134.0	1.9	12	1
10.5	3	□	MMS1050S-DIN	31.5	55.0	57.0	102.0	100.1	1.9	12	2
	3	●	MMS1050S-DIN-C	31.5	55.0	57.0	102.0	100.1	1.9	12	1
	5	□	MMS1050L-DIN	52.5	71.0	73.0	118.0	116.1	1.9	12	2
	5	●	MMS1050L-DIN-C	52.5	71.0	73.0	118.0	116.1	1.9	12	1
	3	★	MMS1050X3DB	31.5	55.0	57.0	112.9	111.0	1.9	12	1
	5	★	MMS1050X5DB	52.5	76.0	80.0	135.9	134.0	1.9	12	1
10.6	3	□	MMS1060S-DIN	31.8	55.0	57.0	102.0	100.1	1.9	12	2
	3	□	MMS1060S-DIN-C	31.8	55.0	57.0	102.0	100.1	1.9	12	1
	5	□	MMS1060L-DIN	53.0	71.0	73.0	118.0	116.1	1.9	12	2
	5	□	MMS1060L-DIN-C	53.0	71.0	73.0	118.0	116.1	1.9	12	1
	3	★	MMS1060X3DB	31.8	57.0	58.0	117.9	116.0	1.9	12	1
	5	★	MMS1060X5DB	53.0	79.0	80.0	135.9	134.0	1.9	12	1
10.7	3	□	MMS1070S-DIN	32.1	55.0	57.0	102.0	100.1	1.9	12	2
	3	●	MMS1070S-DIN-C	32.1	55.0	57.0	102.0	100.1	1.9	12	1
	5	□	MMS1070L-DIN	53.5	71.0	73.0	118.0	116.1	1.9	12	2
	5	●	MMS1070L-DIN-C	53.5	71.0	73.0	118.0	116.1	1.9	12	1
	3	★	MMS1070X3DB	32.1	57.0	58.0	117.9	116.0	1.9	12	1
	5	★	MMS1070X5DB	53.5	79.0	80.0	135.9	134.0	1.9	12	1
10.8	3	□	MMS1080S-DIN	32.4	55.0	57.0	102.0	100.0	2.0	12	2
	3	●	MMS1080S-DIN-C	32.4	55.0	57.0	102.0	100.0	2.0	12	1
	5	□	MMS1080L-DIN	54.0	71.0	73.0	118.0	116.0	2.0	12	2
	5	●	MMS1080L-DIN-C	54.0	71.0	73.0	118.0	116.0	2.0	12	1
	3	★	MMS1080X3DB	32.4	57.0	58.0	118.0	116.0	2.0	12	1
	5	★	MMS1080X5DB	54.0	79.0	80.0	136.0	134.0	2.0	12	1
10.9	3	□	MMS1090S-DIN	32.7	55.0	57.0	102.0	100.0	2.0	12	2
	3	□	MMS1090S-DIN-C	32.7	55.0	57.0	102.0	100.0	2.0	12	1
	5	□	MMS1090L-DIN	54.5	71.0	73.0	118.0	116.0	2.0	12	2
	5	□	MMS1090L-DIN-C	54.5	71.0	73.0	118.0	116.0	2.0	12	1
	3	★	MMS1090X3DB	32.7	57.0	58.0	118.0	116.0	2.0	12	1
	5	★	MMS1090X5DB	54.5	79.0	80.0	136.0	134.0	2.0	12	1
11.0	3	□	MMS1100S-DIN	33.0	55.0	57.0	102.0	100.0	2.0	12	2
	3	●	MMS1100S-DIN-C	33.0	55.0	57.0	102.0	100.0	2.0	12	1
	5	□	MMS1100L-DIN	55.0	71.0	73.0	118.0	116.0	2.0	12	2
	5	●	MMS1100L-DIN-C	55.0	71.0	73.0	118.0	116.0	2.0	12	1
	3	★	MMS1100X3DB	33.0	57.0	58.0	118.0	116.0	2.0	12	1
	5	★	MMS1100X5DB	55.0	79.0	80.0	136.0	134.0	2.0	12	1

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager DP7020	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
11.1	3	□	MMS1110S-DIN	33.3	55.0	57.0	102.0	100.0	2.0	12	2
	3	□	MMS1110S-DIN-C	33.3	55.0	57.0	102.0	100.0	2.0	12	1
	5	□	MMS1110L-DIN	55.5	71.0	73.0	118.0	116.0	2.0	12	2
	5	□	MMS1110L-DIN-C	55.5	71.0	73.0	118.0	116.0	2.0	12	1
	3	★	MMS1110X3DB	33.3	60.0	62.0	118.0	116.0	2.0	12	1
	5	★	MMS1110X5DB	55.5	83.0	86.0	142.0	140.0	2.0	12	1
11.2	3	□	MMS1120S-DIN	33.6	55.0	57.0	102.0	100.0	2.0	12	2
	3	●	MMS1120S-DIN-C	33.6	55.0	57.0	102.0	100.0	2.0	12	1
	5	□	MMS1120L-DIN	56.0	71.0	73.0	118.0	116.0	2.0	12	2
	5	●	MMS1120L-DIN-C	56.0	71.0	73.0	118.0	116.0	2.0	12	1
	3	★	MMS1120X3DB	33.6	60.0	62.0	118.0	116.0	2.0	12	1
	5	★	MMS1120X5DB	56.0	83.0	86.0	142.0	140.0	2.0	12	1
11.3	3	□	MMS1130S-DIN	33.9	55.0	57.0	102.0	99.9	2.1	12	2
	3	□	MMS1130S-DIN-C	33.9	55.0	57.0	102.0	99.9	2.1	12	1
	5	□	MMS1130L-DIN	56.5	71.0	73.0	118.0	115.9	2.1	12	2
	5	□	MMS1130L-DIN-C	56.5	71.0	73.0	118.0	115.9	2.1	12	1
	3	★	MMS1130X3DB	33.9	60.0	62.0	118.1	116.0	2.1	12	1
	5	★	MMS1130X5DB	56.5	83.0	86.0	142.1	140.0	2.1	12	1
11.4	3	□	MMS1140S-DIN	34.2	55.0	57.0	102.0	99.9	2.1	12	2
	3	●	MMS1140S-DIN-C	34.2	55.0	57.0	102.0	99.9	2.1	12	1
	5	□	MMS1140L-DIN	57.0	71.0	73.0	118.0	115.9	2.1	12	2
	5	●	MMS1140L-DIN-C	57.0	71.0	73.0	118.0	115.9	2.1	12	1
	3	★	MMS1140X3DB	34.2	60.0	62.0	118.1	116.0	2.1	12	1
	5	★	MMS1140X5DB	57.0	83.0	86.0	142.1	140.0	2.1	12	1
11.5	3	□	MMS1150S-DIN	34.5	55.0	57.0	102.0	99.9	2.1	12	2
	3	●	MMS1150S-DIN-C	34.5	55.0	57.0	102.0	99.9	2.1	12	1
	5	□	MMS1150L-DIN	57.5	71.0	73.0	118.0	115.9	2.1	12	2
	5	●	MMS1150L-DIN-C	57.5	71.0	73.0	118.0	115.9	2.1	12	1
	3	★	MMS1150X3DB	34.5	60.0	62.0	118.1	116.0	2.1	12	1
	5	★	MMS1150X5DB	57.5	83.0	86.0	142.1	140.0	2.1	12	1
11.6	3	□	MMS1160S-DIN	34.8	55.0	57.0	102.0	99.9	2.1	12	2
	3	□	MMS1160S-DIN-C	34.8	55.0	57.0	102.0	99.9	2.1	12	1
	5	□	MMS1160L-DIN	58.0	71.0	73.0	118.0	115.9	2.1	12	2
	5	□	MMS1160L-DIN-C	58.0	71.0	73.0	118.0	115.9	2.1	12	1
	3	★	MMS1160X3DB	34.8	62.0	62.0	118.1	116.0	2.1	12	1
	5	★	MMS1160X5DB	58.0	86.0	86.0	142.1	140.0	2.1	12	1
11.7	3	□	MMS1170S-DIN	35.1	55.0	57.0	102.0	99.9	2.1	12	2
	3	●	MMS1170S-DIN-C	35.1	55.0	57.0	102.0	99.9	2.1	12	1
	5	□	MMS1170L-DIN	58.5	71.0	73.0	118.0	115.9	2.1	12	2
	5	●	MMS1170L-DIN-C	58.5	71.0	73.0	118.0	115.9	2.1	12	1
	3	★	MMS1170X3DB	35.1	62.0	62.0	118.1	116.0	2.1	12	1
	5	★	MMS1170X5DB	58.5	86.0	86.0	142.1	140.0	2.1	12	1
11.8	3	□	MMS1180S-DIN	35.4	55.0	57.0	102.0	99.9	2.1	12	2
	3	●	MMS1180S-DIN-C	35.4	55.0	57.0	102.0	99.9	2.1	12	1
	5	□	MMS1180L-DIN	59.0	71.0	73.0	118.0	115.9	2.1	12	2
	5	●	MMS1180L-DIN-C	59.0	71.0	73.0	118.0	115.9	2.1	12	1
	3	★	MMS1180X3DB	35.4	62.0	62.0	118.1	116.0	2.1	12	1
	5	★	MMS1180X5DB	59.0	86.0	86.0	142.1	140.0	2.1	12	1

SCHNITTBEDINGUNGEN ➤ L074
ANWENDUNGSHINWEISE ➤ L073
TECHNISCHE DATEN ➤ N001

MMS

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager DP7020	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
11.9	3	□	MMS1190S-DIN	35.7	55.0	57.0	102.0	99.8	2.2	12	2
	3	□	MMS1190S-DIN-C	35.7	55.0	57.0	102.0	99.8	2.2	12	1
	5	□	MMS1190L-DIN	59.5	71.0	73.0	118.0	115.8	2.2	12	2
	5	□	MMS1190L-DIN-C	59.5	71.0	73.0	118.0	115.8	2.2	12	1
	3	★	MMS1190X3DB	35.7	62.0	62.0	118.2	116.0	2.2	12	1
	5	★	MMS1190X5DB	59.5	86.0	86.0	142.2	140.0	2.2	12	1
12.0	3	●	MMS1200S-DIN-C	36.0	55.0	57.0	102.0	99.8	2.2	12	1
	5	●	MMS1200L-DIN-C	60.0	71.0	73.0	118.0	115.8	2.2	12	1
	3	★	MMS1200X3DB	36.0	62.0	62.0	118.2	116.0	2.2	12	1
	5	★	MMS1200X5DB	60.0	86.0	86.0	142.2	140.0	2.2	12	1
12.05	3	□	MMS1205S-DIN	36.2	60.0	62.0	107.0	104.8	2.2	14	2
	3	●	MMS1205S-DIN-C	36.2	60.0	62.0	107.0	104.8	2.2	14	1
	5	□	MMS1205L-DIN	60.3	77.0	79.0	124.0	121.8	2.2	14	2
	5	●	MMS1205L-DIN-C	60.3	77.0	79.0	124.0	121.8	2.2	14	1
12.1	3	□	MMS1210S-DIN	36.3	60.0	62.0	107.0	104.8	2.2	14	2
	3	□	MMS1210S-DIN-C	36.3	60.0	62.0	107.0	104.8	2.2	14	1
	5	□	MMS1210L-DIN	60.5	77.0	79.0	124.0	121.8	2.2	14	2
	5	□	MMS1210L-DIN-C	60.5	77.0	79.0	124.0	121.8	2.2	14	1
	3	★	MMS1210X3DB	36.3	65.0	68.0	124.2	122.0	2.2	14	1
	5	★	MMS1210X5DB	60.5	90.0	94.0	150.2	148.0	2.2	14	1
12.2	3	□	MMS1220S-DIN	36.6	60.0	62.0	107.0	104.8	2.2	14	2
	3	□	MMS1220S-DIN-C	36.6	60.0	62.0	107.0	104.8	2.2	14	1
	5	□	MMS1220L-DIN	61.0	77.0	79.0	124.0	121.8	2.2	14	2
	5	□	MMS1220L-DIN-C	61.0	77.0	79.0	124.0	121.8	2.2	14	1
	3	★	MMS1220X3DB	36.6	65.0	68.0	124.2	122.0	2.2	14	1
	5	★	MMS1220X5DB	61.0	90.0	94.0	150.2	148.0	2.2	14	1
12.3	3	□	MMS1230S-DIN	36.9	60.0	62.0	107.0	104.8	2.2	14	2
	3	□	MMS1230S-DIN-C	36.9	60.0	62.0	107.0	104.8	2.2	14	1
	5	□	MMS1230L-DIN	61.5	77.0	79.0	124.0	121.8	2.2	14	2
	5	□	MMS1230L-DIN-C	61.5	77.0	79.0	124.0	121.8	2.2	14	1
	3	★	MMS1230X3DB	36.9	65.0	68.0	124.2	122.0	2.2	14	1
	5	★	MMS1230X5DB	61.5	90.0	94.0	150.2	148.0	2.2	14	1
12.4	3	□	MMS1240S-DIN	37.2	60.0	62.0	107.0	104.7	2.3	14	2
	3	□	MMS1240S-DIN-C	37.2	60.0	62.0	107.0	104.7	2.3	14	1
	5	□	MMS1240L-DIN	62.0	77.0	79.0	124.0	121.7	2.3	14	2
	5	□	MMS1240L-DIN-C	62.0	77.0	79.0	124.0	121.7	2.3	14	1
	3	★	MMS1240X3DB	37.2	65.0	68.0	124.3	122.0	2.3	14	1
	5	★	MMS1240X5DB	62.0	90.0	94.0	150.3	148.0	2.3	14	1
12.5	3	□	MMS1250S-DIN	37.5	60.0	62.0	107.0	104.7	2.3	14	2
	3	●	MMS1250S-DIN-C	37.5	60.0	62.0	107.0	104.7	2.3	14	1
	5	□	MMS1250L-DIN	62.5	77.0	79.0	124.0	121.7	2.3	14	2
	5	●	MMS1250L-DIN-C	62.5	77.0	79.0	124.0	121.7	2.3	14	1
	3	★	MMS1250X3DB	37.5	65.0	68.0	124.3	122.0	2.3	14	1
	5	★	MMS1250X5DB	62.5	90.0	94.0	150.3	148.0	2.3	14	1

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager DP7020	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
12.6	3	□	MMS1260S-DIN	37.8	60.0	62.0	107.0	104.7	2.3	14	2
	3	●	MMS1260S-DIN-C	37.8	60.0	62.0	107.0	104.7	2.3	14	1
	5	□	MMS1260L-DIN	63.0	77.0	79.0	124.0	121.7	2.3	14	2
	5	●	MMS1260L-DIN-C	63.0	77.0	79.0	124.0	121.7	2.3	14	1
	3	★	MMS1260X3DB	37.8	67.0	68.0	124.3	122.0	2.3	14	1
	5	★	MMS1260X5DB	63.0	93.0	94.0	150.3	148.0	2.3	14	1
12.7	3	□	MMS1270S-DIN	38.1	60.0	62.0	107.0	104.7	2.3	14	2
	3	●	MMS1270S-DIN-C	38.1	60.0	62.0	107.0	104.7	2.3	14	1
	5	□	MMS1270L-DIN	63.5	77.0	79.0	124.0	121.7	2.3	14	2
	5	●	MMS1270L-DIN-C	63.5	77.0	79.0	124.0	121.7	2.3	14	1
	3	★	MMS1270X3DB	38.1	67.0	68.0	124.3	122.0	2.3	14	1
	5	★	MMS1270X5DB	63.5	93.0	94.0	150.3	148.0	2.3	14	1
12.8	3	□	MMS1280S-DIN	38.4	60.0	62.0	107.0	104.7	2.3	14	2
	3	□	MMS1280S-DIN-C	38.4	60.0	62.0	107.0	104.7	2.3	14	1
	5	□	MMS1280L-DIN	64.0	77.0	79.0	124.0	121.7	2.3	14	2
	5	□	MMS1280L-DIN-C	64.0	77.0	79.0	124.0	121.7	2.3	14	1
	3	★	MMS1280X3DB	38.4	67.0	68.0	124.3	122.0	2.3	14	1
	5	★	MMS1280X5DB	64.0	93.0	94.0	150.3	148.0	2.3	14	1
12.9	3	□	MMS1290S-DIN	38.7	60.0	62.0	107.0	104.7	2.3	14	2
	3	□	MMS1290S-DIN-C	38.7	60.0	62.0	107.0	104.7	2.3	14	1
	5	□	MMS1290L-DIN	64.5	77.0	79.0	124.0	121.7	2.3	14	2
	5	□	MMS1290L-DIN-C	64.5	77.0	79.0	124.0	121.7	2.3	14	1
	3	★	MMS1290X3DB	38.7	67.0	68.0	124.3	122.0	2.3	14	1
	5	★	MMS1290X5DB	64.5	93.0	94.0	150.3	148.0	2.3	14	1
13.0	3	□	MMS1300S-DIN	39.0	60.0	62.0	107.0	104.6	2.4	14	2
	3	●	MMS1300S-DIN-C	39.0	60.0	62.0	107.0	104.6	2.4	14	1
	5	□	MMS1300L-DIN	65.0	77.0	79.0	124.0	121.6	2.4	14	2
	5	●	MMS1300L-DIN-C	65.0	77.0	79.0	124.0	121.6	2.4	14	1
	3	★	MMS1300X3DB	39.0	67.0	68.0	124.4	122.0	2.4	14	1
	5	★	MMS1300X5DB	65.0	93.0	94.0	150.4	148.0	2.4	14	1
13.1	3	□	MMS1310S-DIN	39.3	60.0	62.0	107.0	104.6	2.4	14	2
	3	□	MMS1310S-DIN-C	39.3	60.0	62.0	107.0	104.6	2.4	14	1
	5	□	MMS1310L-DIN	65.5	77.0	79.0	124.0	121.6	2.4	14	2
	5	□	MMS1310L-DIN-C	65.5	77.0	79.0	124.0	121.6	2.4	14	1
	3	★	MMS1310X3DB	39.3	70.0	72.0	128.4	126.0	2.4	14	1
	5	★	MMS1310X5DB	65.5	97.0	100.0	156.4	154.0	2.4	14	1
13.2	3	□	MMS1320S-DIN	39.6	60.0	62.0	107.0	104.6	2.4	14	2
	3	□	MMS1320S-DIN-C	39.6	60.0	62.0	107.0	104.6	2.4	14	1
	5	□	MMS1320L-DIN	66.0	77.0	79.0	124.0	121.6	2.4	14	2
	5	□	MMS1320L-DIN-C	66.0	77.0	79.0	124.0	121.6	2.4	14	1
	3	★	MMS1320X3DB	39.6	70.0	72.0	128.4	126.0	2.4	14	1
	5	★	MMS1320X5DB	66.0	97.0	100.0	156.4	154.0	2.4	14	1
13.3	3	□	MMS1330S-DIN	39.9	60.0	62.0	107.0	104.6	2.4	14	2
	3	□	MMS1330S-DIN-C	39.9	60.0	62.0	107.0	104.6	2.4	14	1
	5	□	MMS1330L-DIN	66.5	77.0	79.0	124.0	121.6	2.4	14	2
	5	□	MMS1330L-DIN-C	66.5	77.0	79.0	124.0	121.6	2.4	14	1
	3	★	MMS1330X3DB	39.9	70.0	72.0	128.4	126.0	2.4	14	1
	5	★	MMS1330X5DB	66.5	97.0	100.0	156.4	154.0	2.4	14	1

● : Lagerstandard. ★ : Lagerstandard in Japan.
□ : Nichtstandard, Herstellung nur auf Anfrage.

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager DP7020	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
13.4	3	□	MMS1340S-DIN	40.2	60.0	62.0	107.0	104.6	2.4	14	2
	3	□	MMS1340S-DIN-C	40.2	60.0	62.0	107.0	104.6	2.4	14	1
	5	□	MMS1340L-DIN	67.0	77.0	79.0	124.0	121.6	2.4	14	2
	5	□	MMS1340L-DIN-C	67.0	77.0	79.0	124.0	121.6	2.4	14	1
	3	★	MMS1340X3DB	40.2	70.0	72.0	128.4	126.0	2.4	14	1
	5	★	MMS1340X5DB	67.0	97.0	100.0	156.4	154.0	2.4	14	1
13.5	3	□	MMS1350S-DIN	40.5	60.0	62.0	107.0	104.5	2.5	14	2
	3	●	MMS1350S-DIN-C	40.5	60.0	62.0	107.0	104.5	2.5	14	1
	5	□	MMS1350L-DIN	67.5	77.0	79.0	124.0	121.5	2.5	14	2
	5	●	MMS1350L-DIN-C	67.5	77.0	79.0	124.0	121.5	2.5	14	1
	3	★	MMS1350X3DB	40.5	70.0	72.0	128.5	126.0	2.5	14	1
	5	★	MMS1350X5DB	67.5	97.0	100.0	156.5	154.0	2.5	14	1
13.6	3	□	MMS1360S-DIN	40.8	60.0	62.0	107.0	104.5	2.5	14	2
	3	□	MMS1360S-DIN-C	40.8	60.0	62.0	107.0	104.5	2.5	14	1
	5	□	MMS1360L-DIN	68.0	77.0	79.0	124.0	121.5	2.5	14	2
	5	□	MMS1360L-DIN-C	68.0	77.0	79.0	124.0	121.5	2.5	14	1
	3	★	MMS1360X3DB	40.8	72.0	72.0	128.5	126.0	2.5	14	1
	5	★	MMS1360X5DB	68.0	100.0	100.0	156.5	154.0	2.5	14	1
13.7	3	□	MMS1370S-DIN	41.1	60.0	62.0	107.0	104.5	2.5	14	2
	3	●	MMS1370S-DIN-C	41.1	60.0	62.0	107.0	104.5	2.5	14	1
	5	□	MMS1370L-DIN	68.5	77.0	79.0	124.0	121.5	2.5	14	2
	5	●	MMS1370L-DIN-C	68.5	77.0	79.0	124.0	121.5	2.5	14	1
	3	★	MMS1370X3DB	41.1	72.0	72.0	128.5	126.0	2.5	14	1
	5	★	MMS1370X5DB	68.5	100.0	100.0	156.5	154.0	2.5	14	1
13.8	3	□	MMS1380S-DIN	41.4	60.0	62.0	107.0	104.5	2.5	14	2
	3	□	MMS1380S-DIN-C	41.4	60.0	62.0	107.0	104.5	2.5	14	1
	5	□	MMS1380L-DIN	69.0	77.0	79.0	124.0	121.5	2.5	14	2
	5	□	MMS1380L-DIN-C	69.0	77.0	79.0	124.0	121.5	2.5	14	1
	3	★	MMS1380X3DB	41.4	72.0	72.0	128.5	126.0	2.5	14	1
	5	★	MMS1380X5DB	69.0	100.0	100.0	156.5	154.0	2.5	14	1
13.9	3	□	MMS1390S-DIN	41.7	60.0	62.0	107.0	104.5	2.5	14	2
	3	□	MMS1390S-DIN-C	41.7	60.0	62.0	107.0	104.5	2.5	14	1
	5	□	MMS1390L-DIN	69.5	77.0	79.0	124.0	121.5	2.5	14	2
	5	□	MMS1390L-DIN-C	69.5	77.0	79.0	124.0	121.5	2.5	14	1
	3	★	MMS1390X3DB	41.7	72.0	72.0	128.5	126.0	2.5	14	1
	5	★	MMS1390X5DB	69.5	100.0	100.0	156.5	154.0	2.5	14	1
14.0	3	●	MMS1400S-DIN-C	42.0	60.0	62.0	107.0	104.5	2.5	14	1
	5	●	MMS1400L-DIN-C	70.0	77.0	79.0	124.0	121.5	2.5	14	1
	3	★	MMS1400X3DB	42.0	72.0	72.0	128.5	126.0	2.5	14	1
	5	★	MMS1400X5DB	70.0	100.0	100.0	156.5	154.0	2.5	14	1
14.05	3	□	MMS1405S-DIN-C	42.2	64.0	66.0	114.0	111.4	2.6	16	1
	5	□	MMS1405L-DIN-C	70.3	82.0	84.0	132.0	129.4	2.6	16	1
14.1	3	□	MMS1410S-DIN	42.3	64.0	66.0	114.0	111.4	2.6	16	2
	3	□	MMS1410S-DIN-C	42.3	64.0	66.0	114.0	111.4	2.6	16	1
	5	□	MMS1410L-DIN	70.5	82.0	84.0	132.0	129.4	2.6	16	2
	5	□	MMS1410L-DIN-C	70.5	82.0	84.0	132.0	129.4	2.6	16	1
	3	★	MMS1410X3DB	42.3	76.0	79.0	137.6	135.0	2.6	16	1
	5	★	MMS1410X5DB	70.5	105.0	109.0	167.6	165.0	2.6	16	1

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager DP7020	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
14.2	3	□	MMS1420S-DIN	42.6	64.0	66.0	114.0	111.4	2.6	16	2
	3	□	MMS1420S-DIN-C	42.6	64.0	66.0	114.0	111.4	2.6	16	1
	5	□	MMS1420L-DIN	71.0	82.0	84.0	132.0	129.4	2.6	16	2
	5	□	MMS1420L-DIN-C	71.0	82.0	84.0	132.0	129.4	2.6	16	1
	3	★	MMS1420X3DB	42.6	76.0	79.0	137.6	135.0	2.6	16	1
	5	★	MMS1420X5DB	71.0	105.0	109.0	167.6	165.0	2.6	16	1
14.3	3	□	MMS1430S-DIN	42.9	64.0	66.0	114.0	111.4	2.6	16	2
	3	□	MMS1430S-DIN-C	42.9	64.0	66.0	114.0	111.4	2.6	16	1
	5	□	MMS1430L-DIN	71.5	82.0	84.0	132.0	129.4	2.6	16	2
	5	□	MMS1430L-DIN-C	71.5	82.0	84.0	132.0	129.4	2.6	16	1
	3	★	MMS1430X3DB	42.9	76.0	79.0	137.6	135.0	2.6	16	1
	5	★	MMS1430X5DB	71.5	105.0	109.0	167.6	165.0	2.6	16	1
14.4	3	□	MMS1440S-DIN	43.2	64.0	66.0	114.0	111.4	2.6	16	2
	3	□	MMS1440S-DIN-C	43.2	64.0	66.0	114.0	111.4	2.6	16	1
	5	□	MMS1440L-DIN	72.0	82.0	84.0	132.0	129.4	2.6	16	2
	5	□	MMS1440L-DIN-C	72.0	82.0	84.0	132.0	129.4	2.6	16	1
	3	★	MMS1440X3DB	43.2	76.0	79.0	137.6	135.0	2.6	16	1
	5	★	MMS1440X5DB	72.0	105.0	109.0	167.6	165.0	2.6	16	1
14.5	3	□	MMS1450S-DIN-C	43.5	64.0	66.0	114.0	111.4	2.6	16	1
	5	□	MMS1450L-DIN-C	72.5	82.0	84.0	132.0	129.4	2.6	16	1
	3	★	MMS1450X3DB	43.5	76.0	79.0	137.6	135.0	2.6	16	1
	5	★	MMS1450X5DB	72.5	105.0	109.0	167.6	165.0	2.6	16	1
14.6	3	□	MMS1460S-DIN	43.8	64.0	66.0	114.0	111.3	2.7	16	2
	3	□	MMS1460S-DIN-C	43.8	64.0	66.0	114.0	111.3	2.7	16	1
	5	□	MMS1460L-DIN	73.0	82.0	84.0	132.0	129.3	2.7	16	2
	5	□	MMS1460L-DIN-C	73.0	82.0	84.0	132.0	129.3	2.7	16	1
	3	★	MMS1460X3DB	43.8	78.0	79.0	137.7	135.0	2.7	16	1
	5	★	MMS1460X5DB	73.0	108.0	109.0	167.7	165.0	2.7	16	1
14.7	3	□	MMS1470S-DIN	44.1	64.0	66.0	114.0	111.3	2.7	16	2
	3	□	MMS1470S-DIN-C	44.1	64.0	66.0	114.0	111.3	2.7	16	1
	5	□	MMS1470L-DIN	73.5	82.0	84.0	132.0	129.3	2.7	16	2
	5	□	MMS1470L-DIN-C	73.5	82.0	84.0	132.0	129.3	2.7	16	1
	3	★	MMS1470X3DB	44.1	78.0	79.0	137.7	135.0	2.7	16	1
	5	★	MMS1470X5DB	73.5	108.0	109.0	167.7	165.0	2.7	16	1
14.8	3	□	MMS1480S-DIN	44.4	64.0	66.0	114.0	111.3	2.7	16	2
	3	□	MMS1480S-DIN-C	44.4	64.0	66.0	114.0	111.3	2.7	16	1
	5	□	MMS1480L-DIN	74.0	82.0	84.0	132.0	129.3	2.7	16	2
	5	□	MMS1480L-DIN-C	74.0	82.0	84.0	132.0	129.3	2.7	16	1
	3	★	MMS1480X3DB	44.4	78.0	79.0	137.7	135.0	2.7	16	1
	5	★	MMS1480X5DB	74.0	108.0	109.0	167.7	165.0	2.7	16	1
14.9	3	□	MMS1490S-DIN	44.7	64.0	66.0	114.0	111.3	2.7	16	2
	3	□	MMS1490S-DIN-C	44.7	64.0	66.0	114.0	111.3	2.7	16	1
	5	□	MMS1490L-DIN	74.5	82.0	84.0	132.0	129.3	2.7	16	2
	5	□	MMS1490L-DIN-C	74.5	82.0	84.0	132.0	129.3	2.7	16	1
	3	★	MMS1490X3DB	44.7	78.0	79.0	137.7	135.0	2.7	16	1
	5	★	MMS1490X5DB	74.5	108.0	109.0	167.7	165.0	2.7	16	1

SCHNITTBEDINGUNGEN ➤ L074
ANWENDUNGSHINWEISE ➤ L073
TECHNISCHE DATEN ➤ N001

BOHREN (VOLLHARTMETALL)

MMS

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager DP7020	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
15.0	3	□	MMS1500S-DIN-C	45.0	64.0	66.0	114.0	111.3	2.7	16	1
	5	□	MMS1500L-DIN-C	75.0	82.0	84.0	132.0	129.3	2.7	16	1
	3	★	MMS1500X3DB	45.0	78.0	79.0	137.7	135.0	2.7	16	1
	5	★	MMS1500X5DB	75.0	108.0	109.0	167.7	165.0	2.7	16	1
15.1	3	□	MMS1510S-DIN	45.3	65.0	67.0	115.0	112.3	2.7	16	2
	3	□	MMS1510S-DIN-C	45.3	65.0	67.0	115.0	112.3	2.7	16	1
	5	□	MMS1510L-DIN	75.5	83.0	85.0	133.0	130.3	2.7	16	2
	5	□	MMS1510L-DIN-C	75.5	83.0	85.0	133.0	130.3	2.7	16	1
	3	★	MMS1510X3DB	45.3	81.0	83.0	141.7	139.0	2.7	16	1
	5	★	MMS1510X5DB	75.5	112.0	115.0	173.7	171.0	2.7	16	1
15.2	3	□	MMS1520S-DIN	45.6	65.0	67.0	115.0	112.2	2.8	16	2
	3	□	MMS1520S-DIN-C	45.6	65.0	67.0	115.0	112.2	2.8	16	1
	5	□	MMS1520L-DIN	76.0	83.0	85.0	133.0	130.2	2.8	16	2
	5	□	MMS1520L-DIN-C	76.0	83.0	85.0	133.0	130.2	2.8	16	1
	3	★	MMS1520X3DB	45.6	81.0	83.0	141.8	139.0	2.8	16	1
	5	★	MMS1520X5DB	76.0	112.0	115.0	173.8	171.0	2.8	16	1
15.3	3	□	MMS1530S-DIN	45.9	65.0	67.0	115.0	112.2	2.8	16	2
	3	□	MMS1530S-DIN-C	45.9	65.0	67.0	115.0	112.2	2.8	16	1
	5	□	MMS1530L-DIN	76.5	83.0	85.0	133.0	130.2	2.8	16	2
	5	□	MMS1530L-DIN-C	76.5	83.0	85.0	133.0	130.2	2.8	16	1
	3	★	MMS1530X3DB	45.9	81.0	83.0	141.8	139.0	2.8	16	1
	5	★	MMS1530X5DB	76.5	112.0	115.0	173.8	171.0	2.8	16	1
15.4	3	□	MMS1540S-DIN	46.2	65.0	67.0	115.0	112.2	2.8	16	2
	3	□	MMS1540S-DIN-C	46.2	65.0	67.0	115.0	112.2	2.8	16	1
	5	□	MMS1540L-DIN	77.0	83.0	85.0	133.0	130.2	2.8	16	2
	5	□	MMS1540L-DIN-C	77.0	83.0	85.0	133.0	130.2	2.8	16	1
	3	★	MMS1540X3DB	46.2	81.0	83.0	141.8	139.0	2.8	16	1
	5	★	MMS1540X5DB	77.0	112.0	115.0	173.8	171.0	2.8	16	1
	3	□	MMS1550S-DIN-C	46.5	65.0	67.0	115.0	112.2	2.8	16	1
	5	□	MMS1550L-DIN-C	77.5	83.0	85.0	133.0	130.2	2.8	16	1
	3	★	MMS1550X3DB	46.5	81.0	83.0	141.8	139.0	2.8	16	1
	5	★	MMS1550X5DB	77.5	112.0	115.0	173.8	171.0	2.8	16	1
15.6	3	□	MMS1560S-DIN	46.8	65.0	67.0	115.0	112.2	2.8	16	2
	3	□	MMS1560S-DIN-C	46.8	65.0	67.0	115.0	112.2	2.8	16	1
	5	□	MMS1560L-DIN	78.0	83.0	85.0	133.0	130.2	2.8	16	2
	5	□	MMS1560L-DIN-C	78.0	83.0	85.0	133.0	130.2	2.8	16	1
	3	★	MMS1560X3DB	46.8	83.0	83.0	141.8	139.0	2.8	16	1
	5	★	MMS1560X5DB	78.0	115.0	115.0	173.8	171.0	2.8	16	1
15.7	3	□	MMS1570S-DIN	47.1	65.0	67.0	115.0	112.1	2.9	16	2
	3	□	MMS1570S-DIN-C	47.1	65.0	67.0	115.0	112.1	2.9	16	1
	5	□	MMS1570L-DIN	78.5	83.0	85.0	133.0	130.1	2.9	16	2
	5	□	MMS1570L-DIN-C	78.5	83.0	85.0	133.0	130.1	2.9	16	1
	3	★	MMS1570X3DB	47.1	83.0	83.0	141.9	139.0	2.9	16	1
	5	★	MMS1570X5DB	78.5	115.0	115.0	173.9	171.0	2.9	16	1

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager DP7020	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
15.8	3	□	MMS1580S-DIN	47.4	65.0	67.0	115.0	112.1	2.9	16	2
	3	□	MMS1580S-DIN-C	47.4	65.0	67.0	115.0	112.1	2.9	16	1
	5	□	MMS1580L-DIN	79.0	83.0	85.0	133.0	130.1	2.9	16	2
	5	□	MMS1580L-DIN-C	79.0	83.0	85.0	133.0	130.1	2.9	16	1
	3	★	MMS1580X3DB	47.4	83.0	83.0	141.9	139.0	2.9	16	1
	5	★	MMS1580X5DB	79.0	115.0	115.0	173.9	171.0	2.9	16	1
15.9	3	□	MMS1590S-DIN	47.7	65.0	67.0	115.0	112.1	2.9	16	2
	3	□	MMS1590S-DIN-C	47.7	65.0	67.0	115.0	112.1	2.9	16	1
	5	□	MMS1590L-DIN	79.5	83.0	85.0	133.0	130.1	2.9	16	2
	5	□	MMS1590L-DIN-C	79.5	83.0	85.0	133.0	130.1	2.9	16	1
	3	★	MMS1590X3DB	47.7	83.0	83.0	141.9	139.0	2.9	16	1
	5	★	MMS1590X5DB	79.5	115.0	115.0	173.9	171.0	2.9	16	1
16.0	3	□	MMS1600S-DIN-C	48.0	65.0	67.0	115.0	112.1	2.9	16	1
	5	□	MMS1600L-DIN-C	80.0	83.0	85.0	133.0	130.1	2.9	16	1
	3	★	MMS1600X3DB	48.0	83.0	83.0	141.9	139.0	2.9	16	1
	5	★	MMS1600X5DB	80.0	115.0	115.0	173.9	171.0	2.9	16	1
16.1	3	□	MMS1610S-DIN	48.3	73.0	75.0	123.0	120.1	2.9	18	2
	3	□	MMS1610S-DIN-C	48.3	73.0	75.0	123.0	120.1	2.9	18	1
	5	□	MMS1610L-DIN	80.5	93.0	95.0	143.0	140.1	2.9	18	2
	5	□	MMS1610L-DIN-C	80.5	93.0	95.0	143.0	140.1	2.9	18	1
	3	□	MMS1610X3DB	48.3	86.0	89.0	147.9	145.0	2.9	18	1
	5	□	MMS1610X5DB	80.5	119.0	123.0	181.9	179.0	2.9	18	1
16.2	3	□	MMS1620S-DIN	48.6	73.0	75.0	123.0	120.1	2.9	18	2
	3	□	MMS1620S-DIN-C	48.6	73.0	75.0	123.0	120.1	2.9	18	1
	5	□	MMS1620L-DIN	81.0	93.0	95.0	143.0	140.1	2.9	18	2
	5	□	MMS1620L-DIN-C	81.0	93.0	95.0	143.0	140.1	2.9	18	1
	3	□	MMS1620X3DB	48.6	86.0	89.0	147.9	145.0	2.9	18	1
	5	□	MMS1620X5DB	81.0	119.0	123.0	181.9	179.0	2.9	18	1
16.3	3	□	MMS1630S-DIN	48.9	73.0	75.0	123.0	120.0	3.0	18	2
	3	□	MMS1630S-DIN-C	48.9	73.0	75.0	123.0	120.0	3.0	18	1
	5	□	MMS1630L-DIN	81.5	93.0	95.0	143.0	140.0	3.0	18	2
	5	□	MMS1630L-DIN-C	81.5	93.0	95.0	143.0	140.0	3.0	18	1
	3	□	MMS1630X3DB	48.9	86.0	89.0	148.0	145.0	3.0	18	1
	5	□	MMS1630X5DB	81.5	119.0	123.0	182.0	179.0	3.0	18	1
16.4	3	□	MMS1640S-DIN	49.2	73.0	75.0	123.0	120.0	3.0	18	2
	3	□	MMS1640S-DIN-C	49.2	73.0	75.0	123.0	120.0	3.0	18	1
	5	□	MMS1640L-DIN	82.0	93.0	95.0	143.0	140.0	3.0	18	2
	5	□	MMS1640L-DIN-C	82.0	93.0	95.0	143.0	140.0	3.0	18	1
	3	□	MMS1640X3DB	49.2	86.0	89.0	148.0	145.0	3.0	18	1
	5	□	MMS1640X5DB	82.0	119.0	123.0	182.0	179.0	3.0	18	1
16.5	3	□	MMS1650S-DIN-C	49.5	73.0	75.0	123.0	120.0	3.0	18	1
	5	□	MMS1650L-DIN-C	82.5	93.0	95.0	143.0	140.0	3.0	18	1
	3	★	MMS1650X3DB	49.5	86.0	89.0	148.0	145.0	3.0	18	1
	5	★	MMS1650X5DB	82.5	119.0	123.0	182.0	179.0	3.0	18	1

● : Lagerstandard. ★ : Lagerstandard in Japan.
□ : Nichtstandard, Herstellung nur auf Anfrage.

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager DP7020	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
16.6	3	□	MMS1660S-DIN	49.8	73.0	75.0	123.0	120.0	3.0	18	2
	3	□	MMS1660S-DIN-C	49.8	73.0	75.0	123.0	120.0	3.0	18	1
	5	□	MMS1660L-DIN	83.0	93.0	95.0	143.0	140.0	3.0	18	2
	5	□	MMS1660L-DIN-C	83.0	93.0	95.0	143.0	140.0	3.0	18	1
	3	□	MMS1660X3DB	49.8	88.0	89.0	148.0	145.0	3.0	18	1
	5	□	MMS1660X5DB	83.0	122.0	123.0	182.0	179.0	3.0	18	1
16.7	3	□	MMS1670S-DIN	50.1	73.0	75.0	123.0	120.0	3.0	18	2
	3	□	MMS1670S-DIN-C	50.1	73.0	75.0	123.0	120.0	3.0	18	1
	5	□	MMS1670L-DIN	83.5	93.0	95.0	143.0	140.0	3.0	18	2
	5	□	MMS1670L-DIN-C	83.5	93.0	95.0	143.0	140.0	3.0	18	1
	3	□	MMS1670X3DB	50.1	88.0	89.0	148.0	145.0	3.0	18	1
	5	□	MMS1670X5DB	83.5	122.0	123.0	182.0	179.0	3.0	18	1
16.8	3	□	MMS1680S-DIN	50.4	73.0	75.0	123.0	119.9	3.1	18	2
	3	□	MMS1680S-DIN-C	50.4	73.0	75.0	123.0	119.9	3.1	18	1
	5	□	MMS1680L-DIN	84.0	93.0	95.0	143.0	139.9	3.1	18	2
	5	□	MMS1680L-DIN-C	84.0	93.0	95.0	143.0	139.9	3.1	18	1
	3	□	MMS1680X3DB	50.4	88.0	89.0	148.1	145.0	3.1	18	1
	5	□	MMS1680X5DB	84.0	122.0	123.0	182.1	179.0	3.1	18	1
16.9	3	□	MMS1690S-DIN	50.7	73.0	75.0	123.0	119.9	3.1	18	2
	3	□	MMS1690S-DIN-C	50.7	73.0	75.0	123.0	119.9	3.1	18	1
	5	□	MMS1690L-DIN	84.5	93.0	95.0	143.0	139.9	3.1	18	2
	5	□	MMS1690L-DIN-C	84.5	93.0	95.0	143.0	139.9	3.1	18	1
	3	□	MMS1690X3DB	50.7	88.0	89.0	148.1	145.0	3.1	18	1
	5	□	MMS1690X5DB	84.5	122.0	123.0	182.1	179.0	3.1	18	1
17.0	3	□	MMS1700S-DIN-C	51.0	73.0	75.0	123.0	119.9	3.1	18	1
	5	□	MMS1700L-DIN-C	85.0	93.0	95.0	143.0	139.9	3.1	18	1
	3	★	MMS1700X3DB	51.0	88.0	89.0	148.1	145.0	3.1	18	1
	5	★	MMS1700X5DB	85.0	122.0	123.0	182.1	179.0	3.1	18	1
17.1	3	□	MMS1710S-DIN	51.3	73.0	75.0	123.0	119.9	3.1	18	2
	3	□	MMS1710S-DIN-C	51.3	73.0	75.0	123.0	119.9	3.1	18	1
	5	□	MMS1710L-DIN	85.5	93.0	95.0	143.0	139.9	3.1	18	2
	5	□	MMS1710L-DIN-C	85.5	93.0	95.0	143.0	139.9	3.1	18	1
	3	□	MMS1710X3DB	51.3	91.0	93.0	152.1	149.0	3.1	18	1
	5	□	MMS1710X5DB	85.5	126.0	129.0	188.1	185.0	3.1	18	1
17.2	3	□	MMS1720S-DIN	51.6	73.0	75.0	123.0	119.9	3.1	18	2
	3	□	MMS1720S-DIN-C	51.6	73.0	75.0	123.0	119.9	3.1	18	1
	5	□	MMS1720L-DIN	86.0	93.0	95.0	143.0	139.9	3.1	18	2
	5	□	MMS1720L-DIN-C	86.0	93.0	95.0	143.0	139.9	3.1	18	1
	3	□	MMS1720X3DB	51.6	91.0	93.0	152.1	149.0	3.1	18	1
	5	□	MMS1720X5DB	86.0	126.0	129.0	188.1	185.0	3.1	18	1
17.3	3	□	MMS1730S-DIN	51.9	73.0	75.0	123.0	119.9	3.1	18	2
	3	□	MMS1730S-DIN-C	51.9	73.0	75.0	123.0	119.9	3.1	18	1
	5	□	MMS1730L-DIN	86.5	93.0	95.0	143.0	139.9	3.1	18	2
	5	□	MMS1730L-DIN-C	86.5	93.0	95.0	143.0	139.9	3.1	18	1
	3	□	MMS1730X3DB	51.9	91.0	93.0	152.1	149.0	3.1	18	1
	5	□	MMS1730X5DB	86.5	126.0	129.0	188.1	185.0	3.1	18	1

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager DP7020	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
17.4	3	□	MMS1740S-DIN	52.2	73.0	75.0	123.0	119.8	3.2	18	2
	3	□	MMS1740S-DIN-C	52.2	73.0	75.0	123.0	119.8	3.2	18	1
	5	□	MMS1740L-DIN	87.0	93.0	95.0	143.0	139.8	3.2	18	2
	5	□	MMS1740L-DIN-C	87.0	93.0	95.0	143.0	139.8	3.2	18	1
	3	□	MMS1740X3DB	52.2	91.0	93.0	152.2	149.0	3.2	18	1
	5	□	MMS1740X5DB	87.0	126.0	129.0	188.2	185.0	3.2	18	1
17.5	3	□	MMS1750S-DIN-C	52.5	73.0	75.0	123.0	119.8	3.2	18	1
	5	□	MMS1750L-DIN-C	87.5	93.0	95.0	143.0	139.8	3.2	18	1
	3	★	MMS1750X3DB	52.5	91.0	93.0	152.2	149.0	3.2	18	1
	5	★	MMS1750X5DB	87.5	126.0	129.0	188.2	185.0	3.2	18	1
17.6	3	□	MMS1760S-DIN	52.8	73.0	75.0	123.0	119.8	3.2	18	2
	3	□	MMS1760S-DIN-C	52.8	73.0	75.0	123.0	119.8	3.2	18	1
	5	□	MMS1760L-DIN	88.0	93.0	95.0	143.0	139.8	3.2	18	2
	5	□	MMS1760L-DIN-C	88.0	93.0	95.0	143.0	139.8	3.2	18	1
	3	□	MMS1760X3DB	52.8	93.0	93.0	152.2	149.0	3.2	18	1
	5	□	MMS1760X5DB	88.0	129.0	129.0	188.2	185.0	3.2	18	1
17.7	3	□	MMS1770S-DIN	53.1	73.0	75.0	123.0	119.8	3.2	18	2
	3	□	MMS1770S-DIN-C	53.1	73.0	75.0	123.0	119.8	3.2	18	1
	5	□	MMS1770L-DIN	88.5	93.0	95.0	143.0	139.8	3.2	18	2
	5	□	MMS1770L-DIN-C	88.5	93.0	95.0	143.0	139.8	3.2	18	1
	3	□	MMS1770X3DB	53.1	93.0	93.0	152.2	149.0	3.2	18	1
	5	□	MMS1770X5DB	88.5	129.0	129.0	188.2	185.0	3.2	18	1
17.8	3	□	MMS1780S-DIN	53.4	73.0	75.0	123.0	119.8	3.2	18	2
	3	□	MMS1780S-DIN-C	53.4	73.0	75.0	123.0	119.8	3.2	18	1
	5	□	MMS1780L-DIN	89.0	93.0	95.0	143.0	139.8	3.2	18	2
	5	□	MMS1780L-DIN-C	89.0	93.0	95.0	143.0	139.8	3.2	18	1
	3	□	MMS1780X3DB	53.4	93.0	93.0	152.2	149.0	3.2	18	1
	5	□	MMS1780X5DB	89.0	129.0	129.0	188.2	185.0	3.2	18	1
17.9	3	□	MMS1790S-DIN	53.7	73.0	75.0	123.0	119.7	3.3	18	2
	3	□	MMS1790S-DIN-C	53.7	73.0	75.0	123.0	119.7	3.3	18	1
	5	□	MMS1790L-DIN	89.5	93.0	95.0	143.0	139.7	3.3	18	2
	5	□	MMS1790L-DIN-C	89.5	93.0	95.0	143.0	139.7	3.3	18	1
	3	□	MMS1790X3DB	53.7	93.0	93.0	152.3	149.0	3.3	18	1
	5	□	MMS1790X5DB	89.5	129.0	129.0	188.3	185.0	3.3	18	1
18.0	3	□	MMS1800S-DIN-C	54.0	73.0	75.0	123.0	119.7	3.3	18	1
	5	□	MMS1800L-DIN-C	90.0	93.0	95.0	143.0	139.7	3.3	18	1
	3	★	MMS1800X3DB	54.0	93.0	93.0	152.3	149.0	3.3	18	1
	5	★	MMS1800X5DB	90.0	129.0	129.0	188.3	185.0	3.3	18	1
18.1	3	□	MMS1810S-DIN	54.3	79.0	81.0	131.0	127.7	3.3	20	2
	3	□	MMS1810S-DIN-C	54.3	79.0	81.0	131.0	127.7	3.3	20	1
	5	□	MMS1810L-DIN	90.5	101.0	103.0	153.0	149.7	3.3	20	2
	5	□	MMS1810L-DIN-C	90.5	101.0	103.0	153.0	149.7	3.3	20	1
	3	□	MMS1810X3DB	54.3	96.0	99.0	160.3	157.0	3.3	20	1
	5	□	MMS1810X5DB	90.5	133.0	137.0	198.3	195.0	3.3	20	1
18.2	3	□	MMS1820S-DIN	54.6	79.0	81.0	131.0	127.7	3.3	20	2
	3	□	MMS1820S-DIN-C	54.6	79.0	81.0	131.0	127.7	3.3	20	1
	5	□	MMS1820L-DIN	91.0	101.0	103.0	153.0	149.7	3.3	20	2
	5	□	MMS1820L-DIN-C	91.0	101.0	103.0	153.0	149.7	3.3	20	1
	3	□	MMS1820X3DB	54.6	96.0	99.0	160.3	157.0	3.3	20	1
	5	□	MMS1820X5DB	91.0	133.0	137.0	198.3	195.0	3.3	20	1

BOHREN

SCHNITTBEDINGUNGEN ➤ L074
ANWENDUNGSHINWEISE ➤ L073
TECHNISCHE DATEN ➤ N001

MMS

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager DP7020	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
18.3	3	□	MMS1830S-DIN	54.9	79.0	81.0	131.0	127.7	3.3	20	2
	3	□	MMS1830S-DIN-C	54.9	79.0	81.0	131.0	127.7	3.3	20	1
	5	□	MMS1830L-DIN	91.5	101.0	103.0	153.0	149.7	3.3	20	2
	5	□	MMS1830L-DIN-C	91.5	101.0	103.0	153.0	149.7	3.3	20	1
	3	□	MMS1830X3DB	54.9	96.0	99.0	160.3	157.0	3.3	20	1
	5	□	MMS1830X5DB	91.5	133.0	137.0	198.3	195.0	3.3	20	1
18.4	3	□	MMS1840S-DIN	55.2	79.0	81.0	131.0	127.7	3.3	20	2
	3	□	MMS1840S-DIN-C	55.2	79.0	81.0	131.0	127.7	3.3	20	1
	5	□	MMS1840L-DIN	92.0	101.0	103.0	153.0	149.7	3.3	20	2
	5	□	MMS1840L-DIN-C	92.0	101.0	103.0	153.0	149.7	3.3	20	1
	3	□	MMS1840X3DB	55.2	96.0	99.0	160.3	157.0	3.3	20	1
	5	□	MMS1840X5DB	92.0	133.0	137.0	198.3	195.0	3.3	20	1
18.5	3	□	MMS1850S-DIN-C	55.5	79.0	81.0	131.0	127.6	3.4	20	1
	5	□	MMS1850L-DIN-C	92.5	101.0	103.0	153.0	149.6	3.4	20	1
	3	★	MMS1850X3DB	55.5	96.0	99.0	160.4	157.0	3.4	20	1
	5	★	MMS1850X5DB	92.5	133.0	137.0	198.4	195.0	3.4	20	1
18.6	3	□	MMS1860S-DIN	55.8	79.0	81.0	123.0	119.6	3.4	20	2
	3	□	MMS1860S-DIN-C	55.8	79.0	81.0	123.0	119.6	3.4	20	1
	5	□	MMS1860L-DIN	93.0	101.0	103.0	143.0	139.6	3.4	20	2
	5	□	MMS1860L-DIN-C	93.0	101.0	103.0	143.0	139.6	3.4	20	1
	3	□	MMS1860X3DB	55.8	98.0	99.0	160.4	157.0	3.4	20	1
	5	□	MMS1860X5DB	93.0	136.0	137.0	198.4	195.0	3.4	20	1
18.7	3	□	MMS1870S-DIN	56.1	79.0	81.0	123.0	119.6	3.4	20	2
	3	□	MMS1870S-DIN-C	56.1	79.0	81.0	123.0	119.6	3.4	20	1
	5	□	MMS1870L-DIN	93.5	101.0	103.0	143.0	139.6	3.4	20	2
	5	□	MMS1870L-DIN-C	93.5	101.0	103.0	143.0	139.6	3.4	20	1
	3	□	MMS1870X3DB	56.1	98.0	99.0	160.4	157.0	3.4	20	1
	5	□	MMS1870X5DB	93.5	136.0	137.0	198.4	195.0	3.4	20	1
18.8	3	□	MMS1880S-DIN	56.4	79.0	81.0	123.0	119.6	3.4	20	2
	3	□	MMS1880S-DIN-C	56.4	79.0	81.0	123.0	119.6	3.4	20	1
	5	□	MMS1880L-DIN	94.0	101.0	103.0	143.0	139.6	3.4	20	2
	5	□	MMS1880L-DIN-C	94.0	101.0	103.0	143.0	139.6	3.4	20	1
	3	□	MMS1880X3DB	56.4	98.0	99.0	160.4	157.0	3.4	20	1
	5	□	MMS1880X5DB	94.0	136.0	137.0	198.4	195.0	3.4	20	1
18.9	3	□	MMS1890S-DIN	56.7	79.0	81.0	131.0	127.6	3.4	20	2
	3	□	MMS1890S-DIN-C	56.7	79.0	81.0	131.0	127.6	3.4	20	1
	5	□	MMS1890L-DIN	94.5	101.0	103.0	153.0	149.6	3.4	20	2
	5	□	MMS1890L-DIN-C	94.5	101.0	103.0	153.0	149.6	3.4	20	1
	3	□	MMS1890X3DB	56.7	98.0	99.0	160.4	157.0	3.4	20	1
	5	□	MMS1890X5DB	94.5	136.0	137.0	198.4	195.0	3.4	20	1
19.0	3	□	MMS1900S-DIN-C	57.0	79.0	81.0	131.0	127.5	3.5	20	1
	5	□	MMS1900L-DIN-C	95.0	101.0	103.0	153.0	149.5	3.5	20	1
	3	★	MMS1900X3DB	57.0	98.0	99.0	160.5	157.0	3.5	20	1
	5	★	MMS1900X5DB	95.0	136.0	137.0	198.5	195.0	3.5	20	1
19.1	3	□	MMS1910S-DIN	57.3	79.0	81.0	131.0	127.5	3.5	20	2
	3	□	MMS1910S-DIN-C	57.3	79.0	81.0	131.0	127.5	3.5	20	1
	5	□	MMS1910L-DIN	95.5	101.0	103.0	153.0	149.5	3.5	20	2
	5	□	MMS1910L-DIN-C	95.5	101.0	103.0	153.0	149.5	3.5	20	1
	3	□	MMS1910X3DB	57.3	101.0	103.0	164.5	161.0	3.5	20	1
	5	□	MMS1910X5DB	95.5	140.0	143.0	204.5	201.0	3.5	20	1

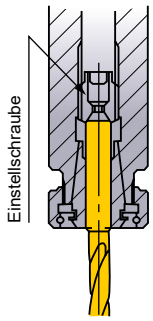
Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager DP7020	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
19.2	3	□	MMS1920S-DIN	57.6	79.0	81.0	131.0	127.5	3.5	20	2
	3	□	MMS1920S-DIN-C	57.6	79.0	81.0	131.0	127.5	3.5	20	1
	5	□	MMS1920L-DIN	96.0	101.0	103.0	153.0	149.5	3.5	20	2
	5	□	MMS1920L-DIN-C	96.0	101.0	103.0	153.0	149.5	3.5	20	1
	3	□	MMS1920X3DB	57.6	101.0	103.0	164.5	161.0	3.5	20	1
	5	□	MMS1920X5DB	96.0	140.0	143.0	204.5	201.0	3.5	20	1
19.3	3	□	MMS1930S-DIN	57.9	79.0	81.0	131.0	127.5	3.5	20	2
	3	□	MMS1930S-DIN-C	57.9	79.0	81.0	131.0	127.5	3.5	20	1
	5	□	MMS1930L-DIN	96.5	101.0	103.0	153.0	149.5	3.5	20	2
	5	□	MMS1930L-DIN-C	96.5	101.0	103.0	153.0	149.5	3.5	20	1
	3	□	MMS1930X3DB	57.9	101.0	103.0	164.5	161.0	3.5	20	1
	5	□	MMS1930X5DB	96.5	140.0	143.0	204.5	201.0	3.5	20	1
19.4	3	□	MMS1940S-DIN	58.2	79.0	81.0	131.0	127.5	3.5	20	2
	3	□	MMS1940S-DIN-C	58.2	79.0	81.0	131.0	127.5	3.5	20	1
	5	□	MMS1940L-DIN	97.0	101.0	103.0	153.0	149.5	3.5	20	2
	5	□	MMS1940L-DIN-C	97.0	101.0	103.0	153.0	149.5	3.5	20	1
	3	□	MMS1940X3DB	58.2	101.0	103.0	164.5	161.0	3.5	20	1
	5	□	MMS1940X5DB	97.0	140.0	143.0	204.5	201.0	3.5	20	1
19.5	3	□	MMS1950S-DIN-C	58.5	79.0	81.0	131.0	127.5	3.5	20	1
	5	●	MMS1950L-DIN	97.5	101.0	103.0	153.0	149.5	3.5	20	2
	5	□	MMS1950L-DIN-C	97.5	101.0	103.0	153.0	149.5	3.5	20	1
	3	★	MMS1950X3DB	58.5	101.0	103.0	164.5	161.0	3.5	20	1
	5	★	MMS1950X5DB	97.5	140.0	143.0	204.5	201.0	3.5	20	1
19.6	3	□	MMS1960S-DIN	58.8	79.0	81.0	131.0	127.4	3.6	20	2
	3	□	MMS1960S-DIN-C	58.8	79.0	81.0	131.0	127.4	3.6	20	1
	5	□	MMS1960L-DIN	98.0	101.0	103.0	153.0	149.4	3.6	20	2
	5	□	MMS1960L-DIN-C	98.0	101.0	103.0	153.0	149.4	3.6	20	1
	3	□	MMS1960X3DB	58.8	104.0	104.0	164.6	161.0	3.6	20	1
	5	□	MMS1960X5DB	98.0	144.0	144.0	204.6	201.0	3.6	20	1
19.7	3	□	MMS1970S-DIN	59.1	79.0	81.0	131.0	127.4	3.6	20	2
	3	□	MMS1970S-DIN-C	59.1	79.0	81.0	131.0	127.4	3.6	20	1
	5	□	MMS1970L-DIN	98.5	101.0	103.0	153.0	149.4	3.6	20	2
	5	□	MMS1970L-DIN-C	98.5	101.0	103.0	153.0	149.4	3.6	20	1
	3	□	MMS1970X3DB	59.1	104.0	104.0	164.6	161.0	3.6	20	1
	5	□	MMS1970X5DB	98.5	144.0	144.0	204.6	201.0	3.6	20	1
19.8	3	□	MMS1980S-DIN	59.4	79.0	81.0	131.0	127.4	3.6	20	2
	3	□	MMS1980S-DIN-C	59.4	79.0	81.0	131.0	127.4	3.6	20	1
	5	□	MMS1980L-DIN	99.0	101.0	103.0	153.0	149.4	3.6	20	2
	5	□	MMS1980L-DIN-C	99.0	101.0	103.0	153.0	149.4	3.6	20	1
	3	□	MMS1980X3DB	59.4	104.0	104.0	164.6	161.0	3.6	20	1
	5	□	MMS1980X5DB	99.0	144.0	144.0	204.6	201.0	3.6	20	1
19.9	3	□	MMS1990S-DIN	59.7	79.0	81.0	131.0	127.4	3.6	20	2
	3	□	MMS1990S-DIN-C	59.7	79.0	81.0	131.0	127.4	3.6	20	1
	5	□	MMS1990L-DIN	99.5	101.0	103.0	153.0	149.4	3.6	20	2
	5	□	MMS1990L-DIN-C	99.5	101.0	103.0	153.0	149.4	3.6	20	1
	3	□	MMS1990X3DB	59.7	104.0	104.0	164.6	161.0	3.6	20	1
	5	□	MMS1990X5DB	99.5	144.0	144.0	204.6	201.0	3.6	20	1
20.0	3	□	MMS2000S-DIN-C	60.0	79.0	81.0	131.0	127.4	3.6	20	1
	5	□	MMS2000L-DIN-C	100.0	101.0	103.0	153.0	149.4	3.6	20	1
	3	★	MMS2000X3DB	60.0	104.0	104.0	164.6	161.0	3.6	20	1
	5	★	MMS2000X5DB	100.0	144.0	144.0	204.6	201.0	3.6	20	1

● : Lagerstandard. ★ : Lagerstandard in Japan.
□ : Nichtstandard, Herstellung nur auf Anfrage.

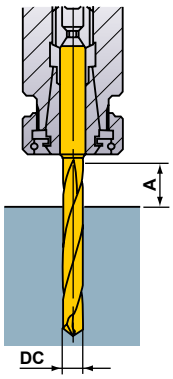
EINSATZ HINWEISE

Bohrer Aufnahme



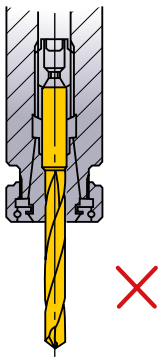
Präzisionsspannzangen können verwendet werden.

Max. Bohrtiefe



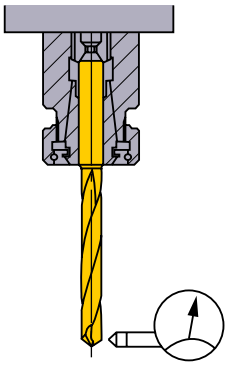
A ≥ DC x 1.5

Bohrer Einstellung



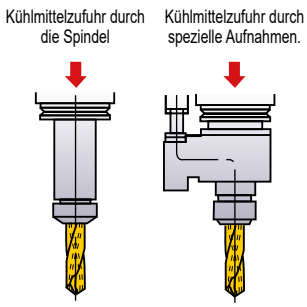
Nicht auf den Nuten Spannen.

Rundlauftoleranz



Rundlaufabweichung ≤0.03mm

Interne Kühlmittelzufuhr



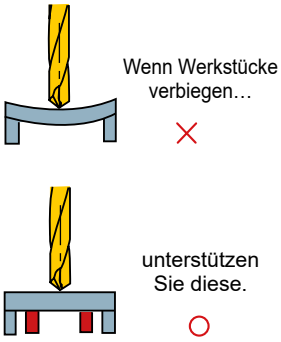
Der Kühlmitteldruck beträgt ca. 5 bar—70 bar

Handling mit Kühlmittel

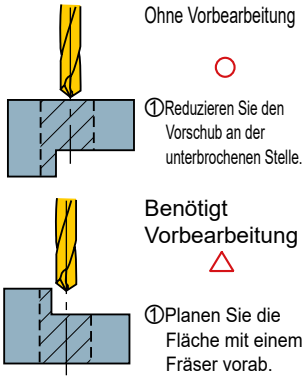
1) Schmutz und Staubpartikel in altem Kühlmittel können die Kanäle verstopfen und den Kühlmittelfluss behindern. Es wird empfohlen, dass Kühlmittel regelmäßig zu wechseln.

2) Feine Metallspäne können das Ölloch verstopfen. Zur Vorbeugung einen Filter verwenden. Bei Bohrern mit kleinem Durchmesser einen Filter mit feinem Sieb verwenden.

Dünne Werkstücke



Unterbrochene Bearbeitung



SCHNITTBEDINGUNGEN ➢ L074
TECHNISCHE DATEN ➢ N001

BOHREN (VOLLHARTMETALL)

MMS

SCHNITTDATENEMPFEHLUNGEN

Werkstoff	M					M				
	Rostfreier Stahl (austenitisch) (≤180HB) X5CrNi1810, X5CrNiMo17-12-2					Rostfreier Stahl (austenitisch) (180—280HB) X2CrNiN1810, X2CrNiMoN17-12-2				
Bohrer Durchm. **DC** (mm)	Schnittgeschw. (m/min)	Drehzahl (min^{-1})	Vorschub (min.—max.) (mm/U.)		Tischvorschub (mm/min)	Schnittgeschw. (m/min)	Drehzahl (min^{-1})	Vorschub (min.—max.) (mm/U.)		Tischvorschub (mm/min)
3.2	80	7900	0.13	(0.08—0.18)	1025	60	5900	0.1	(0.05—0.15)	590
4.0	80	6300	0.15	(0.10—0.20)	945	60	4700	0.12	(0.08—0.18)	560
5.0	80	5000	0.15	(0.10—0.20)	750	60	3800	0.12	(0.08—0.18)	455
6.3	80	4000	0.17	(0.12—0.22)	680	60	3000	0.15	(0.1—0.2)	450
8.0	80	3100	0.19	(0.14—0.24)	585	60	2300	0.17	(0.12—0.22)	390
10.0	60	1900	0.2	(0.15—0.25)	380	50	1500	0.18	(0.13—0.23)	270
12.0	60	1500	0.21	(0.16—0.26)	315	50	1300	0.19	(0.14—0.24)	245
16.0	60	1100	0.22	(0.17—0.27)	240	50	900	0.2	(0.15—0.25)	180
20.0	60	900	0.23	(0.18—0.28)	205	50	700	0.21	(0.16—0.26)	145

Werkstoff	M					M				
	Duplex, rostfreier Stahl (≤280HB) X3CrNiMoN27-5-2					Rostfreie Stähle, austenitisch und martensitisch (≤200HB) X10Cr13, X6Cr17				
Bohrer Durchm. **DC** (mm)	Schnittgeschw. (m/min)	Drehzahl (min^{-1})	Vorschub (min.—max.) (mm/U.)		Tischvorschub (mm/min)	Schnittgeschw. (m/min)	Drehzahl (min^{-1})	Vorschub (min.—max.) (mm/U.)		Tischvorschub (mm/min)
3.2	50	4900	0.1	(0.05—0.15)	490	80	7900	0.13	(0.08—0.18)	1025
4.0	50	3900	0.12	(0.08—0.18)	465	80	6300	0.15	(0.10—0.20)	945
5.0	50	3100	0.12	(0.08—0.18)	370	80	5000	0.15	(0.10—0.20)	750
6.3	50	2500	0.15	(0.1—0.2)	375	80	4000	0.17	(0.12—0.22)	680
8.0	50	1900	0.17	(0.12—0.22)	320	80	3100	0.19	(0.14—0.24)	585
10.0	40	1200	0.18	(0.13—0.23)	215	60	1900	0.2	(0.15—0.25)	380
12.0	40	1000	0.19	(0.14—0.24)	190	60	1500	0.21	(0.16—0.26)	315
16.0	40	700	0.2	(0.15—0.25)	140	60	1100	0.22	(0.17—0.27)	240
20.0	40	600	0.21	(0.16—0.26)	125	60	900	0.23	(0.18—0.28)	205

Werkstoff	M					M				
	Rostfreie Stähle, austenitisch und martensitisch (>200HB) X20CrNi17-2, X30Cr13					Gehärtete rostfreie PH-Stähle (<450HB) X5CrNiCuNb164, X7CrNiAl177, 17-4PH, 17-7PH				
Bohrer Durchm. **DC** (mm)	Schnittgeschw. (m/min)	Drehzahl (min^{-1})	Vorschub (min.—max.) (mm/U.)		Tischvorschub (mm/min)	Schnittgeschw. (m/min)	Drehzahl (min^{-1})	Vorschub (min.—max.) (mm/U.)		Tischvorschub (mm/min)
3.2	60	5900	0.1	(0.05—0.15)	590	50	4900	0.1	(0.05—0.15)	490
4.0	60	4700	0.12	(0.08—0.18)	560	50	3900	0.12	(0.08—0.18)	465
5.0	60	3800	0.12	(0.08—0.18)	455	50	3100	0.12	(0.08—0.18)	370
6.3	60	3000	0.15	(0.1—0.2)	450	50	2500	0.15	(0.1—0.2)	375
8.0	60	2300	0.17	(0.12—0.22)	390	50	1900	0.17	(0.12—0.22)	320
10.0	50	1500	0.18	(0.13—0.23)	270	40	1200	0.18	(0.13—0.23)	215
12.0	50	1300	0.19	(0.14—0.24)	245	40	1000	0.19	(0.14—0.24)	190
16.0	50	900	0.2	(0.15—0.25)	180	40	700	0.2	(0.15—0.25)	140
20.0	50	700	0.21	(0.16—0.26)	145	40	600	0.21	(0.16—0.26)	125

(Bemerkung 1) Für stabiles Bohren empfehlen wir die Zugabe von Kühlmittel unter hohem Druck.
(Bemerkung 2) Als Kühlmittel empfehlen wir Emulsion.
(Bemerkung 3) Bei Einsatz von nicht wasserlöslichem Kühlmittel empfehlen wir die Drehzahl um 10—20% zu reduzieren.

WERKSTOFFVERGLEICHSTABELLE FÜR ROSTFREIE STÄHLE

Werkstoff	No	Deutschland		USA	Japan
		W-no.	DIN	AISI/SAE	JIS
Rostfreie Stähle austenitisch und martensitich	1	1.4005	X12CrS3	416	SUS416
		1.4006	X10Cr13	410	SUS410
		1.4016	X6Cr17	430	SUS430
		1.4113	X6CrMo17	434	SUS434
		1.4510	X6CrTi17	430Ti	SUS430LX
		1.4512	X6CrTi12	409	
	2	1.4021	X20Cr13	420	SUS420J1
		1.4057	X20CrNi17-2	431	SUS431
		1.4028	X30Cr13	420	SUS420J2
		1.4125	X10CrMo17	440C	SUS440C
PH Rostfreier Stahl	3	1.4542	X5CrNiCuNb16 4	630 (17-4PH)	SUS630
		1.4545		S15500 (15-5PH)	
		1.4568	X7CrNiAl17 7	631 (17-7PH)	SUS631
Rostfreier Stahl (austenitisch)	4	1.4301	X5CrNi18 10	304	SUS304
		1.4303	X5CrNi8-12	305	SUS305
		1.4305	X12CrNiS18-9	303	SUS303
		1.4307	X2CrNi19-11	304L	SUS304L
		1.4401	X5CrNiMo17 12 2	316	SUS316
	5	1.4311	X2CrNiN18 10	304LN	SUS304LN
		1.4404	X2CrNiMo17 12 2	316L	SUS316L
		1.4406	X2CrNiMoN17 12 2	316LN	SUS316LN
		1.4435	X2CrNiMo18 14 3		SUS316L
		1.4438	X2CrNiMo18 15 4	317L	SUS317L
		1.4529	X1NiCrMoCuN25 20 7	N08926	
		1.4541	X6CrNiTi18-10	321	SUS321
		1.4550	X6CrNiNb18-10	347	SUS347
		1.4571	X6CrNiMoTi17 12 2	316Ti	SUS316Ti
Duplexstahl	6	1.4362	X2CrNiN23 4		
		1.4410	X2CrNiMoN25 7 4	S32750	SCS14A
		1.4460	X3CrNiMoN27 5 2	329	SUS329J1
		1.4462	X2CrNiMoN22 5 3	S31803	SUS329J3L

BOHREN (VOLLHARTMETALL)

MNS

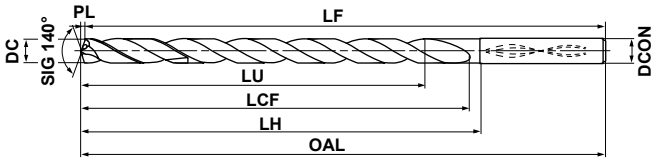
P | M | K | **N** | S | H



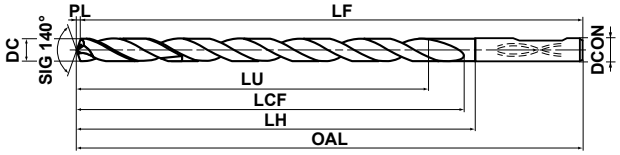
	DC=3	3<DC≤6	6<DC≤10	10<DC≤18	18<DC≤20
DIN-Typ	+0.016 +0.004	+0.016 +0.004	+0.021 +0.006	+0.025 +0.007	+0.029 +0.008
Andere	0 −0.014	0 −0.018	0 −0.022	0 −0.027	
h6	0 −0.006	0 −0.008	0 −0.009	0 −0.011	0 −0.013

● Bohrer mit einem Durchmesser von 4.5 mm oder weniger sind mit 2 Kühlmittelbohrungen versehen.
● Bohrer mit einem Durchmesser von 4.6 mm oder größer sind mit 4 Kühlmittelbohrungen versehen.

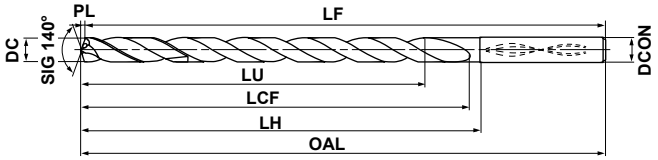
●Typ 1 MNS----DIN-C, MNS-C, MNS----LB, MNS----DB (Zylind. Schaft)



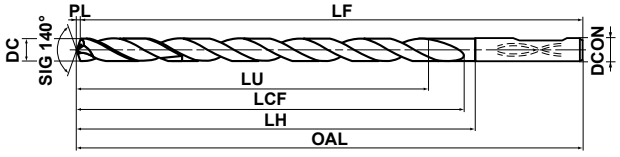
●Typ 2 MNS----S/L-DIN (Schaft mit Whistle Notch)



●Typ 3 MNS----DIN-C, MNS-C, MNS----LB, MNS----DB (Zylind. Schaft)



●Typ 4 MNS----S/L-DIN (Schaft mit Whistle Notch)



(Bemerkung) MNS Bohrer eignen sich für die Verwendung mit Schrumpfaufnahmen.

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager TF15	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
	3	□	**MNS0300S-DIN**	9	20	26	62	61.5	0.5	6	2
	3	□	MNS**0300S-DIN-C**	9	20	26	62	61.5	0.5	6	1
	5	□	MNS**0300L-DIN**	15	28	30	66	65.5	0.5	6	2
	5	●	MNS**0300L-DIN-C**	15	28	30	66	65.5	0.5	6	1
	8	□	MNS**0300-L8C**	24	34	38	74	73.5	0.5	6	1
	10	□	MNS**0300-L10C**	30	40	44	80	79.5	0.5	6	1
	12	●	MNS**0300-L12C**	36	46	50	86	85.5	0.5	6	1
3.0	15	□	MNS**0300-L15C**	45	55	59	95	94.5	0.5	6	1
	20	●	MNS**0300-L20C**	60	70	74	110	109.5	0.5	6	1
	25	□	MNS**0300-L25C**	75	85	89	125	124.5	0.5	6	1
	30	●	MNS**0300-L30C**	90	100	104	140	139.5	0.5	6	1
	5	★	MNS**0300LB**	15.0	33.5	33.5	81.5	81.0	0.5	3	1
	10	★	MNS**0300X10DB**	30.0	39.5	42.5	90.5	90.0	0.5	3	1
	20	★	MNS**0300X20DB**	60.0	69.5	72.5	120.5	120.0	0.5	3	1
	30	★	MNS**0300X30DB**	90.0	99.5	102.5	150.5	150.0	0.5	3	1
	3	□	MNS**0310S-DIN**	9	20	26	62	61.4	0.6	6	2
	3	□	MNS**0310S-DIN-C**	9	20	26	62	61.4	0.6	6	1
	5	□	MNS**0310L-DIN**	16	28	30	66	65.4	0.6	6	2
	5	□	MNS**0310L-DIN-C**	16	28	30	66	65.4	0.6	6	1
	8	□	MNS**0310-L8C**	25	40	44	80	79.4	0.6	6	1
	10	□	MNS**0310-L10C**	31	47	51	87	86.4	0.6	6	1
	12	□	MNS**0310-L12C**	37	54	58	94	93.4	0.6	6	1
3.1	15	□	MNS**0310-L15C**	47	64	68	104	103.4	0.6	6	1
	20	□	MNS**0310-L20C**	62	82	86	122	121.4	0.6	6	1
	25	□	MNS**0310-L25C**	78	99	103	139	138.4	0.6	6	1
	30	□	MNS**0310-L30C**	93	117	121	157	156.4	0.6	6	1
	5	★	MNS**0310LB**	15.5	39.6	39.6	87.6	87.0	0.6	4	1
	10	□	MNS**0310X10DB**	31.0	46.6	49.6	97.6	97.0	0.6	4	1
	20	□	MNS**0310X20DB**	62.0	81.6	84.6	132.6	132.0	0.6	4	1
	30	□	MNS**0310X30DB**	93.0	116.6	119.6	167.6	167.0	0.6	4	1

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager TF15	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
	3	□	**MNS0320S-DIN**	10	20	26	62	61.4	0.6	6	2
	3	□	MNS**0320S-DIN-C**	10	20	26	62	61.4	0.6	6	1
	5	□	MNS**0320L-DIN**	16	28	30	66	65.4	0.6	6	2
	5	●	MNS**0320L-DIN-C**	16	28	30	66	65.4	0.6	6	1
	8	□	MNS**0320-L8C**	26	40	44	80	79.4	0.6	6	1
	10	□	MNS**0320-L10C**	32	47	51	87	86.4	0.6	6	1
	12	●	MNS**0320-L12C**	38	54	58	94	93.4	0.6	6	1
3.2	15	□	MNS**0320-L15C**	48	64	68	104	103.4	0.6	6	1
	20	●	MNS**0320-L20C**	64	82	86	122	121.4	0.6	6	1
	25	□	MNS**0320-L25C**	80	99	103	139	138.4	0.6	6	1
	30	●	MNS**0320-L30C**	96	117	121	157	156.4	0.6	6	1
	5	★	MNS**0320LB**	16.0	39.6	39.6	87.6	87.0	0.6	4	1
	10	★	MNS**0320X10DB**	32.0	46.6	49.6	97.6	97.0	0.6	4	1
	20	★	MNS**0320X20DB**	64.0	81.6	84.6	132.6	132.0	0.6	4	1
	30	★	MNS**0320X30DB**	96.0	116.6	119.6	167.6	167.0	0.6	4	1
	3	□	MNS**0330S-DIN**	10	20	26	62	61.4	0.6	6	2
	3	□	MNS**0330S-DIN-C**	10	20	26	62	61.4	0.6	6	1
	5	□	MNS**0330L-DIN**	17	28	30	66	65.4	0.6	6	2
	5	●	MNS**0330L-DIN-C**	17	28	30	66	65.4	0.6	6	1
	8	□	MNS**0330-L8C**	26	40	44	80	79.4	0.6	6	1
	10	□	MNS**0330-L10C**	33	47	51	87	86.4	0.6	6	1
	12	●	MNS**0330-L12C**	40	54	58	94	93.4	0.6	6	1
3.3	15	□	MNS**0330-L15C**	50	64	68	104	103.4	0.6	6	1
	20	●	MNS**0330-L20C**	66	82	86	122	121.4	0.6	6	1
	25	□	MNS**0330-L25C**	83	99	103	139	138.4	0.6	6	1
	30	●	MNS**0330-L30C**	99	117	121	157	156.4	0.6	6	1
	5	★	MNS**0330LB**	16.5	39.6	39.6	87.6	87.0	0.6	4	1
	10	□	MNS**0330X10DB**	33.0	46.6	49.6	97.6	97.0	0.6	4	1
	20	□	MNS**0330X20DB**	66.0	81.6	84.6	132.6	132.0	0.6	4	1
	30	□	MNS**0330X30DB**	99.0	116.6	119.6	167.6	167.0	0.6	4	1

(Bemerkung) Bei Bedarf von abweichenden Geometrien setzen Sie sich mit unserem Hause in Verbindung. (Andere Durchmesser und Längen können bestellt werden).

● : Lagerstandard. ★ : Lagerstandard in Japan.
□ : Nichtstandard, Herstellung nur auf Anfrage.

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager TF15	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
	3	□	MNS0340S-DIN	10	20	26	62	61.4	0.6	6	2
	3	□	MNS0340S-DIN-C	10	20	26	62	61.4	0.6	6	1
	5	□	MNS0340L-DIN	17	28	30	66	65.4	0.6	6	2
	5	□	MNS0340L-DIN-C	17	28	30	66	65.4	0.6	6	1
	8	□	MNS0340-L8C	27	40	44	80	79.4	0.6	6	1
	10	□	MNS0340-L10C	34	47	51	87	86.4	0.6	6	1
	12	□	MNS0340-L12C	41	54	58	94	93.4	0.6	6	1
3.4	15	□	MNS0340-L15C	51	64	68	104	103.4	0.6	6	1
	20	□	MNS0340-L20C	68	82	86	122	121.4	0.6	6	1
	25	□	MNS0340-L25C	85	99	103	139	138.4	0.6	6	1
	30	□	MNS0340-L30C	102	117	121	157	156.4	0.6	6	1
	5	★	MNS0340LB	17.0	39.6	39.6	87.6	87.0	0.6	4	1
	10	★	MNS0340X10DB	34.0	46.6	49.6	97.6	97.0	0.6	4	1
	20	★	MNS0340X20DB	68.0	81.6	84.6	132.6	132.0	0.6	4	1
	30	★	MNS0340X30DB	102.0	116.6	119.6	167.6	167.0	0.6	4	1
	3	□	MNS0350S-DIN	11	20	26	62	61.4	0.6	6	2
	3	□	MNS0350S-DIN-C	11	20	26	62	61.4	0.6	6	1
	5	□	MNS0350L-DIN	18	28	30	66	65.4	0.6	6	2
	5	●	MNS0350L-DIN-C	18	28	30	66	65.4	0.6	6	1
	8	□	MNS0350-L8C	28	40	44	80	79.4	0.6	6	1
	10	□	MNS0350-L10C	35	47	51	87	86.4	0.6	6	1
	12	●	MNS0350-L12C	42	54	58	94	93.4	0.6	6	1
3.5	15	□	MNS0350-L15C	53	64	68	104	103.4	0.6	6	1
	20	●	MNS0350-L20C	70	82	86	122	121.4	0.6	6	1
	25	□	MNS0350-L25C	88	99	103	139	138.4	0.6	6	1
	30	●	MNS0350-L30C	105	117	121	157	156.4	0.6	6	1
	5	★	MNS0350LB	17.5	39.6	39.6	87.6	87.0	0.6	4	1
	10	□	MNS0350X10DB	35.0	46.6	49.6	97.6	97.0	0.6	4	1
	20	□	MNS0350X20DB	70.0	81.6	84.6	132.6	132.0	0.6	4	1
	30	□	MNS0350X30DB	105.0	116.6	119.6	167.6	167.0	0.6	4	1
	3	□	MNS0360S-DIN	11	20	26	62	61.3	0.7	6	2
	3	□	MNS0360S-DIN-C	11	20	26	62	61.3	0.7	6	1
	5	□	MNS0360L-DIN	18	28	30	66	65.3	0.7	6	2
	5	□	MNS0360L-DIN-C	18	28	30	66	65.3	0.7	6	1
	8	□	MNS0360-L8C	29	45	49	85	84.3	0.7	6	1
	10	□	MNS0360-L10C	36	53	57	93	92.3	0.7	6	1
	12	□	MNS0360-L12C	43	61	65	101	100.3	0.7	6	1
3.6	15	□	MNS0360-L15C	54	73	77	113	112.3	0.7	6	1
	20	□	MNS0360-L20C	72	93	97	133	132.3	0.7	6	1
	25	□	MNS0360-L25C	90	113	117	153	152.3	0.7	6	1
	30	□	MNS0360-L30C	108	133	137	173	172.3	0.7	6	1
	5	★	MNS0360LB	18.0	44.7	44.7	92.7	92.0	0.7	4	1
	10	★	MNS0360X10DB	36.0	52.7	55.7	103.7	103.0	0.7	4	1
	20	★	MNS0360X20DB	72.0	92.7	95.7	143.7	143.0	0.7	4	1
	30	★	MNS0360X30DB	108.0	132.7	135.7	183.7	183.0	0.7	4	1

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager TF15	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
	3	□	MNS0370S-DIN	11	20	26	62	61.3	0.7	6	2
	3	□	MNS0370S-DIN-C	11	20	26	62	61.3	0.7	6	1
	5	□	MNS0370L-DIN	19	28	30	66	65.3	0.7	6	2
	5	□	MNS0370L-DIN-C	19	28	30	66	65.3	0.7	6	1
	8	□	MNS0370-L8C	30	45	49	85	84.3	0.7	6	1
	10	□	MNS0370-L10C	37	53	57	93	92.3	0.7	6	1
	12	□	MNS0370-L12C	44	61	65	101	100.3	0.7	6	1
3.7	15	□	MNS0370-L15C	56	73	77	113	112.3	0.7	6	1
	20	□	MNS0370-L20C	74	93	97	133	132.3	0.7	6	1
	25	□	MNS0370-L25C	93	113	117	153	152.3	0.7	6	1
	30	□	MNS0370-L30C	111	133	137	173	172.3	0.7	6	1
	5	★	MNS0370LB	18.5	44.7	44.7	92.7	92.0	0.7	4	1
	10	□	MNS0370X10DB	37.0	52.7	55.7	103.7	103.0	0.7	4	1
	20	□	MNS0370X20DB	74.0	92.7	95.7	143.7	143.0	0.7	4	1
	30	□	MNS0370X30DB	111.0	132.7	135.7	183.7	183.0	0.7	4	1
	3	□	MNS0380S-DIN	11	24	30	66	65.3	0.7	6	2
	3	□	MNS0380S-DIN-C	11	24	30	66	65.3	0.7	6	1
	5	□	MNS0380L-DIN	19	36	38	74	73.3	0.7	6	2
	5	□	MNS0380L-DIN-C	19	36	38	74	73.3	0.7	6	1
	8	□	MNS0380-L8C	30	45	49	85	84.3	0.7	6	1
	10	□	MNS0380-L10C	38	53	57	93	92.3	0.7	6	1
	12	□	MNS0380-L12C	46	61	65	101	100.3	0.7	6	1
3.8	15	□	MNS0380-L15C	57	73	77	113	112.3	0.7	6	1
	20	□	MNS0380-L20C	76	93	97	133	132.3	0.7	6	1
	25	□	MNS0380-L25C	95	113	117	153	152.3	0.7	6	1
	30	□	MNS0380-L30C	114	133	137	173	172.3	0.7	6	1
	5	★	MNS0380LB	19.0	44.7	44.7	92.7	92.0	0.7	4	1
	10	□	MNS0380X10DB	38.0	52.7	55.7	103.7	103.0	0.7	4	1
	20	□	MNS0380X20DB	76.0	92.7	95.7	143.7	143.0	0.7	4	1
	30	□	MNS0380X30DB	114.0	132.7	135.7	183.7	183.0	0.7	4	1
	3	□	MNS0390S-DIN	12	24	30	66	65.3	0.7	6	2
	3	□	MNS0390S-DIN-C	12	24	30	66	65.3	0.7	6	1
	5	□	MNS0390L-DIN	20	36	38	74	73.3	0.7	6	2
	5	□	MNS0390L-DIN-C	20	36	38	74	73.3	0.7	6	1
	8	□	MNS0390-L8C	31	45	49	85	84.3	0.7	6	1
	10	□	MNS0390-L10C	39	53	57	93	92.3	0.7	6	1
	12	□	MNS0390-L12C	47	61	65	101	100.3	0.7	6	1
3.9	15	□	MNS0390-L15C	59	73	77	113	112.3	0.7	6	1
	20	□	MNS0390-L20C	78	93	97	133	132.3	0.7	6	1
	25	□	MNS0390-L25C	98	113	117	153	152.3	0.7	6	1
	30	□	MNS0390-L30C	117	133	137	173	172.3	0.7	6	1
	5	★	MNS0390LB	19.5	44.7	44.7	92.7	92.0	0.7	4	1
	10	★	MNS0390X10DB	39.0	52.7	55.7	103.7	103.0	0.7	4	1
	20	★	MNS0390X20DB	78.0	92.7	95.7	143.7	143.0	0.7	4	1
	30	★	MNS0390X30DB	117.0	132.7	135.7	183.7	183.0	0.7	4	1

BOHREN

SCHNITTBEDINGUNGEN ➤ L096
ANWENDUNGSHINWEISE ➤ L097
TECHNISCHE DATEN ➤ N001

BOHREN (VOLLHARTMETALL)

MNS

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager TF15	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
4.0	3	□	MNS0400S-DIN	12	24	30	66	65.3	0.7	6	2
	3	□	MNS0400S-DIN-C	12	24	30	66	65.3	0.7	6	1
	5	□	MNS0400L-DIN	20	36	38	74	73.3	0.7	6	2
	5	●	MNS0400L-DIN-C	20	36	38	74	73.3	0.7	6	1
	8	□	MNS0400-L8C	32	45	49	85	84.3	0.7	6	1
	10	□	MNS0400-L10C	40	53	57	93	92.3	0.7	6	1
	12	●	MNS0400-L12C	48	61	65	101	100.3	0.7	6	1
	15	□	MNS0400-L15C	60	73	77	113	112.3	0.7	6	1
	20	●	MNS0400-L20C	80	93	97	133	132.3	0.7	6	1
	25	●	MNS0400-L25C	100	113	117	153	152.3	0.7	6	1
	30	●	MNS0400-L30C	120	133	137	173	172.3	0.7	6	1
	5	★	MNS0400LB	20.0	44.7	44.7	92.7	92.0	0.7	4	1
	10	★	MNS0400X10DB	40.0	52.7	55.7	103.7	103.0	0.7	4	1
	20	★	MNS0400X20DB	80.0	92.7	95.7	143.7	143.0	0.7	4	1
	30	★	MNS0400X30DB	120.0	132.7	135.7	183.7	183.0	0.7	4	1
4.1	3	□	MNS0410S-DIN	12	24	30	66	65.3	0.7	6	2
	3	□	MNS0410S-DIN-C	12	24	30	66	65.3	0.7	6	1
	5	□	MNS0410L-DIN	21	36	38	74	73.3	0.7	6	2
	5	□	MNS0410L-DIN-C	21	36	38	74	73.3	0.7	6	1
	8	□	MNS0410-L8C	33	51	55	91	90.3	0.7	6	1
	10	□	MNS0410-L10C	41	60	64	100	99.3	0.7	6	1
	12	□	MNS0410-L12C	49	69	73	109	108.3	0.7	6	1
	15	□	MNS0410-L15C	62	82	86	122	121.3	0.7	6	1
	20	□	MNS0410-L20C	82	105	109	145	144.3	0.7	6	1
	25	□	MNS0410-L25C	103	127	131	167	166.3	0.7	6	1
	30	□	MNS0410-L30C	123	150	154	190	189.3	0.7	6	1
	5	★	MNS0410LB	20.5	50.7	50.7	100.7	100.0	0.7	5	1
	10	□	MNS0410X10DB	41.0	59.7	62.7	112.7	112.0	0.7	5	1
	20	□	MNS0410X20DB	82.0	104.7	107.7	157.7	157.0	0.7	5	1
	30	□	MNS0410X30DB	123.0	149.7	152.7	202.7	202.0	0.7	5	1
4.2	3	□	MNS0420S-DIN	13	24	30	66	65.2	0.8	6	2
	3	□	MNS0420S-DIN-C	13	24	30	66	65.2	0.8	6	1
	5	□	MNS0420L-DIN	21	36	38	74	73.2	0.8	6	2
	5	●	MNS0420L-DIN-C	21	36	38	74	73.2	0.8	6	1
	8	□	MNS0420-L8C	34	51	55	91	90.2	0.8	6	1
	10	□	MNS0420-L10C	42	60	64	100	99.2	0.8	6	1
	12	●	MNS0420-L12C	50	69	73	109	108.2	0.8	6	1
	15	□	MNS0420-L15C	63	82	86	122	121.2	0.8	6	1
	20	●	MNS0420-L20C	84	105	109	145	144.2	0.8	6	1
	25	□	MNS0420-L25C	105	127	131	167	166.2	0.8	6	1
	30	●	MNS0420-L30C	126	150	154	190	189.2	0.8	6	1
	5	★	MNS0420LB	21.0	50.8	50.8	100.8	100.0	0.8	5	1
	10	□	MNS0420X10DB	42.0	59.8	62.8	112.8	112.0	0.8	5	1
	20	□	MNS0420X20DB	84.0	104.8	107.8	157.8	157.0	0.8	5	1
	30	□	MNS0420X30DB	126.0	149.8	152.8	202.8	202.0	0.8	5	1

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager TF15	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
4.3	3	□	MNS0430S-DIN	13	24	30	66	65.2	0.8	6	2
	3	□	MNS0430S-DIN-C	13	24	30	66	65.2	0.8	6	1
	5	□	MNS0430L-DIN	22	36	38	74	73.2	0.8	6	2
	5	□	MNS0430L-DIN-C	22	36	38	74	73.2	0.8	6	1
	8	□	MNS0430-L8C	34	51	55	91	90.2	0.8	6	1
	10	□	MNS0430-L10C	43	60	64	100	99.2	0.8	6	1
	12	□	MNS0430-L12C	52	69	73	109	108.2	0.8	6	1
	15	□	MNS0430-L15C	65	82	86	122	121.2	0.8	6	1
	20	□	MNS0430-L20C	86	105	109	145	144.2	0.8	6	1
	25	□	MNS0430-L25C	108	127	131	167	166.2	0.8	6	1
	30	□	MNS0430-L30C	129	150	154	190	189.2	0.8	6	1
	5	★	MNS0430LB	21.5	50.8	50.8	100.8	100.0	0.8	5	1
	10	□	MNS0430X10DB	43.0	59.8	62.8	112.8	112.0	0.8	5	1
	20	□	MNS0430X20DB	86.0	104.8	107.8	157.8	157.0	0.8	5	1
	30	□	MNS0430X30DB	129.0	149.8	152.8	202.8	202.0	0.8	5	1
4.4	3	□	MNS0440S-DIN	13	24	30	66	65.2	0.8	6	2
	3	□	MNS0440S-DIN-C	13	24	30	66	65.2	0.8	6	1
	5	□	MNS0440L-DIN	22	36	38	74	73.2	0.8	6	2
	5	□	MNS0440L-DIN-C	22	36	38	74	73.2	0.8	6	1
	8	□	MNS0440-L8C	35	51	55	91	90.2	0.8	6	1
	10	□	MNS0440-L10C	44	60	64	100	99.2	0.8	6	1
	12	□	MNS0440-L12C	53	69	73	109	108.2	0.8	6	1
	15	□	MNS0440-L15C	66	82	86	122	121.2	0.8	6	1
	20	□	MNS0440-L20C	88	105	109	145	144.2	0.8	6	1
	25	□	MNS0440-L25C	110	127	131	167	166.2	0.8	6	1
	30	□	MNS0440-L30C	132	150	154	190	189.2	0.8	6	1
	5	★	MNS0440LB	22.0	50.8	50.8	100.8	100.0	0.8	5	1
	10	□	MNS0440X10DB	44.0	59.8	62.8	112.8	112.0	0.8	5	1
	20	□	MNS0440X20DB	88.0	104.8	107.8	157.8	157.0	0.8	5	1
	30	□	MNS0440X30DB	132.0	149.8	152.8	202.8	202.0	0.8	5	1
4.5	3	□	MNS0450S-DIN	14	24	30	66	65.2	0.8	6	2
	3	□	MNS0450S-DIN-C	14	24	30	66	65.2	0.8	6	1
	5	□	MNS0450L-DIN	23	36	38	74	73.2	0.8	6	2
	5	●	MNS0450L-DIN-C	23	36	38	74	73.2	0.8	6	1
	8	□	MNS0450-L8C	36	51	55	91	90.2	0.8	6	1
	10	□	MNS0450-L10C	45	60	64	100	99.2	0.8	6	1
	12	●	MNS0450-L12C	54	69	73	109	108.2	0.8	6	1
	15	□	MNS0450-L15C	68	82	86	122	121.2	0.8	6	1
	20	●	MNS0450-L20C	90	105	109	145	144.2	0.8	6	1
	25	□	MNS0450-L25C	113	127	131	167	166.2	0.8	6	1
	30	●	MNS0450-L30C	135	150	154	190	189.2	0.8	6	1
	5	★	MNS0450LB	22.5	50.8	50.8	100.8	100.0	0.8	5	1
	10	□	MNS0450X10DB	45.0	59.8	62.8	112.8	112.0	0.8	5	1
	20	□	MNS0450X20DB	90.0	104.8	107.8	157.8	157.0	0.8	5	1
	30	□	MNS0450X30DB	135.0	149.8	152.8	202.8	202.0	0.8	5	1

(Bemerkung) Bei Bedarf von abweichenden Geometrien setzen Sie sich mit unserem Hause in Verbindung.
(Andere Durchmesser und Längen können bestellt werden).

●: Lagerstandard. ★: Lagerstandard in Japan.
□: Nichtstandard, Herstellung nur auf Anfrage.

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager TF15	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
4.6	3	□	MNS0460S-DIN	14	24	30	66	65.2	0.8	6	4
	3	□	MNS0460S-DIN-C	14	24	30	66	65.2	0.8	6	3
	5	□	MNS0460L-DIN	23	36	38	74	73.2	0.8	6	4
	5	□	MNS0460L-DIN-C	23	36	38	74	73.2	0.8	6	3
	8	□	MNS0460-L8C	37	55	60	96	95.2	0.8	6	3
	10	□	MNS0460-L10C	46	66	70	106	105.2	0.8	6	3
	12	□	MNS0460-L12C	55	76	80	116	115.2	0.8	6	3
	15	□	MNS0460-L15C	69	91	95	131	130.2	0.8	6	3
	20	□	MNS0460-L20C	92	116	120	156	155.2	0.8	6	3
	25	□	MNS0460-L25C	115	141	145	181	180.2	0.8	6	3
	30	□	MNS0460-L30C	138	166	170	206	205.2	0.8	6	3
	5	★	MNS0460LB	23.0	55.8	55.8	105.8	105.0	0.8	5	3
	10	□	MNS0460X10DB	46.0	65.8	68.8	118.8	118.0	0.8	5	3
	20	□	MNS0460X20DB	92.0	115.8	118.8	168.8	168.0	0.8	5	3
	30	□	MNS0460X30DB	138.0	165.8	168.8	218.8	218.0	0.8	5	3
4.65	3	□	MNS0465S-DIN	14	24	30	66	65.2	0.8	6	4
	3	□	MNS0465S-DIN-C	14	24	30	66	65.2	0.8	6	3
	5	□	MNS0465L-DIN	23	36	38	74	73.2	0.8	6	4
	5	●	MNS0465L-DIN-C	23	36	38	74	73.2	0.8	6	3
4.7	3	□	MNS0470S-DIN	14	24	30	66	65.1	0.9	6	4
	3	□	MNS0470S-DIN-C	14	24	30	66	65.1	0.9	6	3
	5	□	MNS0470L-DIN	24	36	38	74	73.1	0.9	6	4
	5	□	MNS0470L-DIN-C	24	36	38	74	73.1	0.9	6	3
	8	□	MNS0470-L8C	38	55	60	96	95.1	0.9	6	3
	10	□	MNS0470-L10C	47	66	70	106	105.1	0.9	6	3
	12	□	MNS0470-L12C	56	76	80	116	115.1	0.9	6	3
	15	□	MNS0470-L15C	71	91	95	131	130.1	0.9	6	3
	20	□	MNS0470-L20C	94	116	120	156	155.1	0.9	6	3
	25	□	MNS0470-L25C	118	141	145	181	180.1	0.9	6	3
	30	□	MNS0470-L30C	141	166	170	206	205.1	0.9	6	3
	5	★	MNS0470LB	23.5	55.9	55.9	105.9	105.0	0.9	5	3
	10	□	MNS0470X10DB	47.0	65.9	68.9	118.9	118.0	0.9	5	3
	20	□	MNS0470X20DB	94.0	115.9	118.9	168.9	168.0	0.9	5	3
	30	□	MNS0470X30DB	141.0	165.9	168.9	218.9	218.0	0.9	5	3
4.8	3	□	MNS0480S-DIN	14	28	30	66	65.1	0.9	6	4
	3	□	MNS0480S-DIN-C	14	28	30	66	65.1	0.9	6	3
	5	□	MNS0480L-DIN	24	44	46	82	81.1	0.9	6	4
	5	□	MNS0480L-DIN-C	24	44	46	82	81.1	0.9	6	3
	8	□	MNS0480-L8C	38	55	60	96	95.1	0.9	6	3
	10	□	MNS0480-L10C	48	66	70	106	105.1	0.9	6	3
	12	□	MNS0480-L12C	58	76	80	116	115.1	0.9	6	3
	15	□	MNS0480-L15C	72	91	95	131	130.1	0.9	6	3
	20	□	MNS0480-L20C	96	116	120	156	155.1	0.9	6	3
	25	□	MNS0480-L25C	120	141	145	181	180.1	0.9	6	3
	30	□	MNS0480-L30C	144	166	170	206	205.1	0.9	6	3
	5	★	MNS0480LB	24.0	55.9	55.9	105.9	105.0	0.9	5	3
	10	□	MNS0480X10DB	48.0	65.9	68.9	118.9	118.0	0.9	5	3
	20	□	MNS0480X20DB	96.0	115.9	118.9	168.9	168.0	0.9	5	3
	30	□	MNS0480X30DB	144.0	165.9	168.9	218.9	218.0	0.9	5	3

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager TF15	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
4.9	3	□	MNS0490S-DIN	15	28	30	66	65.1	0.9	6	4
	3	□	MNS0490S-DIN-C	15	28	30	66	65.1	0.9	6	3
	5	□	MNS0490L-DIN	25	44	46	82	81.1	0.9	6	4
	5	□	MNS0490L-DIN-C	25	44	46	82	81.1	0.9	6	3
	8	□	MNS0490-L8C	39	55	60	96	95.1	0.9	6	3
	10	□	MNS0490-L10C	49	66	70	106	105.1	0.9	6	3
	12	□	MNS0490-L12C	59	76	80	116	115.1	0.9	6	3
	15	□	MNS0490-L15C	74	91	95	131	130.1	0.9	6	3
	20	□	MNS0490-L20C	98	116	120	156	155.1	0.9	6	3
	25	□	MNS0490-L25C	123	141	145	181	180.1	0.9	6	3
	30	□	MNS0490-L30C	147	166	170	206	205.1	0.9	6	3
	5	★	MNS0490LB	24.5	55.9	55.9	105.9	105.0	0.9	5	3
	10	★	MNS0490X10DB	49.0	65.9	68.9	118.9	118.0	0.9	5	3
	20	★	MNS0490X20DB	98.0	115.9	118.9	168.9	168.0	0.9	5	3
	30	★	MNS0490X30DB	147.0	165.9	168.9	218.9	218.0	0.9	5	3
5.0	3	□	MNS0500S-DIN	15	28	30	66	65.1	0.9	6	4
	3	□	MNS0500S-DIN-C	15	28	30	66	65.1	0.9	6	3
	5	□	MNS0500L-DIN	25	44	46	82	81.1	0.9	6	4
	5	●	MNS0500L-DIN-C	25	44	46	82	81.1	0.9	6	3
	8	□	MNS0500-L8C	40	55	60	96	95.1	0.9	6	3
	10	□	MNS0500-L10C	50	66	70	106	105.1	0.9	6	3
	12	●	MNS0500-L12C	60	76	80	116	115.1	0.9	6	3
	15	□	MNS0500-L15C	75	91	95	131	130.1	0.9	6	3
	20	●	MNS0500-L20C	100	116	120	156	155.1	0.9	6	3
	25	□	MNS0500-L25C	125	141	145	181	180.1	0.9	6	3
	30	●	MNS0500-L30C	150	166	170	206	205.1	0.9	6	3
	5	★	MNS0500LB	25.0	44.9	44.9	100.9	100.0	0.9	6	3
	10	★	MNS0500X10DB	50.0	65.9	68.9	118.9	118.0	0.9	5	3
	20	★	MNS0500X20DB	100.0	115.9	118.9	168.9	168.0	0.9	5	3
	30	★	MNS0500X30DB	150.0	165.9	168.9	218.9	218.0	0.9	5	3
5.1	3	□	MNS0510S-DIN	15	28	30	66	65.1	0.9	6	4
	3	□	MNS0510S-DIN-C	15	28	30	66	65.1	0.9	6	3
	5	□	MNS0510L-DIN	26	44	46	82	81.1	0.9	6	4
	5	●	MNS0510L-DIN-C	26	44	46	82	81.1	0.9	6	3
	8	□	MNS0510-L8C	41	62	66	102	101.1	0.9	6	3
	10	□	MNS0510-L10C	51	73	77	113	112.1	0.9	6	3
	12	□	MNS0510-L12C	61	84	88	124	123.1	0.9	6	3
	15	□	MNS0510-L15C	77	100	104	140	139.1	0.9	6	3
	20	□	MNS0510-L20C	102	128	132	168	167.1	0.9	6	3
	25	□	MNS0510-L25C	128	155	159	195	194.1	0.9	6	3
	30	□	MNS0510-L30C	153	183	187	223	222.1	0.9	6	3
	5	★	MNS0510LB	25.5	44.9	44.9	100.9	100.0	0.9	6	3
	10	★	MNS0510X10DB	51.0	72.9	75.9	127.9	127.0	0.9	6	3
	20	★	MNS0510X20DB	102.0	127.9	130.9	182.9	182.0	0.9	6	3
	30	★	MNS0510X30DB	153.0	182.9	185.9	237.9	237.0	0.9	6	3

SCHNITTBEDINGUNGEN ➤ L096
ANWENDUNGSHINWEISE ➤ L097
TECHNISCHE DATEN ➤ N001

BOHREN (VOLLHARTMETALL)

MNS

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager TF15	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
5.2	3	□	MNS0520S-DIN	16	28	30	66	65.1	0.9	6	4
	3	□	MNS0520S-DIN-C	16	28	30	66	65.1	0.9	6	3
	5	□	MNS0520L-DIN	26	44	46	82	81.1	0.9	6	4
	5	□	MNS0520L-DIN-C	26	44	46	82	81.1	0.9	6	3
	8	□	MNS0520-L8C	42	62	66	102	101.1	0.9	6	3
	10	□	MNS0520-L10C	52	73	77	113	112.1	0.9	6	3
	12	□	MNS0520-L12C	62	84	88	124	123.1	0.9	6	3
	15	□	MNS0520-L15C	78	100	104	140	139.1	0.9	6	3
	20	□	MNS0520-L20C	104	128	132	168	167.1	0.9	6	3
	25	□	MNS0520-L25C	130	155	159	195	194.1	0.9	6	3
	30	□	MNS0520-L30C	156	183	187	223	222.1	0.9	6	3
	5	★	MNS0520LB	26.0	44.9	44.9	100.9	100.0	0.9	6	3
	10	□	MNS0520X10DB	52.0	72.9	75.9	127.9	127.0	0.9	6	3
	20	□	MNS0520X20DB	104.0	127.9	130.9	182.9	182.0	0.9	6	3
	30	□	MNS0520X30DB	156.0	182.9	185.9	237.9	237.0	0.9	6	3
5.3	3	□	MNS0530S-DIN	16	28	30	66	65.0	1.0	6	4
	3	□	MNS0530S-DIN-C	16	28	30	66	65.0	1.0	6	3
	5	□	MNS0530L-DIN	27	44	46	82	81.0	1.0	6	4
	5	□	MNS0530L-DIN-C	27	44	46	82	81.0	1.0	6	3
	8	□	MNS0530-L8C	42	62	66	102	101.0	1.0	6	3
	10	□	MNS0530-L10C	53	73	77	113	112.0	1.0	6	3
	12	□	MNS0530-L12C	64	84	88	124	123.0	1.0	6	3
	15	□	MNS0530-L15C	80	100	104	140	139.0	1.0	6	3
	20	□	MNS0530-L20C	106	128	132	168	167.0	1.0	6	3
	25	□	MNS0530-L25C	133	155	159	195	194.0	1.0	6	3
	30	□	MNS0530-L30C	159	183	187	223	222.0	1.0	6	3
	5	★	MNS0530LB	26.5	45.0	45.0	101.0	100.0	1.0	6	3
	10	□	MNS0530X10DB	53.0	73.0	76.0	128.0	127.0	1.0	6	3
	20	□	MNS0530X20DB	106.0	128.0	131.0	183.0	182.0	1.0	6	3
	30	□	MNS0530X30DB	159.0	183.0	186.0	238.0	237.0	1.0	6	3
5.4	3	□	MNS0540S-DIN	16	28	30	66	65.0	1.0	6	4
	3	□	MNS0540S-DIN-C	16	28	30	66	65.0	1.0	6	3
	5	□	MNS0540L-DIN	27	44	46	82	81.0	1.0	6	4
	5	□	MNS0540L-DIN-C	27	44	46	82	81.0	1.0	6	3
	8	□	MNS0540-L8C	43	62	66	102	101.0	1.0	6	3
	10	□	MNS0540-L10C	54	73	77	113	112.0	1.0	6	3
	12	□	MNS0540-L12C	65	84	88	124	123.0	1.0	6	3
	15	□	MNS0540-L15C	81	100	104	140	139.0	1.0	6	3
	20	□	MNS0540-L20C	108	128	132	168	167.0	1.0	6	3
	25	□	MNS0540-L25C	135	155	159	195	194.0	1.0	6	3
	30	□	MNS0540-L30C	162	183	187	223	222.0	1.0	6	3
	5	★	MNS0540LB	27.0	45.0	45.0	101.0	100.0	1.0	6	3
	10	□	MNS0540X10DB	54.0	73.0	76.0	128.0	127.0	1.0	6	3
	20	□	MNS0540X20DB	108.0	128.0	131.0	183.0	182.0	1.0	6	3
	30	□	MNS0540X30DB	162.0	183.0	186.0	238.0	237.0	1.0	6	3

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager TF15	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
5.5	3	□	MNS0550S-DIN	17	28	30	66	65.0	1.0	6	4
	3	□	MNS0550S-DIN-C	17	28	30	66	65.0	1.0	6	3
	5	□	MNS0550L-DIN	28	44	46	82	81.0	1.0	6	4
	5	●	MNS0550L-DIN-C	28	44	46	82	81.0	1.0	6	3
	8	□	MNS0550-L8C	44	62	66	102	101.0	1.0	6	3
	10	□	MNS0550-L10C	55	73	77	113	112.0	1.0	6	3
	12	●	MNS0550-L12C	66	84	88	124	123.0	1.0	6	3
	15	□	MNS0550-L15C	83	100	104	140	139.0	1.0	6	3
	20	●	MNS0550-L20C	110	128	132	168	167.0	1.0	6	3
	25	□	MNS0550-L25C	138	155	159	195	194.0	1.0	6	3
	30	●	MNS0550-L30C	165	183	187	223	222.0	1.0	6	3
	5	★	MNS0550LB	27.5	45.0	45.0	101.0	100.0	1.0	6	3
	10	★	MNS0550X10DB	55.0	73.0	76.0	128.0	127.0	1.0	6	3
	20	★	MNS0550X20DB	110.0	128.0	131.0	183.0	182.0	1.0	6	3
	30	★	MNS0550X30DB	165.0	183.0	186.0	238.0	237.0	1.0	6	3
5.55	3	□	MNS0555S-DIN	17	28	30	66	65.0	1.0	6	4
	3	□	MNS0555S-DIN-C	17	28	30	66	65.0	1.0	6	3
	5	□	MNS0555L-DIN	28	44	46	82	81.0	1.0	6	4
	5	●	MNS0555L-DIN-C	28	44	46	82	81.0	1.0	6	3
5.6	3	□	MNS0560S-DIN	17	28	30	66	65.0	1.0	6	4
	3	□	MNS0560S-DIN-C	17	28	30	66	65.0	1.0	6	3
	5	□	MNS0560L-DIN	28	44	46	82	81.0	1.0	6	4
	5	□	MNS0560L-DIN-C	28	44	46	82	81.0	1.0	6	3
	8	□	MNS0560-L8C	45	67	71	107	106.0	1.0	6	3
	10	□	MNS0560-L10C	56	79	83	119	118.0	1.0	6	3
	12	□	MNS0560-L12C	67	91	95	131	130.0	1.0	6	3
	15	□	MNS0560-L15C	84	109	113	149	148.0	1.0	6	3
	20	□	MNS0560-L20C	112	139	143	179	178.0	1.0	6	3
	25	□	MNS0560-L25C	140	169	173	209	208.0	1.0	6	3
	30	□	MNS0560-L30C	168	199	203	239	238.0	1.0	6	3
	5	★	MNS0560LB	28.0	49.0	49.0	101.0	100.0	1.0	6	3
	10	□	MNS0560X10DB	56.0	79.0	82.0	134.0	133.0	1.0	6	3
	20	□	MNS0560X20DB	112.0	139.0	142.0	194.0	193.0	1.0	6	3
	30	□	MNS0560X30DB	168.0	199.0	202.0	254.0	253.0	1.0	6	3
5.7	3	□	MNS0570S-DIN	17	28	30	66	65.0	1.0	6	4
	3	□	MNS0570S-DIN-C	17	28	30	66	65.0	1.0	6	3
	5	□	MNS0570L-DIN	29	44	46	82	81.0	1.0	6	4
	5	□	MNS0570L-DIN-C	29	44	46	82	81.0	1.0	6	3
	8	□	MNS0570-L8C	46	67	71	107	106.0	1.0	6	3
	10	□	MNS0570-L10C	57	79	83	119	118.0	1.0	6	3
	12	□	MNS0570-L12C	68	91	95	131	130.0	1.0	6	3
	15	□	MNS0570-L15C	86	109	113	149	148.0	1.0	6	3
	20	□	MNS0570-L20C	114	139	143	179	178.0	1.0	6	3
	25	□	MNS0570-L25C	143	169	173	209	208.0	1.0	6	3
	30	□	MNS0570-L30C	171	199	203	239	238.0	1.0	6	3
	5	★	MNS0570LB	28.5	49.0	49.0	101.0	100.0	1.0	6	3
	10	□	MNS0570X10DB	57.0	79.0	82.0	134.0	133.0	1.0	6	3
	20	□	MNS0570X20DB	114.0	139.0	142.0	194.0	193.0	1.0	6	3
	30	□	MNS0570X30DB	171.0	199.0	202.0	254.0	253.0	1.0	6	3

(Bemerkung) Bei Bedarf von abweichenden Geometrien setzen Sie sich mit unserem Hause in Verbindung.
(Andere Durchmesser und Längen können bestellt werden).

● : Lagerstandard. ★ : Lagerstandard in Japan.
□ : Nichtstandard, Herstellung nur auf Anfrage.

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager TF15	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
	3	□	MNS0580S-DIN	17	28	30	66	64.9	1.1	6	4
	3	□	MNS0580S-DIN-C	17	28	30	66	64.9	1.1	6	3
	5	□	MNS0580L-DIN	29	44	46	82	80.9	1.1	6	4
	5	□	MNS0580L-DIN-C	29	44	46	82	80.9	1.1	6	3
	8	□	MNS0580-L8C	46	67	71	107	105.9	1.1	6	3
	10	□	MNS0580-L10C	58	79	83	119	117.9	1.1	6	3
	12	□	MNS0580-L12C	70	91	95	131	129.9	1.1	6	3
5.8	15	□	MNS0580-L15C	87	109	113	149	147.9	1.1	6	3
	20	□	MNS0580-L20C	116	139	143	179	177.9	1.1	6	3
	25	□	MNS0580-L25C	145	169	173	209	207.9	1.1	6	3
	30	□	MNS0580-L30C	174	199	203	239	237.9	1.1	6	3
	5	★	MNS0580LB	29.0	49.1	49.1	101.1	100.0	1.1	6	3
	10	□	MNS0580X10DB	58.0	79.1	82.1	134.1	133.0	1.1	6	3
	20	□	MNS0580X20DB	116.0	139.1	142.1	194.1	193.0	1.1	6	3
	30	□	MNS0580X30DB	174.0	199.1	202.1	254.1	253.0	1.1	6	3
	3	□	MNS0590S-DIN	18	28	30	66	64.9	1.1	6	4
	3	□	MNS0590S-DIN-C	18	28	30	66	64.9	1.1	6	3
	5	□	MNS0590L-DIN	30	44	46	82	80.9	1.1	6	4
	5	□	MNS0590L-DIN-C	30	44	46	82	80.9	1.1	6	3
	8	□	MNS0590-L8C	47	67	71	107	105.9	1.1	6	3
	10	□	MNS0590-L10C	59	79	83	119	117.9	1.1	6	3
	12	□	MNS0590-L12C	71	91	95	131	129.9	1.1	6	3
5.9	15	□	MNS0590-L15C	89	109	113	149	147.9	1.1	6	3
	20	□	MNS0590-L20C	118	139	143	179	177.9	1.1	6	3
	25	□	MNS0590-L25C	148	169	173	209	207.9	1.1	6	3
	30	□	MNS0590-L30C	177	199	203	239	237.9	1.1	6	3
	5	★	MNS0590LB	29.5	49.1	49.1	101.1	100.0	1.1	6	3
	10	□	MNS0590X10DB	59.0	79.1	82.1	134.1	133.0	1.1	6	3
	20	□	MNS0590X20DB	118.0	139.1	142.1	194.1	193.0	1.1	6	3
	30	□	MNS0590X30DB	177.0	199.1	202.1	254.1	253.0	1.1	6	3
	3	□	MNS0600S-DIN	18	28	30	66	64.9	1.1	6	4
	3	□	MNS0600S-DIN-C	18	28	30	66	64.9	1.1	6	3
	5	□	MNS0600L-DIN	30	44	46	82	80.9	1.1	6	4
	5	●	MNS0600L-DIN-C	30	44	46	82	80.9	1.1	6	3
	8	□	MNS0600-L8C	48	67	71	107	105.9	1.1	6	3
	10	□	MNS0600-L10C	60	79	83	119	117.9	1.1	6	3
	12	●	MNS0600-L12C	72	91	95	131	129.9	1.1	6	3
6.0	15	□	MNS0600-L15C	90	109	113	149	147.9	1.1	6	3
	20	●	MNS0600-L20C	120	139	143	179	177.9	1.1	6	3
	25	□	MNS0600-L25C	150	169	173	209	207.9	1.1	6	3
	30	●	MNS0600-L30C	180	199	203	239	237.9	1.1	6	3
	5	★	MNS0600LB	30.0	49.1	49.1	101.1	100.0	1.1	6	3
	10	★	MNS0600X10DB	60.0	79.1	82.1	134.1	133.0	1.1	6	3
	20	★	MNS0600X20DB	120.0	139.1	142.1	194.1	193.0	1.1	6	3
	30	★	MNS0600X30DB	180.0	199.1	202.1	254.1	253.0	1.1	6	3

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager TF15	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
	3	□	MNS0610S-DIN	18	34	43	79	77.9	1.1	8	4
	3	□	MNS0610S-DIN-C	18	34	43	79	77.9	1.1	8	3
	5	□	MNS0610L-DIN	31	53	55	91	89.9	1.1	8	4
	5	□	MNS0610L-DIN-C	31	53	55	91	89.9	1.1	8	3
	8	□	MNS0610-L8C	49	73	77	113	111.9	1.1	8	3
	10	□	MNS0610-L10C	61	86	90	126	124.9	1.1	8	3
	12	□	MNS0610-L12C	73	99	103	139	137.9	1.1	8	3
6.1	15	□	MNS0610-L15C	92	118	122	158	156.9	1.1	8	3
	20	□	MNS0610-L20C	122	151	155	191	189.9	1.1	8	3
	25	□	MNS0610-L25C	153	183	187	223	221.9	1.1	8	3
	30	□	MNS0610-L30C	183	216	220	256	254.9	1.1	8	3
	5	★	MNS0610LB	30.5	53.1	53.1	110.1	109.0	1.1	7	3
	10	★	MNS0610X10DB	61.0	86.1	89.1	142.1	141.0	1.1	7	3
	20	★	MNS0610X20DB	122.0	151.1	154.1	207.1	206.0	1.1	7	3
	30	★	MNS0610X30DB	183.0	216.1	219.1	272.1	271.0	1.1	7	3
	3	□	MNS0620S-DIN	19	34	43	79	77.9	1.1	8	4
	3	□	MNS0620S-DIN-C	19	34	43	79	77.9	1.1	8	3
	5	□	MNS0620L-DIN	31	53	55	91	89.9	1.1	8	4
	5	□	MNS0620L-DIN-C	31	53	55	91	89.9	1.1	8	3
	8	□	MNS0620-L8C	50	73	77	113	111.9	1.1	8	3
	10	□	MNS0620-L10C	62	86	90	126	124.9	1.1	8	3
	12	□	MNS0620-L12C	74	99	103	139	137.9	1.1	8	3
6.2	15	□	MNS0620-L15C	93	118	122	158	156.9	1.1	8	3
	20	□	MNS0620-L20C	124	151	155	191	189.9	1.1	8	3
	25	□	MNS0620-L25C	155	183	187	223	221.9	1.1	8	3
	30	□	MNS0620-L30C	186	216	220	256	254.9	1.1	8	3
	5	★	MNS0620LB	31.0	53.1	53.1	110.1	109.0	1.1	7	3
	10	□	MNS0620X10DB	62.0	86.1	89.1	142.1	141.0	1.1	7	3
	20	□	MNS0620X20DB	124.0	151.1	154.1	207.1	206.0	1.1	7	3
	30	□	MNS0620X30DB	186.0	216.1	219.1	272.1	271.0	1.1	7	3
	3	□	MNS0630S-DIN	19	34	43	79	77.9	1.1	8	4
	3	□	MNS0630S-DIN-C	19	34	43	79	77.9	1.1	8	3
	5	□	MNS0630L-DIN	32	53	55	91	89.9	1.1	8	4
	5	□	MNS0630L-DIN-C	32	53	55	91	89.9	1.1	8	3
	8	□	MNS0630-L8C	50	73	77	113	111.9	1.1	8	3
	10	□	MNS0630-L10C	63	86	90	126	124.9	1.1	8	3
	12	□	MNS0630-L12C	76	99	103	139	137.9	1.1	8	3
6.3	15	□	MNS0630-L15C	95	118	122	158	156.9	1.1	8	3
	20	□	MNS0630-L20C	126	151	155	191	189.9	1.1	8	3
	25	□	MNS0630-L25C	158	183	187	223	221.9	1.1	8	3
	30	□	MNS0630-L30C	189	216	220	256	254.9	1.1	8	3
	5	★	MNS0630LB	31.5	53.1	53.1	110.1	109.0	1.1	7	3
	10	□	MNS0630X10DB	63.0	86.1	89.1	142.1	141.0	1.1	7	3
	20	□	MNS0630X20DB	126.0	151.1	154.1	207.1	206.0	1.1	7	3
	30	□	MNS0630X30DB	189.0	216.1	219.1	272.1	271.0	1.1	7	3

BOHREN

SCHNITTBEDINGUNGEN ➤ L096
ANWENDUNGSHINWEISE ➤ L097
TECHNISCHE DATEN ➤ N001

BOHREN (VOLLHARTMETALL)

MNS

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager TF15	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
6.4	3	□	MNS0640S-DIN	19	34	43	79	77.8	1.2	8	4
	3	□	MNS0640S-DIN-C	19	34	43	79	77.8	1.2	8	3
	5	□	MNS0640L-DIN	32	53	55	91	89.8	1.2	8	4
	5	□	MNS0640L-DIN-C	32	53	55	91	89.8	1.2	8	3
	8	□	MNS0640-L8C	51	73	77	113	111.8	1.2	8	3
	10	□	MNS0640-L10C	64	86	90	126	124.8	1.2	8	3
	12	□	MNS0640-L12C	77	99	103	139	137.8	1.2	8	3
	15	□	MNS0640-L15C	96	118	122	158	156.8	1.2	8	3
	20	□	MNS0640-L20C	128	151	155	191	189.8	1.2	8	3
	25	□	MNS0640-L25C	160	183	187	223	221.8	1.2	8	3
	30	□	MNS0640-L30C	192	216	220	256	254.8	1.2	8	3
	5	★	MNS0640LB	32.0	53.2	53.2	110.2	109.0	1.2	7	3
	10	□	MNS0640X10DB	64.0	86.2	89.2	142.2	141.0	1.2	7	3
	20	□	MNS0640X20DB	128.0	151.2	154.2	207.2	206.0	1.2	7	3
	30	□	MNS0640X30DB	192.0	216.2	219.2	272.2	271.0	1.2	7	3
6.5	3	□	MNS0650S-DIN	20	34	43	79	77.8	1.2	8	4
	3	□	MNS0650S-DIN-C	20	34	43	79	77.8	1.2	8	3
	5	□	MNS0650L-DIN	33	53	55	91	89.8	1.2	8	4
	5	●	MNS0650L-DIN-C	33	53	55	91	89.8	1.2	8	3
	8	□	MNS0650-L8C	52	73	77	113	111.8	1.2	8	3
	10	□	MNS0650-L10C	65	86	90	126	124.8	1.2	8	3
	12	●	MNS0650-L12C	78	99	103	139	137.8	1.2	8	3
	15	□	MNS0650-L15C	98	118	122	158	156.8	1.2	8	3
	20	●	MNS0650-L20C	130	151	155	191	189.8	1.2	8	3
	25	□	MNS0650-L25C	163	183	187	223	221.8	1.2	8	3
	30	●	MNS0650-L30C	195	216	220	256	254.8	1.2	8	3
	5	★	MNS0650LB	32.5	53.2	53.2	110.2	109.0	1.2	7	3
	10	★	MNS0650X10DB	65.0	86.2	89.2	142.2	141.0	1.2	7	3
	20	★	MNS0650X20DB	130.0	151.2	154.2	207.2	206.0	1.2	7	3
	30	★	MNS0650X30DB	195.0	216.2	219.2	272.2	271.0	1.2	7	3
6.6	3	□	MNS0660S-DIN	20	34	43	79	77.8	1.2	8	4
	3	□	MNS0660S-DIN-C	20	34	43	79	77.8	1.2	8	3
	5	□	MNS0660L-DIN	33	53	55	91	89.8	1.2	8	4
	5	□	MNS0660L-DIN-C	33	53	55	91	89.8	1.2	8	3
	8	□	MNS0660-L8C	53	78	82	118	116.8	1.2	8	3
	10	□	MNS0660-L10C	66	92	96	132	130.8	1.2	8	3
	12	□	MNS0660-L12C	79	106	110	146	144.8	1.2	8	3
	15	□	MNS0660-L15C	99	127	131	167	165.8	1.2	8	3
	20	□	MNS0660-L20C	132	162	166	202	200.8	1.2	8	3
	25	□	MNS0660-L25C	165	197	201	237	235.8	1.2	8	3
	30	□	MNS0660-L30C	198	232	236	272	270.8	1.2	8	3
	5	★	MNS0660LB	33.0	57.2	57.2	110.2	109.0	1.2	7	3
	10	□	MNS0660X10DB	66.0	92.2	95.2	148.2	147.0	1.2	7	3
	20	□	MNS0660X20DB	132.0	162.2	165.2	218.2	217.0	1.2	7	3
	30	□	MNS0660X30DB	198.0	232.2	235.2	288.2	287.0	1.2	7	3

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager TF15	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
6.7	3	□	MNS0670S-DIN	20	34	43	79	77.8	1.2	8	4
	3	□	MNS0670S-DIN-C	20	34	43	79	77.8	1.2	8	3
	5	□	MNS0670L-DIN	34	53	55	91	89.8	1.2	8	4
	5	□	MNS0670L-DIN-C	34	53	55	91	89.8	1.2	8	3
	8	□	MNS0670-L8C	54	78	82	118	116.8	1.2	8	3
	10	□	MNS0670-L10C	67	92	96	132	130.8	1.2	8	3
	12	□	MNS0670-L12C	80	106	110	146	144.8	1.2	8	3
	15	□	MNS0670-L15C	101	127	131	167	165.8	1.2	8	3
	20	□	MNS0670-L20C	134	162	166	202	200.8	1.2	8	3
	25	□	MNS0670-L25C	168	197	201	237	235.8	1.2	8	3
	30	□	MNS0670-L30C	201	232	236	272	270.8	1.2	8	3
	5	★	MNS0670LB	33.5	57.2	57.2	110.2	109.0	1.2	7	3
	10	★	MNS0670X10DB	67.0	92.2	95.2	148.2	147.0	1.2	7	3
	20	★	MNS0670X20DB	134.0	162.2	165.2	218.2	217.0	1.2	7	3
	30	★	MNS0670X30DB	201.0	232.2	235.2	288.2	287.0	1.2	7	3
6.8	3	□	MNS0680S-DIN	20	34	43	79	77.8	1.2	8	4
	3	□	MNS0680S-DIN-C	20	34	43	79	77.8	1.2	8	3
	5	□	MNS0680L-DIN	34	34	43	79	77.8	1.2	8	4
	5	●	MNS0680L-DIN-C	34	53	55	91	89.8	1.2	8	3
	8	□	MNS0680-L8C	54	78	82	118	116.8	1.2	8	3
	10	□	MNS0680-L10C	68	92	96	132	130.8	1.2	8	3
	12	●	MNS0680-L12C	82	106	110	146	144.8	1.2	8	3
	15	□	MNS0680-L15C	102	127	131	167	165.8	1.2	8	3
	20	●	MNS0680-L20C	136	162	166	202	200.8	1.2	8	3
	25	□	MNS0680-L25C	170	197	201	237	235.8	1.2	8	3
	30	●	MNS0680-L30C	204	232	236	272	270.8	1.2	8	3
	5	★	MNS0680LB	34.0	57.2	57.2	110.2	109.0	1.2	7	3
	10	□	MNS0680X10DB	68.0	92.2	95.2	148.2	147.0	1.2	7	3
	20	□	MNS0680X20DB	136.0	162.2	165.2	218.2	217.0	1.2	7	3
	30	□	MNS0680X30DB	204.0	232.2	235.2	288.2	287.0	1.2	7	3
6.9	3	□	MNS0690S-DIN	21	34	43	79	77.7	1.3	8	4
	3	□	MNS0690S-DIN-C	21	34	43	79	77.7	1.3	8	3
	5	□	MNS0690L-DIN	35	53	55	91	89.7	1.3	8	4
	5	□	MNS0690L-DIN-C	35	53	55	91	89.7	1.3	8	3
	8	□	MNS0690-L8C	55	78	82	118	116.7	1.3	8	3
	10	□	MNS0690-L10C	69	92	96	132	130.7	1.3	8	3
	12	□	MNS0690-L12C	83	106	110	146	144.7	1.3	8	3
	15	□	MNS0690-L15C	104	127	131	167	165.7	1.3	8	3
	20	□	MNS0690-L20C	138	162	166	202	200.7	1.3	8	3
	25	□	MNS0690-L25C	173	197	201	237	235.7	1.3	8	3
	30	□	MNS0690-L30C	207	232	236	272	270.7	1.3	8	3
	5	★	MNS0690LB	34.5	57.3	57.3	110.3	109.0	1.3	7	3
	10	□	MNS0690X10DB	69.0	92.3	95.3	148.3	147.0	1.3	7	3
	20	□	MNS0690X20DB	138.0	162.3	165.3	218.3	217.0	1.3	7	3
	30	□	MNS0690X30DB	207.0	232.3	235.3	288.3	287.0	1.3	7	3

(Bemerkung) Bei Bedarf von abweichenden Geometrien setzen Sie sich mit unserem Hause in Verbindung.
(Andere Durchmesser und Längen können bestellt werden).

● : Lagerstandard. ★ : Lagerstandard in Japan.
□ : Nichtstandard, Herstellung nur auf Anfrage.

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager TF15	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
	3	□	MNS0700S-DIN	21	34	43	79	77.7	1.3	8	4
	3	□	MNS0700S-DIN-C	21	34	43	79	77.7	1.3	8	3
	5	□	MNS0700L-DIN	35	53	55	91	89.7	1.3	8	4
	5	●	MNS0700L-DIN-C	35	53	55	91	89.7	1.3	8	3
	8	□	MNS0700-L8C	56	78	82	118	116.7	1.3	8	3
	10	□	MNS0700-L10C	70	92	96	132	130.7	1.3	8	3
	12	●	MNS0700-L12C	84	106	110	146	144.7	1.3	8	3
7.0	15	□	MNS0700-L15C	105	127	131	167	165.7	1.3	8	3
	20	●	MNS0700-L20C	140	162	166	202	200.7	1.3	8	3
	25	□	MNS0700-L25C	175	197	201	237	235.7	1.3	8	3
	30	●	MNS0700-L30C	210	232	236	272	270.7	1.3	8	3
	5	★	MNS0700LB	35.0	57.3	57.3	110.3	109.0	1.3	7	3
	10	★	MNS0700X10DB	70.0	92.3	95.3	148.3	147.0	1.3	7	3
	20	★	MNS0700X20DB	140.0	162.3	165.3	218.3	217.0	1.3	7	3
	30	★	MNS0700X30DB	210.0	232.3	235.3	288.3	287.0	1.3	7	3
	3	□	MNS0710S-DIN	21	41	43	79	77.7	1.3	8	4
	3	□	MNS0710S-DIN-C	21	41	43	79	77.7	1.3	8	3
	5	□	MNS0710L-DIN	36	53	55	91	89.7	1.3	8	4
	5	□	MNS0710L-DIN-C	36	53	55	91	89.7	1.3	8	3
	8	□	MNS0710-L8C	57	84	88	124	122.7	1.3	8	3
	10	□	MNS0710-L10C	71	99	103	139	137.7	1.3	8	3
	12	□	MNS0710-L12C	85	114	118	154	152.7	1.3	8	3
7.1	15	□	MNS0710-L15C	107	136	140	176	174.7	1.3	8	3
	20	□	MNS0710-L20C	142	174	178	214	212.7	1.3	8	3
	25	□	MNS0710-L25C	178	211	215	251	249.7	1.3	8	3
	30	□	MNS0710-L30C	213	249	253	289	287.7	1.3	8	3
	5	★	MNS0710LB	35.5	61.3	65.3	119.3	118.0	1.3	8	3
	10	□	MNS0710X10DB	71.0	99.3	102.3	156.3	155.0	1.3	8	3
	20	□	MNS0710X20DB	142.0	174.3	177.3	231.3	230.0	1.3	8	3
	30	□	MNS0710X30DB	213.0	249.3	252.3	306.3	305.0	1.3	8	3
	3	□	MNS0720S-DIN	22	41	43	79	77.7	1.3	8	4
	3	□	MNS0720S-DIN-C	22	41	43	79	77.7	1.3	8	3
	5	□	MNS0720L-DIN	36	53	55	91	89.7	1.3	8	4
	5	□	MNS0720L-DIN-C	36	53	55	91	89.7	1.3	8	3
	8	□	MNS0720-L8C	58	84	88	124	122.7	1.3	8	3
	10	□	MNS0720-L10C	72	99	103	139	137.7	1.3	8	3
	12	□	MNS0720-L12C	86	114	118	154	152.7	1.3	8	3
7.2	15	□	MNS0720-L15C	108	136	140	176	174.7	1.3	8	3
	20	□	MNS0720-L20C	144	174	178	214	212.7	1.3	8	3
	25	□	MNS0720-L25C	180	211	215	251	249.7	1.3	8	3
	30	□	MNS0720-L30C	216	249	253	289	287.7	1.3	8	3
	5	★	MNS0720LB	36.0	61.3	65.3	119.3	118.0	1.3	8	3
	10	★	MNS0720X10DB	72.0	99.3	102.3	156.3	155.0	1.3	8	3
	20	★	MNS0720X20DB	144.0	174.3	177.3	231.3	230.0	1.3	8	3
	30	★	MNS0720X30DB	216.0	249.3	252.3	306.3	305.0	1.3	8	3

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager TF15	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
	3	□	MNS0730S-DIN	22	41	43	79	77.7	1.3	8	4
	3	□	MNS0730S-DIN-C	22	41	43	79	77.7	1.3	8	3
	5	□	MNS0730L-DIN	37	53	55	91	89.7	1.3	8	4
	5	□	MNS0730L-DIN-C	37	53	55	91	89.7	1.3	8	3
	8	□	MNS0730-L8C	58	84	88	124	122.7	1.3	8	3
	10	□	MNS0730-L10C	73	99	103	139	137.7	1.3	8	3
	12	□	MNS0730-L12C	88	114	118	154	152.7	1.3	8	3
7.3	15	□	MNS0730-L15C	110	136	140	176	174.7	1.3	8	3
	20	□	MNS0730-L20C	146	174	178	214	212.7	1.3	8	3
	25	□	MNS0730-L25C	183	211	215	251	249.7	1.3	8	3
	30	□	MNS0730-L30C	219	249	253	289	287.7	1.3	8	3
	5	★	MNS0730LB	36.5	61.3	65.3	119.3	118.0	1.3	8	3
	10	□	MNS0730X10DB	73.0	99.3	102.3	156.3	155.0	1.3	8	3
	20	□	MNS0730X20DB	146.0	174.3	177.3	231.3	230.0	1.3	8	3
	30	□	MNS0730X30DB	219.0	249.3	252.3	306.3	305.0	1.3	8	3
	3	□	MNS0740S-DIN	22	41	43	79	77.7	1.3	8	4
	3	□	MNS0740S-DIN-C	22	41	43	79	77.7	1.3	8	3
	5	□	MNS0740L-DIN	37	53	55	91	89.7	1.3	8	4
	5	□	MNS0740L-DIN-C	37	53	55	91	89.7	1.3	8	3
	8	□	MNS0740-L8C	59	84	88	124	122.7	1.3	8	3
	10	□	MNS0740-L10C	74	99	103	139	137.7	1.3	8	3
	12	□	MNS0740-L12C	89	114	118	154	152.7	1.3	8	3
7.4	15	□	MNS0740-L15C	111	136	140	176	174.7	1.3	8	3
	20	□	MNS0740-L20C	148	174	178	214	212.7	1.3	8	3
	25	□	MNS0740-L25C	185	211	215	251	249.7	1.3	8	3
	30	□	MNS0740-L30C	222	249	253	289	287.7	1.3	8	3
	5	★	MNS0740LB	37.0	61.3	65.3	119.3	118.0	1.3	8	3
	10	□	MNS0740X10DB	74.0	99.3	102.3	156.3	155.0	1.3	8	3
	20	□	MNS0740X20DB	148.0	174.3	177.3	231.3	230.0	1.3	8	3
	30	□	MNS0740X30DB	222.0	249.3	252.3	306.3	305.0	1.3	8	3
	3	□	MNS0750S-DIN	23	41	43	79	77.6	1.4	8	4
	3	□	MNS0750S-DIN-C	23	41	43	79	77.6	1.4	8	3
	5	□	MNS0750L-DIN	38	53	55	91	89.6	1.4	8	4
	5	●	MNS0750L-DIN-C	38	53	55	91	89.6	1.4	8	3
	8	□	MNS0750-L8C	60	84	88	124	122.6	1.4	8	3
	10	□	MNS0750-L10C	75	99	103	139	137.6	1.4	8	3
	12	●	MNS0750-L12C	90	114	118	154	152.6	1.4	8	3
7.5	15	□	MNS0750-L15C	113	136	140	176	174.6	1.4	8	3
	20	●	MNS0750-L20C	150	174	178	214	212.6	1.4	8	3
	25	□	MNS0750-L25C	188	211	215	251	249.6	1.4	8	3
	30	●	MNS0750-L30C	225	249	253	289	287.6	1.4	8	3
	5	★	MNS0750LB	37.5	61.4	65.4	119.4	118.0	1.4	8	3
	10	□	MNS0750X10DB	75.0	99.4	102.4	156.4	155.0	1.4	8	3
	20	□	MNS0750X20DB	150.0	174.4	177.4	231.4	230.0	1.4	8	3
	30	□	MNS0750X30DB	225.0	249.4	252.4	306.4	305.0	1.4	8	3

SCHNITTBEDINGUNGEN ➤ L096
ANWENDUNGSHINWEISE ➤ L097
TECHNISCHE DATEN ➤ N001

MNS

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager TF15	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
	3	□	MNS0760S-DIN	23	41	43	79	77.6	1.4	8	4
	3	□	MNS0760S-DIN-C	23	41	43	79	77.6	1.4	8	3
	5	□	MNS0760L-DIN	38	53	55	91	89.6	1.4	8	4
	5	□	MNS0760L-DIN-C	38	53	55	91	89.6	1.4	8	3
	8	□	MNS0760-L8C	61	89	93	129	127.6	1.4	8	3
	10	□	MNS0760-L10C	76	105	109	145	143.6	1.4	8	3
	12	□	MNS0760-L12C	91	121	125	161	159.6	1.4	8	3
7.6	15	□	MNS0760-L15C	114	145	149	185	183.6	1.4	8	3
	20	□	MNS0760-L20C	152	185	189	225	223.6	1.4	8	3
	25	□	MNS0760-L25C	190	225	229	265	263.6	1.4	8	3
	30	□	MNS0760-L30C	228	265	269	305	303.6	1.4	8	3
	5	★	MNS0760LB	38.0	65.4	65.4	119.4	118.0	1.4	8	3
	10	□	MNS0760X10DB	76.0	105.4	108.4	162.4	161.0	1.4	8	3
	20	□	MNS0760X20DB	152.0	185.4	188.4	242.4	241.0	1.4	8	3
	30	□	MNS0760X30DB	228.0	265.4	268.4	322.4	321.0	1.4	8	3
	3	□	MNS0770S-DIN	23	41	43	79	77.6	1.4	8	4
	3	□	MNS0770S-DIN-C	23	41	43	79	77.6	1.4	8	3
	5	□	MNS0770L-DIN	39	53	55	91	89.6	1.4	8	4
	5	□	MNS0770L-DIN-C	39	53	55	91	89.6	1.4	8	3
	8	□	MNS0770-L8C	62	89	93	129	127.6	1.4	8	3
	10	□	MNS0770-L10C	77	105	109	145	143.6	1.4	8	3
	12	□	MNS0770-L12C	92	121	125	161	159.6	1.4	8	3
7.7	15	□	MNS0770-L15C	116	145	149	185	183.6	1.4	8	3
	20	□	MNS0770-L20C	154	185	189	225	223.6	1.4	8	3
	25	□	MNS0770-L25C	193	225	229	265	263.6	1.4	8	3
	30	□	MNS0770-L30C	231	265	269	305	303.6	1.4	8	3
	5	★	MNS0770LB	38.5	65.4	65.4	119.4	118.0	1.4	8	3
	10	□	MNS0770X10DB	77.0	105.4	108.4	162.4	161.0	1.4	8	3
	20	□	MNS0770X20DB	154.0	185.4	188.4	242.4	241.0	1.4	8	3
	30	□	MNS0770X30DB	231.0	265.4	268.4	322.4	321.0	1.4	8	3
	3	□	MNS0780S-DIN	23	41	43	79	77.6	1.4	8	4
	3	□	MNS0780S-DIN-C	23	41	43	79	77.6	1.4	8	3
	5	□	MNS0780L-DIN	39	53	55	91	89.6	1.4	8	4
	5	□	MNS0780L-DIN-C	39	53	55	91	89.6	1.4	8	3
	8	□	MNS0780-L8C	62	89	93	129	127.6	1.4	8	3
	10	□	MNS0780-L10C	78	105	109	145	143.6	1.4	8	3
	12	□	MNS0780-L12C	94	121	125	161	159.6	1.4	8	3
7.8	15	□	MNS0780-L15C	117	145	149	185	183.6	1.4	8	3
	20	□	MNS0780-L20C	156	185	189	225	223.6	1.4	8	3
	25	□	MNS0780-L25C	195	225	229	265	263.6	1.4	8	3
	30	□	MNS0780-L30C	234	265	269	305	303.6	1.4	8	3
	5	★	MNS0780LB	39.0	65.4	65.4	119.4	118.0	1.4	8	3
	10	★	MNS0780X10DB	78.0	105.4	108.4	162.4	161.0	1.4	8	3
	20	★	MNS0780X20DB	156.0	185.4	188.4	242.4	241.0	1.4	8	3
	30	★	MNS0780X30DB	234.0	265.4	268.4	322.4	321.0	1.4	8	3

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager TF15	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
	3	□	MNS0790S-DIN	24	41	43	79	77.6	1.4	8	4
	3	□	MNS0790S-DIN-C	24	41	43	79	77.6	1.4	8	3
	5	□	MNS0790L-DIN	40	53	55	91	89.6	1.4	8	4
	5	□	MNS0790L-DIN-C	40	53	55	91	89.6	1.4	8	3
	8	□	MNS0790-L8C	63	89	93	129	127.6	1.4	8	3
	10	□	MNS0790-L10C	79	105	109	145	143.6	1.4	8	3
	12	□	MNS0790-L12C	95	121	125	161	159.6	1.4	8	3
7.9	15	□	MNS0790-L15C	119	145	149	185	183.6	1.4	8	3
	20	□	MNS0790-L20C	158	185	189	225	223.6	1.4	8	3
	25	□	MNS0790-L25C	198	225	229	265	263.6	1.4	8	3
	30	□	MNS0790-L30C	237	265	269	305	303.6	1.4	8	3
	5	★	MNS0790LB	39.5	65.4	65.4	119.4	118.0	1.4	8	3
	10	□	MNS0790X10DB	79.0	105.4	108.4	162.4	161.0	1.4	8	3
	20	□	MNS0790X20DB	158.0	185.4	188.4	242.4	241.0	1.4	8	3
	30	□	MNS0790X30DB	237.0	265.4	268.4	322.4	321.0	1.4	8	3
	3	□	MNS0800S-DIN	24	41	43	79	77.5	1.5	8	4
	3	□	MNS0800S-DIN-C	24	41	43	79	77.5	1.5	8	3
	5	□	MNS0800L-DIN	40	53	55	91	89.5	1.5	8	4
	5	●	MNS0800L-DIN-C	40	53	55	91	89.5	1.5	8	3
	8	□	MNS0800-L8C	64	89	93	129	127.5	1.5	8	3
	10	□	MNS0800-L10C	80	105	109	145	143.5	1.5	8	3
	12	●	MNS0800-L12C	96	121	125	161	159.5	1.5	8	3
8.0	15	□	MNS0800-L15C	120	145	149	185	183.5	1.5	8	3
	20	●	MNS0800-L20C	160	185	189	225	223.5	1.5	8	3
	25	□	MNS0800-L25C	200	225	229	265	263.5	1.5	8	3
	30	●	MNS0800-L30C	240	265	269	305	303.5	1.5	8	3
	5	★	MNS0800LB	40.0	65.5	65.5	119.5	118.0	1.5	8	3
	10	★	MNS0800X10DB	80.0	105.5	108.5	162.5	161.0	1.5	8	3
	20	★	MNS0800X20DB	160.0	185.5	188.5	242.5	241.0	1.5	8	3
	30	★	MNS0800X30DB	240.0	265.5	268 .5	322.5	321.0	1.5	8	3
	3	□	MNS0810S-DIN	24	46	48	88	86.5	1.5	10	4
	3	□	MNS0810S-DIN-C	24	46	48	88	86.5	1.5	10	3
	5	□	MNS0810L-DIN	41	60	62	102	100.5	1.5	10	4
	5	□	MNS0810L-DIN-C	41	60	62	102	100.5	1.5	10	3
	8	□	MNS0810-L8C	65	95	99	139	137.5	1.5	10	3
	10	□	MNS0810-L10C	81	112	116	156	154.5	1.5	10	3
	12	□	MNS0810-L12C	97	129	133	173	171.5	1.5	10	3
8.1	15	□	MNS0810-L15C	122	154	158	198	196.5	1.5	10	3
	20	□	MNS0810-L20C	162	197	201	241	239.5	1.5	10	3
	25	□	MNS0810-L25C	203	239	243	283	281.5	1.5	10	3
	30	□	MNS0810-L30C	243	282	286	326	324.5	1.5	10	3
	5	★	MNS0810LB	40.5	69.5	73.5	128.5	127.0	1.5	9	3
	10	□	MNS0810X10DB	81.0	112.5	115.5	170.5	169.0	1.5	9	3
	20	□	MNS0810X20DB	162.0	197.5	200.5	255.5	254.0	1.5	9	3
	30	□	MNS0810X30DB	243.0	282.5	285.5	340.5	339.0	1.5	9	3

(Bemerkung) Bei Bedarf von abweichenden Geometrien setzen Sie sich mit unserem Hause in Verbindung.
(Andere Durchmesser und Längen können bestellt werden).

● : Lagerstandard. ★ : Lagerstandard in Japan.
□ : Nichtstandard, Herstellung nur auf Anfrage.

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager TF15	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
8.2	3	□	MNS0820S-DIN	25	46	48	88	86.5	1.5	10	4
	3	□	MNS0820S-DIN-C	25	46	48	88	86.5	1.5	10	3
	5	□	MNS0820L-DIN	41	60	62	102	100.5	1.5	10	4
	5	□	MNS0820L-DIN-C	41	60	62	102	100.5	1.5	10	3
	8	□	MNS0820-L8C	66	95	99	139	137.5	1.5	10	3
	10	□	MNS0820-L10C	82	112	116	156	154.5	1.5	10	3
	12	□	MNS0820-L12C	98	129	133	173	171.5	1.5	10	3
	15	□	MNS0820-L15C	123	154	158	198	196.5	1.5	10	3
	20	□	MNS0820-L20C	164	197	201	241	239.5	1.5	10	3
	25	□	MNS0820-L25C	205	239	243	283	281.5	1.5	10	3
	30	□	MNS0820-L30C	246	282	286	326	324.5	1.5	10	3
	5	★	MNS0820LB	41.0	69.5	73.5	128.5	127.0	1.5	9	3
	10	□	MNS0820X10DB	82.0	112.5	115.5	170.5	169.0	1.5	9	3
	20	□	MNS0820X20DB	164.0	197.5	200.5	255.5	254.0	1.5	9	3
	30	□	MNS0820X30DB	246.0	282.5	285.5	340.5	339.0	1.5	9	3
8.3	3	□	MNS0830S-DIN	25	46	48	88	86.5	1.5	10	4
	3	□	MNS0830S-DIN-C	25	46	48	88	86.5	1.5	10	3
	5	□	MNS0830L-DIN	42	60	62	102	100.5	1.5	10	4
	5	□	MNS0830L-DIN-C	42	60	62	102	100.5	1.5	10	3
	8	□	MNS0830-L8C	66	95	99	139	137.5	1.5	10	3
	10	□	MNS0830-L10C	83	112	116	156	154.5	1.5	10	3
	12	□	MNS0830-L12C	100	129	133	173	171.5	1.5	10	3
	15	□	MNS0830-L15C	125	154	158	198	196.5	1.5	10	3
	20	□	MNS0830-L20C	166	197	201	241	239.5	1.5	10	3
	25	□	MNS0830-L25C	208	239	243	283	281.5	1.5	10	3
	30	□	MNS0830-L30C	249	282	286	326	324.5	1.5	10	3
	5	★	MNS0830LB	41.5	69.5	73.5	128.5	127.0	1.5	9	3
	10	□	MNS0830X10DB	83.0	112.5	115.5	170.5	169.0	1.5	9	3
	20	□	MNS0830X20DB	166.0	197.5	200.5	255.5	254.0	1.5	9	3
	30	□	MNS0830X30DB	249.0	282.5	285.5	340.5	339.0	1.5	9	3
8.4	3	□	MNS0840S-DIN	25	46	48	88	86.5	1.5	10	4
	3	□	MNS0840S-DIN-C	25	46	48	88	86.5	1.5	10	3
	5	□	MNS0840L-DIN	42	60	62	102	100.5	1.5	10	4
	5	□	MNS0840L-DIN-C	42	60	62	102	100.5	1.5	10	3
	8	□	MNS0840-L8C	67	95	99	139	137.5	1.5	10	3
	10	□	MNS0840-L10C	84	112	116	156	154.5	1.5	10	3
	12	□	MNS0840-L12C	101	129	133	173	171.5	1.5	10	3
	15	□	MNS0840-L15C	126	154	158	198	196.5	1.5	10	3
	20	□	MNS0840-L20C	168	197	201	241	239.5	1.5	10	3
	25	□	MNS0840-L25C	210	239	243	283	281.5	1.5	10	3
	30	□	MNS0840-L30C	252	282	286	326	324.5	1.5	10	3
	5	★	MNS0840LB	42.0	69.5	73.5	128.5	127.0	1.5	9	3
	10	□	MNS0840X10DB	84.0	112.5	115.5	170.5	169.0	1.5	9	3
	20	□	MNS0840X20DB	168.0	197.5	200.5	255.5	254.0	1.5	9	3
	30	□	MNS0840X30DB	252.0	282.5	285.5	340.5	339.0	1.5	9	3

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager TF15	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
8.5	3	□	MNS0850S-DIN	26	46	48	88	86.5	1.5	10	4
	3	□	MNS0850S-DIN-C	26	46	48	88	86.5	1.5	10	3
	5	□	MNS0850L-DIN	43	60	62	102	100.5	1.5	10	4
	5	●	MNS0850L-DIN-C	43	60	62	102	100.5	1.5	10	3
	8	□	MNS0850-L8C	68	95	99	139	137.5	1.5	10	3
	10	□	MNS0850-L10C	85	112	116	156	154.5	1.5	10	3
	12	●	MNS0850-L12C	102	129	133	173	171.5	1.5	10	3
	15	□	MNS0850-L15C	128	154	158	198	196.5	1.5	10	3
	20	●	MNS0850-L20C	170	197	201	241	239.5	1.5	10	3
	25	□	MNS0850-L25C	213	239	243	283	281.5	1.5	10	3
	30	●	MNS0850-L30C	255	282	286	326	324.5	1.5	10	3
	5	★	MNS0850LB	42.5	69.5	73.5	128.5	127.0	1.5	9	3
	10	□	MNS0850X10DB	85.0	112.5	115.5	170.5	169.0	1.5	9	3
	20	□	MNS0850X20DB	170.0	197.5	200.5	255.5	254.0	1.5	9	3
	30	□	MNS0850X30DB	255.0	282.5	285.5	340.5	339.0	1.5	9	3
8.6	3	□	MNS0860S-DIN	26	46	48	88	86.4	1.6	10	4
	3	□	MNS0860S-DIN-C	26	46	48	88	86.4	1.6	10	3
	5	□	MNS0860L-DIN	43	60	62	102	100.4	1.6	10	4
	5	□	MNS0860L-DIN-C	43	60	62	102	100.4	1.6	10	3
	8	□	MNS0860-L8C	69	100	104	144	142.4	1.6	10	3
	10	□	MNS0860-L10C	86	118	122	162	160.4	1.6	10	3
	12	□	MNS0860-L12C	103	136	140	180	178.4	1.6	10	3
	15	□	MNS0860-L15C	129	163	167	207	205.4	1.6	10	3
	20	□	MNS0860-L20C	172	208	212	252	250.4	1.6	10	3
	25	□	MNS0860-L25C	215	253	257	297	295.4	1.6	10	3
	30	□	MNS0860-L30C	258	298	302	342	340.4	1.6	10	3
	5	★	MNS0860LB	43.0	73.6	73.6	128.6	127.0	1.6	9	3
	10	□	MNS0860X10DB	86.0	118.6	121.6	176.6	175.0	1.6	9	3
	20	□	MNS0860X20DB	172.0	208.6	211.6	266.6	265.0	1.6	9	3
	30	□	MNS0860X30DB	258.0	298.6	301.6	356.6	355.0	1.6	9	3
8.7	3	□	MNS0870S-DIN	26	46	48	88	86.4	1.6	10	4
	3	□	MNS0870S-DIN-C	26	46	48	88	86.4	1.6	10	3
	5	□	MNS0870L-DIN	44	60	62	102	100.4	1.6	10	4
	5	□	MNS0870L-DIN-C	44	60	62	102	100.4	1.6	10	3
	8	□	MNS0870-L8C	70	100	104	144	142.4	1.6	10	3
	10	□	MNS0870-L10C	87	118	122	162	160.4	1.6	10	3
	12	□	MNS0870-L12C	104	136	140	180	178.4	1.6	10	3
	15	□	MNS0870-L15C	131	163	167	207	205.4	1.6	10	3
	20	□	MNS0870-L20C	174	208	212	252	250.4	1.6	10	3
	25	□	MNS0870-L25C	218	253	257	297	295.4	1.6	10	3
	30	□	MNS0870-L30C	261	298	302	342	340.4	1.6	10	3
	5	★	MNS0870LB	43.5	73.6	73.6	128.6	127.0	1.6	9	3
	10	□	MNS0870X10DB	87.0	118.6	121.6	176.6	175.0	1.6	9	3
	20	□	MNS0870X20DB	174.0	208.6	211.6	266.6	265.0	1.6	9	3
	30	□	MNS0870X30DB	261.0	298.6	301.6	356.6	355.0	1.6	9	3

SCHNITTBEDINGUNGEN ➤ L096
ANWENDUNGSHINWEISE ➤ L097
TECHNISCHE DATEN ➤ N001

BOHREN (VOLLHARTMETALL)

MNS

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager TF15	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
8.8	3	□	MNS0880S-DIN	26	46	48	88	86.4	1.6	10	4
	3	□	MNS0880S-DIN-C	26	46	48	88	86.4	1.6	10	3
	5	□	MNS0880L-DIN	44	60	62	102	100.4	1.6	10	4
	5	□	MNS0880L-DIN-C	44	60	62	102	100.4	1.6	10	3
	8	□	MNS0880-L8C	70	100	104	144	142.4	1.6	10	3
	10	□	MNS0880-L10C	88	118	122	162	160.4	1.6	10	3
	12	□	MNS0880-L12C	106	136	140	180	178.4	1.6	10	3
	15	□	MNS0880-L15C	132	163	167	207	205.4	1.6	10	3
	20	□	MNS0880-L20C	176	208	212	252	250.4	1.6	10	3
	25	□	MNS0880-L25C	220	253	257	297	295.4	1.6	10	3
	30	□	MNS0880-L30C	264	298	302	342	340.4	1.6	10	3
	5	★	MNS0880LB	44.0	73.6	73.6	128.6	127.0	1.6	9	3
	10	□	MNS0880X10DB	88.0	118.6	121.6	176.6	175.0	1.6	9	3
	20	□	MNS0880X20DB	176.0	208.6	211.6	266.6	265.0	1.6	9	3
	30	□	MNS0880X30DB	264.0	298.6	301.6	356.6	355.0	1.6	9	3
8.9	3	□	MNS0890S-DIN	27	46	48	88	86.4	1.6	10	4
	3	□	MNS0890S-DIN-C	27	46	48	88	86.4	1.6	10	3
	5	□	MNS0890L-DIN	45	60	62	102	100.4	1.6	10	4
	5	□	MNS0890L-DIN-C	45	60	62	102	100.4	1.6	10	3
	8	□	MNS0890-L8C	71	100	104	144	142.4	1.6	10	3
	10	□	MNS0890-L10C	89	118	122	162	160.4	1.6	10	3
	12	□	MNS0890-L12C	107	136	140	180	178.4	1.6	10	3
	15	□	MNS0890-L15C	134	163	167	207	205.4	1.6	10	3
	20	□	MNS0890-L20C	178	208	212	252	250.4	1.6	10	3
	25	□	MNS0890-L25C	223	253	257	297	295.4	1.6	10	3
	30	□	MNS0890-L30C	267	298	302	342	340.4	1.6	10	3
	5	★	MNS0890LB	44.5	73.6	73.6	128.6	127.0	1.6	9	3
	10	□	MNS0890X10DB	89.0	118.6	121.6	176.6	175.0	1.6	9	3
	20	□	MNS0890X20DB	178.0	208.6	211.6	266.6	265.0	1.6	9	3
	30	□	MNS0890X30DB	267.0	298.6	301.6	356.6	355.0	1.6	9	3
9.0	3	□	MNS0900S-DIN	27	46	48	88	86.4	1.6	10	4
	3	□	MNS0900S-DIN-C	27	46	48	88	86.4	1.6	10	3
	5	□	MNS0900L-DIN	45	60	62	102	100.4	1.6	10	4
	5	●	MNS0900L-DIN-C	45	60	62	102	100.4	1.6	10	3
	8	□	MNS0900-L8C	72	100	104	144	142.4	1.6	10	3
	10	□	MNS0900-L10C	90	118	122	162	160.4	1.6	10	3
	12	●	MNS0900-L12C	108	136	140	180	178.4	1.6	10	3
	15	□	MNS0900-L15C	135	163	167	207	205.4	1.6	10	3
	20	●	MNS0900-L20C	180	208	212	252	250.4	1.6	10	3
	25	□	MNS0900-L25C	225	253	257	297	295.4	1.6	10	3
	30	●	MNS0900-L30C	270	298	302	342	340.4	1.6	10	3
	5	★	MNS0900LB	45.0	73.6	73.6	128.6	127.0	1.6	9	3
	10	★	MNS0900X10DB	90.0	118.6	121.6	176.6	175.0	1.6	9	3
	20	★	MNS0900X20DB	180.0	208.6	211.6	266.6	265.0	1.6	9	3
	30	★	MNS0900X30DB	270.0	298.6	301.6	356.6	355.0	1.6	9	3

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager TF15	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
9.1	3	□	MNS0910S-DIN	27	47	49	89	87.3	1.7	10	4
	3	□	MNS0910S-DIN-C	27	47	49	89	87.3	1.7	10	3
	5	□	MNS0910L-DIN	46	62	63	103	101.3	1.7	10	4
	5	□	MNS0910L-DIN-C	46	62	63	103	101.3	1.7	10	3
	8	□	MNS0910-L8C	73	107	111	151	149.3	1.7	10	3
	10	□	MNS0910-L10C	91	126	130	170	168.3	1.7	10	3
	12	□	MNS0910-L12C	109	145	149	189	187.3	1.7	10	3
	15	□	MNS0910-L15C	137	173	177	217	215.3	1.7	10	3
	20	□	MNS0910-L20C	182	221	225	265	263.3	1.7	10	3
	25	□	MNS0910-L25C	228	268	272	312	310.3	1.7	10	3
	30	□	MNS0910-L30C	273	316	320	360	358.3	1.7	10	3
	5	★	MNS0910LB	45.5	77.7	81.7	137.7	136.0	1.7	10	3
	10	□	MNS0910X10DB	91.0	125.7	128.7	183.7	182.0	1.7	10	3
	20	□	MNS0910X20DB	182.0	220.7	223.7	278.7	277.0	1.7	10	3
	30	□	MNS0910X30DB	273.0	315.7	318.7	373.7	372.0	1.7	10	3
9.2	3	□	MNS0920S-DIN	28	47	49	89	87.3	1.7	10	4
	3	□	MNS0920S-DIN-C	28	47	49	89	87.3	1.7	10	3
	5	□	MNS0920L-DIN	46	62	63	103	101.3	1.7	10	4
	5	□	MNS0920L-DIN-C	46	62	63	103	101.3	1.7	10	3
	8	□	MNS0920-L8C	74	107	111	151	149.3	1.7	10	3
	10	□	MNS0920-L10C	92	126	130	170	168.3	1.7	10	3
	12	□	MNS0920-L12C	110	145	149	189	187.3	1.7	10	3
	15	□	MNS0920-L15C	138	173	177	217	215.3	1.7	10	3
	20	□	MNS0920-L20C	184	221	225	265	263.3	1.7	10	3
	25	□	MNS0920-L25C	230	268	272	312	310.3	1.7	10	3
	30	□	MNS0920-L30C	276	316	320	360	358.3	1.7	10	3
	5	★	MNS0920LB	46.0	77.7	81.7	137.7	136.0	1.7	10	3
	10	□	MNS0920X10DB	92.0	125.7	128.7	183.7	182.0	1.7	10	3
	20	□	MNS0920X20DB	184.0	220.7	223.7	278.7	277.0	1.7	10	3
	30	□	MNS0920X30DB	276.0	315.7	318.7	373.7	372.0	1.7	10	3
9.3	3	□	MNS0930S-DIN	28	47	49	89	87.3	1.7	10	4
	3	□	MNS0930S-DIN-C	28	47	49	89	87.3	1.7	10	3
	5	□	MNS0930L-DIN	47	62	63	103	101.3	1.7	10	4
	5	□	MNS0930L-DIN-C	47	62	63	103	101.3	1.7	10	3
	8	□	MNS0930-L8C	74	107	111	151	149.3	1.7	10	3
	10	□	MNS0930-L10C	93	126	130	170	168.3	1.7	10	3
	12	□	MNS0930-L12C	112	145	149	189	187.3	1.7	10	3
	15	□	MNS0930-L15C	140	173	177	217	215.3	1.7	10	3
	20	□	MNS0930-L20C	186	221	225	265	263.3	1.7	10	3
	25	□	MNS0930-L25C	233	268	272	312	310.3	1.7	10	3
	30	□	MNS0930-L30C	279	316	320	360	358.3	1.7	10	3
	5	★	MNS0930LB	46.5	77.7	81.7	137.7	136.0	1.7	10	3
	10	□	MNS0930X10DB	93.0	125.7	128.7	183.7	182.0	1.7	10	3
	20	□	MNS0930X20DB	186.0	220.7	223.7	278.7	277.0	1.7	10	3
	30	□	MNS0930X30DB	279.0	315.7	318.7	373.7	372.0	1.7	10	3

(Bemerkung) Bei Bedarf von abweichenden Geometrien setzen Sie sich mit unserem Hause in Verbindung.
(Andere Durchmesser und Längen können bestellt werden).

● : Lagerstandard. ★ : Lagerstandard in Japan.
□ : Nichtstandard, Herstellung nur auf Anfrage.

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager TF15	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
	3	□	MNS0940S-DIN	28	47	49	89	87.3	1.7	10	4
	3	□	MNS0940S-DIN-C	28	47	49	89	87.3	1.7	10	3
	5	□	MNS0940L-DIN	47	62	63	103	101.3	1.7	10	4
	5	□	MNS0940L-DIN-C	47	62	63	103	101.3	1.7	10	3
	8	□	MNS0940-L8C	75	107	111	151	149.3	1.7	10	3
	10	□	MNS0940-L10C	94	126	130	170	168.3	1.7	10	3
	12	□	MNS0940-L12C	113	145	149	189	187.3	1.7	10	3
9.4	15	□	MNS0940-L15C	141	173	177	217	215.3	1.7	10	3
	20	□	MNS0940-L20C	188	221	225	265	263.3	1.7	10	3
	25	□	MNS0940-L25C	235	268	272	312	310.3	1.7	10	3
	30	□	MNS0940-L30C	282	316	320	360	358.3	1.7	10	3
	5	★	MNS0940LB	47.0	77.7	81.7	137.7	136.0	1.7	10	3
	10	□	MNS0940X10DB	94.0	125.7	128.7	183.7	182.0	1.7	10	3
	20	□	MNS0940X20DB	188.0	220.7	223.7	278.7	277.0	1.7	10	3
	30	□	MNS0940X30DB	282.0	315.7	318.7	373.7	372.0	1.7	10	3
	3	□	MNS0950S-DIN	29	47	49	89	87.3	1.7	10	4
	3	□	MNS0950S-DIN-C	29	47	49	89	87.3	1.7	10	3
	5	□	MNS0950L-DIN	48	62	63	103	101.3	1.7	10	4
	5	●	MNS0950L-DIN-C	48	62	63	103	101.3	1.7	10	3
	8	□	MNS0950-L8C	76	107	111	151	149.3	1.7	10	3
	10	□	MNS0950-L10C	95	126	130	170	168.3	1.7	10	3
	12	●	MNS0950-L12C	114	145	149	189	187.3	1.7	10	3
9.5	15	□	MNS0950-L15C	143	173	177	217	215.3	1.7	10	3
	20	●	MNS0950-L20C	190	221	225	265	263.3	1.7	10	3
	25	□	MNS0950-L25C	238	268	272	312	310.3	1.7	10	3
	30	●	MNS0950-L30C	285	316	320	360	358.3	1.7	10	3
	5	★	MNS0950LB	47.5	77.7	81.7	137.7	136.0	1.7	10	3
	10	□	MNS0950X10DB	95.0	125.7	128.7	183.7	182.0	1.7	10	3
	20	□	MNS0950X20DB	190.0	220.7	223.7	278.7	277.0	1.7	10	3
	30	□	MNS0950X30DB	285.0	315.7	318.7	373.7	372.0	1.7	10	3
	3	□	MNS0960S-DIN	29	47	49	89	87.3	1.7	10	4
	3	□	MNS0960S-DIN-C	29	47	49	89	87.3	1.7	10	3
	5	□	MNS0960L-DIN	48	62	63	103	101.3	1.7	10	4
	5	□	MNS0960L-DIN-C	48	62	63	103	101.3	1.7	10	3
	8	□	MNS0960-L8C	77	112	116	156	154.3	1.7	10	3
	10	□	MNS0960-L10C	96	132	136	176	174.3	1.7	10	3
	12	□	MNS0960-L12C	115	152	156	196	194.3	1.7	10	3
9.6	15	□	MNS0960-L15C	144	182	186	226	224.3	1.7	10	3
	20	□	MNS0960-L20C	192	232	236	276	274.3	1.7	10	3
	25	□	MNS0960-L25C	240	282	286	326	324.3	1.7	10	3
	30	□	MNS0960-L30C	288	332	336	376	374.3	1.7	10	3
	5	★	MNS0960LB	48.0	81.7	81.7	137.7	136.0	1.7	10	3
	10	□	MNS0960X10DB	96.0	131.7	134.7	189.7	188.0	1.7	10	3
	20	□	MNS0960X20DB	192.0	231.7	234.7	289.7	288.0	1.7	10	3
	30	□	MNS0960X30DB	288.0	331.7	334.7	389.7	388.0	1.7	10	3

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager TF15	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
	3	□	MNS0970S-DIN	29	47	49	89	87.2	1.8	10	4
	3	□	MNS0970S-DIN-C	29	47	49	89	87.2	1.8	10	3
	5	□	MNS0970L-DIN	49	62	63	103	101.2	1.8	10	4
	5	□	MNS0970L-DIN-C	49	62	63	103	101.2	1.8	10	3
	8	□	MNS0970-L8C	78	112	116	156	154.2	1.8	10	3
	10	□	MNS0970-L10C	97	132	136	176	174.2	1.8	10	3
	12	□	MNS0970-L12C	116	152	156	196	194.2	1.8	10	3
9.7	15	□	MNS0970-L15C	146	182	186	226	224.2	1.8	10	3
	20	□	MNS0970-L20C	194	232	236	276	274.2	1.8	10	3
	25	□	MNS0970-L25C	243	282	286	326	324.2	1.8	10	3
	30	□	MNS0970-L30C	291	332	336	376	374.2	1.8	10	3
	5	★	MNS0970LB	48.5	81.8	81.8	137.8	136.0	1.8	10	3
	10	□	MNS0970X10DB	97.0	131.8	134.8	189.8	188.0	1.8	10	3
	20	□	MNS0970X20DB	194.0	231.8	234.8	289.8	288.0	1.8	10	3
	30	□	MNS0970X30DB	291.0	331.8	334.8	389.8	388.0	1.8	10	3
	3	□	MNS0980S-DIN	29	47	49	89	87.2	1.8	10	4
	3	□	MNS0980S-DIN-C	29	47	49	89	87.2	1.8	10	3
	5	□	MNS0980L-DIN	49	62	63	103	101.2	1.8	10	4
	5	□	MNS0980L-DIN-C	49	62	63	103	101.2	1.8	10	3
	8	□	MNS0980-L8C	78	112	116	156	154.2	1.8	10	3
	10	□	MNS0980-L10C	98	132	136	176	174.2	1.8	10	3
	12	□	MNS0980-L12C	118	152	156	196	194.2	1.8	10	3
9.8	15	□	MNS0980-L15C	147	182	186	226	224.2	1.8	10	3
	20	□	MNS0980-L20C	196	232	236	276	274.2	1.8	10	3
	25	□	MNS0980-L25C	245	282	286	326	324.2	1.8	10	3
	30	□	MNS0980-L30C	294	332	336	376	374.2	1.8	10	3
	5	★	MNS0980LB	49.0	81.8	81.8	137.8	136.0	1.8	10	3
	10	★	MNS0980X10DB	98.0	131.8	134.8	189.8	188.0	1.8	10	3
	20	★	MNS0980X20DB	196.0	231.8	234.8	289.8	288.0	1.8	10	3
	30	★	MNS0980X30DB	294.0	331.8	334.8	389.8	388.0	1.8	10	3
	3	□	MNS0990S-DIN	30	47	49	89	87.2	1.8	10	4
	3	□	MNS0990S-DIN-C	30	47	49	89	87.2	1.8	10	3
	5	□	MNS0990L-DIN	50	62	63	103	101.2	1.8	10	4
	5	□	MNS0990L-DIN-C	50	62	63	103	101.2	1.8	10	3
	8	□	MNS0990-L8C	79	112	116	156	154.2	1.8	10	3
	10	□	MNS0990-L10C	99	132	136	176	174.2	1.8	10	3
	12	□	MNS0990-L12C	119	152	156	196	194.2	1.8	10	3
9.9	15	□	MNS0990-L15C	149	182	186	226	224.2	1.8	10	3
	20	□	MNS0990-L20C	198	232	236	276	274.2	1.8	10	3
	25	□	MNS0990-L25C	248	282	286	326	324.2	1.8	10	3
	30	□	MNS0990-L30C	297	332	336	376	374.2	1.8	10	3
	5	★	MNS0990LB	49.5	81.8	81.8	137.8	136.0	1.8	10	3
	10	□	MNS0990X10DB	99.0	131.8	134.8	189.8	188.0	1.8	10	3
	20	□	MNS0990X20DB	198.0	231.8	234.8	289.8	288.0	1.8	10	3
	30	□	MNS0990X30DB	297.0	331.8	334.8	389.8	388.0	1.8	10	3

SCHNITTBEDINGUNGEN ➤ L096
ANWENDUNGSHINWEISE ➤ L097
TECHNISCHE DATEN ➤ N001

MNS

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager TF15	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
	3	□	MNS1000S-DIN	30	47	49	89	87.2	1.8	10	4
	3	□	MNS1000S-DIN-C	30	47	49	89	87.2	1.8	10	3
	5	□	MNS1000L-DIN	50	62	63	103	101.2	1.8	10	4
	5	●	MNS1000L-DIN-C	50	62	63	103	101.2	1.8	10	3
	8	□	MNS1000-L8C	80	112	116	156	154.2	1.8	10	3
	10	□	MNS1000-L10C	100	132	136	176	174.2	1.8	10	3
	12	●	MNS1000-L12C	120	152	156	196	194.2	1.8	10	3
10.0	15	□	MNS1000-L15C	150	182	186	226	224.2	1.8	10	3
	20	●	MNS1000-L20C	200	232	236	276	274.2	1.8	10	3
	25	□	MNS1000-L25C	250	282	286	326	324.2	1.8	10	3
	30	●	MNS1000-L30C	300	332	336	376	374.2	1.8	10	3
	5	★	MNS1000LB	50.0	81.8	81.8	137.8	136.0	1.8	10	3
	10	★	MNS1000X10DB	100.0	131.8	134.8	189.8	188.0	1.8	10	3
	20	★	MNS1000X20DB	200.0	231.8	234.8	289.8	288.0	1.8	10	3
	30	★	MNS1000X30DB	300.0	331.8	334.8	389.8	388.0	1.8	10	3
	3	□	MNS1010S-DIN	30	55	57	102	100.2	1.8	12	4
	3	□	MNS1010S-DIN-C	30	55	57	102	100.2	1.8	12	3
	5	□	MNS1010L-DIN	51	71	73	118	116.2	1.8	12	4
	5	□	MNS1010L-DIN-C	51	71	73	118	116.2	1.8	12	3
	8	□	MNS1010-L8C	81	118	122	167	165.2	1.8	12	3
	10	□	MNS1010-L10C	101	139	143	188	186.2	1.8	12	3
10.1	12	□	MNS1010-L12C	121	160	164	209	207.2	1.8	12	3
	15	□	MNS1010-L15C	152	191	195	240	238.2	1.8	12	3
	20	□	MNS1010-L20C	202	244	248	293	291.2	1.8	12	3
	25	□	MNS1010-L25C	253	296	300	345	343.2	1.8	12	3
	5	★	MNS1010LB	50.5	85.8	89.8	150.8	149.0	1.8	11	3
	10	□	MNS1010X10DB	101.0	138.8	141.8	202.8	201.0	1.8	11	3
	20	□	MNS1010X20DB	202.0	243.8	246.8	307.8	306.0	1.8	11	3
	3	□	MNS1020S-DIN	31	55	57	102	100.1	1.9	12	4
	3	□	MNS1020S-DIN-C	31	55	57	102	100.1	1.9	12	3
	5	□	MNS1020L-DIN	51	71	73	118	116.1	1.9	12	4
	5	□	MNS1020L-DIN-C	51	71	73	118	116.1	1.9	12	3
	8	□	MNS1020-L8C	82	118	122	167	165.1	1.9	12	3
	10	□	MNS1020-L10C	102	139	143	188	186.1	1.9	12	3
10.2	12	□	MNS1020-L12C	122	160	164	209	207.1	1.9	12	3
	15	□	MNS1020-L15C	153	191	195	240	238.1	1.9	12	3
	20	□	MNS1020-L20C	204	244	248	293	291.1	1.9	12	3
	25	□	MNS1020-L25C	255	296	300	345	343.1	1.9	12	3
	5	★	MNS1020LB	51.0	85.9	89.9	150.9	149.0	1.9	11	3
	10	□	MNS1020X10DB	102.0	138.9	141.9	202.9	201.0	1.9	11	3
	20	□	MNS1020X20DB	204.0	243.9	246.9	307.9	306.0	1.9	11	3
	3	□	MNS1030S-DIN	31	55	57	102	100.1	1.9	12	4
	3	□	MNS1030S-DIN-C	31	55	57	102	100.1	1.9	12	3
	5	□	MNS1030L-DIN	52	71	73	118	116.1	1.9	12	4
10.3	5	□	MNS1030L-DIN-C	52	71	73	118	116.1	1.9	12	3
	8	□	MNS1030-L8C	82	118	122	167	165.1	1.9	12	3
	10	□	MNS1030-L10C	103	139	143	188	186.1	1.9	12	3
	12	□	MNS1030-L12C	124	160	164	209	207.1	1.9	12	3

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager TF15	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
	15	□	MNS1030-L15C	155	191	195	240	238.1	1.9	12	3
	20	□	MNS1030-L20C	206	244	248	293	291.1	1.9	12	3
	25	□	MNS1030-L25C	258	296	300	345	343.1	1.9	12	3
10.3	5	★	MNS1030LB	51.5	85.9	89.9	150.9	149.0	1.9	11	3
	10	□	MNS1030X10DB	103.0	138.9	141.9	202.9	201.0	1.9	11	3
	20	□	MNS1030X20DB	206.0	243.9	246.9	307.9	306.0	1.9	11	3
	3	□	MNS1040S-DIN	31	55	57	102	100.1	1.9	12	4
	3	□	MNS1040S-DIN-C	31	55	57	102	100.1	1.9	12	3
	5	□	MNS1040L-DIN	52	71	73	118	116.1	1.9	12	4
	5	□	MNS1040L-DIN-C	52	71	73	118	116.1	1.9	12	3
	8	□	MNS1040-L8C	83	118	122	167	165.1	1.9	12	3
	10	□	MNS1040-L10C	104	139	143	188	186.1	1.9	12	3
10.4	12	□	MNS1040-L12C	125	160	164	209	207.1	1.9	12	3
	15	□	MNS1040-L15C	156	191	195	240	238.1	1.9	12	3
	20	□	MNS1040-L20C	208	244	248	293	291.1	1.9	12	3
	25	□	MNS1040-L25C	260	296	300	345	343.1	1.9	12	3
	5	★	MNS1040LB	52.0	85.9	89.9	150.9	149.0	1.9	11	3
	10	□	MNS1040X10DB	104.0	138.9	141.9	202.9	201.0	1.9	11	3
	20	□	MNS1040X20DB	208.0	243.9	246.9	307.9	306.0	1.9	11	3
	3	□	MNS1050S-DIN	32	55	57	102	100.1	1.9	12	4
	3	□	MNS1050S-DIN-C	32	55	57	102	100.1	1.9	12	3
	5	□	MNS1050L-DIN	53	71	73	118	116.1	1.9	12	4
	5	●	MNS1050L-DIN-C	53	71	73	118	116.1	1.9	12	3
	8	□	MNS1050-L8C	84	118	122	167	165.1	1.9	12	3
	10	□	MNS1050-L10C	105	139	143	188	186.1	1.9	12	3
10.5	12	●	MNS1050-L12C	126	160	164	209	207.1	1.9	12	3
	15	□	MNS1050-L15C	158	191	195	240	238.1	1.9	12	3
	20	●	MNS1050-L20C	210	244	248	293	291.1	1.9	12	3
	25	□	MNS1050-L25C	263	296	300	345	343.1	1.9	12	3
	5	★	MNS1050LB	52.5	85.9	89.9	150.9	149.0	1.9	11	3
	10	★	MNS1050X10DB	105.0	138.9	141.9	202.9	201.0	1.9	11	3
	20	★	MNS1050X20DB	210.0	243.9	246.9	307.9	306.0	1.9	11	3
	3	□	MNS1060S-DIN	32	55	57	102	100.1	1.9	12	4
	3	□	MNS1060S-DIN-C	32	55	57	102	100.1	1.9	12	3
	5	□	MNS1060L-DIN	53	71	73	118	116.1	1.9	12	4
	5	□	MNS1060L-DIN-C	53	71	73	118	116.1	1.9	12	3
	8	□	MNS1060-L8C	85	123	127	172	170.1	1.9	12	3
	10	□	MNS1060-L10C	106	145	149	194	192.1	1.9	12	3
10.6	12	□	MNS1060-L12C	127	167	171	216	214.1	1.9	12	3
	15	□	MNS1060-L15C	159	200	204	249	247.1	1.9	12	3
	20	□	MNS1060-L20C	212	255	259	304	302.1	1.9	12	3
	25	□	MNS1060-L25C	265	310	314	359	357.1	1.9	12	3
	5	★	MNS1060LB	53.0	89.9	89.9	150.9	149.0	1.9	11	3
	10	□	MNS1060X10DB	106.0	144.9	147.9	208.9	207.0	1.9	11	3
	20	□	MNS1060X20DB	212.0	254.9	257.9	318.9	317.0	1.9	11	3

(Bemerkung) Bei Bedarf von abweichenden Geometrien setzen Sie sich mit unserem Hause in Verbindung.
(Andere Durchmesser und Längen können bestellt werden).

● : Lagerstandard. ★ : Lagerstandard in Japan.
□ : Nichtstandard, Herstellung nur auf Anfrage.

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager TF15	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
	3	□	MNS1070S-DIN	32	55	57	102	100.1	1.9	12	4
	3	□	MNS1070S-DIN-C	32	55	57	102	100.1	1.9	12	3
	5	□	MNS1070L-DIN	54	71	73	118	116.1	1.9	12	4
	5	□	MNS1070L-DIN-C	54	71	73	118	116.1	1.9	12	3
	8	□	MNS1070-L8C	86	123	127	172	170.1	1.9	12	3
	10	□	MNS1070-L10C	107	145	149	194	192.1	1.9	12	3
10.7	12	□	MNS1070-L12C	128	167	171	216	214.1	1.9	12	3
	15	□	MNS1070-L15C	161	200	204	249	247.1	1.9	12	3
	20	□	MNS1070-L20C	214	255	259	304	302.1	1.9	12	3
	25	□	MNS1070-L25C	268	310	314	359	357.1	1.9	12	3
	5	★	MNS1070LB	53.5	89.9	89.9	150.9	149.0	1.9	11	3
	10	□	MNS1070X10DB	107.0	144.9	147.9	208.9	207.0	1.9	11	3
	20	□	MNS1070X20DB	214.0	254.9	257.9	318.9	317.0	1.9	11	3
	3	□	MNS1080S-DIN	32	55	57	102	100.0	2.0	12	4
	3	□	MNS1080S-DIN-C	32	55	57	102	100.0	2.0	12	3
	5	□	MNS1080L-DIN	54	71	73	118	116.0	2.0	12	4
	5	□	MNS1080L-DIN-C	54	71	73	118	116.0	2.0	12	3
	8	□	MNS1080-L8C	86	123	127	172	170.0	2.0	12	3
	10	□	MNS1080-L10C	108	145	149	194	192.0	2.0	12	3
10.8	12	□	MNS1080-L12C	130	167	171	216	214.0	2.0	12	3
	15	□	MNS1080-L15C	162	200	204	249	247.0	2.0	12	3
	20	□	MNS1080-L20C	216	255	259	304	302.0	2.0	12	3
	25	□	MNS1080-L25C	270	310	314	359	357.0	2.0	12	3
	5	★	MNS1080LB	54.0	90.0	90.0	151.0	149.0	2.0	11	3
	10	□	MNS1080X10DB	108.0	145.0	148.0	209.0	207.0	2.0	11	3
	20	□	MNS1080X20DB	216.0	255.0	258.0	319.0	317.0	2.0	11	3
	3	□	MNS1090S-DIN	33	55	57	102	100.0	2.0	12	4
	3	□	MNS1090S-DIN-C	33	55	57	102	100.0	2.0	12	3
	5	□	MNS1090L-DIN	55	71	73	118	116.0	2.0	12	4
	5	□	MNS1090L-DIN-C	55	71	73	118	116.0	2.0	12	3
	8	□	MNS1090-L8C	87	123	127	172	170.0	2.0	12	3
	10	□	MNS1090-L10C	109	145	149	194	192.0	2.0	12	3
10.9	12	□	MNS1090-L12C	131	167	171	216	214.0	2.0	12	3
	15	□	MNS1090-L15C	164	200	204	249	247.0	2.0	12	3
	20	□	MNS1090-L20C	218	255	259	304	302.0	2.0	12	3
	25	□	MNS1090-L25C	273	310	314	359	357.0	2.0	12	3
	5	★	MNS1090LB	54.5	90.0	90.0	151.0	149.0	2.0	11	3
	10	□	MNS1090X10DB	109.0	145.0	148.0	209.0	207.0	2.0	11	3
	20	□	MNS1090X20DB	218.0	255.0	258.0	319.0	317.0	2.0	11	3
	3	□	MNS1100S-DIN	33	55	57	102	100.0	2.0	12	4
	3	□	MNS1100S-DIN-C	33	55	57	102	100.0	2.0	12	3
	5	□	MNS1100L-DIN	55	71	73	118	116.0	2.0	12	4
11.0	5	●	MNS1100L-DIN-C	55	71	73	118	116.0	2.0	12	3
	8	□	MNS1100-L8C	88	123	127	172	170.0	2.0	12	3
	10	□	MNS1100-L10C	110	145	149	194	192.0	2.0	12	3
	12	●	MNS1100-L12C	132	167	171	216	214.0	2.0	12	3

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager TF15	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
	15	□	MNS1100-L15C	165	200	204	249	247.0	2.0	12	3
	20	●	MNS1100-L20C	220	255	259	304	302.0	2.0	12	3
	25	□	MNS1100-L25C	275	310	314	359	357.0	2.0	12	3
11.0	5	★	MNS1100LB	55.0	90.0	90.0	151.0	149.0	2.0	11	3
	10	★	MNS1100X10DB	110.0	145.0	148.0	209.0	207.0	2.0	11	3
	20	★	MNS1100X20DB	220.0	255.0	258.0	319.0	317.0	2.0	11	3
	3	□	MNS1110S-DIN	33	55	57	102	100.0	2.0	12	4
	3	□	MNS1110S-DIN-C	33	55	57	102	100.0	2.0	12	3
	5	□	MNS1110L-DIN	56	71	73	118	116.0	2.0	12	4
	5	□	MNS1110L-DIN-C	56	71	73	118	116.0	2.0	12	3
	8	□	MNS1110-L8C	89	129	133	178	176.0	2.0	12	3
	10	□	MNS1110-L10C	111	152	156	201	199.0	2.0	12	3
11.1	12	□	MNS1110-L12C	133	175	179	224	222.0	2.0	12	3
	15	□	MNS1110-L15C	167	209	213	258	256.0	2.0	12	3
	20	□	MNS1110-L20C	222	267	271	316	314.0	2.0	12	3
	25	□	MNS1110-L25C	278	324	328	373	371.0	2.0	12	3
	5	★	MNS1110LB	55.5	94.0	98.0	160.0	158.0	2.0	12	3
	10	□	MNS1110X10DB	111.0	152.0	155.0	217.0	215.0	2.0	12	3
	20	□	MNS1110X20DB	222.0	267.0	270.0	332.0	330.0	2.0	12	3
	3	□	MNS1120S-DIN	34	55	57	102	100.0	2.0	12	4
	3	□	MNS1120S-DIN-C	34	55	57	102	100.0	2.0	12	3
	5	□	MNS1120L-DIN	56	71	73	118	116.0	2.0	12	4
	5	□	MNS1120L-DIN-C	56	71	73	118	116.0	2.0	12	3
	8	□	MNS1120-L8C	90	129	133	178	176.0	2.0	12	3
	10	□	MNS1120-L10C	112	152	156	201	199.0	2.0	12	3
11.2	12	□	MNS1120-L12C	134	175	179	224	222.0	2.0	12	3
	15	□	MNS1120-L15C	168	209	213	258	256.0	2.0	12	3
	20	□	MNS1120-L20C	224	267	271	316	314.0	2.0	12	3
	25	□	MNS1120-L25C	280	324	328	373	371.0	2.0	12	3
	5	★	MNS1120LB	56.0	94.0	98.0	160.0	158.0	2.0	12	3
	10	□	MNS1120X10DB	112.0	152.0	155.0	217.0	215.0	2.0	12	3
	20	□	MNS1120X20DB	224.0	267.0	270.0	332.0	330.0	2.0	12	3
	3	□	MNS1130S-DIN	34	55	57	102	99.9	2.1	12	4
	3	□	MNS1130S-DIN-C	34	55	57	102	99.9	2.1	12	3
	5	□	MNS1130L-DIN	57	71	73	118	115.9	2.1	12	4
	5	□	MNS1130L-DIN-C	57	71	73	118	115.9	2.1	12	3
	8	□	MNS1130-L8C	90	129	133	178	175.9	2.1	12	3
	10	□	MNS1130-L10C	113	152	156	201	198.9	2.1	12	3
11.3	12	□	MNS1130-L12C	136	175	179	224	221.9	2.1	12	3
	15	□	MNS1130-L15C	170	209	213	258	255.9	2.1	12	3
	20	□	MNS1130-L20C	226	267	271	316	313.9	2.1	12	3
	25	□	MNS1130-L25C	283	324	328	373	370.9	2.1	12	3
	5	★	MNS1130LB	56.5	94.1	98.1	160.1	158.0	2.1	12	3
	10	□	MNS1130X10DB	113.0	152.1	155.1	217.1	215.0	2.1	12	3
	20	□	MNS1130X20DB	226.0	267.1	270.1	332.1	330.0	2.1	12	3

SCHNITTBEDINGUNGEN ➤ L096
ANWENDUNGSHINWEISE ➤ L097
TECHNISCHE DATEN ➤ N001

BOHREN (VOLLHARTMETALL)

MNS

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager TF15	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
	3	□	**MNS1140S-DIN**	34	55	57	102	99.9	2.1	12	4
	3	□	MNS**1140S-DIN-C**	34	55	57	102	99.9	2.1	12	3
	5	□	MNS**1140L-DIN**	57	71	73	118	115.9	2.1	12	4
	5	□	MNS**1140L-DIN-C**	57	71	73	118	115.9	2.1	12	3
	8	□	MNS**1140-L8C**	91	129	133	178	175.9	2.1	12	3
	10	□	MNS**1140-L10C**	114	152	156	201	198.9	2.1	12	3
11.4	12	□	MNS**1140-L12C**	137	175	179	224	221.9	2.1	12	3
	15	□	MNS**1140-L15C**	171	209	213	258	255.9	2.1	12	3
	20	□	MNS**1140-L20C**	228	267	271	316	313.9	2.1	12	3
	25	□	MNS**1140-L25C**	285	324	328	373	370.9	2.1	12	3
	5	★	MNS**1140LB**	57.0	94.1	98.1	160.1	158.0	2.1	12	3
	10	□	MNS**1140X10DB**	114.0	152.1	155.1	217.1	215.0	2.1	12	3
	20	□	MNS**1140X20DB**	228.0	267.1	270.1	332.1	330.0	2.1	12	3
	3	□	MNS**1150S-DIN**	35	55	57	102	99.9	2.1	12	4
	3	□	MNS**1150S-DIN-C**	35	55	57	102	99.9	2.1	12	3
	5	□	MNS**1150L-DIN**	58	71	73	118	115.9	2.1	12	4
	5	●	MNS**1150L-DIN-C**	58	71	73	118	115.9	2.1	12	3
	8	□	MNS**1150-L8C**	92	129	133	178	175.9	2.1	12	3
	10	□	MNS**1150-L10C**	115	152	156	201	198.9	2.1	12	3
11.5	12	●	MNS**1150-L12C**	138	175	179	224	221.9	2.1	12	3
	15	□	MNS**1150-L15C**	173	209	213	258	255.9	2.1	12	3
	20	●	MNS**1150-L20C**	230	267	271	316	313.9	2.1	12	3
	25	□	MNS**1150-L25C**	288	324	328	373	370.9	2.1	12	3
	5	★	MNS**1150LB**	57.5	94.1	98.1	160.1	158.0	2.1	12	3
	10	□	MNS**1150X10DB**	115.0	152.1	155.1	217.1	215.0	2.1	12	3
	20	□	MNS**1150X20DB**	230.0	267.1	270.1	332.1	330.0	2.1	12	3
	3	□	MNS**1160S-DIN**	35	55	57	102	99.9	2.1	12	4
	3	□	MNS**1160S-DIN-C**	35	55	57	102	99.9	2.1	12	3
	5	□	MNS**1160L-DIN**	58	71	73	118	115.9	2.1	12	4
	5	□	MNS**1160L-DIN-C**	58	71	73	118	115.9	2.1	12	3
	8	□	MNS**1160-L8C**	93	134	138	183	180.9	2.1	12	3
	10	□	MNS**1160-L10C**	116	158	162	207	204.9	2.1	12	3
11.6	12	□	MNS**1160-L12C**	139	182	186	231	228.9	2.1	12	3
	15	□	MNS**1160-L15C**	174	218	222	267	264.9	2.1	12	3
	20	□	MNS**1160-L20C**	232	278	282	327	324.9	2.1	12	3
	25	□	MNS**1160-L25C**	290	338	342	387	384.9	2.1	12	3
	5	★	MNS**1160LB**	58.0	98.1	98.1	160.1	158.0	2.1	12	3
	10	□	MNS**1160X10DB**	116.0	158.1	161.1	223.1	221.0	2.1	12	3
	20	□	MNS**1160X20DB**	232.0	278.1	281.1	343.1	341.0	2.1	12	3
	3	□	MNS**1170S-DIN**	35	55	57	102	99.9	2.1	12	4
	3	□	MNS**1170S-DIN-C**	35	55	57	102	99.9	2.1	12	3
	5	□	MNS**1170L-DIN**	59	71	73	118	115.9	2.1	12	4
11.7	5	□	MNS**1170L-DIN-C**	59	71	73	118	115.9	2.1	12	3
	8	□	MNS**1170-L8C**	94	134	138	183	180.9	2.1	12	3
	10	□	MNS**1170-L10C**	117	158	162	207	204.9	2.1	12	3
	12	□	MNS**1170-L12C**	140	182	186	231	228.9	2.1	12	3

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager TF15	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
	15	□	**MNS1170-L15C**	176	218	222	267	264.9	2.1	12	3
	20	□	MNS**1170-L20C**	234	278	282	327	324.9	2.1	12	3
	25	□	MNS**1170-L25C**	293	338	342	387	384.9	2.1	12	3
11.7	5	★	MNS**1170LB**	58.5	98.1	98.1	160.1	158.0	2.1	12	3
	10	□	MNS**1170X10DB**	117.0	158.1	161.1	223.1	221.0	2.1	12	3
	20	□	MNS**1170X20DB**	234.0	278.1	281.1	343.1	341.0	2.1	12	3
	3	□	MNS**1180S-DIN**	35	55	57	102	99.9	2.1	12	4
	3	□	MNS**1180S-DIN-C**	35	55	57	102	99.9	2.1	12	3
	5	□	MNS**1180L-DIN**	59	71	73	118	115.9	2.1	12	4
	5	□	MNS**1180L-DIN-C**	59	71	73	118	115.9	2.1	12	3
	8	□	MNS**1180-L8C**	94	134	138	183	180.9	2.1	12	3
	10	□	MNS**1180-L10C**	118	158	162	207	204.9	2.1	12	3
11.8	12	□	MNS**1180-L12C**	142	182	186	231	228.9	2.1	12	3
	15	□	MNS**1180-L15C**	177	218	222	267	264.9	2.1	12	3
	20	□	MNS**1180-L20C**	236	278	282	327	324.9	2.1	12	3
	25	□	MNS**1180-L25C**	295	338	342	387	384.9	2.1	12	3
	5	★	MNS**1180LB**	59.0	98.1	98.1	160.1	158.0	2.1	12	3
	10	□	MNS**1180X10DB**	118.0	158.1	161.1	223.1	221.0	2.1	12	3
	20	□	MNS**1180X20DB**	236.0	278.1	281.1	343.1	341.0	2.1	12	3
	3	□	MNS**1190S-DIN**	36	55	57	102	99.8	2.2	12	4
	3	□	MNS**1190S-DIN-C**	36	55	57	102	99.8	2.2	12	3
	5	□	MNS**1190L-DIN**	60	71	73	118	115.8	2.2	12	4
	5	□	MNS**1190L-DIN-C**	60	71	73	118	115.8	2.2	12	3
	8	□	MNS**1190-L8C**	95	134	138	183	180.8	2.2	12	3
	10	□	MNS**1190-L10C**	119	158	162	207	204.8	2.2	12	3
11.9	12	□	MNS**1190-L12C**	143	182	186	231	228.8	2.2	12	3
	15	□	MNS**1190-L15C**	179	218	222	267	264.8	2.2	12	3
	20	□	MNS**1190-L20C**	238	278	282	327	324.8	2.2	12	3
	25	□	MNS**1190-L25C**	298	338	342	387	384.8	2.2	12	3
	5	★	MNS**1190LB**	59.5	98.2	98.2	160.2	158.0	2.2	12	3
	10	□	MNS**1190X10DB**	119.0	158.2	161.2	223.2	221.0	2.2	12	3
	20	□	MNS**1190X20DB**	238.0	278.2	281.2	343.2	341.0	2.2	12	3
	3	□	MNS**1200S-DIN**	36	55	57	102	99.8	2.2	12	4
	3	□	MNS**1200S-DIN-C**	36	55	57	102	99.8	2.2	12	3
	5	□	MNS**1200L-DIN**	60	71	73	118	115.8	2.2	12	4
	5	●	MNS**1200L-DIN-C**	60	71	73	118	115.8	2.2	12	3
	8	□	MNS**1200-L8C**	96	134	138	183	180.8	2.2	12	3
	10	□	MNS**1200-L10C**	120	158	162	207	204.8	2.2	12	3
12.0	12	●	MNS**1200-L12C**	144	182	186	231	228.8	2.2	12	3
	15	□	MNS**1200-L15C**	180	218	222	267	264.8	2.2	12	3
	20	●	MNS**1200-L20C**	240	278	282	327	324.8	2.2	12	3
	25	□	MNS**1200-L25C**	300	338	342	387	384.8	2.2	12	3
	5	★	MNS**1200LB**	60.0	98.2	98.2	160.2	158.0	2.2	12	3
	10	★	MNS**1200X10DB**	120.0	158.2	161.2	223.2	221.0	2.2	12	3
	20	★	MNS**1200X20DB**	240.0	278.2	281.2	343.2	341.0	2.2	12	3

(Bemerkung) Bei Bedarf von abweichenden Geometrien setzen Sie sich mit unserem Hause in Verbindung.
(Andere Durchmesser und Längen können bestellt werden).

● : Lagerstandard. ★ : Lagerstandard in Japan.
□ : Nichtstandard, Herstellung nur auf Anfrage.

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager TF15	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
12.1	3	□	MNS1210S-DIN	36	60	62	107	104.8	2.2	14	4
	3	□	MNS1210S-DIN-C	36	60	62	107	104.8	2.2	14	3
	5	□	MNS1210L-DIN	61	77	79	124	121.8	2.2	14	4
	5	□	MNS1210L-DIN-C	61	77	79	124	121.8	2.2	14	3
	8	□	MNS1210-L8C	97	140	144	189	186.8	2.2	14	3
	10	□	MNS1210-L10C	121	165	169	214	211.8	2.2	14	3
	12	□	MNS1210-L12C	145	190	194	239	236.8	2.2	14	3
	15	□	MNS1210-L15C	182	227	231	276	273.8	2.2	14	3
	20	□	MNS1210-L20C	242	290	294	339	336.8	2.2	14	3
	5	★	MNS1210LB	60.5	102.2	106.2	169.2	167.0	2.2	13	3
	10	□	MNS1210X10DB	121.0	165.2	168.2	231.2	229.0	2.2	13	3
	20	□	MNS1210X20DB	242.0	290.2	293.2	356.2	354.0	2.2	13	3
12.2	3	□	MNS1220S-DIN	37	60	62	107	104.8	2.2	14	4
	3	□	MNS1220S-DIN-C	37	60	62	107	104.8	2.2	14	3
	5	□	MNS1220L-DIN	61	77	79	124	121.8	2.2	14	4
	5	□	MNS1220L-DIN-C	61	77	79	124	121.8	2.2	14	3
	8	□	MNS1220-L8C	98	140	144	189	186.8	2.2	14	3
	10	□	MNS1220-L10C	122	165	169	214	211.8	2.2	14	3
	12	□	MNS1220-L12C	146	190	194	239	236.8	2.2	14	3
	15	□	MNS1220-L15C	183	227	231	276	273.8	2.2	14	3
	20	□	MNS1220-L20C	244	290	294	339	336.8	2.2	14	3
	5	★	MNS1220LB	61.0	102.2	106.2	169.2	167.0	2.2	13	3
	10	□	MNS1220X10DB	122.0	165.2	168.2	231.2	229.0	2.2	13	3
	20	□	MNS1220X20DB	244.0	290.2	293.2	356.2	354.0	2.2	13	3
12.3	3	□	MNS1230S-DIN	37	60	62	107	104.8	2.2	14	4
	3	□	MNS1230S-DIN-C	37	60	62	107	104.8	2.2	14	3
	5	□	MNS1230L-DIN	62	77	79	124	121.8	2.2	14	4
	5	□	MNS1230L-DIN-C	62	77	79	124	121.8	2.2	14	3
	8	□	MNS1230-L8C	98	140	144	189	186.8	2.2	14	3
	10	□	MNS1230-L10C	123	165	169	214	211.8	2.2	14	3
	12	□	MNS1230-L12C	148	190	194	239	236.8	2.2	14	3
	15	□	MNS1230-L15C	185	227	231	276	273.8	2.2	14	3
	20	□	MNS1230-L20C	246	290	294	339	336.8	2.2	14	3
	5	★	MNS1230LB	61.5	102.2	106.2	169.2	167.0	2.2	13	3
	10	□	MNS1230X10DB	123.0	165.2	168.2	231.2	229.0	2.2	13	3
	20	□	MNS1230X20DB	246.0	290.2	293.2	356.2	354.0	2.2	13	3
12.4	3	□	MNS1240S-DIN	37	60	62	107	104.7	2.3	14	4
	3	□	MNS1240S-DIN-C	37	60	62	107	104.7	2.3	14	3
	5	□	MNS1240L-DIN	62	77	79	124	121.7	2.3	14	4
	5	□	MNS1240L-DIN-C	62	77	79	124	121.7	2.3	14	3
	8	□	MNS1240-L8C	99	140	144	189	186.7	2.3	14	3
	10	□	MNS1240-L10C	124	165	169	214	211.7	2.3	14	3
	12	□	MNS1240-L12C	149	190	194	239	236.7	2.3	14	3
	15	□	MNS1240-L15C	186	227	231	276	273.7	2.3	14	3
	20	□	MNS1240-L20C	248	290	294	339	336.7	2.3	14	3
	5	★	MNS1240LB	62.0	102.3	106.3	169.3	167.0	2.3	13	3
	10	□	MNS1240X10DB	124.0	165.3	168.3	231.3	229.0	2.3	13	3
	20	□	MNS1240X20DB	248.0	290.3	293.3	356.3	354.0	2.3	13	3

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager TF15	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
12.5	3	□	MNS1250S-DIN	38	60	62	107	104.7	2.3	14	4
	3	□	MNS1250S-DIN-C	38	60	62	107	104.7	2.3	14	3
	5	□	MNS1250L-DIN	63	77	79	124	121.7	2.3	14	4
	5	●	MNS1250L-DIN-C	63	77	79	124	121.7	2.3	14	3
	8	□	MNS1250-L8C	100	140	144	189	186.7	2.3	14	3
	10	□	MNS1250-L10C	125	165	169	214	211.7	2.3	14	3
	12	●	MNS1250-L12C	150	190	194	239	236.7	2.3	14	3
	15	□	MNS1250-L15C	188	227	231	276	273.7	2.3	14	3
	20	●	MNS1250-L20C	250	290	294	339	336.7	2.3	14	3
	5	★	MNS1250LB	62.5	102.3	106.3	169.3	167.0	2.3	13	3
	10	□	MNS1250X10DB	125.0	165.3	168.3	231.3	229.0	2.3	13	3
	20	□	MNS1250X20DB	250.0	290.3	293.3	356.3	354.0	2.3	13	3
12.6	3	□	MNS1260S-DIN	38	60	62	107	104.7	2.3	14	4
	3	□	MNS1260S-DIN-C	38	60	62	107	104.7	2.3	14	3
	5	□	MNS1260L-DIN	63	77	79	124	121.7	2.3	14	4
	5	□	MNS1260L-DIN-C	63	77	79	124	121.7	2.3	14	3
	8	□	MNS1260-L8C	101	145	149	194	191.7	2.3	14	3
	10	□	MNS1260-L10C	126	171	175	220	217.7	2.3	14	3
	12	□	MNS1260-L12C	151	197	201	246	243.7	2.3	14	3
	15	□	MNS1260-L15C	189	236	240	285	282.7	2.3	14	3
	20	□	MNS1260-L20C	252	301	305	350	347.7	2.3	14	3
	5	★	MNS1260LB	63.0	106.3	106.3	169.3	167.0	2.3	13	3
	10	□	MNS1260X10DB	126.0	171.3	174.3	237.3	235.0	2.3	13	3
	20	□	MNS1260X20DB	252.0	301.3	304.3	367.3	365.0	2.3	13	3
12.7	3	□	MNS1270S-DIN	38	60	62	107	104.7	2.3	14	4
	3	□	MNS1270S-DIN-C	38	60	62	107	104.7	2.3	14	3
	5	□	MNS1270L-DIN	64	77	79	124	121.7	2.3	14	4
	5	□	MNS1270L-DIN-C	64	77	79	124	121.7	2.3	14	3
	8	□	MNS1270-L8C	102	145	149	194	191.7	2.3	14	3
	10	□	MNS1270-L10C	127	171	175	220	217.7	2.3	14	3
	12	□	MNS1270-L12C	152	197	201	246	243.7	2.3	14	3
	15	□	MNS1270-L15C	191	236	240	285	282.7	2.3	14	3
	20	□	MNS1270-L20C	254	301	305	350	347.7	2.3	14	3
	5	★	MNS1270LB	63.5	106.3	106.3	169.3	167.0	2.3	13	3
	10	□	MNS1270X10DB	127.0	171.3	174.3	237.3	235.0	2.3	13	3
	20	□	MNS1270X20DB	254.0	301.3	304.3	367.3	365.0	2.3	13	3
12.8	3	□	MNS1280S-DIN	38	60	62	107	104.7	2.3	14	4
	3	□	MNS1280S-DIN-C	38	60	62	107	104.7	2.3	14	3
	5	□	MNS1280L-DIN	64	77	79	124	121.7	2.3	14	4
	5	□	MNS1280L-DIN-C	64	77	79	124	121.7	2.3	14	3
	8	□	MNS1280-L8C	102	145	149	194	191.7	2.3	14	3
	10	□	MNS1280-L10C	128	171	175	220	217.7	2.3	14	3
	12	□	MNS1280-L12C	154	197	201	246	243.7	2.3	14	3
	15	□	MNS1280-L15C	192	236	240	285	282.7	2.3	14	3
	20	□	MNS1280-L20C	256	301	305	350	347.7	2.3	14	3
	5	★	MNS1280LB	64.0	106.3	106.3	169.3	167.0	2.3	13	3
	10	□	MNS1280X10DB	128.0	171.3	174.3	237.3	235.0	2.3	13	3
	20	□	MNS1280X20DB	256.0	301.3	304.3	367.3	365.0	2.3	13	3

SCHNITTBEDINGUNGEN ➤ L096
ANWENDUNGSHINWEISE ➤ L097
TECHNISCHE DATEN ➤ N001

BOHREN (VOLLHARTMETALL)

MNS

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager TF15	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
12.9	3	□	MNS1290S-DIN	39	60	62	107	104.7	2.3	14	4
	3	□	MNS1290S-DIN-C	39	60	62	107	104.7	2.3	14	3
	5	□	MNS1290L-DIN	65	77	79	124	121.7	2.3	14	4
	5	□	MNS1290L-DIN-C	65	77	79	124	121.7	2.3	14	3
	8	□	MNS1290-L8C	103	145	149	194	191.7	2.3	14	3
	10	□	MNS1290-L10C	129	171	175	220	217.7	2.3	14	3
	12	□	MNS1290-L12C	155	197	201	246	243.7	2.3	14	3
	15	□	MNS1290-L15C	194	236	240	285	282.7	2.3	14	3
	20	□	MNS1290-L20C	258	301	305	350	347.7	2.3	14	3
	5	★	MNS1290LB	64.5	106.3	106.3	169.3	167.0	2.3	13	3
	10	□	MNS1290X10DB	129.0	171.3	174.3	237.3	235.0	2.3	13	3
	20	□	MNS1290X20DB	258.0	301.3	304.3	367.3	365.0	2.3	13	3
13.0	3	□	MNS1300S-DIN	39	60	62	107	104.6	2.4	14	4
	3	□	MNS1300S-DIN-C	39	60	62	107	104.6	2.4	14	3
	5	□	MNS1300L-DIN	65	77	79	124	121.6	2.4	14	4
	5	●	MNS1300L-DIN-C	65	77	79	124	121.6	2.4	14	3
	8	□	MNS1300-L8C	104	145	149	194	191.6	2.4	14	3
	10	□	MNS1300-L10C	130	171	175	220	217.6	2.4	14	3
	12	●	MNS1300-L12C	156	197	201	246	243.6	2.4	14	3
	15	□	MNS1300-L15C	195	236	240	285	282.6	2.4	14	3
	20	●	MNS1300-L20C	260	301	305	350	347.6	2.4	14	3
	5	★	MNS1300LB	65.0	106.4	106.4	169.4	167.0	2.4	13	3
	10	★	MNS1300X10DB	130.0	171.4	174.4	237.4	235.0	2.4	13	3
	20	★	MNS1300X20DB	260.0	301.4	304.4	367.4	365.0	2.4	13	3
13.1	3	□	MNS1310S-DIN	39	60	62	107	104.6	2.4	14	4
	3	□	MNS1310S-DIN-C	39	60	62	107	104.6	2.4	14	3
	5	□	MNS1310L-DIN	66	77	79	124	121.6	2.4	14	4
	5	□	MNS1310L-DIN-C	66	77	79	124	121.6	2.4	14	3
	8	□	MNS1310-L8C	105	151	155	200	197.6	2.4	14	3
	10	□	MNS1310-L10C	131	178	182	227	224.6	2.4	14	3
	12	□	MNS1310-L12C	157	205	209	254	251.6	2.4	14	3
	15	□	MNS1310-L15C	197	245	249	294	291.6	2.4	14	3
	20	□	MNS1310-L20C	262	313	317	362	359.6	2.4	14	3
	5	★	MNS1310LB	65.5	110.4	114.4	178.4	176.0	2.4	14	3
	10	□	MNS1310X10DB	131.0	178.4	181.4	245.4	243.0	2.4	14	3
	20	□	MNS1310X20DB	262.0	313.4	316.4	380.4	378.0	2.4	14	3
13.2	3	□	MNS1320S-DIN	40	60	62	107	104.6	2.4	14	4
	3	□	MNS1320S-DIN-C	40	60	62	107	104.6	2.4	14	3
	5	□	MNS1320L-DIN	66	77	79	124	121.6	2.4	14	4
	5	□	MNS1320L-DIN-C	66	77	79	124	121.6	2.4	14	3
	8	□	MNS1320-L8C	106	151	155	200	197.6	2.4	14	3
	10	□	MNS1320-L10C	132	178	182	227	224.6	2.4	14	3
	12	□	MNS1320-L12C	158	205	209	254	251.6	2.4	14	3
	15	□	MNS1320-L15C	198	245	249	294	291.6	2.4	14	3
	20	□	MNS1320-L20C	264	313	317	362	359.6	2.4	14	3
	5	★	MNS1320LB	66.0	110.4	114.4	178.4	176.0	2.4	14	3
	10	□	MNS1320X10DB	132.0	178.4	181.4	245.4	243.0	2.4	14	3
	20	□	MNS1320X20DB	264.0	313.4	316.4	380.4	378.0	2.4	14	3

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager TF15	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
13.3	3	□	MNS1330S-DIN	40	60	62	107	104.6	2.4	14	4
	3	□	MNS1330S-DIN-C	40	60	62	107	104.6	2.4	14	3
	5	□	MNS1330L-DIN	67	77	79	124	121.6	2.4	14	4
	5	□	MNS1330L-DIN-C	67	77	79	124	121.6	2.4	14	3
	8	□	MNS1330-L8C	106	151	155	200	197.6	2.4	14	3
	10	□	MNS1330-L10C	133	178	182	227	224.6	2.4	14	3
	12	□	MNS1330-L12C	160	205	209	254	251.6	2.4	14	3
	15	□	MNS1330-L15C	200	245	249	294	291.6	2.4	14	3
	20	□	MNS1330-L20C	266	313	317	362	359.6	2.4	14	3
	5	★	MNS1330LB	66.5	110.4	114.4	178.4	176.0	2.4	14	3
	10	□	MNS1330X10DB	133.0	178.4	181.4	245.4	243.0	2.4	14	3
	20	□	MNS1330X20DB	266.0	313.4	316.4	380.4	378.0	2.4	14	3
13.4	3	□	MNS1340S-DIN	40	60	62	107	104.6	2.4	14	4
	3	□	MNS1340S-DIN-C	40	60	62	107	104.6	2.4	14	3
	5	□	MNS1340L-DIN	67	77	79	124	121.6	2.4	14	4
	5	□	MNS1340L-DIN-C	67	77	79	124	121.6	2.4	14	3
	8	□	MNS1340-L8C	107	151	155	200	197.6	2.4	14	3
	10	□	MNS1340-L10C	134	178	182	227	224.6	2.4	14	3
	12	□	MNS1340-L12C	161	205	209	254	251.6	2.4	14	3
	15	□	MNS1340-L15C	201	245	249	294	291.6	2.4	14	3
	20	□	MNS1340-L20C	268	313	317	362	359.6	2.4	14	3
	5	★	MNS1340LB	67.0	110.4	114.4	178.4	176.0	2.4	14	3
	10	□	MNS1340X10DB	134.0	178.4	181.4	245.4	243.0	2.4	14	3
	20	□	MNS1340X20DB	268.0	313.4	316.4	380.4	378.0	2.4	14	3
13.5	3	□	MNS1350S-DIN	41	60	62	107	104.5	2.5	14	4
	3	□	MNS1350S-DIN-C	41	60	62	107	104.5	2.5	14	3
	5	□	MNS1350L-DIN	68	77	79	124	121.5	2.5	14	4
	5	●	MNS1350L-DIN-C	68	77	79	124	121.5	2.5	14	3
	8	□	MNS1350-L8C	108	151	155	200	197.5	2.5	14	3
	10	□	MNS1350-L10C	135	178	182	227	224.5	2.5	14	3
	12	●	MNS1350-L12C	162	205	209	254	251.5	2.5	14	3
	15	□	MNS1350-L15C	203	245	249	294	291.5	2.5	14	3
	20	●	MNS1350-L20C	270	313	317	362	359.5	2.5	14	3
	5	★	MNS1350LB	67.5	110.5	114.5	178.5	176.0	2.5	14	3
	10	□	MNS1350X10DB	135.0	178.5	181.5	245.5	243.0	2.5	14	3
	20	□	MNS1350X20DB	270.0	313.5	316.5	380.5	378.0	2.5	14	3
13.6	3	□	MNS1360S-DIN	41	60	62	107	104.5	2.5	14	4
	3	□	MNS1360S-DIN-C	41	60	62	107	104.5	2.5	14	3
	5	□	MNS1360L-DIN	68	77	79	124	121.5	2.5	14	4
	5	□	MNS1360L-DIN-C	68	77	79	124	121.5	2.5	14	3
	8	□	MNS1360-L8C	109	156	160	205	202.5	2.5	14	3
	10	□	MNS1360-L10C	136	184	188	233	230.5	2.5	14	3
	12	□	MNS1360-L12C	163	212	216	261	258.5	2.5	14	3
	15	□	MNS1360-L15C	204	254	258	303	300.5	2.5	14	3
	20	□	MNS1360-L20C	272	324	328	373	370.5	2.5	14	3
	5	★	MNS1360LB	68.0	114.5	114.5	178.5	176.0	2.5	14	3
	10	□	MNS1360X10DB	136.0	184.5	187.5	251.5	249.0	2.5	14	3
	20	□	MNS1360X20DB	272.0	324.5	327.5	391.5	389.0	2.5	14	3

(Bemerkung) Bei Bedarf von abweichenden Geometrien setzen Sie sich mit unserem Hause in Verbindung.
(Andere Durchmesser und Längen können bestellt werden).

● : Lagerstandard. ★ : Lagerstandard in Japan.
□ : Nichtstandard, Herstellung nur auf Anfrage.

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager TF15	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
13.7	3	□	MNS1370S-DIN	41	60	62	107	104.5	2.5	14	4
	3	□	MNS1370S-DIN-C	41	60	62	107	104.5	2.5	14	3
	5	□	MNS1370L-DIN	69	77	79	124	121.5	2.5	14	4
	5	□	MNS1370L-DIN-C	69	77	79	124	121.5	2.5	14	3
	8	□	MNS1370-L8C	110	156	160	205	202.5	2.5	14	3
	10	□	MNS1370-L10C	137	184	188	233	230.5	2.5	14	3
	12	□	MNS1370-L12C	164	212	216	261	258.5	2.5	14	3
	15	□	MNS1370-L15C	206	254	258	303	300.5	2.5	14	3
	20	□	MNS1370-L20C	274	324	328	373	370.5	2.5	14	3
	5	★	MNS1370LB	68.5	114.5	114.5	178.5	176.0	2.5	14	3
	10	□	MNS1370X10DB	137.0	184.5	187.5	251.5	249.0	2.5	14	3
	20	□	MNS1370X20DB	274.0	324.5	327.5	391.5	389.0	2.5	14	3
13.8	3	□	MNS1380S-DIN	41	60	62	107	104.5	2.5	14	4
	3	□	MNS1380S-DIN-C	41	60	62	107	104.5	2.5	14	3
	5	□	MNS1380L-DIN	69	77	79	124	121.5	2.5	14	4
	5	□	MNS1380L-DIN-C	69	77	79	124	121.5	2.5	14	3
	8	□	MNS1380-L8C	110	156	160	205	202.5	2.5	14	3
	10	□	MNS1380-L10C	138	184	188	233	230.5	2.5	14	3
	12	□	MNS1380-L12C	166	212	216	261	258.5	2.5	14	3
	15	□	MNS1380-L15C	207	254	258	303	300.5	2.5	14	3
	20	□	MNS1380-L20C	276	324	328	373	370.5	2.5	14	3
	5	★	MNS1380LB	69.0	114.5	114.5	178.5	176.0	2.5	14	3
	10	□	MNS1380X10DB	138.0	184.5	187.5	251.5	249.0	2.5	14	3
	20	□	MNS1380X20DB	276.0	324.5	327.5	391.5	389.0	2.5	14	3
13.9	3	□	MNS1390S-DIN	42	60	62	107	104.5	2.5	14	4
	3	□	MNS1390S-DIN-C	42	60	62	107	104.5	2.5	14	3
	5	□	MNS1390L-DIN	70	77	79	124	121.5	2.5	14	4
	5	□	MNS1390L-DIN-C	70	77	79	124	121.5	2.5	14	3
	8	□	MNS1390-L8C	111	156	160	205	202.5	2.5	14	3
	10	□	MNS1390-L10C	139	184	188	233	230.5	2.5	14	3
	12	□	MNS1390-L12C	167	212	216	261	258.5	2.5	14	3
	15	□	MNS1390-L15C	209	254	258	303	300.5	2.5	14	3
	20	□	MNS1390-L20C	278	324	328	373	370.5	2.5	14	3
	5	★	MNS1390LB	69.5	114.5	114.5	178.5	176.0	2.5	14	3
	10	□	MNS1390X10DB	139.0	184.5	187.5	251.5	249.0	2.5	14	3
	20	□	MNS1390X20DB	278.0	324.5	327.5	391.5	389.0	2.5	14	3
14.0	3	□	MNS1400S-DIN	42	60	62	107	104.5	2.5	14	4
	3	□	MNS1400S-DIN-C	42	60	62	107	104.5	2.5	14	3
	5	□	MNS1400L-DIN	70	77	79	124	121.5	2.5	14	4
	5	●	MNS1400L-DIN-C	70	77	79	124	121.5	2.5	14	3
	8	□	MNS1400-L8C	112	156	160	205	202.5	2.5	14	3
	10	□	MNS1400-L10C	140	184	188	233	230.5	2.5	14	3
	12	●	MNS1400-L12C	168	212	216	261	258.5	2.5	14	3
	15	□	MNS1400-L15C	210	254	258	303	300.5	2.5	14	3
	20	●	MNS1400-L20C	280	324	328	373	370.5	2.5	14	3
	5	★	MNS1400LB	70.0	114.5	114.5	178.5	176.0	2.5	14	3
	10	★	MNS1400X10DB	140.0	184.5	187.5	251.5	249.0	2.5	14	3
	20	★	MNS1400X20DB	280.0	324.5	327.5	391.5	389.0	2.5	14	3

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager TF15	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
14.1	3	□	MNS1410S-DIN	42	64	66	114	111.4	2.6	16	4
	3	□	MNS1410S-DIN-C	42	64	66	114	111.4	2.6	16	3
	5	□	MNS1410L-DIN	71	82	84	132	129.4	2.6	16	4
	5	□	MNS1410L-DIN-C	71	82	84	132	129.4	2.6	16	3
14.2	3	□	MNS1420S-DIN	43	64	66	114	111.4	2.6	16	4
	3	□	MNS1420S-DIN-C	43	64	66	114	111.4	2.6	16	3
	5	□	MNS1420L-DIN	71	82	84	132	129.4	2.6	16	4
	5	●	MNS1420L-DIN-C	71	82	84	132	129.4	2.6	16	3
14.3	3	□	MNS1430S-DIN	43	64	66	114	111.4	2.6	16	4
	3	□	MNS1430S-DIN-C	43	64	66	114	111.4	2.6	16	3
	5	□	MNS1430L-DIN	72	82	84	132	129.4	2.6	16	4
	5	□	MNS1430L-DIN-C	72	82	84	132	129.4	2.6	16	3
14.4	3	□	MNS1440S-DIN	43	64	66	114	111.4	2.6	16	4
	3	□	MNS1440S-DIN-C	43	64	66	114	111.4	2.6	16	3
	5	□	MNS1440L-DIN	72	82	84	132	129.4	2.6	16	4
	5	□	MNS1440L-DIN-C	72	82	84	132	129.4	2.6	16	3
14.5	3	□	MNS1450S-DIN	44	64	66	114	111.4	2.6	16	4
	3	□	MNS1450S-DIN-C	44	64	66	114	111.4	2.6	16	3
	5	□	MNS1450L-DIN	73	82	84	132	129.4	2.6	16	4
	5	●	MNS1450L-DIN-C	73	82	84	132	129.4	2.6	16	3
14.6	3	□	MNS1460S-DIN	44	64	66	114	111.3	2.7	16	4
	3	□	MNS1460S-DIN-C	44	64	66	114	111.3	2.7	16	3
	5	□	MNS1460L-DIN	73	82	84	132	129.3	2.7	16	4
	5	□	MNS1460L-DIN-C	73	82	84	132	129.3	2.7	16	3
14.7	3	□	MNS1470S-DIN	44	64	66	114	111.3	2.7	16	4
	3	□	MNS1470S-DIN-C	44	64	66	114	111.3	2.7	16	3
	5	□	MNS1470L-DIN	74	82	84	132	129.3	2.7	16	4
	5	□	MNS1470L-DIN-C	74	82	84	132	129.3	2.7	16	3
14.8	3	□	MNS1480S-DIN	44	64	66	114	111.3	2.7	16	4
	3	□	MNS1480S-DIN-C	44	64	66	114	111.3	2.7	16	3
	5	□	MNS1480L-DIN	74	82	84	132	129.3	2.7	16	4
	5	□	MNS1480L-DIN-C	74	82	84	132	129.3	2.7	16	3
14.9	3	□	MNS1490S-DIN	45	64	66	114	111.3	2.7	16	4
	3	□	MNS1490S-DIN-C	45	64	66	114	111.3	2.7	16	3
	5	□	MNS1490L-DIN	75	82	84	132	129.3	2.7	16	4
	5	□	MNS1490L-DIN-C	75	82	84	132	129.3	2.7	16	3
15.0	3	□	MNS1500S-DIN	45	64	66	114	111.3	2.7	16	4
	3	□	MNS1500S-DIN-C	45	64	66	114	111.3	2.7	16	3
	5	□	MNS1500L-DIN	75	82	84	132	129.3	2.7	16	4
	5	●	MNS1500L-DIN-C	75	82	84	132	129.3	2.7	16	3
15.1	3	□	MNS1510S-DIN	45	65	67	115	112.3	2.7	16	4
	3	□	MNS1510S-DIN-C	45	65	67	115	112.3	2.7	16	3
	5	□	MNS1510L-DIN	76	83	85	133	130.3	2.7	16	4
	5	□	MNS1510L-DIN-C	76	83	85	133	130.3	2.7	16	3
15.2	3	□	MNS1520S-DIN	46	65	67	115	112.2	2.8	16	4
	3	□	MNS1520S-DIN-C	46	65	67	115	112.2	2.8	16	3
	5	□	MNS1520L-DIN	76	83	85	133	130.2	2.8	16	4
	5	□	MNS1520L-DIN-C	76	83	85	133	130.2	2.8	16	3

SCHNITTBEDINGUNGEN ➤ L096
ANWENDUNGSHINWEISE ➤ L097
TECHNISCHE DATEN ➤ N001

MNS

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager TF15	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
15.3	3	□	MNS1530S-DIN	46	65	67	115	112.2	2.8	16	4
	3	□	MNS1530S-DIN-C	46	65	67	115	112.2	2.8	16	3
	5	□	MNS1530L-DIN	77	83	85	133	130.2	2.8	16	4
	5	□	MNS1530L-DIN-C	77	83	85	133	130.2	2.8	16	3
15.4	3	□	MNS1540S-DIN	46	65	67	115	112.2	2.8	16	4
	3	□	MNS1540S-DIN-C	46	65	67	115	112.2	2.8	16	3
	5	□	MNS1540L-DIN	77	83	85	133	130.2	2.8	16	4
	5	□	MNS1540L-DIN-C	77	83	85	133	130.2	2.8	16	3
15.5	3	□	MNS1550S-DIN	47	65	67	115	112.2	2.8	16	4
	3	□	MNS1550S-DIN-C	47	65	67	115	112.2	2.8	16	3
	5	□	MNS1550L-DIN	78	83	85	133	130.2	2.8	16	4
	5	●	MNS1550L-DIN-C	78	83	85	133	130.2	2.8	16	3
15.6	3	□	MNS1560S-DIN	47	65	67	115	112.2	2.8	16	4
	3	□	MNS1560S-DIN-C	47	65	67	115	112.2	2.8	16	3
	5	□	MNS1560L-DIN	78	83	85	133	130.2	2.8	16	4
	5	□	MNS1560L-DIN-C	78	83	85	133	130.2	2.8	16	3
15.7	3	□	MNS1570S-DIN	47	65	67	115	112.1	2.9	16	4
	3	□	MNS1570S-DIN-C	47	65	67	115	112.1	2.9	16	3
	5	□	MNS1570L-DIN	79	83	85	133	130.1	2.9	16	4
	5	□	MNS1570L-DIN-C	79	83	85	133	130.1	2.9	16	3
15.8	3	□	MNS1580S-DIN	47	65	67	115	112.1	2.9	16	4
	3	□	MNS1580S-DIN-C	47	65	67	115	112.1	2.9	16	3
	5	□	MNS1580L-DIN	79	83	85	133	130.1	2.9	16	4
	5	□	MNS1580L-DIN-C	79	83	85	133	130.1	2.9	16	3
15.9	3	□	MNS1590S-DIN	48	65	67	115	112.1	2.9	16	4
	3	□	MNS1590S-DIN-C	48	65	67	115	112.1	2.9	16	3
	5	□	MNS1590L-DIN	80	83	85	133	130.1	2.9	16	4
	5	□	MNS1590L-DIN-C	80	83	85	133	130.1	2.9	16	3
16.0	3	□	MNS1600S-DIN	48	65	67	115	112.1	2.9	16	4
	3	□	MNS1600S-DIN-C	48	65	67	115	112.1	2.9	16	3
	5	□	MNS1600L-DIN	80	83	85	133	130.1	2.9	16	4
	5	●	MNS1600L-DIN-C	80	83	85	133	130.1	2.9	16	3
16.1	3	□	MNS1610S-DIN	48	73	75	123	120.1	2.9	18	4
	3	□	MNS1610S-DIN-C	48	73	75	123	120.1	2.9	18	3
	5	□	MNS1610L-DIN	81	93	95	143	140.1	2.9	18	4
	5	□	MNS1610L-DIN-C	81	93	95	143	140.1	2.9	18	3
16.2	3	□	MNS1620S-DIN	49	73	75	123	120.1	2.9	18	4
	3	□	MNS1620S-DIN-C	49	73	75	123	120.1	2.9	18	3
	5	□	MNS1620L-DIN	81	93	95	143	140.1	2.9	18	4
	5	□	MNS1620L-DIN-C	81	93	95	143	140.1	2.9	18	3
16.3	3	□	MNS1630S-DIN	49	73	75	123	120.0	3.0	18	4
	3	□	MNS1630S-DIN-C	49	73	75	123	120.0	3.0	18	3
	5	□	MNS1630L-DIN	82	93	95	143	140.0	3.0	18	4
	5	□	MNS1630L-DIN-C	82	93	95	143	140.0	3.0	18	3
16.4	3	□	MNS1640S-DIN	49	73	75	123	120.0	3.0	18	4
	3	□	MNS1640S-DIN-C	49	73	75	123	120.0	3.0	18	3
	5	□	MNS1640L-DIN	82	93	95	143	140.0	3.0	18	4
	5	□	MNS1640L-DIN-C	82	93	95	143	140.0	3.0	18	3

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager TF15	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
16.5	3	□	MNS1650S-DIN	50	73	75	123	120.0	3.0	18	4
	3	□	MNS1650S-DIN-C	50	73	75	123	120.0	3.0	18	3
	5	□	MNS1650L-DIN	83	93	95	143	140.0	3.0	18	4
	5	●	MNS1650L-DIN-C	83	93	95	143	140.0	3.0	18	3
16.6	3	□	MNS1660S-DIN	50	73	75	123	120.0	3.0	18	4
	3	□	MNS1660S-DIN-C	50	73	75	123	120.0	3.0	18	3
	5	□	MNS1660L-DIN	83	93	95	143	140.0	3.0	18	4
	5	□	MNS1660L-DIN-C	83	93	95	143	140.0	3.0	18	3
16.7	3	□	MNS1670S-DIN	50	73	75	123	120.0	3.0	18	4
	3	□	MNS1670S-DIN-C	50	73	75	123	120.0	3.0	18	3
	5	□	MNS1670L-DIN	84	93	95	143	140.0	3.0	18	4
	5	□	MNS1670L-DIN-C	84	93	95	143	140.0	3.0	18	3
16.8	3	□	MNS1680S-DIN	50	73	75	123	119.9	3.1	18	4
	3	□	MNS1680S-DIN-C	50	73	75	123	119.9	3.1	18	3
	5	□	MNS1680L-DIN	84	93	95	143	139.9	3.1	18	4
	5	□	MNS1680L-DIN-C	84	93	95	143	139.9	3.1	18	3
16.9	3	□	MNS1690S-DIN	51	73	75	123	119.9	3.1	18	4
	3	□	MNS1690S-DIN-C	51	73	75	123	119.9	3.1	18	3
	5	□	MNS1690L-DIN	85	93	95	143	139.9	3.1	18	4
	5	□	MNS1690L-DIN-C	85	93	95	143	139.9	3.1	18	3
17.0	3	□	MNS1700S-DIN	51	73	75	123	119.9	3.1	18	4
	3	□	MNS1700S-DIN-C	51	73	75	123	119.9	3.1	18	3
	5	□	MNS1700L-DIN	85	93	95	143	139.9	3.1	18	4
	5	●	MNS1700L-DIN-C	85	93	95	143	139.9	3.1	18	3
17.1	3	□	MNS1710S-DIN	51	73	75	123	119.9	3.1	18	4
	3	□	MNS1710S-DIN-C	51	73	75	123	119.9	3.1	18	3
	5	□	MNS1710L-DIN	86	93	95	143	139.9	3.1	18	4
	5	□	MNS1710L-DIN-C	86	93	95	143	139.9	3.1	18	3
17.2	3	□	MNS1720S-DIN	52	73	75	123	119.9	3.1	18	4
	3	□	MNS1720S-DIN-C	52	73	75	123	119.9	3.1	18	3
	5	□	MNS1720L-DIN	86	93	95	143	139.9	3.1	18	4
	5	□	MNS1720L-DIN-C	86	93	95	143	139.9	3.1	18	3
17.3	3	□	MNS1730S-DIN	52	73	75	123	119.9	3.1	18	4
	3	□	MNS1730S-DIN-C	52	73	75	123	119.9	3.1	18	3
	5	□	MNS1730L-DIN	87	93	95	143	139.9	3.1	18	4
	5	□	MNS1730L-DIN-C	87	93	95	143	139.9	3.1	18	3
17.4	3	□	MNS1740S-DIN	52	73	75	123	119.8	3.2	18	4
	3	□	MNS1740S-DIN-C	52	73	75	123	119.8	3.2	18	3
	5	□	MNS1740L-DIN	87	93	95	143	139.8	3.2	18	4
	5	□	MNS1740L-DIN-C	87	93	95	143	139.8	3.2	18	3
17.5	3	□	MNS1750S-DIN	53	73	75	123	119.8	3.2	18	4
	3	□	MNS1750S-DIN-C	53	73	75	123	119.8	3.2	18	3
	5	□	MNS1750L-DIN	88	93	95	143	139.8	3.2	18	4
	5	●	MNS1750L-DIN-C	88	93	95	143	139.8	3.2	18	3
17.6	3	□	MNS1760S-DIN	53	73	75	123	119.8	3.2	18	4
	3	□	MNS1760S-DIN-C	53	73	75	123	119.8	3.2	18	3
	5	□	MNS1760L-DIN	88	93	95	143	139.8	3.2	18	4
	5	□	MNS1760L-DIN-C	88	93	95	143	139.8	3.2	18	3

(Bemerkung) Bei Bedarf von abweichenden Geometrien setzen Sie sich mit unserem Hause in Verbindung.
(Andere Durchmesser und Längen können bestellt werden).

● : Lagerstandard. □ : Nichtstandard, Herstellung nur auf Anfrage.

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager TF15	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
17.7	3	□	MNS1770S-DIN	53	73	75	123	119.8	3.2	18	4
	3	□	MNS1770S-DIN-C	53	73	75	123	119.8	3.2	18	3
	5	□	MNS1770L-DIN	89	93	95	143	139.8	3.2	18	4
	5	□	MNS1770L-DIN-C	89	93	95	143	139.8	3.2	18	3
17.8	3	□	MNS1780S-DIN	53	73	75	123	119.8	3.2	18	4
	3	□	MNS1780S-DIN-C	53	73	75	123	119.8	3.2	18	3
	5	□	MNS1780L-DIN	89	93	95	143	139.8	3.2	18	4
	5	□	MNS1780L-DIN-C	89	93	95	143	139.8	3.2	18	3
17.9	3	□	MNS1790S-DIN	54	73	75	123	119.7	3.3	18	4
	3	□	MNS1790S-DIN-C	54	73	75	123	119.7	3.3	18	3
	5	□	MNS1790L-DIN	90	93	95	143	139.7	3.3	18	4
	5	□	MNS1790L-DIN-C	90	93	95	143	139.7	3.3	18	3
18.0	3	□	MNS1800S-DIN	54	73	75	123	119.7	3.3	18	4
	3	□	MNS1800S-DIN-C	54	73	75	123	119.7	3.3	18	3
	5	□	MNS1800L-DIN	90	93	95	143	139.7	3.3	18	4
	5	●	MNS1800L-DIN-C	90	93	95	143	139.7	3.3	18	3
18.1	3	□	MNS1810S-DIN	54	79	81	131	127.7	3.3	20	4
	3	□	MNS1810S-DIN-C	54	79	81	131	127.7	3.3	20	3
	5	□	MNS1810L-DIN	91	101	103	153	149.7	3.3	20	4
	5	□	MNS1810L-DIN-C	91	101	103	153	149.7	3.3	20	3
18.2	3	□	MNS1820S-DIN	55	79	81	131	127.7	3.3	20	4
	3	□	MNS1820S-DIN-C	55	79	81	131	127.7	3.3	20	3
	5	□	MNS1820L-DIN	91	101	103	153	149.7	3.3	20	4
	5	□	MNS1820L-DIN-C	91	101	103	153	149.7	3.3	20	3
18.3	3	□	MNS1830S-DIN	55	79	81	131	127.7	3.3	20	4
	3	□	MNS1830S-DIN-C	55	79	81	131	127.7	3.3	20	3
	5	□	MNS1830L-DIN	92	101	103	153	149.7	3.3	20	4
	5	□	MNS1830L-DIN-C	92	101	103	153	149.7	3.3	20	3
18.4	3	□	MNS1840S-DIN	55	79	81	131	127.7	3.3	20	4
	3	□	MNS1840S-DIN-C	55	79	81	131	127.7	3.3	20	3
	5	□	MNS1840L-DIN	92	101	103	153	149.7	3.3	20	4
	5	□	MNS1840L-DIN-C	92	101	103	153	149.7	3.3	20	3
18.5	3	□	MNS1850S-DIN	56	79	81	131	127.6	3.4	20	4
	3	□	MNS1850S-DIN-C	56	79	81	131	127.6	3.4	20	3
	5	□	MNS1850L-DIN	93	101	103	153	149.6	3.4	20	4
	5	●	MNS1850L-DIN-C	93	101	103	153	149.6	3.4	20	3
18.6	3	□	MNS1860S-DIN	56	79	81	131	127.6	3.4	20	4
	3	□	MNS1860S-DIN-C	56	79	81	131	127.6	3.4	20	3
	5	□	MNS1860L-DIN	93	101	103	153	149.6	3.4	20	4
	5	□	MNS1860L-DIN-C	93	101	103	153	149.6	3.4	20	3
18.7	3	□	MNS1870S-DIN	56	79	81	131	127.6	3.4	20	4
	3	□	MNS1870S-DIN-C	56	79	81	131	127.6	3.4	20	3
	5	□	MNS1870L-DIN	94	101	103	153	149.6	3.4	20	4
	5	□	MNS1870L-DIN-C	94	101	103	153	149.6	3.4	20	3
18.8	3	□	MNS1880S-DIN	56	79	81	131	127.6	3.4	20	4
	3	□	MNS1880S-DIN-C	56	79	81	131	127.6	3.4	20	3
	5	□	MNS1880L-DIN	94	101	103	153	149.6	3.4	20	4
	5	□	MNS1880L-DIN-C	94	101	103	153	149.6	3.4	20	3

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager TF15	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
18.9	3	□	MNS1890S-DIN	57	79	81	131	127.6	3.4	20	4
	3	□	MNS1890S-DIN-C	57	79	81	131	127.6	3.4	20	3
	5	□	MNS1890L-DIN	95	101	103	153	149.6	3.4	20	4
	5	□	MNS1890L-DIN-C	95	101	103	153	149.6	3.4	20	3
19.0	3	□	MNS1900S-DIN	57	79	81	131	127.5	3.5	20	4
	3	□	MNS1900S-DIN-C	57	79	81	131	127.5	3.5	20	3
	5	□	MNS1900L-DIN	95	101	103	153	149.5	3.5	20	4
	5	□	MNS1900L-DIN-C	95	101	103	153	149.5	3.5	20	3
19.1	3	□	MNS1910S-DIN	57	79	81	131	127.5	3.5	20	4
	3	□	MNS1910S-DIN-C	57	79	81	131	127.5	3.5	20	3
	5	□	MNS1910L-DIN	96	101	103	153	149.5	3.5	20	4
	5	□	MNS1910L-DIN-C	96	101	103	153	149.5	3.5	20	3
19.2	3	□	MNS1920S-DIN	58	79	81	131	127.5	3.5	20	4
	3	□	MNS1920S-DIN-C	58	79	81	131	127.5	3.5	20	3
	5	□	MNS1920L-DIN	96	101	103	153	149.5	3.5	20	4
	5	□	MNS1920L-DIN-C	96	101	103	153	149.5	3.5	20	3
19.3	3	□	MNS1930S-DIN	58	79	81	131	127.5	3.5	20	4
	3	□	MNS1930S-DIN-C	58	79	81	131	127.5	3.5	20	3
	5	□	MNS1930L-DIN	97	101	103	153	149.5	3.5	20	4
	5	□	MNS1930L-DIN-C	97	101	103	153	149.5	3.5	20	3
19.4	3	□	MNS1940S-DIN	58	79	81	131	127.5	3.5	20	4
	3	□	MNS1940S-DIN-C	58	79	81	131	127.5	3.5	20	3
	5	□	MNS1940L-DIN	97	101	103	153	149.5	3.5	20	4
	5	□	MNS1940L-DIN-C	97	101	103	153	149.5	3.5	20	3
19.5	3	□	MNS1950S-DIN	59	79	81	131	127.5	3.5	20	4
	3	□	MNS1950S-DIN-C	59	79	81	131	127.5	3.5	20	3
	5	□	MNS1950L-DIN	98	101	103	153	149.5	3.5	20	4
	5	●	MNS1950L-DIN-C	98	101	103	153	149.5	3.5	20	3
19.6	3	□	MNS1960S-DIN	59	79	81	131	127.4	3.6	20	4
	3	□	MNS1960S-DIN-C	59	79	81	131	127.4	3.6	20	3
	5	□	MNS1960L-DIN	98	101	103	153	149.4	3.6	20	4
	5	□	MNS1960L-DIN-C	98	101	103	153	149.4	3.6	20	3
19.7	3	□	MNS1970S-DIN	59	79	81	131	127.4	3.6	20	4
	3	□	MNS1970S-DIN-C	59	79	81	131	127.4	3.6	20	3
	5	□	MNS1970L-DIN	99	101	103	153	149.4	3.6	20	4
	5	□	MNS1970L-DIN-C	99	101	103	153	149.4	3.6	20	3
19.8	3	□	MNS1980S-DIN	59	79	81	131	127.4	3.6	20	4
	3	□	MNS1980S-DIN-C	59	79	81	131	127.4	3.6	20	3
	5	□	MNS1980L-DIN	99	101	103	153	149.4	3.6	20	4
	5	□	MNS1980L-DIN-C	99	101	103	153	149.4	3.6	20	3
19.9	3	□	MNS1990S-DIN	60	79	81	131	127.4	3.6	20	4
	3	□	MNS1990S-DIN-C	60	79	81	131	127.4	3.6	20	3
	5	□	MNS1990L-DIN	100	101	103	153	149.4	3.6	20	4
	5	□	MNS1990L-DIN-C	100	101	103	153	149.4	3.6	20	3
20.0	3	□	MNS2000S-DIN	60	79	81	131	127.4	3.6	20	4
	3	□	MNS2000S-DIN-C	60	79	81	131	127.4	3.6	20	3
	5	□	MNS2000L-DIN	100	101	103	153	149.4	3.6	20	4
	5	●	MNS2000L-DIN-C	100	101	103	153	149.4	3.6	20	3

SCHNITTBEDINGUNGEN ➤ L096
ANWENDUNGSHINWEISE ➤ L097
TECHNISCHE DATEN ➤ N001

MNS

SCHNITTDATENEMPFEHLUNGEN

Bohrtiefe : l/d = 3, 5, 8 (LB, S-DIN, S-DIN-C, L-DIN, L-DIN-C, L8C -Bohrer)

Werkstoff	N					
	Aluminium Leg. (Si<5%)		Aluminium Leg. (5%≤Si≤10%)		Aluminium Leg. (Si>10%)	
Bohrer Durchm. **DC** (mm)	Drehzahl (min^{-1})	Vorschub (min.—max.) (mm/U.)	Drehzahl (min^{-1})	Vorschub (min.—max.) (mm/U.)	Drehzahl (min^{-1})	Vorschub (min.—max.) (mm/U.)
3.2	11900	0.1 (0.11—0.16)	11900	0.15 (0.16—0.21)	11900	0.15 (0.16—0.21)
4.0	9500	0.15 (0.13—0.20)	9500	0.2 (0.20—0.27)	9500	0.2 (0.20—0.27)
5.0	7600	0.2 (0.17—0.25)	7600	0.25 (0.25—0.33)	7600	0.25 (0.25—0.33)
6.3	7500	0.25 (0.21—0.32)	7500	0.35 (0.32—0.42)	7500	0.35 (0.32—0.42)
8.0	5900	0.3 (0.27—0.40)	5900	0.45 (0.40—0.53)	5900	0.45 (0.40—0.53)
10.0	4700	0.4 (0.33—0.50)	4700	0.55 (0.50—0.67)	4700	0.55 (0.50—0.67)
12.0	5300	0.5 (0.40—0.60)	5300	0.7 (0.60—0.80)	5300	0.7 (0.60—0.80)
14.0	4500	0.5 (0.40—0.60)	4500	0.7 (0.60—0.80)	4500	0.7 (0.60—0.80)
16.0	4000	0.5 (0.40—0.60)	4000	0.7 (0.60—0.80)	4000	0.7 (0.60—0.80)
18.0	3500	0.5 (0.40—0.60)	3500	0.7 (0.60—0.80)	3500	0.7 (0.60—0.80)
20.0	3200	0.5 (0.40—0.60)	3200	0.7 (0.60—0.80)	3200	0.7 (0.60—0.80)

(Bemerkung 1) Wenn der Bohrer mit einer Länge über l/d 10 verwendet wird, müssen Pilotbohrungen als Führung zum Einsatz kommen.
(Ohne Pilotbohrung kann der Bohrer brechen.)
(Bemerkung 2) Für die Pilotbohrung empfehlen wir MPS Bohrer oder alternativ MNS, MAE-MB oder MAS-MB Bohrer.

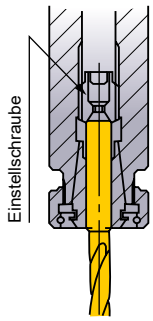
Bohrtiefe : l/d = 10, 12, 15, 20, 25, 30 (X10DB, X20DB, X30DB, L10C, L12C, L15C, L20C, L25C, L30C -Bohrer)

Werkstoff	N					
	Aluminium Leg. (Si<5%)		Aluminium Leg. (5%≤Si≤10%)		Aluminium Leg. (Si>10%)	
Bohrer Durchm. **DC** (mm)	Drehzahl (min^{-1})	Vorschub (min.—max.) (mm/U.)	Drehzahl (min^{-1})	Vorschub (min.—max.) (mm/U.)	Drehzahl (min^{-1})	Vorschub (min.—max.) (mm/U.)
3.2	8900	0.1 (0.11—0.16)	8900	0.15 (0.16—0.21)	8900	0.15 (0.16—0.21)
4.0	7100	0.15 (0.13—0.20)	7100	0.2 (0.20—0.27)	7100	0.2 (0.20—0.27)
5.0	5700	0.2 (0.17—0.25)	5700	0.25 (0.25—0.33)	5700	0.25 (0.25—0.33)
6.3	6000	0.25 (0.21—0.32)	6000	0.35 (0.32—0.42)	6000	0.35 (0.32—0.42)
8.0	4700	0.3 (0.27—0.40)	4700	0.45 (0.40—0.53)	4700	0.45 (0.40—0.53)
10.0	3800	0.4 (0.33—0.50)	3800	0.55 (0.50—0.67)	3800	0.55 (0.50—0.67)
12.0	4200	0.5 (0.40—0.60)	4200	0.7 (0.60—0.80)	4200	0.7 (0.60—0.80)
14.0	3600	0.5 (0.40—0.60)	3600	0.7 (0.60—0.80)	3600	0.7 (0.60—0.80)
16.0	3200	0.5 (0.40—0.60)	3200	0.7 (0.60—0.80)	3200	0.7 (0.60—0.80)
18.0	2800	0.5 (0.40—0.60)	2800	0.7 (0.60—0.80)	2800	0.7 (0.60—0.80)
20.0	2500	0.5 (0.40—0.60)	2500	0.7 (0.60—0.80)	2500	0.7 (0.60—0.80)

(Bemerkung 1) Wenn der Bohrer mit einer Länge über l/d 10 verwendet wird, müssen Pilotbohrungen als Führung zum Einsatz kommen.
(Ohne Pilotbohrung kann der Bohrer brechen.)
(Bemerkung 2) Für die Pilotbohrung empfehlen wir MPS Bohrer oder alternativ MNS, MAE-MB oder MAS-MB Bohrer.

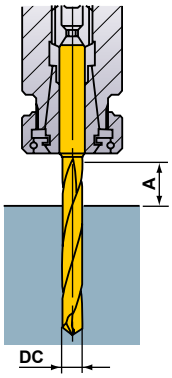
HINWEISE ZUR VERWENDUNG DES MNS-BOHRERS (L/D 3, 5, 8)

Bohrer Aufnahme



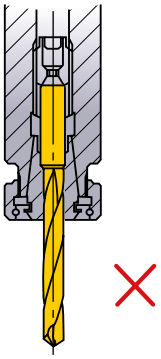
Präzisionsspannzangen können verwendet werden.

Max. Bohrtiefe



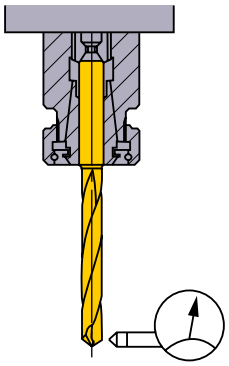
A : ≥ DC x 1.5

Bohrer Einstellung



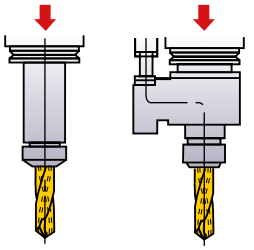
Nicht auf den Nuten spannen.

Rundlauftoleranz



Rundlaufabweichung ≤0.03mm

Kühlmittelzufuhr (MNS)



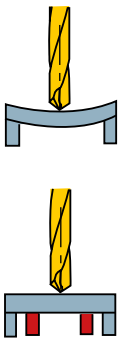
Kühlmitteldruck liegt bei etwa: 5 bar—70 bar

Handling mit Kühlmittel

<Typ **MNS**>

1) Schmutz- und Staubpartikel in altem Kühlmittel können die Ölbohrung blockieren und einen effektiven Durchfluss verhindern. Der regelmäßige Austausch des Kühlmittels wird empfohlen.
2) Kleine Späne könnten sich in der Ölbohrung verkanten. Verwenden Sie daher einen Filter, um dies zu verhindern. Beim Einsatz von Bohrern mit kleinem Durchmesser empfiehlt sich ein feinmaschiger Filter.

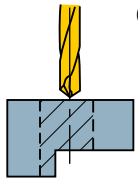
Dünne Werkstücke



Wenn Werkstücke verbiegen… ×

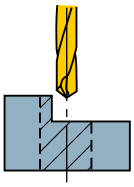
unterstützen Sie diese. ○

Unterbrochene Bearbeitung



Ohne Vorbearbeitung ○

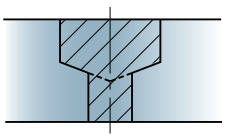
①Reduzieren Sie den Vorschub an der unterbrochenen Stelle.



Benötigt Vorbearbeitung △

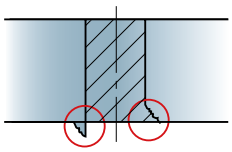
①Planen Sie die Fläche mit einem Fräser vorab.

Stufenbohrungen



①Unterteilen Sie die Bearbeitung in zwei Prozesse.
②Bohren Sie das größere Loch zuerst.
*Werkzeuge zum Anfasen und Plansenken können auf Anfrage hergestellt werden.

Gratbildung oder Ausbrüche am Werkstück



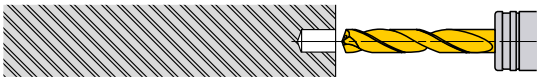
①Verringern Sie den Vorschub, wenn Sie den Durchbruch erreichen.
②Eine Fase einbeziehen.
③Tauschen Sie den Bohrer durch einen anderen mit größerem Spitzenwinkel.

MNS

HINWEISE ZUR VERWENDUNG DES SUPER LANGEN MNS-BOHRERS (L/D 10, 12, 15, 20, 25, 30)

BOHREN AUF GLATTEN FLÄCHEN ●Sacklochbohrung setzen

1. Pilotbohrung setzen



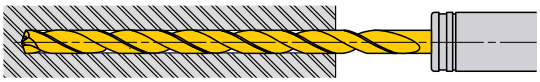
①Für die Pilotbohrungen empfehlen wir den Einsatz von Mitsubishi Bohrern Typ MNS, MAE-MB oder MAS-MB.
②Verwenden Sie bitte einen Bohrer mit gleichem Durchmesser.
③Pilotbohrung : Min. 1DC oder tiefer.
(Passen Sie die Tiefe der Pilotbohrung der Länge Ihres SuperLong Bohrers an)

2. Einfahren in die Pilotbohrung



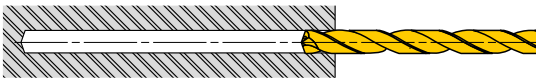
①Eintritt in Führungsbohrung mit geringer Drehzahl.
(Schnittgeschwindigkeit 20—30m/min, Vorschub 0.2—0.3mm/U)
②Tieflochbohrer 1—3mm vor Unterseite der Führungsbohrung stoppen.

3. Tieflochbohren



①Erhöhen Sie die Drehzahl und den Vorschub auf einen Zyklus und bohren Sie bis zur gewünschten Bohrtiefe.

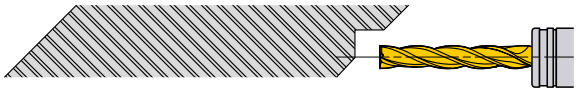
4. Herausfahren des Bohrers



①Nach dem Bohren Schnittgeschwindigkeit etwa 1—2mm vom Bohrungsende entfernt reduzieren (Schnittgeschwindigkeit 20—30 m/min.)
②Fahren Sie den Bohrer bis zur Tiefe der Pilotbohrung heraus (Vf=3000mm/min.)
③Fahren Sie den Bohrer aus der Pilotbohrung mit geringer Drehzahl (n=300, Vf=3000mm/min)

UNTERBROCHENE BOHRUNG ●Bohrungen in angewinkelten Werkstücken

1. Planfräsen



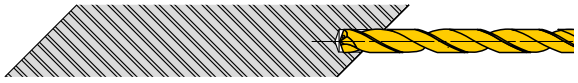
①Fräsen Sie eine ebene Fläche in das Werkstück und setzen Sie einen Fräser mit gleichem Durchmesser wie die gewünschte Bohrung ein.

2. Pilotbohrung setzen



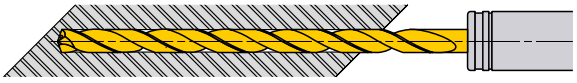
①Für die Pilotbohrungen empfehlen wir den Einsatz von Mitsubishi Bohrern Typ MNS, MAE-MB oder MAS-MB.
②Verwenden Sie bitte einen Bohrer mit gleichem Durchmesser.
③Pilotbohrung : Min. 1DC oder tiefer.
(Passen Sie die Tiefe der Pilotbohrung der Länge Ihres SuperLong Bohrers an)

3. Einfahren in die Pilotbohrung



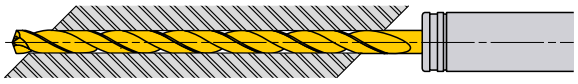
①Eintritt in Führungsbohrung mit geringer Drehzahl.
(Schnittgeschwindigkeit 20—30m/min, Vorschub 0.2—0.3mm/U)
②Tieflochbohrer 1—3mm vor Unterseite der Führungsbohrung stoppen.

4. Tieflochbohren



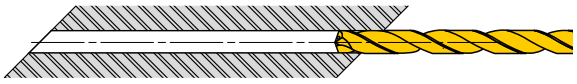
①Erhöhen Sie die Drehzahl und den Vorschub auf einen Zyklus und bohren Sie bis zur gewünschten Bohrtiefe.

5. Durchgangsbohren



①Beim Austritt aus dem Werkstück kann die Schneidkante des Bohrers ausbrechen.
②Reduzieren Sie den Vorschub auf Vf=0.05mm—0.1mm/U

6. Herausfahren des Bohrers



①Bohrer auf Pilotbohrung-Startpunkttiefe herausziehen bei einem Vorschub von 3000mm/min.
②Dann Bohrung mit einer Schnittgeschwindigkeit von 20—30m/min und einem Vorschub von 0.2—0.3mm/U bearbeiten.

Notizen

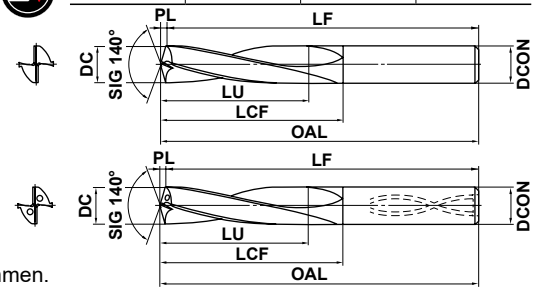
BOHREN (VOLLHARTMETALL)

MAE,MAS

- Entwickelt für die Bearbeitung von Aluminium und Guß.
- Hohe Bohrgenauigkeit.
- Bohrungen für Gewindeformer.
- Gedrallte Kühlmittelbohrungen lassen hohe Drehzahlen zu (MAS Bohrer).

P | M | **K** | **N** | S | H

	DC=3	3<DC≤6	6<DC≤10	10<DC≤16
	+0.005 0	+0.005 0	+0.005 0	+0.005 0
h6	0 −0.006	0 −0.008	0 −0.009	0 −0.011



MAE (Externe Kühlung)



MAS (Interne Kühlung)



(Bemerkung 1) MAS Bohrer größer als ϕ5.0 haben einen Absatz am Bohrerauslauf.
(Bemerkung 2) MAE/MAS Bohrer eignen sich für die Verwendung mit Schrumpfaufnahmen.

DC (mm)	Bohrtiefe (l/d)	Kühlung (Int./Ext.)	Lager HTi10	Bestellbezeichnung	Abmessungen (mm) LU	LCF	OAL	LF	PL	DCON
	3	Ext.	★	MAE0300MB	9.0	21.5	61.5	61	0.5	3
3.0	3	Int.	□	MAS0300MB	9.0	21.5	61.5	61	0.5	3
	6	Int.	●	MAS0300LB	18.0	30.5	70.5	70	0.5	3
	3	Ext.	★	MAE0310MB	9.3	24.6	64.6	64	0.6	4
3.1	3	Int.	□	MAS0310MB	9.3	24.6	64.6	64	0.6	4
	6	Int.	★	MAS0310LB	18.6	34.6	74.6	74	0.6	4
	3	Ext.	★	MAE0320MB	9.6	24.6	64.6	64	0.6	4
3.2	3	Int.	□	MAS0320MB	9.6	24.6	64.6	64	0.6	4
	6	Int.	★	MAS0320LB	19.2	34.6	74.6	74	0.6	4
	3	Ext.	★	MAE0330MB	9.9	24.6	64.6	64	0.6	4
3.3	3	Int.	□	MAS0330MB	9.9	24.6	64.6	64	0.6	4
	6	Int.	●	MAS0330LB	19.8	34.6	74.6	74	0.6	4
	3	Ext.	★	MAE0340MB	10.2	24.6	64.6	64	0.6	4
3.4	3	Int.	□	MAS0340MB	10.2	24.6	64.6	64	0.6	4
	6	Int.	★	MAS0340LB	20.4	34.6	74.6	74	0.6	4
	3	Ext.	★	MAE0350MB	10.5	24.6	64.6	64	0.6	4
3.5	3	Int.	□	MAS0350MB	10.5	24.6	64.6	64	0.6	4
	6	Int.	●	MAS0350LB	21.0	34.6	74.6	74	0.6	4
	3	Ext.	★	MAE0360MB	10.8	28.7	68.7	68	0.7	4
3.6	3	Int.	□	MAS0360MB	10.8	28.7	68.7	68	0.7	4
	6	Int.	★	MAS0360LB	21.6	40.7	80.7	80	0.7	4
	3	Ext.	★	*MAE0365MB	11.0	28.7	68.7	68	0.7	4
3.65	3	Int.	□	*MAS0365MB	11.0	28.7	68.7	68	0.7	4
	6	Int.	●	*MAS0365LB	21.9	40.7	80.7	80	0.7	4
	3	Ext.	★	MAE0370MB	11.1	28.7	68.7	68	0.7	4
3.7	3	Int.	□	MAS0370MB	11.1	28.7	68.7	68	0.7	4
	6	Int.	★	MAS0370LB	22.2	40.7	80.7	80	0.7	4
	3	Ext.	★	MAE0380MB	11.4	28.7	68.7	68	0.7	4
3.8	3	Int.	□	MAS0380MB	11.4	28.7	68.7	68	0.7	4
	6	Int.	★	MAS0380LB	22.8	40.7	80.7	80	0.7	4
	3	Ext.	★	MAE0390MB	11.7	28.7	68.7	68	0.7	4
3.9	3	Int.	□	MAS0390MB	11.7	28.7	68.7	68	0.7	4
	6	Int.	★	MAS0390LB	23.4	40.7	80.7	80	0.7	4
	3	Ext.	★	MAE0400MB	12.0	28.7	68.7	68	0.7	4
4.0	3	Int.	□	MAS0400MB	12.0	28.7	68.7	68	0.7	4
	6	Int.	●	MAS0400LB	24.0	40.7	80.7	80	0.7	4
	3	Ext.	★	MAE0410MB	12.3	31.7	71.7	71	0.7	5
4.1	3	Int.	□	MAS0410MB	12.3	31.7	71.7	71	0.7	5
	6	Int.	★	MAS0410LB	24.6	44.7	84.7	84	0.7	5

DC (mm)	Bohrtiefe (l/d)	Kühlung (Int./Ext.)	Lager HTi10	Bestellbezeichnung	Abmessungen (mm) LU	LCF	OAL	LF	PL	DCON
	3	Ext.	★	MAE0420MB	12.6	31.8	71.8	71	0.8	5
4.2	3	Int.	□	MAS0420MB	12.6	31.8	71.8	71	0.8	5
	6	Int.	●	MAS0420LB	25.2	44.8	84.8	84	0.8	5
	3	Ext.	★	MAE0430MB	12.9	31.8	71.8	71	0.8	5
4.3	3	Int.	□	MAS0430MB	12.9	31.8	71.8	71	0.8	5
	6	Int.	★	MAS0430LB	25.8	44.8	84.8	84	0.8	5
	3	Ext.	★	MAE0440MB	13.2	31.8	71.8	71	0.8	5
4.4	3	Int.	□	MAS0440MB	13.2	31.8	71.8	71	0.8	5
	6	Int.	★	MAS0440LB	26.4	44.8	84.8	84	0.8	5
	3	Ext.	★	MAE0450MB	13.5	31.8	71.8	71	0.8	5
4.5	3	Int.	□	MAS0450MB	13.5	31.8	71.8	71	0.8	5
	6	Int.	★	MAS0450LB	27.0	44.8	84.8	84	0.8	5
	3	Ext.	★	*MAE0460MB	13.8	33.8	73.8	73	0.8	5
4.6	3	Int.	□	*MAS0460MB	13.8	33.8	73.8	73	0.8	5
	6	Int.	●	*MAS0460LB	27.6	48.8	88.8	88	0.8	5
	3	Ext.	★	MAE0470MB	14.1	33.9	73.9	73	0.9	5
4.7	3	Int.	□	MAS0470MB	14.1	33.9	73.9	73	0.9	5
	6	Int.	★	MAS0470LB	28.2	48.9	88.9	88	0.9	5
	3	Ext.	★	MAE0480MB	14.4	33.9	73.9	73	0.9	5
4.8	3	Int.	□	MAS0480MB	14.4	33.9	73.9	73	0.9	5
	6	Int.	★	MAS0480LB	28.8	48.9	88.9	88	0.9	5
	3	Ext.	★	MAE0490MB	14.7	33.9	73.9	73	0.9	5
4.9	3	Int.	□	MAS0490MB	14.7	33.9	73.9	73	0.9	5
	6	Int.	★	MAS0490LB	29.4	48.9	88.9	88	0.9	5
	3	Ext.	★	MAE0500MB	15.0	33.9	73.9	73	0.9	5
5.0	3	Int.	●	MAS0500MB	15.0	33.9	73.9	73	0.9	5
	6	Int.	●	MAS0500LB	30.0	48.9	88.9	88	0.9	5
	3	Ext.	★	MAE0510MB	15.3	36.9	76.9	76	0.9	6
5.1	3	Int.	□	MAS0510MB	15.3	36.9	76.9	76	0.9	6
	6	Int.	★	MAS0510LB	30.6	52.9	92.9	92	0.9	6
	3	Ext.	★	MAE0520MB	15.6	36.9	76.9	76	0.9	6
5.2	3	Int.	□	MAS0520MB	15.6	36.9	76.9	76	0.9	6
	6	Int.	●	MAS0520LB	31.2	52.9	92.9	92	0.9	6
	3	Ext.	★	MAE0530MB	15.9	37.0	77.0	76	1.0	6
5.3	3	Int.	□	MAS0530MB	15.9	37.0	77.0	76	1.0	6
	6	Int.	★	MAS0530LB	31.8	53.0	93.0	92	1.0	6
	3	Ext.	★	MAE0540MB	16.2	37.0	77.0	76	1.0	6
5.4	3	Int.	□	MAS0540MB	16.2	37.0	77.0	76	1.0	6
	6	Int.	★	MAS0540LB	32.4	53.0	93.0	92	1.0	6

★ : Standardbohrung für Gewindeformen.

● : Lagerstandard. ★ : Lagerstandard in Japan.
□ : Nichtstandard, Herstellung nur auf Anfrage.

DC (mm)	Bohrtiefe (l/d)	Kühlung (Int./Ext.)	Lager HTi10	Bestellbezeichnung	Abmessungen (mm) LU	LCF	OAL	LF	PL	DCON
5.5	3	Ext.	★	* MAE0550MB	16.5	37.0	77.0	76	1.0	6
	3	Int.	★	* MAS0550MB	16.5	37.0	77.0	76	1.0	6
	6	Int.	●	* MAS0550LB	33.0	53.0	93.0	92	1.0	6
5.6	3	Ext.	★	MAE0560MB	16.8	40.0	80.0	79	1.0	6
	3	Int.	□	MAS0560MB	16.8	40.0	80.0	79	1.0	6
	6	Int.	★	MAS0560LB	33.6	58.0	98.0	97	1.0	6
5.7	3	Ext.	★	MAE0570MB	17.1	40.0	80.0	79	1.0	6
	3	Int.	□	MAS0570MB	17.1	40.0	80.0	79	1.0	6
	6	Int.	★	MAS0570LB	34.2	58.0	98.0	97	1.0	6
5.8	3	Ext.	★	MAE0580MB	17.4	40.1	80.1	79	1.1	6
	3	Int.	□	MAS0580MB	17.4	40.1	80.1	79	1.1	6
	6	Int.	★	MAS0580LB	34.8	58.1	98.1	97	1.1	6
5.9	3	Ext.	★	MAE0590MB	17.7	40.1	80.1	79	1.1	6
	3	Int.	□	MAS0590MB	17.7	40.1	80.1	79	1.1	6
	6	Int.	★	MAS0590LB	35.4	58.1	98.1	97	1.1	6
6.0	3	Ext.	★	MAE0600MB	18.0	40.1	80.1	79	1.1	6
	3	Int.	●	MAS0600MB	18.0	40.1	80.1	79	1.1	6
	6	Int.	●	MAS0600LB	36.0	58.1	98.1	97	1.1	6
6.1	3	Ext.	★	MAE0610MB	18.3	43.1	85.1	84	1.1	7
	3	Int.	□	MAS0610MB	18.3	43.1	85.1	84	1.1	7
	6	Int.	★	MAS0610LB	36.6	63.1	105.1	104	1.1	7
6.2	3	Ext.	★	MAE0620MB	18.6	43.1	85.1	84	1.1	7
	3	Int.	□	MAS0620MB	18.6	43.1	85.1	84	1.1	7
	6	Int.	★	MAS0620LB	37.2	63.1	105.1	104	1.1	7
6.3	3	Ext.	★	MAE0630MB	18.9	43.1	85.1	84	1.1	7
	3	Int.	□	MAS0630MB	18.9	43.1	85.1	84	1.1	7
	6	Int.	★	MAS0630LB	37.8	63.1	105.1	104	1.1	7
6.4	3	Ext.	★	MAE0640MB	19.2	43.2	85.2	84	1.2	7
	3	Int.	□	MAS0640MB	19.2	43.2	85.2	84	1.2	7
	6	Int.	★	MAS0640LB	38.4	63.2	105.2	104	1.2	7
6.5	3	Ext.	★	MAE0650MB	19.5	43.2	85.2	84	1.2	7
	3	Int.	★	MAS0650MB	19.5	43.2	85.2	84	1.2	7
	6	Int.	●	MAS0650LB	39.0	63.2	105.2	104	1.2	7
6.6	3	Ext.	★	MAE0660MB	19.8	43.2	85.2	84	1.2	7
	3	Int.	□	MAS0660MB	19.8	43.2	85.2	84	1.2	7
	6	Int.	★	MAS0660LB	39.6	66.2	108.2	107	1.2	7
6.7	3	Ext.	★	MAE0670MB	20.1	43.2	85.2	84	1.2	7
	3	Int.	□	MAS0670MB	20.1	43.2	85.2	84	1.2	7
	6	Int.	●	MAS0670LB	40.2	66.2	108.2	107	1.2	7
6.8	3	Ext.	★	MAE0680MB	20.4	43.2	85.2	84	1.2	7
	3	Int.	★	MAS0680MB	20.4	43.2	85.2	84	1.2	7
	6	Int.	●	MAS0680LB	40.8	66.2	108.2	107	1.2	7
6.9	3	Ext.	★	MAE0690MB	20.7	43.3	85.3	84	1.3	7
	3	Int.	□	MAS0690MB	20.7	43.3	85.3	84	1.3	7
	6	Int.	★	MAS0690LB	41.4	66.3	108.3	107	1.3	7
7.0	3	Ext.	★	MAE0700MB	21.0	43.3	85.3	84	1.3	7
	3	Int.	★	MAS0700MB	21.0	43.3	85.3	84	1.3	7
	6	Int.	●	MAS0700LB	42.0	66.3	108.3	107	1.3	7
7.1	3	Ext.	★	MAE0710MB	21.3	49.3	91.3	90	1.3	8
	3	Int.	□	MAS0710MB	21.3	49.3	91.3	90	1.3	8
	6	Int.	★	MAS0710LB	42.6	69.3	111.3	110	1.3	8
7.2	3	Ext.	★	MAE0720MB	21.6	49.3	91.3	90	1.3	8
	3	Int.	□	MAS0720MB	21.6	49.3	91.3	90	1.3	8
	6	Int.	★	MAS0720LB	43.2	69.3	111.3	110	1.3	8
7.3	3	Ext.	★	MAE0730MB	21.9	49.3	91.3	90	1.3	8
	3	Int.	□	MAS0730MB	21.9	49.3	91.3	90	1.3	8
	6	Int.	★	MAS0730LB	43.8	69.3	111.3	110	1.3	8
7.35	3	Ext.	★	* MAE0735MB	22.1	49.3	91.3	90	1.3	8
	3	Int.	★	* MAS0735MB	22.1	49.3	91.3	90	1.3	8
	6	Int.	●	* MAS0735LB	44.1	69.3	111.3	110	1.3	8
7.4	3	Ext.	★	MAE0740MB	22.2	49.3	91.3	90	1.3	8
	3	Int.	□	MAS0740MB	22.2	49.3	91.3	90	1.3	8
	6	Int.	★	MAS0740LB	44.4	69.3	111.3	110	1.3	8
7.5	3	Ext.	★	MAE0750MB	22.5	49.4	91.4	90	1.4	8
	3	Int.	□	MAS0750MB	22.5	49.4	91.4	90	1.4	8
	6	Int.	★	MAS0750LB	45.0	69.4	111.4	110	1.4	8
7.6	3	Ext.	★	MAE0760MB	22.8	49.4	91.4	90	1.4	8
	3	Int.	□	MAS0760MB	22.8	49.4	91.4	90	1.4	8
	6	Int.	★	MAS0760LB	45.6	73.4	115.4	114	1.4	8
7.7	3	Ext.	★	MAE0770MB	23.1	49.4	91.4	90	1.4	8
	3	Int.	□	MAS0770MB	23.1	49.4	91.4	90	1.4	8
	6	Int.	★	MAS0770LB	46.2	73.4	115.4	114	1.4	8
7.8	3	Ext.	★	MAE0780MB	23.4	49.4	91.4	90	1.4	8
	3	Int.	□	MAS0780MB	23.4	49.4	91.4	90	1.4	8
	6	Int.	★	MAS0780LB	46.8	73.4	115.4	114	1.4	8
7.9	3	Ext.	★	MAE0790MB	23.7	49.4	91.4	90	1.4	8
	3	Int.	□	MAS0790MB	23.7	49.4	91.4	90	1.4	8
	6	Int.	★	MAS0790LB	47.4	73.4	115.4	114	1.4	8
8.0	3	Ext.	★	MAE0800MB	24.0	49.5	91.5	90	1.5	8
	3	Int.	●	MAS0800MB	24.0	49.5	91.5	90	1.5	8
	6	Int.	●	MAS0800LB	48.0	73.5	115.5	114	1.5	8
8.1	3	Ext.	★	MAE0810MB	24.3	51.5	95.5	94	1.5	9
	3	Int.	□	MAS0810MB	24.3	51.5	95.5	94	1.5	9
	6	Int.	★	MAS0810LB	48.6	76.5	120.5	119	1.5	9
8.2	3	Ext.	★	MAE0820MB	24.6	51.5	95.5	94	1.5	9
	3	Int.	□	MAS0820MB	24.6	51.5	95.5	94	1.5	9
	6	Int.	★	MAS0820LB	49.2	76.5	120.5	119	1.5	9
8.3	3	Ext.	★	MAE0830MB	24.9	51.5	95.5	94	1.5	9
	3	Int.	□	MAS0830MB	24.9	51.5	95.5	94	1.5	9
	6	Int.	★	MAS0830LB	49.8	76.5	120.5	119	1.5	9
8.4	3	Ext.	★	MAE0840MB	25.2	51.5	95.5	94	1.5	9
	3	Int.	□	MAS0840MB	25.2	51.5	95.5	94	1.5	9
	6	Int.	★	MAS0840LB	50.4	76.5	120.5	119	1.5	9
8.5	3	Ext.	★	MAE0850MB	25.5	51.5	95.5	94	1.5	9
	3	Int.	●	MAS0850MB	25.5	51.5	95.5	94	1.5	9
	6	Int.	★	MAS0850LB	51.0	76.5	120.5	119	1.5	9

★ : Standardbohrung für Gewindeformen.

SCHNITTBEDINGUNGEN ➤ L105
TECHNISCHE DATEN ➤ N001

MAE,MAS

DC (mm)	Bohrtiefe (l/d)	Kühlung (Int./Ext.)	Lager HTi10	Bestellbezeichnung	Abmessungen (mm) LU	LCF	OAL	LF	PL	DCON
	3	Ext.	★	MAE0860MB	25.8	51.6	95.6	94	1.6	9
8.6	3	Int.	□	MAS0860MB	25.8	51.6	95.6	94	1.6	9
	6	Int.	★	MAS0860LB	51.6	78.6	122.6	121	1.6	9
	3	Ext.	★	MAE0870MB	26.1	51.6	95.6	94	1.6	9
8.7	3	Int.	□	MAS0870MB	26.1	51.6	95.6	94	1.6	9
	6	Int.	★	MAS0870LB	52.2	78.6	122.6	121	1.6	9
	3	Ext.	★	MAE0880MB	26.4	51.6	95.6	94	1.6	9
8.8	3	Int.	□	MAS0880MB	26.4	51.6	95.6	94	1.6	9
	6	Int.	★	MAS0880LB	52.8	78.6	122.6	121	1.6	9
	3	Ext.	★	MAE0890MB	26.7	51.6	95.6	94	1.6	9
8.9	3	Int.	□	MAS0890MB	26.7	51.6	95.6	94	1.6	9
	6	Int.	★	MAS0890LB	53.4	78.6	122.6	121	1.6	9
	3	Ext.	★	MAE0900MB	27.0	51.6	95.6	94	1.6	9
9.0	3	Int.	★	MAS0900MB	27.0	51.6	95.6	94	1.6	9
	6	Int.	●	MAS0900LB	54.0	78.6	122.6	121	1.6	9
	3	Ext.	★	MAE0910MB	27.3	54.7	98.7	97	1.7	10
9.1	3	Int.	□	MAS0910MB	27.3	54.7	98.7	97	1.7	10
	6	Int.	★	MAS0910LB	54.6	82.7	126.7	125	1.7	10
	3	Ext.	★	MAE0920MB	27.6	54.7	98.7	97	1.7	10
9.2	3	Int.	□	MAS0920MB	27.6	54.7	98.7	97	1.7	10
	6	Int.	★	MAS0920LB	55.2	82.7	126.7	125	1.7	10
	3	Ext.	★	*MAE0921MB	27.6	54.7	98.7	97	1.7	10
9.21	3	Int.	★	*MAS0921MB	27.6	54.7	98.7	97	1.7	10
	6	Int.	★	*MAS0921LB	55.3	82.7	126.7	125	1.7	10
	3	Ext.	★	MAE0930MB	27.9	54.7	98.7	97	1.7	10
9.3	3	Int.	□	MAS0930MB	27.9	54.7	98.7	97	1.7	10
	6	Int.	★	MAS0930LB	55.8	82.7	126.7	125	1.7	10
	3	Ext.	★	MAE0940MB	28.2	54.7	98.7	97	1.7	10
9.4	3	Int.	□	MAS0940MB	28.2	54.7	98.7	97	1.7	10
	6	Int.	★	MAS0940LB	56.4	82.7	126.7	125	1.7	10
	3	Ext.	★	MAE0950MB	28.5	54.7	98.7	97	1.7	10
9.5	3	Int.	★	MAS0950MB	28.5	54.7	98.7	97	1.7	10
	6	Int.	●	MAS0950LB	57.0	82.7	126.7	125	1.7	10
	3	Ext.	★	MAE0960MB	28.8	54.7	98.7	97	1.7	10
9.6	3	Int.	□	MAS0960MB	28.8	54.7	98.7	97	1.7	10
	6	Int.	★	MAS0960LB	57.6	82.7	126.7	125	1.7	10
	3	Ext.	★	MAE0970MB	29.1	54.8	98.8	97	1.8	10
9.7	3	Int.	□	MAS0970MB	29.1	54.8	98.8	97	1.8	10
	6	Int.	★	MAS0970LB	58.2	82.8	126.8	125	1.8	10
	3	Ext.	★	MAE0980MB	29.4	54.8	98.8	97	1.8	10
9.8	3	Int.	□	MAS0980MB	29.4	54.8	98.8	97	1.8	10
	6	Int.	★	MAS0980LB	58.8	82.8	126.8	125	1.8	10
	3	Ext.	★	MAE0990MB	29.7	54.8	98.8	97	1.8	10
9.9	3	Int.	□	MAS0990MB	29.7	54.8	98.8	97	1.8	10
	6	Int.	★	MAS0990LB	59.4	82.8	126.8	125	1.8	10
	3	Ext.	★	MAE1000MB	30.0	54.8	98.8	97	1.8	10
10.0	3	Int.	●	MAS1000MB	30.0	54.8	98.8	97	1.8	10
	6	Int.	●	MAS1000LB	60.0	82.8	126.8	125	1.8	10

DC (mm)	Bohrtiefe (l/d)	Kühlung (Int./Ext.)	Lager HTi10	Bestellbezeichnung	Abmessungen (mm) LU	LCF	OAL	LF	PL	DCON
	3	Ext.	□	MAE1010MB	30.3	56.8	102.8	101	1.8	11
10.1	3	Int.	□	MAS1010MB	30.3	56.8	102.8	101	1.8	11
	6	Int.	□	MAS1010LB	60.6	90.8	136.8	135	1.8	11
	3	Ext.	□	MAE1020MB	30.6	56.9	102.9	101	1.9	11
10.2	3	Int.	□	MAS1020MB	30.6	56.9	102.9	101	1.9	11
	6	Int.	□	MAS1020LB	61.2	90.9	136.9	135	1.9	11
	3	Ext.	★	MAE1030MB	30.9	56.9	102.9	101	1.9	11
10.3	3	Int.	★	MAS1030MB	30.9	56.9	102.9	101	1.9	11
	6	Int.	●	MAS1030LB	61.8	90.9	136.9	135	1.9	11
	3	Ext.	□	MAE1040MB	31.2	56.9	102.9	101	1.9	11
10.4	3	Int.	□	MAS1040MB	31.2	56.9	102.9	101	1.9	11
	6	Int.	□	MAS1040LB	62.4	90.9	136.9	135	1.9	11
	3	Ext.	★	MAE1050MB	31.5	56.9	102.9	101	1.9	11
10.5	3	Int.	★	MAS1050MB	31.5	56.9	102.9	101	1.9	11
	6	Int.	●	MAS1050LB	63.0	90.9	136.9	135	1.9	11
	3	Ext.	□	MAE1060MB	31.8	56.9	102.9	101	1.9	11
10.6	3	Int.	□	MAS1060MB	31.8	56.9	102.9	101	1.9	11
	6	Int.	□	MAS1060LB	63.6	90.9	136.9	135	1.9	11
	3	Ext.	□	MAE1070MB	32.1	56.9	102.9	101	1.9	11
10.7	3	Int.	□	MAS1070MB	32.1	56.9	102.9	101	1.9	11
	6	Int.	□	MAS1070LB	64.2	90.9	136.9	135	1.9	11
	3	Ext.	□	MAE1080MB	32.4	57.0	103.0	101	2.0	11
10.8	3	Int.	□	MAS1080MB	32.4	57.0	103.0	101	2.0	11
	6	Int.	□	MAS1080LB	64.8	91.0	137.0	135	2.0	11
	3	Ext.	□	MAE1090MB	32.7	57.0	103.0	101	2.0	11
10.9	3	Int.	□	MAS1090MB	32.7	57.0	103.0	101	2.0	11
	6	Int.	□	MAS1090LB	65.4	91.0	137.0	135	2.0	11
	3	Ext.	★	MAE1100MB	33.0	57.0	103.0	101	2.0	11
11.0	3	Int.	★	MAS1100MB	33.0	57.0	103.0	101	2.0	11
	6	Int.	●	MAS1100LB	66.0	91.0	137.0	135	2.0	11
	3	Ext.	★	*MAE1108MB	33.2	62.0	108.0	106	2.0	12
11.08	3	Int.	★	*MAS1108MB	33.2	62.0	108.0	106	2.0	12
	6	Int.	●	*MAS1108LB	66.5	96.0	142.0	140	2.0	12
	3	Ext.	□	MAE1110MB	33.3	62.0	108.0	106	2.0	12
11.1	3	Int.	□	MAS1110MB	33.3	62.0	108.0	106	2.0	12
	6	Int.	□	MAS1110LB	66.6	96.0	142.0	140	2.0	12
	3	Ext.	□	MAE1120MB	33.6	62.0	108.0	106	2.0	12
11.2	3	Int.	□	MAS1120MB	33.6	62.0	108.0	106	2.0	12
	6	Int.	□	MAS1120LB	67.2	96.0	142.0	140	2.0	12
	3	Ext.	□	MAE1130MB	33.9	62.1	108.1	106	2.1	12
11.3	3	Int.	□	MAS1130MB	33.9	62.1	108.1	106	2.1	12
	6	Int.	□	MAS1130LB	67.8	96.1	142.1	140	2.1	12
	3	Ext.	□	MAE1140MB	34.2	62.1	108.1	106	2.1	12
11.4	3	Int.	□	MAS1140MB	34.2	62.1	108.1	106	2.1	12
	6	Int.	□	MAS1140LB	68.4	96.1	142.1	140	2.1	12
	3	Ext.	□	MAE1150MB	34.5	62.1	108.1	106	2.1	12
11.5	3	Int.	□	MAS1150MB	34.5	62.1	108.1	106	2.1	12
	6	Int.	□	MAS1150LB	69.0	96.1	142.1	140	2.1	12

★ : Standardbohrung für Gewindeformen.

● : Lagerstandard. ★ : Lagerstandard in Japan.
□ : Nichtstandard, Herstellung nur auf Anfrage.

DC (mm)	Bohrtiefe (l/d)	Kühlung (Int./Ext.)	Lager HTi10	Bestellbezeichnung	Abmessungen (mm) LU	LCF	OAL	LF	PL	DCON
	3	Ext.	□	**MAE1160MB**	34.8	62.1	108.1	106	2.1	12
11.6	3	Int.	□	**MAS1160MB**	34.8	62.1	108.1	106	2.1	12
	6	Int.	□	**MAS1160LB**	69.6	96.1	142.1	140	2.1	12
	3	Ext.	□	**MAE1170MB**	35.1	62.1	108.1	106	2.1	12
11.7	3	Int.	□	**MAS1170MB**	35.1	62.1	108.1	106	2.1	12
	6	Int.	□	**MAS1170LB**	70.2	96.1	142.1	140	2.1	12
	3	Ext.	□	**MAE1180MB**	35.4	62.1	108.1	106	2.1	12
11.8	3	Int.	□	**MAS1180MB**	35.4	62.1	108.1	106	2.1	12
	6	Int.	□	**MAS1180LB**	70.8	96.1	142.1	140	2.1	12
	3	Ext.	□	**MAE1190MB**	35.7	62.2	108.2	106	2.2	12
11.9	3	Int.	□	**MAS1190MB**	35.7	62.2	108.2	106	2.2	12
	6	Int.	□	**MAS1190LB**	71.4	96.2	142.2	140	2.2	12
	3	Ext.	★	**MAE1200MB**	36.0	62.2	108.2	106	2.2	12
12.0	3	Int.	●	**MAS1200MB**	36.0	62.2	108.2	106	2.2	12
	6	Int.	●	**MAS1200LB**	72.0	96.2	142.2	140	2.2	12
	3	Ext.	□	**MAE1210MB**	36.3	67.2	117.2	115	2.2	13
12.1	3	Int.	□	**MAS1210MB**	36.3	67.2	117.2	115	2.2	13
	6	Int.	□	**MAS1210LB**	72.6	102.2	152.2	150	2.2	13
	3	Ext.	□	**MAE1220MB**	36.6	67.2	117.2	115	2.2	13
12.2	3	Int.	□	**MAS1220MB**	36.6	67.2	117.2	115	2.2	13
	6	Int.	□	**MAS1220LB**	73.2	102.2	152.2	150	2.2	13
	3	Ext.	□	**MAE1230MB**	36.9	67.2	117.2	115	2.2	13
12.3	3	Int.	□	**MAS1230MB**	36.9	67.2	117.2	115	2.2	13
	6	Int.	□	**MAS1230LB**	73.8	102.2	152.2	150	2.2	13
	3	Ext.	□	**MAE1240MB**	37.2	67.3	117.3	115	2.3	13
12.4	3	Int.	□	**MAS1240MB**	37.2	67.3	117.3	115	2.3	13
	6	Int.	□	**MAS1240LB**	74.4	102.3	152.3	150	2.3	13
	3	Ext.	★	**MAE1250MB**	37.5	67.3	117.3	115	2.3	13
12.5	3	Int.	●	**MAS1250MB**	37.5	67.3	117.3	115	2.3	13
	6	Int.	●	**MAS1250LB**	75.0	102.3	152.3	150	2.3	13
	3	Ext.	□	**MAE1260MB**	37.8	67.3	117.3	115	2.3	13
12.6	3	Int.	□	**MAS1260MB**	37.8	67.3	117.3	115	2.3	13
	6	Int.	□	**MAS1260LB**	75.6	102.3	152.3	150	2.3	13
	3	Ext.	□	**MAE1270MB**	38.1	67.3	117.3	115	2.3	13
12.7	3	Int.	□	**MAS1270MB**	38.1	67.3	117.3	115	2.3	13
	6	Int.	□	**MAS1270LB**	76.2	102.3	152.3	150	2.3	13
	3	Ext.	□	**MAE1280MB**	38.4	67.3	117.3	115	2.3	13
12.8	3	Int.	□	**MAS1280MB**	38.4	67.3	117.3	115	2.3	13
	6	Int.	□	**MAS1280LB**	76.8	102.3	152.3	150	2.3	13
	3	Ext.	□	**MAE1290MB**	38.7	67.3	117.3	115	2.3	13
12.9	3	Int.	□	**MAS1290MB**	38.7	67.3	117.3	115	2.3	13
	6	Int.	□	**MAS1290LB**	77.4	102.3	152.3	150	2.3	13
	3	Ext.	★	***MAE1296MB**	38.9	67.4	117.4	115	2.4	13
12.96	3	Int.	★	***MAS1296MB**	38.9	67.4	117.4	115	2.4	13
	6	Int.	★	***MAS1296LB**	77.8	102.4	152.4	150	2.4	13
	3	Ext.	★	**MAE1300MB**	39.0	67.4	117.4	115	2.4	13
13.0	3	Int.	★	**MAS1300MB**	39.0	67.4	117.4	115	2.4	13
	6	Int.	●	**MAS1300LB**	78.0	102.4	152.4	150	2.4	13
	3	Ext.	□	**MAE1310MB**	39.3	72.4	122.4	120	2.4	14
13.1	3	Int.	□	**MAS1310MB**	39.3	72.4	122.4	120	2.4	14
	6	Int.	□	**MAS1310LB**	78.6	112.4	162.4	160	2.4	14
	3	Ext.	□	**MAE1320MB**	39.6	72.4	122.4	120	2.4	14
13.2	3	Int.	□	**MAS1320MB**	39.6	72.4	122.4	120	2.4	14
	6	Int.	□	**MAS1320LB**	79.2	112.4	162.4	160	2.4	14
	3	Ext.	□	**MAE1330MB**	39.9	72.4	122.4	120	2.4	14
13.3	3	Int.	□	**MAS1330MB**	39.9	72.4	122.4	120	2.4	14
	6	Int.	□	**MAS1330LB**	79.8	112.4	162.4	160	2.4	14
	3	Ext.	□	**MAE1340MB**	40.2	72.4	122.4	120	2.4	14
13.4	3	Int.	□	**MAS1340MB**	40.2	72.4	122.4	120	2.4	14
	6	Int.	□	**MAS1340LB**	80.4	112.4	162.4	160	2.4	14
	3	Ext.	★	**MAE1350MB**	40.5	72.5	122.5	120	2.5	14
13.5	3	Int.	★	**MAS1350MB**	40.5	72.5	122.5	120	2.5	14
	6	Int.	★	**MAS1350LB**	81.0	112.5	162.5	160	2.5	14
	3	Ext.	□	**MAE1360MB**	40.8	72.5	122.5	120	2.5	14
13.6	3	Int.	□	**MAS1360MB**	40.8	72.5	122.5	120	2.5	14
	6	Int.	□	**MAS1360LB**	81.6	112.5	162.5	160	2.5	14
	3	Ext.	□	**MAE1370MB**	41.1	72.5	122.5	120	2.5	14
13.7	3	Int.	□	**MAS1370MB**	41.1	72.5	122.5	120	2.5	14
	6	Int.	□	**MAS1370LB**	82.2	112.5	162.5	160	2.5	14
	3	Ext.	□	**MAE1380MB**	41.4	72.5	122.5	120	2.5	14
13.8	3	Int.	□	**MAS1380MB**	41.4	72.5	122.5	120	2.5	14
	6	Int.	□	**MAS1380LB**	82.8	112.5	162.5	160	2.5	14
	3	Ext.	□	**MAE1390MB**	41.7	72.5	122.5	120	2.5	14
13.9	3	Int.	□	**MAS1390MB**	41.7	72.5	122.5	120	2.5	14
	6	Int.	□	**MAS1390LB**	83.4	112.5	162.5	160	2.5	14
	3	Ext.	★	**MAE1400MB**	42.0	72.5	122.5	120	2.5	14
14.0	3	Int.	●	**MAS1400MB**	42.0	72.5	122.5	120	2.5	14
	6	Int.	●	**MAS1400LB**	84.0	112.5	162.5	160	2.5	14
	3	Ext.	□	**MAE1410MB**	42.3	74.6	132.6	130	2.6	15
14.1	3	Int.	□	**MAS1410MB**	42.3	74.6	132.6	130	2.6	15
	6	Int.	□	**MAS1410LB**	84.6	117.6	175.6	173	2.6	15
	3	Ext.	□	**MAE1420MB**	42.6	74.6	132.6	130	2.6	15
14.2	3	Int.	□	**MAS1420MB**	42.6	74.6	132.6	130	2.6	15
	6	Int.	□	**MAS1420LB**	85.2	117.6	175.6	173	2.6	15
	3	Ext.	□	**MAE1430MB**	42.9	74.6	132.6	130	2.6	15
14.3	3	Int.	□	**MAS1430MB**	42.9	74.6	132.6	130	2.6	15
	6	Int.	□	**MAS1430LB**	85.8	117.6	175.6	173	2.6	15
	3	Ext.	□	**MAE1440MB**	43.2	74.6	132.6	130	2.6	15
14.4	3	Int.	□	**MAS1440MB**	43.2	74.6	132.6	130	2.6	15
	6	Int.	□	**MAS1440LB**	86.4	117.6	175.6	173	2.6	15
	3	Ext.	□	**MAE1450MB**	43.5	74.6	132.6	130	2.6	15
14.5	3	Int.	□	**MAS1450MB**	43.5	74.6	132.6	130	2.6	15
	6	Int.	□	**MAS1450LB**	87.0	117.6	175.6	173	2.6	15
	3	Ext.	□	**MAE1460MB**	43.8	74.7	132.7	130	2.7	15
14.6	3	Int.	□	**MAS1460MB**	43.8	74.7	132.7	130	2.7	15
	6	Int.	□	**MAS1460LB**	87.6	117.7	175.7	173	2.7	15

★ : Standardbohrung für Gewindeformen.

SCHNITTBEDINGUNGEN ➤ L105
TECHNISCHE DATEN ➤ N001

MAE,MAS

DC (mm)	Bohrtiefe (l/d)	Kühlung (Int./Ext.)	Lager HTi10	Bestellbezeichnung	Abmessungen (mm) LU	LCF	OAL	LF	PL	DCON
	3	Ext.	□	**MAE1470MB**	44.1	74.7	132.7	130	2.7	15
14.7	3	Int.	□	**MAS1470MB**	44.1	74.7	132.7	130	2.7	15
	6	Int.	□	**MAS1470LB**	88.2	117.7	175.7	173	2.7	15
	3	Ext.	□	**MAE1480MB**	44.4	74.7	132.7	130	2.7	15
14.8	3	Int.	□	**MAS1480MB**	44.4	74.7	132.7	130	2.7	15
	6	Int.	□	**MAS1480LB**	88.8	117.7	175.7	173	2.7	15
	3	Ext.	□	**MAE1490MB**	44.7	74.7	132.7	130	2.7	15
14.9	3	Int.	□	**MAS1490MB**	44.7	74.7	132.7	130	2.7	15
	6	Int.	□	**MAS1490LB**	89.4	117.7	175.7	173	2.7	15
	3	Ext.	★	***MAE1496MB**	44.9	74.7	132.7	130	2.7	15
14.96	3	Int.	★	***MAS1496MB**	44.9	74.7	132.7	130	2.7	15
	6	Int.	★	***MAS1496LB**	89.8	117.7	175.7	173	2.7	15
	3	Ext.	★	**MAE1500MB**	45.0	74.7	132.7	130	2.7	15
15.0	3	Int.	★	**MAS1500MB**	45.0	74.7	132.7	130	2.7	15
	6	Int.	●	**MAS1500LB**	90.0	117.7	175.7	173	2.7	15
	3	Ext.	□	**MAE1510MB**	45.3	78.7	136.7	134	2.7	16
15.1	3	Int.	□	**MAS1510MB**	45.3	78.7	136.7	134	2.7	16
	6	Int.	□	**MAS1510LB**	90.6	122.7	180.7	178	2.7	16
	3	Ext.	□	**MAE1520MB**	45.6	78.8	136.8	134	2.8	16
15.2	3	Int.	□	**MAS1520MB**	45.6	78.8	136.8	134	2.8	16
	6	Int.	□	**MAS1520LB**	91.2	122.8	180.8	178	2.8	16
	3	Ext.	□	**MAE1530MB**	45.9	78.8	136.8	134	2.8	16
15.3	3	Int.	□	**MAS1530MB**	45.9	78.8	136.8	134	2.8	16
	6	Int.	□	**MAS1530LB**	91.8	122.8	180.8	178	2.8	16
	3	Ext.	□	**MAE1540MB**	46.2	78.8	136.8	134	2.8	16
15.4	3	Int.	□	**MAS1540MB**	46.2	78.8	136.8	134	2.8	16
	6	Int.	□	**MAS1540LB**	92.4	122.8	180.8	178	2.8	16
	3	Ext.	□	**MAE1550MB**	46.5	78.8	136.8	134	2.8	16
15.5	3	Int.	□	**MAS1550MB**	46.5	78.8	136.8	134	2.8	16
	6	Int.	□	**MAS1550LB**	93.0	122.8	180.8	178	2.8	16
	3	Ext.	□	**MAE1560MB**	46.8	78.8	136.8	134	2.8	16
15.6	3	Int.	□	**MAS1560MB**	46.8	78.8	136.8	134	2.8	16
	6	Int.	□	**MAS1560LB**	93.6	122.8	180.8	178	2.8	16
	3	Ext.	□	**MAE1570MB**	47.1	78.9	136.9	134	2.9	16
15.7	3	Int.	□	**MAS1570MB**	47.1	78.9	136.9	134	2.9	16
	6	Int.	□	**MAS1570LB**	94.2	122.9	180.9	178	2.9	16
	3	Ext.	□	**MAE1580MB**	47.4	78.9	136.9	134	2.9	16
15.8	3	Int.	□	**MAS1580MB**	47.4	78.9	136.9	134	2.9	16
	6	Int.	□	**MAS1580LB**	94.8	122.9	180.9	178	2.9	16
	3	Ext.	□	**MAE1590MB**	47.7	78.9	136.9	134	2.9	16
15.9	3	Int.	□	**MAS1590MB**	47.7	78.9	136.9	134	2.9	16
	6	Int.	□	**MAS1590LB**	95.4	122.9	180.9	178	2.9	16
	3	Ext.	★	**MAE1600MB**	48.0	78.9	136.9	134	2.9	16
16.0	3	Int.	★	**MAS1600MB**	48.0	78.9	136.9	134	2.9	16
	6	Int.	●	**MAS1600LB**	96.0	122.9	180.9	178	2.9	16

∗ : Standardbohrung für Gewindeformen.

● : Lagerstandard. ★ : Lagerstandard in Japan.
□ : Nichtstandard, Herstellung nur auf Anfrage.

SCHNITTDATENEMPFEHLUNGEN

Typ		Werkstoff	Bohrer Durchm. **ϕ3.0—ϕ6.0**		Bohrer Durchm. **ϕ6.1—ϕ10.0**		Bohrer Durchm. **ϕ10.1—ϕ16.0**	
			Schnittgeschw. (m/min)	Vorschub (mm/U.)	Schnittgeschw. (m/min)	Vorschub (mm/U.)	Schnittgeschw. (m/min)	Vorschub (mm/U.)
MAE	N	Aluminium Leg.	90 (40—140)	0.15 (0.05—0.3)	100 (50—150)	0.2 (0.1—0.3)	120 (60—170)	0.25 (0.1—0.4)
		Aluminiumgusslegierung	100 (60—150)	0.12 (0.05—0.25)	110 (70—160)	0.15 (0.05—0.25)	130 (80—180)	0.2 (0.1—0.3)
	K	Grauguss	40 (20—60)	0.15 (0.1—0.2)	60 (40—80)	0.2 (0.1—0.3)	80 (60—100)	0.3 (0.2—0.4)
		Duktiler Guss	30 (20—40)	0.1 (0.05—0.15)	40 (20—60)	0.12 (0.05—0.2)	60 (40—80)	0.2 (0.1—0.3)
MAS	N	Aluminium Leg.	100 (60—150)	0.15 (0.05—0.3)	120 (80—170)	0.2 (0.1—0.3)	150 (100—200)	0.25 (0.1—0.4)
		Aluminiumgusslegierung	120 (80—170)	0.12 (0.05—0.25)	150 (100—180)	0.15 (0.05—0.25)	160 (120—200)	0.2 (0.1—0.3)
	K	Grauguss	60 (40—80)	0.15 (0.1—0.2)	80 (60—110)	0.2 (0.1—0.3)	100 (70—130)	0.3 (0.2—0.4)
		Duktiler Guss	45 (30—60)	0.1 (0.05—0.15)	60 (40—80)	0.12 (0.05—0.2)	80 (60—100)	0.2 (0.1—0.3)

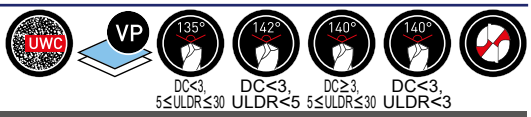
LOCH- UND BOHRDURCHMESSER FÜR GEWINDEBOHREN

Gewindegröße	Gewindebohren			Gewalztes Gewindebohren		
	Bohrer Durchm. **(DC)**	Toleranz der Lochdurchmesser		Bohrer Durchm. **(DC)**	Toleranz der Lochdurchmesser	
		min	max		min	max
M4x0.7	**3.3**	3.242	3.422	**3.65**	3.65	3.70
M5x0.8	**4.2**	4.134	4.334	**4.60**	4.59	4.66
M6x1.0	**5.0**	4.917	5.153	**5.50**	5.48	5.57
M8x1.25	**6.8**	6.647	6.912	**7.35**	7.34	7.41
M10x1.5	**8.5**	8.376	8.676	**9.21**	9.18	9.28
M12x1.75	**10.3**	10.106	10.441	**11.08**	11.05	11.15
M14x2	**12.0**	11.835	12.210	**12.96**	12.92	13.04
M16x2	**14.0**	13.835	14.210	**14.96**	14.92	15.04

BOHREN (VOLLHARTMETALL)

MHS

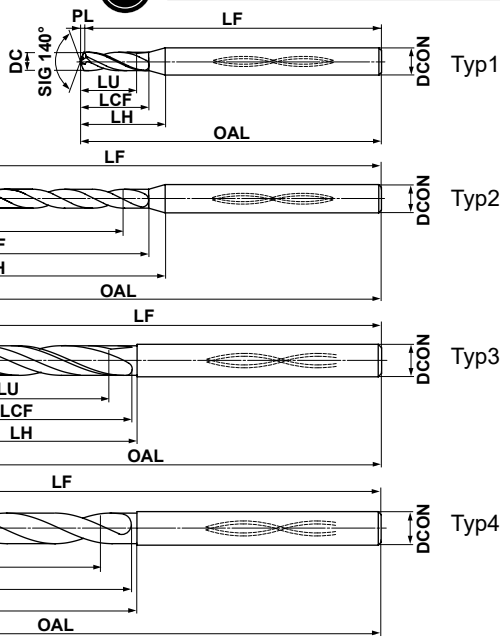
- Verstärkte Geometrie mit 4 Führungsfasen für eine prozesssichere Bearbeitung.
- Für das Tieflochbohren ohne Lüften in gehärteten Werkstoffen.



P M K N S H

	DC≤3	3<DC≤6	6<DC≤10	10<DC≤12
	+0.010 −0.002	+0.010 −0.002	+0.010 −0.005	+0.010 −0.008
h6	0 −0.006	0 −0.008	0 −0.009	0 −0.011





(Bemerkung 1) MHS Bohrer eignen sich für die Verwendung mit Schrumpfaufnahmen.
(Bemerkung 2) Verwenden Sie den kürzesten Bohrer im gleichen Durchmesser als Pilotbohrer.

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager VP15TF	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
	3	★	**MHS0095L006B**	2.85	6.17	9.97	60.17	60	0.17	3	1
	6	★	**MHS0095L009B**	5.70	9.17	12.97	60.17	60	0.17	3	2
0.95	13	★	**MHS0095L015B**	12.35	15.17	18.97	60.17	60	0.17	3	2
	23	★	**MHS0095L025B**	21.85	25.17	28.97	60.17	60	0.17	3	2
	30	★	**MHS0095L035B**	28.50	35.17	38.97	80.17	80	0.17	3	2
	3	●	**MHS0100L006B**	3.0	6.2	9.9	60.2	60	0.2	3	1
	6	●	**MHS0100L009B**	6.0	9.2	12.9	60.2	60	0.2	3	2
1.00	12	★	**MHS0100L015B**	12.0	15.2	18.9	60.2	60	0.2	3	2
	22	●	**MHS0100L025B**	22.0	25.2	28.9	60.2	60	0.2	3	2
	30	●	**MHS0100L035B**	30.0	35.2	38.9	80.2	80	0.2	3	2
	2	●	**MHS0110L006B**	2.2	6.2	9.7	60.2	60	0.2	3	1
	5	★	**MHS0110L009B**	5.5	9.2	12.7	60.2	60	0.2	3	2
1.10	11	●	**MHS0110L015B**	12.1	15.2	18.7	60.2	60	0.2	3	2
	20	●	**MHS0110L025B**	22.0	25.2	28.7	60.2	60	0.2	3	2
	29	●	**MHS0110L035B**	31.9	35.2	38.7	80.2	80	0.2	3	2
	2	●	**MHS0120L006B**	2.4	6.2	9.6	60.2	60	0.2	3	1
	5	★	**MHS0120L009B**	6.0	9.2	12.6	60.2	60	0.2	3	2
1.20	10	●	**MHS0120L015B**	12.0	15.2	18.6	60.2	60	0.2	3	2
	18	●	**MHS0120L025B**	21.6	25.2	28.6	60.2	60	0.2	3	2
	26	●	**MHS0120L035B**	31.2	35.2	38.6	80.2	80	0.2	3	2
	2	●	**MHS0130L007B**	2.6	7.2	10.4	60.2	60	0.2	3	1
	5	★	**MHS0130L011B**	6.5	11.3	14.5	60.3	60	0.3	3	2
1.30	12	●	**MHS0130L020B**	15.6	20.3	23.5	60.3	60	0.3	3	2
	20	●	**MHS0130L030B**	26.0	30.3	33.5	80.3	80	0.3	3	2
	30	●	**MHS0130L045B**	39.0	45.3	48.5	80.3	80	0.3	3	2

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager VP15TF	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
	2	●	**MHS0140L007B**	2.8	7.3	10.3	60.3	60	0.3	3	1
	5	★	**MHS0140L011B**	7.0	11.3	14.3	60.3	60	0.3	3	2
1.40	11	●	**MHS0140L020B**	15.4	20.3	23.3	60.3	60	0.3	3	2
	18	★	**MHS0140L030B**	25.2	30.3	33.3	80.3	80	0.3	3	2
	29	★	**MHS0140L045B**	40.6	45.3	48.3	80.3	80	0.3	3	2
	3	●	**MHS0145L008B**	4.4	8.3	11.2	60.3	60	0.3	3	1
	6	★	**MHS0145L013B**	8.7	13.3	16.2	60.3	60	0.3	3	2
1.45	11	★	**MHS0145L020B**	16.0	20.3	23.2	60.3	60	0.3	3	2
	21	●	**MHS0145L035B**	30.5	35.3	38.2	80.3	80	0.3	3	2
	30	★	**MHS0145L055B**	43.5	55.3	58.2	100.3	100	0.3	3	2
	2	●	**MHS0150L008B**	3.0	8.3	11.1	60.3	60	0.3	3	1
	6	★	**MHS0150L013B**	9.0	13.3	16.1	60.3	60	0.3	3	2
1.50	10	●	**MHS0150L020B**	15.0	20.3	23.1	60.3	60	0.3	3	2
	20	●	**MHS0150L035B**	30.0	35.3	38.1	80.3	80	0.3	3	2
	30	●	**MHS0150L055B**	45.0	55.3	58.1	100.3	100	0.3	3	2
	2	●	**MHS0160L008B**	3.2	8.3	10.9	60.3	60	0.3	3	1
	5	★	**MHS0160L013B**	8.0	13.3	15.9	60.3	60	0.3	3	2
1.60	10	●	**MHS0160L020B**	16.0	20.3	22.9	60.3	60	0.3	3	2
	19	●	**MHS0160L035B**	30.4	35.3	37.9	80.3	80	0.3	3	2
	30	●	**MHS0160L055B**	48.0	55.3	57.9	100.3	100	0.3	3	2
	2	●	**MHS0170L008B**	3.4	8.3	10.7	60.3	60	0.3	3	1
	5	★	**MHS0170L013B**	8.5	13.4	15.8	60.4	60	0.4	3	2
1.70	9	●	**MHS0170L020B**	15.3	20.4	22.8	60.4	60	0.4	3	2
	18	●	**MHS0170L035B**	30.6	35.4	37.8	80.4	80	0.4	3	2
	29	●	**MHS0170L055B**	49.3	55.4	57.8	100.4	100	0.4	3	2

(Bemerkung) Bei Bedarf von abweichenden Geometrien setzen Sie sich mit unserem Hause in Verbindung.
(Andere Durchmesser und Längen können bestellt werden).

● : Lagerstandard. ★ : Lagerstandard in Japan.
□ : Nichtstandard, Herstellung nur auf Anfrage.

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager VP15TF	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
	3	●	**MHS0180L010B**	5.4	10.3	12.5	60.3	60	0.3	3	1
	5	★	**MHS0180L015B**	9.0	15.4	17.6	60.4	60	0.4	3	2
1.80	11	●	**MHS0180L025B**	19.8	25.4	27.6	60.4	60	0.4	3	2
	22	●	**MHS0180L045B**	39.6	45.4	47.6	80.4	80	0.4	3	2
	30	●	**MHS0180L065B**	54.0	65.4	67.6	100.4	100	0.4	3	2
	2	●	**MHS0190L010B**	3.8	10.3	12.4	60.3	60	0.3	3	1
	5	★	**MHS0190L015B**	9.5	15.4	17.5	60.4	60	0.4	3	2
1.90	10	●	**MHS0190L025B**	19.0	25.4	27.5	60.4	60	0.4	3	2
	21	●	**MHS0190L045B**	39.9	45.4	47.5	80.4	80	0.4	3	2
	30	●	**MHS0190L065B**	57.0	65.4	67.5	100.4	100	0.4	3	2
	2	●	**MHS0195L010B**	3.9	10.4	12.4	60.4	60	0.4	3	1
	5	★	**MHS0195L015B**	9.8	15.4	17.4	60.4	60	0.4	3	2
1.95	10	★	**MHS0195L025B**	19.5	25.4	27.4	60.4	60	0.4	3	2
	20	●	**MHS0195L045B**	39.0	45.4	47.4	80.4	80	0.4	3	2
	30	★	**MHS0195L065B**	58.5	65.4	67.4	100.4	100	0.4	3	2
	2	●	**MHS0200L010B**	4.0	10.4	12.3	60.4	60	0.4	3	1
	5	★	**MHS0200L015B**	10.0	15.4	17.3	60.4	60	0.4	3	2
2.00	9	●	**MHS0200L025B**	18.0	25.4	27.3	60.4	60	0.4	3	2
	20	●	**MHS0200L045B**	40.0	45.4	47.3	80.4	80	0.4	3	2
	30	●	**MHS0200L065B**	60.0	65.4	67.3	100.4	100	0.4	3	2
	3	●	**MHS0210L012B**	6.3	12.4	14.1	60.4	60	0.4	3	1
	7	★	**MHS0210L020B**	14.7	20.4	22.1	60.4	60	0.4	3	2
2.10	11	●	**MHS0210L030B**	23.1	30.4	32.1	80.4	80	0.4	3	2
	23	●	**MHS0210L055B**	48.3	55.4	57.1	100.4	100	0.4	3	2
	30	●	**MHS0210L075B**	63.0	75.4	77.1	120.4	120	0.4	3	2
	2	●	**MHS0220L012B**	4.4	12.4	13.9	60.4	60	0.4	3	1
	6	★	**MHS0220L020B**	13.2	20.5	22.0	60.5	60	0.5	3	2
2.20	11	●	**MHS0220L030B**	24.2	30.5	32.0	80.5	80	0.5	3	2
	22	●	**MHS0220L055B**	48.4	55.5	57.0	100.5	100	0.5	3	2
	30	●	**MHS0220L075B**	66.0	75.5	77.0	120.5	120	0.5	3	2
	2	●	**MHS0230L012B**	4.6	12.4	13.7	60.4	60	0.4	3	1
	6	★	**MHS0230L020B**	13.8	20.5	21.8	60.5	60	0.5	3	2
2.30	10	●	**MHS0230L030B**	23.0	30.5	31.8	80.5	80	0.5	3	2
	21	●	**MHS0230L055B**	48.3	55.5	56.8	100.5	100	0.5	3	2
	30	●	**MHS0230L075B**	69.0	75.5	76.8	120.5	120	0.5	3	2
	2	●	**MHS0240L012B**	4.8	12.4	13.5	60.4	60	0.4	3	1
	5	★	**MHS0240L020B**	12.0	20.5	21.6	60.5	60	0.5	3	2
2.40	9	●	**MHS0240L030B**	21.6	30.5	31.6	80.5	80	0.5	3	2
	20	●	**MHS0240L055B**	48.0	55.5	56.6	100.5	100	0.5	3	2
	28	●	**MHS0240L075B**	67.2	75.5	76.6	120.5	120	0.5	3	2
	2	★	**MHS0245L013B**	4.9	13.4	14.4	70.4	70	0.4	4	1
	5	★	**MHS0245L020B**	12.3	20.5	21.5	70.5	70	0.5	4	2
2.45	11	★	**MHS0245L035B**	27.0	35.5	36.5	90.5	90	0.5	4	2
	24	★	**MHS0245L065B**	58.8	65.5	66.5	110.5	110	0.5	4	2
	30	★	**MHS0245L090B**	73.5	90.5	91.5	140.5	140	0.5	4	2
	2	●	**MHS0250L013B**	5.0	13.5	16.3	70.5	70	0.5	4	1
	5	★	**MHS0250L020B**	12.5	20.5	23.3	70.5	70	0.5	4	2
2.50	11	●	**MHS0250L035B**	27.5	35.5	38.3	90.5	90	0.5	4	2
	23	●	**MHS0250L065B**	57.5	65.5	68.3	110.5	110	0.5	4	2
	30	●	**MHS0250L090B**	75.0	90.5	93.3	140.5	140	0.5	4	2

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager VP15TF	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
	2	●	**MHS0260L013B**	5.2	13.5	16.1	70.5	70	0.5	4	1
	5	★	**MHS0260L020B**	13.0	20.5	23.1	70.5	70	0.5	4	2
2.60	10	●	**MHS0260L035B**	26.0	35.5	38.1	90.5	90	0.5	4	2
	22	●	**MHS0260L065B**	57.2	65.5	68.1	110.5	110	0.5	4	2
	30	●	**MHS0260L090B**	78.0	90.5	93.1	140.5	140	0.5	4	2
	2	●	**MHS0270L013B**	5.4	13.5	15.9	70.5	70	0.5	4	1
	4	★	**MHS0270L020B**	10.8	20.6	23.0	70.6	70	0.6	4	2
2.70	10	●	**MHS0270L035B**	27.0	35.6	38.0	90.6	90	0.6	4	2
	21	●	**MHS0270L065B**	56.7	65.6	68.0	110.6	110	0.6	4	2
	30	●	**MHS0270L090B**	81.0	90.6	93.0	140.6	140	0.6	4	2
	2	●	**MHS0280L014B**	5.6	14.5	16.7	70.5	70	0.5	4	1
	4	★	**MHS0280L020B**	11.2	20.6	22.8	70.6	70	0.6	4	2
2.80	9	●	**MHS0280L035B**	25.2	35.6	37.8	90.6	90	0.6	4	2
	20	●	**MHS0280L065B**	56.0	65.6	67.8	110.6	110	0.6	4	2
	29	●	**MHS0280L090B**	81.2	90.6	92.8	140.6	140	0.6	4	2
	2	●	**MHS0290L014B**	5.8	14.5	16.6	70.5	70	0.5	4	1
	4	★	**MHS0290L020B**	11.6	20.6	22.7	70.6	70	0.6	4	2
2.90	9	●	**MHS0290L035B**	26.1	35.6	37.7	90.6	90	0.6	4	2
	19	●	**MHS0290L065B**	55.1	65.6	67.7	110.6	110	0.6	4	2
	28	●	**MHS0290L090B**	81.2	90.6	92.7	140.6	140	0.6	4	2
	2	★	**MHS0295L014B**	5.9	14.5	16.5	70.5	70	0.5	4	1
	4	★	**MHS0295L020B**	11.8	20.6	22.6	70.6	70	0.6	4	2
2.95	9	★	**MHS0295L035B**	26.6	35.6	37.6	90.6	90	0.6	4	2
	19	●	**MHS0295L065B**	56.1	65.6	67.6	110.6	110	0.6	4	2
	28	★	**MHS0295L090B**	82.6	90.6	92.6	140.6	140	0.6	4	2
	4	●	**MHS0300L020B**	12.0	19.5	20.5	70.5	70	0.5	4	3
3.0	10	●	**MHS0300L040B**	30.0	39.5	40.5	90.5	90	0.5	4	4
	17	●	**MHS0300L060B**	51.0	59.5	60.5	110.5	110	0.5	4	4
	27	●	**MHS0300L090B**	81.0	89.5	90.5	140.5	140	0.5	4	4
	4	□	**MHS0310L020B**	12.4	20.0	20.5	70.5	70	0.5	4	3
3.1	10	□	**MHS0310L040B**	31.0	40.1	40.6	90.6	90	0.6	4	4
	17	□	**MHS0310L060B**	52.7	60.1	60.6	110.6	110	0.6	4	4
	26	□	**MHS0310L090B**	80.6	90.1	90.6	140.6	140	0.6	4	4
	4	□	**MHS0320L020B**	12.8	20.1	20.6	70.6	70	0.6	4	3
3.2	10	□	**MHS0320L040B**	32.0	40.1	40.6	90.6	90	0.6	4	4
	16	□	**MHS0320L060B**	51.2	60.1	60.6	110.6	110	0.6	4	4
	25	□	**MHS0320L090B**	80.0	90.1	90.6	140.6	140	0.6	4	4
	3	□	**MHS0330L020B**	9.9	20.1	20.6	70.6	70	0.6	4	3
3.3	9	□	**MHS0330L040B**	29.7	40.1	40.6	90.6	90	0.6	4	4
	16	□	**MHS0330L060B**	52.8	60.1	60.6	110.6	110	0.6	4	4
	25	□	**MHS0330L090B**	82.5	90.1	90.6	140.6	140	0.6	4	4
	3	□	**MHS0340L020B**	10.2	20.1	20.6	70.6	70	0.6	4	3
3.4	9	□	**MHS0340L040B**	30.6	40.1	40.6	90.6	90	0.6	4	4
	15	□	**MHS0340L060B**	51.0	60.1	60.6	110.6	110	0.6	4	4
	24	□	**MHS0340L090B**	81.6	90.1	90.6	140.6	140	0.6	4	4
	3	●	**MHS0350L020B**	10.5	20.1	20.6	70.6	70	0.6	4	3
3.5	9	●	**MHS0350L040B**	31.5	40.1	40.6	90.6	90	0.6	4	4
	14	●	**MHS0350L060B**	49.0	60.1	60.6	110.6	110	0.6	4	4
	23	●	**MHS0350L090B**	80.5	90.1	90.6	140.6	140	0.6	4	4

BOHREN

SCHNITTBEDINGUNGEN ➤ L114
ANWENDUNGSHINWEISE ➤ L115
TECHNISCHE DATEN ➤ N001

MHS

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager VP15TF	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
3.6	3	□	MHS0360L020B	10.8	20.6	20.6	70.6	70	0.6	4	3
	9	□	MHS0360L040B	32.4	40.7	40.7	90.7	90	0.7	4	4
	14	□	MHS0360L060B	50.4	60.7	60.7	110.7	110	0.7	4	4
	22	□	MHS0360L090B	79.2	90.7	90.7	140.7	140	0.7	4	4
	30	□	MHS0360L120B	108.0	120.7	120.7	170.7	170	0.7	4	4
3.7	3	□	MHS0370L020B	11.1	20.6	20.6	70.6	70	0.6	4	3
	8	□	MHS0370L040B	29.6	40.7	40.7	90.7	90	0.7	4	4
	14	□	MHS0370L060B	51.8	60.7	60.7	110.7	110	0.7	4	4
	22	□	MHS0370L090B	81.4	90.7	90.7	140.7	140	0.7	4	4
	30	□	MHS0370L120B	111.0	120.7	120.7	170.7	170	0.7	4	4
3.8	3	★	MHS0380L020B	11.4	20.7	20.7	70.7	70	0.7	4	3
	8	★	MHS0380L040B	30.4	40.7	40.7	90.7	90	0.7	4	4
	13	★	MHS0380L060B	49.4	60.7	60.7	110.7	110	0.7	4	4
	21	★	MHS0380L090B	79.8	90.7	90.7	140.7	140	0.7	4	4
	29	★	MHS0380L120B	110.2	120.7	120.7	170.7	170	0.7	4	4
3.9	3	□	MHS0390L020B	11.7	20.7	20.7	70.7	70	0.7	4	3
	8	□	MHS0390L040B	31.2	40.7	40.7	90.7	90	0.7	4	4
	13	□	MHS0390L060B	50.7	60.7	60.7	110.7	110	0.7	4	4
	21	□	MHS0390L090B	81.9	90.7	90.7	140.7	140	0.7	4	4
	28	□	MHS0390L120B	109.2	120.7	120.7	170.7	170	0.7	4	4
4.0	2	●	MHS0400L020B	8.0	20.7	20.7	70.7	70	0.7	4	3
	7	●	MHS0400L040B	28.0	40.7	40.7	90.7	90	0.7	4	4
	12	●	MHS0400L060B	48.0	60.7	60.7	110.7	110	0.7	4	4
	20	●	MHS0400L090B	80.0	90.7	90.7	140.7	140	0.7	4	4
	27	●	MHS0400L120B	108.0	120.7	120.7	170.7	170	0.7	4	4
4.1	2	□	MHS0410L020B	8.2	19.2	20.7	70.7	70	0.7	6	3
	7	□	MHS0410L040B	28.7	39.2	40.7	90.7	90	0.7	6	4
	12	□	MHS0410L060B	49.2	59.2	60.7	110.7	110	0.7	6	4
	19	□	MHS0410L090B	77.9	89.2	90.7	140.7	140	0.7	6	4
	26	□	MHS0410L120B	106.6	119.2	120.7	170.7	170	0.7	6	4
4.2	2	□	MHS0420L020B	8.4	19.2	20.7	70.7	70	0.7	6	3
	7	□	MHS0420L040B	29.4	39.3	40.8	90.8	90	0.8	6	4
	11	□	MHS0420L060B	46.2	59.3	60.8	110.8	110	0.8	6	4
	19	□	MHS0420L090B	79.8	89.3	90.8	140.8	140	0.8	6	4
	26	□	MHS0420L120B	109.2	119.3	120.8	170.8	170	0.8	6	4
4.3	2	□	MHS0430L020B	8.6	19.2	20.7	70.7	70	0.7	6	3
	6	□	MHS0430L040B	25.8	39.3	40.8	90.8	90	0.8	6	4
	11	□	MHS0430L060B	47.3	59.3	60.8	110.8	110	0.8	6	4
	18	□	MHS0430L090B	77.4	89.3	90.8	140.8	140	0.8	6	4
	25	□	MHS0430L120B	107.5	119.3	120.8	170.8	170	0.8	6	4
4.4	2	□	MHS0440L020B	8.8	19.3	20.8	70.8	70	0.8	6	3
	6	□	MHS0440L040B	26.4	39.3	40.8	90.8	90	0.8	6	4
	11	□	MHS0440L060B	48.4	59.3	60.8	110.8	110	0.8	6	4
	18	□	MHS0440L090B	79.2	89.3	90.8	140.8	140	0.8	6	4
	24	□	MHS0440L120B	105.6	119.3	120.8	170.8	170	0.8	6	4
4.5	2	●	MHS0450L020B	9.0	19.3	20.8	70.8	70	0.8	6	3
	6	●	MHS0450L040B	27.0	39.3	40.8	90.8	90	0.8	6	4
	10	●	MHS0450L060B	45.0	59.3	60.8	110.8	110	0.8	6	4
	17	●	MHS0450L090B	76.5	89.3	90.8	140.8	140	0.8	6	4
	24	●	MHS0450L120B	108.0	119.3	120.8	170.8	170	0.8	6	4

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager VP15TF	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
4.6	2	□	MHS0460L020B	9.2	19.8	20.8	70.8	70	0.8	6	3
	6	□	MHS0460L040B	27.6	39.8	40.8	90.8	90	0.8	6	4
	10	□	MHS0460L060B	46.0	59.8	60.8	110.8	110	0.8	6	4
	17	□	MHS0460L090B	78.2	89.8	90.8	140.8	140	0.8	6	4
	23	□	MHS0460L120B	105.8	119.8	120.8	170.8	170	0.8	6	4
	30	□	MHS0460L150B	138.0	149.8	150.8	200.8	200	0.8	6	4
4.7	2	□	MHS0470L020B	9.4	19.8	20.8	70.8	70	0.8	6	3
	6	□	MHS0470L040B	28.2	39.9	40.9	90.9	90	0.9	6	4
	10	□	MHS0470L060B	47.0	59.9	60.9	110.9	110	0.9	6	4
	16	□	MHS0470L090B	75.2	89.9	90.9	140.9	140	0.9	6	4
	23	□	MHS0470L120B	108.1	119.9	120.9	170.9	170	0.9	6	4
	29	□	MHS0470L150B	136.3	149.9	150.9	200.9	200	0.9	6	4
4.8	1	★	MHS0480L020B	4.8	19.8	20.8	70.8	70	0.8	6	3
	6	★	MHS0480L040B	28.8	39.9	40.9	90.9	90	0.9	6	4
	10	★	MHS0480L060B	48.0	59.9	60.9	110.9	110	0.9	6	4
	16	★	MHS0480L090B	76.8	89.9	90.9	140.9	140	0.9	6	4
	22	★	MHS0480L120B	105.6	119.9	120.9	170.9	170	0.9	6	4
	29	★	MHS0480L150B	139.2	149.9	150.9	200.9	200	0.9	6	4
4.9	1	□	MHS0490L020B	4.9	19.8	20.8	70.8	70	0.8	6	3
	5	□	MHS0490L040B	24.5	39.9	40.9	90.9	90	0.9	6	4
	10	□	MHS0490L060B	49.0	59.9	60.9	110.9	110	0.9	6	4
	16	□	MHS0490L090B	78.4	89.9	90.9	140.9	140	0.9	6	4
	22	□	MHS0490L120B	107.8	119.9	120.9	170.9	170	0.9	6	4
	28	□	MHS0490L150B	137.2	149.9	150.9	200.9	200	0.9	6	4
5.0	1	●	MHS0500L020B	5.0	19.9	20.9	70.9	70	0.9	6	3
	5	●	MHS0500L040B	25.0	39.9	40.9	90.9	90	0.9	6	4
	9	●	MHS0500L060B	45.0	59.9	60.9	110.9	110	0.9	6	4
	15	●	MHS0500L090B	75.0	89.9	90.9	140.9	140	0.9	6	4
	21	●	MHS0500L120B	105.0	119.9	120.9	170.9	170	0.9	6	4
	27	●	MHS0500L150B	135.0	149.9	150.9	200.9	200	0.9	6	4
5.1	3	□	MHS0510L030B	15.3	30.4	30.9	80.9	80	0.9	6	3
	9	□	MHS0510L060B	45.9	60.4	60.9	110.9	110	0.9	6	4
	15	□	MHS0510L090B	76.5	90.4	90.9	140.9	140	0.9	6	4
	21	□	MHS0510L120B	107.1	120.4	120.9	170.9	170	0.9	6	4
	27	□	MHS0510L150B	137.7	150.4	150.9	200.9	200	0.9	6	4
5.2	3	□	MHS0520L030B	15.6	30.4	30.9	80.9	80	0.9	6	3
	9	□	MHS0520L060B	46.8	60.4	60.9	110.9	110	0.9	6	4
	15	□	MHS0520L090B	78.0	90.4	90.9	140.9	140	0.9	6	4
	20	□	MHS0520L120B	104.0	120.4	120.9	170.9	170	0.9	6	4
	26	□	MHS0520L150B	135.2	150.4	150.9	200.9	200	0.9	6	4
5.3	3	□	MHS0530L030B	15.9	30.4	30.9	80.9	80	0.9	6	3
	9	□	MHS0530L060B	47.7	60.5	61.0	111.0	110	1.0	6	4
	14	□	MHS0530L090B	74.2	90.5	91.0	141.0	140	1.0	6	4
	20	□	MHS0530L120B	106.0	120.5	121.0	171.0	170	1.0	6	4
	26	□	MHS0530L150B	137.8	150.5	151.0	201.0	200	1.0	6	4
5.4	3	□	MHS0540L030B	16.2	30.4	30.9	80.9	80	0.9	6	3
	9	□	MHS0540L060B	48.6	60.5	61.0	111.0	110	1.0	6	4
	14	□	MHS0540L090B	75.6	90.5	91.0	141.0	140	1.0	6	4
	20	□	MHS0540L120B	108.0	120.5	121.0	171.0	170	1.0	6	4
	25	□	MHS0540L150B	135.0	150.5	151.0	201.0	200	1.0	6	4

(Bemerkung) Bei Bedarf von abweichenden Geometrien setzen Sie sich mit unserem Hause in Verbindung.
(Andere Durchmesser und Längen können bestellt werden).

● : Lagerstandard. ★ : Lagerstandard in Japan.
□ : Nichtstandard, Herstellung nur auf Anfrage.

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager VP15TF	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
5.5	3	●	MHS0550L030B	16.5	30.4	30.9	80.9	80	0.9	6	3
	8	●	MHS0550L060B	44.0	60.5	61.0	111.0	110	1.0	6	4
	14	●	MHS0550L090B	77.0	90.5	91.0	141.0	140	1.0	6	4
	19	●	MHS0550L120B	104.5	120.5	121.0	171.0	170	1.0	6	4
	25	●	MHS0550L150B	137.5	150.5	151.0	201.0	200	1.0	6	4
5.6	3	□	MHS0560L030B	16.8	31.0	31.0	81.0	80	1.0	6	3
	8	□	MHS0560L060B	44.8	61.0	61.0	111.0	110	1.0	6	4
	14	□	MHS0560L090B	78.4	91.0	91.0	141.0	140	1.0	6	4
	19	□	MHS0560L120B	106.4	121.0	121.0	171.0	170	1.0	6	4
	24	□	MHS0560L150B	134.4	151.0	151.0	201.0	200	1.0	6	4
5.7	3	□	MHS0570L030B	17.1	31.0	31.0	81.0	80	1.0	6	3
	8	□	MHS0570L060B	45.6	61.0	61.0	111.0	110	1.0	6	4
	13	□	MHS0570L090B	74.1	91.0	91.0	141.0	140	1.0	6	4
	19	□	MHS0570L120B	108.3	121.0	121.0	171.0	170	1.0	6	4
	24	□	MHS0570L150B	136.8	151.0	151.0	201.0	200	1.0	6	4
5.8	3	★	MHS0580L030B	17.4	31.0	31.0	81.0	80	1.0	6	3
	8	★	MHS0580L060B	46.4	61.1	61.1	111.1	110	1.1	6	4
	13	★	MHS0580L090B	75.4	91.1	91.1	141.1	140	1.1	6	4
	18	★	MHS0580L120B	104.4	121.1	121.1	171.1	170	1.1	6	4
	23	★	MHS0580L150B	133.4	151.1	151.1	201.1	200	1.1	6	4
5.9	3	□	MHS0590L030B	17.7	31.0	31.0	81.0	80	1.0	6	3
	8	□	MHS0590L060B	47.2	61.1	61.1	111.1	110	1.1	6	4
	13	□	MHS0590L090B	76.7	91.1	91.1	141.1	140	1.1	6	4
	18	□	MHS0590L120B	106.2	121.1	121.1	171.1	170	1.1	6	4
	23	□	MHS0590L150B	135.7	151.1	151.1	201.1	200	1.1	6	4
6.0	2	●	MHS0600L030B	12.0	31.0	31.0	81.0	80	1.0	6	3
	7	●	MHS0600L060B	42.0	61.1	61.1	111.1	110	1.1	6	4
	12	●	MHS0600L090B	72.0	91.1	91.1	141.1	140	1.1	6	4
	17	●	MHS0600L120B	102.0	121.1	121.1	171.1	170	1.1	6	4
	22	●	MHS0600L150B	132.0	151.1	151.1	201.1	200	1.1	6	4
6.1	2	□	MHS0610L030B	12.2	29.6	31.1	81.1	80	1.1	8	3
	7	□	MHS0610L060B	42.7	59.6	61.1	111.1	110	1.1	8	4
	12	□	MHS0610L090B	73.2	89.6	91.1	141.1	140	1.1	8	4
	17	□	MHS0610L120B	103.7	119.6	121.1	171.1	170	1.1	8	4
	22	□	MHS0610L150B	134.2	149.6	151.1	201.1	200	1.1	8	4
6.2	2	□	MHS0620L030B	12.4	29.6	31.1	81.1	80	1.1	8	3
	7	□	MHS0620L060B	43.4	59.6	61.1	111.1	110	1.1	8	4
	12	□	MHS0620L090B	74.4	89.6	91.1	141.1	140	1.1	8	4
	17	□	MHS0620L120B	105.4	119.6	121.1	171.1	170	1.1	8	4
	21	□	MHS0620L150B	130.2	149.6	151.1	201.1	200	1.1	8	4
6.3	2	□	MHS0630L030B	12.6	29.6	31.1	81.1	80	1.1	8	3
	7	□	MHS0630L060B	44.1	59.6	61.1	111.1	110	1.1	8	4
	12	□	MHS0630L090B	75.6	89.6	91.1	141.1	140	1.1	8	4
	16	□	MHS0630L120B	100.8	119.6	121.1	171.1	170	1.1	8	4
	21	□	MHS0630L150B	132.3	149.6	151.1	201.1	200	1.1	8	4
6.4	2	□	MHS0640L030B	12.8	29.6	31.1	81.1	80	1.1	8	3
	7	□	MHS0640L060B	44.8	59.7	61.2	111.2	110	1.2	8	4
	11	□	MHS0640L090B	70.4	89.7	91.2	141.2	140	1.2	8	4
	16	□	MHS0640L120B	102.4	119.7	121.2	171.2	170	1.2	8	4
	21	□	MHS0640L150B	134.4	149.7	151.2	201.2	200	1.2	8	4

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager VP15TF	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
6.5	2	●	MHS0650L030B	13.0	29.6	31.1	81.1	80	1.1	8	3
	6	●	MHS0650L060B	39.0	59.7	61.2	111.2	110	1.2	8	4
	11	●	MHS0650L090B	71.5	89.7	91.2	141.2	140	1.2	8	4
	16	●	MHS0650L120B	104.0	119.7	121.2	171.2	170	1.2	8	4
	20	●	MHS0650L150B	130.0	149.7	151.2	201.2	200	1.2	8	4
6.6	2	□	MHS0660L030B	13.2	30.1	31.1	81.1	80	1.1	8	3
	6	□	MHS0660L060B	39.6	60.2	61.2	111.2	110	1.2	8	4
	11	□	MHS0660L090B	72.6	90.2	91.2	141.2	140	1.2	8	4
	16	□	MHS0660L120B	105.6	120.2	121.2	171.2	170	1.2	8	4
	20	□	MHS0660L150B	132.0	150.2	151.2	201.2	200	1.2	8	4
	28	□	MHS0660L200B	184.8	200.2	201.2	251.2	250	1.2	8	4
6.7	2	□	MHS0670L030B	13.4	30.2	31.2	81.2	80	1.2	8	3
	6	□	MHS0670L060B	40.2	60.2	61.2	111.2	110	1.2	8	4
	11	□	MHS0670L090B	73.7	90.2	91.2	141.2	140	1.2	8	4
	15	□	MHS0670L120B	100.5	120.2	121.2	171.2	170	1.2	8	4
	20	□	MHS0670L150B	134.0	150.2	151.2	201.2	200	1.2	8	4
	27	□	MHS0670L200B	180.9	200.2	201.2	251.2	250	1.2	8	4
6.8	2	★	MHS0680L030B	13.6	30.2	31.2	81.2	80	1.2	8	3
	6	★	MHS0680L060B	40.8	60.2	61.2	111.2	110	1.2	8	4
	11	★	MHS0680L090B	74.8	90.2	91.2	141.2	140	1.2	8	4
	15	★	MHS0680L120B	102.0	120.2	121.2	171.2	170	1.2	8	4
	19	★	MHS0680L150B	129.2	150.2	151.2	201.2	200	1.2	8	4
	27	★	MHS0680L200B	183.6	200.2	201.2	251.2	250	1.2	8	4
6.9	2	□	MHS0690L030B	13.8	30.2	31.2	81.2	80	1.2	8	3
	6	□	MHS0690L060B	41.4	60.3	61.3	111.3	110	1.3	8	4
	10	□	MHS0690L090B	69.0	90.3	91.3	141.3	140	1.3	8	4
	15	□	MHS0690L120B	103.5	120.3	121.3	171.3	170	1.3	8	4
	19	□	MHS0690L150B	131.1	150.3	151.3	201.3	200	1.3	8	4
	26	□	MHS0690L200B	179.4	200.3	201.3	251.3	250	1.3	8	4
7.0	2	●	MHS0700L030B	14.0	30.2	31.2	81.2	80	1.2	8	3
	6	●	MHS0700L060B	42.0	60.3	61.3	111.3	110	1.3	8	4
	10	●	MHS0700L090B	70.0	90.3	91.3	141.3	140	1.3	8	4
	14	●	MHS0700L120B	98.0	120.3	121.3	171.3	170	1.3	8	4
	19	●	MHS0700L150B	133.0	150.3	151.3	201.3	200	1.3	8	4
	26	●	MHS0700L200B	182.0	200.3	201.3	251.3	250	1.3	8	4
7.1	2	□	MHS0710L030B	14.2	30.7	31.2	81.2	80	1.2	8	3
	6	□	MHS0710L060B	42.6	60.8	61.3	111.3	110	1.3	8	4
	10	□	MHS0710L090B	71.0	90.8	91.3	141.3	140	1.3	8	4
	14	□	MHS0710L120B	99.4	120.8	121.3	171.3	170	1.3	8	4
	19	□	MHS0710L150B	134.9	150.8	151.3	201.3	200	1.3	8	4
	26	□	MHS0710L200B	184.6	200.8	201.3	251.3	250	1.3	8	4
7.2	2	□	MHS0720L030B	14.4	30.7	31.2	81.2	80	1.2	8	3
	6	□	MHS0720L060B	43.2	60.8	61.3	111.3	110	1.3	8	4
	10	□	MHS0720L090B	72.0	90.8	91.3	141.3	140	1.3	8	4
	14	□	MHS0720L120B	100.8	120.8	121.3	171.3	170	1.3	8	4
	18	□	MHS0720L150B	129.6	150.8	151.3	201.3	200	1.3	8	4
	25	□	MHS0720L200B	180.0	200.8	201.3	251.3	250	1.3	8	4

BOHREN

SCHNITTBEDINGUNGEN ➤ L114
ANWENDUNGSHINWEISE ➤ L115
TECHNISCHE DATEN ➤ N001

BOHREN (VOLLHARTMETALL)

MHS

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager VP15TF	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
7.3	2	□	MHS0730L030B	14.6	30.8	31.3	81.3	80	1.3	8	3
	6	□	MHS0730L060B	43.8	60.8	61.3	111.3	110	1.3	8	4
	10	□	MHS0730L090B	73.0	90.8	91.3	141.3	140	1.3	8	4
	14	□	MHS0730L120B	102.2	120.8	121.3	171.3	170	1.3	8	4
	18	□	MHS0730L150B	131.4	150.8	151.3	201.3	200	1.3	8	4
	25	□	MHS0730L200B	182.5	200.8	201.3	251.3	250	1.3	8	4
7.4	1	□	MHS0740L030B	7.4	30.8	31.3	81.3	80	1.3	8	3
	6	□	MHS0740L060B	44.4	60.8	61.3	111.3	110	1.3	8	4
	10	□	MHS0740L090B	74.0	90.8	91.3	141.3	140	1.3	8	4
	14	□	MHS0740L120B	103.6	120.8	121.3	171.3	170	1.3	8	4
	18	□	MHS0740L150B	133.2	150.8	151.3	201.3	200	1.3	8	4
	24	□	MHS0740L200B	177.6	200.8	201.3	251.3	250	1.3	8	4
7.5	1	●	MHS0750L030B	7.5	30.8	31.3	81.3	80	1.3	8	3
	5	●	MHS0750L060B	37.5	60.9	61.4	111.4	110	1.4	8	4
	9	●	MHS0750L090B	67.5	90.9	91.4	141.4	140	1.4	8	4
	13	●	MHS0750L120B	97.5	120.9	121.4	171.4	170	1.4	8	4
	17	●	MHS0750L150B	127.5	150.9	151.4	201.4	200	1.4	8	4
	24	●	MHS0750L200B	180.0	200.9	201.4	251.4	250	1.4	8	4
7.6	1	□	MHS0760L030B	7.6	31.3	31.3	81.3	80	1.3	8	3
	5	□	MHS0760L060B	38.0	61.4	61.4	111.4	110	1.4	8	4
	9	□	MHS0760L090B	68.4	91.4	91.4	141.4	140	1.4	8	4
	13	□	MHS0760L120B	98.8	121.4	121.4	171.4	170	1.4	8	4
	17	□	MHS0760L150B	129.2	151.4	151.4	201.4	200	1.4	8	4
	24	□	MHS0760L200B	182.4	201.4	201.4	251.4	250	1.4	8	4
	30	□	MHS0760L250B	228.0	251.4	251.4	301.4	300	1.4	8	4
7.7	1	□	MHS0770L030B	7.7	31.3	31.3	81.3	80	1.3	8	3
	5	□	MHS0770L060B	38.5	61.4	61.4	111.4	110	1.4	8	4
	9	□	MHS0770L090B	69.3	91.4	91.4	141.4	140	1.4	8	4
	13	□	MHS0770L120B	100.1	121.4	121.4	171.4	170	1.4	8	4
	17	□	MHS0770L150B	130.9	151.4	151.4	201.4	200	1.4	8	4
	23	□	MHS0770L200B	177.1	201.4	201.4	251.4	250	1.4	8	4
	30	□	MHS0770L250B	231.0	251.4	251.4	301.4	300	1.4	8	4
7.8	1	★	MHS0780L030B	7.8	31.3	31.3	81.3	80	1.3	8	3
	5	★	MHS0780L060B	39.0	61.4	61.4	111.4	110	1.4	8	4
	9	★	MHS0780L090B	70.2	91.4	91.4	141.4	140	1.4	8	4
	13	★	MHS0780L120B	101.4	121.4	121.4	171.4	170	1.4	8	4
	17	★	MHS0780L150B	132.6	151.4	151.4	201.4	200	1.4	8	4
	23	★	MHS0780L200B	179.4	201.4	201.4	251.4	250	1.4	8	4
	30	★	MHS0780L250B	234.0	251.4	251.4	301.4	300	1.4	8	4
7.9	1	□	MHS0790L030B	7.9	31.4	31.4	81.4	80	1.4	8	3
	5	□	MHS0790L060B	39.5	61.4	61.4	111.4	110	1.4	8	4
	9	□	MHS0790L090B	71.1	91.4	91.4	141.4	140	1.4	8	4
	13	□	MHS0790L120B	102.7	121.4	121.4	171.4	170	1.4	8	4
	16	□	MHS0790L150B	126.4	151.4	151.4	201.4	200	1.4	8	4
	23	□	MHS0790L200B	181.7	201.4	201.4	251.4	250	1.4	8	4
	29	□	MHS0790L250B	229.1	251.4	251.4	301.4	300	1.4	8	4

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager VP15TF	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
8.0	1	●	MHS0800L030B	8.0	31.4	31.4	81.4	80	1.4	8	3
	5	●	MHS0800L060B	40.0	61.5	61.5	111.5	110	1.5	8	4
	9	●	MHS0800L090B	72.0	91.5	91.5	141.5	140	1.5	8	4
	12	●	MHS0800L120B	96.0	121.5	121.5	171.5	170	1.5	8	4
	16	●	MHS0800L150B	128.0	151.5	151.5	201.5	200	1.5	8	4
	22	●	MHS0800L200B	176.0	201.5	201.5	251.5	250	1.5	8	4
	29	●	MHS0800L250B	232.0	251.5	251.5	301.5	300	1.5	8	4
8.1	2	□	MHS0810L040B	16.2	39.9	41.4	101.4	100	1.4	10	3
	8	□	MHS0810L090B	64.8	90.0	91.5	151.5	150	1.5	10	4
	12	□	MHS0810L120B	97.2	120.0	121.5	181.5	180	1.5	10	4
	16	□	MHS0810L150B	129.6	150.0	151.5	211.5	210	1.5	10	4
	22	□	MHS0810L200B	178.2	200.0	201.5	261.5	260	1.5	10	4
	28	□	MHS0810L250B	226.8	250.0	251.5	311.5	310	1.5	10	4
8.2	2	□	MHS0820L040B	16.4	39.9	41.4	101.4	100	1.4	10	3
	8	□	MHS0820L090B	65.6	90.0	91.5	151.5	150	1.5	10	4
	12	□	MHS0820L120B	98.4	120.0	121.5	181.5	180	1.5	10	4
	16	□	MHS0820L150B	131.2	150.0	151.5	211.5	210	1.5	10	4
	22	□	MHS0820L200B	180.4	200.0	201.5	261.5	260	1.5	10	4
	28	□	MHS0820L250B	229.6	250.0	251.5	311.5	310	1.5	10	4
8.3	2	□	MHS0830L040B	16.6	39.9	41.4	101.4	100	1.4	10	3
	8	□	MHS0830L090B	66.4	90.0	91.5	151.5	150	1.5	10	4
	12	□	MHS0830L120B	99.6	120.0	121.5	181.5	180	1.5	10	4
	15	□	MHS0830L150B	124.5	150.0	151.5	211.5	210	1.5	10	4
	21	□	MHS0830L200B	174.3	200.0	201.5	261.5	260	1.5	10	4
	27	□	MHS0830L250B	224.1	250.0	251.5	311.5	310	1.5	10	4
8.4	2	□	MHS0840L040B	16.8	39.9	41.4	101.4	100	1.4	10	3
	8	□	MHS0840L090B	67.2	90.0	91.5	151.5	150	1.5	10	4
	12	□	MHS0840L120B	100.8	120.0	121.5	181.5	180	1.5	10	4
	15	□	MHS0840L150B	126.0	150.0	151.5	211.5	210	1.5	10	4
	21	□	MHS0840L200B	176.4	200.0	201.5	261.5	260	1.5	10	4
	27	□	MHS0840L250B	226.8	250.0	251.5	311.5	310	1.5	10	4
8.5	2	●	MHS0850L040B	17.0	40.0	41.5	101.5	100	1.5	10	3
	8	●	MHS0850L090B	68.0	90.0	91.5	151.5	150	1.5	10	4
	11	●	MHS0850L120B	93.5	120.0	121.5	181.5	180	1.5	10	4
	15	●	MHS0850L150B	127.5	150.0	151.5	211.5	210	1.5	10	4
	21	●	MHS0850L200B	178.5	200.0	201.5	261.5	260	1.5	10	4
	27	●	MHS0850L250B	229.5	250.0	251.5	311.5	310	1.5	10	4
8.6	2	□	MHS0860L040B	17.2	40.5	41.5	101.5	100	1.5	10	3
	8	□	MHS0860L090B	68.8	90.6	91.6	151.6	150	1.6	10	4
	11	□	MHS0860L120B	94.6	120.6	121.6	181.6	180	1.6	10	4
	15	□	MHS0860L150B	129.0	150.6	151.6	211.6	210	1.6	10	4
	21	□	MHS0860L200B	180.6	200.6	201.6	261.6	260	1.6	10	4
	26	□	MHS0860L250B	223.6	250.6	251.6	311.6	310	1.6	10	4
8.7	2	□	MHS0870L040B	17.4	40.5	41.5	101.5	100	1.5	10	3
	8	□	MHS0870L090B	69.6	90.6	91.6	151.6	150	1.6	10	4
	11	□	MHS0870L120B	95.7	120.6	121.6	181.6	180	1.6	10	4
	15	□	MHS0870L150B	130.5	150.6	151.6	211.6	210	1.6	10	4
	20	□	MHS0870L200B	174.0	200.6	201.6	261.6	260	1.6	10	4
	26	□	MHS0870L250B	226.2	250.6	251.6	311.6	310	1.6	10	4

(Bemerkung) Bei Bedarf von abweichenden Geometrien setzen Sie sich mit unserem Hause in Verbindung.
(Andere Durchmesser und Längen können bestellt werden).

● : Lagerstandard. ★ : Lagerstandard in Japan.
□ : Nichtstandard, Herstellung nur auf Anfrage.

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager VP15TF	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
8.8	2	★	**MHS0880L040B**	17.6	40.5	41.5	101.5	100	1.5	10	3
	8	★	MHS**0880L090B**	70.4	90.6	91.6	151.6	150	1.6	10	4
	11	★	MHS**0880L120B**	96.8	120.6	121.6	181.6	180	1.6	10	4
	14	★	MHS**0880L150B**	123.2	150.6	151.6	211.6	210	1.6	10	4
	20	★	MHS**0880L200B**	176.0	200.6	201.6	261.6	260	1.6	10	4
	26	★	MHS**0880L250B**	228.8	250.6	251.6	311.6	310	1.6	10	4
8.9	2	□	MHS**0890L040B**	17.8	40.5	41.5	101.5	100	1.5	10	3
	7	□	MHS**0890L090B**	62.3	90.6	91.6	151.6	150	1.6	10	4
	11	□	MHS**0890L120B**	97.9	120.6	121.6	181.6	180	1.6	10	4
	14	□	MHS**0890L150B**	124.6	150.6	151.6	211.6	210	1.6	10	4
	20	□	MHS**0890L200B**	178.0	200.6	201.6	261.6	260	1.6	10	4
	25	□	MHS**0890L250B**	222.5	250.6	251.6	311.6	310	1.6	10	4
9.0	2	●	MHS**0900L040B**	18.0	40.5	41.5	101.5	100	1.5	10	3
	7	●	MHS**0900L090B**	63.0	90.6	91.6	151.6	150	1.6	10	4
	11	●	MHS**0900L120B**	99.0	120.6	121.6	181.6	180	1.6	10	4
	14	●	MHS**0900L150B**	126.0	150.6	151.6	211.6	210	1.6	10	4
	20	●	MHS**0900L200B**	180.0	200.6	201.6	261.6	260	1.6	10	4
	25	●	MHS**0900L250B**	225.0	250.6	251.6	311.6	310	1.6	10	4
9.1	2	□	MHS**0910L040B**	18.2	41.1	41.6	101.6	100	1.6	10	3
	7	□	MHS**0910L090B**	63.7	91.2	91.7	151.7	150	1.7	10	4
	11	□	MHS**0910L120B**	100.1	121.2	121.7	181.7	180	1.7	10	4
	14	□	MHS**0910L150B**	127.4	151.2	151.7	211.7	210	1.7	10	4
	19	□	MHS**0910L200B**	172.9	201.2	201.7	261.7	260	1.7	10	4
	25	□	MHS**0910L250B**	227.5	251.2	251.7	311.7	310	1.7	10	4
	30	□	MHS**0910L300B**	273.0	301.2	301.7	361.7	360	1.7	10	4
9.2	2	□	MHS**0920L040B**	18.4	41.1	41.6	101.6	100	1.6	10	3
	7	□	MHS**0920L090B**	64.4	91.2	91.7	151.7	150	1.7	10	4
	10	□	MHS**0920L120B**	92.0	121.2	121.7	181.7	180	1.7	10	4
	14	□	MHS**0920L150B**	128.8	151.2	151.7	211.7	210	1.7	10	4
	19	□	MHS**0920L200B**	174.8	201.2	201.7	261.7	260	1.7	10	4
	25	□	MHS**0920L250B**	230.0	251.2	251.7	311.7	310	1.7	10	4
	30	□	MHS**0920L300B**	276.0	301.2	301.7	361.7	360	1.7	10	4
9.3	2	□	MHS**0930L040B**	18.6	41.1	41.6	101.6	100	1.6	10	3
	7	□	MHS**0930L090B**	65.1	91.2	91.7	151.7	150	1.7	10	4
	10	□	MHS**0930L120B**	93.0	121.2	121.7	181.7	180	1.7	10	4
	14	□	MHS**0930L150B**	130.2	151.2	151.7	211.7	210	1.7	10	4
	19	□	MHS**0930L200B**	176.7	201.2	201.7	261.7	260	1.7	10	4
	24	□	MHS**0930L250B**	223.2	251.2	251.7	311.7	310	1.7	10	4
	30	□	MHS**0930L300B**	279.0	301.2	301.7	361.7	360	1.7	10	4
9.4	2	□	MHS**0940L040B**	18.8	41.1	41.6	101.6	100	1.6	10	3
	7	□	MHS**0940L090B**	65.8	91.2	91.7	151.7	150	1.7	10	4
	10	□	MHS**0940L120B**	94.0	121.2	121.7	181.7	180	1.7	10	4
	13	□	MHS**0940L150B**	122.2	151.2	151.7	211.7	210	1.7	10	4
	19	□	MHS**0940L200B**	178.6	201.2	201.7	261.7	260	1.7	10	4
	24	□	MHS**0940L250B**	225.6	251.2	251.7	311.7	310	1.7	10	4
	29	□	MHS**0940L300B**	272.6	301.2	301.7	361.7	360	1.7	10	4

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager VP15TF	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
9.5	2	★	**MHS0950L040B**	19.0	41.1	41.6	101.6	100	1.6	10	3
	7	★	MHS**0950L090B**	66.5	91.2	91.7	151.7	150	1.7	10	4
	10	★	MHS**0950L120B**	95.0	121.2	121.7	181.7	180	1.7	10	4
	13	★	MHS**0950L150B**	123.5	151.2	151.7	211.7	210	1.7	10	4
	18	★	MHS**0950L200B**	171.0	201.2	201.7	261.7	260	1.7	10	4
	24	★	MHS**0950L250B**	228.0	251.2	251.7	311.7	310	1.7	10	4
	29	★	MHS**0950L300B**	275.5	301.2	301.7	361.7	360	1.7	10	4
9.6	2	□	MHS**0960L040B**	19.2	41.7	41.7	101.7	100	1.7	10	3
	7	□	MHS**0960L090B**	67.2	91.7	91.7	151.7	150	1.7	10	4
	10	□	MHS**0960L120B**	96.0	121.7	121.7	181.7	180	1.7	10	4
	13	□	MHS**0960L150B**	124.8	151.7	151.7	211.7	210	1.7	10	4
	18	□	MHS**0960L200B**	172.8	201.7	201.7	261.7	260	1.7	10	4
	24	□	MHS**0960L250B**	230.4	251.7	251.7	311.7	310	1.7	10	4
	29	□	MHS**0960L300B**	278.4	301.7	301.7	361.7	360	1.7	10	4
9.7	2	□	MHS**0970L040B**	19.4	41.7	41.7	101.7	100	1.7	10	3
	7	□	MHS**0970L090B**	67.9	91.8	91.8	151.8	150	1.8	10	4
	10	□	MHS**0970L120B**	97.0	121.8	121.8	181.8	180	1.8	10	4
	13	□	MHS**0970L150B**	126.1	151.8	151.8	211.8	210	1.8	10	4
	18	□	MHS**0970L200B**	174.6	201.8	201.8	261.8	260	1.8	10	4
	23	□	MHS**0970L250B**	223.1	251.8	251.8	311.8	310	1.8	10	4
	28	□	MHS**0970L300B**	271.6	301.8	301.8	361.8	360	1.8	10	4
9.8	2	★	MHS**0980L040B**	19.6	41.7	41.7	101.7	100	1.7	10	3
	7	★	MHS**0980L090B**	68.6	91.8	91.8	151.8	150	1.8	10	4
	10	★	MHS**0980L120B**	98.0	121.8	121.8	181.8	180	1.8	10	4
	13	★	MHS**0980L150B**	127.4	151.8	151.8	211.8	210	1.8	10	4
	18	★	MHS**0980L200B**	176.4	201.8	201.8	261.8	260	1.8	10	4
	23	★	MHS**0980L250B**	225.4	251.8	251.8	311.8	310	1.8	10	4
	28	★	MHS**0980L300B**	274.4	301.8	301.8	361.8	360	1.8	10	4
9.9	2	□	MHS**0990L040B**	19.8	41.7	41.7	101.7	100	1.7	10	3
	7	□	MHS**0990L090B**	69.3	91.8	91.8	151.8	150	1.8	10	4
	10	□	MHS**0990L120B**	99.0	121.8	121.8	181.8	180	1.8	10	4
	13	□	MHS**0990L150B**	128.7	151.8	151.8	211.8	210	1.8	10	4
	18	□	MHS**0990L200B**	178.2	201.8	201.8	261.8	260	1.8	10	4
	23	□	MHS**0990L250B**	227.7	251.8	251.8	311.8	310	1.8	10	4
	28	□	MHS**0990L300B**	277.2	301.8	301.8	361.8	360	1.8	10	4
10.0	1	●	MHS**1000L040B**	10.0	41.7	41.7	101.7	100	1.7	10	3
	6	●	MHS**1000L090B**	60.0	91.8	91.8	151.8	150	1.8	10	4
	9	●	MHS**1000L120B**	90.0	121.8	121.8	181.8	180	1.8	10	4
	12	●	MHS**1000L150B**	120.0	151.8	151.8	211.8	210	1.8	10	4
	17	●	MHS**1000L200B**	170.0	201.8	201.8	261.8	260	1.8	10	4
	22	●	MHS**1000L250B**	220.0	251.8	251.8	311.8	310	1.8	10	4
	27	●	MHS**1000L300B**	270.0	301.8	301.8	361.8	360	1.8	10	4
10.1	1	□	MHS**1010L040B**	10.1	40.2	41.7	101.7	100	1.7	12	3
	6	□	MHS**1010L090B**	60.6	90.3	91.8	151.8	150	1.8	12	4
	9	□	MHS**1010L120B**	90.9	120.3	121.8	181.8	180	1.8	12	4
	12	□	MHS**1010L150B**	121.2	150.3	151.8	211.8	210	1.8	12	4
	17	□	MHS**1010L200B**	171.7	200.3	201.8	261.8	260	1.8	12	4
	22	□	MHS**1010L250B**	222.2	250.3	251.8	311.8	310	1.8	12	4
	27	□	MHS**1010L300B**	272.7	300.3	301.8	361.8	360	1.8	12	4

BOHREN

SCHNITTBEDINGUNGEN ➤ L114
ANWENDUNGSHINWEISE ➤ L115
TECHNISCHE DATEN ➤ N001

MHS

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager VP15TF	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
10.2	1	□	MHS1020L040B	10.2	40.3	41.8	101.8	100	1.8	12	3
	6	□	MHS1020L090B	61.2	90.4	91.9	151.9	150	1.9	12	4
	9	□	MHS1020L120B	91.8	120.4	121.9	181.9	180	1.9	12	4
	12	□	MHS1020L150B	122.4	150.4	151.9	211.9	210	1.9	12	4
	17	□	MHS1020L200B	173.4	200.4	201.9	261.9	260	1.9	12	4
	22	□	MHS1020L250B	224.4	250.4	251.9	311.9	310	1.9	12	4
	27	□	MHS1020L300B	275.4	300.4	301.9	361.9	360	1.9	12	4
10.3	1	□	MHS1030L040B	10.3	40.3	41.8	101.8	100	1.8	12	3
	6	□	MHS1030L090B	61.8	90.4	91.9	151.9	150	1.9	12	4
	9	□	MHS1030L120B	92.7	120.4	121.9	181.9	180	1.9	12	4
	12	□	MHS1030L150B	123.6	150.4	151.9	211.9	210	1.9	12	4
	17	□	MHS1030L200B	175.1	200.4	201.9	261.9	260	1.9	12	4
	22	□	MHS1030L250B	226.6	250.4	251.9	311.9	310	1.9	12	4
	26	□	MHS1030L300B	267.8	300.4	301.9	361.9	360	1.9	12	4
10.4	1	□	MHS1040L040B	10.4	40.3	41.8	101.8	100	1.8	12	3
	6	□	MHS1040L090B	62.4	90.4	91.9	151.9	150	1.9	12	4
	9	□	MHS1040L120B	93.6	120.4	121.9	181.9	180	1.9	12	4
	12	□	MHS1040L150B	124.8	150.4	151.9	211.9	210	1.9	12	4
	17	□	MHS1040L200B	176.8	200.4	201.9	261.9	260	1.9	12	4
	21	□	MHS1040L250B	218.4	250.4	251.9	311.9	310	1.9	12	4
	26	□	MHS1040L300B	270.4	300.4	301.9	361.9	360	1.9	12	4
10.5	1	★	MHS1050L040B	10.5	40.3	41.8	101.8	100	1.8	12	3
	6	★	MHS1050L090B	63.0	90.4	91.9	151.9	150	1.9	12	4
	9	★	MHS1050L120B	94.5	120.4	121.9	181.9	180	1.9	12	4
	12	★	MHS1050L150B	126.0	150.4	151.9	211.9	210	1.9	12	4
	16	★	MHS1050L200B	168.0	200.4	201.9	261.9	260	1.9	12	4
	21	★	MHS1050L250B	220.5	250.4	251.9	311.9	310	1.9	12	4
	26	★	MHS1050L300B	273.0	300.4	301.9	361.9	360	1.9	12	4
10.6	1	□	MHS1060L040B	10.6	40.8	41.8	101.8	100	1.8	12	3
	6	□	MHS1060L090B	63.6	90.9	91.9	151.9	150	1.9	12	4
	9	□	MHS1060L120B	95.4	120.9	121.9	181.9	180	1.9	12	4
	12	□	MHS1060L150B	127.2	150.9	151.9	211.9	210	1.9	12	4
	16	□	MHS1060L200B	169.6	200.9	201.9	261.9	260	1.9	12	4
	21	□	MHS1060L250B	222.6	250.9	251.9	311.9	310	1.9	12	4
	26	□	MHS1060L300B	275.6	300.9	301.9	361.9	360	1.9	12	4
10.7	1	□	MHS1070L040B	10.7	40.8	41.8	101.8	100	1.8	12	3
	6	□	MHS1070L090B	64.2	90.9	91.9	151.9	150	1.9	12	4
	9	□	MHS1070L120B	96.3	120.9	121.9	181.9	180	1.9	12	4
	11	□	MHS1070L150B	117.7	150.9	151.9	211.9	210	1.9	12	4
	16	□	MHS1070L200B	171.2	200.9	201.9	261.9	260	1.9	12	4
	21	□	MHS1070L250B	224.7	250.9	251.9	311.9	310	1.9	12	4
	25	□	MHS1070L300B	267.5	300.9	301.9	361.9	360	1.9	12	4
10.8	1	★	MHS1080L040B	10.8	40.9	41.9	101.9	100	1.9	12	3
	6	★	MHS1080L090B	64.8	91.0	92.0	152.0	150	2.0	12	4
	9	★	MHS1080L120B	97.2	121.0	122.0	182.0	180	2.0	12	4
	11	★	MHS1080L150B	118.8	151.0	152.0	212.0	210	2.0	12	4
	16	★	MHS1080L200B	172.8	201.0	202.0	262.0	260	2.0	12	4
	21	★	MHS1080L250B	226.8	251.0	252.0	312.0	310	2.0	12	4
	25	★	MHS1080L300B	270.0	301.0	302.0	362.0	360	2.0	12	4

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager VP15TF	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
10.9	1	□	MHS1090L040B	10.9	40.9	41.9	101.9	100	1.9	12	3
	6	□	MHS1090L090B	65.4	91.0	92.0	152.0	150	2.0	12	4
	8	□	MHS1090L120B	87.2	121.0	122.0	182.0	180	2.0	12	4
	11	□	MHS1090L150B	119.9	151.0	152.0	212.0	210	2.0	12	4
	16	□	MHS1090L200B	174.4	201.0	202.0	262.0	260	2.0	12	4
	20	□	MHS1090L250B	218.0	251.0	252.0	312.0	310	2.0	12	4
	25	□	MHS1090L300B	272.5	301.0	302.0	362.0	360	2.0	12	4
11.0	1	●	MHS1100L040B	11.0	40.9	41.9	101.9	100	1.9	12	3
	6	●	MHS1100L090B	66.0	91.0	92.0	152.0	150	2.0	12	4
	8	●	MHS1100L120B	88.0	121.0	122.0	182.0	180	2.0	12	4
	11	●	MHS1100L150B	121.0	151.0	152.0	212.0	210	2.0	12	4
	16	●	MHS1100L200B	176.0	201.0	202.0	262.0	260	2.0	12	4
	20	●	MHS1100L250B	220.0	251.0	252.0	312.0	310	2.0	12	4
	25	●	MHS1100L300B	275.0	301.0	302.0	362.0	360	2.0	12	4
11.1	1	□	MHS1110L040B	11.1	41.4	41.9	101.9	100	1.9	12	3
	6	□	MHS1110L090B	66.6	91.5	92.0	152.0	150	2.0	12	4
	8	□	MHS1110L120B	88.8	121.5	122.0	182.0	180	2.0	12	4
	11	□	MHS1110L150B	122.1	151.5	152.0	212.0	210	2.0	12	4
	15	□	MHS1110L200B	166.5	201.5	202.0	262.0	260	2.0	12	4
	20	□	MHS1110L250B	222.0	251.5	252.0	312.0	310	2.0	12	4
	24	□	MHS1110L300B	266.4	301.5	302.0	362.0	360	2.0	12	4
11.2	1	□	MHS1120L040B	11.2	41.4	41.9	101.9	100	1.9	12	3
	5	□	MHS1120L090B	56.0	91.5	92.0	152.0	150	2.0	12	4
	8	□	MHS1120L120B	89.6	121.5	122.0	182.0	180	2.0	12	4
	11	□	MHS1120L150B	123.2	151.5	152.0	212.0	210	2.0	12	4
	15	□	MHS1120L200B	168.0	201.5	202.0	262.0	260	2.0	12	4
	20	□	MHS1120L250B	224.0	251.5	252.0	312.0	310	2.0	12	4
	24	□	MHS1120L300B	268.8	301.5	302.0	362.0	360	2.0	12	4
11.3	1	□	MHS1130L040B	11.3	41.4	41.9	101.9	100	1.9	12	3
	5	□	MHS1130L090B	56.5	91.6	92.1	152.1	150	2.1	12	4
	8	□	MHS1130L120B	90.4	121.6	122.1	182.1	180	2.1	12	4
	11	□	MHS1130L150B	124.3	151.6	152.1	212.1	210	2.1	12	4
	15	□	MHS1130L200B	169.5	201.6	202.1	262.1	260	2.1	12	4
	20	□	MHS1130L250B	226.0	251.6	252.1	312.1	310	2.1	12	4
	24	□	MHS1130L300B	271.2	301.6	302.1	362.1	360	2.1	12	4
11.4	1	□	MHS1140L040B	11.4	41.5	42.0	102.0	100	2.0	12	3
	5	□	MHS1140L090B	57.0	91.6	92.1	152.1	150	2.1	12	4
	8	□	MHS1140L120B	91.2	121.6	122.1	182.1	180	2.1	12	4
	11	□	MHS1140L150B	125.4	151.6	152.1	212.1	210	2.1	12	4
	15	□	MHS1140L200B	171.0	201.6	202.1	262.1	260	2.1	12	4
	19	□	MHS1140L250B	216.6	251.6	252.1	312.1	310	2.1	12	4
	24	□	MHS1140L300B	273.6	301.6	302.1	362.1	360	2.1	12	4
11.5	1	★	MHS1150L040B	11.5	41.5	42.0	102.0	100	2.0	12	3
	5	★	MHS1150L090B	57.5	91.6	92.1	152.1	150	2.1	12	4
	8	★	MHS1150L120B	92.0	121.6	122.1	182.1	180	2.1	12	4
	10	★	MHS1150L150B	115.0	151.6	152.1	212.1	210	2.1	12	4
	15	★	MHS1150L200B	172.5	201.6	202.1	262.1	260	2.1	12	4
	19	★	MHS1150L250B	218.5	251.6	252.1	312.1	310	2.1	12	4
	24	★	MHS1150L300B	276.0	301.6	302.1	362.1	360	2.1	12	4

(Bemerkung) Bei Bedarf von abweichenden Geometrien setzen Sie sich mit unserem Hause in Verbindung.
(Andere Durchmesser und Längen können bestellt werden).

● : Lagerstandard. ★ : Lagerstandard in Japan.
□ : Nichtstandard, Herstellung nur auf Anfrage.

Interne Kühlung

DC (mm)	Bohrtiefe (l/d)	Lager VP15TF	Bestellbezeichnung	Abmessungen (mm) LU	LCF	LH	OAL	LF	PL	DCON	Typ
	1	□	**MHS1160L040B**	11.6	42.0	42.0	102.0	100	2.0	12	3
	5	□	**MHS1160L090B**	58.0	92.1	92.1	152.1	150	2.1	12	4
	8	□	**MHS1160L120B**	92.8	122.1	122.1	182.1	180	2.1	12	4
11.6	10	□	**MHS1160L150B**	116.0	152.1	152.1	212.1	210	2.1	12	4
	15	□	**MHS1160L200B**	174.0	202.1	202.1	262.1	260	2.1	12	4
	19	□	**MHS1160L250B**	220.4	252.1	252.1	312.1	310	2.1	12	4
	23	□	**MHS1160L300B**	266.8	302.1	302.1	362.1	360	2.1	12	4
	1	□	**MHS1170L040B**	11.7	42.0	42.0	102.0	100	2.0	12	3
	5	□	**MHS1170L090B**	58.5	92.1	92.1	152.1	150	2.1	12	4
	8	□	**MHS1170L120B**	93.6	122.1	122.1	182.1	180	2.1	12	4
11.7	10	□	**MHS1170L150B**	117.0	152.1	152.1	212.1	210	2.1	12	4
	15	□	**MHS1170L200B**	175.5	202.1	202.1	262.1	260	2.1	12	4
	19	□	**MHS1170L250B**	222.3	252.1	252.1	312.1	310	2.1	12	4
	23	□	**MHS1170L300B**	269.1	302.1	302.1	362.1	360	2.1	12	4
	1	★	**MHS1180L040B**	11.8	42.0	42.0	102.0	100	2.0	12	3
	5	★	**MHS1180L090B**	59.0	92.1	92.1	152.1	150	2.1	12	4
	8	★	**MHS1180L120B**	94.4	122.1	122.1	182.1	180	2.1	12	4
11.8	10	★	**MHS1180L150B**	118.0	152.1	152.1	212.1	210	2.1	12	4
	14	★	**MHS1180L200B**	165.2	202.1	202.1	262.1	260	2.1	12	4
	19	★	**MHS1180L250B**	224.2	252.1	252.1	312.1	310	2.1	12	4
	23	★	**MHS1180L300B**	271.4	302.1	302.1	362.1	360	2.1	12	4
	1	□	**MHS1190L040B**	11.9	42.0	42.0	102.0	100	2.0	12	3
	5	□	**MHS1190L090B**	59.5	92.2	92.2	152.2	150	2.2	12	4
	8	□	**MHS1190L120B**	95.2	122.2	122.2	182.2	180	2.2	12	4
11.9	10	□	**MHS1190L150B**	119.0	152.2	152.2	212.2	210	2.2	12	4
	14	□	**MHS1190L200B**	166.6	202.2	202.2	262.2	260	2.2	12	4
	19	□	**MHS1190L250B**	226.1	252.2	252.2	312.2	310	2.2	12	4
	23	□	**MHS1190L300B**	273.7	302.2	302.2	362.2	360	2.2	12	4
	1	●	**MHS1200L040B**	12.0	42.1	42.1	102.1	100	2.1	12	3
	5	●	**MHS1200L090B**	60.0	92.2	92.2	152.2	150	2.2	12	4
	7	●	**MHS1200L120B**	84.0	122.2	122.2	182.2	180	2.2	12	4
12.0	10	●	**MHS1200L150B**	120.0	152.2	152.2	212.2	210	2.2	12	4
	14	●	**MHS1200L200B**	168.0	202.2	202.2	262.2	260	2.2	12	4
	18	●	**MHS1200L250B**	216.0	252.2	252.2	312.2	310	2.2	12	4
	22	●	**MHS1200L300B**	264.0	302.2	302.2	362.2	360	2.2	12	4

SCHNITTBEDINGUNGEN ➤ L114
ANWENDUNGSHINWEISE ➤ L115
TECHNISCHE DATEN ➤ N001

MHS

SCHNITTDATENEMPFEHLUNGEN

Werkstoff	P				M			
	Allg. Baustahl (≤180HB), C-Stahl Leg. Stahl (180−280HB) Ck10, Ck45, 42CrMo4				Rostfreie Stähle austenitisch und martensitisch (>200HB) X20CrNi17-2, X30Cr13			
Bohrer Durchm. **DC** (mm)	Schnittgeschw. (m/min)	Drehzahl (min^{-1})	Vorschub (min.−max.) (mm/U.)	Tischvorschub (mm/min)	Schnittgeschw. (m/min)	Drehzahl (min^{-1})	Vorschub (min.−max.) (mm/U.)	Tischvorschub (mm/min)
1.0	40	12700	0.030 (0.020−0.040)	380	20	6400	0.030 (0.020−0.040)	190
1.2	50	13300	0.035 (0.025−0.050)	465	30	8000	0.035 (0.025−0.050)	280
1.6	60	11900	0.050 (0.030−0.065)	595	40	8000	0.050 (0.030−0.065)	400
2.0	70	11100	0.060 (0.040−0.080)	665	50	8000	0.060 (0.040−0.080)	480
2.5	80	10200	0.075 (0.050−0.100)	765	60	7600	0.075 (0.050−0.100)	570
3.2	80	8000	0.100 (0.070−0.130)	800	60	6000	0.100 (0.070−0.130)	600
4.0	80	6400	0.100 (0.090−0.110)	640	60	4800	0.090 (0.080−0.090)	430
5.0	80	5100	0.130 (0.110−0.140)	665	60	3800	0.110 (0.100−0.120)	420
6.3	80	4000	0.160 (0.140−0.180)	640	60	3000	0.140 (0.130−0.150)	420
8.0	80	3200	0.200 (0.180−0.230)	640	60	2400	0.170 (0.160−0.190)	410
10.0	80	2600	0.250 (0.220−0.280)	650	60	1900	0.220 (0.200−0.230)	420
12.0	80	2100	0.300 (0.270−0.340)	630	60	1600	0.260 (0.240−0.280)	415

Werkstoff	P				H			
	Vergüteter Stahl (35−45HRC), Leg. Werkzeugstahl (≤350HB) NAK, X36CrMo17, X210Cr12, 55NiCrMoV6				Gehärteter Stahl (40−55HRC), PH Rostfreier Stahl (<450HB) X20CrNi17-2, X30Cr13 X5CrNiCuNb164, X7CrNiAl17-7			
Bohrer Durchm. **DC** (mm)	Schnittgeschw. (m/min)	Drehzahl (min^{-1})	Vorschub (min.−max.) (mm/U.)	Tischvorschub (mm/min)	Schnittgeschw. (m/min)	Drehzahl (min^{-1})	Vorschub (min.−max.) (mm/U.)	Tischvorschub (mm/min)
1.0	20	6400	0.025 (0.020−0.030)	160	40	12700	0.020 (0.015−0.025)	255
1.2	30	8000	0.030 (0.020−0.035)	240	40	10600	0.025 (0.020−0.030)	265
1.6	40	8000	0.040 (0.030−0.045)	320	50	10000	0.035 (0.025−0.040)	350
2.0	50	8000	0.045 (0.035−0.060)	360	50	8000	0.040 (0.030−0.050)	320
2.5	60	7600	0.060 (0.045−0.075)	455	60	7600	0.050 (0.040−0.065)	380
3.2	60	6000	0.080 (0.060−0.090)	480	60	6000	0.060 (0.050−0.080)	360
4.0	60	4800	0.080 (0.070−0.100)	385	60	4800	0.080 (0.060−0.100)	385
5.0	60	3800	0.110 (0.090−0.130)	420	60	3800	0.100 (0.080−0.130)	380
6.3	60	3000	0.130 (0.110−0.160)	390	60	3000	0.110 (0.090−0.130)	330
8.0	60	2400	0.170 (0.140−0.200)	410	60	2400	0.140 (0.120−0.160)	335
10.0	60	1900	0.210 (0.170−0.250)	400	60	1900	0.170 (0.140−0.200)	325
12.0	60	1600	0.250 (0.210−0.300)	400	60	1600	0.210 (0.170−0.240)	335

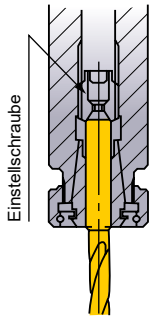
Werkstoff	H	S		
	Gehärteter Stahl (40−55HRC), Hitzebeständiger Stahl X40CrMoV51, 55NiCrMoV7, Inconel718			
Bohrer Durchm. **DC** (mm)	Schnittgeschw. (m/min)	Drehzahl (min^{-1})	Vorschub (min.−max.) (mm/U.)	Tischvorschub (mm/min)
1.0	10	3200	0.015 (0.015−0.020)	50
1.2	10	2700	0.020 (0.015−0.025)	55
1.6	10	2000	0.025 (0.020−0.030)	50
2.0	20	3200	0.035 (0.025−0.040)	110
2.5	20	2600	0.040 (0.030−0.050)	105
3.2	20	2000	0.050 (0.040−0.070)	100
4.0	30	2400	0.070 (0.050−0.080)	170
5.0	30	1900	0.080 (0.060−0.100)	150
6.3	30	1500	0.090 (0.080−0.110)	135
8.0	40	1600	0.120 (0.100−0.130)	190
10.0	40	1300	0.150 (0.130−0.170)	195
12.0	40	1100	0.180 (0.150−0.200)	200

(Bemerkung 1) Wenn der Bohrer mit einer Länge über l/d 10 verwendet wird, müssen Pilotbohrungen als Führung zum Einsatz kommen.
(Ohne Pilotbohrung kann der Bohrer brechen.)

(Bemerkung 2) Verwenden Sie den Bohrer mit der kürzesten Schneide in der gleichen Größe als Pilotbohrer.

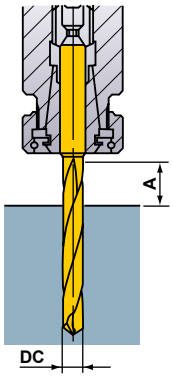
EINSATZ HINWEISE

Bohrer Aufnahme



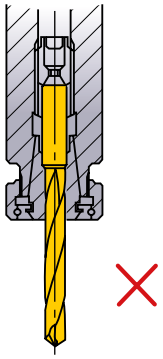
Präzisionsspannzangen können verwendet werden.

Max. Bohrtiefe



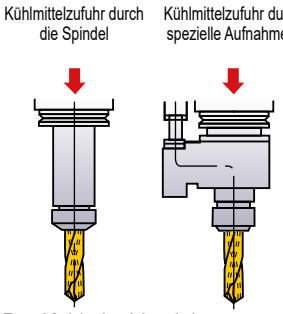
A ≥ DC x 2

Bohrer Einstellung



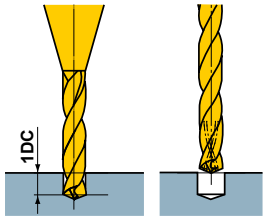
Nicht auf den Nuten Spannen.

Interne Kühlmittelzufuhr



Der Kühlmitteldruck beträgt ca. 15 bar—70 bar
Empfohlener Kühlmitteldruck: ≥30 bar

Bohrer Einstellung



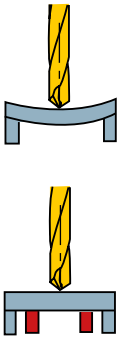
1) Pilotbohrung 1xDC oder tiefer (DC= Bohrerdurchmesser) mittels kurzem MHS-Bohrer herstellen.
2) Je nach Anwendung kann ein kurzes Lüften beim Tieflochbohren notwendig sein.

Handling mit Kühlmittel

1) Schmutz und Staubpartikel in altem Kühlmittel können die Kanäle verstopfen und den Kühlmittelfluss behindern. Es wird empfohlen, das Kühlmittel regelmäßig zu wechseln.

2) Feine Metallspäne können das Ölloch verstopfen. Zur Vorbeugung einen Filter verwenden. Bei Bohrern mit kleinem Durchmesser einen Filter mit feinem Sieb verwenden.

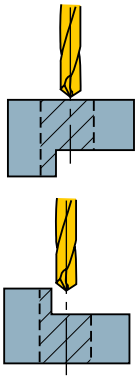
Dünne Werkstücke



Wenn Werkstücke verbiegen… ×

unterstützen Sie diese. ○

Unterbrochene Bearbeitung



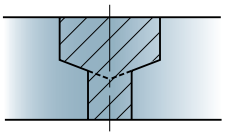
Ohne Vorbearbeitung ○

①Reduzieren Sie den Vorschub an der unterbrochenen Stelle.

Benötigt Vorbearbeitung △

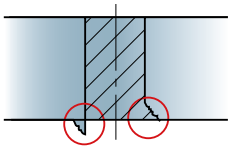
②Planen Sie die Fläche mit einem Fräser vorab.

Stufenbohrungen



①Vorgang in zwei Prozesse unterteilen.
②Zuerst das größere Loch bohren.
*Werkzeuge zum Fasen und Anflachen können auf Bestellung gefertigt werden.

Gratbildung oder Ausbrüche am Werkstück



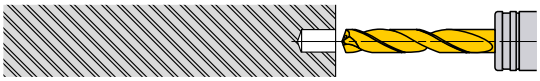
①Am Ende des Durchbruchs den Vorschub verringern.
②Tauschen Sie den Bohrer durch einen anderen mit größerem Spitzenwinkel.

MHS

OPTIONALE BEDIENHINWEISE FÜR MHS-LANGBOHRER (L/D ≥ 10)

BOHREN AUF GLATTEN FLÄCHEN ●Bohren eines Grundgewindes

1. Bohren eines Führungslochs



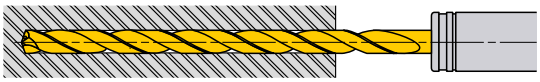
①Verwenden Sie einen Bohrer mit einem größeren (flacheren) Spitzenwinkel. Verwenden Sie die kürzeste Länge.
②Das Führungsloch muss mit hoher Präzision gebohrt werden.
③Bohrtiefe: ca. 1DC oder tiefer
(Die Führungslochtiefe muss an die Länge des extra langen Bohrers angepasst werden.)

2. Anbohren mit dem Langbohrer



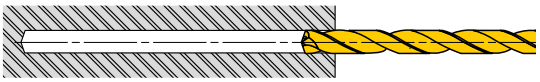
①Mit niedriger Drehzahl in das Führungsloch eindringen. (Drehzahl 1000 min^{-1}, Vorschub 0.2—0.3mm/U)
②Langbohrer 0.5—1mm vor dem Boden des Führungslochs stoppen.

3. Bohren des Tieflochs



①Beginnen Sie mit der empfohlenen Drehzahl und verwenden Sie den Vorschub (kontinuierlich) ohne Ausspänung.

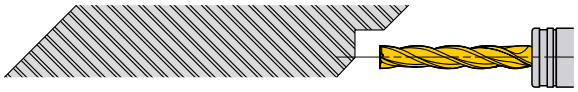
4. Herausziehen des Bohrers



①Senken Sie nach dem Bohren 0.5—1mm über dem Lochboden die Drehzahl. (Drehzahl 1000 min^{-1})
②Ziehen Sie den Bohrer bei einem Vorschub von 3000mm/min bis zum Startpunkt des Führungslochs heraus.
③Ziehen Sie schließlich bei einer Schnittgeschwindigkeit von 20—30m/min und einem Vorschub von 0.2—0.3mm/U den Bohrer ganz heraus.

UNTERBROCHENE BOHRUNG ●Bohrungen und Durchbrüche bei ungleichmäßigen Flächen und Winkeln

1. Anflachen



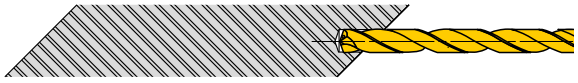
①Bearbeiten Sie die flache oder unebene Fläche mit einem Schaft- oder Nutenfräser, der zum Anflachen geeignet ist. Wählen Sie den Durchmesser der Planfläche so groß wie den Durchmesser des Tieflochs.

2. Bohren eines Führungslochs



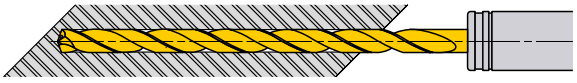
①Verwenden Sie einen Bohrer mit einem größeren (flacheren) Spitzenwinkel. Verwenden Sie die kürzeste Länge.
②Das Führungsloch muss mit hoher Präzision gebohrt werden.
③Bohrtiefe: ca. 1DC oder tiefer
(Die Führungslochtiefe muss an die Länge des langen Bohrers angepasst werden.)

3. Anbohren mit dem Langbohrer



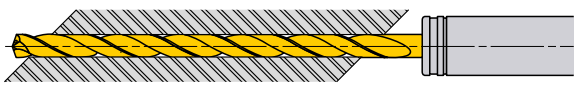
①Mit niedriger Drehzahl in das Führungsloch eindringen. (Drehzahl ca. 1000 min^{-1}, Vorschub 0.2—0.3mm/U)
②Langbohrer 0.5—1mm vor dem Boden des Führungslochs stoppen.

4. Bohren des Tieflochs



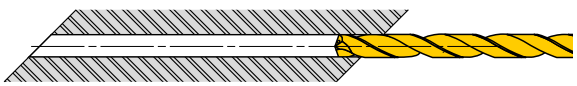
①Beginnen Sie mit der empfohlenen Drehzahl und verwenden Sie den Vorschub (kontinuierlich) ohne Ausspänung.

5. Durchbruch



①Beim Durchbruch kann die Schneidkante beschädigt werden.
②Verringern Sie den Vorschub beim Austritt aus der Bohrung.

6. Herausziehen des Bohrers



①Ziehen Sie schließlich bei einer Schnittgeschwindigkeit von 20—30m/min und einem Vorschub von 0.2—0.3mm/U den Bohrer ganz heraus.
②Ziehen Sie den Bohrer bei einem Vorschub von 3000mm/min bis zum Startpunkt des Führungslochs heraus.

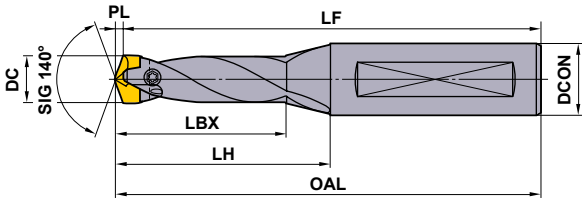
BOHREN (WSP AUSFÜHRUNG)

STAW

- Wellenförmige Schneidkante für optimale Spankontrolle.
- Hochstabiles Einspannsystem bietet Stabilität und Zuverlässigkeit beim Bohren kleiner Löcher.

P | M | K | N | S | H





S-TAW BOHRER

DC (mm)	Bohrtiefe (l/d)	Halter Bestellbezeichnung	Halter Lager	WSP DC (mm)	WSP Bestellbezeichnung	WSP Lager VP15TF	WSP Lager DP5010	LBX	LH	OAL	LF	PL	DCON	Schlüssel
10.0 – 10.4	1.5	STAWSS1000S16	●	10.0	STAWN1000TH	●		23.8	33.8	81.8	80	1.8	16	TIP06F
	1.5	STAWSS1000S16	●		STAWK1000TG		●	23.8	33.8	81.8	80	1.8	16	TIP06F
	3	STAWSN1000S16	●		STAWN1000TH	●		38.8	48.8	96.8	95	1.8	16	TIP06F
	5	STAWMN1000S16	●		STAWN1000TH	●		58.8	68.8	116.8	115	1.8	16	TIP06F
	8	STAWLN1000S16	●		STAWN1000TH	●		88.8	98.8	146.8	145	1.8	16	TIP06F
	8	STAWLN1000S16	●		STAWK1000TG		●	88.8	98.8	146.8	145	1.8	16	TIP06F
	1.5	STAWSS1000S16	●	10.1	STAWN1010TH	●		23.8	33.8	81.8	80	1.8	16	TIP06F
	1.5	STAWSS1000S16	●		STAWK1010TG		●	23.8	33.8	81.8	80	1.8	16	TIP06F
	3	STAWSN1000S16	●		STAWN1010TH	●		38.8	48.8	96.8	95	1.8	16	TIP06F
	5	STAWMN1000S16	●		STAWN1010TH	●		58.8	68.8	116.8	115	1.8	16	TIP06F
	8	STAWLN1000S16	●		STAWN1010TH	●		88.8	98.8	146.8	145	1.8	16	TIP06F
	8	STAWLN1000S16	●		STAWK1010TG		●	88.8	98.8	146.8	145	1.8	16	TIP06F
	1.5	STAWSS1000S16	●	10.2	STAWN1020TH	●		23.9	33.9	81.9	80	1.9	16	TIP06F
	1.5	STAWSS1000S16	●		STAWK1020TG		●	23.9	33.9	81.9	80	1.9	16	TIP06F
	3	STAWSN1000S16	●		STAWN1020TH	●		38.9	48.9	96.9	95	1.9	16	TIP06F
	5	STAWMN1000S16	●		STAWN1020TH	●		58.9	68.9	116.9	115	1.9	16	TIP06F
	8	STAWLN1000S16	●		STAWN1020TH	●		88.9	98.9	146.9	145	1.9	16	TIP06F
	8	STAWLN1000S16	●		STAWK1020TG		●	88.9	98.9	146.9	145	1.9	16	TIP06F
	1.5	STAWSS1000S16	●	10.3	STAWN1030TH	●		23.9	33.9	81.9	80	1.9	16	TIP06F
	1.5	STAWSS1000S16	●		STAWK1030TG		●	23.9	33.9	81.9	80	1.9	16	TIP06F
	3	STAWSN1000S16	●		STAWN1030TH	●		38.9	48.9	96.9	95	1.9	16	TIP06F
	5	STAWMN1000S16	●		STAWN1030TH	●		58.9	68.9	116.9	115	1.9	16	TIP06F
	8	STAWLN1000S16	●		STAWN1030TH	●		88.9	98.9	146.9	145	1.9	16	TIP06F
	8	STAWLN1000S16	●		STAWK1030TG		●	88.9	98.9	146.9	145	1.9	16	TIP06F
	1.5	STAWSS1000S16	●	10.4	STAWN1040TH	●		23.9	33.9	81.9	80	1.9	16	TIP06F
	1.5	STAWSS1000S16	●		STAWK1040TG		●	23.9	33.9	81.9	80	1.9	16	TIP06F
	3	STAWSN1000S16	●		STAWN1040TH	●		38.9	48.9	96.9	95	1.9	16	TIP06F
	5	STAWMN1000S16	●		STAWN1040TH	●		58.9	68.9	116.9	115	1.9	16	TIP06F
	8	STAWLN1000S16	●		STAWN1040TH	●		88.9	98.9	146.9	145	1.9	16	TIP06F
	8	STAWLN1000S16	●		STAWK1040TG		●	88.9	98.9	146.9	145	1.9	16	TIP06F
10.5 – 10.7	1.5	STAWSS1050S16	●	10.5	STAWN1050TH	●		23.9	33.9	81.9	80	1.9	16	TIP06F
	1.5	STAWSS1050S16	●		STAWK1050TG		●	23.9	33.9	81.9	80	1.9	16	TIP06F
	3	STAWSN1050S16	●		STAWN1050TH	●		38.9	48.9	96.9	95	1.9	16	TIP06F
	5	STAWMN1050S16	●		STAWN1050TH	●		58.9	68.9	116.9	115	1.9	16	TIP06F
	8	STAWLN1050S16	●		STAWN1050TH	●		88.9	98.9	146.9	145	1.9	16	TIP06F
	8	STAWLN1050S16	●		STAWK1050TG		●	88.9	98.9	146.9	145	1.9	16	TIP06F
	1.5	STAWSS1050S16	●	10.6	STAWN1060TH	●		23.9	33.9	81.9	80	1.9	16	TIP06F
	1.5	STAWSS1050S16	●		STAWK1060TG		●	23.9	33.9	81.9	80	1.9	16	TIP06F
	3	STAWSN1050S16	●		STAWN1060TH	●		38.9	48.9	96.9	95	1.9	16	TIP06F
	5	STAWMN1050S16	●		STAWN1060TH	●		58.9	68.9	116.9	115	1.9	16	TIP06F
	8	STAWLN1050S16	●		STAWN1060TH	●		88.9	98.9	146.9	145	1.9	16	TIP06F
	8	STAWLN1050S16	●		STAWK1060TG		●	88.9	98.9	146.9	145	1.9	16	TIP06F
	1.5	STAWSS1050S16	●	10.7	STAWN1070TH	●		23.9	33.9	81.9	80	1.9	16	TIP06F
	1.5	STAWSS1050S16	●		STAWK1070TG		●	23.9	33.9	81.9	80	1.9	16	TIP06F
	3	STAWSN1050S16	●		STAWN1070TH	●		38.9	48.9	96.9	95	1.9	16	TIP06F
	5	STAWMN1050S16	●		STAWN1070TH	●		58.9	68.9	116.9	115	1.9	16	TIP06F
	8	STAWLN1050S16	●		STAWN1070TH	●		88.9	98.9	146.9	145	1.9	16	TIP06F
	8	STAWLN1050S16	●		STAWK1070TG		●	88.9	98.9	146.9	145	1.9	16	TIP06F

(Hinweis 1) Die Maße repräsentieren die Größen, bei denen die WSP des Typs STAWN (VP15TF) eingesetzt werden.
(Hinweis 2) Für Sonderabmasse (z. B. andere Durchmesser und Längen) setzen Sie sich bitte mit uns Verbindung.

● : Lagerstandard. (Verpackungseinheit: 1Stk.)

WSP BESCHREIBUNG	➤ L127
SCHNITTBEDINGUNGEN	➤ L131
EINSATZ HINWEISE	➤ L132
TECHNISCHE DATEN	➤ N001

BOHREN (WSP AUSFÜHRUNG)

STAW

DC (mm)	Bohrtiefe (l/d)	Halter Bestellbezeichnung	Halter Lager	WSP DC (mm)	WSP Bestellbezeichnung	WSP Lager VP15TF	WSP Lager DP5010	Abmessungen (mm) LBX	LH	OAL	LF	PL	DCON	Schlüssel
10.8 | 10.9	1.5	STAWSS1050S16	●	10.8	STAWN1080TH	●		24.0	34.0	82.0	80	2.0	16	TIP06F
	1.5	STAWSS1050S16	●		STAWK1080TG		●	24.0	34.0	82.0	80	2.0	16	TIP06F
	3	STAWSN1050S16	●		STAWN1080TH	●		39.0	49.0	97.0	95	2.0	16	TIP06F
	5	STAWMN1050S16	●		STAWN1080TH	●		59.0	69.0	117.0	115	2.0	16	TIP06F
	8	STAWLN1050S16	●		STAWN1080TH	●		89.0	99.0	147.0	145	2.0	16	TIP06F
	8	STAWLN1050S16	●		STAWK1080TG		●	89.0	99.0	147.0	145	2.0	16	TIP06F
	1.5	STAWSS1050S16	●	10.9	STAWN1090TH	●		24.0	34.0	82.0	80	2.0	16	TIP06F
	1.5	STAWSS1050S16	●		STAWK1090TG		●	24.0	34.0	82.0	80	2.0	16	TIP06F
	3	STAWSN1050S16	●		STAWN1090TH	●		39.0	49.0	97.0	95	2.0	16	TIP06F
	5	STAWMN1050S16	●		STAWN1090TH	●		59.0	69.0	117.0	115	2.0	16	TIP06F
	8	STAWLN1050S16	●		STAWN1090TH	●		89.0	99.0	147.0	145	2.0	16	TIP06F
	8	STAWLN1050S16	●		STAWK1090TG		●	89.0	99.0	147.0	145	2.0	16	TIP06F
11.0 | 11.4	1.5	STAWSS1100S16	●	11.0	STAWN1100TH	●		27.0	38.0	86.0	84	2.0	16	TIP06F
	1.5	STAWSS1100S16	●		STAWK1100TG		●	27.0	38.0	86.0	84	2.0	16	TIP06F
	3	STAWSN1100S16	●		STAWN1100TH	●		43.0	54.0	102.0	100	2.0	16	TIP06F
	5	STAWMN1100S16	●		STAWN1100TH	●		68.0	79.0	127.0	125	2.0	16	TIP06F
	8	STAWLN1100S16	●		STAWN1100TH	●		98.0	109.0	157.0	155	2.0	16	TIP06F
	8	STAWLN1100S16	●		STAWK1100TG		●	98.0	109.0	157.0	155	2.0	16	TIP06F
	1.5	STAWSS1100S16	●	11.1	STAWN1110TH	●		27.0	38.0	86.0	84	2.0	16	TIP06F
	1.5	STAWSS1100S16	●		STAWK1110TG		●	27.0	38.0	86.0	84	2.0	16	TIP06F
	3	STAWSN1100S16	●		STAWN1110TH	●		43.0	54.0	102.0	100	2.0	16	TIP06F
	5	STAWMN1100S16	●		STAWN1110TH	●		68.0	79.0	127.0	125	2.0	16	TIP06F
	8	STAWLN1100S16	●		STAWN1110TH	●		98.0	109.0	157.0	155	2.0	16	TIP06F
	8	STAWLN1100S16	●		STAWK1110TG		●	98.0	109.0	157.0	155	2.0	16	TIP06F
	1.5	STAWSS1100S16	●	11.2	STAWN1120TH	●		27.0	38.0	86.0	84	2.0	16	TIP06F
	1.5	STAWSS1100S16	●		STAWK1120TG		●	27.0	38.0	86.0	84	2.0	16	TIP06F
	3	STAWSN1100S16	●		STAWN1120TH	●		43.0	54.0	102.0	100	2.0	16	TIP06F
	5	STAWMN1100S16	●		STAWN1120TH	●		68.0	79.0	127.0	125	2.0	16	TIP06F
	8	STAWLN1100S16	●		STAWN1120TH	●		98.0	109.0	157.0	155	2.0	16	TIP06F
	8	STAWLN1100S16	●		STAWK1120TG		●	98.0	109.0	157.0	155	2.0	16	TIP06F
	1.5	STAWSS1100S16	●	11.3	STAWN1130TH	●		27.1	38.1	86.1	84	2.1	16	TIP06F
	1.5	STAWSS1100S16	●		STAWK1130TG		●	27.1	38.1	86.1	84	2.1	16	TIP06F
	3	STAWSN1100S16	●		STAWN1130TH	●		43.1	54.1	102.1	100	2.1	16	TIP06F
	5	STAWMN1100S16	●		STAWN1130TH	●		68.1	79.1	127.1	125	2.1	16	TIP06F
	8	STAWLN1100S16	●		STAWN1130TH	●		98.1	109.1	157.1	155	2.1	16	TIP06F
	8	STAWLN1100S16	●		STAWK1130TG		●	98.1	109.1	157.1	155	2.1	16	TIP06F
	1.5	STAWSS1100S16	●	11.4	STAWN1140TH	●		27.1	38.1	86.1	84	2.1	16	TIP06F
	1.5	STAWSS1100S16	●		STAWK1140TG		●	27.1	38.1	86.1	84	2.1	16	TIP06F
	3	STAWSN1100S16	●		STAWN1140TH	●		43.1	54.1	102.1	100	2.1	16	TIP06F
	5	STAWMN1100S16	●		STAWN1140TH	●		68.1	79.1	127.1	125	2.1	16	TIP06F
	8	STAWLN1100S16	●		STAWN1140TH	●		98.1	109.1	157.1	155	2.1	16	TIP06F
	8	STAWLN1100S16	●		STAWK1140TG		●	98.1	109.1	157.1	155	2.1	16	TIP06F
11.5 | 11.7	1.5	STAWSS1150S16	●	11.5	STAWN1150TH	●		27.1	38.1	86.1	84	2.1	16	TIP06F
	1.5	STAWSS1150S16	●		STAWK1150TG		●	27.1	38.1	86.1	84	2.1	16	TIP06F
	3	STAWSN1150S16	●		STAWN1150TH	●		43.1	54.1	102.1	100	2.1	16	TIP06F
	5	STAWMN1150S16	●		STAWN1150TH	●		68.1	79.1	127.1	125	2.1	16	TIP06F
	8	STAWLN1150S16	●		STAWN1150TH	●		98.1	109.1	157.1	155	2.1	16	TIP06F
	8	STAWLN1150S16	●		STAWK1150TG		●	98.1	109.1	157.1	155	2.1	16	TIP06F
	1.5	STAWSS1150S16	●	11.6	STAWN1160TH	●		27.1	38.1	86.1	84	2.1	16	TIP06F
	1.5	STAWSS1150S16	●		STAWK1160TG		●	27.1	38.1	86.1	84	2.1	16	TIP06F
	3	STAWSN1150S16	●		STAWN1160TH	●		43.1	54.1	102.1	100	2.1	16	TIP06F
	5	STAWMN1150S16	●		STAWN1160TH	●		68.1	79.1	127.1	125	2.1	16	TIP06F
	8	STAWLN1150S16	●		STAWN1160TH	●		98.1	109.1	157.1	155	2.1	16	TIP06F
	8	STAWLN1150S16	●		STAWK1160TG		●	98.1	109.1	157.1	155	2.1	16	TIP06F
	1.5	STAWSS1150S16	●	11.7	STAWN1170TH	●		27.1	38.1	86.1	84	2.1	16	TIP06F
	1.5	STAWSS1150S16	●		STAWK1170TG		●	27.1	38.1	86.1	84	2.1	16	TIP06F
	3	STAWSN1150S16	●		STAWN1170TH	●		43.1	54.1	102.1	100	2.1	16	TIP06F
	5	STAWMN1150S16	●		STAWN1170TH	●		68.1	79.1	127.1	125	2.1	16	TIP06F
	8	STAWLN1150S16	●		STAWN1170TH	●		98.1	109.1	157.1	155	2.1	16	TIP06F
	8	STAWLN1150S16	●		STAWK1170TG		●	98.1	109.1	157.1	155	2.1	16	TIP06F

(Hinweis 1) Die Maße repräsentieren die Größen, bei denen die WSP des Typs STAWN (VP15TF) eingesetzt werden.
(Hinweis 2) Für Sonderabmasse (z. B. andere Durchmesser und Längen) setzen Sie sich bitte mit uns Verbindung.

● : Lagerstandard. (Verpackungseinheit: 1Stk.)

DC (mm)	Bohrtiefe (l/d)	Halter		WSP				Abmessungen (mm)						
		Bestellbezeichnung	Lager	DC (mm)	Bestellbezeichnung	Lager VP15TF	Lager DP5010	LBX	LH	OAL	LF	PL	DCON	Schlüssel
11.8 | 11.9	1.5	STAWSS1150S16	●	11.8	STAWN1180TH	●		27.1	38.1	86.1	84	2.1	16	TIP06F
	1.5	STAWSS1150S16	●		STAWK1180TG		●	27.1	38.1	86.1	84	2.1	16	TIP06F
	3	STAWSN1150S16	●		STAWN1180TH	●		43.1	54.1	102.1	100	2.1	16	TIP06F
	5	STAWMN1150S16	●		STAWN1180TH	●		68.1	79.1	127.1	125	2.1	16	TIP06F
	8	STAWLN1150S16	●		STAWN1180TH	●		98.1	109.1	157.1	155	2.1	16	TIP06F
	8	STAWLN1150S16	●		STAWK1180TG		●	98.1	109.1	157.1	155	2.1	16	TIP06F
	1.5	STAWSS1150S16	●	11.9	STAWN1190TH	●		27.2	38.2	86.2	84	2.2	16	TIP06F
	1.5	STAWSS1150S16	●		STAWK1190TG		●	27.2	38.2	86.2	84	2.2	16	TIP06F
	3	STAWSN1150S16	●		STAWN1190TH	●		43.2	54.2	102.2	100	2.2	16	TIP06F
	5	STAWMN1150S16	●		STAWN1190TH	●		68.2	79.2	127.2	125	2.2	16	TIP06F
	8	STAWLN1150S16	●		STAWN1190TH	●		98.2	109.2	157.2	155	2.2	16	TIP06F
	8	STAWLN1150S16	●		STAWK1190TG		●	98.2	109.2	157.2	155	2.2	16	TIP06F
12.0 | 12.4	1.5	STAWSS1200S16	●	12.0	STAWN1200TH	●		29.2	41.2	89.2	87	2.2	16	TIP06F
	1.5	STAWSS1200S16	●		STAWK1200TG		●	29.2	41.2	89.2	87	2.2	16	TIP06F
	3	STAWSN1200S16	●		STAWN1200TH	●		47.2	59.2	107.2	105	2.2	16	TIP06F
	5	STAWMN1200S16	●		STAWN1200TH	●		72.2	84.2	132.2	130	2.2	16	TIP06F
	8	STAWLN1200S16	●		STAWN1200TH	●		107.2	119.2	167.2	165	2.2	16	TIP06F
	8	STAWLN1200S16	●		STAWK1200TG		●	107.2	119.2	167.2	165	2.2	16	TIP06F
	1.5	STAWSS1200S16	●	12.1	STAWN1210TH	●		29.2	41.2	89.2	87	2.2	16	TIP06F
	1.5	STAWSS1200S16	●		STAWK1210TG		●	29.2	41.2	89.2	87	2.2	16	TIP06F
	3	STAWSN1200S16	●		STAWN1210TH	●		47.2	59.2	107.2	105	2.2	16	TIP06F
	5	STAWMN1200S16	●		STAWN1210TH	●		72.2	84.2	132.2	130	2.2	16	TIP06F
	8	STAWLN1200S16	●		STAWN1210TH	●		107.2	119.2	167.2	165	2.2	16	TIP06F
	8	STAWLN1200S16	●		STAWK1210TG		●	107.2	119.2	167.2	165	2.2	16	TIP06F
	1.5	STAWSS1200S16	●	12.2	STAWN1220TH	●		29.2	41.2	89.2	87	2.2	16	TIP06F
	1.5	STAWSS1200S16	●		STAWK1220TG		●	29.2	41.2	89.2	87	2.2	16	TIP06F
	3	STAWSN1200S16	●		STAWN1220TH	●		47.2	59.2	107.2	105	2.2	16	TIP06F
	5	STAWMN1200S16	●		STAWN1220TH	●		72.2	84.2	132.2	130	2.2	16	TIP06F
	8	STAWLN1200S16	●		STAWN1220TH	●		107.2	119.2	167.2	165	2.2	16	TIP06F
	8	STAWLN1200S16	●		STAWK1220TG		●	107.2	119.2	167.2	165	2.2	16	TIP06F
	1.5	STAWSS1200S16	●	12.3	STAWN1230TH	●		29.2	41.2	89.2	87	2.2	16	TIP06F
	1.5	STAWSS1200S16	●		STAWK1230TG		●	29.2	41.2	89.2	87	2.2	16	TIP06F
	3	STAWSN1200S16	●		STAWN1230TH	●		47.2	59.2	107.2	105	2.2	16	TIP06F
	5	STAWMN1200S16	●		STAWN1230TH	●		72.2	84.2	132.2	130	2.2	16	TIP06F
	8	STAWLN1200S16	●		STAWN1230TH	●		107.2	119.2	167.2	165	2.2	16	TIP06F
	8	STAWLN1200S16	●		STAWK1230TG		●	107.2	119.2	167.2	165	2.2	16	TIP06F
	1.5	STAWSS1200S16	●	12.4	STAWN1240TH	●		29.3	41.3	89.3	87	2.3	16	TIP06F
	1.5	STAWSS1200S16	●		STAWK1240TG		●	29.3	41.3	89.3	87	2.3	16	TIP06F
	3	STAWSN1200S16	●		STAWN1240TH	●		47.3	59.3	107.3	105	2.3	16	TIP06F
	5	STAWMN1200S16	●		STAWN1240TH	●		72.3	84.3	132.3	130	2.3	16	TIP06F
	8	STAWLN1200S16	●		STAWN1240TH	●		107.3	119.3	167.3	165	2.3	16	TIP06F
	8	STAWLN1200S16	●		STAWK1240TG		●	107.3	119.3	167.3	165	2.3	16	TIP06F
12.5 | 12.7	1.5	STAWSS1250S16	●	12.5	STAWN1250TH	●		29.3	41.3	89.3	87	2.3	16	TIP06F
	1.5	STAWSS1250S16	●		STAWK1250TG		●	29.3	41.3	89.3	87	2.3	16	TIP06F
	3	STAWSN1250S16	●		STAWN1250TH	●		47.3	59.3	107.3	105	2.3	16	TIP06F
	5	STAWMN1250S16	●		STAWN1250TH	●		72.3	84.3	132.3	130	2.3	16	TIP06F
	8	STAWLN1250S16	●		STAWN1250TH	●		107.3	119.3	167.3	165	2.3	16	TIP06F
	8	STAWLN1250S16	●		STAWK1250TG		●	107.3	119.3	167.3	165	2.3	16	TIP06F
	1.5	STAWSS1250S16	●	12.6	STAWN1260TH	●		29.3	41.3	89.3	87	2.3	16	TIP06F
	1.5	STAWSS1250S16	●		STAWK1260TG		●	29.3	41.3	89.3	87	2.3	16	TIP06F
	3	STAWSN1250S16	●		STAWN1260TH	●		47.3	59.3	107.3	105	2.3	16	TIP06F
	5	STAWMN1250S16	●		STAWN1260TH	●		72.3	84.3	132.3	130	2.3	16	TIP06F
	8	STAWLN1250S16	●		STAWN1260TH	●		107.3	119.3	167.3	165	2.3	16	TIP06F
	8	STAWLN1250S16	●		STAWK1260TG		●	107.3	119.3	167.3	165	2.3	16	TIP06F
	1.5	STAWSS1250S16	●	12.7	STAWN1270TH	●		29.3	41.3	89.3	87	2.3	16	TIP06F
	1.5	STAWSS1250S16	●		STAWK1270TG		●	29.3	41.3	89.3	87	2.3	16	TIP06F
	3	STAWSN1250S16	●		STAWN1270TH	●		47.3	59.3	107.3	105	2.3	16	TIP06F
	5	STAWMN1250S16	●		STAWN1270TH	●		72.3	84.3	132.3	130	2.3	16	TIP06F
	8	STAWLN1250S16	●		STAWN1270TH	●		107.3	119.3	167.3	165	2.3	16	TIP06F
	8	STAWLN1250S16	●		STAWK1270TG		●	107.3	119.3	167.3	165	2.3	16	TIP06F

WSP BESCHREIBUNG	➤ L127
SCHNITTBEDINGUNGEN	➤ L131
EINSATZ HINWEISE	➤ L132
TECHNISCHE DATEN	➤ N001

BOHREN (WSP AUSFÜHRUNG)

STAW

DC (mm)	Bohrtiefe (l/d)	Halter Bestellbezeichnung	Halter Lager	WSP DC (mm)	WSP Bestellbezeichnung	WSP Lager VP15TF	WSP Lager DP5010	LBX	LH	OAL	LF	PL	DCON	Schlüssel
12.8 | 12.9	1.5	STAWSS1250S16	●	12.8	STAWN1280TH	●		29.3	41.3	89.3	87	2.3	16	①TIP06F
	1.5	STAWSS1250S16	●		STAWK1280TG		●	29.3	41.3	89.3	87	2.3	16	①TIP06F
	3	STAWSN1250S16	●		STAWN1280TH	●		47.3	59.3	107.3	105	2.3	16	①TIP06F
	5	STAWMN1250S16	●		STAWN1280TH	●		72.3	84.3	132.3	130	2.3	16	①TIP06F
	8	STAWLN1250S16	●		STAWN1280TH	●		107.3	119.3	167.3	165	2.3	16	①TIP06F
	8	STAWLN1250S16	●		STAWK1280TG		●	107.3	119.3	167.3	165	2.3	16	①TIP06F
	1.5	STAWSS1250S16	●	12.9	STAWN1290TH	●		29.3	41.3	89.3	87	2.3	16	①TIP06F
	1.5	STAWSS1250S16	●		STAWK1290TG		●	29.3	41.3	89.3	87	2.3	16	①TIP06F
	3	STAWSN1250S16	●		STAWN1290TH	●		47.3	59.3	107.3	105	2.3	16	①TIP06F
	5	STAWMN1250S16	●		STAWN1290TH	●		72.3	84.3	132.3	130	2.3	16	①TIP06F
	8	STAWLN1250S16	●		STAWN1290TH	●		107.3	119.3	167.3	165	2.3	16	①TIP06F
	8	STAWLN1250S16	●		STAWK1290TG		●	107.3	119.3	167.3	165	2.3	16	①TIP06F
13.0 | 13.4	1.5	STAWSS1300S16	●	13.0	STAWN1300TH	●		32.4	45.4	93.4	91	2.4	16	②TIP08W
	1.5	STAWSS1300S16	●		STAWK1300TG		●	32.4	45.4	93.4	91	2.4	16	②TIP08W
	3	STAWSN1300S16	●		STAWN1300TH	●		51.4	64.4	112.4	110	2.4	16	②TIP08W
	5	STAWMN1300S16	●		STAWN1300TH	●		76.4	89.4	137.4	135	2.4	16	②TIP08W
	8	STAWLN1300S16	●		STAWN1300TH	●		116.4	129.4	177.4	175	2.4	16	②TIP08W
	8	STAWLN1300S16	●		STAWK1300TG		●	116.4	129.4	177.4	175	2.4	16	②TIP08W
	1.5	STAWSS1300S16	●	13.1	STAWN1310TH	●		32.4	45.4	93.4	91	2.4	16	②TIP08W
	1.5	STAWSS1300S16	●		STAWK1310TG		●	32.4	45.4	93.4	91	2.4	16	②TIP08W
	3	STAWSN1300S16	●		STAWN1310TH	●		51.4	64.4	112.4	110	2.4	16	②TIP08W
	5	STAWMN1300S16	●		STAWN1310TH	●		76.4	89.4	137.4	135	2.4	16	②TIP08W
	8	STAWLN1300S16	●		STAWN1310TH	●		116.4	129.4	177.4	175	2.4	16	②TIP08W
	8	STAWLN1300S16	●		STAWK1310TG		●	116.4	129.4	177.4	175	2.4	16	②TIP08W
	1.5	STAWSS1300S16	●	13.2	STAWN1320TH	●		32.4	45.4	93.4	91	2.4	16	②TIP08W
	1.5	STAWSS1300S16	●		STAWK1320TG		●	32.4	45.4	93.4	91	2.4	16	②TIP08W
	3	STAWSN1300S16	●		STAWN1320TH	●		51.4	64.4	112.4	110	2.4	16	②TIP08W
	5	STAWMN1300S16	●		STAWN1320TH	●		76.4	89.4	137.4	135	2.4	16	②TIP08W
	8	STAWLN1300S16	●		STAWN1320TH	●		116.4	129.4	177.4	175	2.4	16	②TIP08W
	8	STAWLN1300S16	●		STAWK1320TG		●	116.4	129.4	177.4	175	2.4	16	②TIP08W
	1.5	STAWSS1300S16	●	13.3	STAWN1330TH	●		32.4	45.4	93.4	91	2.4	16	②TIP08W
	1.5	STAWSS1300S16	●		STAWK1330TG		●	32.4	45.4	93.4	91	2.4	16	②TIP08W
	3	STAWSN1300S16	●		STAWN1330TH	●		51.4	64.4	112.4	110	2.4	16	②TIP08W
	5	STAWMN1300S16	●		STAWN1330TH	●		76.4	89.4	137.4	135	2.4	16	②TIP08W
	8	STAWLN1300S16	●		STAWN1330TH	●		116.4	129.4	177.4	175	2.4	16	②TIP08W
	8	STAWLN1300S16	●		STAWK1330TG		●	116.4	129.4	177.4	175	2.4	16	②TIP08W
	1.5	STAWSS1300S16	●	13.4	STAWN1340TH	●		32.4	45.4	93.4	91	2.4	16	②TIP08W
	1.5	STAWSS1300S16	●		STAWK1340TG		●	32.4	45.4	93.4	91	2.4	16	②TIP08W
	3	STAWSN1300S16	●		STAWN1340TH	●		51.4	64.4	112.4	110	2.4	16	②TIP08W
	5	STAWMN1300S16	●		STAWN1340TH	●		76.4	89.4	137.4	135	2.4	16	②TIP08W
	8	STAWLN1300S16	●		STAWN1340TH	●		116.4	129.4	177.4	175	2.4	16	②TIP08W
	8	STAWLN1300S16	●		STAWK1340TG		●	116.4	129.4	177.4	175	2.4	16	②TIP08W
13.5 | 13.7	1.5	STAWSS1350S16	●	13.5	STAWN1350TH	●		32.5	45.5	93.5	91	2.5	16	②TIP08W
	1.5	STAWSS1350S16	●		STAWK1350TG		●	32.5	45.5	93.5	91	2.5	16	②TIP08W
	3	STAWSN1350S16	●		STAWN1350TH	●		51.5	64.5	112.5	110	2.5	16	②TIP08W
	5	STAWMN1350S16	●		STAWN1350TH	●		76.5	89.5	137.5	135	2.5	16	②TIP08W
	8	STAWLN1350S16	●		STAWN1350TH	●		116.5	129.5	177.5	175	2.5	16	②TIP08W
	8	STAWLN1350S16	●		STAWK1350TG		●	116.5	129.5	177.5	175	2.5	16	②TIP08W
	1.5	STAWSS1350S16	●	13.6	STAWN1360TH	●		32.5	45.5	93.5	91	2.5	16	②TIP08W
	1.5	STAWSS1350S16	●		STAWK1360TG		●	32.5	45.5	93.5	91	2.5	16	②TIP08W
	3	STAWSN1350S16	●		STAWN1360TH	●		51.5	64.5	112.5	110	2.5	16	②TIP08W
	5	STAWMN1350S16	●		STAWN1360TH	●		76.5	89.5	137.5	135	2.5	16	②TIP08W
	8	STAWLN1350S16	●		STAWN1360TH	●		116.5	129.5	177.5	175	2.5	16	②TIP08W
	8	STAWLN1350S16	●		STAWK1360TG		●	116.5	129.5	177.5	175	2.5	16	②TIP08W
	1.5	STAWSS1350S16	●	13.7	STAWN1370TH	●		32.5	45.5	93.5	91	2.5	16	②TIP08W
	1.5	STAWSS1350S16	●		STAWK1370TG		●	32.5	45.5	93.5	91	2.5	16	②TIP08W
	3	STAWSN1350S16	●		STAWN1370TH	●		51.5	64.5	112.5	110	2.5	16	②TIP08W
	5	STAWMN1350S16	●		STAWN1370TH	●		76.5	89.5	137.5	135	2.5	16	②TIP08W
	8	STAWLN1350S16	●		STAWN1370TH	●		116.5	129.5	177.5	175	2.5	16	②TIP08W
	8	STAWLN1350S16	●		STAWK1370TG		●	116.5	129.5	177.5	175	2.5	16	②TIP08W

(Hinweis 1) Die Maße repräsentieren die Größen, bei denen die WSP des Typs STAWN (VP15TF) eingesetzt werden.
(Hinweis 2) Für Sonderabmasse (z. B. andere Durchmesser und Längen) setzen Sie sich bitte mit uns Verbindung.

● : Lagerstandard. (Verpackungseinheit: 1Stk.)

DC (mm)	Bohrtiefe (l/d)	Halter		WSP				Abmessungen (mm)						Schlüssel
		Bestellbezeichnung	Lager	DC (mm)	Bestellbezeichnung	Lager VP15TF	Lager DP5010	LBX	LH	OAL	LF	PL	DCON	
13.8 | 13.9	1.5	STAWSS1350S16	●	13.8	STAWN1380TH	●		32.5	45.5	93.5	91	2.5	16	TIP08W
	1.5	STAWSS1350S16	●		STAWK1380TG		●	32.5	45.5	93.5	91	2.5	16	TIP08W
	3	STAWSN1350S16	●		STAWN1380TH	●		51.5	64.5	112.5	110	2.5	16	TIP08W
	5	STAWMN1350S16	●		STAWN1380TH	●		76.5	89.5	137.5	135	2.5	16	TIP08W
	8	STAWLN1350S16	●		STAWN1380TH	●		116.5	129.5	177.5	175	2.5	16	TIP08W
	8	STAWLN1350S16	●		STAWK1380TG		●	116.5	129.5	177.5	175	2.5	16	TIP08W
	1.5	STAWSS1350S16	●	13.9	STAWN1390TH	●		32.5	45.5	93.5	91	2.5	16	TIP08W
	1.5	STAWSS1350S16	●		STAWK1390TG		●	32.5	45.5	93.5	91	2.5	16	TIP08W
	3	STAWSN1350S16	●		STAWN1390TH	●		51.5	64.5	112.5	110	2.5	16	TIP08W
	5	STAWMN1350S16	●		STAWN1390TH	●		76.5	89.5	137.5	135	2.5	16	TIP08W
	8	STAWLN1350S16	●		STAWN1390TH	●		116.5	129.5	177.5	175	2.5	16	TIP08W
	8	STAWLN1350S16	●		STAWK1390TG		●	116.5	129.5	177.5	175	2.5	16	TIP08W
14.0 | 14.4	1.5	STAWSS1400S16	●	14.0	STAWN1400TH	●		33.5	47.5	95.5	93	2.5	16	TIP08W
	1.5	STAWSS1400S16	●		STAWK1400TG		●	33.5	47.5	95.5	93	2.5	16	TIP08W
	3	STAWSN1400S16	●		STAWN1400TH	●		55.5	69.5	117.5	115	2.5	16	TIP08W
	5	STAWMN1400S16	●		STAWN1400TH	●		85.5	99.5	147.5	145	2.5	16	TIP08W
	8	STAWLN1400S16	●		STAWN1400TH	●		124.5	139.5	187.5	185	2.5	16	TIP08W
	8	STAWLN1400S16	●		STAWK1400TG		●	124.5	139.5	187.5	185	2.5	16	TIP08W
	1.5	STAWSS1400S16	●	14.1	STAWN1410TH	●		33.6	47.6	95.6	93	2.6	16	TIP08W
	1.5	STAWSS1400S16	●		STAWK1410TG		●	33.6	47.6	95.6	93	2.6	16	TIP08W
	3	STAWSN1400S16	●		STAWN1410TH	●		55.6	69.6	117.6	115	2.6	16	TIP08W
	5	STAWMN1400S16	●		STAWN1410TH	●		85.6	99.6	147.6	145	2.6	16	TIP08W
	8	STAWLN1400S16	●		STAWN1410TH	●		124.6	139.6	187.6	185	2.6	16	TIP08W
	8	STAWLN1400S16	●		STAWK1410TG		●	124.6	139.6	187.6	185	2.6	16	TIP08W
	1.5	STAWSS1400S16	●	14.2	STAWN1420TH	●		33.6	47.6	95.6	93	2.6	16	TIP08W
	1.5	STAWSS1400S16	●		STAWK1420TG		●	33.6	47.6	95.6	93	2.6	16	TIP08W
	3	STAWSN1400S16	●		STAWN1420TH	●		55.6	69.6	117.6	115	2.6	16	TIP08W
	5	STAWMN1400S16	●		STAWN1420TH	●		85.6	99.6	147.6	145	2.6	16	TIP08W
	8	STAWLN1400S16	●		STAWN1420TH	●		124.6	139.6	187.6	185	2.6	16	TIP08W
	8	STAWLN1400S16	●		STAWK1420TG		●	124.6	139.6	187.6	185	2.6	16	TIP08W
	1.5	STAWSS1400S16	●	14.3	STAWN1430TH	●		33.6	47.6	95.6	93	2.6	16	TIP08W
	1.5	STAWSS1400S16	●		STAWK1430TG		●	33.6	47.6	95.6	93	2.6	16	TIP08W
	3	STAWSN1400S16	●		STAWN1430TH	●		55.6	69.6	117.6	115	2.6	16	TIP08W
	5	STAWMN1400S16	●		STAWN1430TH	●		85.6	99.6	147.6	145	2.6	16	TIP08W
	8	STAWLN1400S16	●		STAWN1430TH	●		124.6	139.6	187.6	185	2.6	16	TIP08W
	8	STAWLN1400S16	●		STAWK1430TG		●	124.6	139.6	187.6	185	2.6	16	TIP08W
	1.5	STAWSS1400S16	●	14.4	STAWN1440TH	●		33.6	47.6	95.6	93	2.6	16	TIP08W
	1.5	STAWSS1400S16	●		STAWK1440TG		●	33.6	47.6	95.6	93	2.6	16	TIP08W
	3	STAWSN1400S16	●		STAWN1440TH	●		55.6	69.6	117.6	115	2.6	16	TIP08W
	5	STAWMN1400S16	●		STAWN1440TH	●		85.6	99.6	147.6	145	2.6	16	TIP08W
	8	STAWLN1400S16	●		STAWN1440TH	●		124.6	139.6	187.6	185	2.6	16	TIP08W
	8	STAWLN1400S16	●		STAWK1440TG		●	124.6	139.6	187.6	185	2.6	16	TIP08W
14.5 | 14.7	1.5	STAWSS1450S16	●	14.5	STAWN1450TH	●		33.6	47.6	95.6	93	2.6	16	TIP08W
	1.5	STAWSS1450S16	●		STAWK1450TG		●	33.6	47.6	95.6	93	2.6	16	TIP08W
	3	STAWSN1450S16	●		STAWN1450TH	●		55.6	69.6	117.6	115	2.6	16	TIP08W
	5	STAWMN1450S16	●		STAWN1450TH	●		85.6	99.6	147.6	145	2.6	16	TIP08W
	8	STAWLN1450S16	●		STAWN1450TH	●		124.6	139.6	187.6	185	2.6	16	TIP08W
	8	STAWLN1450S16	●		STAWK1450TG		●	124.6	139.6	187.6	185	2.6	16	TIP08W
	1.5	STAWSS1450S16	●	14.6	STAWN1460TH	●		33.7	47.7	95.7	93	2.7	16	TIP08W
	1.5	STAWSS1450S16	●		STAWK1460TG		●	33.7	47.7	95.7	93	2.7	16	TIP08W
	3	STAWSN1450S16	●		STAWN1460TH	●		55.7	69.7	117.7	115	2.7	16	TIP08W
	5	STAWMN1450S16	●		STAWN1460TH	●		85.7	99.7	147.7	145	2.7	16	TIP08W
	8	STAWLN1450S16	●		STAWN1460TH	●		124.7	139.7	187.7	185	2.7	16	TIP08W
	8	STAWLN1450S16	●		STAWK1460TG		●	124.7	139.7	187.7	185	2.7	16	TIP08W
	1.5	STAWSS1450S16	●	14.7	STAWN1470TH	●		33.7	47.7	95.7	93	2.7	16	TIP08W
	1.5	STAWSS1450S16	●		STAWK1470TG		●	33.7	47.7	95.7	93	2.7	16	TIP08W
	3	STAWSN1450S16	●		STAWN1470TH	●		55.7	69.7	117.7	115	2.7	16	TIP08W
	5	STAWMN1450S16	●		STAWN1470TH	●		85.7	99.7	147.7	145	2.7	16	TIP08W
	8	STAWLN1450S16	●		STAWN1470TH	●		124.7	139.7	187.7	185	2.7	16	TIP08W
	8	STAWLN1450S16	●		STAWK1470TG		●	124.7	139.7	187.7	185	2.7	16	TIP08W

WSP BESCHREIBUNG	➤ L127
SCHNITTBEDINGUNGEN	➤ L131
EINSATZ HINWEISE	➤ L132
TECHNISCHE DATEN	➤ N001

BOHREN (WSP AUSFÜHRUNG)

STAW

DC (mm)	Bohrtiefe (l/d)	Halter Bestellbezeichnung	Halter Lager	WSP DC (mm)	WSP Bestellbezeichnung	WSP Lager VP15TF	WSP Lager DP5010	LBX	LH	OAL	LF	PL	DCON	Schlüssel
14.8 | 14.9	1.5	STAWSS1450S16	●	14.8	STAWN1480TH	●		33.7	47.7	95.7	93	2.7	16	TIP08W
	1.5	STAWSS1450S16	●		STAWK1480TG		●	33.7	47.7	95.7	93	2.7	16	TIP08W
	3	STAWSN1450S16	●		STAWN1480TH	●		55.7	69.7	117.7	115	2.7	16	TIP08W
	5	STAWMN1450S16	●		STAWN1480TH	●		85.7	99.7	147.7	145	2.7	16	TIP08W
	8	STAWLN1450S16	●		STAWN1480TH	●		124.7	139.7	187.7	185	2.7	16	TIP08W
	8	STAWLN1450S16	●		STAWK1480TG		●	124.7	139.7	187.7	185	2.7	16	TIP08W
	1.5	STAWSS1450S16	●	14.9	STAWN1490TH	●		33.7	47.7	95.7	93	2.7	16	TIP08W
	1.5	STAWSS1450S16	●		STAWK1490TG		●	33.7	47.7	95.7	93	2.7	16	TIP08W
	3	STAWSN1450S16	●		STAWN1490TH	●		55.7	69.7	117.7	115	2.7	16	TIP08W
	5	STAWMN1450S16	●		STAWN1490TH	●		85.7	99.7	147.7	145	2.7	16	TIP08W
	8	STAWLN1450S16	●		STAWN1490TH	●		124.7	139.7	187.7	185	2.7	16	TIP08W
	8	STAWLN1450S16	●		STAWK1490TG		●	124.7	139.7	187.7	185	2.7	16	TIP08W
15.0 | 15.4	1.5	STAWSS1500S20	●	15.0	STAWN1500TH	●		35.7	50.7	100.7	98	2.7	20	TIP08W
	1.5	STAWSS1500S20	●		STAWK1500TG		●	35.7	50.7	100.7	98	2.7	20	TIP08W
	3	STAWSN1500S20	●		STAWN1500TH	●		62.7	77.7	127.7	125	2.7	20	TIP08W
	5	STAWMN1500S20	●		STAWN1500TH	●		92.7	107.7	157.7	155	2.7	20	TIP08W
	8	STAWLN1500S20	●		STAWN1500TH	●		132.7	150.7	200.7	198	2.7	20	TIP08W
	8	STAWLN1500S20	●		STAWK1500TG		●	132.7	150.7	200.7	198	2.7	20	TIP08W
	1.5	STAWSS1500S20	●	15.1	STAWN1510TH	●		35.7	50.7	100.7	98	2.7	20	TIP08W
	1.5	STAWSS1500S20	●		STAWK1510TG		●	35.7	50.7	100.7	98	2.7	20	TIP08W
	3	STAWSN1500S20	●		STAWN1510TH	●		62.7	77.7	127.7	125	2.7	20	TIP08W
	5	STAWMN1500S20	●		STAWN1510TH	●		92.7	107.7	157.7	155	2.7	20	TIP08W
	8	STAWLN1500S20	●		STAWN1510TH	●		132.7	150.7	200.7	198	2.7	20	TIP08W
	8	STAWLN1500S20	●		STAWK1510TG		●	132.7	150.7	200.7	198	2.7	20	TIP08W
	1.5	STAWSS1500S20	●	15.2	STAWN1520TH	●		35.8	50.8	100.8	98	2.8	20	TIP08W
	1.5	STAWSS1500S20	●		STAWK1520TG		●	35.8	50.8	100.8	98	2.8	20	TIP08W
	3	STAWSN1500S20	●		STAWN1520TH	●		62.8	77.8	127.8	125	2.8	20	TIP08W
	5	STAWMN1500S20	●		STAWN1520TH	●		92.8	107.8	157.8	155	2.8	20	TIP08W
	8	STAWLN1500S20	●		STAWN1520TH	●		132.8	150.8	200.8	198	2.8	20	TIP08W
	8	STAWLN1500S20	●		STAWK1520TG		●	132.8	150.8	200.8	198	2.8	20	TIP08W
	1.5	STAWSS1500S20	●	15.3	STAWN1530TH	●		35.8	50.8	100.8	98	2.8	20	TIP08W
	1.5	STAWSS1500S20	●		STAWK1530TG		●	35.8	50.8	100.8	98	2.8	20	TIP08W
	3	STAWSN1500S20	●		STAWN1530TH	●		62.8	77.8	127.8	125	2.8	20	TIP08W
	5	STAWMN1500S20	●		STAWN1530TH	●		92.8	107.8	157.8	155	2.8	20	TIP08W
	8	STAWLN1500S20	●		STAWN1530TH	●		132.8	150.8	200.8	198	2.8	20	TIP08W
	8	STAWLN1500S20	●		STAWK1530TG		●	132.8	150.8	200.8	198	2.8	20	TIP08W
	1.5	STAWSS1500S20	●	15.4	STAWN1540TH	●		35.8	50.8	100.8	98	2.8	20	TIP08W
	1.5	STAWSS1500S20	●		STAWK1540TG		●	35.8	50.8	100.8	98	2.8	20	TIP08W
	3	STAWSN1500S20	●		STAWN1540TH	●		62.8	77.8	127.8	125	2.8	20	TIP08W
	5	STAWMN1500S20	●		STAWN1540TH	●		92.8	107.8	157.8	155	2.8	20	TIP08W
	8	STAWLN1500S20	●		STAWN1540TH	●		132.8	150.8	200.8	198	2.8	20	TIP08W
	8	STAWLN1500S20	●		STAWK1540TG		●	132.8	150.8	200.8	198	2.8	20	TIP08W
15.5 | 15.6	1.5	STAWSS1600S20	●	15.5	STAWN1550T	●		36.8	52.8	102.8	100	2.8	20	TIP10W
	1.5	STAWSS1600S20	●		STAWK1550TG		●	36.8	52.8	102.8	100	2.8	20	TIP10W
	3	STAWSN1600S20	●		STAWN1550T	●		62.8	82.8	132.8	130	2.8	20	TIP10W
	3	STAWSN1600S20	●		STAWK1550TG		●	62.8	82.8	132.8	130	2.8	20	TIP10W
	5	STAWMN1600S20	●		STAWN1550T	●		92.8	117.8	167.8	165	2.8	20	TIP10W
	5	STAWMN1600S20	●		STAWK1550TG		●	92.8	117.8	167.8	165	2.8	20	TIP10W
	8	STAWLN1600S20	●		STAWN1550T	●		140.8	160.8	210.8	208	2.8	20	TIP10W
	8	STAWLN1600S20	●		STAWK1550TG		●	140.8	160.8	210.8	208	2.8	20	TIP10W
	1.5	STAWSS1600S20	●	15.6	STAWN1560T	●		36.8	52.8	102.8	100	2.8	20	TIP10W
	1.5	STAWSS1600S20	●		STAWK1560TG		●	36.8	52.8	102.8	100	2.8	20	TIP10W
	3	STAWSN1600S20	●		STAWN1560T	●		62.8	82.8	132.8	130	2.8	20	TIP10W
	3	STAWSN1600S20	●		STAWK1560TG		●	62.8	82.8	132.8	130	2.8	20	TIP10W
	5	STAWMN1600S20	●		STAWN1560T	●		92.8	117.8	167.8	165	2.8	20	TIP10W
	5	STAWMN1600S20	●		STAWK1560TG		●	92.8	117.8	167.8	165	2.8	20	TIP10W
	8	STAWLN1600S20	●		STAWN1560T	●		140.8	160.8	210.8	208	2.8	20	TIP10W
	8	STAWLN1600S20	●		STAWK1560TG		●	140.8	160.8	210.8	208	2.8	20	TIP10W

(Hinweis 1) Die Maße repräsentieren die Größen, bei denen die WSP des Typs STAWN (VP15TF) eingesetzt werden.
(Hinweis 2) Für Sonderabmasse (z. B. andere Durchmesser und Längen) setzen Sie sich bitte mit uns Verbindung.

● : Lagerstandard. (Verpackungseinheit: 1Stk.)

DC (mm)	Bohrtiefe (l/d)	Halter		WSP				Abmessungen (mm)						Schlüssel
		Bestellbezeichnung	Lager	DC (mm)	Bestellbezeichnung	Lager VP15TF	Lager DP5010	LBX	LH	OAL	LF	PL	DCON	
15.7 | 16.4	1.5	STAWSS1600S20	●	15.7	STAWN1570T	●		36.9	52.9	102.9	100	2.9	20	TIP10W
	1.5	STAWSS1600S20	●		STAWK1570TG		●	36.9	52.9	102.9	100	2.9	20	TIP10W
	3	STAWSN1600S20	●		STAWN1570T	●		62.9	82.9	132.9	130	2.9	20	TIP10W
	3	STAWSN1600S20	●		STAWK1570TG		●	62.9	82.9	132.9	130	2.9	20	TIP10W
	5	STAWMN1600S20	●		STAWN1570T	●		92.9	117.9	167.9	165	2.9	20	TIP10W
	5	STAWMN1600S20	●		STAWK1570TG		●	92.9	117.9	167.9	165	2.9	20	TIP10W
	8	STAWLN1600S20	●		STAWN1570T	●		140.9	160.9	210.9	208	2.9	20	TIP10W
	8	STAWLN1600S20	●		STAWK1570TG		●	140.9	160.9	210.9	208	2.9	20	TIP10W
	1.5	STAWSS1600S20	●	15.8	STAWN1580T	●		36.9	52.9	102.9	100	2.9	20	TIP10W
	1.5	STAWSS1600S20	●		STAWK1580TG		●	36.9	52.9	102.9	100	2.9	20	TIP10W
	3	STAWSN1600S20	●		STAWN1580T	●		62.9	82.9	132.9	130	2.9	20	TIP10W
	3	STAWSN1600S20	●		STAWK1580TG		●	62.9	82.9	132.9	130	2.9	20	TIP10W
	5	STAWMN1600S20	●		STAWN1580T	●		92.9	117.9	167.9	165	2.9	20	TIP10W
	5	STAWMN1600S20	●		STAWK1580TG		●	92.9	117.9	167.9	165	2.9	20	TIP10W
	8	STAWLN1600S20	●		STAWN1580T	●		140.9	160.9	210.9	208	2.9	20	TIP10W
	8	STAWLN1600S20	●		STAWK1580TG		●	140.9	160.9	210.9	208	2.9	20	TIP10W
	1.5	STAWSS1600S20	●	15.9	STAWN1590T	●		36.9	52.9	102.9	100	2.9	20	TIP10W
	1.5	STAWSS1600S20	●		STAWK1590TG		●	36.9	52.9	102.9	100	2.9	20	TIP10W
	3	STAWSN1600S20	●		STAWN1590T	●		62.9	82.9	132.9	130	2.9	20	TIP10W
	3	STAWSN1600S20	●		STAWK1590TG		●	62.9	82.9	132.9	130	2.9	20	TIP10W
	5	STAWMN1600S20	●		STAWN1590T	●		92.9	117.9	167.9	165	2.9	20	TIP10W
	5	STAWMN1600S20	●		STAWK1590TG		●	92.9	117.9	167.9	165	2.9	20	TIP10W
	8	STAWLN1600S20	●		STAWN1590T	●		140.9	160.9	210.9	208	2.9	20	TIP10W
	8	STAWLN1600S20	●		STAWK1590TG		●	140.9	160.9	210.9	208	2.9	20	TIP10W
	1.5	STAWSS1600S20	●	16.0	STAWN1600T	●		36.9	52.9	102.9	100	2.9	20	TIP10W
	1.5	STAWSS1600S20	●		STAWK1600TG		●	36.9	52.9	102.9	100	2.9	20	TIP10W
	3	STAWSN1600S20	●		STAWN1600T	●		62.9	82.9	132.9	130	2.9	20	TIP10W
	3	STAWSN1600S20	●		STAWK1600TG		●	62.9	82.9	132.9	130	2.9	20	TIP10W
	5	STAWMN1600S20	●		STAWN1600T	●		92.9	117.9	167.9	165	2.9	20	TIP10W
	5	STAWMN1600S20	●		STAWK1600TG		●	92.9	117.9	167.9	165	2.9	20	TIP10W
	8	STAWLN1600S20	●		STAWN1600T	●		140.9	160.9	210.9	208	2.9	20	TIP10W
	8	STAWLN1600S20	●		STAWK1600TG		●	140.9	160.9	210.9	208	2.9	20	TIP10W
	1.5	STAWSS1600S20	●	16.1	STAWN1610T	●		36.9	52.9	102.9	100	2.9	20	TIP10W
	1.5	STAWSS1600S20	●		STAWK1610TG		●	36.9	52.9	102.9	100	2.9	20	TIP10W
	3	STAWSN1600S20	●		STAWN1610T	●		62.9	82.9	132.9	130	2.9	20	TIP10W
	3	STAWSN1600S20	●		STAWK1610TG		●	62.9	82.9	132.9	130	2.9	20	TIP10W
	5	STAWMN1600S20	●		STAWN1610T	●		92.9	117.9	167.9	165	2.9	20	TIP10W
	5	STAWMN1600S20	●		STAWK1610TG		●	92.9	117.9	167.9	165	2.9	20	TIP10W
	8	STAWLN1600S20	●		STAWN1610T	●		140.9	160.9	210.9	208	2.9	20	TIP10W
	8	STAWLN1600S20	●		STAWK1610TG		●	140.9	160.9	210.9	208	2.9	20	TIP10W
	1.5	STAWSS1600S20	●	16.2	STAWN1620T	●		36.9	52.9	102.9	100	2.9	20	TIP10W
	1.5	STAWSS1600S20	●		STAWK1620TG		●	36.9	52.9	102.9	100	2.9	20	TIP10W
	3	STAWSN1600S20	●		STAWN1620T	●		62.9	82.9	132.9	130	2.9	20	TIP10W
	3	STAWSN1600S20	●		STAWK1620TG		●	62.9	82.9	132.9	130	2.9	20	TIP10W
	5	STAWMN1600S20	●		STAWN1620T	●		92.9	117.9	167.9	165	2.9	20	TIP10W
	5	STAWMN1600S20	●		STAWK1620TG		●	92.9	117.9	167.9	165	2.9	20	TIP10W
	8	STAWLN1600S20	●		STAWN1620T	●		140.9	160.9	210.9	208	2.9	20	TIP10W
	8	STAWLN1600S20	●		STAWK1620TG		●	140.9	160.9	210.9	208	2.9	20	TIP10W
	1.5	STAWSS1600S20	●	16.3	STAWN1630T	●		37.0	53.0	103.0	100	3.0	20	TIP10W
	1.5	STAWSS1600S20	●		STAWK1630TG		●	37.0	53.0	103.0	100	3.0	20	TIP10W
	3	STAWSN1600S20	●		STAWN1630T	●		63.0	83.0	133.0	130	3.0	20	TIP10W
	3	STAWSN1600S20	●		STAWK1630TG		●	63.0	83.0	133.0	130	3.0	20	TIP10W
	5	STAWMN1600S20	●		STAWN1630T	●		93.0	118.0	168.0	165	3.0	20	TIP10W
	5	STAWMN1600S20	●		STAWK1630TG		●	93.0	118.0	168.0	165	3.0	20	TIP10W
	8	STAWLN1600S20	●		STAWN1630T	●		141.0	161.0	211.0	208	3.0	20	TIP10W
	8	STAWLN1600S20	●		STAWK1630TG		●	141.0	161.0	211.0	208	3.0	20	TIP10W
	1.5	STAWSS1600S20	●	16.4	STAWN1640T	●		37.0	53.0	103.0	100	3.0	20	TIP10W
	1.5	STAWSS1600S20	●		STAWK1640TG		●	37.0	53.0	103.0	100	3.0	20	TIP10W
	3	STAWSN1600S20	●		STAWN1640T	●		63.0	83.0	133.0	130	3.0	20	TIP10W
	3	STAWSN1600S20	●		STAWK1640TG		●	63.0	83.0	133.0	130	3.0	20	TIP10W
	5	STAWMN1600S20	●		STAWN1640T	●		93.0	118.0	168.0	165	3.0	20	TIP10W
	5	STAWMN1600S20	●		STAWK1640TG		●	93.0	118.0	168.0	165	3.0	20	TIP10W
	8	STAWLN1600S20	●		STAWN1640T	●		141.0	161.0	211.0	208	3.0	20	TIP10W
	8	STAWLN1600S20	●		STAWK1640TG		●	141.0	161.0	211.0	208	3.0	20	TIP10W

WSP BESCHREIBUNG ➤ L127
SCHNITTBEDINGUNGEN ➤ L131
EINSATZ HINWEISE ➤ L132
TECHNISCHE DATEN ➤ N001

BOHREN (WSP AUSFÜHRUNG)

STAW

DC (mm)	Bohrtiefe (l/d)	Halter Bestellbezeichnung	Halter Lager	WSP DC (mm)	WSP Bestellbezeichnung	WSP Lager VP15TF	WSP Lager DP5010	Abmessungen (mm) LBX	LH	OAL	LF	PL	DCON	Schlüssel
16.5 | 17.2	1.5	STAWSS1700S20	●	16.5	STAWN1650T	●		39.0	56.0	106.0	103	3.0	20	TIP10W
	1.5	STAWSS1700S20	●		STAWK1650TG		●	39.0	56.0	106.0	103	3.0	20	TIP10W
	3	STAWSN1700S20	●		STAWN1650T	●		64.0	88.0	138.0	135	3.0	20	TIP10W
	3	STAWSN1700S20	●		STAWK1650TG		●	64.0	88.0	138.0	135	3.0	20	TIP10W
	5	STAWMN1700S20	●		STAWN1650T	●		98.0	123.0	173.0	170	3.0	20	TIP10W
	5	STAWMN1700S20	●		STAWK1650TG		●	98.0	123.0	173.0	170	3.0	20	TIP10W
	8	STAWLN1700S20	●		STAWN1650T	●		149.0	169.0	219.0	216	3.0	20	TIP10W
	8	STAWLN1700S20	●		STAWK1650TG		●	149.0	169.0	219.0	216	3.0	20	TIP10W
	1.5	STAWSS1700S20	●	16.6	STAWN1660T	●		39.0	56.0	106.0	103	3.0	20	TIP10W
	1.5	STAWSS1700S20	●		STAWK1660TG		●	39.0	56.0	106.0	103	3.0	20	TIP10W
	3	STAWSN1700S20	●		STAWN1660T	●		64.0	88.0	138.0	135	3.0	20	TIP10W
	3	STAWSN1700S20	●		STAWK1660TG		●	64.0	88.0	138.0	135	3.0	20	TIP10W
	5	STAWMN1700S20	●		STAWN1660T	●		98.0	123.0	173.0	170	3.0	20	TIP10W
	5	STAWMN1700S20	●		STAWK1660TG		●	98.0	123.0	173.0	170	3.0	20	TIP10W
	8	STAWLN1700S20	●		STAWN1660T	●		149.0	169.0	219.0	216	3.0	20	TIP10W
	8	STAWLN1700S20	●		STAWK1660TG		●	149.0	169.0	219.0	216	3.0	20	TIP10W
	1.5	STAWSS1700S20	●	16.7	STAWN1670T	●		39.0	56.0	106.0	103	3.0	20	TIP10W
	1.5	STAWSS1700S20	●		STAWK1670TG		●	39.0	56.0	106.0	103	3.0	20	TIP10W
	3	STAWSN1700S20	●		STAWN1670T	●		64.0	88.0	138.0	135	3.0	20	TIP10W
	3	STAWSN1700S20	●		STAWK1670TG		●	64.0	88.0	138.0	135	3.0	20	TIP10W
	5	STAWMN1700S20	●		STAWN1670T	●		98.0	123.0	173.0	170	3.0	20	TIP10W
	5	STAWMN1700S20	●		STAWK1670TG		●	98.0	123.0	173.0	170	3.0	20	TIP10W
	8	STAWLN1700S20	●		STAWN1670T	●		149.0	169.0	219.0	216	3.0	20	TIP10W
	8	STAWLN1700S20	●		STAWK1670TG		●	149.0	169.0	219.0	216	3.0	20	TIP10W
	1.5	STAWSS1700S20	●	16.8	STAWN1680T	●		39.1	56.1	106.1	103	3.1	20	TIP10W
	1.5	STAWSS1700S20	●		STAWK1680TG		●	39.1	56.1	106.1	103	3.1	20	TIP10W
	3	STAWSN1700S20	●		STAWN1680T	●		64.1	88.1	138.1	135	3.1	20	TIP10W
	3	STAWSN1700S20	●		STAWK1680TG		●	64.1	88.1	138.1	135	3.1	20	TIP10W
	5	STAWMN1700S20	●		STAWN1680T	●		98.1	123.1	173.1	170	3.1	20	TIP10W
	5	STAWMN1700S20	●		STAWK1680TG		●	98.1	123.1	173.1	170	3.1	20	TIP10W
	8	STAWLN1700S20	●		STAWN1680T	●		149.1	169.1	219.1	216	3.1	20	TIP10W
	8	STAWLN1700S20	●		STAWK1680TG		●	149.1	169.1	219.1	216	3.1	20	TIP10W
	1.5	STAWSS1700S20	●	16.9	STAWN1690T	●		39.1	56.1	106.1	103	3.1	20	TIP10W
	1.5	STAWSS1700S20	●		STAWK1690TG		●	39.1	56.1	106.1	103	3.1	20	TIP10W
	3	STAWSN1700S20	●		STAWN1690T	●		64.1	88.1	138.1	135	3.1	20	TIP10W
	3	STAWSN1700S20	●		STAWK1690TG		●	64.1	88.1	138.1	135	3.1	20	TIP10W
	5	STAWMN1700S20	●		STAWN1690T	●		98.1	123.1	173.1	170	3.1	20	TIP10W
	5	STAWMN1700S20	●		STAWK1690TG		●	98.1	123.1	173.1	170	3.1	20	TIP10W
	8	STAWLN1700S20	●		STAWN1690T	●		149.1	169.1	219.1	216	3.1	20	TIP10W
	8	STAWLN1700S20	●		STAWK1690TG		●	149.1	169.1	219.1	216	3.1	20	TIP10W
	1.5	STAWSS1700S20	●	17.0	STAWN1700T	●		39.1	56.1	106.1	103	3.1	20	TIP10W
	1.5	STAWSS1700S20	●		STAWK1700TG		●	39.1	56.1	106.1	103	3.1	20	TIP10W
	3	STAWSN1700S20	●		STAWN1700T	●		64.1	88.1	138.1	135	3.1	20	TIP10W
	3	STAWSN1700S20	●		STAWK1700TG		●	64.1	88.1	138.1	135	3.1	20	TIP10W
	5	STAWMN1700S20	●		STAWN1700T	●		98.1	123.1	173.1	170	3.1	20	TIP10W
	5	STAWMN1700S20	●		STAWK1700TG		●	98.1	123.1	173.1	170	3.1	20	TIP10W
	8	STAWLN1700S20	●		STAWN1700T	●		149.1	169.1	219.1	216	3.1	20	TIP10W
	8	STAWLN1700S20	●		STAWK1700TG		●	149.1	169.1	219.1	216	3.1	20	TIP10W
	1.5	STAWSS1700S20	●	17.1	STAWN1710T	●		39.1	56.1	106.1	103	3.1	20	TIP10W
	1.5	STAWSS1700S20	●		STAWK1710TG		●	39.1	56.1	106.1	103	3.1	20	TIP10W
	3	STAWSN1700S20	●		STAWN1710T	●		64.1	88.1	138.1	135	3.1	20	TIP10W
	3	STAWSN1700S20	●		STAWK1710TG		●	64.1	88.1	138.1	135	3.1	20	TIP10W
	5	STAWMN1700S20	●		STAWN1710T	●		98.1	123.1	173.1	170	3.1	20	TIP10W
	5	STAWMN1700S20	●		STAWK1710TG		●	98.1	123.1	173.1	170	3.1	20	TIP10W
	8	STAWLN1700S20	●		STAWN1710T	●		149.1	169.1	219.1	216	3.1	20	TIP10W
	8	STAWLN1700S20	●		STAWK1710TG		●	149.1	169.1	219.1	216	3.1	20	TIP10W
	1.5	STAWSS1700S20	●	17.2	STAWN1720T	●		39.1	56.1	106.1	103	3.1	20	TIP10W
	1.5	STAWSS1700S20	●		STAWK1720TG		●	39.1	56.1	106.1	103	3.1	20	TIP10W
	3	STAWSN1700S20	●		STAWN1720T	●		64.1	88.1	138.1	135	3.1	20	TIP10W
	3	STAWSN1700S20	●		STAWK1720TG		●	64.1	88.1	138.1	135	3.1	20	TIP10W
	5	STAWMN1700S20	●		STAWN1720T	●		98.1	123.1	173.1	170	3.1	20	TIP10W
	5	STAWMN1700S20	●		STAWK1720TG		●	98.1	123.1	173.1	170	3.1	20	TIP10W
	8	STAWLN1700S20	●		STAWN1720T	●		149.1	169.1	219.1	216	3.1	20	TIP10W
	8	STAWLN1700S20	●		STAWK1720TG		●	149.1	169.1	219.1	216	3.1	20	TIP10W

(Hinweis 1) Die Maße repräsentieren die Größen, bei denen die WSP des Typs STAWN (VP15TF) eingesetzt werden.
(Hinweis 2) Für Sonderabmasse (z. B. andere Durchmesser und Längen) setzen Sie sich bitte mit uns Verbindung.

● : Lagerstandard. (Verpackungseinheit: 1Stk.)

DC (mm)	Bohrtiefe (l/d)	Halter		WSP				Abmessungen (mm)						Schlüssel
		Bestellbezeichnung	Lager	DC (mm)	Bestellbezeichnung	Lager VP15TF	Lager DP5010	LBX	LH	OAL	LF	PL	DCON	
17.3 | 17.4	1.5	STAWSS1700S20	●	17.3	STAWN1730T	●		39.1	56.1	106.1	103	3.1	20	TIP10W
	1.5	STAWSS1700S20	●		STAWK1730TG		●	39.1	56.1	106.1	103	3.1	20	TIP10W
	3	STAWSN1700S20	●		STAWN1730T	●		64.1	88.1	138.1	135	3.1	20	TIP10W
	3	STAWSN1700S20	●		STAWK1730TG		●	64.1	88.1	138.1	135	3.1	20	TIP10W
	5	STAWMN1700S20	●		STAWN1730T	●		98.1	123.1	173.1	170	3.1	20	TIP10W
	5	STAWMN1700S20	●		STAWK1730TG		●	98.1	123.1	173.1	170	3.1	20	TIP10W
	8	STAWLN1700S20	●		STAWN1730T	●		149.1	169.1	219.1	216	3.1	20	TIP10W
	8	STAWLN1700S20	●		STAWK1730TG		●	149.1	169.1	219.1	216	3.1	20	TIP10W
	1.5	STAWSS1700S20	●	17.4	STAWN1740T	●		39.2	56.2	106.2	103	3.2	20	TIP10W
	1.5	STAWSS1700S20	●		STAWK1740TG		●	39.2	56.2	106.2	103	3.2	20	TIP10W
	3	STAWSN1700S20	●		STAWN1740T	●		64.2	88.2	138.2	135	3.2	20	TIP10W
	3	STAWSN1700S20	●		STAWK1740TG		●	64.2	88.2	138.2	135	3.2	20	TIP10W
	5	STAWMN1700S20	●		STAWN1740T	●		98.2	123.2	173.2	170	3.2	20	TIP10W
	5	STAWMN1700S20	●		STAWK1740TG		●	98.2	123.2	173.2	170	3.2	20	TIP10W
	8	STAWLN1700S20	●		STAWN1740T	●		149.2	169.2	219.2	216	3.2	20	TIP10W
	8	STAWLN1700S20	●		STAWK1740TG		●	149.2	169.2	219.2	216	3.2	20	TIP10W
17.5 | 18.0	1.5	STAWSS1800S20	●	17.5	STAWN1750T	●		40.2	58.2	108.2	105	3.2	20	TIP10W
	1.5	STAWSS1800S20	●		STAWK1750TG		●	40.2	58.2	108.2	105	3.2	20	TIP10W
	3	STAWSN1800S20	●		STAWN1750T	●		67.2	93.2	143.2	140	3.2	20	TIP10W
	3	STAWSN1800S20	●		STAWK1750TG		●	67.2	93.2	143.2	140	3.2	20	TIP10W
	5	STAWMN1800S20	●		STAWN1750T	●		103.2	128.2	178.2	175	3.2	20	TIP10W
	5	STAWMN1800S20	●		STAWK1750TG		●	103.2	128.2	178.2	175	3.2	20	TIP10W
	8	STAWLN1800S20	●		STAWN1750T	●		157.2	177.2	227.2	224	3.2	20	TIP10W
	8	STAWLN1800S20	●		STAWK1750TG		●	157.2	177.2	227.2	224	3.2	20	TIP10W
	1.5	STAWSS1800S20	●	17.6	STAWN1760T	●		40.2	58.2	108.2	105	3.2	20	TIP10W
	1.5	STAWSS1800S20	●		STAWK1760TG		●	40.2	58.2	108.2	105	3.2	20	TIP10W
	3	STAWSN1800S20	●		STAWN1760T	●		67.2	93.2	143.2	140	3.2	20	TIP10W
	3	STAWSN1800S20	●		STAWK1760TG		●	67.2	93.2	143.2	140	3.2	20	TIP10W
	5	STAWMN1800S20	●		STAWN1760T	●		103.2	128.2	178.2	175	3.2	20	TIP10W
	5	STAWMN1800S20	●		STAWK1760TG		●	103.2	128.2	178.2	175	3.2	20	TIP10W
	8	STAWLN1800S20	●		STAWN1760T	●		157.2	177.2	227.2	224	3.2	20	TIP10W
	8	STAWLN1800S20	●		STAWK1760TG		●	157.2	177.2	227.2	224	3.2	20	TIP10W
	1.5	STAWSS1800S20	●	17.7	STAWN1770T	●		40.2	58.2	108.2	105	3.2	20	TIP10W
	1.5	STAWSS1800S20	●		STAWK1770TG		●	40.2	58.2	108.2	105	3.2	20	TIP10W
	3	STAWSN1800S20	●		STAWN1770T	●		67.2	93.2	143.2	140	3.2	20	TIP10W
	3	STAWSN1800S20	●		STAWK1770TG		●	67.2	93.2	143.2	140	3.2	20	TIP10W
	5	STAWMN1800S20	●		STAWN1770T	●		103.2	128.2	178.2	175	3.2	20	TIP10W
	5	STAWMN1800S20	●		STAWK1770TG		●	103.2	128.2	178.2	175	3.2	20	TIP10W
	8	STAWLN1800S20	●		STAWN1770T	●		157.2	177.2	227.2	224	3.2	20	TIP10W
	8	STAWLN1800S20	●		STAWK1770TG		●	157.2	177.2	227.2	224	3.2	20	TIP10W
	1.5	STAWSS1800S20	●	17.8	STAWN1780T	●		40.2	58.2	108.2	105	3.2	20	TIP10W
	1.5	STAWSS1800S20	●		STAWK1780TG		●	40.2	58.2	108.2	105	3.2	20	TIP10W
	3	STAWSN1800S20	●		STAWN1780T	●		67.2	93.2	143.2	140	3.2	20	TIP10W
	3	STAWSN1800S20	●		STAWK1780TG		●	67.2	93.2	143.2	140	3.2	20	TIP10W
	5	STAWMN1800S20	●		STAWN1780T	●		103.2	128.2	178.2	175	3.2	20	TIP10W
	5	STAWMN1800S20	●		STAWK1780TG		●	103.2	128.2	178.2	175	3.2	20	TIP10W
	8	STAWLN1800S20	●		STAWN1780T	●		157.2	177.2	227.2	224	3.2	20	TIP10W
	8	STAWLN1800S20	●		STAWK1780TG		●	157.2	177.2	227.2	224	3.2	20	TIP10W
	1.5	STAWSS1800S20	●	17.9	STAWN1790T	●		40.3	58.3	108.3	105	3.3	20	TIP10W
	1.5	STAWSS1800S20	●		STAWK1790TG		●	40.3	58.3	108.3	105	3.3	20	TIP10W
	3	STAWSN1800S20	●		STAWN1790T	●		67.3	93.3	143.3	140	3.3	20	TIP10W
	3	STAWSN1800S20	●		STAWK1790TG		●	67.3	93.3	143.3	140	3.3	20	TIP10W
	5	STAWMN1800S20	●		STAWN1790T	●		103.3	128.3	178.3	175	3.3	20	TIP10W
	5	STAWMN1800S20	●		STAWK1790TG		●	103.3	128.3	178.3	175	3.3	20	TIP10W
	8	STAWLN1800S20	●		STAWN1790T	●		157.3	177.3	227.3	224	3.3	20	TIP10W
	8	STAWLN1800S20	●		STAWK1790TG		●	157.3	177.3	227.3	224	3.3	20	TIP10W
	1.5	STAWSS1800S20	●	18.0	STAWN1800T	●		40.3	58.3	108.3	105	3.3	20	TIP10W
	1.5	STAWSS1800S20	●		STAWK1800TG		●	40.3	58.3	108.3	105	3.3	20	TIP10W
	3	STAWSN1800S20	●		STAWN1800T	●		67.3	93.3	143.3	140	3.3	20	TIP10W
	3	STAWSN1800S20	●		STAWK1800TG		●	67.3	93.3	143.3	140	3.3	20	TIP10W
	5	STAWMN1800S20	●		STAWN1800T	●		103.3	128.3	178.3	175	3.3	20	TIP10W
	5	STAWMN1800S20	●		STAWK1800TG		●	103.3	128.3	178.3	175	3.3	20	TIP10W
	8	STAWLN1800S20	●		STAWN1800T	●		157.3	177.3	227.3	224	3.3	20	TIP10W
	8	STAWLN1800S20	●		STAWK1800TG		●	157.3	177.3	227.3	224	3.3	20	TIP10W

WSP BESCHREIBUNG ➤ L127
SCHNITTBEDINGUNGEN ➤ L131
EINSATZ HINWEISE ➤ L132
TECHNISCHE DATEN ➤ N001

STAW

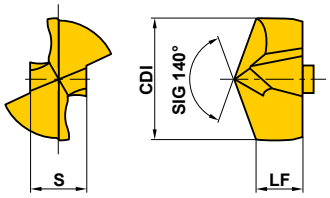
DC (mm)	Bohrtiefe (l/d)	Halter		WSP				Abmessungen (mm)						
		Bestellbezeichnung	Lager	DC (mm)	Bestellbezeichnung	Lager VP15TF	Lager DP5010	LBX	LH	OAL	LF	PL	DCON	Schlüssel
18.1 | 18.4	1.5	**STAWSS1800S20**	●	18.1	**STAWN1810T**	●		40.3	58.3	108.3	105	3.3	20	TIP10W
	1.5	**STAWSS1800S20**	●		**STAWK1810TG**		●	40.3	58.3	108.3	105	3.3	20	TIP10W
	3	**STAWSN1800S20**	●		**STAWN1810T**	●		67.3	93.3	143.3	140	3.3	20	TIP10W
	3	**STAWSN1800S20**	●		**STAWK1810TG**		●	67.3	93.3	143.3	140	3.3	20	TIP10W
	5	**STAWMN1800S20**	●		**STAWN1810T**	●		103.3	128.3	178.3	175	3.3	20	TIP10W
	5	**STAWMN1800S20**	●		**STAWK1810TG**		●	103.3	128.3	178.3	175	3.3	20	TIP10W
	8	**STAWLN1800S20**	●		**STAWN1810T**	●		157.3	177.3	227.3	224	3.3	20	TIP10W
	8	**STAWLN1800S20**	●		**STAWK1810TG**		●	157.3	177.3	227.3	224	3.3	20	TIP10W
	1.5	**STAWSS1800S20**	●	18.2	**STAWN1820T**	●		40.3	58.3	108.3	105	3.3	20	TIP10W
	1.5	**STAWSS1800S20**	●		**STAWK1820TG**		●	40.3	58.3	108.3	105	3.3	20	TIP10W
	3	**STAWSN1800S20**	●		**STAWN1820T**	●		67.3	93.3	143.3	140	3.3	20	TIP10W
	3	**STAWSN1800S20**	●		**STAWK1820TG**		●	67.3	93.3	143.3	140	3.3	20	TIP10W
	5	**STAWMN1800S20**	●		**STAWN1820T**	●		103.3	128.3	178.3	175	3.3	20	TIP10W
	5	**STAWMN1800S20**	●		**STAWK1820TG**		●	103.3	128.3	178.3	175	3.3	20	TIP10W
	8	**STAWLN1800S20**	●		**STAWN1820T**	●		157.3	177.3	227.3	224	3.3	20	TIP10W
	8	**STAWLN1800S20**	●		**STAWK1820TG**		●	157.3	177.3	227.3	224	3.3	20	TIP10W
	1.5	**STAWSS1800S20**	●	18.3	**STAWN1830T**	●		40.3	58.3	108.3	105	3.3	20	TIP10W
	1.5	**STAWSS1800S20**	●		**STAWK1830TG**		●	40.3	58.3	108.3	105	3.3	20	TIP10W
	3	**STAWSN1800S20**	●		**STAWN1830T**	●		67.3	93.3	143.3	140	3.3	20	TIP10W
	3	**STAWSN1800S20**	●		**STAWK1830TG**		●	67.3	93.3	143.3	140	3.3	20	TIP10W
	5	**STAWMN1800S20**	●		**STAWN1830T**	●		103.3	128.3	178.3	175	3.3	20	TIP10W
	5	**STAWMN1800S20**	●		**STAWK1830TG**		●	103.3	128.3	178.3	175	3.3	20	TIP10W
	8	**STAWLN1800S20**	●		**STAWN1830T**	●		157.3	177.3	227.3	224	3.3	20	TIP10W
	8	**STAWLN1800S20**	●		**STAWK1830TG**		●	157.3	177.3	227.3	224	3.3	20	TIP10W
	1.5	**STAWSS1800S20**	●	18.4	**STAWN1840T**	●		40.3	58.3	108.3	105	3.3	20	TIP10W
	1.5	**STAWSS1800S20**	●		**STAWK1840TG**		●	40.3	58.3	108.3	105	3.3	20	TIP10W
	3	**STAWSN1800S20**	●		**STAWN1840T**	●		67.3	93.3	143.3	140	3.3	20	TIP10W
	3	**STAWSN1800S20**	●		**STAWK1840TG**		●	67.3	93.3	143.3	140	3.3	20	TIP10W
	5	**STAWMN1800S20**	●		**STAWN1840T**	●		103.3	128.3	178.3	175	3.3	20	TIP10W
	5	**STAWMN1800S20**	●		**STAWK1840TG**		●	103.3	128.3	178.3	175	3.3	20	TIP10W
	8	**STAWLN1800S20**	●		**STAWN1840T**	●		157.3	177.3	227.3	224	3.3	20	TIP10W
	8	**STAWLN1800S20**	●		**STAWK1840TG**		●	157.3	177.3	227.3	224	3.3	20	TIP10W

(Hinweis 1) Die Maße repräsentieren die Größen, bei denen die WSP des Typs STAWN (VP15TF) eingesetzt werden.
(Hinweis 2) Für Sonderabmasse (z. B. andere Durchmesser und Längen) setzen Sie sich bitte mit uns Verbindung.

● : Lagerstandard. (Verpackungseinheit: 1Stk.)

WSP





Bestellbezeichnung	Lager		Abmessungen (mm)			WSP-Träger
	VP15TF		CDI	LF	S	
STAWN1000TH	●		10.0	3.8	4.6	STAWSS1000S16 STAWSN1000S16 STAWMN1000S16 STAWLN1000S16
STAWN**1010TH**	●		10.1	3.8	4.6	
STAWN**1020TH**	●		10.2	3.8	4.6	
STAWN**1030TH**	●		10.3	3.8	4.6	
STAWN**1040TH**	●		10.4	3.8	4.6	
STAWN**1050TH**	●		10.5	4.0	4.8	STAWSS1050S16 STAWSN1050S16 STAWMN1050S16 STAWLN1050S16
STAWN**1060TH**	●		10.6	4.0	4.8	
STAWN**1070TH**	●		10.7	4.0	4.8	
STAWN**1080TH**	●		10.8	4.0	4.8	
STAWN**1090TH**	●		10.9	4.0	4.8	
STAWN**1100TH**	●		11.0	4.2	5.1	STAWSS1100S16 STAWSN1100S16 STAWMN1100S16 STAWLN1100S16
STAWN**1110TH**	●		11.1	4.2	5.1	
STAWN**1120TH**	●		11.2	4.2	5.1	
STAWN**1130TH**	●		11.3	4.2	5.1	
STAWN**1140TH**	●		11.4	4.2	5.1	
STAWN**1150TH**	●		11.5	4.4	5.3	STAWSS1150S16 STAWSN1150S16 STAWMN1150S16 STAWLN1150S16
STAWN**1160TH**	●		11.6	4.4	5.3	
STAWN**1170TH**	●		11.7	4.4	5.3	
STAWN**1180TH**	●		11.8	4.4	5.3	
STAWN**1190TH**	●		11.9	4.4	5.3	
STAWN**1200TH**	●		12.0	4.6	5.5	STAWSS1200S16 STAWSN1200S16 STAWMN1200S16 STAWLN1200S16
STAWN**1210TH**	●		12.1	4.6	5.5	
STAWN**1220TH**	●		12.2	4.6	5.5	
STAWN**1230TH**	●		12.3	4.6	5.5	
STAWN**1240TH**	●		12.4	4.6	5.5	
STAWN**1250TH**	●		12.5	4.8	5.8	STAWSS1250S16 STAWSN1250S16 STAWMN1250S16 STAWLN1250S16
STAWN**1260TH**	●		12.6	4.8	5.8	
STAWN**1270TH**	●		12.7	4.8	5.8	
STAWN**1280TH**	●		12.8	4.8	5.8	
STAWN**1290TH**	●		12.9	4.8	5.8	
STAWN**1300TH**	●		13.0	4.9	6.0	STAWSS1300S16 STAWSN1300S16 STAWMN1300S16 STAWLN1300S16
STAWN**1310TH**	●		13.1	4.9	6.0	
STAWN**1320TH**	●		13.2	4.9	6.0	
STAWN**1330TH**	●		13.3	4.9	6.0	
STAWN**1340TH**	●		13.4	4.9	6.0	
STAWN**1350TH**	●		13.5	5.1	6.2	STAWSS1350S16 STAWSN1350S16 STAWMN1350S16 STAWLN1350S16
STAWN**1360TH**	●		13.6	5.1	6.2	
STAWN**1370TH**	●		13.7	5.1	6.2	
STAWN**1380TH**	●		13.8	5.1	6.2	
STAWN**1390TH**	●		13.9	5.1	6.2	

SCHNITTBEDINGUNGEN	➤ L131
EINSATZ HINWEISE	➤ L132
TECHNISCHE DATEN	➤ N001

BOHREN (WSP AUSFÜHRUNG)

STAW

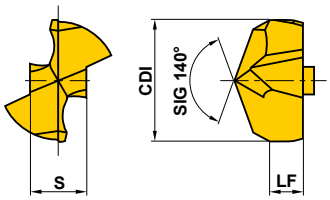
Bestellbezeichnung	Lager		Abmessungen (mm)			WSP-Träger
	VP15TF		CDI	LF	S	
STAWN1400TH	●		14.0	5.3	6.4	STAWSS1400S16 STAWSN1400S16 STAWMN1400S16 STAWLN1400S16
STAWN**1410TH**	●		14.1	5.3	6.4	
STAWN**1420TH**	●		14.2	5.3	6.4	
STAWN**1430TH**	●		14.3	5.3	6.4	
STAWN**1440TH**	●		14.4	5.3	6.4	
STAWN**1450TH**	●		14.5	5.5	6.7	STAWSS1450S16 STAWSN1450S16 STAWMN1450S16 STAWLN1450S16
STAWN**1460TH**	●		14.6	5.5	6.7	
STAWN**1470TH**	●		14.7	5.5	6.7	
STAWN**1480TH**	●		14.8	5.5	6.7	
STAWN**1490TH**	●		14.9	5.5	6.7	
STAWN**1500TH**	●		15.0	5.7	6.9	STAWSS1500S20 STAWSN1500S20 STAWMN1500S20 STAWLN1500S20
STAWN**1510TH**	●		15.1	5.7	6.9	
STAWN**1520TH**	●		15.2	5.7	6.9	
STAWN**1530TH**	●		15.3	5.7	6.9	
STAWN**1540TH**	●		15.4	5.7	6.9	
STAWN**1550T**	●		15.5	5.9	7.1	STAWSS1600S20 STAWSN1600S20 STAWMN1600S20 STAWLN1600S20
STAWN**1560T**	●		15.6	5.9	7.1	
STAWN**1570T**	●		15.7	5.9	7.1	
STAWN**1580T**	●		15.8	5.9	7.1	
STAWN**1590T**	●		15.9	5.9	7.1	
STAWN**1600T**	●		16.0	5.9	7.1	
STAWN**1610T**	●		16.1	5.9	7.1	
STAWN**1620T**	●		16.2	5.9	7.1	
STAWN**1630T**	●		16.3	5.9	7.1	
STAWN**1640T**	●		16.4	5.9	7.1	
STAWN**1650T**	●		16.5	6.3	7.6	STAWSS1700S20 STAWSN1700S20 STAWMN1700S20 STAWLN1700S20
STAWN**1660T**	●		16.6	6.3	7.6	
STAWN**1670T**	●		16.7	6.3	7.6	
STAWN**1680T**	●		16.8	6.3	7.6	
STAWN**1690T**	●		16.9	6.3	7.6	
STAWN**1700T**	●		17.0	6.3	7.6	
STAWN**1710T**	●		17.1	6.3	7.6	
STAWN**1720T**	●		17.2	6.3	7.6	
STAWN**1730T**	●		17.3	6.3	7.6	
STAWN**1740T**	●		17.4	6.3	7.6	
STAWN**1750T**	●		17.5	6.7	8.1	STAWSS1800S20 STAWSN1800S20 STAWMN1800S20 STAWLN1800S20
STAWN**1760T**	●		17.6	6.7	8.1	
STAWN**1770T**	●		17.7	6.7	8.1	
STAWN**1780T**	●		17.8	6.7	8.1	
STAWN**1790T**	●		17.9	6.7	8.1	
STAWN**1800T**	●		18.0	6.7	8.1	
STAWN**1810T**	●		18.1	6.7	8.1	
STAWN**1820T**	●		18.2	6.7	8.1	
STAWN**1830T**	●		18.3	6.7	8.1	
STAWN**1840T**	●		18.4	6.7	8.1	

● : Lagerstandard. (Verpackungseinheit: 1Stk.)

WSP

(Für Guss)





Bestellbezeichnung	Lager		Abmessungen (mm)			WSP-Träger
	DP5010		CDI	LF	S	
STAWK1000TG	●		10.0	3.3	4.6	STAWSS1000S16 STAWSN1000S16 STAWMN1000S16 STAWLN1000S16
STAWK**1010TG**	●		10.1	3.3	4.6	
STAWK**1020TG**	●		10.2	3.3	4.6	
STAWK**1030TG**	●		10.3	3.3	4.6	
STAWK**1040TG**	●		10.4	3.3	4.6	
STAWK**1050TG**	●		10.5	3.5	4.8	STAWSS1050S16 STAWSN1050S16 STAWMN1050S16 STAWLN1050S16
STAWK**1060TG**	●		10.6	3.5	4.8	
STAWK**1070TG**	●		10.7	3.5	4.8	
STAWK**1080TG**	●		10.8	3.5	4.8	
STAWK**1090TG**	●		10.9	3.5	4.8	
STAWK**1100TG**	●		11.0	3.7	5.1	STAWSS1100S16 STAWSN1100S16 STAWMN1100S16 STAWLN1100S16
STAWK**1110TG**	●		11.1	3.7	5.1	
STAWK**1120TG**	●		11.2	3.7	5.1	
STAWK**1130TG**	●		11.3	3.7	5.1	
STAWK**1140TG**	●		11.4	3.7	5.1	
STAWK**1150TG**	●		11.5	3.9	5.3	STAWSS1150S16 STAWSN1150S16 STAWMN1150S16 STAWLN1150S16
STAWK**1160TG**	●		11.6	3.9	5.3	
STAWK**1170TG**	●		11.7	3.9	5.3	
STAWK**1180TG**	●		11.8	3.9	5.3	
STAWK**1190TG**	●		11.9	3.9	5.3	
STAWK**1200TG**	●		12.0	4.1	5.5	STAWSS1200S16 STAWSN1200S16 STAWMN1200S16 STAWLN1200S16
STAWK**1210TG**	●		12.1	4.1	5.5	
STAWK**1220TG**	●		12.2	4.1	5.5	
STAWK**1230TG**	●		12.3	4.1	5.5	
STAWK**1240TG**	●		12.4	4.1	5.5	
STAWK**1250TG**	●		12.5	4.2	5.8	STAWSS1250S16 STAWSN1250S16 STAWMN1250S16 STAWLN1250S16
STAWK**1260TG**	●		12.6	4.2	5.8	
STAWK**1270TG**	●		12.7	4.2	5.8	
STAWK**1280TG**	●		12.8	4.2	5.8	
STAWK**1290TG**	●		12.9	4.2	5.8	
STAWK**1300TG**	●		13.0	4.4	6.0	STAWSS1300S16 STAWSN1300S16 STAWMN1300S16 STAWLN1300S16
STAWK**1310TG**	●		13.1	4.4	6.0	
STAWK**1320TG**	●		13.2	4.4	6.0	
STAWK**1330TG**	●		13.3	4.4	6.0	
STAWK**1340TG**	●		13.4	4.4	6.0	
STAWK**1350TG**	●		13.5	4.6	6.2	STAWSS1350S16 STAWSN1350S16 STAWMN1350S16 STAWLN1350S16
STAWK**1360TG**	●		13.6	4.6	6.2	
STAWK**1370TG**	●		13.7	4.6	6.2	
STAWK**1380TG**	●		13.8	4.6	6.2	
STAWK**1390TG**	●		13.9	4.6	6.2	

SCHNITTBEDINGUNGEN	➤ L131
EINSATZ HINWEISE	➤ L132
TECHNISCHE DATEN	➤ N001

BOHREN (WSP AUSFÜHRUNG)

STAW

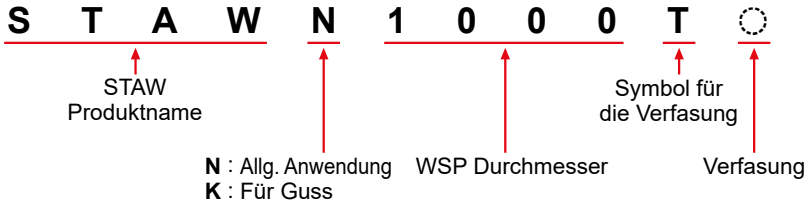
Bestellbezeichnung	Lager		Abmessungen (mm)			WSP-Träger
	DP5010		CDI	LF	S	
STAWK1400TG	●		14.0	4.8	6.4	STAWSS1400S16 STAWSN1400S16 STAWMN1400S16 STAWLN1400S16
STAWK**1410TG**	●		14.1	4.8	6.4	
STAWK**1420TG**	●		14.2	4.8	6.4	
STAWK**1430TG**	●		14.3	4.8	6.4	
STAWK**1440TG**	●		14.4	4.8	6.4	
STAWK**1450TG**	●		14.5	5.0	6.7	STAWSS1450S16 STAWSN1450S16 STAWMN1450S16 STAWLN1450S16
STAWK**1460TG**	●		14.6	5.0	6.7	
STAWK**1470TG**	●		14.7	5.0	6.7	
STAWK**1480TG**	●		14.8	5.0	6.7	
STAWK**1490TG**	●		14.9	5.0	6.7	
STAWK**1500TG**	●		15.0	5.2	6.9	STAWSS1500S20 STAWSN1500S20 STAWMN1500S20 STAWLN1500S20
STAWK**1510TG**	●		15.1	5.2	6.9	
STAWK**1520TG**	●		15.2	5.2	6.9	
STAWK**1530TG**	●		15.3	5.2	6.9	
STAWK**1540TG**	●		15.4	5.2	6.9	
STAWK**1550TG**	●		15.5	5.3	7.1	STAWSS1600S20 STAWSN1600S20 STAWMN1600S20 STAWLN1600S20
STAWK**1560TG**	●		15.6	5.3	7.1	
STAWK**1570TG**	●		15.7	5.3	7.1	
STAWK**1580TG**	●		15.8	5.3	7.1	
STAWK**1590TG**	●		15.9	5.3	7.1	
STAWK**1600TG**	●		16.0	5.3	7.1	
STAWK**1610TG**	●		16.1	5.3	7.1	
STAWK**1620TG**	●		16.2	5.3	7.1	
STAWK**1630TG**	●		16.3	5.3	7.1	
STAWK**1640TG**	●		16.4	5.3	7.1	
STAWK**1650TG**	●		16.5	5.7	7.6	STAWSS1700S20 STAWSN1700S20 STAWMN1700S20 STAWLN1700S20
STAWK**1660TG**	●		16.6	5.7	7.6	
STAWK**1670TG**	●		16.7	5.7	7.6	
STAWK**1680TG**	●		16.8	5.7	7.6	
STAWK**1690TG**	●		16.9	5.7	7.6	
STAWK**1700TG**	●		17.0	5.7	7.6	
STAWK**1710TG**	●		17.1	5.7	7.6	
STAWK**1720TG**	●		17.2	5.7	7.6	
STAWK**1730TG**	●		17.3	5.7	7.6	
STAWK**1740TG**	●		17.4	5.7	7.6	
STAWK**1750TG**	●		17.5	6.0	8.1	STAWSS1800S20 STAWSN1800S20 STAWMN1800S20 STAWLN1800S20
STAWK**1760TG**	●		17.6	6.0	8.1	
STAWK**1770TG**	●		17.7	6.0	8.1	
STAWK**1780TG**	●		17.8	6.0	8.1	
STAWK**1790TG**	●		17.9	6.0	8.1	
STAWK**1800TG**	●		18.0	6.0	8.1	
STAWK**1810TG**	●		18.1	6.0	8.1	
STAWK**1820TG**	●		18.2	6.0	8.1	
STAWK**1830TG**	●		18.3	6.0	8.1	
STAWK**1840TG**	●		18.4	6.0	8.1	

● : Lagerstandard. (Verpackungseinheit: 1Stk.)

FASENBREITE

Wenn eine WSP mit einer anderen Verfasung bevorzugt wird,
verwenden Sie bitte folgende Symbole bei der Bestellbezeichnung.

(WSP Bestellbezeichnung)



(Verfasungen)

Verfasung	Fasenbreite (mm)
F	0
G	0.02—0.05
H	0.05—0.10
-(Standard)	0.10—0.15
K	0.15—0.20
S	0.20—0.25
M	0.25—0.30

SCHNITTDATENEMPFEHLUNGEN

	Werkstoff	Bohrer Durchm. / Bedingung / Härte	ϕ10.0—ϕ12.9		ϕ13.0—ϕ13.9		ϕ14.0—ϕ15.4		ϕ15.5—ϕ18.4	
			Schnittgeschw. (m/min)	Vorschub (mm/U.)	Schnittgeschw. (m/min)	Vorschub (mm/U.)	Schnittgeschw. (m/min)	Vorschub (mm/U.)	Schnittgeschw. (m/min)	Vorschub (mm/U.)
P	Allg. Baustahl	≤180HB	80 (60—100)	0.20 (0.15—0.25)	90 (70—110)	0.25 (0.20—0.30)	100 (80—120)	0.30 (0.25—0.35)	100 (80—120)	0.35 (0.25—0.40)
	C-Stahl Leg. Stahl	180—280HB	80 (60—100)	0.20 (0.15—0.25)	90 (70—110)	0.25 (0.20—0.30)	100 (80—120)	0.30 (0.25—0.35)	100 (80—120)	0.35 (0.25—0.40)
		280—350HB	70 (60—90)	0.20 (0.15—0.25)	80 (60—100)	0.25 (0.20—0.30)	90 (70—110)	0.25 (0.20—0.30)	90 (70—110)	0.30 (0.20—0.35)
M	Rostfreier Stahl	≤200HB	40 (30—50)	0.13 (0.10—0.16)	50 (40—60)	0.15 (0.12—0.18)	60 (50—70)	0.17 (0.14—0.20)	60 (50—70)	0.17 (0.14—0.20)
K	Guss	Zugfestigkeit ≤350MPa	80 (60—100)	0.20 (0.15—0.25)	90 (70—110)	0.25 (0.20—0.30)	100 (80—120)	0.30 (0.25—0.35)	120 (80—140)	0.45 (0.35—0.55)
	Duktiler Guss	Zugfestigkeit ≤450MPa	70 (60—90)	0.20 (0.15—0.25)	80 (60—100)	0.25 (0.20—0.30)	90 (70—110)	0.30 (0.25—0.35)	100 (80—120)	0.35 (0.25—0.40)

(Hinweis 1) Bei Verwendung eines Bohrers für eine Bohrtiefe von 1,5xDC kann der Vorschub um etwa 20% erhöht werden.
(Hinweis 2) Bei Verwendung des langen Bohrers (8xDC) muss die Schnittgeschwindigkeit um etwa 20% reduziert werden.
(Hinweis 3) Bei Verwendung des langen Bohrers (8xDC) empfehlen wir eine Pilotbohrung.
(Hinweis 4) Bitte verwenden Sie interne Kühlmittelzufuhr bei rostfreien Stählen. Bitte keine MMS (Minimalmengenschmierung) einsetzen.

EINSATZ HINWEISE ➤ L132
TECHNISCHE DATEN ➤ N001

STAW

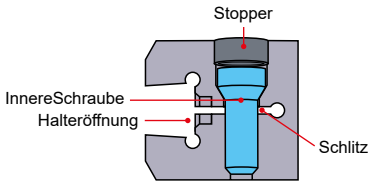
GEBRAUCHSANLEITUNG

WSP-BEFESTIGUNG

1. Bevor Sie die WSP in den Halter einsetzen, vergewissern Sie sich, dass sich in der Halteröffnung bzw. in dem Schlitz weder Fremdkörper noch Schmutz befinden. Reinigen Sie den Halter gegebenenfalls mit Druckluft.

2. Verwenden Sie den beiliegenden Schlüssel, um die innere Schraube zu lockern und die Spitze des Halters zu öffnen. Setzen Sie dann die WSP in die Halteröffnung ein wie in Abb. 1 gezeigt.
   ✱Achten Sie darauf, dass der Schlüssel beim Festziehen der Schraube einen engen Kontakt mit dem Kopf der Schraube hat.

3. Nachdem Sie die WSP in die Halteröffnung eingesetzt haben, ziehen Sie die innere Schraube fest und drücken Sie gleichzeitig die WSP in die Tasche (wie in Abb. 2 gezeigt), damit dieser richtig sitzt und sicher gespannt ist.
   ✱Achten Sie darauf, dass der Schlüssel beim Festziehen der Schraube einen engen Kontakt mit dem Kopf der Schraube hat.



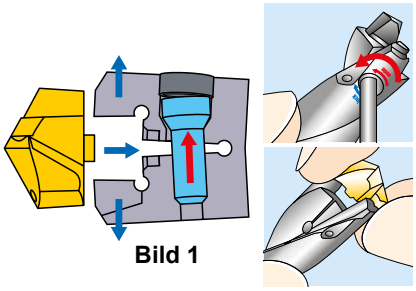


Bild 1

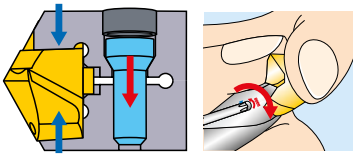
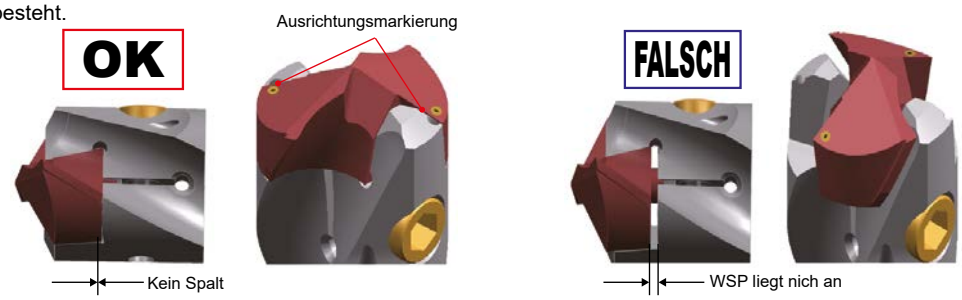


Bild 2

Spannschraube mit Drehmoment gemäß nachfolgender Tabelle festziehen.

Bohrer Durchm. (mm)	Dreh-moment N•m
10 －12.9	1
13 －15.4	2
15.5－18.4	2.5

4. Vergewissern Sie sich, dass kein Spalt zwischen der Unterseite der WSP und der Halteröffnung besteht.



(Bemerkung) Wenn die WSP unzureichend oder nicht richtig eingespannt wird, kann die Bohrleistung nachlassen und/oder der Bohrer brechen. Achten Sie daher beim Einsetzen darauf, dass die Ausrichtungsmarkierungen am Halter und an der WSP übereinstimmen. Verwenden Sie bei der Bearbeitung Sicherheitsvorrichtungen und eine Schutzbrille.

ERSATZTEILE

WSP-Träger	Set-Bestellbezeichnung (Innere Schraube und stopper)	 Innere Schraube	 Stopper
STAWSS/SN/MN/LN1000S16	WS203107TPS-35LH	WS203107TPS	WS35LH
STAWSS/SN/MN/LN1050S16	WS203107TPS-35LH	WS203107TPS	WS35LH
STAWSS/SN/MN/LN1100S16	WS203108TPS-35LH	WS203108TPS	WS35LH
STAWSS/SN/MN/LN1150S16	WS203108TPS-35LH	WS203108TPS	WS35LH
STAWSS/SN/MN/LN1200S16	WS203108TPS-35LH	WS203108TPS	WS35LH
STAWSS/SN/MN/LN1250S16	WS203108TPS-35LH	WS203108TPS	WS35LH
STAWSS/SN/MN/LN1300S16	WS253909TPS-45LH	WS253909TPS	WS45LH
STAWSS/SN/MN/LN1350S16	WS253909TPS-45LH	WS253909TPS	WS45LH
STAWSS/SN/MN/LN1400S16	WS253909TPS-45LH	WS253909TPS	WS45LH
STAWSS/SN/MN/LN1450S16	WS253909TPS-45LH	WS253909TPS	WS45LH
STAWSS/SN/MN/LN1500S20	WS253909TPS-45LH	WS253909TPS	WS45LH
STAWSS/SN/MN/LN1600S20	WS304912TPS-55LH	WS304912TPS	WS55LH
STAWSS/SN/MN/LN1700S20	WS304912TPS-55LH	WS304912TPS	WS55LH
STAWSS/SN/MN/LN1800S20	WS304912TPS-55LH	WS304912TPS	WS55LH

(Bemerkung) Das KIT beinhaltet Spannschraube, Stopper und Bedienungsanleitung. Wechseln Sie bitte die Ersatzteile entsprechend der beiliegenden Anleitung.

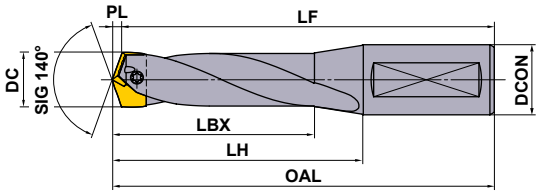
TAW

- Wellenförmige Schneidkante für optimale Spankontrolle.
- Positionsrillen für optimalen Rundlauf und Wiederholgenauigkeit.
- Einfacher WSP-Tausch.

P M K N S H

(Allg. Anwendung)





WSP-TRÄGER

DC (mm)	Bohrtiefe (l/d)	Halter Bestellbezeichnung	Halter Lager	WSP DC (mm)	WSP Bestellbezeichnung	Lager VP15TF	Lager DP5010	Lager VP10H	LBX	LH	OAL	LF	PL	DCON	Spannschraube	Schlüssel	Schlitz-Reiniger	Kupfer-paste
18.5 — 19.2	3	TAWSN1900S25	●	18.5	TAWNH1850T	●		□	71.4	102.4	158.4	155	3.4	25	WS304517T	TKY10T	WPT4405	MK1KS
	3	TAWSN1900S25	●		TAWKH1850TG		●		71.4	102.4	158.4	155	3.4	25	WS304517T	TKY10T	WPT4405	MK1KS
	5	TAWMN1900S25	●		TAWNH1850T	●		□	110.4	137.4	193.4	190	3.4	25	WS304517T	TKY10T	WPT4405	MK1KS
	5	TAWMN1900S25	●		TAWKH1850TG		●		110.4	137.4	193.4	190	3.4	25	WS304517T	TKY10T	WPT4405	MK1KS
	8	TAWLN1900S25	●		TAWNH1850T	●		□	165.4	188.4	244.4	241	3.4	25	WS304517T	TKY10T	WPT4405	MK1KS
	8	TAWLN1900S25	●		TAWKH1850TG		●		165.4	188.4	244.4	241	3.4	25	WS304517T	TKY10T	WPT4405	MK1KS
	3	TAWSN1900S25	●	18.6	TAWNH1860T	●		□	71.4	102.4	158.4	155	3.4	25	WS304517T	TKY10T	WPT4405	MK1KS
	3	TAWSN1900S25	●		TAWKH1860TG		●		71.4	102.4	158.4	155	3.4	25	WS304517T	TKY10T	WPT4405	MK1KS
	5	TAWMN1900S25	●		TAWNH1860T	●		□	110.4	137.4	193.4	190	3.4	25	WS304517T	TKY10T	WPT4405	MK1KS
	5	TAWMN1900S25	●		TAWKH1860TG		●		110.4	137.4	193.4	190	3.4	25	WS304517T	TKY10T	WPT4405	MK1KS
	8	TAWLN1900S25	●		TAWNH1860T	●		□	165.4	188.4	244.4	241	3.4	25	WS304517T	TKY10T	WPT4405	MK1KS
	8	TAWLN1900S25	●		TAWKH1860TG		●		165.4	188.4	244.4	241	3.4	25	WS304517T	TKY10T	WPT4405	MK1KS
	3	TAWSN1900S25	●	18.7	TAWNH1870T	●		□	71.4	102.4	158.4	155	3.4	25	WS304517T	TKY10T	WPT4405	MK1KS
	3	TAWSN1900S25	●		TAWKH1870TG		●		71.4	102.4	158.4	155	3.4	25	WS304517T	TKY10T	WPT4405	MK1KS
	5	TAWMN1900S25	●		TAWNH1870T	●		□	110.4	137.4	193.4	190	3.4	25	WS304517T	TKY10T	WPT4405	MK1KS
	5	TAWMN1900S25	●		TAWKH1870TG		●		110.4	137.4	193.4	190	3.4	25	WS304517T	TKY10T	WPT4405	MK1KS
	8	TAWLN1900S25	●		TAWNH1870T	●		□	165.4	188.4	244.4	241	3.4	25	WS304517T	TKY10T	WPT4405	MK1KS
	8	TAWLN1900S25	●		TAWKH1870TG		●		165.4	188.4	244.4	241	3.4	25	WS304517T	TKY10T	WPT4405	MK1KS
	3	TAWSN1900S25	●	18.8	TAWNH1880T	●		□	71.4	102.4	158.4	155	3.4	25	WS304517T	TKY10T	WPT4405	MK1KS
	3	TAWSN1900S25	●		TAWKH1880TG		●		71.4	102.4	158.4	155	3.4	25	WS304517T	TKY10T	WPT4405	MK1KS
	5	TAWMN1900S25	●		TAWNH1880T	●		□	110.4	137.4	193.4	190	3.4	25	WS304517T	TKY10T	WPT4405	MK1KS
	5	TAWMN1900S25	●		TAWKH1880TG		●		110.4	137.4	193.4	190	3.4	25	WS304517T	TKY10T	WPT4405	MK1KS
	8	TAWLN1900S25	●		TAWNH1880T	●		□	165.4	188.4	244.4	241	3.4	25	WS304517T	TKY10T	WPT4405	MK1KS
	8	TAWLN1900S25	●		TAWKH1880TG		●		165.4	188.4	244.4	241	3.4	25	WS304517T	TKY10T	WPT4405	MK1KS
	3	TAWSN1900S25	●	18.9	TAWNH1890T	●		□	71.4	102.4	158.4	155	3.4	25	WS304517T	TKY10T	WPT4405	MK1KS
	3	TAWSN1900S25	●		TAWKH1890TG		●		71.4	102.4	158.4	155	3.4	25	WS304517T	TKY10T	WPT4405	MK1KS
	5	TAWMN1900S25	●		TAWNH1890T	●		□	110.4	137.4	193.4	190	3.4	25	WS304517T	TKY10T	WPT4405	MK1KS
	5	TAWMN1900S25	●		TAWKH1890TG		●		110.4	137.4	193.4	190	3.4	25	WS304517T	TKY10T	WPT4405	MK1KS
	8	TAWLN1900S25	●		TAWNH1890T	●		□	165.4	188.4	244.4	241	3.4	25	WS304517T	TKY10T	WPT4405	MK1KS
	8	TAWLN1900S25	●		TAWKH1890TG		●		165.4	188.4	244.4	241	3.4	25	WS304517T	TKY10T	WPT4405	MK1KS
	3	TAWSN1900S25	●	19.0	TAWNH1900T	●		□	71.5	102.5	158.5	155	3.5	25	WS304517T	TKY10T	WPT4405	MK1KS
	3	TAWSN1900S25	●		TAWKH1900TG		●		71.5	102.5	158.5	155	3.5	25	WS304517T	TKY10T	WPT4405	MK1KS
	5	TAWMN1900S25	●		TAWNH1900T	●		□	110.5	137.5	193.5	190	3.5	25	WS304517T	TKY10T	WPT4405	MK1KS
	5	TAWMN1900S25	●		TAWKH1900TG		●		110.5	137.5	193.5	190	3.5	25	WS304517T	TKY10T	WPT4405	MK1KS
	8	TAWLN1900S25	●		TAWNH1900T	●		□	165.5	188.5	244.5	241	3.5	25	WS304517T	TKY10T	WPT4405	MK1KS
	8	TAWLN1900S25	●		TAWKH1900TG		●		165.5	188.5	244.5	241	3.5	25	WS304517T	TKY10T	WPT4405	MK1KS
	3	TAWSN1900S25	●	19.1	TAWNH1910T	●		□	71.5	102.5	158.5	155	3.5	25	WS304517T	TKY10T	WPT4405	MK1KS
	3	TAWSN1900S25	●		TAWKH1910TG		●		71.5	102.5	158.5	155	3.5	25	WS304517T	TKY10T	WPT4405	MK1KS
	5	TAWMN1900S25	●		TAWNH1910T	●		□	110.5	137.5	193.5	190	3.5	25	WS304517T	TKY10T	WPT4405	MK1KS
	5	TAWMN1900S25	●		TAWKH1910TG		●		110.5	137.5	193.5	190	3.5	25	WS304517T	TKY10T	WPT4405	MK1KS
	8	TAWLN1900S25	●		TAWNH1910T	●		□	165.5	188.5	244.5	241	3.5	25	WS304517T	TKY10T	WPT4405	MK1KS
	8	TAWLN1900S25	●		TAWKH1910TG		●		165.5	188.5	244.5	241	3.5	25	WS304517T	TKY10T	WPT4405	MK1KS
	3	TAWSN1900S25	●	19.2	TAWNH1920T	●		□	71.5	102.5	158.5	155	3.5	25	WS304517T	TKY10T	WPT4405	MK1KS
	3	TAWSN1900S25	●		TAWKH1920TG		●		71.5	102.5	158.5	155	3.5	25	WS304517T	TKY10T	WPT4405	MK1KS
	5	TAWMN1900S25	●		TAWNH1920T	●		□	110.5	137.5	193.5	190	3.5	25	WS304517T	TKY10T	WPT4405	MK1KS
	5	TAWMN1900S25	●		TAWKH1920TG		●		110.5	137.5	193.5	190	3.5	25	WS304517T	TKY10T	WPT4405	MK1KS
	8	TAWLN1900S25	●		TAWNH1920T	●		□	165.5	188.5	244.5	241	3.5	25	WS304517T	TKY10T	WPT4405	MK1KS
	8	TAWLN1900S25	●		TAWKH1920TG		●		165.5	188.5	244.5	241	3.5	25	WS304517T	TKY10T	WPT4405	MK1KS

(Bemerkung 1) Maße repräsentieren die Größen, bei denen WSP des Typs TAWNH eingesetzt werden.
(Bemerkung 2) Bei Bedarf von abweichenden Geometrien setzen Sie sich mit unserem Hause in Verbindung.
(Andere Durchmesser und Längen können bestellt werden).

● : Lagerstandard. □ : Nichtstandard, Herstellung nur auf Anfrage.

WSP BESCHREIBUNG	➤ L146
SCHNITTBEDINGUNGEN	➤ L150
EINSATZ HINWEISE	➤ L151
TECHNISCHE DATEN	➤ N001

TAW

DC (mm)	Bohrtiefe (l/d)	Halter Bestellbezeichnung	Halter Lager	WSP DC (mm)	WSP Bestellbezeichnung	Lager VP15TF	Lager DP5010	Lager VP10H	LBX	LH	OAL	LF	PL	DCON	Spannschraube	Schlüssel	Schlitz-Reiniger	Kupfer-paste
19.3 | 19.4	3	TAWSN1900S25	●	19.3	TAWNH1930T	●		□	71.5	102.5	158.5	155	3.5	25	WS304517T	TKY10T	WPT4405	MK1KS
	3	TAWSN1900S25	●		TAWKH1930TG		●		71.5	102.5	158.5	155	3.5	25	WS304517T	TKY10T	WPT4405	MK1KS
	5	TAWMN1900S25	●		TAWNH1930T	●		□	110.5	137.5	193.5	190	3.5	25	WS304517T	TKY10T	WPT4405	MK1KS
	5	TAWMN1900S25	●		TAWKH1930TG		●		110.5	137.5	193.5	190	3.5	25	WS304517T	TKY10T	WPT4405	MK1KS
	8	TAWLN1900S25	●		TAWNH1930T	●		□	165.5	188.5	244.5	241	3.5	25	WS304517T	TKY10T	WPT4405	MK1KS
	8	TAWLN1900S25	●		TAWKH1930TG		●		165.5	188.5	244.5	241	3.5	25	WS304517T	TKY10T	WPT4405	MK1KS
	3	TAWSN1900S25	●	19.4	TAWNH1940T	●		□	71.5	102.5	158.5	155	3.5	25	WS304517T	TKY10T	WPT4405	MK1KS
	3	TAWSN1900S25	●		TAWKH1940TG		●		71.5	102.5	158.5	155	3.5	25	WS304517T	TKY10T	WPT4405	MK1KS
	5	TAWMN1900S25	●		TAWNH1940T	●		□	110.5	137.5	193.5	190	3.5	25	WS304517T	TKY10T	WPT4405	MK1KS
	5	TAWMN1900S25	●		TAWKH1940TG		●		110.5	137.5	193.5	190	3.5	25	WS304517T	TKY10T	WPT4405	MK1KS
	8	TAWLN1900S25	●		TAWNH1940T	●		□	165.5	188.5	244.5	241	3.5	25	WS304517T	TKY10T	WPT4405	MK1KS
	8	TAWLN1900S25	●		TAWKH1940TG		●		165.5	188.5	244.5	241	3.5	25	WS304517T	TKY10T	WPT4405	MK1KS
19.5 | 20.2	3	TAWSN2000S25	●	19.5	TAWNH1950T	●		□	75.5	102.5	158.5	155	3.5	25	WS304518T	TKY10T	WPT4405	MK1KS
	3	TAWSN2000S25	●		TAWKH1950TG		●		75.5	102.5	158.5	155	3.5	25	WS304518T	TKY10T	WPT4405	MK1KS
	5	TAWMN2000S25	●		TAWNH1950T	●		□	116.5	142.5	198.5	195	3.5	25	WS304518T	TKY10T	WPT4405	MK1KS
	5	TAWMN2000S25	●		TAWKH1950TG		●		116.5	142.5	198.5	195	3.5	25	WS304518T	TKY10T	WPT4405	MK1KS
	8	TAWLN2000S25	●		TAWNH1950T	●		□	173.5	196.5	252.5	249	3.5	25	WS304518T	TKY10T	WPT4405	MK1KS
	8	TAWLN2000S25	●		TAWKH1950TG		●		173.5	196.5	252.5	249	3.5	25	WS304518T	TKY10T	WPT4405	MK1KS
	3	TAWSN2000S25	●	19.6	TAWNH1960T	●		□	75.6	102.6	158.6	155	3.6	25	WS304518T	TKY10T	WPT4405	MK1KS
	3	TAWSN2000S25	●		TAWKH1960TG		●		75.6	102.6	158.6	155	3.6	25	WS304518T	TKY10T	WPT4405	MK1KS
	5	TAWMN2000S25	●		TAWNH1960T	●		□	116.6	142.6	198.6	195	3.6	25	WS304518T	TKY10T	WPT4405	MK1KS
	5	TAWMN2000S25	●		TAWKH1960TG		●		116.6	142.6	198.6	195	3.6	25	WS304518T	TKY10T	WPT4405	MK1KS
	8	TAWLN2000S25	●		TAWNH1960T	●		□	173.6	196.6	252.6	249	3.6	25	WS304518T	TKY10T	WPT4405	MK1KS
	8	TAWLN2000S25	●		TAWKH1960TG		●		173.6	196.6	252.6	249	3.6	25	WS304518T	TKY10T	WPT4405	MK1KS
	3	TAWSN2000S25	●	19.7	TAWNH1970T	●		□	75.6	102.6	158.6	155	3.6	25	WS304518T	TKY10T	WPT4405	MK1KS
	3	TAWSN2000S25	●		TAWKH1970TG		●		75.6	102.6	158.6	155	3.6	25	WS304518T	TKY10T	WPT4405	MK1KS
	5	TAWMN2000S25	●		TAWNH1970T	●		□	116.6	142.6	198.6	195	3.6	25	WS304518T	TKY10T	WPT4405	MK1KS
	5	TAWMN2000S25	●		TAWKH1970TG		●		116.6	142.6	198.6	195	3.6	25	WS304518T	TKY10T	WPT4405	MK1KS
	8	TAWLN2000S25	●		TAWNH1970T	●		□	173.6	196.6	252.6	249	3.6	25	WS304518T	TKY10T	WPT4405	MK1KS
	8	TAWLN2000S25	●		TAWKH1970TG		●		173.6	196.6	252.6	249	3.6	25	WS304518T	TKY10T	WPT4405	MK1KS
	3	TAWSN2000S25	●	19.8	TAWNH1980T	●		□	75.6	102.6	158.6	155	3.6	25	WS304518T	TKY10T	WPT4405	MK1KS
	3	TAWSN2000S25	●		TAWKH1980TG		●		75.6	102.6	158.6	155	3.6	25	WS304518T	TKY10T	WPT4405	MK1KS
	5	TAWMN2000S25	●		TAWNH1980T	●		□	116.6	142.6	198.6	195	3.6	25	WS304518T	TKY10T	WPT4405	MK1KS
	5	TAWMN2000S25	●		TAWKH1980TG		●		116.6	142.6	198.6	195	3.6	25	WS304518T	TKY10T	WPT4405	MK1KS
	8	TAWLN2000S25	●		TAWNH1980T	●		□	173.6	196.6	252.6	249	3.6	25	WS304518T	TKY10T	WPT4405	MK1KS
	8	TAWLN2000S25	●		TAWKH1980TG		●		173.6	196.6	252.6	249	3.6	25	WS304518T	TKY10T	WPT4405	MK1KS
	3	TAWSN2000S25	●	19.9	TAWNH1990T	●		□	75.6	102.6	158.6	155	3.6	25	WS304518T	TKY10T	WPT4405	MK1KS
	3	TAWSN2000S25	●		TAWKH1990TG		●		75.6	102.6	158.6	155	3.6	25	WS304518T	TKY10T	WPT4405	MK1KS
	5	TAWMN2000S25	●		TAWNH1990T	●		□	116.6	142.6	198.6	195	3.6	25	WS304518T	TKY10T	WPT4405	MK1KS
	5	TAWMN2000S25	●		TAWKH1990TG		●		116.6	142.6	198.6	195	3.6	25	WS304518T	TKY10T	WPT4405	MK1KS
	8	TAWLN2000S25	●		TAWNH1990T	●		□	173.6	196.6	252.6	249	3.6	25	WS304518T	TKY10T	WPT4405	MK1KS
	8	TAWLN2000S25	●		TAWKH1990TG		●		173.6	196.6	252.6	249	3.6	25	WS304518T	TKY10T	WPT4405	MK1KS
	3	TAWSN2000S25	●	20.0	TAWNH2000T	●		□	75.6	102.6	158.6	155	3.6	25	WS304518T	TKY10T	WPT4405	MK1KS
	3	TAWSN2000S25	●		TAWKH2000TG		●		75.6	102.6	158.6	155	3.6	25	WS304518T	TKY10T	WPT4405	MK1KS
	5	TAWMN2000S25	●		TAWNH2000T	●		□	116.6	142.6	198.6	195	3.6	25	WS304518T	TKY10T	WPT4405	MK1KS
	5	TAWMN2000S25	●		TAWKH2000TG		●		116.6	142.6	198.6	195	3.6	25	WS304518T	TKY10T	WPT4405	MK1KS
	8	TAWLN2000S25	●		TAWNH2000T	●		□	173.6	196.6	252.6	249	3.6	25	WS304518T	TKY10T	WPT4405	MK1KS
	8	TAWLN2000S25	●		TAWKH2000TG		●		173.6	196.6	252.6	249	3.6	25	WS304518T	TKY10T	WPT4405	MK1KS
	3	TAWSN2000S25	●	20.1	TAWNH2010T	□		□	75.7	102.7	158.7	155	3.7	25	WS304518T	TKY10T	WPT4405	MK1KS
	3	TAWSN2000S25	●		TAWKH2010TG		□		75.7	102.7	158.7	155	3.7	25	WS304518T	TKY10T	WPT4405	MK1KS
	5	TAWMN2000S25	●		TAWNH2010T	□		□	116.7	142.7	198.7	195	3.7	25	WS304518T	TKY10T	WPT4405	MK1KS
	5	TAWMN2000S25	●		TAWKH2010TG		□		116.7	142.7	198.7	195	3.7	25	WS304518T	TKY10T	WPT4405	MK1KS
	8	TAWLN2000S25	●		TAWNH2010T	□		□	173.7	196.7	252.7	249	3.7	25	WS304518T	TKY10T	WPT4405	MK1KS
	8	TAWLN2000S25	●		TAWKH2010TG		□		173.7	196.7	252.7	249	3.7	25	WS304518T	TKY10T	WPT4405	MK1KS
	3	TAWSN2000S25	●	20.2	TAWNH2020T	□		□	75.7	102.7	158.7	155	3.7	25	WS304518T	TKY10T	WPT4405	MK1KS
	3	TAWSN2000S25	●		TAWKH2020TG		□		75.7	102.7	158.7	155	3.7	25	WS304518T	TKY10T	WPT4405	MK1KS
	5	TAWMN2000S25	●		TAWNH2020T	□		□	116.7	142.7	198.7	195	3.7	25	WS304518T	TKY10T	WPT4405	MK1KS
	5	TAWMN2000S25	●		TAWKH2020TG		□		116.7	142.7	198.7	195	3.7	25	WS304518T	TKY10T	WPT4405	MK1KS
	8	TAWLN2000S25	●		TAWNH2020T	□		□	173.7	196.7	252.7	249	3.7	25	WS304518T	TKY10T	WPT4405	MK1KS
	8	TAWLN2000S25	●		TAWKH2020TG		□		173.7	196.7	252.7	249	3.7	25	WS304518T	TKY10T	WPT4405	MK1KS

(Bemerkung 1) Maße repräsentieren die Größen, bei denen WSP des Typs TAWNH eingesetzt werden.
(Bemerkung 2) Bei Bedarf von abweichenden Geometrien setzen Sie sich mit unserem Hause in Verbindung.
(Andere Durchmesser und Längen können bestellt werden).

● : Lagerstandard. □ : Nichtstandard, Herstellung nur auf Anfrage.

DC (mm)	Bohrtiefe (l/d)	Halter		WSP					Abmessungen (mm)									
		Bestellbezeichnung	Lager	DC (mm)	Bestellbezeichnung	Lager VP15TF	Lager DP5010	Lager VP10H	LBX	LH	OAL	LF	PL	DCON	Spannschraube	Schlüssel	Schlitz-Reiniger	Kupfer-paste
20.3 | 20.4	3	TAWSN2000S25	●	20.3	TAWNH2030T	□		□	75.7	102.7	158.7	155	3.7	25	WS304518T	TKY10T	WPT4405	MK1KS
	3	TAWSN2000S25	●		TAWKH2030TG		□		75.7	102.7	158.7	155	3.7	25	WS304518T	TKY10T	WPT4405	MK1KS
	5	TAWMN2000S25	●		TAWNH2030T	□		□	116.7	142.7	198.7	195	3.7	25	WS304518T	TKY10T	WPT4405	MK1KS
	5	TAWMN2000S25	●		TAWKH2030TG		□		116.7	142.7	198.7	195	3.7	25	WS304518T	TKY10T	WPT4405	MK1KS
	8	TAWLN2000S25	●		TAWNH2030T	□		□	173.7	196.7	252.7	249	3.7	25	WS304518T	TKY10T	WPT4405	MK1KS
	8	TAWLN2000S25	●		TAWKH2030TG		□		173.7	196.7	252.7	249	3.7	25	WS304518T	TKY10T	WPT4405	MK1KS
	3	TAWSN2000S25	●	20.4	TAWNH2040T	□		□	75.7	102.7	158.7	155	3.7	25	WS304518T	TKY10T	WPT4405	MK1KS
	3	TAWSN2000S25	●		TAWKH2040TG		□		75.7	102.7	158.7	155	3.7	25	WS304518T	TKY10T	WPT4405	MK1KS
	5	TAWMN2000S25	●		TAWNH2040T	□		□	116.7	142.7	198.7	195	3.7	25	WS304518T	TKY10T	WPT4405	MK1KS
	5	TAWMN2000S25	●		TAWKH2040TG		□		116.7	142.7	198.7	195	3.7	25	WS304518T	TKY10T	WPT4405	MK1KS
	8	TAWLN2000S25	●		TAWNH2040T	□		□	173.7	196.7	252.7	249	3.7	25	WS304518T	TKY10T	WPT4405	MK1KS
	8	TAWLN2000S25	●		TAWKH2040TG		□		173.7	196.7	252.7	249	3.7	25	WS304518T	TKY10T	WPT4405	MK1KS

WSP BESCHREIBUNG ➤ L146
SCHNITTBEDINGUNGEN ➤ L150
EINSATZ HINWEISE ➤ L151
TECHNISCHE DATEN ➤ N001

BOHREN (WSP AUSFÜHRUNG)

TAW

DC (mm)	Bohrtiefe (l/d)	Halter Bestellbezeichnung	Halter Lager	WSP DC (mm)	WSP Bestellbezeichnung	Lager VP15TF	Lager DP5010	Lager VP10H	Abmessungen (mm) LBX	LH	OAL	LF	PL	DCON	Spannschraube	Schlüssel	Schlitz-Reiniger	Kupfer-paste
20.5 – 21.4	3	TAWSN2100S25	●	20.5	TAWNH2050T	●		□	78.7	102.7	158.7	155	3.7	25	WS304518T	TKY10T	WPT4405	MK1KS
	3	TAWSN2100S25	●		TAWKH2050TG		●		78.7	102.7	158.7	155	3.7	25	WS304518T	TKY10T	WPT4405	MK1KS
	5	TAWMN2100S25	●		TAWNH2050T	●		□	121.7	142.7	198.7	195	3.7	25	WS304518T	TKY10T	WPT4405	MK1KS
	5	TAWMN2100S25	●		TAWKH2050TG		●		121.7	142.7	198.7	195	3.7	25	WS304518T	TKY10T	WPT4405	MK1KS
	8	TAWLN2100S25	●		TAWNH2050T	●		□	181.7	205.7	261.7	258	3.7	25	WS304518T	TKY10T	WPT4405	MK1KS
	8	TAWLN2100S25	●		TAWKH2050TG		●		181.7	205.7	261.7	258	3.7	25	WS304518T	TKY10T	WPT4405	MK1KS
	3	TAWSN2100S25	●	20.6	TAWNH2060T	□		□	78.7	102.7	158.7	155	3.7	25	WS304518T	TKY10T	WPT4405	MK1KS
	3	TAWSN2100S25	●		TAWKH2060TG		□		78.7	102.7	158.7	155	3.7	25	WS304518T	TKY10T	WPT4405	MK1KS
	5	TAWMN2100S25	●		TAWNH2060T	□		□	121.7	142.7	198.7	195	3.7	25	WS304518T	TKY10T	WPT4405	MK1KS
	5	TAWMN2100S25	●		TAWKH2060TG		□		121.7	142.7	198.7	195	3.7	25	WS304518T	TKY10T	WPT4405	MK1KS
	8	TAWLN2100S25	●		TAWNH2060T	□		□	181.7	205.7	261.7	258	3.7	25	WS304518T	TKY10T	WPT4405	MK1KS
	8	TAWLN2100S25	●		TAWKH2060TG		□		181.7	205.7	261.7	258	3.7	25	WS304518T	TKY10T	WPT4405	MK1KS
	3	TAWSN2100S25	●	20.7	TAWNH2070T	□		□	78.8	102.8	158.8	155	3.8	25	WS304518T	TKY10T	WPT4405	MK1KS
	3	TAWSN2100S25	●		TAWKH2070TG		□		78.8	102.8	158.8	155	3.8	25	WS304518T	TKY10T	WPT4405	MK1KS
	5	TAWMN2100S25	●		TAWNH2070T	□		□	121.8	142.8	198.8	195	3.8	25	WS304518T	TKY10T	WPT4405	MK1KS
	5	TAWMN2100S25	●		TAWKH2070TG		□		121.8	142.8	198.8	195	3.8	25	WS304518T	TKY10T	WPT4405	MK1KS
	8	TAWLN2100S25	●		TAWNH2070T	□		□	181.8	205.8	261.8	258	3.8	25	WS304518T	TKY10T	WPT4405	MK1KS
	8	TAWLN2100S25	●		TAWKH2070TG		□		181.8	205.8	261.8	258	3.8	25	WS304518T	TKY10T	WPT4405	MK1KS
	3	TAWSN2100S25	●	20.8	TAWNH2080T	□		□	78.8	102.8	158.8	155	3.8	25	WS304518T	TKY10T	WPT4405	MK1KS
	3	TAWSN2100S25	●		TAWKH2080TG		□		78.8	102.8	158.8	155	3.8	25	WS304518T	TKY10T	WPT4405	MK1KS
	5	TAWMN2100S25	●		TAWNH2080T	□		□	121.8	142.8	198.8	195	3.8	25	WS304518T	TKY10T	WPT4405	MK1KS
	5	TAWMN2100S25	●		TAWKH2080TG		□		121.8	142.8	198.8	195	3.8	25	WS304518T	TKY10T	WPT4405	MK1KS
	8	TAWLN2100S25	●		TAWNH2080T	□		□	181.8	205.8	261.8	258	3.8	25	WS304518T	TKY10T	WPT4405	MK1KS
	8	TAWLN2100S25	●		TAWKH2080TG		□		181.8	205.8	261.8	258	3.8	25	WS304518T	TKY10T	WPT4405	MK1KS
	3	TAWSN2100S25	●	20.9	TAWNH2090T	□		□	78.8	102.8	158.8	155	3.8	25	WS304518T	TKY10T	WPT4405	MK1KS
	3	TAWSN2100S25	●		TAWKH2090TG		□		78.8	102.8	158.8	155	3.8	25	WS304518T	TKY10T	WPT4405	MK1KS
	5	TAWMN2100S25	●		TAWNH2090T	□		□	121.8	142.8	198.8	195	3.8	25	WS304518T	TKY10T	WPT4405	MK1KS
	5	TAWMN2100S25	●		TAWKH2090TG		□		121.8	142.8	198.8	195	3.8	25	WS304518T	TKY10T	WPT4405	MK1KS
	8	TAWLN2100S25	●		TAWNH2090T	□		□	181.8	205.8	261.8	258	3.8	25	WS304518T	TKY10T	WPT4405	MK1KS
	8	TAWLN2100S25	●		TAWKH2090TG		□		181.8	205.8	261.8	258	3.8	25	WS304518T	TKY10T	WPT4405	MK1KS
	3	TAWSN2100S25	●	21.0	TAWNH2100T	●		□	78.8	102.8	158.8	155	3.8	25	WS304518T	TKY10T	WPT4405	MK1KS
	3	TAWSN2100S25	●		TAWKH2100TG		●		78.8	102.8	158.8	155	3.8	25	WS304518T	TKY10T	WPT4405	MK1KS
	5	TAWMN2100S25	●		TAWNH2100T	●		□	121.8	142.8	198.8	195	3.8	25	WS304518T	TKY10T	WPT4405	MK1KS
	5	TAWMN2100S25	●		TAWKH2100TG		●		121.8	142.8	198.8	195	3.8	25	WS304518T	TKY10T	WPT4405	MK1KS
	8	TAWLN2100S25	●		TAWNH2100T	●		□	181.8	205.8	261.8	258	3.8	25	WS304518T	TKY10T	WPT4405	MK1KS
	8	TAWLN2100S25	●		TAWKH2100TG		●		181.8	205.8	261.8	258	3.8	25	WS304518T	TKY10T	WPT4405	MK1KS
	3	TAWSN2100S25	●	21.1	TAWNH2110T	□		□	78.8	102.8	158.8	155	3.8	25	WS304518T	TKY10T	WPT4405	MK1KS
	3	TAWSN2100S25	●		TAWKH2110TG		□		78.8	102.8	158.8	155	3.8	25	WS304518T	TKY10T	WPT4405	MK1KS
	5	TAWMN2100S25	●		TAWNH2110T	□		□	121.8	142.8	198.8	195	3.8	25	WS304518T	TKY10T	WPT4405	MK1KS
	5	TAWMN2100S25	●		TAWKH2110TG		□		121.8	142.8	198.8	195	3.8	25	WS304518T	TKY10T	WPT4405	MK1KS
	8	TAWLN2100S25	●		TAWNH2110T	□		□	181.8	205.8	261.8	258	3.8	25	WS304518T	TKY10T	WPT4405	MK1KS
	8	TAWLN2100S25	●		TAWKH2110TG		□		181.8	205.8	261.8	258	3.8	25	WS304518T	TKY10T	WPT4405	MK1KS
	3	TAWSN2100S25	●	21.2	TAWNH2120T	□		□	78.9	102.9	158.9	155	3.9	25	WS304518T	TKY10T	WPT4405	MK1KS
	3	TAWSN2100S25	●		TAWKH2120TG		□		78.9	102.9	158.9	155	3.9	25	WS304518T	TKY10T	WPT4405	MK1KS
	5	TAWMN2100S25	●		TAWNH2120T	□		□	121.9	142.9	198.9	195	3.9	25	WS304518T	TKY10T	WPT4405	MK1KS
	5	TAWMN2100S25	●		TAWKH2120TG		□		121.9	142.9	198.9	195	3.9	25	WS304518T	TKY10T	WPT4405	MK1KS
	8	TAWLN2100S25	●		TAWNH2120T	□		□	181.9	205.9	261.9	258	3.9	25	WS304518T	TKY10T	WPT4405	MK1KS
	8	TAWLN2100S25	●		TAWKH2120TG		□		181.9	205.9	261.9	258	3.9	25	WS304518T	TKY10T	WPT4405	MK1KS
	3	TAWSN2100S25	●	21.3	TAWNH2130T	□		□	78.9	102.9	158.9	155	3.9	25	WS304518T	TKY10T	WPT4405	MK1KS
	3	TAWSN2100S25	●		TAWKH2130TG		□		78.9	102.9	158.9	155	3.9	25	WS304518T	TKY10T	WPT4405	MK1KS
	5	TAWMN2100S25	●		TAWNH2130T	□		□	121.9	142.9	198.9	195	3.9	25	WS304518T	TKY10T	WPT4405	MK1KS
	5	TAWMN2100S25	●		TAWKH2130TG		□		121.9	142.9	198.9	195	3.9	25	WS304518T	TKY10T	WPT4405	MK1KS
	8	TAWLN2100S25	●		TAWNH2130T	□		□	181.9	205.9	261.9	258	3.9	25	WS304518T	TKY10T	WPT4405	MK1KS
	8	TAWLN2100S25	●		TAWKH2130TG		□		181.9	205.9	261.9	258	3.9	25	WS304518T	TKY10T	WPT4405	MK1KS
	3	TAWSN2100S25	●	21.4	TAWNH2140T	□		□	78.9	102.9	158.9	155	3.9	25	WS304518T	TKY10T	WPT4405	MK1KS
	3	TAWSN2100S25	●		TAWKH2140TG		□		78.9	102.9	158.9	155	3.9	25	WS304518T	TKY10T	WPT4405	MK1KS
	5	TAWMN2100S25	●		TAWNH2140T	□		□	121.9	142.9	198.9	195	3.9	25	WS304518T	TKY10T	WPT4405	MK1KS
	5	TAWMN2100S25	●		TAWKH2140TG		□		121.9	142.9	198.9	195	3.9	25	WS304518T	TKY10T	WPT4405	MK1KS
	8	TAWLN2100S25	●		TAWNH2140T	□		□	181.9	205.9	261.9	258	3.9	25	WS304518T	TKY10T	WPT4405	MK1KS
	8	TAWLN2100S25	●		TAWKH2140TG		□		181.9	205.9	261.9	258	3.9	25	WS304518T	TKY10T	WPT4405	MK1KS

(Bemerkung 1) Maße repräsentieren die Größen, bei denen WSP des Typs TAWNH eingesetzt werden.
(Bemerkung 2) Bei Bedarf von abweichenden Geometrien setzen Sie sich mit unserem Hause in Verbindung.
(Andere Durchmesser und Längen können bestellt werden).

● : Lagerstandard. (Verpackungseinheit: 1Stk.)
□ : Nichtstandard, Herstellung nur auf Anfrage.

DC (mm)	Bohrtiefe (l/d)	Halter Bestellbezeichnung	Lager	WSP DC (mm)	WSP Bestellbezeichnung	Lager VP15TF	Lager DP5010	Lager VP10H	Abmessungen (mm) LBX	LH	OAL	LF	PL	DCON	Spannschraube	Schlüssel	Schlitz-Reiniger	Kupfer-paste
21.5 | 22.4	3	TAWSN2200S25	●	21.5	TAWNH2150T	●		□	83.2	108.2	164.2	160	3.9	25	WS355520T	TKY15T	WPT4405	MK1KS
	3	TAWSN2200S25	●		TAWKH2150TG		●		83.2	108.2	164.2	160	3.9	25	WS355520T	TKY15T	WPT4405	MK1KS
	5	TAWMN2200S25	●		TAWNH2150T	●		□	128.2	148.2	204.2	200	3.9	25	WS355520T	TKY15T	WPT4405	MK1KS
	5	TAWMN2200S25	●		TAWKH2150TG		●		128.2	148.2	204.2	200	3.9	25	WS355520T	TKY15T	WPT4405	MK1KS
	8	TAWLN2200S25	●		TAWNH2150T	●		□	189.9	213.9	269.9	266	3.9	25	WS355520T	TKY15T	WPT4405	MK1KS
	8	TAWLN2200S25	●		TAWKH2150TG		●		189.9	213.9	269.9	266	3.9	25	WS355520T	TKY15T	WPT4405	MK1KS
	3	TAWSN2200S25	●	21.6	TAWNH2160T	□		□	83.2	108.2	164.2	160	3.9	25	WS355520T	TKY15T	WPT4405	MK1KS
	3	TAWSN2200S25	●		TAWKH2160TG		□		83.2	108.2	164.2	160	3.9	25	WS355520T	TKY15T	WPT4405	MK1KS
	5	TAWMN2200S25	●		TAWNH2160T	□		□	128.2	148.2	204.2	200	3.9	25	WS355520T	TKY15T	WPT4405	MK1KS
	5	TAWMN2200S25	●		TAWKH2160TG		□		128.2	148.2	204.2	200	3.9	25	WS355520T	TKY15T	WPT4405	MK1KS
	8	TAWLN2200S25	●		TAWNH2160T	□		□	189.9	213.9	269.9	266	3.9	25	WS355520T	TKY15T	WPT4405	MK1KS
	8	TAWLN2200S25	●		TAWKH2160TG		□		189.9	213.9	269.9	266	3.9	25	WS355520T	TKY15T	WPT4405	MK1KS
	3	TAWSN2200S25	●	21.7	TAWNH2170T	□		□	83.2	108.2	164.2	160	3.9	25	WS355520T	TKY15T	WPT4405	MK1KS
	3	TAWSN2200S25	●		TAWKH2170TG		□		83.2	108.2	164.2	160	3.9	25	WS355520T	TKY15T	WPT4405	MK1KS
	5	TAWMN2200S25	●		TAWNH2170T	□		□	128.2	148.2	204.2	200	3.9	25	WS355520T	TKY15T	WPT4405	MK1KS
	5	TAWMN2200S25	●		TAWKH2170TG		□		128.2	148.2	204.2	200	3.9	25	WS355520T	TKY15T	WPT4405	MK1KS
	8	TAWLN2200S25	●		TAWNH2170T	□		□	189.9	213.9	269.9	266	3.9	25	WS355520T	TKY15T	WPT4405	MK1KS
	8	TAWLN2200S25	●		TAWKH2170TG		□		189.9	213.9	269.9	266	3.9	25	WS355520T	TKY15T	WPT4405	MK1KS
	3	TAWSN2200S25	●	21.8	TAWNH2180T	□		□	83.3	108.3	164.3	160	4.0	25	WS355520T	TKY15T	WPT4405	MK1KS
	3	TAWSN2200S25	●		TAWKH2180TG		□		83.3	108.3	164.3	160	4.0	25	WS355520T	TKY15T	WPT4405	MK1KS
	5	TAWMN2200S25	●		TAWNH2180T	□		□	128.3	148.3	204.3	200	4.0	25	WS355520T	TKY15T	WPT4405	MK1KS
	5	TAWMN2200S25	●		TAWKH2180TG		□		128.3	148.3	204.3	200	4.0	25	WS355520T	TKY15T	WPT4405	MK1KS
	8	TAWLN2200S25	●		TAWNH2180T	□		□	190.0	214.0	270.0	266	4.0	25	WS355520T	TKY15T	WPT4405	MK1KS
	8	TAWLN2200S25	●		TAWKH2180TG		□		190.0	214.0	270.0	266	4.0	25	WS355520T	TKY15T	WPT4405	MK1KS
	3	TAWSN2200S25	●	21.9	TAWNH2190T	□		□	83.3	108.3	164.3	160	4.0	25	WS355520T	TKY15T	WPT4405	MK1KS
	3	TAWSN2200S25	●		TAWKH2190TG		□		83.3	108.3	164.3	160	4.0	25	WS355520T	TKY15T	WPT4405	MK1KS
	5	TAWMN2200S25	●		TAWNH2190T	□		□	128.3	148.3	204.3	200	4.0	25	WS355520T	TKY15T	WPT4405	MK1KS
	5	TAWMN2200S25	●		TAWKH2190TG		□		128.3	148.3	204.3	200	4.0	25	WS355520T	TKY15T	WPT4405	MK1KS
	8	TAWLN2200S25	●		TAWNH2190T	□		□	190.0	214.0	270.0	266	4.0	25	WS355520T	TKY15T	WPT4405	MK1KS
	8	TAWLN2200S25	●		TAWKH2190TG		□		190.0	214.0	270.0	266	4.0	25	WS355520T	TKY15T	WPT4405	MK1KS
	3	TAWSN2200S25	●	22.0	TAWNH2200T	●		□	83.3	108.3	164.3	160	4.0	25	WS355520T	TKY15T	WPT4405	MK1KS
	3	TAWSN2200S25	●		TAWKH2200TG		●		83.3	108.3	164.3	160	4.0	25	WS355520T	TKY15T	WPT4405	MK1KS
	5	TAWMN2200S25	●		TAWNH2200T	●		□	128.3	148.3	204.3	200	4.0	25	WS355520T	TKY15T	WPT4405	MK1KS
	5	TAWMN2200S25	●		TAWKH2200TG		●		128.3	148.3	204.3	200	4.0	25	WS355520T	TKY15T	WPT4405	MK1KS
	8	TAWLN2200S25	●		TAWNH2200T	●		□	190.0	214.0	270.0	266	4.0	25	WS355520T	TKY15T	WPT4405	MK1KS
	8	TAWLN2200S25	●		TAWKH2200TG		●		190.0	214.0	270.0	266	4.0	25	WS355520T	TKY15T	WPT4405	MK1KS
	3	TAWSN2200S25	●	22.1	TAWNH2210T	□		□	83.3	108.3	164.3	160	4.0	25	WS355520T	TKY15T	WPT4405	MK1KS
	3	TAWSN2200S25	●		TAWKH2210TG		□		83.3	108.3	164.3	160	4.0	25	WS355520T	TKY15T	WPT4405	MK1KS
	5	TAWMN2200S25	●		TAWNH2210T	□		□	128.3	148.3	204.3	200	4.0	25	WS355520T	TKY15T	WPT4405	MK1KS
	5	TAWMN2200S25	●		TAWKH2210TG		□		128.3	148.3	204.3	200	4.0	25	WS355520T	TKY15T	WPT4405	MK1KS
	8	TAWLN2200S25	●		TAWNH2210T	□		□	190.0	214.0	270.0	266	4.0	25	WS355520T	TKY15T	WPT4405	MK1KS
	8	TAWLN2200S25	●		TAWKH2210TG		□		190.0	214.0	270.0	266	4.0	25	WS355520T	TKY15T	WPT4405	MK1KS
	3	TAWSN2200S25	●	22.2	TAWNH2220T	□		□	83.3	108.3	164.3	160	4.0	25	WS355520T	TKY15T	WPT4405	MK1KS
	3	TAWSN2200S25	●		TAWKH2220TG		□		83.3	108.3	164.3	160	4.0	25	WS355520T	TKY15T	WPT4405	MK1KS
	5	TAWMN2200S25	●		TAWNH2220T	□		□	128.3	148.3	204.3	200	4.0	25	WS355520T	TKY15T	WPT4405	MK1KS
	5	TAWMN2200S25	●		TAWKH2220TG		□		128.3	148.3	204.3	200	4.0	25	WS355520T	TKY15T	WPT4405	MK1KS
	8	TAWLN2200S25	●		TAWNH2220T	□		□	190.0	214.0	270.0	266	4.0	25	WS355520T	TKY15T	WPT4405	MK1KS
	8	TAWLN2200S25	●		TAWKH2220TG		□		190.0	214.0	270.0	266	4.0	25	WS355520T	TKY15T	WPT4405	MK1KS
	3	TAWSN2200S25	●	22.3	TAWNH2230T	□		□	83.4	108.4	164.4	160	4.1	25	WS355520T	TKY15T	WPT4405	MK1KS
	3	TAWSN2200S25	●		TAWKH2230TG		□		83.4	108.4	164.4	160	4.1	25	WS355520T	TKY15T	WPT4405	MK1KS
	5	TAWMN2200S25	●		TAWNH2230T	□		□	128.4	148.4	204.4	200	4.1	25	WS355520T	TKY15T	WPT4405	MK1KS
	5	TAWMN2200S25	●		TAWKH2230TG		□		128.4	148.4	204.4	200	4.1	25	WS355520T	TKY15T	WPT4405	MK1KS
	8	TAWLN2200S25	●		TAWNH2230T	□		□	190.1	214.1	270.1	266	4.1	25	WS355520T	TKY15T	WPT4405	MK1KS
	8	TAWLN2200S25	●		TAWKH2230TG		□		190.1	214.1	270.1	266	4.1	25	WS355520T	TKY15T	WPT4405	MK1KS
	3	TAWSN2200S25	●	22.4	TAWNH2240T	□		□	83.4	108.4	164.4	160	4.1	25	WS355520T	TKY15T	WPT4405	MK1KS
	3	TAWSN2200S25	●		TAWKH2240TG		□		83.4	108.4	164.4	160	4.1	25	WS355520T	TKY15T	WPT4405	MK1KS
	5	TAWMN2200S25	●		TAWNH2240T	□		□	128.4	148.4	204.4	200	4.1	25	WS355520T	TKY15T	WPT4405	MK1KS
	5	TAWMN2200S25	●		TAWKH2240TG		□		128.4	148.4	204.4	200	4.1	25	WS355520T	TKY15T	WPT4405	MK1KS
	8	TAWLN2200S25	●		TAWNH2240T	□		□	190.1	214.1	270.1	266	4.1	25	WS355520T	TKY15T	WPT4405	MK1KS
	8	TAWLN2200S25	●		TAWKH2240TG		□		190.1	214.1	270.1	266	4.1	25	WS355520T	TKY15T	WPT4405	MK1KS

WSP BESCHREIBUNG ➤ L146
SCHNITTBEDINGUNGEN ➤ L150
EINSATZ HINWEISE ➤ L151
TECHNISCHE DATEN ➤ N001

BOHREN (WSP AUSFÜHRUNG)

TAW

DC (mm)	Bohrtiefe (l/d)	Halter Bestellbezeichnung	Halter Lager	WSP DC (mm)	WSP Bestellbezeichnung	Lager VP15TF	Lager DP5010	Lager VP10H	Abmessungen (mm) LBX	LH	OAL	LF	PL	DCON	Spannschraube	Schlüssel	Schlitz-Reiniger	Kupfer-paste
22.5 – 23.4	3	TAWSN2300S25	●	22.5	TAWNH2250T	●		□	86.4	108.4	164.4	160	4.1	25	WS355521T	TKY15T	WPT4405	MK1KS
	3	TAWSN2300S25	●		TAWKH2250TG		●		86.4	108.4	164.4	160	4.1	25	WS355521T	TKY15T	WPT4405	MK1KS
	5	TAWMN2300S25	●		TAWNH2250T	●		□	133.4	158.4	214.4	210	4.1	25	WS355521T	TKY15T	WPT4405	MK1KS
	5	TAWMN2300S25	●		TAWKH2250TG		●		133.4	158.4	214.4	210	4.1	25	WS355521T	TKY15T	WPT4405	MK1KS
	8	TAWLN2300S25	●		TAWNH2250T	●		□	198.1	227.1	283.1	279	4.1	25	WS355521T	TKY15T	WPT4405	MK1KS
	8	TAWLN2300S25	●		TAWKH2250TG		●		198.1	227.1	283.1	279	4.1	25	WS355521T	TKY15T	WPT4405	MK1KS
	3	TAWSN2300S25	●	22.6	TAWNH2260T	□		□	86.4	108.4	164.4	160	4.1	25	WS355521T	TKY15T	WPT4405	MK1KS
	3	TAWSN2300S25	●		TAWKH2260TG		□		86.4	108.4	164.4	160	4.1	25	WS355521T	TKY15T	WPT4405	MK1KS
	5	TAWMN2300S25	●		TAWNH2260T	□		□	133.4	158.4	214.4	210	4.1	25	WS355521T	TKY15T	WPT4405	MK1KS
	5	TAWMN2300S25	●		TAWKH2260TG		□		133.4	158.4	214.4	210	4.1	25	WS355521T	TKY15T	WPT4405	MK1KS
	8	TAWLN2300S25	●		TAWNH2260T	□		□	198.1	227.1	283.1	279	4.1	25	WS355521T	TKY15T	WPT4405	MK1KS
	8	TAWLN2300S25	●		TAWKH2260TG		□		198.1	227.1	283.1	279	4.1	25	WS355521T	TKY15T	WPT4405	MK1KS
	3	TAWSN2300S25	●	22.7	TAWNH2270T	□		□	86.4	108.4	164.4	160	4.1	25	WS355521T	TKY15T	WPT4405	MK1KS
	3	TAWSN2300S25	●		TAWKH2270TG		□		86.4	108.4	164.4	160	4.1	25	WS355521T	TKY15T	WPT4405	MK1KS
	5	TAWMN2300S25	●		TAWNH2270T	□		□	133.4	158.4	214.4	210	4.1	25	WS355521T	TKY15T	WPT4405	MK1KS
	5	TAWMN2300S25	●		TAWKH2270TG		□		133.4	158.4	214.4	210	4.1	25	WS355521T	TKY15T	WPT4405	MK1KS
	8	TAWLN2300S25	●		TAWNH2270T	□		□	198.1	227.1	283.1	279	4.1	25	WS355521T	TKY15T	WPT4405	MK1KS
	8	TAWLN2300S25	●		TAWKH2270TG		□		198.1	227.1	283.1	279	4.1	25	WS355521T	TKY15T	WPT4405	MK1KS
	3	TAWSN2300S25	●	22.8	TAWNH2280T	□		□	86.4	108.4	164.4	160	4.1	25	WS355521T	TKY15T	WPT4405	MK1KS
	3	TAWSN2300S25	●		TAWKH2280TG		□		86.4	108.4	164.4	160	4.1	25	WS355521T	TKY15T	WPT4405	MK1KS
	5	TAWMN2300S25	●		TAWNH2280T	□		□	133.4	158.4	214.4	210	4.1	25	WS355521T	TKY15T	WPT4405	MK1KS
	5	TAWMN2300S25	●		TAWKH2280TG		□		133.4	158.4	214.4	210	4.1	25	WS355521T	TKY15T	WPT4405	MK1KS
	8	TAWLN2300S25	●		TAWNH2280T	□		□	198.1	227.1	283.1	279	4.1	25	WS355521T	TKY15T	WPT4405	MK1KS
	8	TAWLN2300S25	●		TAWKH2280TG		□		198.1	227.1	283.1	279	4.1	25	WS355521T	TKY15T	WPT4405	MK1KS
	3	TAWSN2300S25	●	22.9	TAWNH2290T	□		□	86.5	108.5	164.5	160	4.2	25	WS355521T	TKY15T	WPT4405	MK1KS
	3	TAWSN2300S25	●		TAWKH2290TG		□		86.5	108.5	164.5	160	4.2	25	WS355521T	TKY15T	WPT4405	MK1KS
	5	TAWMN2300S25	●		TAWNH2290T	□		□	133.5	158.5	214.5	210	4.2	25	WS355521T	TKY15T	WPT4405	MK1KS
	5	TAWMN2300S25	●		TAWKH2290TG		□		133.5	158.5	214.5	210	4.2	25	WS355521T	TKY15T	WPT4405	MK1KS
	8	TAWLN2300S25	●		TAWNH2290T	□		□	198.2	227.2	283.2	279	4.2	25	WS355521T	TKY15T	WPT4405	MK1KS
	8	TAWLN2300S25	●		TAWKH2290TG		□		198.2	227.2	283.2	279	4.2	25	WS355521T	TKY15T	WPT4405	MK1KS
	3	TAWSN2300S25	●	23.0	TAWNH2300T	●		□	86.5	108.5	164.5	160	4.2	25	WS355521T	TKY15T	WPT4405	MK1KS
	3	TAWSN2300S25	●		TAWKH2300TG		●		86.5	108.5	164.5	160	4.2	25	WS355521T	TKY15T	WPT4405	MK1KS
	5	TAWMN2300S25	●		TAWNH2300T	●		□	133.5	158.5	214.5	210	4.2	25	WS355521T	TKY15T	WPT4405	MK1KS
	5	TAWMN2300S25	●		TAWKH2300TG		●		133.5	158.5	214.5	210	4.2	25	WS355521T	TKY15T	WPT4405	MK1KS
	8	TAWLN2300S25	●		TAWNH2300T	●		□	198.2	227.2	283.2	279	4.2	25	WS355521T	TKY15T	WPT4405	MK1KS
	8	TAWLN2300S25	●		TAWKH2300TG		●		198.2	227.2	283.2	279	4.2	25	WS355521T	TKY15T	WPT4405	MK1KS
	3	TAWSN2300S25	●	23.1	TAWNH2310T	□		□	86.5	108.5	164.5	160	4.2	25	WS355521T	TKY15T	WPT4405	MK1KS
	3	TAWSN2300S25	●		TAWKH2310TG		□		86.5	108.5	164.5	160	4.2	25	WS355521T	TKY15T	WPT4405	MK1KS
	5	TAWMN2300S25	●		TAWNH2310T	□		□	133.5	158.5	214.5	210	4.2	25	WS355521T	TKY15T	WPT4405	MK1KS
	5	TAWMN2300S25	●		TAWKH2310TG		□		133.5	158.5	214.5	210	4.2	25	WS355521T	TKY15T	WPT4405	MK1KS
	8	TAWLN2300S25	●		TAWNH2310T	□		□	198.2	227.2	283.2	279	4.2	25	WS355521T	TKY15T	WPT4405	MK1KS
	8	TAWLN2300S25	●		TAWKH2310TG		□		198.2	227.2	283.2	279	4.2	25	WS355521T	TKY15T	WPT4405	MK1KS
	3	TAWSN2300S25	●	23.2	TAWNH2320T	□		□	86.5	108.5	164.5	160	4.2	25	WS355521T	TKY15T	WPT4405	MK1KS
	3	TAWSN2300S25	●		TAWKH2320TG		□		86.5	108.5	164.5	160	4.2	25	WS355521T	TKY15T	WPT4405	MK1KS
	5	TAWMN2300S25	●		TAWNH2320T	□		□	133.5	158.5	214.5	210	4.2	25	WS355521T	TKY15T	WPT4405	MK1KS
	5	TAWMN2300S25	●		TAWKH2320TG		□		133.5	158.5	214.5	210	4.2	25	WS355521T	TKY15T	WPT4405	MK1KS
	8	TAWLN2300S25	●		TAWNH2320T	□		□	198.2	227.2	283.2	279	4.2	25	WS355521T	TKY15T	WPT4405	MK1KS
	8	TAWLN2300S25	●		TAWKH2320TG		□		198.2	227.2	283.2	279	4.2	25	WS355521T	TKY15T	WPT4405	MK1KS
	3	TAWSN2300S25	●	23.3	TAWNH2330T	□		□	86.5	108.5	164.5	160	4.2	25	WS355521T	TKY15T	WPT4405	MK1KS
	3	TAWSN2300S25	●		TAWKH2330TG		□		86.5	108.5	164.5	160	4.2	25	WS355521T	TKY15T	WPT4405	MK1KS
	5	TAWMN2300S25	●		TAWNH2330T	□		□	133.5	158.5	214.5	210	4.2	25	WS355521T	TKY15T	WPT4405	MK1KS
	5	TAWMN2300S25	●		TAWKH2330TG		□		133.5	158.5	214.5	210	4.2	25	WS355521T	TKY15T	WPT4405	MK1KS
	8	TAWLN2300S25	●		TAWNH2330T	□		□	198.2	227.2	283.2	279	4.2	25	WS355521T	TKY15T	WPT4405	MK1KS
	8	TAWLN2300S25	●		TAWKH2330TG		□		198.2	227.2	283.2	279	4.2	25	WS355521T	TKY15T	WPT4405	MK1KS
	3	TAWSN2300S25	●	23.4	TAWNH2340T	□		□	86.6	108.6	164.6	160	4.3	25	WS355521T	TKY15T	WPT4405	MK1KS
	3	TAWSN2300S25	●		TAWKH2340TG		□		86.6	108.6	164.6	160	4.3	25	WS355521T	TKY15T	WPT4405	MK1KS
	5	TAWMN2300S25	●		TAWNH2340T	□		□	133.6	158.6	214.6	210	4.3	25	WS355521T	TKY15T	WPT4405	MK1KS
	5	TAWMN2300S25	●		TAWKH2340TG		□		133.6	158.6	214.6	210	4.3	25	WS355521T	TKY15T	WPT4405	MK1KS
	8	TAWLN2300S25	●		TAWNH2340T	□		□	198.3	227.3	283.3	279	4.3	25	WS355521T	TKY15T	WPT4405	MK1KS
	8	TAWLN2300S25	●		TAWKH2340TG		□		198.3	227.3	283.3	279	4.3	25	WS355521T	TKY15T	WPT4405	MK1KS

(Bemerkung 1) Maße repräsentieren die Größen, bei denen WSP des Typs TAWNH eingesetzt werden.
(Bemerkung 2) Bei Bedarf von abweichenden Geometrien setzen Sie sich mit unserem Hause in Verbindung.
(Andere Durchmesser und Längen können bestellt werden).

● : Lagerstandard. (Verpackungseinheit: 1Stk.)
□ : Nichtstandard, Herstellung nur auf Anfrage.

DC (mm)	Bohrtiefe (l/d)	Halter Bestellbezeichnung	Lager	WSP DC (mm)	WSP Bestellbezeichnung	Lager VP15TF	Lager DP5010	Lager VP10H	Abmessungen (mm) LBX	LH	OAL	LF	PL	DCON	Spannschraube	Schlüssel	Schlitz-Reiniger	Kupfer-paste
23.5 – 24.4	3	TAWSN2400S32	●	23.5	TAWNH2350T	●		□	90.6	114.6	174.6	170	4.3	32	WS355521T	TKY15T	WPT4405	MK1KS
	3	TAWSN2400S32	●		TAWKH2350TG		●		90.6	114.6	174.6	170	4.3	32	WS355521T	TKY15T	WPT4405	MK1KS
	5	TAWMN2400S32	●		TAWNH2350T	●		□	139.6	164.6	224.6	220	4.3	32	WS355521T	TKY15T	WPT4405	MK1KS
	5	TAWMN2400S32	●		TAWKH2350TG		●		139.6	164.6	224.6	220	4.3	32	WS355521T	TKY15T	WPT4405	MK1KS
	8	TAWLN2400S32	●		TAWNH2350T	●		□	206.3	236.3	296.3	292	4.3	32	WS355521T	TKY15T	WPT4405	MK1KS
	8	TAWLN2400S32	●		TAWKH2350TG		●		206.3	236.3	296.3	292	4.3	32	WS355521T	TKY15T	WPT4405	MK1KS
	3	TAWSN2400S32	●	23.6	TAWNH2360T	□		□	90.6	114.6	174.6	170	4.3	32	WS355521T	TKY15T	WPT4405	MK1KS
	3	TAWSN2400S32	●		TAWKH2360TG		□		90.6	114.6	174.6	170	4.3	32	WS355521T	TKY15T	WPT4405	MK1KS
	5	TAWMN2400S32	●		TAWNH2360T	□		□	139.6	164.6	224.6	220	4.3	32	WS355521T	TKY15T	WPT4405	MK1KS
	5	TAWMN2400S32	●		TAWKH2360TG		□		139.6	164.6	224.6	220	4.3	32	WS355521T	TKY15T	WPT4405	MK1KS
	8	TAWLN2400S32	●		TAWNH2360T	□		□	206.3	236.3	296.3	292	4.3	32	WS355521T	TKY15T	WPT4405	MK1KS
	8	TAWLN2400S32	●		TAWKH2360TG		□		206.3	236.3	296.3	292	4.3	32	WS355521T	TKY15T	WPT4405	MK1KS
	3	TAWSN2400S32	●	23.7	TAWNH2370T	□		□	90.6	114.6	174.6	170	4.3	32	WS355521T	TKY15T	WPT4405	MK1KS
	3	TAWSN2400S32	●		TAWKH2370TG		□		90.6	114.6	174.6	170	4.3	32	WS355521T	TKY15T	WPT4405	MK1KS
	5	TAWMN2400S32	●		TAWNH2370T	□		□	139.6	164.6	224.6	220	4.3	32	WS355521T	TKY15T	WPT4405	MK1KS
	5	TAWMN2400S32	●		TAWKH2370TG		□		139.6	164.6	224.6	220	4.3	32	WS355521T	TKY15T	WPT4405	MK1KS
	8	TAWLN2400S32	●		TAWNH2370T	□		□	206.3	236.3	296.3	292	4.3	32	WS355521T	TKY15T	WPT4405	MK1KS
	8	TAWLN2400S32	●		TAWKH2370TG		□		206.3	236.3	296.3	292	4.3	32	WS355521T	TKY15T	WPT4405	MK1KS
	3	TAWSN2400S32	●	23.8	TAWNH2380T	□		□	90.6	114.6	174.6	170	4.3	32	WS355521T	TKY15T	WPT4405	MK1KS
	3	TAWSN2400S32	●		TAWKH2380TG		□		90.6	114.6	174.6	170	4.3	32	WS355521T	TKY15T	WPT4405	MK1KS
	5	TAWMN2400S32	●		TAWNH2380T	□		□	139.6	164.6	224.6	220	4.3	32	WS355521T	TKY15T	WPT4405	MK1KS
	5	TAWMN2400S32	●		TAWKH2380TG		□		139.6	164.6	224.6	220	4.3	32	WS355521T	TKY15T	WPT4405	MK1KS
	8	TAWLN2400S32	●		TAWNH2380T	□		□	206.3	236.3	296.3	292	4.3	32	WS355521T	TKY15T	WPT4405	MK1KS
	8	TAWLN2400S32	●		TAWKH2380TG		□		206.3	236.3	296.3	292	4.3	32	WS355521T	TKY15T	WPT4405	MK1KS
	3	TAWSN2400S32	●	23.9	TAWNH2390T	□		□	90.6	114.6	174.6	170	4.3	32	WS355521T	TKY15T	WPT4405	MK1KS
	3	TAWSN2400S32	●		TAWKH2390TG		□		90.6	114.6	174.6	170	4.3	32	WS355521T	TKY15T	WPT4405	MK1KS
	5	TAWMN2400S32	●		TAWNH2390T	□		□	139.6	164.6	224.6	220	4.3	32	WS355521T	TKY15T	WPT4405	MK1KS
	5	TAWMN2400S32	●		TAWKH2390TG		□		139.6	164.6	224.6	220	4.3	32	WS355521T	TKY15T	WPT4405	MK1KS
	8	TAWLN2400S32	●		TAWNH2390T	□		□	206.3	236.3	296.3	292	4.3	32	WS355521T	TKY15T	WPT4405	MK1KS
	8	TAWLN2400S32	●		TAWKH2390TG		□		206.3	236.3	296.3	292	4.3	32	WS355521T	TKY15T	WPT4405	MK1KS
	3	TAWSN2400S32	●	24.0	TAWNH2400T	●		□	90.7	114.7	174.7	170	4.4	32	WS355521T	TKY15T	WPT4405	MK1KS
	3	TAWSN2400S32	●		TAWKH2400TG		●		90.7	114.7	174.7	170	4.4	32	WS355521T	TKY15T	WPT4405	MK1KS
	5	TAWMN2400S32	●		TAWNH2400T	●		□	139.7	164.7	224.7	220	4.4	32	WS355521T	TKY15T	WPT4405	MK1KS
	5	TAWMN2400S32	●		TAWKH2400TG		●		139.7	164.7	224.7	220	4.4	32	WS355521T	TKY15T	WPT4405	MK1KS
	8	TAWLN2400S32	●		TAWNH2400T	●		□	206.4	236.4	296.4	292	4.4	32	WS355521T	TKY15T	WPT4405	MK1KS
	8	TAWLN2400S32	●		TAWKH2400TG		●		206.4	236.4	296.4	292	4.4	32	WS355521T	TKY15T	WPT4405	MK1KS
	3	TAWSN2400S32	●	24.1	TAWNH2410T	□		□	90.7	114.7	174.7	170	4.4	32	WS355521T	TKY15T	WPT4405	MK1KS
	3	TAWSN2400S32	●		TAWKH2410TG		□		90.7	114.7	174.7	170	4.4	32	WS355521T	TKY15T	WPT4405	MK1KS
	5	TAWMN2400S32	●		TAWNH2410T	□		□	139.7	164.7	224.7	220	4.4	32	WS355521T	TKY15T	WPT4405	MK1KS
	5	TAWMN2400S32	●		TAWKH2410TG		□		139.7	164.7	224.7	220	4.4	32	WS355521T	TKY15T	WPT4405	MK1KS
	8	TAWLN2400S32	●		TAWNH2410T	□		□	206.4	236.4	296.4	292	4.4	32	WS355521T	TKY15T	WPT4405	MK1KS
	8	TAWLN2400S32	●		TAWKH2410TG		□		206.4	236.4	296.4	292	4.4	32	WS355521T	TKY15T	WPT4405	MK1KS
	3	TAWSN2400S32	●	24.2	TAWNH2420T	□		□	90.7	114.7	174.7	170	4.4	32	WS355521T	TKY15T	WPT4405	MK1KS
	3	TAWSN2400S32	●		TAWKH2420TG		□		90.7	114.7	174.7	170	4.4	32	WS355521T	TKY15T	WPT4405	MK1KS
	5	TAWMN2400S32	●		TAWNH2420T	□		□	139.7	164.7	224.7	220	4.4	32	WS355521T	TKY15T	WPT4405	MK1KS
	5	TAWMN2400S32	●		TAWKH2420TG		□		139.7	164.7	224.7	220	4.4	32	WS355521T	TKY15T	WPT4405	MK1KS
	8	TAWLN2400S32	●		TAWNH2420T	□		□	206.4	236.4	296.4	292	4.4	32	WS355521T	TKY15T	WPT4405	MK1KS
	8	TAWLN2400S32	●		TAWKH2420TG		□		206.4	236.4	296.4	292	4.4	32	WS355521T	TKY15T	WPT4405	MK1KS
	3	TAWSN2400S32	●	24.3	TAWNH2430T	□		□	90.7	114.7	174.7	170	4.4	32	WS355521T	TKY15T	WPT4405	MK1KS
	3	TAWSN2400S32	●		TAWKH2430TG		□		90.7	114.7	174.7	170	4.4	32	WS355521T	TKY15T	WPT4405	MK1KS
	5	TAWMN2400S32	●		TAWNH2430T	□		□	139.7	164.7	224.7	220	4.4	32	WS355521T	TKY15T	WPT4405	MK1KS
	5	TAWMN2400S32	●		TAWKH2430TG		□		139.7	164.7	224.7	220	4.4	32	WS355521T	TKY15T	WPT4405	MK1KS
	8	TAWLN2400S32	●		TAWNH2430T	□		□	206.4	236.4	296.4	292	4.4	32	WS355521T	TKY15T	WPT4405	MK1KS
	8	TAWLN2400S32	●		TAWKH2430TG		□		206.4	236.4	296.4	292	4.4	32	WS355521T	TKY15T	WPT4405	MK1KS
	3	TAWSN2400S32	●	24.4	TAWNH2440T	□		□	90.7	114.7	174.7	170	4.4	32	WS355521T	TKY15T	WPT4405	MK1KS
	3	TAWSN2400S32	●		TAWKH2440TG		□		90.7	114.7	174.7	170	4.4	32	WS355521T	TKY15T	WPT4405	MK1KS
	5	TAWMN2400S32	●		TAWNH2440T	□		□	139.7	164.7	224.7	220	4.4	32	WS355521T	TKY15T	WPT4405	MK1KS
	5	TAWMN2400S32	●		TAWKH2440TG		□		139.7	164.7	224.7	220	4.4	32	WS355521T	TKY15T	WPT4405	MK1KS
	8	TAWLN2400S32	●		TAWNH2440T	□		□	206.4	236.4	296.4	292	4.4	32	WS355521T	TKY15T	WPT4405	MK1KS
	8	TAWLN2400S32	●		TAWKH2440TG		□		206.4	236.4	296.4	292	4.4	32	WS355521T	TKY15T	WPT4405	MK1KS

WSP BESCHREIBUNG ➤ L146
SCHNITTBEDINGUNGEN ➤ L150
EINSATZ HINWEISE ➤ L151
TECHNISCHE DATEN ➤ N001

TAW

DC (mm)	Bohrtiefe (l/d)	Halter Bestellbezeichnung	Halter Lager	WSP DC (mm)	WSP Bestellbezeichnung	Lager VP15TF	Lager DP5010	Lager VP10H	Abmessungen (mm) LBX	LH	OAL	LF	PL	DCON	Spannschraube	Schlüssel	Schlitz-Reiniger	Kupfer-paste
24.5 – 25.4	3	TAWSN2500S32	●	24.5	TAWNH2450T	●		□	93.1	115.1	175.1	171	4.5	32	WS406023T	TKY25T	WPT4405	MK1KS
	3	TAWSN2500S32	●		TAWKH2450TG		●		93.1	115.1	175.1	171	4.5	32	WS406023T	TKY25T	WPT4405	MK1KS
	5	TAWMN2500S32	●		TAWNH2450T	●		□	145.1	170.1	230.1	226	4.5	32	WS406023T	TKY25T	WPT4405	MK1KS
	5	TAWMN2500S32	●		TAWKH2450TG		●		145.1	170.1	230.1	226	4.5	32	WS406023T	TKY25T	WPT4405	MK1KS
	8	TAWLN2500S32	●		TAWNH2450T	●		□	214.5	244.5	304.5	300	4.5	32	WS406023T	TKY25T	WPT4405	MK1KS
	8	TAWLN2500S32	●		TAWKH2450TG		●		214.5	244.5	304.5	300	4.5	32	WS406023T	TKY25T	WPT4405	MK1KS
	3	TAWSN2500S32	●	24.6	TAWNH2460T	□		□	93.1	115.1	175.1	171	4.5	32	WS406023T	TKY25T	WPT4405	MK1KS
	3	TAWSN2500S32	●		TAWKH2460TG		□		93.1	115.1	175.1	171	4.5	32	WS406023T	TKY25T	WPT4405	MK1KS
	5	TAWMN2500S32	●		TAWNH2460T	□		□	145.1	170.1	230.1	226	4.5	32	WS406023T	TKY25T	WPT4405	MK1KS
	5	TAWMN2500S32	●		TAWKH2460TG		□		145.1	170.1	230.1	226	4.5	32	WS406023T	TKY25T	WPT4405	MK1KS
	8	TAWLN2500S32	●		TAWNH2460T	□		□	214.5	244.5	304.5	300	4.5	32	WS406023T	TKY25T	WPT4405	MK1KS
	8	TAWLN2500S32	●		TAWKH2460TG		□		214.5	244.5	304.5	300	4.5	32	WS406023T	TKY25T	WPT4405	MK1KS
	3	TAWSN2500S32	●	24.7	TAWNH2470T	□		□	93.1	115.1	175.1	171	4.5	32	WS406023T	TKY25T	WPT4405	MK1KS
	3	TAWSN2500S32	●		TAWKH2470TG		□		93.1	115.1	175.1	171	4.5	32	WS406023T	TKY25T	WPT4405	MK1KS
	5	TAWMN2500S32	●		TAWNH2470T	□		□	145.1	170.1	230.1	226	4.5	32	WS406023T	TKY25T	WPT4405	MK1KS
	5	TAWMN2500S32	●		TAWKH2470TG		□		145.1	170.1	230.1	226	4.5	32	WS406023T	TKY25T	WPT4405	MK1KS
	8	TAWLN2500S32	●		TAWNH2470T	□		□	214.5	244.5	304.5	300	4.5	32	WS406023T	TKY25T	WPT4405	MK1KS
	8	TAWLN2500S32	●		TAWKH2470TG		□		214.5	244.5	304.5	300	4.5	32	WS406023T	TKY25T	WPT4405	MK1KS
	3	TAWSN2500S32	●	24.8	TAWNH2480T	□		□	93.1	115.1	175.1	171	4.5	32	WS406023T	TKY25T	WPT4405	MK1KS
	3	TAWSN2500S32	●		TAWKH2480TG		□		93.1	115.1	175.1	171	4.5	32	WS406023T	TKY25T	WPT4405	MK1KS
	5	TAWMN2500S32	●		TAWNH2480T	□		□	145.1	170.1	230.1	226	4.5	32	WS406023T	TKY25T	WPT4405	MK1KS
	5	TAWMN2500S32	●		TAWKH2480TG		□		145.1	170.1	230.1	226	4.5	32	WS406023T	TKY25T	WPT4405	MK1KS
	8	TAWLN2500S32	●		TAWNH2480T	□		□	214.5	244.5	304.5	300	4.5	32	WS406023T	TKY25T	WPT4405	MK1KS
	8	TAWLN2500S32	●		TAWKH2480TG		□		214.5	244.5	304.5	300	4.5	32	WS406023T	TKY25T	WPT4405	MK1KS
	3	TAWSN2500S32	●	24.9	TAWNH2490T	□		□	93.1	115.1	175.1	171	4.5	32	WS406023T	TKY25T	WPT4405	MK1KS
	3	TAWSN2500S32	●		TAWKH2490TG		□		93.1	115.1	175.1	171	4.5	32	WS406023T	TKY25T	WPT4405	MK1KS
	5	TAWMN2500S32	●		TAWNH2490T	□		□	145.1	170.1	230.1	226	4.5	32	WS406023T	TKY25T	WPT4405	MK1KS
	5	TAWMN2500S32	●		TAWKH2490TG		□		145.1	170.1	230.1	226	4.5	32	WS406023T	TKY25T	WPT4405	MK1KS
	8	TAWLN2500S32	●		TAWNH2490T	□		□	214.5	244.5	304.5	300	4.5	32	WS406023T	TKY25T	WPT4405	MK1KS
	8	TAWLN2500S32	●		TAWKH2490TG		□		214.5	244.5	304.5	300	4.5	32	WS406023T	TKY25T	WPT4405	MK1KS
	3	TAWSN2500S32	●	25.0	TAWNH2500T	●		□	93.1	115.1	175.1	171	4.5	32	WS406023T	TKY25T	WPT4405	MK1KS
	3	TAWSN2500S32	●		TAWKH2500TG		●		93.1	115.1	175.1	171	4.5	32	WS406023T	TKY25T	WPT4405	MK1KS
	5	TAWMN2500S32	●		TAWNH2500T	●		□	145.1	170.1	230.1	226	4.5	32	WS406023T	TKY25T	WPT4405	MK1KS
	5	TAWMN2500S32	●		TAWKH2500TG		●		145.1	170.1	230.1	226	4.5	32	WS406023T	TKY25T	WPT4405	MK1KS
	8	TAWLN2500S32	●		TAWNH2500T	●		□	214.5	244.5	304.5	300	4.5	32	WS406023T	TKY25T	WPT4405	MK1KS
	8	TAWLN2500S32	●		TAWKH2500TG		●		214.5	244.5	304.5	300	4.5	32	WS406023T	TKY25T	WPT4405	MK1KS
	3	TAWSN2500S32	●	25.1	TAWNH2510T	□		□	93.2	115.2	175.2	171	4.6	32	WS406023T	TKY25T	WPT4405	MK1KS
	3	TAWSN2500S32	●		TAWKH2510TG		□		93.2	115.2	175.2	171	4.6	32	WS406023T	TKY25T	WPT4405	MK1KS
	5	TAWMN2500S32	●		TAWNH2510T	□		□	145.2	170.2	230.2	226	4.6	32	WS406023T	TKY25T	WPT4405	MK1KS
	5	TAWMN2500S32	●		TAWKH2510TG		□		145.2	170.2	230.2	226	4.6	32	WS406023T	TKY25T	WPT4405	MK1KS
	8	TAWLN2500S32	●		TAWNH2510T	□		□	214.6	244.6	304.6	300	4.6	32	WS406023T	TKY25T	WPT4405	MK1KS
	8	TAWLN2500S32	●		TAWKH2510TG		□		214.6	244.6	304.6	300	4.6	32	WS406023T	TKY25T	WPT4405	MK1KS
	3	TAWSN2500S32	●	25.2	TAWNH2520T	□		□	93.2	115.2	175.2	171	4.6	32	WS406023T	TKY25T	WPT4405	MK1KS
	3	TAWSN2500S32	●		TAWKH2520TG		□		93.2	115.2	175.2	171	4.6	32	WS406023T	TKY25T	WPT4405	MK1KS
	5	TAWMN2500S32	●		TAWNH2520T	□		□	145.2	170.2	230.2	226	4.6	32	WS406023T	TKY25T	WPT4405	MK1KS
	5	TAWMN2500S32	●		TAWKH2520TG		□		145.2	170.2	230.2	226	4.6	32	WS406023T	TKY25T	WPT4405	MK1KS
	8	TAWLN2500S32	●		TAWNH2520T	□		□	214.6	244.6	304.6	300	4.6	32	WS406023T	TKY25T	WPT4405	MK1KS
	8	TAWLN2500S32	●		TAWKH2520TG		□		214.6	244.6	304.6	300	4.6	32	WS406023T	TKY25T	WPT4405	MK1KS
	3	TAWSN2500S32	●	25.3	TAWNH2530T	□		□	93.2	115.2	175.2	171	4.6	32	WS406023T	TKY25T	WPT4405	MK1KS
	3	TAWSN2500S32	●		TAWKH2530TG		□		93.2	115.2	175.2	171	4.6	32	WS406023T	TKY25T	WPT4405	MK1KS
	5	TAWMN2500S32	●		TAWNH2530T	□		□	145.2	170.2	230.2	226	4.6	32	WS406023T	TKY25T	WPT4405	MK1KS
	5	TAWMN2500S32	●		TAWKH2530TG		□		145.2	170.2	230.2	226	4.6	32	WS406023T	TKY25T	WPT4405	MK1KS
	8	TAWLN2500S32	●		TAWNH2530T	□		□	214.6	244.6	304.6	300	4.6	32	WS406023T	TKY25T	WPT4405	MK1KS
	8	TAWLN2500S32	●		TAWKH2530TG		□		214.6	244.6	304.6	300	4.6	32	WS406023T	TKY25T	WPT4405	MK1KS
	3	TAWSN2500S32	●	25.4	TAWNH2540T	□		□	93.2	115.2	175.2	171	4.6	32	WS406023T	TKY25T	WPT4405	MK1KS
	3	TAWSN2500S32	●		TAWKH2540TG		□		93.2	115.2	175.2	171	4.6	32	WS406023T	TKY25T	WPT4405	MK1KS
	5	TAWMN2500S32	●		TAWNH2540T	□		□	145.2	170.2	230.2	226	4.6	32	WS406023T	TKY25T	WPT4405	MK1KS
	5	TAWMN2500S32	●		TAWKH2540TG		□		145.2	170.2	230.2	226	4.6	32	WS406023T	TKY25T	WPT4405	MK1KS
	8	TAWLN2500S32	●		TAWNH2540T	□		□	214.6	244.6	304.6	300	4.6	32	WS406023T	TKY25T	WPT4405	MK1KS
	8	TAWLN2500S32	●		TAWKH2540TG		□		214.6	244.6	304.6	300	4.6	32	WS406023T	TKY25T	WPT4405	MK1KS

(Bemerkung 1) Maße repräsentieren die Größen, bei denen WSP des Typs TAWNH eingesetzt werden.
(Bemerkung 2) Bei Bedarf von abweichenden Geometrien setzen Sie sich mit unserem Hause in Verbindung.
(Andere Durchmesser und Längen können bestellt werden).

● : Lagerstandard. (Verpackungseinheit: 1Stk.)
□ : Nichtstandard, Herstellung nur auf Anfrage.

DC (mm)	Bohrtiefe (l/d)	Halter Bestellbezeichnung	Lager	WSP DC (mm)	WSP Bestellbezeichnung	Lager VP15TF	Lager DP5010	Lager VP10H	Abmessungen (mm) LBX	LH	OAL	LF	PL	DCON	Spannschraube	Schlüssel	Schlitz-Reiniger	Kupfer-paste
25.5 — 26.4	3	TAWSN2600S32	●	25.5	TAWNH2550T	●		□	97.2	120.2	180.2	176	4.6	32	WS406024T	TKY25T	WPT4405	MK1KS
	3	TAWSN2600S32	●		TAWKH2550TG		●		97.2	120.2	180.2	176	4.6	32	WS406024T	TKY25T	WPT4405	MK1KS
	5	TAWMN2600S32	●		TAWNH2550T	●		□	151.2	175.2	235.2	231	4.6	32	WS406024T	TKY25T	WPT4405	MK1KS
	5	TAWMN2600S32	●		TAWKH2550TG		●		151.2	175.2	235.2	231	4.6	32	WS406024T	TKY25T	WPT4405	MK1KS
	8	TAWLN2600S32	●		TAWNH2550T	●		□	222.6	252.6	312.6	308	4.6	32	WS406024T	TKY25T	WPT4405	MK1KS
	8	TAWLN2600S32	●		TAWKH2550TG		●		222.6	252.6	312.6	308	4.6	32	WS406024T	TKY25T	WPT4405	MK1KS
	3	TAWSN2600S32	●	25.6	TAWNH2560T	□		□	97.3	120.3	180.3	176	4.7	32	WS406024T	TKY25T	WPT4405	MK1KS
	3	TAWSN2600S32	●		TAWKH2560TG		□		97.3	120.3	180.3	176	4.7	32	WS406024T	TKY25T	WPT4405	MK1KS
	5	TAWMN2600S32	●		TAWNH2560T	□		□	151.3	175.3	235.3	231	4.7	32	WS406024T	TKY25T	WPT4405	MK1KS
	5	TAWMN2600S32	●		TAWKH2560TG		□		151.3	175.3	235.3	231	4.7	32	WS406024T	TKY25T	WPT4405	MK1KS
	8	TAWLN2600S32	●		TAWNH2560T	□		□	222.7	252.7	312.7	308	4.7	32	WS406024T	TKY25T	WPT4405	MK1KS
	8	TAWLN2600S32	●		TAWKH2560TG		□		222.7	252.7	312.7	308	4.7	32	WS406024T	TKY25T	WPT4405	MK1KS
	3	TAWSN2600S32	●	25.7	TAWNH2570T	□		□	97.3	120.3	180.3	176	4.7	32	WS406024T	TKY25T	WPT4405	MK1KS
	3	TAWSN2600S32	●		TAWKH2570TG		□		97.3	120.3	180.3	176	4.7	32	WS406024T	TKY25T	WPT4405	MK1KS
	5	TAWMN2600S32	●		TAWNH2570T	□		□	151.3	175.3	235.3	231	4.7	32	WS406024T	TKY25T	WPT4405	MK1KS
	5	TAWMN2600S32	●		TAWKH2570TG		□		151.3	175.3	235.3	231	4.7	32	WS406024T	TKY25T	WPT4405	MK1KS
	8	TAWLN2600S32	●		TAWNH2570T	□		□	222.7	252.7	312.7	308	4.7	32	WS406024T	TKY25T	WPT4405	MK1KS
	8	TAWLN2600S32	●		TAWKH2570TG		□		222.7	252.7	312.7	308	4.7	32	WS406024T	TKY25T	WPT4405	MK1KS
	3	TAWSN2600S32	●	25.8	TAWNH2580T	□		□	97.3	120.3	180.3	176	4.7	32	WS406024T	TKY25T	WPT4405	MK1KS
	3	TAWSN2600S32	●		TAWKH2580TG		□		97.3	120.3	180.3	176	4.7	32	WS406024T	TKY25T	WPT4405	MK1KS
	5	TAWMN2600S32	●		TAWNH2580T	□		□	151.3	175.3	235.3	231	4.7	32	WS406024T	TKY25T	WPT4405	MK1KS
	5	TAWMN2600S32	●		TAWKH2580TG		□		151.3	175.3	235.3	231	4.7	32	WS406024T	TKY25T	WPT4405	MK1KS
	8	TAWLN2600S32	●		TAWNH2580T	□		□	222.7	252.7	312.7	308	4.7	32	WS406024T	TKY25T	WPT4405	MK1KS
	8	TAWLN2600S32	●		TAWKH2580TG		□		222.7	252.7	312.7	308	4.7	32	WS406024T	TKY25T	WPT4405	MK1KS
	3	TAWSN2600S32	●	25.9	TAWNH2590T	□		□	97.3	120.3	180.3	176	4.7	32	WS406024T	TKY25T	WPT4405	MK1KS
	3	TAWSN2600S32	●		TAWKH2590TG		□		97.3	120.3	180.3	176	4.7	32	WS406024T	TKY25T	WPT4405	MK1KS
	5	TAWMN2600S32	●		TAWNH2590T	□		□	151.3	175.3	235.3	231	4.7	32	WS406024T	TKY25T	WPT4405	MK1KS
	5	TAWMN2600S32	●		TAWKH2590TG		□		151.3	175.3	235.3	231	4.7	32	WS406024T	TKY25T	WPT4405	MK1KS
	8	TAWLN2600S32	●		TAWNH2590T	□		□	222.7	252.7	312.7	308	4.7	32	WS406024T	TKY25T	WPT4405	MK1KS
	8	TAWLN2600S32	●		TAWKH2590TG		□		222.7	252.7	312.7	308	4.7	32	WS406024T	TKY25T	WPT4405	MK1KS
	3	TAWSN2600S32	●	26.0	TAWNH2600T	●		□	97.3	120.3	180.3	176	4.7	32	WS406024T	TKY25T	WPT4405	MK1KS
	3	TAWSN2600S32	●		TAWKH2600TG		●		97.3	120.3	180.3	176	4.7	32	WS406024T	TKY25T	WPT4405	MK1KS
	5	TAWMN2600S32	●		TAWNH2600T	●		□	151.3	175.3	235.3	231	4.7	32	WS406024T	TKY25T	WPT4405	MK1KS
	5	TAWMN2600S32	●		TAWKH2600TG		●		151.3	175.3	235.3	231	4.7	32	WS406024T	TKY25T	WPT4405	MK1KS
	8	TAWLN2600S32	●		TAWNH2600T	●		□	222.7	252.7	312.7	308	4.7	32	WS406024T	TKY25T	WPT4405	MK1KS
	8	TAWLN2600S32	●		TAWKH2600TG		●		222.7	252.7	312.7	308	4.7	32	WS406024T	TKY25T	WPT4405	MK1KS
	3	TAWSN2600S32	●	26.1	TAWNH2610T	□		□	97.3	120.3	180.3	176	4.7	32	WS406024T	TKY25T	WPT4405	MK1KS
	3	TAWSN2600S32	●		TAWKH2610TG		□		97.3	120.3	180.3	176	4.7	32	WS406024T	TKY25T	WPT4405	MK1KS
	5	TAWMN2600S32	●		TAWNH2610T	□		□	151.3	175.3	235.3	231	4.7	32	WS406024T	TKY25T	WPT4405	MK1KS
	5	TAWMN2600S32	●		TAWKH2610TG		□		151.3	175.3	235.3	231	4.7	32	WS406024T	TKY25T	WPT4405	MK1KS
	8	TAWLN2600S32	●		TAWNH2610T	□		□	222.7	252.7	312.7	308	4.7	32	WS406024T	TKY25T	WPT4405	MK1KS
	8	TAWLN2600S32	●		TAWKH2610TG		□		222.7	252.7	312.7	308	4.7	32	WS406024T	TKY25T	WPT4405	MK1KS
	3	TAWSN2600S32	●	26.2	TAWNH2620T	□		□	97.4	120.4	180.4	176	4.8	32	WS406024T	TKY25T	WPT4405	MK1KS
	3	TAWSN2600S32	●		TAWKH2620TG		□		97.4	120.4	180.4	176	4.8	32	WS406024T	TKY25T	WPT4405	MK1KS
	5	TAWMN2600S32	●		TAWNH2620T	□		□	151.4	175.4	235.4	231	4.8	32	WS406024T	TKY25T	WPT4405	MK1KS
	5	TAWMN2600S32	●		TAWKH2620TG		□		151.4	175.4	235.4	231	4.8	32	WS406024T	TKY25T	WPT4405	MK1KS
	8	TAWLN2600S32	●		TAWNH2620T	□		□	222.8	252.8	312.8	308	4.8	32	WS406024T	TKY25T	WPT4405	MK1KS
	8	TAWLN2600S32	●		TAWKH2620TG		□		222.8	252.8	312.8	308	4.8	32	WS406024T	TKY25T	WPT4405	MK1KS
	3	TAWSN2600S32	●	26.3	TAWNH2630T	□		□	97.4	120.4	180.4	176	4.8	32	WS406024T	TKY25T	WPT4405	MK1KS
	3	TAWSN2600S32	●		TAWKH2630TG		□		97.4	120.4	180.4	176	4.8	32	WS406024T	TKY25T	WPT4405	MK1KS
	5	TAWMN2600S32	●		TAWNH2630T	□		□	151.4	175.4	235.4	231	4.8	32	WS406024T	TKY25T	WPT4405	MK1KS
	5	TAWMN2600S32	●		TAWKH2630TG		□		151.4	175.4	235.4	231	4.8	32	WS406024T	TKY25T	WPT4405	MK1KS
	8	TAWLN2600S32	●		TAWNH2630T	□		□	222.8	252.8	312.8	308	4.8	32	WS406024T	TKY25T	WPT4405	MK1KS
	8	TAWLN2600S32	●		TAWKH2630TG		□		222.8	252.8	312.8	308	4.8	32	WS406024T	TKY25T	WPT4405	MK1KS
	3	TAWSN2600S32	●	26.4	TAWNH2640T	□		□	97.4	120.4	180.4	176	4.8	32	WS406024T	TKY25T	WPT4405	MK1KS
	3	TAWSN2600S32	●		TAWKH2640TG		□		97.4	120.4	180.4	176	4.8	32	WS406024T	TKY25T	WPT4405	MK1KS
	5	TAWMN2600S32	●		TAWNH2640T	□		□	151.4	175.4	235.4	231	4.8	32	WS406024T	TKY25T	WPT4405	MK1KS
	5	TAWMN2600S32	●		TAWKH2640TG		□		151.4	175.4	235.4	231	4.8	32	WS406024T	TKY25T	WPT4405	MK1KS
	8	TAWLN2600S32	●		TAWNH2640T	□		□	222.8	252.8	312.8	308	4.8	32	WS406024T	TKY25T	WPT4405	MK1KS
	8	TAWLN2600S32	●		TAWKH2640TG		□		222.8	252.8	312.8	308	4.8	32	WS406024T	TKY25T	WPT4405	MK1KS

WSP BESCHREIBUNG ➤ L146
SCHNITTBEDINGUNGEN ➤ L150
EINSATZ HINWEISE ➤ L151
TECHNISCHE DATEN ➤ N001

HARTMETALL

TAW

DC (mm)	Bohrtiefe (l/d)	Halter Bestellbezeichnung	Halter Lager	WSP DC (mm)	WSP Bestellbezeichnung	Lager VP15TF	Lager DP5010	Lager VP10H	Abmessungen (mm) LBX	LH	OAL	LF	PL	DCON	Spannschraube	Schlüssel	Schlitz-Reiniger	Kupfer-paste
26.5 – 27.4	3	TAWSN2700S32	●	26.5	TAWNH2650T	●		□	99.4	120.4	180.4	176	4.8	32	WS406024T	TKY25T	WPT4405	MK1KS
	3	TAWSN2700S32	●		TAWKH2650TG		●		99.4	120.4	180.4	176	4.8	32	WS406024T	TKY25T	WPT4405	MK1KS
	5	TAWMN2700S32	●		TAWNH2650T	●		□	156.4	180.4	240.4	236	4.8	32	WS406024T	TKY25T	WPT4405	MK1KS
	5	TAWMN2700S32	●		TAWKH2650TG		●		156.4	180.4	240.4	236	4.8	32	WS406024T	TKY25T	WPT4405	MK1KS
	8	TAWLN2700S32	●		TAWNH2650T	●		□	230.8	260.8	320.8	316	4.8	32	WS406024T	TKY25T	WPT4405	MK1KS
	8	TAWLN2700S32	●		TAWKH2650TG		●		230.8	260.8	320.8	316	4.8	32	WS406024T	TKY25T	WPT4405	MK1KS
	3	TAWSN2700S32	●	26.6	TAWNH2660T	□		□	99.4	120.4	180.4	176	4.8	32	WS406024T	TKY25T	WPT4405	MK1KS
	3	TAWSN2700S32	●		TAWKH2660TG		□		99.4	120.4	180.4	176	4.8	32	WS406024T	TKY25T	WPT4405	MK1KS
	5	TAWMN2700S32	●		TAWNH2660T	□		□	156.4	180.4	240.4	236	4.8	32	WS406024T	TKY25T	WPT4405	MK1KS
	5	TAWMN2700S32	●		TAWKH2660TG		□		156.4	180.4	240.4	236	4.8	32	WS406024T	TKY25T	WPT4405	MK1KS
	8	TAWLN2700S32	●		TAWNH2660T	□		□	230.8	260.8	320.8	316	4.8	32	WS406024T	TKY25T	WPT4405	MK1KS
	8	TAWLN2700S32	●		TAWKH2660TG		□		230.8	260.8	320.8	316	4.8	32	WS406024T	TKY25T	WPT4405	MK1KS
	3	TAWSN2700S32	●	26.7	TAWNH2670T	□		□	99.5	120.5	180.5	176	4.9	32	WS406024T	TKY25T	WPT4405	MK1KS
	3	TAWSN2700S32	●		TAWKH2670TG		□		99.5	120.5	180.5	176	4.9	32	WS406024T	TKY25T	WPT4405	MK1KS
	5	TAWMN2700S32	●		TAWNH2670T	□		□	156.5	180.5	240.5	236	4.9	32	WS406024T	TKY25T	WPT4405	MK1KS
	5	TAWMN2700S32	●		TAWKH2670TG		□		156.5	180.5	240.5	236	4.9	32	WS406024T	TKY25T	WPT4405	MK1KS
	8	TAWLN2700S32	●		TAWNH2670T	□		□	230.9	260.9	320.9	316	4.9	32	WS406024T	TKY25T	WPT4405	MK1KS
	8	TAWLN2700S32	●		TAWKH2670TG		□		230.9	260.9	320.9	316	4.9	32	WS406024T	TKY25T	WPT4405	MK1KS
	3	TAWSN2700S32	●	26.8	TAWNH2680T	□		□	99.5	120.5	180.5	176	4.9	32	WS406024T	TKY25T	WPT4405	MK1KS
	3	TAWSN2700S32	●		TAWKH2680TG		□		99.5	120.5	180.5	176	4.9	32	WS406024T	TKY25T	WPT4405	MK1KS
	5	TAWMN2700S32	●		TAWNH2680T	□		□	156.5	180.5	240.5	236	4.9	32	WS406024T	TKY25T	WPT4405	MK1KS
	5	TAWMN2700S32	●		TAWKH2680TG		□		156.5	180.5	240.5	236	4.9	32	WS406024T	TKY25T	WPT4405	MK1KS
	8	TAWLN2700S32	●		TAWNH2680T	□		□	230.9	260.9	320.9	316	4.9	32	WS406024T	TKY25T	WPT4405	MK1KS
	8	TAWLN2700S32	●		TAWKH2680TG		□		230.9	260.9	320.9	316	4.9	32	WS406024T	TKY25T	WPT4405	MK1KS
	3	TAWSN2700S32	●	26.9	TAWNH2690T	□		□	99.5	120.5	180.5	176	4.9	32	WS406024T	TKY25T	WPT4405	MK1KS
	3	TAWSN2700S32	●		TAWKH2690TG		□		99.5	120.5	180.5	176	4.9	32	WS406024T	TKY25T	WPT4405	MK1KS
	5	TAWMN2700S32	●		TAWNH2690T	□		□	156.5	180.5	240.5	236	4.9	32	WS406024T	TKY25T	WPT4405	MK1KS
	5	TAWMN2700S32	●		TAWKH2690TG		□		156.5	180.5	240.5	236	4.9	32	WS406024T	TKY25T	WPT4405	MK1KS
	8	TAWLN2700S32	●		TAWNH2690T	□		□	230.9	260.9	320.9	316	4.9	32	WS406024T	TKY25T	WPT4405	MK1KS
	8	TAWLN2700S32	●		TAWKH2690TG		□		230.9	260.9	320.9	316	4.9	32	WS406024T	TKY25T	WPT4405	MK1KS
	3	TAWSN2700S32	●	27.0	TAWNH2700T	●		□	99.5	120.5	180.5	176	4.9	32	WS406024T	TKY25T	WPT4405	MK1KS
	3	TAWSN2700S32	●		TAWKH2700TG		●		99.5	120.5	180.5	176	4.9	32	WS406024T	TKY25T	WPT4405	MK1KS
	5	TAWMN2700S32	●		TAWNH2700T	●		□	156.5	180.5	240.5	236	4.9	32	WS406024T	TKY25T	WPT4405	MK1KS
	5	TAWMN2700S32	●		TAWKH2700TG		●		156.5	180.5	240.5	236	4.9	32	WS406024T	TKY25T	WPT4405	MK1KS
	8	TAWLN2700S32	●		TAWNH2700T	●		□	230.9	260.9	320.9	316	4.9	32	WS406024T	TKY25T	WPT4405	MK1KS
	8	TAWLN2700S32	●		TAWKH2700TG		●		230.9	260.9	320.9	316	4.9	32	WS406024T	TKY25T	WPT4405	MK1KS
	3	TAWSN2700S32	●	27.1	TAWNH2710T	□		□	99.5	120.5	180.5	176	4.9	32	WS406024T	TKY25T	WPT4405	MK1KS
	3	TAWSN2700S32	●		TAWKH2710TG		□		99.5	120.5	180.5	176	4.9	32	WS406024T	TKY25T	WPT4405	MK1KS
	5	TAWMN2700S32	●		TAWNH2710T	□		□	156.5	180.5	240.5	236	4.9	32	WS406024T	TKY25T	WPT4405	MK1KS
	5	TAWMN2700S32	●		TAWKH2710TG		□		156.5	180.5	240.5	236	4.9	32	WS406024T	TKY25T	WPT4405	MK1KS
	8	TAWLN2700S32	●		TAWNH2710T	□		□	230.9	260.9	320.9	316	4.9	32	WS406024T	TKY25T	WPT4405	MK1KS
	8	TAWLN2700S32	●		TAWKH2710TG		□		230.9	260.9	320.9	316	4.9	32	WS406024T	TKY25T	WPT4405	MK1KS
	3	TAWSN2700S32	●	27.2	TAWNH2720T	□		□	99.5	120.5	180.5	176	4.9	32	WS406024T	TKY25T	WPT4405	MK1KS
	3	TAWSN2700S32	●		TAWKH2720TG		□		99.5	120.5	180.5	176	4.9	32	WS406024T	TKY25T	WPT4405	MK1KS
	5	TAWMN2700S32	●		TAWNH2720T	□		□	156.5	180.5	240.5	236	4.9	32	WS406024T	TKY25T	WPT4405	MK1KS
	5	TAWMN2700S32	●		TAWKH2720TG		□		156.5	180.5	240.5	236	4.9	32	WS406024T	TKY25T	WPT4405	MK1KS
	8	TAWLN2700S32	●		TAWNH2720T	□		□	230.9	260.9	320.9	316	4.9	32	WS406024T	TKY25T	WPT4405	MK1KS
	8	TAWLN2700S32	●		TAWKH2720TG		□		230.9	260.9	320.9	316	4.9	32	WS406024T	TKY25T	WPT4405	MK1KS
	3	TAWSN2700S32	●	27.3	TAWNH2730T	□		□	99.6	120.6	180.6	176	5.0	32	WS406024T	TKY25T	WPT4405	MK1KS
	3	TAWSN2700S32	●		TAWKH2730TG		□		99.6	120.6	180.6	176	5.0	32	WS406024T	TKY25T	WPT4405	MK1KS
	5	TAWMN2700S32	●		TAWNH2730T	□		□	156.6	180.6	240.6	236	5.0	32	WS406024T	TKY25T	WPT4405	MK1KS
	5	TAWMN2700S32	●		TAWKH2730TG		□		156.6	180.6	240.6	236	5.0	32	WS406024T	TKY25T	WPT4405	MK1KS
	8	TAWLN2700S32	●		TAWNH2730T	□		□	231.0	261.0	321.0	316	5.0	32	WS406024T	TKY25T	WPT4405	MK1KS
	8	TAWLN2700S32	●		TAWKH2730TG		□		231.0	261.0	321.0	316	5.0	32	WS406024T	TKY25T	WPT4405	MK1KS
	3	TAWSN2700S32	●	27.4	TAWNH2740T	□		□	99.6	120.6	180.6	176	5.0	32	WS406024T	TKY25T	WPT4405	MK1KS
	3	TAWSN2700S32	●		TAWKH2740TG		□		99.6	120.6	180.6	176	5.0	32	WS406024T	TKY25T	WPT4405	MK1KS
	5	TAWMN2700S32	●		TAWNH2740T	□		□	156.6	180.6	240.6	236	5.0	32	WS406024T	TKY25T	WPT4405	MK1KS
	5	TAWMN2700S32	●		TAWKH2740TG		□		156.6	180.6	240.6	236	5.0	32	WS406024T	TKY25T	WPT4405	MK1KS
	8	TAWLN2700S32	●		TAWNH2740T	□		□	231.0	261.0	321.0	316	5.0	32	WS406024T	TKY25T	WPT4405	MK1KS
	8	TAWLN2700S32	●		TAWKH2740TG		□		231.0	261.0	321.0	316	5.0	32	WS406024T	TKY25T	WPT4405	MK1KS

(Bemerkung 1) Maße repräsentieren die Größen, bei denen WSP des Typs TAWNH eingesetzt werden.
(Bemerkung 2) Bei Bedarf von abweichenden Geometrien setzen Sie sich mit unserem Hause in Verbindung.
(Andere Durchmesser und Längen können bestellt werden).

● : Lagerstandard. (Verpackungseinheit: 1Stk.)
□ : Nichtstandard, Herstellung nur auf Anfrage.

BOHREN

DC (mm)	Bohrtiefe (l/d)	Halter Bestellbezeichnung	Halter Lager	WSP DC (mm)	WSP Bestellbezeichnung	Lager VP15TF	Lager DP5010	Lager VP10H	Abmessungen (mm) LBX	LH	OAL	LF	PL	DCON	Spannschraube	Schlüssel	Schlitz-Reiniger	Kupfer-paste
27.5 | 28.4	3	TAWSN2800S32	●	27.5	TAWNH2750T	●		□	102.2	125.2	185.2	180	5.0	32	WS508026T	TKY27T	WPT4405	MK1KS
	3	TAWSN2800S32	●		TAWKH2750TG		●		102.2	125.2	185.2	180	5.0	32	WS508026T	TKY27T	WPT4405	MK1KS
	5	TAWMN2800S32	●		TAWNH2750T	●		□	162.2	185.2	245.2	240	5.0	32	WS508026T	TKY27T	WPT4405	MK1KS
	5	TAWMN2800S32	●		TAWKH2750TG		●		162.2	185.2	245.2	240	5.0	32	WS508026T	TKY27T	WPT4405	MK1KS
	8	TAWLN2800S32	●		TAWNH2750T	●		□	239.0	269.0	329.0	324	5.0	32	WS508026T	TKY27T	WPT4405	MK1KS
	8	TAWLN2800S32	●		TAWKH2750TG		●		239.0	269.0	329.0	324	5.0	32	WS508026T	TKY27T	WPT4405	MK1KS
	3	TAWSN2800S32	●	27.6	TAWNH2760T	□		□	102.2	125.2	185.2	180	5.0	32	WS508026T	TKY27T	WPT4405	MK1KS
	3	TAWSN2800S32	●		TAWKH2760TG		□		102.2	125.2	185.2	180	5.0	32	WS508026T	TKY27T	WPT4405	MK1KS
	5	TAWMN2800S32	●		TAWNH2760T	□		□	162.2	185.2	245.2	240	5.0	32	WS508026T	TKY27T	WPT4405	MK1KS
	5	TAWMN2800S32	●		TAWKH2760TG		□		162.2	185.2	245.2	240	5.0	32	WS508026T	TKY27T	WPT4405	MK1KS
	8	TAWLN2800S32	●		TAWNH2760T	□		□	239.0	269.0	329.0	324	5.0	32	WS508026T	TKY27T	WPT4405	MK1KS
	8	TAWLN2800S32	●		TAWKH2760TG		□		239.0	269.0	329.0	324	5.0	32	WS508026T	TKY27T	WPT4405	MK1KS
	3	TAWSN2800S32	●	27.7	TAWNH2770T	□		□	102.2	125.2	185.2	180	5.0	32	WS508026T	TKY27T	WPT4405	MK1KS
	3	TAWSN2800S32	●		TAWKH2770TG		□		102.2	125.2	185.2	180	5.0	32	WS508026T	TKY27T	WPT4405	MK1KS
	5	TAWMN2800S32	●		TAWNH2770T	□		□	162.2	185.2	245.2	240	5.0	32	WS508026T	TKY27T	WPT4405	MK1KS
	5	TAWMN2800S32	●		TAWKH2770TG		□		162.2	185.2	245.2	240	5.0	32	WS508026T	TKY27T	WPT4405	MK1KS
	8	TAWLN2800S32	●		TAWNH2770T	□		□	239.0	269.0	329.0	324	5.0	32	WS508026T	TKY27T	WPT4405	MK1KS
	8	TAWLN2800S32	●		TAWKH2770TG		□		239.0	269.0	329.0	324	5.0	32	WS508026T	TKY27T	WPT4405	MK1KS
	3	TAWSN2800S32	●	27.8	TAWNH2780T	□		□	102.3	125.3	185.3	180	5.1	32	WS508026T	TKY27T	WPT4405	MK1KS
	3	TAWSN2800S32	●		TAWKH2780TG		□		102.3	125.3	185.3	180	5.1	32	WS508026T	TKY27T	WPT4405	MK1KS
	5	TAWMN2800S32	●		TAWNH2780T	□		□	162.3	185.3	245.3	240	5.1	32	WS508026T	TKY27T	WPT4405	MK1KS
	5	TAWMN2800S32	●		TAWKH2780TG		□		162.3	185.3	245.3	240	5.1	32	WS508026T	TKY27T	WPT4405	MK1KS
	8	TAWLN2800S32	●		TAWNH2780T	□		□	239.1	269.1	329.1	324	5.1	32	WS508026T	TKY27T	WPT4405	MK1KS
	8	TAWLN2800S32	●		TAWKH2780TG		□		239.1	269.1	329.1	324	5.1	32	WS508026T	TKY27T	WPT4405	MK1KS
	3	TAWSN2800S32	●	27.9	TAWNH2790T	□		□	102.3	125.3	185.3	180	5.1	32	WS508026T	TKY27T	WPT4405	MK1KS
	3	TAWSN2800S32	●		TAWKH2790TG		□		102.3	125.3	185.3	180	5.1	32	WS508026T	TKY27T	WPT4405	MK1KS
	5	TAWMN2800S32	●		TAWNH2790T	□		□	162.3	185.3	245.3	240	5.1	32	WS508026T	TKY27T	WPT4405	MK1KS
	5	TAWMN2800S32	●		TAWKH2790TG		□		162.3	185.3	245.3	240	5.1	32	WS508026T	TKY27T	WPT4405	MK1KS
	8	TAWLN2800S32	●		TAWNH2790T	□		□	239.1	269.1	329.1	324	5.1	32	WS508026T	TKY27T	WPT4405	MK1KS
	8	TAWLN2800S32	●		TAWKH2790TG		□		239.1	269.1	329.1	324	5.1	32	WS508026T	TKY27T	WPT4405	MK1KS
	3	TAWSN2800S32	●	28.0	TAWNH2800T	●		□	102.3	125.3	185.3	180	5.1	32	WS508026T	TKY27T	WPT4405	MK1KS
	3	TAWSN2800S32	●		TAWKH2800TG		●		102.3	125.3	185.3	180	5.1	32	WS508026T	TKY27T	WPT4405	MK1KS
	5	TAWMN2800S32	●		TAWNH2800T	●		□	162.3	185.3	245.3	240	5.1	32	WS508026T	TKY27T	WPT4405	MK1KS
	5	TAWMN2800S32	●		TAWKH2800TG		●		162.3	185.3	245.3	240	5.1	32	WS508026T	TKY27T	WPT4405	MK1KS
	8	TAWLN2800S32	●		TAWNH2800T	●		□	239.1	269.1	329.1	324	5.1	32	WS508026T	TKY27T	WPT4405	MK1KS
	8	TAWLN2800S32	●		TAWKH2800TG		●		239.1	269.1	329.1	324	5.1	32	WS508026T	TKY27T	WPT4405	MK1KS
	3	TAWSN2800S32	●	28.1	TAWNH2810T	□		□	102.3	125.3	185.3	180	5.1	32	WS508026T	TKY27T	WPT4405	MK1KS
	3	TAWSN2800S32	●		TAWKH2810TG		□		102.3	125.3	185.3	180	5.1	32	WS508026T	TKY27T	WPT4405	MK1KS
	5	TAWMN2800S32	●		TAWNH2810T	□		□	162.3	185.3	245.3	240	5.1	32	WS508026T	TKY27T	WPT4405	MK1KS
	5	TAWMN2800S32	●		TAWKH2810TG		□		162.3	185.3	245.3	240	5.1	32	WS508026T	TKY27T	WPT4405	MK1KS
	8	TAWLN2800S32	●		TAWNH2810T	□		□	239.1	269.1	329.1	324	5.1	32	WS508026T	TKY27T	WPT4405	MK1KS
	8	TAWLN2800S32	●		TAWKH2810TG		□		239.1	269.1	329.1	324	5.1	32	WS508026T	TKY27T	WPT4405	MK1KS
	3	TAWSN2800S32	●	28.2	TAWNH2820T	□		□	102.3	125.3	185.3	180	5.1	32	WS508026T	TKY27T	WPT4405	MK1KS
	3	TAWSN2800S32	●		TAWKH2820TG		□		102.3	125.3	185.3	180	5.1	32	WS508026T	TKY27T	WPT4405	MK1KS
	5	TAWMN2800S32	●		TAWNH2820T	□		□	162.3	185.3	245.3	240	5.1	32	WS508026T	TKY27T	WPT4405	MK1KS
	5	TAWMN2800S32	●		TAWKH2820TG		□		162.3	185.3	245.3	240	5.1	32	WS508026T	TKY27T	WPT4405	MK1KS
	8	TAWLN2800S32	●		TAWNH2820T	□		□	239.1	269.1	329.1	324	5.1	32	WS508026T	TKY27T	WPT4405	MK1KS
	8	TAWLN2800S32	●		TAWKH2820TG		□		239.1	269.1	329.1	324	5.1	32	WS508026T	TKY27T	WPT4405	MK1KS
	3	TAWSN2800S32	●	28.3	TAWNH2830T	□		□	102.4	125.4	185.4	180	5.2	32	WS508026T	TKY27T	WPT4405	MK1KS
	3	TAWSN2800S32	●		TAWKH2830TG		□		102.4	125.4	185.4	180	5.2	32	WS508026T	TKY27T	WPT4405	MK1KS
	5	TAWMN2800S32	●		TAWNH2830T	□		□	162.4	185.4	245.4	240	5.2	32	WS508026T	TKY27T	WPT4405	MK1KS
	5	TAWMN2800S32	●		TAWKH2830TG		□		162.4	185.4	245.4	240	5.2	32	WS508026T	TKY27T	WPT4405	MK1KS
	8	TAWLN2800S32	●		TAWNH2830T	□		□	239.2	269.2	329.2	324	5.2	32	WS508026T	TKY27T	WPT4405	MK1KS
	8	TAWLN2800S32	●		TAWKH2830TG		□		239.2	269.2	329.2	324	5.2	32	WS508026T	TKY27T	WPT4405	MK1KS
	3	TAWSN2800S32	●	28.4	TAWNH2840T	□		□	102.4	125.4	185.4	180	5.2	32	WS508026T	TKY27T	WPT4405	MK1KS
	3	TAWSN2800S32	●		TAWKH2840TG		□		102.4	125.4	185.4	180	5.2	32	WS508026T	TKY27T	WPT4405	MK1KS
	5	TAWMN2800S32	●		TAWNH2840T	□		□	162.4	185.4	245.4	240	5.2	32	WS508026T	TKY27T	WPT4405	MK1KS
	5	TAWMN2800S32	●		TAWKH2840TG		□		162.4	185.4	245.4	240	5.2	32	WS508026T	TKY27T	WPT4405	MK1KS
	8	TAWLN2800S32	●		TAWNH2840T	□		□	239.2	269.2	329.2	324	5.2	32	WS508026T	TKY27T	WPT4405	MK1KS
	8	TAWLN2800S32	●		TAWKH2840TG		□		239.2	269.2	329.2	324	5.2	32	WS508026T	TKY27T	WPT4405	MK1KS

WSP BESCHREIBUNG	➤ L146
SCHNITTBEDINGUNGEN	➤ L150
EINSATZ HINWEISE	➤ L151
TECHNISCHE DATEN	➤ N001

TAW

DC (mm)	Bohrtiefe (l/d)	Halter Bestellbezeichnung	Halter Lager	WSP DC (mm)	WSP Bestellbezeichnung	Lager VP15TF	Lager DP5010	Lager VP10H	Abmessungen (mm) LBX	LH	OAL	LF	PL	DCON	Spannschraube	Schlüssel	Schlitz-Reiniger	Kupfer-paste
28.5 | 29.4	3	TAWSN2900S32	●	28.5	TAWNH2850T	●		□	105.4	130.4	190.4	185	5.2	32	WS508027T	TKY27T	WPT4405	MK1KS
	3	TAWSN2900S32	●		TAWKH2850TG		●		105.4	130.4	190.4	185	5.2	32	WS508027T	TKY27T	WPT4405	MK1KS
	5	TAWMN2900S32	●		TAWNH2850T	●		□	167.4	190.4	250.4	245	5.2	32	WS508027T	TKY27T	WPT4405	MK1KS
	5	TAWMN2900S32	●		TAWKH2850TG		●		167.4	190.4	250.4	245	5.2	32	WS508027T	TKY27T	WPT4405	MK1KS
	8	TAWLN2900S32	●		TAWNH2850T	●		□	247.2	277.2	337.2	332	5.2	32	WS508027T	TKY27T	WPT4405	MK1KS
	8	TAWLN2900S32	●		TAWKH2850TG		●		247.2	277.2	337.2	332	5.2	32	WS508027T	TKY27T	WPT4405	MK1KS
	3	TAWSN2900S32	●	28.6	TAWNH2860T	□		□	105.4	130.4	190.4	185	5.2	32	WS508027T	TKY27T	WPT4405	MK1KS
	3	TAWSN2900S32	●		TAWKH2860TG		□		105.4	130.4	190.4	185	5.2	32	WS508027T	TKY27T	WPT4405	MK1KS
	5	TAWMN2900S32	●		TAWNH2860T	□		□	167.4	190.4	250.4	245	5.2	32	WS508027T	TKY27T	WPT4405	MK1KS
	5	TAWMN2900S32	●		TAWKH2860TG		□		167.4	190.4	250.4	245	5.2	32	WS508027T	TKY27T	WPT4405	MK1KS
	8	TAWLN2900S32	●		TAWNH2860T	□		□	247.2	277.2	337.2	332	5.2	32	WS508027T	TKY27T	WPT4405	MK1KS
	8	TAWLN2900S32	●		TAWKH2860TG		□		247.2	277.2	337.2	332	5.2	32	WS508027T	TKY27T	WPT4405	MK1KS
	3	TAWSN2900S32	●	28.7	TAWNH2870T	□		□	105.4	130.4	190.4	185	5.2	32	WS508027T	TKY27T	WPT4405	MK1KS
	3	TAWSN2900S32	●		TAWKH2870TG		□		105.4	130.4	190.4	185	5.2	32	WS508027T	TKY27T	WPT4405	MK1KS
	5	TAWMN2900S32	●		TAWNH2870T	□		□	167.4	190.4	250.4	245	5.2	32	WS508027T	TKY27T	WPT4405	MK1KS
	5	TAWMN2900S32	●		TAWKH2870TG		□		167.4	190.4	250.4	245	5.2	32	WS508027T	TKY27T	WPT4405	MK1KS
	8	TAWLN2900S32	●		TAWNH2870T	□		□	247.2	277.2	337.2	332	5.2	32	WS508027T	TKY27T	WPT4405	MK1KS
	8	TAWLN2900S32	●		TAWKH2870TG		□		247.2	277.2	337.2	332	5.2	32	WS508027T	TKY27T	WPT4405	MK1KS
	3	TAWSN2900S32	●	28.8	TAWNH2880T	□		□	105.4	130.4	190.4	185	5.2	32	WS508027T	TKY27T	WPT4405	MK1KS
	3	TAWSN2900S32	●		TAWKH2880TG		□		105.4	130.4	190.4	185	5.2	32	WS508027T	TKY27T	WPT4405	MK1KS
	5	TAWMN2900S32	●		TAWNH2880T	□		□	167.4	190.4	250.4	245	5.2	32	WS508027T	TKY27T	WPT4405	MK1KS
	5	TAWMN2900S32	●		TAWKH2880TG		□		167.4	190.4	250.4	245	5.2	32	WS508027T	TKY27T	WPT4405	MK1KS
	8	TAWLN2900S32	●		TAWNH2880T	□		□	247.2	277.2	337.2	332	5.2	32	WS508027T	TKY27T	WPT4405	MK1KS
	8	TAWLN2900S32	●		TAWKH2880TG		□		247.2	277.2	337.2	332	5.2	32	WS508027T	TKY27T	WPT4405	MK1KS
	3	TAWSN2900S32	●	28.9	TAWNH2890T	□		□	105.5	130.5	190.5	185	5.3	32	WS508027T	TKY27T	WPT4405	MK1KS
	3	TAWSN2900S32	●		TAWKH2890TG		□		105.5	130.5	190.5	185	5.3	32	WS508027T	TKY27T	WPT4405	MK1KS
	5	TAWMN2900S32	●		TAWNH2890T	□		□	167.5	190.5	250.5	245	5.3	32	WS508027T	TKY27T	WPT4405	MK1KS
	5	TAWMN2900S32	●		TAWKH2890TG		□		167.5	190.5	250.5	245	5.3	32	WS508027T	TKY27T	WPT4405	MK1KS
	8	TAWLN2900S32	●		TAWNH2890T	□		□	247.3	277.3	337.3	332	5.3	32	WS508027T	TKY27T	WPT4405	MK1KS
	8	TAWLN2900S32	●		TAWKH2890TG		□		247.3	277.3	337.3	332	5.3	32	WS508027T	TKY27T	WPT4405	MK1KS
	3	TAWSN2900S32	●	29.0	TAWNH2900T	●		□	105.5	130.5	190.5	185	5.3	32	WS508027T	TKY27T	WPT4405	MK1KS
	3	TAWSN2900S32	●		TAWKH2900TG		●		105.5	130.5	190.5	185	5.3	32	WS508027T	TKY27T	WPT4405	MK1KS
	5	TAWMN2900S32	●		TAWNH2900T	●		□	167.5	190.5	250.5	245	5.3	32	WS508027T	TKY27T	WPT4405	MK1KS
	5	TAWMN2900S32	●		TAWKH2900TG		●		167.5	190.5	250.5	245	5.3	32	WS508027T	TKY27T	WPT4405	MK1KS
	8	TAWLN2900S32	●		TAWNH2900T	●		□	247.3	277.3	337.3	332	5.3	32	WS508027T	TKY27T	WPT4405	MK1KS
	8	TAWLN2900S32	●		TAWKH2900TG		●		247.3	277.3	337.3	332	5.3	32	WS508027T	TKY27T	WPT4405	MK1KS
	3	TAWSN2900S32	●	29.1	TAWNH2910T	□		□	105.5	130.5	190.5	185	5.3	32	WS508027T	TKY27T	WPT4405	MK1KS
	3	TAWSN2900S32	●		TAWKH2910TG		□		105.5	130.5	190.5	185	5.3	32	WS508027T	TKY27T	WPT4405	MK1KS
	5	TAWMN2900S32	●		TAWNH2910T	□		□	167.5	190.5	250.5	245	5.3	32	WS508027T	TKY27T	WPT4405	MK1KS
	5	TAWMN2900S32	●		TAWKH2910TG		□		167.5	190.5	250.5	245	5.3	32	WS508027T	TKY27T	WPT4405	MK1KS
	8	TAWLN2900S32	●		TAWNH2910T	□		□	247.3	277.3	337.3	332	5.3	32	WS508027T	TKY27T	WPT4405	MK1KS
	8	TAWLN2900S32	●		TAWKH2910TG		□		247.3	277.3	337.3	332	5.3	32	WS508027T	TKY27T	WPT4405	MK1KS
	3	TAWSN2900S32	●	29.2	TAWNH2920T	□		□	105.5	130.5	190.5	185	5.3	32	WS508027T	TKY27T	WPT4405	MK1KS
	3	TAWSN2900S32	●		TAWKH2920TG		□		105.5	130.5	190.5	185	5.3	32	WS508027T	TKY27T	WPT4405	MK1KS
	5	TAWMN2900S32	●		TAWNH2920T	□		□	167.5	190.5	250.5	245	5.3	32	WS508027T	TKY27T	WPT4405	MK1KS
	5	TAWMN2900S32	●		TAWKH2920TG		□		167.5	190.5	250.5	245	5.3	32	WS508027T	TKY27T	WPT4405	MK1KS
	8	TAWLN2900S32	●		TAWNH2920T	□		□	247.3	277.3	337.3	332	5.3	32	WS508027T	TKY27T	WPT4405	MK1KS
	8	TAWLN2900S32	●		TAWKH2920TG		□		247.3	277.3	337.3	332	5.3	32	WS508027T	TKY27T	WPT4405	MK1KS
	3	TAWSN2900S32	●	29.3	TAWNH2930T	□		□	105.5	130.5	190.5	185	5.3	32	WS508027T	TKY27T	WPT4405	MK1KS
	3	TAWSN2900S32	●		TAWKH2930TG		□		105.5	130.5	190.5	185	5.3	32	WS508027T	TKY27T	WPT4405	MK1KS
	5	TAWMN2900S32	●		TAWNH2930T	□		□	167.5	190.5	250.5	245	5.3	32	WS508027T	TKY27T	WPT4405	MK1KS
	5	TAWMN2900S32	●		TAWKH2930TG		□		167.5	190.5	250.5	245	5.3	32	WS508027T	TKY27T	WPT4405	MK1KS
	8	TAWLN2900S32	●		TAWNH2930T	□		□	247.3	277.3	337.3	332	5.3	32	WS508027T	TKY27T	WPT4405	MK1KS
	8	TAWLN2900S32	●		TAWKH2930TG		□		247.3	277.3	337.3	332	5.3	32	WS508027T	TKY27T	WPT4405	MK1KS
	3	TAWSN2900S32	●	29.4	TAWNH2940T	□		□	105.6	130.6	190.6	185	5.4	32	WS508027T	TKY27T	WPT4405	MK1KS
	3	TAWSN2900S32	●		TAWKH2940TG		□		105.6	130.6	190.6	185	5.4	32	WS508027T	TKY27T	WPT4405	MK1KS
	5	TAWMN2900S32	●		TAWNH2940T	□		□	167.6	190.6	250.6	245	5.4	32	WS508027T	TKY27T	WPT4405	MK1KS
	5	TAWMN2900S32	●		TAWKH2940TG		□		167.6	190.6	250.6	245	5.4	32	WS508027T	TKY27T	WPT4405	MK1KS
	8	TAWLN2900S32	●		TAWNH2940T	□		□	247.4	277.4	337.4	332	5.4	32	WS508027T	TKY27T	WPT4405	MK1KS
	8	TAWLN2900S32	●		TAWKH2940TG		□		247.4	277.4	337.4	332	5.4	32	WS508027T	TKY27T	WPT4405	MK1KS

(Bemerkung 1) Maße repräsentieren die Größen, bei denen WSP des Typs TAWNH eingesetzt werden.
(Bemerkung 2) Bei Bedarf von abweichenden Geometrien setzen Sie sich mit unserem Hause in Verbindung.
(Andere Durchmesser und Längen können bestellt werden).

● : Lagerstandard. (Verpackungseinheit: 1Stk.)
□ : Nichtstandard, Herstellung nur auf Anfrage.

DC (mm)	Bohrtiefe (l/d)	Halter Bestellbezeichnung	Lager	WSP DC (mm)	WSP Bestellbezeichnung	Lager VP15TF	Lager DP5010	Lager VP10H	LBX	LH	OAL	LF	PL	DCON	Spannschraube	Schlüssel	Schlitz-Reiniger	Kupfer-paste
29.5 – 30.4	3	TAWSN3000S32	●	29.5	TAWNH2950T	●		□	109.6	130.6	190.6	185	5.4	32	WS508027T	TKY27T	WPT4405	MK1KS
	3	TAWSN3000S32	●		TAWKH2950TG		●		109.6	130.6	190.6	185	5.4	32	WS508027T	TKY27T	WPT4405	MK1KS
	5	TAWMN3000S32	●		TAWNH2950T	●		□	172.6	200.6	260.6	255	5.4	32	WS508027T	TKY27T	WPT4405	MK1KS
	5	TAWMN3000S32	●		TAWKH2950TG		●		172.6	200.6	260.6	255	5.4	32	WS508027T	TKY27T	WPT4405	MK1KS
	8	TAWLN3000S32	●		TAWNH2950T	●		□	255.4	290.4	350.4	345	5.4	32	WS508027T	TKY27T	WPT4405	MK1KS
	8	TAWLN3000S32	●		TAWKH2950TG		●		255.4	290.4	350.4	345	5.4	32	WS508027T	TKY27T	WPT4405	MK1KS
	3	TAWSN3000S32	●	29.6	TAWNH2960T	□		□	109.6	130.6	190.6	185	5.4	32	WS508027T	TKY27T	WPT4405	MK1KS
	3	TAWSN3000S32	●		TAWKH2960TG		□		109.6	130.6	190.6	185	5.4	32	WS508027T	TKY27T	WPT4405	MK1KS
	5	TAWMN3000S32	●		TAWNH2960T	□		□	172.6	200.6	260.6	255	5.4	32	WS508027T	TKY27T	WPT4405	MK1KS
	5	TAWMN3000S32	●		TAWKH2960TG		□		172.6	200.6	260.6	255	5.4	32	WS508027T	TKY27T	WPT4405	MK1KS
	8	TAWLN3000S32	●		TAWNH2960T	□		□	255.4	290.4	350.4	345	5.4	32	WS508027T	TKY27T	WPT4405	MK1KS
	8	TAWLN3000S32	●		TAWKH2960TG		□		255.4	290.4	350.4	345	5.4	32	WS508027T	TKY27T	WPT4405	MK1KS
	3	TAWSN3000S32	●	29.7	TAWNH2970T	□		□	109.6	130.6	190.6	185	5.4	32	WS508027T	TKY27T	WPT4405	MK1KS
	3	TAWSN3000S32	●		TAWKH2970TG		□		109.6	130.6	190.6	185	5.4	32	WS508027T	TKY27T	WPT4405	MK1KS
	5	TAWMN3000S32	●		TAWNH2970T	□		□	172.6	200.6	260.6	255	5.4	32	WS508027T	TKY27T	WPT4405	MK1KS
	5	TAWMN3000S32	●		TAWKH2970TG		□		172.6	200.6	260.6	255	5.4	32	WS508027T	TKY27T	WPT4405	MK1KS
	8	TAWLN3000S32	●		TAWNH2970T	□		□	255.4	290.4	350.4	345	5.4	32	WS508027T	TKY27T	WPT4405	MK1KS
	8	TAWLN3000S32	●		TAWKH2970TG		□		255.4	290.4	350.4	345	5.4	32	WS508027T	TKY27T	WPT4405	MK1KS
	3	TAWSN3000S32	●	29.8	TAWNH2980T	□		□	109.6	130.6	190.6	185	5.4	32	WS508027T	TKY27T	WPT4405	MK1KS
	3	TAWSN3000S32	●		TAWKH2980TG		□		109.6	130.6	190.6	185	5.4	32	WS508027T	TKY27T	WPT4405	MK1KS
	5	TAWMN3000S32	●		TAWNH2980T	□		□	172.6	200.6	260.6	255	5.4	32	WS508027T	TKY27T	WPT4405	MK1KS
	5	TAWMN3000S32	●		TAWKH2980TG		□		172.6	200.6	260.6	255	5.4	32	WS508027T	TKY27T	WPT4405	MK1KS
	8	TAWLN3000S32	●		TAWNH2980T	□		□	255.4	290.4	350.4	345	5.4	32	WS508027T	TKY27T	WPT4405	MK1KS
	8	TAWLN3000S32	●		TAWKH2980TG		□		255.4	290.4	350.4	345	5.4	32	WS508027T	TKY27T	WPT4405	MK1KS
	3	TAWSN3000S32	●	29.9	TAWNH2990T	□		□	109.6	130.6	190.6	185	5.4	32	WS508027T	TKY27T	WPT4405	MK1KS
	3	TAWSN3000S32	●		TAWKH2990TG		□		109.6	130.6	190.6	185	5.4	32	WS508027T	TKY27T	WPT4405	MK1KS
	5	TAWMN3000S32	●		TAWNH2990T	□		□	172.6	200.6	260.6	255	5.4	32	WS508027T	TKY27T	WPT4405	MK1KS
	5	TAWMN3000S32	●		TAWKH2990TG		□		172.6	200.6	260.6	255	5.4	32	WS508027T	TKY27T	WPT4405	MK1KS
	8	TAWLN3000S32	●		TAWNH2990T	□		□	255.4	290.4	350.4	345	5.4	32	WS508027T	TKY27T	WPT4405	MK1KS
	8	TAWLN3000S32	●		TAWKH2990TG		□		255.4	290.4	350.4	345	5.4	32	WS508027T	TKY27T	WPT4405	MK1KS
	3	TAWSN3000S32	●	30.0	TAWNH3000T	●		□	109.7	130.7	190.7	185	5.5	32	WS508027T	TKY27T	WPT4405	MK1KS
	3	TAWSN3000S32	●		TAWKH3000TG		●		109.7	130.7	190.7	185	5.5	32	WS508027T	TKY27T	WPT4405	MK1KS
	5	TAWMN3000S32	●		TAWNH3000T	●		□	172.7	200.7	260.7	255	5.5	32	WS508027T	TKY27T	WPT4405	MK1KS
	5	TAWMN3000S32	●		TAWKH3000TG		●		172.7	200.7	260.7	255	5.5	32	WS508027T	TKY27T	WPT4405	MK1KS
	8	TAWLN3000S32	●		TAWNH3000T	●		□	255.5	290.5	350.5	345	5.5	32	WS508027T	TKY27T	WPT4405	MK1KS
	8	TAWLN3000S32	●		TAWKH3000TG		●		255.5	290.5	350.5	345	5.5	32	WS508027T	TKY27T	WPT4405	MK1KS
	3	TAWSN3000S32	●	30.1	TAWNH3010T	□		□	109.7	130.7	190.7	185	5.5	32	WS508027T	TKY27T	WPT4405	MK1KS
	3	TAWSN3000S32	●		TAWKH3010TG		□		109.7	130.7	190.7	185	5.5	32	WS508027T	TKY27T	WPT4405	MK1KS
	5	TAWMN3000S32	●		TAWNH3010T	□		□	172.7	200.7	260.7	255	5.5	32	WS508027T	TKY27T	WPT4405	MK1KS
	5	TAWMN3000S32	●		TAWKH3010TG		□		172.7	200.7	260.7	255	5.5	32	WS508027T	TKY27T	WPT4405	MK1KS
	8	TAWLN3000S32	●		TAWNH3010T	□		□	255.5	290.5	350.5	345	5.5	32	WS508027T	TKY27T	WPT4405	MK1KS
	8	TAWLN3000S32	●		TAWKH3010TG		□		255.5	290.5	350.5	345	5.5	32	WS508027T	TKY27T	WPT4405	MK1KS
	3	TAWSN3000S32	●	30.2	TAWNH3020T	□		□	109.7	130.7	190.7	185	5.5	32	WS508027T	TKY27T	WPT4405	MK1KS
	3	TAWSN3000S32	●		TAWKH3020TG		□		109.7	130.7	190.7	185	5.5	32	WS508027T	TKY27T	WPT4405	MK1KS
	5	TAWMN3000S32	●		TAWNH3020T	□		□	172.7	200.7	260.7	255	5.5	32	WS508027T	TKY27T	WPT4405	MK1KS
	5	TAWMN3000S32	●		TAWKH3020TG		□		172.7	200.7	260.7	255	5.5	32	WS508027T	TKY27T	WPT4405	MK1KS
	8	TAWLN3000S32	●		TAWNH3020T	□		□	255.5	290.5	350.5	345	5.5	32	WS508027T	TKY27T	WPT4405	MK1KS
	8	TAWLN3000S32	●		TAWKH3020TG		□		255.5	290.5	350.5	345	5.5	32	WS508027T	TKY27T	WPT4405	MK1KS
	3	TAWSN3000S32	●	30.3	TAWNH3030T	□		□	109.7	130.7	190.7	185	5.5	32	WS508027T	TKY27T	WPT4405	MK1KS
	3	TAWSN3000S32	●		TAWKH3030TG		□		109.7	130.7	190.7	185	5.5	32	WS508027T	TKY27T	WPT4405	MK1KS
	5	TAWMN3000S32	●		TAWNH3030T	□		□	172.7	200.7	260.7	255	5.5	32	WS508027T	TKY27T	WPT4405	MK1KS
	5	TAWMN3000S32	●		TAWKH3030TG		□		172.7	200.7	260.7	255	5.5	32	WS508027T	TKY27T	WPT4405	MK1KS
	8	TAWLN3000S32	●		TAWNH3030T	□		□	255.5	290.5	350.5	345	5.5	32	WS508027T	TKY27T	WPT4405	MK1KS
	8	TAWLN3000S32	●		TAWKH3030TG		□		255.5	290.5	350.5	345	5.5	32	WS508027T	TKY27T	WPT4405	MK1KS
	3	TAWSN3000S32	●	30.4	TAWNH3040T	□		□	109.7	130.7	190.7	185	5.5	32	WS508027T	TKY27T	WPT4405	MK1KS
	3	TAWSN3000S32	●		TAWKH3040TG		□		109.7	130.7	190.7	185	5.5	32	WS508027T	TKY27T	WPT4405	MK1KS
	5	TAWMN3000S32	●		TAWNH3040T	□		□	172.7	200.7	260.7	255	5.5	32	WS508027T	TKY27T	WPT4405	MK1KS
	5	TAWMN3000S32	●		TAWKH3040TG		□		172.7	200.7	260.7	255	5.5	32	WS508027T	TKY27T	WPT4405	MK1KS
	8	TAWLN3000S32	●		TAWNH3040T	□		□	255.5	290.5	350.5	345	5.5	32	WS508027T	TKY27T	WPT4405	MK1KS
	8	TAWLN3000S32	●		TAWKH3040TG		□		255.5	290.5	350.5	345	5.5	32	WS508027T	TKY27T	WPT4405	MK1KS

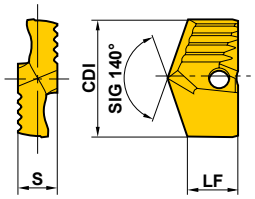
WSP BESCHREIBUNG ➤ L146
SCHNITTBEDINGUNGEN ➤ L150
EINSATZ HINWEISE ➤ L151
TECHNISCHE DATEN ➤ N001

TAW

WSP

Typ H





Bestellbezeichnung	Lager VP15TF	Lager VP10H	Abmessungen (mm) CDI	LF	S	WSP-Träger
TAWNH1400T	●	□	14.0	7.6	5.0	TAWSNH 1400S16
TAWNH**1410T**	●	□	14.1	7.6	5.0	TAWMNH 1400S16
TAWNH**1420T**	●	□	14.2	7.6	5.0	TAWLNH 1400S16
TAWNH**1430T**	●	□	14.3	7.6	5.0	
TAWNH**1440T**	●	□	14.4	7.6	5.0	
TAWNH**1450T**	●	□	14.5	7.5	5.0	
TAWNH**1460T**	●	□	14.6	7.5	5.0	
TAWNH**1470T**	●	□	14.7	7.5	5.0	TAWSNH 1500S20
TAWNH**1480T**	●	□	14.8	7.5	5.0	TAWMNH 1500S20
TAWNH**1490T**	●	□	14.9	7.5	5.0	TAWLNH 1500S20
TAWNH**1500T**	●	□	15.0	7.4	5.0	
TAWNH**1510T**	●	□	15.1	7.4	5.0	
TAWNH**1520T**	●	□	15.2	7.4	5.0	
TAWNH**1530T**	●	□	15.3	7.4	5.0	
TAWNH**1540T**	●	□	15.4	7.4	5.0	
TAWNH**1550T**	●	□	15.5	7.9	6.0	
TAWNH**1560T**	●	□	15.6	7.9	6.0	
TAWNH**1570T**	●	□	15.7	7.9	6.0	TAWSN 1600S20
TAWNH**1580T**	●	□	15.8	7.9	6.0	TAWMN 1600S20
TAWNH**1590T**	●	□	15.9	7.9	6.0	TAWLN 1600S20
TAWNH**1600T**	●	□	16.0	7.8	6.0	
TAWNH**1610T**	●	□	16.1	7.8	6.0	
TAWNH**1620T**	●	□	16.2	7.8	6.0	
TAWNH**1630T**	●	□	16.3	7.8	6.0	
TAWNH**1640T**	●	□	16.4	7.8	6.0	
TAWNH**1650T**	●	□	16.5	7.7	6.0	
TAWNH**1660T**	●	□	16.6	7.7	6.0	
TAWNH**1670T**	●	□	16.7	7.7	6.0	TAWSN 1700S20
TAWNH**1680T**	●	□	16.8	7.7	6.0	TAWMN 1700S20
TAWNH**1690T**	●	□	16.9	7.7	6.0	TAWLN 1700S20
TAWNH**1700T**	●	□	17.0	7.6	6.0	
TAWNH**1710T**	●	□	17.1	7.6	6.0	
TAWNH**1720T**	●	□	17.2	7.6	6.0	
TAWNH**1730T**	●	□	17.3	7.6	6.0	
TAWNH**1740T**	●	□	17.4	7.6	6.0	
TAWNH**1750T**	●	□	17.5	7.5	6.0	
TAWNH**1760T**	●	□	17.6	7.5	6.0	
TAWNH**1770T**	●	□	17.7	7.5	6.0	TAWSN 1800S20
TAWNH**1780T**	●	□	17.8	7.5	6.0	TAWMN 1800S20
TAWNH**1790T**	●	□	17.9	7.5	6.0	TAWLN 1800S20
TAWNH**1800T**	●	□	18.0	7.4	6.0	
TAWNH**1810T**	●	□	18.1	7.4	6.0	
TAWNH**1820T**	●	□	18.2	7.4	6.0	
TAWNH**1830T**	●	□	18.3	7.4	6.0	
TAWNH**1840T**	●	□	18.4	7.4	6.0	

Bestellbezeichnung	Lager VP15TF	Lager VP10H	Abmessungen (mm) CDI	LF	S	WSP-Träger
TAWNH1850T	●	□	18.5	9.3	7.0	
TAWNH**1860T**	●	□	18.6	9.3	7.0	
TAWNH**1870T**	●	□	18.7	9.3	7.0	TAWSN 1900S25
TAWNH**1880T**	●	□	18.8	9.3	7.0	TAWMN 1900S25
TAWNH**1890T**	●	□	18.9	9.3	7.0	TAWLN 1900S25
TAWNH**1900T**	●	□	19.0	9.2	7.0	
TAWNH**1910T**	●	□	19.1	9.2	7.0	
TAWNH**1920T**	●	□	19.2	9.2	7.0	
TAWNH**1930T**	●	□	19.3	9.2	7.0	
TAWNH**1940T**	●	□	19.4	9.2	7.0	
TAWNH**1950T**	●	□	19.5	9.1	7.0	
TAWNH**1960T**	●	□	19.6	9.1	7.0	
TAWNH**1970T**	●	□	19.7	9.1	7.0	TAWSN 2000S25
TAWNH**1980T**	●	□	19.8	9.1	7.0	TAWMN 2000S25
TAWNH**1990T**	●	□	19.9	9.1	7.0	TAWLN 2000S25
TAWNH**2000T**	●	□	20.0	9.0	7.0	
TAWNH**2010T**	□	□	20.1	9.0	7.0	
TAWNH**2020T**	□	□	20.2	9.0	7.0	
TAWNH**2030T**	□	□	20.3	9.0	7.0	
TAWNH**2040T**	□	□	20.4	9.0	7.0	
TAWNH**2050T**	●	□	20.5	8.9	7.0	
TAWNH**2060T**	□	□	20.6	8.9	7.0	
TAWNH**2070T**	□	□	20.7	8.9	7.0	TAWSN 2100S25
TAWNH**2080T**	□	□	20.8	8.9	7.0	TAWMN 2100S25
TAWNH**2090T**	□	□	20.9	8.9	7.0	TAWLN 2100S25
TAWNH**2100T**	●	□	21.0	8.8	7.0	
TAWNH**2110T**	□	□	21.1	8.8	7.0	
TAWNH**2120T**	□	□	21.2	8.8	7.0	
TAWNH**2130T**	□	□	21.3	8.8	7.0	
TAWNH**2140T**	□	□	21.4	8.8	7.0	
TAWNH**2150T**	●	□	21.5	10.6	8.0	
TAWNH**2160T**	□	□	21.6	10.6	8.0	
TAWNH**2170T**	□	□	21.7	10.6	8.0	TAWSN 2200S25
TAWNH**2180T**	□	□	21.8	10.6	8.0	TAWMN 2200S25
TAWNH**2190T**	□	□	21.9	10.6	8.0	TAWLN 2200S25
TAWNH**2200T**	●	□	22.0	10.5	8.0	
TAWNH**2210T**	□	□	22.1	10.5	8.0	
TAWNH**2220T**	□	□	22.2	10.5	8.0	
TAWNH**2230T**	□	□	22.3	10.5	8.0	
TAWNH**2240T**	□	□	22.4	10.5	8.0	

● : Lagerstandard. (Verpackungseinheit: 1Stk.)
□ : Nichtstandard, Herstellung nur auf Anfrage.

Bestellbezeichnung	Lager VP15TF	Lager VP10H	Abmessungen (mm) CDI	LF	S	WSP-Träger
TAWNH2250T	●	□	22.5	10.4	8.0	
TAWNH**2260T**	□	□	22.6	10.4	8.0	
TAWNH**2270T**	□	□	22.7	10.4	8.0	
TAWNH**2280T**	□	□	22.8	10.4	8.0	TAWSN 2300S25
TAWNH**2290T**	□	□	22.9	10.4	8.0	TAWMN 2300S25
TAWNH**2300T**	●	□	23.0	10.3	8.0	TAWLN 2300S25
TAWNH**2310T**	□	□	23.1	10.3	8.0	
TAWNH**2320T**	□	□	23.2	10.3	8.0	
TAWNH**2330T**	□	□	23.3	10.3	8.0	
TAWNH**2340T**	□	□	23.4	10.3	8.0	
TAWNH**2350T**	●	□	23.5	10.2	8.0	
TAWNH**2360T**	□	□	23.6	10.2	8.0	
TAWNH**2370T**	□	□	23.7	10.2	8.0	TAWSN 2400S32
TAWNH**2380T**	□	□	23.8	10.2	8.0	TAWMN 2400S32
TAWNH**2390T**	□	□	23.9	10.2	8.0	TAWLN 2400S32
TAWNH**2400T**	●	□	24.0	10.1	8.0	
TAWNH**2410T**	□	□	24.1	10.1	8.0	
TAWNH**2420T**	□	□	24.2	10.1	8.0	
TAWNH**2430T**	□	□	24.3	10.1	8.0	
TAWNH**2440T**	□	□	24.4	10.1	8.0	
TAWNH**2450T**	●	□	24.5	11.7	9.0	
TAWNH**2460T**	□	□	24.6	11.7	9.0	
TAWNH**2470T**	□	□	24.7	11.7	9.0	TAWSN 2500S32
TAWNH**2480T**	□	□	24.8	11.7	9.0	TAWMN 2500S32
TAWNH**2490T**	□	□	24.9	11.7	9.0	TAWLN 2500S32
TAWNH**2500T**	●	□	25.0	11.6	9.0	
TAWNH**2510T**	□	□	25.1	11.6	9.0	
TAWNH**2520T**	□	□	25.2	11.6	9.0	
TAWNH**2530T**	□	□	25.3	11.6	9.0	
TAWNH**2540T**	□	□	25.4	11.6	9.0	
TAWNH**2550T**	●	□	25.5	11.5	9.0	
TAWNH**2560T**	□	□	25.6	11.5	9.0	
TAWNH**2570T**	□	□	25.7	11.5	9.0	TAWSN 2600S32
TAWNH**2580T**	□	□	25.8	11.5	9.0	TAWMN 2600S32
TAWNH**2590T**	□	□	25.9	11.5	9.0	TAWLN 2600S32
TAWNH**2600T**	●	□	26.0	11.4	9.0	
TAWNH**2610T**	□	□	26.1	11.4	9.0	
TAWNH**2620T**	□	□	26.2	11.4	9.0	
TAWNH**2630T**	□	□	26.3	11.4	9.0	
TAWNH**2640T**	□	□	26.4	11.4	9.0	

Bestellbezeichnung	Lager VP15TF	Lager VP10H	Abmessungen (mm) CDI	LF	S	WSP-Träger
TAWNH2650T	●	□	26.5	11.3	9.0	
TAWNH**2660T**	□	□	26.6	11.3	9.0	
TAWNH**2670T**	□	□	26.7	11.3	9.0	TAWSN 2700S32
TAWNH**2680T**	□	□	26.8	11.3	9.0	
TAWNH**2690T**	□	□	26.9	11.3	9.0	TAWMN 2700S32
TAWNH**2700T**	●	□	27.0	11.2	9.0	
TAWNH**2710T**	□	□	27.1	11.2	9.0	TAWLN 2700S32
TAWNH**2720T**	□	□	27.2	11.2	9.0	
TAWNH**2730T**	□	□	27.3	11.2	9.0	
TAWNH**2740T**	□	□	27.4	11.2	9.0	
TAWNH**2750T**	●	□	27.5	12.3	10.0	
TAWNH**2760T**	□	□	27.6	12.3	10.0	
TAWNH**2770T**	□	□	27.7	12.3	10.0	TAWSN 2800S32
TAWNH**2780T**	□	□	27.8	12.3	10.0	
TAWNH**2790T**	□	□	27.9	12.3	10.0	TAWMN 2800S32
TAWNH**2800T**	●	□	28.0	12.2	10.0	
TAWNH**2810T**	□	□	28.1	12.2	10.0	TAWLN 2800S32
TAWNH**2820T**	□	□	28.2	12.2	10.0	
TAWNH**2830T**	□	□	28.3	12.2	10.0	
TAWNH**2840T**	□	□	28.4	12.2	10.0	
TAWNH**2850T**	●	□	28.5	12.1	10.0	
TAWNH**2860T**	□	□	28.6	12.1	10.0	
TAWNH**2870T**	□	□	28.7	12.1	10.0	TAWSN 2900S32
TAWNH**2880T**	□	□	28.8	12.1	10.0	
TAWNH**2890T**	□	□	28.9	12.1	10.0	TAWMN 2900S32
TAWNH**2900T**	●	□	29.0	12.0	10.0	
TAWNH**2910T**	□	□	29.1	12.0	10.0	TAWLN 2900S32
TAWNH**2920T**	□	□	29.2	12.0	10.0	
TAWNH**2930T**	□	□	29.3	12.0	10.0	
TAWNH**2940T**	□	□	29.4	12.0	10.0	
TAWNH**2950T**	●	□	29.5	11.9	10.0	
TAWNH**2960T**	□	□	29.6	11.9	10.0	
TAWNH**2970T**	□	□	29.7	11.9	10.0	TAWSN 3000S32
TAWNH**2980T**	□	□	29.8	11.9	10.0	
TAWNH**2990T**	□	□	29.9	11.9	10.0	TAWMN 3000S32
TAWNH**3000T**	●	□	30.0	11.8	10.0	
TAWNH**3010T**	□	□	30.1	11.8	10.0	TAWLN 3000S32
TAWNH**3020T**	□	□	30.2	11.8	10.0	
TAWNH**3030T**	□	□	30.3	11.8	10.0	
TAWNH**3040T**	□	□	30.4	11.8	10.0	

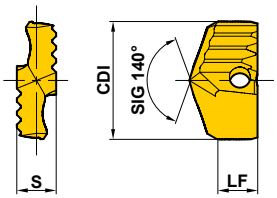
SCHNITTBEDINGUNGEN ➤ L150
EINSATZ HINWEISE ➤ L151
TECHNISCHE DATEN ➤ N001

TAW

WSP

Typ H
(Für Guss)





Bestellbezeichnung	Lager DP5010	Abmessungen (mm) CDI	LF	S	WSP-Träger
TAWKH1400TG	★	14.0	7.1	5.0	TAWSNH 1400S16
TAWKH**1410TG**	★	14.1	7.1	5.0	TAWMNH 1400S16
TAWKH**1420TG**	★	14.2	7.1	5.0	TAWLNH 1400S16
TAWKH**1430TG**	★	14.3	7.1	5.0	
TAWKH**1440TG**	★	14.4	7.1	5.0	
TAWKH**1450TG**	★	14.5	7.0	5.0	
TAWKH**1460TG**	★	14.6	7.0	5.0	
TAWKH**1470TG**	★	14.7	7.0	5.0	TAWSNH 1500S20
TAWKH**1480TG**	★	14.8	7.0	5.0	TAWMNH 1500S20
TAWKH**1490TG**	★	14.9	7.0	5.0	TAWLNH 1500S20
TAWKH**1500TG**	★	15.0	6.9	5.0	
TAWKH**1510TG**	★	15.1	6.9	5.0	
TAWKH**1520TG**	★	15.2	6.9	5.0	
TAWKH**1530TG**	★	15.3	6.9	5.0	
TAWKH**1540TG**	★	15.4	6.9	5.0	
TAWKH**1550TG**	★	15.5	7.3	6.0	
TAWKH**1560TG**	★	15.6	7.3	6.0	
TAWKH**1570TG**	★	15.7	7.3	6.0	TAWSN 1600S20
TAWKH**1580TG**	★	15.8	7.3	6.0	TAWMN 1600S20
TAWKH**1590TG**	★	15.9	7.3	6.0	TAWLN 1600S20
TAWKH**1600TG**	★	16.0	7.2	6.0	
TAWKH**1610TG**	★	16.1	7.2	6.0	
TAWKH**1620TG**	★	16.2	7.2	6.0	
TAWKH**1630TG**	★	16.3	7.2	6.0	
TAWKH**1640TG**	★	16.4	7.2	6.0	
TAWKH**1650TG**	★	16.5	7.1	6.0	
TAWKH**1660TG**	★	16.6	7.1	6.0	
TAWKH**1670TG**	★	16.7	7.1	6.0	TAWSN 1700S20
TAWKH**1680TG**	★	16.8	7.1	6.0	TAWMN 1700S20
TAWKH**1690TG**	★	16.9	7.1	6.0	TAWLN 1700S20
TAWKH**1700TG**	★	17.0	7.0	6.0	
TAWKH**1710TG**	★	17.1	7.0	6.0	
TAWKH**1720TG**	★	17.2	7.0	6.0	
TAWKH**1730TG**	★	17.3	7.0	6.0	
TAWKH**1740TG**	★	17.4	7.0	6.0	
TAWKH**1750TG**	★	17.5	6.8	6.0	
TAWKH**1760TG**	★	17.6	6.8	6.0	
TAWKH**1770TG**	★	17.7	6.8	6.0	TAWSN 1800S20
TAWKH**1780TG**	★	17.8	6.8	6.0	TAWMN 1800S20
TAWKH**1790TG**	★	17.9	6.8	6.0	TAWLN 1800S20
TAWKH**1800TG**	★	18.0	6.8	6.0	
TAWKH**1810TG**	★	18.1	6.8	6.0	
TAWKH**1820TG**	★	18.2	6.8	6.0	
TAWKH**1830TG**	★	18.3	6.8	6.0	
TAWKH**1840TG**	★	18.4	6.8	6.0	

Bestellbezeichnung	Lager DP5010	Abmessungen (mm) CDI	LF	S	WSP-Träger
TAWKH1850TG	●	18.5	8.6	7.0	
TAWKH**1860TG**	●	18.6	8.6	7.0	
TAWKH**1870TG**	●	18.7	8.6	7.0	TAWSN 1900S25
TAWKH**1880TG**	●	18.8	8.6	7.0	TAWMN 1900S25
TAWKH**1890TG**	●	18.9	8.6	7.0	TAWLN 1900S25
TAWKH**1900TG**	●	19.0	8.5	7.0	
TAWKH**1910TG**	●	19.1	8.5	7.0	
TAWKH**1920TG**	●	19.2	8.5	7.0	
TAWKH**1930TG**	●	19.3	8.5	7.0	
TAWKH**1940TG**	●	19.4	8.5	7.0	
TAWKH**1950TG**	●	19.5	8.4	7.0	
TAWKH**1960TG**	●	19.6	8.4	7.0	
TAWKH**1970TG**	●	19.7	8.4	7.0	TAWSN 2000S25
TAWKH**1980TG**	●	19.8	8.4	7.0	TAWMN 2000S25
TAWKH**1990TG**	●	19.9	8.4	7.0	TAWLN 2000S25
TAWKH**2000TG**	●	20.0	8.3	7.0	
TAWKH**2010TG**	□	20.1	8.3	7.0	
TAWKH**2020TG**	□	20.2	8.3	7.0	
TAWKH**2030TG**	□	20.3	8.3	7.0	
TAWKH**2040TG**	□	20.4	8.3	7.0	
TAWKH**2050TG**	●	20.5	8.2	7.0	
TAWKH**2060TG**	□	20.6	8.2	7.0	
TAWKH**2070TG**	□	20.7	8.2	7.0	TAWSN 2100S25
TAWKH**2080TG**	□	20.8	8.2	7.0	TAWMN 2100S25
TAWKH**2090TG**	□	20.9	8.2	7.0	TAWLN 2100S25
TAWKH**2100TG**	●	21.0	8.1	7.0	
TAWKH**2110TG**	□	21.1	8.1	7.0	
TAWKH**2120TG**	□	21.2	8.1	7.0	
TAWKH**2130TG**	□	21.3	8.1	7.0	
TAWKH**2140TG**	□	21.4	8.1	7.0	
TAWKH**2150TG**	●	21.5	9.8	8.0	
TAWKH**2160TG**	□	21.6	9.8	8.0	
TAWKH**2170TG**	□	21.7	9.8	8.0	TAWSN 2200S25
TAWKH**2180TG**	□	21.8	9.8	8.0	TAWMN 2200S25
TAWKH**2190TG**	□	21.9	9.8	8.0	TAWLN 2200S25
TAWKH**2200TG**	●	22.0	9.7	8.0	
TAWKH**2210TG**	□	22.1	9.7	8.0	
TAWKH**2220TG**	□	22.2	9.7	8.0	
TAWKH**2230TG**	□	22.3	9.7	8.0	
TAWKH**2240TG**	□	22.4	9.7	8.0	

● : Lagerstandard. (Verpackungseinheit: 1Stk.)
□ : Nichtstandard, Herstellung nur auf Anfrage.

Bestellbezeichnung	Lager DP5010	Abmessungen (mm) CDI	LF	S	WSP-Träger
TAWKH2250TG	●	22.5	9.6	8.0	
TAWKH**2260TG**	□	22.6	9.6	8.0	
TAWKH**2270TG**	□	22.7	9.6	8.0	TAWSN 2300S25
TAWKH**2280TG**	□	22.8	9.6	8.0	TAWMN 2300S25
TAWKH**2290TG**	□	22.9	9.6	8.0	TAWLN 2300S25
TAWKH**2300TG**	●	23.0	9.5	8.0	
TAWKH**2310TG**	□	23.1	9.5	8.0	
TAWKH**2320TG**	□	23.2	9.5	8.0	
TAWKH**2330TG**	□	23.3	9.5	8.0	
TAWKH**2340TG**	□	23.4	9.5	8.0	
TAWKH**2350TG**	●	23.5	9.4	8.0	
TAWKH**2360TG**	□	23.6	9.4	8.0	
TAWKH**2370TG**	□	23.7	9.4	8.0	TAWSN 2400S32
TAWKH**2380TG**	□	23.8	9.4	8.0	TAWMN 2400S32
TAWKH**2390TG**	□	23.9	9.4	8.0	TAWLN 2400S32
TAWKH**2400TG**	●	24.0	9.3	8.0	
TAWKH**2410TG**	□	24.1	9.3	8.0	
TAWKH**2420TG**	□	24.2	9.3	8.0	
TAWKH**2430TG**	□	24.3	9.3	8.0	
TAWKH**2440TG**	□	24.4	9.3	8.0	
TAWKH**2450TG**	●	24.5	10.8	9.0	
TAWKH**2460TG**	□	24.6	10.8	9.0	
TAWKH**2470TG**	□	24.7	10.8	9.0	TAWSN 2500S32
TAWKH**2480TG**	□	24.8	10.8	9.0	TAWMN 2500S32
TAWKH**2490TG**	□	24.9	10.8	9.0	TAWLN 2500S32
TAWKH**2500TG**	●	25.0	10.7	9.0	
TAWKH**2510TG**	□	25.1	10.7	9.0	
TAWKH**2520TG**	□	25.2	10.7	9.0	
TAWKH**2530TG**	□	25.3	10.7	9.0	
TAWKH**2540TG**	□	25.4	10.7	9.0	
TAWKH**2550TG**	●	25.5	10.6	9.0	
TAWKH**2560TG**	□	25.6	10.6	9.0	
TAWKH**2570TG**	□	25.7	10.6	9.0	TAWSN 2600S32
TAWKH**2580TG**	□	25.8	10.6	9.0	TAWMN 2600S32
TAWKH**2590TG**	□	25.9	10.6	9.0	TAWLN 2600S32
TAWKH**2600TG**	●	26.0	10.5	9.0	
TAWKH**2610TG**	□	26.1	10.5	9.0	
TAWKH**2620TG**	□	26.2	10.5	9.0	
TAWKH**2630TG**	□	26.3	10.5	9.0	
TAWKH**2640TG**	□	26.4	10.5	9.0	

Bestellbezeichnung	Lager DP5010	Abmessungen (mm) CDI	LF	S	WSP-Träger
TAWKH2650TG	●	26.5	10.4	9.0	
TAWKH**2660TG**	□	26.6	10.4	9.0	
TAWKH**2670TG**	□	26.7	10.4	9.0	TAWSN 2700S32
TAWKH**2680TG**	□	26.8	10.4	9.0	TAWMN 2700S32
TAWKH**2690TG**	□	26.9	10.4	9.0	TAWLN 2700S32
TAWKH**2700TG**	●	27.0	10.3	9.0	
TAWKH**2710TG**	□	27.1	10.3	9.0	
TAWKH**2720TG**	□	27.2	10.3	9.0	
TAWKH**2730TG**	□	27.3	10.3	9.0	
TAWKH**2740TG**	□	27.4	10.3	9.0	
TAWKH**2750TG**	●	27.5	11.3	10.0	
TAWKH**2760TG**	□	27.6	11.3	10.0	
TAWKH**2770TG**	□	27.7	11.3	10.0	TAWSN 2800S32
TAWKH**2780TG**	□	27.8	11.3	10.0	TAWMN 2800S32
TAWKH**2790TG**	□	27.9	11.3	10.0	TAWLN 2800S32
TAWKH**2800TG**	●	28.0	11.2	10.0	
TAWKH**2810TG**	□	28.1	11.2	10.0	
TAWKH**2820TG**	□	28.2	11.2	10.0	
TAWKH**2830TG**	□	28.3	11.2	10.0	
TAWKH**2840TG**	□	28.4	11.2	10.0	
TAWKH**2850TG**	●	28.5	11.1	10.0	
TAWKH**2860TG**	□	28.6	11.1	10.0	
TAWKH**2870TG**	□	28.7	11.1	10.0	TAWSN 2900S32
TAWKH**2880TG**	□	28.8	11.1	10.0	TAWMN 2900S32
TAWKH**2890TG**	□	28.9	11.1	10.0	TAWLN 2900S32
TAWKH**2900TG**	●	29.0	11.0	10.0	
TAWKH**2910TG**	□	29.1	11.0	10.0	
TAWKH**2920TG**	□	29.2	11.0	10.0	
TAWKH**2930TG**	□	29.3	11.0	10.0	
TAWKH**2940TG**	□	29.4	11.0	10.0	
TAWKH**2950TG**	●	29.5	10.9	10.0	
TAWKH**2960TG**	□	29.6	10.9	10.0	
TAWKH**2970TG**	□	29.7	10.9	10.0	TAWSN 3000S32
TAWKH**2980TG**	□	29.8	10.9	10.0	TAWMN 3000S32
TAWKH**2990TG**	□	29.9	10.9	10.0	TAWLN 3000S32
TAWKH**3000TG**	●	30.0	10.8	10.0	
TAWKH**3010TG**	□	30.1	10.8	10.0	
TAWKH**3020TG**	□	30.2	10.8	10.0	
TAWKH**3030TG**	□	30.3	10.8	10.0	
TAWKH**3040TG**	□	30.4	10.8	10.0	

SCHNITTBEDINGUNGEN ➤ L150
EINSATZ HINWEISE ➤ L151
TECHNISCHE DATEN ➤ N001

TAW

SCHNITTDATENEMPFEHLUNGEN

	Werkstoff	Bohrer Durchm. / Bedingung / Härte	ϕ14.0—ϕ15.4 Schnittgeschw. (m/min)	ϕ14.0—ϕ15.4 Vorschub (mm/U.)	ϕ15.5—ϕ18.4 Schnittgeschw. (m/min)	ϕ15.5—ϕ18.4 Vorschub (mm/U.)	ϕ18.5—ϕ21.4 Schnittgeschw. (m/min)	ϕ18.5—ϕ21.4 Vorschub (mm/U.)
P	Allg. Baustahl	≤180HB	70 (60—90)	0.20 (0.15—0.25)	80 (60—100)	0.25 (0.20—0.30)	90 (70—110)	0.25 (0.20—0.30)
P	C-Stahl Leg. Stahl	180—280HB	70 (60—90)	0.20 (0.15—0.25)	80 (60—100)	0.25 (0.20—0.30)	80 (60—100)	0.25 (0.20—0.30)
P	C-Stahl Leg. Stahl	280—350HB	60 (50—80)	0.15 (0.12—0.18)	70 (50—90)	0.20 (0.15—0.25)	70 (50—90)	0.20 (0.15—0.25)
M	Rostfreier Stahl	≤200HB	50 (40—60)	0.15 (0.12—0.18)	50 (40—60)	0.15 (0.12—0.18)	60 (50—70)	0.20 (0.15—0.22)
K	Guss	Zugfestigkeit ≤350MPa	70 (50—90)	0.20 (0.15—0.25)	100 (60—120)	0.25 (0.20—0.30)	120 (60—140)	0.25 (0.20—0.30)
K	Duktiler Guss	Zugfestigkeit ≤450MPa	70 (50—90)	0.20 (0.15—0.25)	80 (60—90)	0.25 (0.20—0.30)	80 (60—90)	0.25 (0.20—0.30)

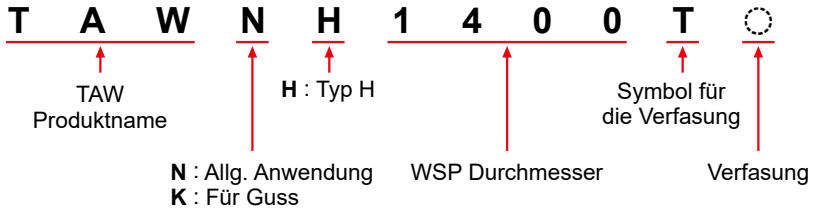
	Werkstoff	Bohrer Durchm. / Bedingung / Härte	ϕ21.5—ϕ24.4 Schnittgeschw. (m/min)	ϕ21.5—ϕ24.4 Vorschub (mm/U.)	ϕ24.5—ϕ27.4 Schnittgeschw. (m/min)	ϕ24.5—ϕ27.4 Vorschub (mm/U.)	ϕ27.5—ϕ30.4 Schnittgeschw. (m/min)	ϕ27.5—ϕ30.4 Vorschub (mm/U.)
P	Allg. Baustahl	≤180HB	100 (80—120)	0.30 (0.25—0.35)	110 (80—120)	0.30 (0.25—0.35)	110 (80—120)	0.30 (0.25—0.35)
P	C-Stahl Leg. Stahl	180—280HB	90 (70—110)	0.30 (0.25—0.35)	100 (80—120)	0.30 (0.25—0.35)	100 (80—120)	0.30 (0.25—0.35)
P	C-Stahl Leg. Stahl	280—350HB	80 (60—100)	0.25 (0.20—0.30)	90 (70—110)	0.25 (0.20—0.30)	90 (70—110)	0.25 (0.20—0.30)
M	Rostfreier Stahl	≤200HB	60 (50—70)	0.20 (0.15—0.22)	70 (60—80)	0.25 (0.20—0.28)	70 (60—80)	0.25 (0.20—0.28)
K	Guss	Zugfestigkeit ≤350MPa	130 (80—150)	0.35 (0.25—0.40)	140 (90—160)	0.35 (0.25—0.40)	140 (90—160)	0.40 (0.30—0.45)
K	Duktiler Guss	Zugfestigkeit ≤450MPa	90 (60—100)	0.30 (0.25—0.35)	100 (80—110)	0.30 (0.25—0.35)	100 (80—110)	0.30 (0.25—0.35)

(Bemerkung 1) Für das Bearbeiten von Bau- und rostfreiem Stahl empfehlen wir WSP mit Verfasung des Typ H.
(Bemerkung 2) Empfohlen für den Einsatz bei stabilen Bearbeitungsbedingungen. Verwenden Sie bitte eine interne Kühlmittelzufuhr bei Bearbeitungen von rostfreien Werkstoffen. (MMS ist nicht empfohlen)

FASENBREITE

Wenn eine WSP mit einer anderen Verfasung bevorzugt wird, verwenden Sie bitte folgende Symbole bei der Bestellbezeichnung.

(WSP Bestellbezeichnung)



(Verfasungen)

Verfasung	Fasenbreite (mm)
F	0
G	0.02—0.05
H	0.05—0.10
-(Standard)	0.10—0.15
K	0.15—0.20
S	0.20—0.25
M	0.25—0.30

Spannschraube mit Drehmoment gemäß nachfolgender Tabelle festziehen.

Bohrer Durchm.	Dreh-moment
ø14—ø15	2.0N•m
ø16—ø18	2.0N•m
ø19—ø21	3.5N•m
ø22—ø24	5.5N•m
ø25—ø27	8.5N•m
ø28—ø30	12.0N•m

GEBRAUCHSANLEITUNG

WSP-BEFESTIGUNG

- Entfernen Sie die Klemmschraube zum Installieren von WSP. (H Ausführung)
- Positionieren Sie die WSP an die Führungsrillen und schieben die WSP bis zum Anschlag ein.
- Spannen Sie die Klemmschraube bei gleichzeitigem Festhalten mit den Fingern. (Bild 1)
- Die WSP muß am Grund anliegen. (Bild 2)

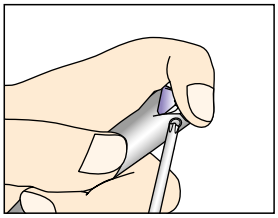


Bild 1

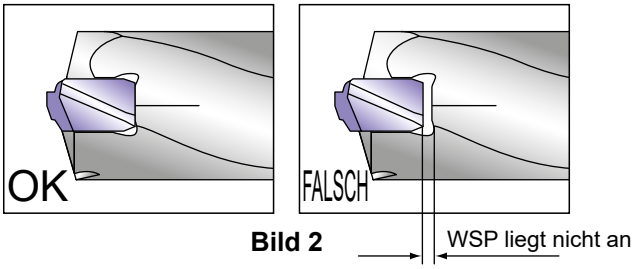


Bild 2

AUSTAUSCHEN DER WSP

- Bevor Sie die neue WSP einbauen, bitte den WSP-Sitz sorgfältig reinigen und den Schlitz mit dem beiliegenden Schlitzreiniger säubern.

BOHREN (WSP AUSFÜHRUNG)

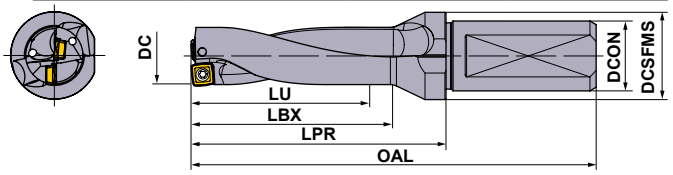
MVX

- Ideale Kombination von äußerer WSP mit CVD-Beschichtung und innerer WSP mit PVD-Beschichtung.
- Hochstabiler Werkzeugkörper für die Tieflochbohrung bis L/D=6-.

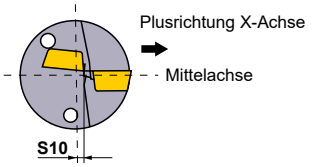
P M K N S H



L/D	Bearbeitungstoleranz (Leitlinien) (mm) ø17−ø33	ø33.5−ø47	ø48−ø63
2D, 3D	0 / + 0.25	0 / + 0.3	0 / + 0.3
4D, 5D	0 / + 0.35	0 / + 0.4	0 / + 0.45
6D	0 / + 0.45	0 / + 0.6	



Maximaler Versatz für die Drehbearbeitung



Spannschraube mit Drehmoment gemäß nachfolgender Tabelle festziehen.

Bohrer Durchm.	Dreh-moment
ø17−ø19.5	1.0N•m
ø20−ø22.5	2.0N•m
ø23−ø27.5	2.5N•m
ø28−ø46	3.5N•m
ø47−ø63	7.5N•m

DC (mm)	Bohr-tiefe (l/d)	Bestellbezeichnung	Lager	Zähne	Abmessungen (mm) LU	LBX	LPR	OAL	DCON	DCSFMS	S10 (mm)	WSP	Klemmschraube	Schlüssel
	2	**MVX1700X2F20**	●	2	34	41	56	99	20	25	0.5	**SOMX063005-○○**	TPS25	①TIP07F
	3	MVX**1700X3F20**	●	2	51	58	73	116	20	25	0.5	SOMX**063005-○○**	TPS25	①TIP07F
17.0	4	MVX**1700X4F20**	●	2	68	75	90	133	20	25	0.5	SOMX**063005-○○**	TPS25	①TIP07F
	5	MVX**1700X5F20**	●	2	85	92	107	150	20	25	0.5	SOMX**063005-○○**	TPS25	①TIP07F
	6	MVX**1700X6F20**	●	2	102	109	124	167	20	25	0.5	SOMX**063005-○○**	TPS25	①TIP07F
	2	MVX**1750X2F25**	●	2	35	42	62	112	25	32	0.45	SOMX**063005-○○**	TPS25	①TIP07F
	3	MVX**1750X3F25**	●	2	52.5	59.5	79.5	129.5	25	32	0.45	SOMX**063005-○○**	TPS25	①TIP07F
17.5	4	MVX**1750X4F25**	●	2	70	77	97	147	25	32	0.45	SOMX**063005-○○**	TPS25	①TIP07F
	5	MVX**1750X5F25**	●	2	87.5	94.5	114.5	164.5	25	32	0.45	SOMX**063005-○○**	TPS25	①TIP07F
	6	MVX**1750X6F25**	●	2	105	112	132	182	25	32	0.45	SOMX**063005-○○**	TPS25	①TIP07F
	2	MVX**1800X2F25**	●	2	38	43	63	113	25	32	0.4	SOMX**063005-○○**	TPS25	①TIP07F
	3	MVX**1800X3F25**	●	2	54	61	81	131	25	32	0.4	SOMX**063005-○○**	TPS25	①TIP07F
18.0	4	MVX**1800X4F25**	●	2	72	79	99	149	25	32	0.4	SOMX**063005-○○**	TPS25	①TIP07F
	5	MVX**1800X5F25**	●	2	90	97	117	167	25	32	0.4	SOMX**063005-○○**	TPS25	①TIP07F
	6	MVX**1800X6F25**	●	2	108	115	135	185	25	32	0.4	SOMX**063005-○○**	TPS25	①TIP07F
	2	MVX**1850X2F25**	●	2	37	44	64	114	25	32	0.35	SOMX**063005-○○**	TPS25	①TIP07F
	3	MVX**1850X3F25**	●	2	55.5	62.5	82.5	132.5	25	32	0.35	SOMX**063005-○○**	TPS25	①TIP07F
18.5	4	MVX**1850X4F25**	●	2	74	81	101	151	25	32	0.35	SOMX**063005-○○**	TPS25	①TIP07F
	5	MVX**1850X5F25**	●	2	92.5	99.5	119.5	169.5	25	32	0.35	SOMX**063005-○○**	TPS25	①TIP07F
	6	MVX**1850X6F25**	●	2	111	118	138	188	25	32	0.35	SOMX**063005-○○**	TPS25	①TIP07F
	2	MVX**1900X2F25**	●	2	38	45	65	115	25	32	0.3	SOMX**063005-○○**	TPS25	①TIP07F
	3	MVX**1900X3F25**	●	2	57	64	84	134	25	32	0.3	SOMX**063005-○○**	TPS25	①TIP07F
19.0	4	MVX**1900X4F25**	●	2	76	83	103	153	25	32	0.3	SOMX**063005-○○**	TPS25	①TIP07F
	5	MVX**1900X5F25**	●	2	95	102	122	172	25	32	0.3	SOMX**063005-○○**	TPS25	①TIP07F
	6	MVX**1900X6F25**	●	2	114	121	141	191	25	32	0.3	SOMX**063005-○○**	TPS25	①TIP07F
	2	MVX**1950X2F25**	●	2	39	46	66	116	25	32	0.25	SOMX**063005-○○**	TPS25	①TIP07F
	3	MVX**1950X3F25**	●	2	58.5	65.5	85.5	135.5	25	32	0.25	SOMX**063005-○○**	TPS25	①TIP07F
19.5	4	MVX**1950X4F25**	●	2	78	85	105	155	25	32	0.25	SOMX**063005-○○**	TPS25	①TIP07F
	5	MVX**1950X5F25**	●	2	97.5	104.5	124.5	174.5	25	32	0.25	SOMX**063005-○○**	TPS25	①TIP07F
	6	MVX**1950X6F25**	●	2	117	124	144	194	25	32	0.25	SOMX**063005-○○**	TPS25	①TIP07F
	2	MVX**2000X2F25**	●	2	40	47	67	117	25	32	0.6	SOMX**073505-○○**	TPS3	②TIP10W
	3	MVX**2000X3F25**	●	2	60	67	87	137	25	32	0.6	SOMX**073505-○○**	TPS3	②TIP10W
20.0	4	MVX**2000X4F25**	●	2	80	87	107	157	25	32	0.6	SOMX**073505-○○**	TPS3	②TIP10W
	5	MVX**2000X5F25**	●	2	100	107	127	177	25	32	0.6	SOMX**073505-○○**	TPS3	②TIP10W
	6	MVX**2000X6F25**	●	2	120	127	147	197	25	32	0.6	SOMX**073505-○○**	TPS3	②TIP10W

∗ Spannmoment (N • m) : TPS25=1.0, TPS3=2.0

● : **Lagerstandard.**

DC (mm)	Bohr-tiefe (l/d)	Bestellbezeichnung	Lager	Zähne	Abmessungen (mm) LU	LBX	LPR	OAL	DCON	DCSFMS	S10 (mm)	WSP	Klemmschraube	Schlüssel
20.5	2	**MVX2050X2F25**	●	2	41	48	68	118	25	32	0.55	**SOMX073505-○○**	TPS3	TIP10W
	3	MVX**2050X3F25**	●	2	61.5	68.5	88.5	138.5	25	32	0.55	SOMX**073505-○○**	TPS3	TIP10W
21.0	2	MVX**2100X2F25**	●	2	42	49	69	119	25	32	0.5	SOMX**073505-○○**	TPS3	TIP10W
	3	MVX**2100X3F25**	●	2	63	70	90	140	25	32	0.5	SOMX**073505-○○**	TPS3	TIP10W
	4	MVX**2100X4F25**	●	2	84	91	111	161	25	32	0.5	SOMX**073505-○○**	TPS3	TIP10W
	5	MVX**2100X5F25**	●	2	105	112	132	182	25	32	0.5	SOMX**073505-○○**	TPS3	TIP10W
	6	MVX**2100X6F25**	●	2	126	133	153	203	25	32	0.5	SOMX**073505-○○**	TPS3	TIP10W
21.5	2	MVX**2150X2F25**	●	2	43	50	70	120	25	32	0.45	SOMX**073505-○○**	TPS3	TIP10W
	3	MVX**2150X3F25**	●	2	64.5	71.5	91.5	141.5	25	32	0.45	SOMX**073505-○○**	TPS3	TIP10W
22.0	2	MVX**2200X2F25**	●	2	44	51	71	121	25	32	0.4	SOMX**073505-○○**	TPS3	TIP10W
	3	MVX**2200X3F25**	●	2	66	73	93	143	25	32	0.4	SOMX**073505-○○**	TPS3	TIP10W
	4	MVX**2200X4F25**	●	2	88	95	115	165	25	32	0.4	SOMX**073505-○○**	TPS3	TIP10W
	5	MVX**2200X5F25**	●	2	110	117	137	187	25	32	0.4	SOMX**073505-○○**	TPS3	TIP10W
	6	MVX**2200X6F25**	●	2	132	139	159	209	25	32	0.4	SOMX**073505-○○**	TPS3	TIP10W
22.5	2	MVX**2250X2F25**	●	2	45	52	72	122	25	32	0.35	SOMX**073505-○○**	TPS3	TIP10W
	3	MVX**2250X3F25**	●	2	67.5	74.5	94.5	144.5	25	32	0.35	SOMX**073505-○○**	TPS3	TIP10W
23.0	2	MVX**2300X2F25**	●	2	46	53	73	123	25	32	0.8	SOMX**084005-○○**	TPS351	TIP10W
	3	MVX**2300X3F25**	●	2	69	76	96	146	25	32	0.8	SOMX**084005-○○**	TPS351	TIP10W
	4	MVX**2300X4F25**	●	2	92	99	119	169	25	32	0.8	SOMX**084005-○○**	TPS351	TIP10W
	5	MVX**2300X5F25**	●	2	115	122	142	192	25	32	0.8	SOMX**084005-○○**	TPS351	TIP10W
	6	MVX**2300X6F25**	●	2	138	145	165	215	25	32	0.8	SOMX**084005-○○**	TPS351	TIP10W
23.5	2	MVX**2350X2F25**	●	2	47	54	74	124	25	32	0.75	SOMX**084005-○○**	TPS351	TIP10W
	3	MVX**2350X3F25**	●	2	70.5	77.5	97.5	147.5	25	32	0.75	SOMX**084005-○○**	TPS351	TIP10W
24.0	2	MVX**2400X2F25**	●	2	48	55	75	125	25	32	0.7	SOMX**084005-○○**	TPS351	TIP10W
	3	MVX**2400X3F25**	●	2	72	79	99	149	25	32	0.7	SOMX**084005-○○**	TPS351	TIP10W
	4	MVX**2400X4F25**	●	2	96	103	123	173	25	32	0.7	SOMX**084005-○○**	TPS351	TIP10W
	5	MVX**2400X5F25**	●	2	120	127	147	197	25	32	0.7	SOMX**084005-○○**	TPS351	TIP10W
	6	MVX**2400X6F25**	●	2	144	151	171	221	25	32	0.7	SOMX**084005-○○**	TPS351	TIP10W
24.5	2	MVX**2450X2F25**	●	2	49	56	76	126	25	32	0.65	SOMX**084005-○○**	TPS351	TIP10W
	3	MVX**2450X3F25**	●	2	73.5	80.5	100.5	150.5	25	32	0.65	SOMX**084005-○○**	TPS351	TIP10W
25.0	2	MVX**2500X2F25**	●	2	50	57	77	127	25	32	0.6	SOMX**084005-○○**	TPS351	TIP10W
	3	MVX**2500X3F25**	●	2	75	82	102	152	25	32	0.6	SOMX**084005-○○**	TPS351	TIP10W
	4	MVX**2500X4F25**	●	2	100	107	127	177	25	32	0.6	SOMX**084005-○○**	TPS351	TIP10W
	5	MVX**2500X5F25**	●	2	125	132	152	202	25	32	0.6	SOMX**084005-○○**	TPS351	TIP10W
	6	MVX**2500X6F25**	●	2	150	157	177	227	25	32	0.6	SOMX**084005-○○**	TPS351	TIP10W
25.5	2	MVX**2550X2F25**	●	2	51	58	78	128	25	32	0.6	SOMX**084005-○○**	TPS351	TIP10W
	3	MVX**2550X3F25**	●	2	76.5	83.5	103.5	153.5	25	32	0.6	SOMX**084005-○○**	TPS351	TIP10W
26.0	2	MVX**2600X2F32**	●	2	52	59	79	134	32	42	0.5	SOMX**084005-○○**	TPS351	TIP10W
	3	MVX**2600X3F32**	●	2	78	85	105	160	32	42	0.5	SOMX**084005-○○**	TPS351	TIP10W
	4	MVX**2600X4F32**	●	2	104	111	131	186	32	42	0.5	SOMX**084005-○○**	TPS351	TIP10W
	5	MVX**2600X5F32**	●	2	130	137	157	212	32	42	0.5	SOMX**084005-○○**	TPS351	TIP10W
	6	MVX**2600X6F32**	●	2	156	163	183	238	32	42	0.5	SOMX**084005-○○**	TPS351	TIP10W
26.5	2	MVX**2650X2F32**	●	2	53	60	80	135	32	42	0.5	SOMX**084005-○○**	TPS351	TIP10W
	3	MVX**2650X3F32**	●	2	79.5	86.5	106.5	161.5	32	42	0.5	SOMX**084005-○○**	TPS351	TIP10W
27.0	2	MVX**2700X2F32**	●	2	54	61	81	136	32	42	0.45	SOMX**084005-○○**	TPS351	TIP10W
	3	MVX**2700X3F32**	●	2	81	88	108	163	32	42	0.45	SOMX**084005-○○**	TPS351	TIP10W
	4	MVX**2700X4F32**	●	2	108	115	135	190	32	42	0.45	SOMX**084005-○○**	TPS351	TIP10W
	5	MVX**2700X5F32**	●	2	135	142	162	217	32	42	0.45	SOMX**084005-○○**	TPS351	TIP10W
	6	MVX**2700X6F32**	●	2	162	169	189	244	32	42	0.45	SOMX**084005-○○**	TPS351	TIP10W

∗ Spannmoment (N • m) : TPS3=2.0, TPS351=2.5

WSP BESCHREIBUNG	➤ L159
SCHNITTBEDINGUNGEN	➤ L160
VERSTELLHÜLSEN	➤ L170
EINSATZ HINWEISE	➤ L171
TECHNISCHE DATEN	➤ N001

BOHREN (WSP AUSFÜHRUNG)

MVX

DC (mm)	Bohr-tiefe (l/d)	Bestellbezeichnung	Lager	Zähne	Abmessungen (mm) LU	LBX	LPR	OAL	DCON	DCSFMS	S10 (mm)	WSP	Klemmschraube	Schlüssel
27.5	2	MVX2750X2F32	●	2	55	62	82	137	32	42	0.4	SOMX084005-○○	TPS351	TIP10W
	3	MVX2750X3F32	●	2	82.5	89.5	109.5	164.5	32	42	0.4	SOMX084005-○○	TPS351	TIP10W
28.0	2	MVX2800X2F32	●	2	56	63	83	138	32	42	0.85	SOMX094506-○○	TPS4	TIP15W
	3	MVX2800X3F32	●	2	84	91	111	166	32	42	0.85	SOMX094506-○○	TPS4	TIP15W
	4	MVX2800X4F32	●	2	112	119	139	194	32	42	0.85	SOMX094506-○○	TPS4	TIP15W
	5	MVX2800X5F32	●	2	140	147	167	222	32	42	0.85	SOMX094506-○○	TPS4	TIP15W
	6	MVX2800X6F32	●	2	168	175	195	250	32	42	0.85	SOMX094506-○○	TPS4	TIP15W
28.5	2	MVX2850X2F32	●	2	57	64	84	139	32	42	0.8	SOMX094506-○○	TPS4	TIP15W
	3	MVX2850X3F32	●	2	85.5	92.5	112.5	167.5	32	42	0.8	SOMX094506-○○	TPS4	TIP15W
29.0	2	MVX2900X2F32	●	2	65	65	85	140	32	42	0.75	SOMX094506-○○	TPS4	TIP15W
	3	MVX2900X3F32	●	2	87	94	114	169	32	42	0.75	SOMX094506-○○	TPS4	TIP15W
	4	MVX2900X4F32	●	2	116	123	143	198	32	42	0.75	SOMX094506-○○	TPS4	TIP15W
	5	MVX2900X5F32	●	2	145	152	172	227	32	42	0.75	SOMX094506-○○	TPS4	TIP15W
	6	MVX2900X6F32	●	2	174	181	201	256	32	42	0.75	SOMX094506-○○	TPS4	TIP15W
29.5	2	MVX2950X2F32	●	2	59	66	86	141	32	42	0.7	SOMX094506-○○	TPS4	TIP15W
	3	MVX2950X3F32	●	2	88.5	95.5	115.5	170.5	32	42	0.7	SOMX094506-○○	TPS4	TIP15W
30.0	2	MVX3000X2F32	●	2	60	67	87	142	32	42	0.65	SOMX094506-○○	TPS4	TIP15W
	3	MVX3000X3F32	●	2	90	97	117	172	32	42	0.65	SOMX094506-○○	TPS4	TIP15W
	4	MVX3000X4F32	●	2	120	127	147	202	32	42	0.65	SOMX094506-○○	TPS4	TIP15W
	5	MVX3000X5F32	●	2	150	157	177	232	32	42	0.65	SOMX094506-○○	TPS4	TIP15W
	6	MVX3000X6F32	●	2	180	187	207	262	32	42	0.65	SOMX094506-○○	TPS4	TIP15W
30.5	3	MVX3050X3F32	●	2	91.5	98.5	118.5	173.5	32	42	0.6	SOMX094506-○○	TPS4	TIP15W
31.0	2	MVX3100X2F32	●	2	62	69	89	144	32	42	0.55	SOMX094506-○○	TPS4	TIP15W
	3	MVX3100X3F32	●	2	93	100	120	175	32	42	0.55	SOMX094506-○○	TPS4	TIP15W
	4	MVX3100X4F32	●	2	124	131	151	206	32	42	0.55	SOMX094506-○○	TPS4	TIP15W
	2	MVX3100X2F40	●	2	62	69	89	154	40	50	0.55	SOMX094506-○○	TPS4	TIP15W
	3	MVX3100X3F40	●	2	93	100	120	185	40	50	0.55	SOMX094506-○○	TPS4	TIP15W
	4	MVX3100X4F40	●	2	124	131	151	216	40	50	0.55	SOMX094506-○○	TPS4	TIP15W
	5	MVX3100X5F40	●	2	155	162	182	247	40	50	0.55	SOMX094506-○○	TPS4	TIP15W
	6	MVX3100X6F40	●	2	186	193	213	278	40	50	0.55	SOMX094506-○○	TPS4	TIP15W
31.5	3	MVX3150X3F40	●	2	94.5	101.5	121.5	186.5	40	50	0.55	SOMX094506-○○	TPS4	TIP15W
32.0	2	MVX3200X2F32	●	2	64	71	91	146	32	42	0.45	SOMX094506-○○	TPS4	TIP15W
	3	MVX3200X3F32	●	2	96	103	123	178	32	42	0.45	SOMX094506-○○	TPS4	TIP15W
	4	MVX3200X4F32	●	2	128	135	155	210	32	42	0.45	SOMX094506-○○	TPS4	TIP15W
	2	MVX3200X2F40	●	2	64	71	91	156	40	50	0.45	SOMX094506-○○	TPS4	TIP15W
	3	MVX3200X3F40	●	2	96	103	123	188	40	50	0.45	SOMX094506-○○	TPS4	TIP15W
	4	MVX3200X4F40	●	2	128	135	155	220	40	50	0.45	SOMX094506-○○	TPS4	TIP15W
	5	MVX3200X5F40	●	2	160	167	187	252	40	50	0.45	SOMX094506-○○	TPS4	TIP15W
	6	MVX3200X6F40	●	2	192	199	219	284	40	50	0.45	SOMX094506-○○	TPS4	TIP15W
32.5	3	MVX3250X3F40	●	2	97.5	104.5	124.5	189.5	40	50	0.45	SOMX094506-○○	TPS4	TIP15W
33.0	2	MVX3300X2F32	●	2	66	73	93	148	32	42	0.4	SOMX094506-○○	TPS4	TIP15W
	3	MVX3300X3F32	●	2	99	106	126	181	32	42	0.4	SOMX094506-○○	TPS4	TIP15W
	4	MVX3300X4F32	●	2	132	139	159	214	32	42	0.4	SOMX094506-○○	TPS4	TIP15W
	2	MVX3300X2F40	●	2	66	73	93	158	40	50	0.4	SOMX094506-○○	TPS4	TIP15W
	3	MVX3300X3F40	●	2	99	106	126	191	40	50	0.4	SOMX094506-○○	TPS4	TIP15W
	4	MVX3300X4F40	●	2	132	139	159	224	40	50	0.4	SOMX094506-○○	TPS4	TIP15W
	5	MVX3300X5F40	●	2	165	172	192	257	40	50	0.4	SOMX094506-○○	TPS4	TIP15W
	6	MVX3300X6F40	●	2	198	205	225	290	40	50	0.4	SOMX094506-○○	TPS4	TIP15W

∗ Spannmoment (N • m) : TPS351=2.5, TPS4=3.5

● : Lagerstandard. ★ : Lagerstandard in Japan.

DC (mm)	Bohr-tiefe (l/d)	Bestellbezeichnung	Lager	Zähne	Abmessungen (mm) LU	LBX	LPR	OAL	DCON	DCSFMS	S10 (mm)	WSP	Klemmschraube	Schlüssel
33.5	3	**MVX3350X3F40**	●	2	100.5	107.5	127.5	192.5	40	50	1.2	**SOMX115506-○○**	TPS43	TIP15W
	2	MVX**3400X2F40**	●	2	68	75	105	170	40	50	1.1	SOMX**115506-○○**	TPS43	TIP15W
	3	MVX**3400X3F40**	●	2	102	109	139	204	40	50	1.1	SOMX**115506-○○**	TPS43	TIP15W
34.0	4	MVX**3400X4F40**	●	2	136	143	173	238	40	50	1.1	SOMX**115506-○○**	TPS43	TIP15W
	5	MVX**3400X5F40**	●	2	170	177	207	272	40	50	1.1	SOMX**115506-○○**	TPS43	TIP15W
	6	MVX**3400X6F40**	●	2	204	211	241	306	40	50	1.1	SOMX**115506-○○**	TPS43	TIP15W
34.5	3	MVX**3450X3F40**	●	2	103.5	110.5	140.5	205.5	40	50	1.1	SOMX**115506-○○**	TPS43	TIP15W
	2	MVX**3500X2F40**	●	2	70	77	107	172	40	50	1.0	SOMX**115506-○○**	TPS43	TIP15W
	3	MVX**3500X3F40**	●	2	105	112	142	207	40	50	1.0	SOMX**115506-○○**	TPS43	TIP15W
35.0	4	MVX**3500X4F40**	●	2	140	147	177	242	40	50	1.0	SOMX**115506-○○**	TPS43	TIP15W
	5	MVX**3500X5F40**	●	2	175	182	212	277	40	50	1.0	SOMX**115506-○○**	TPS43	TIP15W
	6	MVX**3500X6F40**	●	2	210	217	247	312	40	50	1.0	SOMX**115506-○○**	TPS43	TIP15W
35.5	3	MVX**3550X3F40**	●	2	106.5	113.5	143.5	208.5	40	50	1.0	SOMX**115506-○○**	TPS43	TIP15W
	2	MVX**3600X2F40**	●	2	72	79	109	174	40	50	1.0	SOMX**115506-○○**	TPS43	TIP15W
	3	MVX**3600X3F40**	●	2	108	115	145	210	40	50	1.0	SOMX**115506-○○**	TPS43	TIP15W
36.0	4	MVX**3600X4F40**	●	2	144	151	181	246	40	50	1.0	SOMX**115506-○○**	TPS43	TIP15W
	5	MVX**3600X5F40**	●	2	180	187	217	282	40	50	1.0	SOMX**115506-○○**	TPS43	TIP15W
	6	MVX**3600X6F40**	●	2	216	223	253	318	40	50	0.9	SOMX**115506-○○**	TPS43	TIP15W
	2	MVX**3700X2F40**	●	2	74	81	111	176	40	50	0.9	SOMX**115506-○○**	TPS43	TIP15W
	3	MVX**3700X3F40**	●	2	111	118	148	213	40	50	0.9	SOMX**115506-○○**	TPS43	TIP15W
37.0	4	MVX**3700X4F40**	●	2	148	155	185	250	40	50	0.9	SOMX**115506-○○**	TPS43	TIP15W
	5	MVX**3700X5F40**	●	2	185	192	222	287	40	50	0.9	SOMX**115506-○○**	TPS43	TIP15W
	6	MVX**3700X6F40**	●	2	222	229	259	324	40	50	0.9	SOMX**115506-○○**	TPS43	TIP15W
	2	MVX**3800X2F40**	●	2	76	83	113	178	40	50	0.8	SOMX**115506-○○**	TPS43	TIP15W
	3	MVX**3800X3F40**	●	2	114	121	151	216	40	50	0.8	SOMX**115506-○○**	TPS43	TIP15W
38.0	4	MVX**3800X4F40**	●	2	152	159	189	254	40	50	0.8	SOMX**115506-○○**	TPS43	TIP15W
	5	MVX**3800X5F40**	●	2	190	197	227	292	40	50	0.8	SOMX**115506-○○**	TPS43	TIP15W
	6	MVX**3800X6F40**	●	2	228	235	265	330	40	50	0.8	SOMX**115506-○○**	TPS43	TIP15W
	2	MVX**3900X2F40**	●	2	78	85	115	180	40	50	0.7	SOMX**115506-○○**	TPS43	TIP15W
	3	MVX**3900X3F40**	●	2	117	124	154	219	40	50	0.7	SOMX**115506-○○**	TPS43	TIP15W
39.0	4	MVX**3900X4F40**	●	2	156	163	193	258	40	50	0.7	SOMX**115506-○○**	TPS43	TIP15W
	5	MVX**3900X5F40**	●	2	195	202	232	297	40	50	0.7	SOMX**115506-○○**	TPS43	TIP15W
	6	MVX**3900X6F40**	●	2	234	241	271	336	40	50	0.7	SOMX**115506-○○**	TPS43	TIP15W
	2	MVX**4000X2F40**	●	2	80	87	117	182	40	50	1.5	SOMX**136008-○○**	TPS43	TIP15W
	3	MVX**4000X3F40**	●	2	120	127	157	222	40	50	1.5	SOMX**136008-○○**	TPS43	TIP15W
40.0	4	MVX**4000X4F40**	●	2	160	167	197	262	40	50	1.5	SOMX**136008-○○**	TPS43	TIP15W
	5	MVX**4000X5F40**	●	2	200	207	237	302	40	50	1.5	SOMX**136008-○○**	TPS43	TIP15W
	6	MVX**4000X6F40**	●	2	240	247	277	342	40	50	1.4	SOMX**136008-○○**	TPS43	TIP15W
	2	MVX**4100X2F40**	●	2	82	89	119	184	40	50	1.4	SOMX**136008-○○**	TPS43	TIP15W
	3	MVX**4100X3F40**	●	2	123	130	160	225	40	50	1.4	SOMX**136008-○○**	TPS43	TIP15W
41.0	4	MVX**4100X4F40**	●	2	164	171	201	266	40	50	1.4	SOMX**136008-○○**	TPS43	TIP15W
	5	MVX**4100X5F40**	●	2	205	212	242	307	40	50	1.4	SOMX**136008-○○**	TPS43	TIP15W
	6	MVX**4100X6F40**	●	2	246	253	283	348	40	50	1.4	SOMX**136008-○○**	TPS43	TIP15W
	2	MVX**4200X2F40**	●	2	84	91	121	186	40	50	1.3	SOMX**136008-○○**	TPS43	TIP15W
	3	MVX**4200X3F40**	●	2	126	133	163	228	40	50	1.3	SOMX**136008-○○**	TPS43	TIP15W
	4	MVX**4200X4F40**	●	2	168	175	205	270	40	63	1.3	SOMX**136008-○○**	TPS43	TIP15W
42.0	5	MVX**4200X5F40**	●	2	210	217	247	312	40	63	1.3	SOMX**136008-○○**	TPS43	TIP15W
	6	MVX**4200X6F40**	●	2	252	259	289	354	40	63	1.3	SOMX**136008-○○**	TPS43	TIP15W
	4	MVX**4200X4F50**	★	2	168	175	205	280	50	63	1.3	SOMX**136008-○○**	TPS43	TIP15W
	5	MVX**4200X5F50**	★	2	210	217	247	322	50	63	1.3	SOMX**136008-○○**	TPS43	TIP15W
	6	MVX**4200X6F50**	★	2	252	259	289	364	50	63	1.3	SOMX**136008-○○**	TPS43	TIP15W

★ Spannmoment (N • m) : TPS3=43.5

WSP BESCHREIBUNG	➤ L159	VERSTELLHÜLSEN	➤ L170
SCHNITTBEDINGUNGEN	➤ L160	EINSATZ HINWEISE	➤ L171
		TECHNISCHE DATEN	➤ N001

BOHREN (WSP AUSFÜHRUNG)

MVX

DC (mm)	Bohrtiefe (l/d)	Bestellbezeichnung	Lager	Zähne	Abmessungen (mm) LU	LBX	LPR	OAL	DCON	DCSFMS	S10 (mm)	WSP	Klemmschraube	Schlüssel
43.0	2	MVX4300X2F40	●	2	86	93	123	188	40	50	1.2	SOMX136008-○○	TPS43	①TIP15W
	3	MVX4300X3F40	●	2	129	136	166	231	40	50	1.2	SOMX136008-○○	TPS43	①TIP15W
	4	MVX4300X4F40	●	2	172	179	209	274	40	63	1.2	SOMX136008-○○	TPS43	①TIP15W
	5	MVX4300X5F40	●	2	215	222	252	317	40	63	1.2	SOMX136008-○○	TPS43	①TIP15W
	6	MVX4300X6F40	●	2	258	265	295	360	40	63	1.2	SOMX136008-○○	TPS43	①TIP15W
	4	MVX4300X4F50	★	2	172	179	209	284	50	63	1.2	SOMX136008-○○	TPS43	①TIP15W
	5	MVX4300X5F50	★	2	215	222	252	327	50	63	1.2	SOMX136008-○○	TPS43	①TIP15W
	6	MVX4300X6F50	★	2	258	265	295	370	50	63	1.2	SOMX136008-○○	TPS43	①TIP15W
44.0	2	MVX4400X2F40	●	2	88	95	125	190	40	50	1.1	SOMX136008-○○	TPS43	①TIP15W
	3	MVX4400X3F40	●	2	132	139	169	234	40	50	1.1	SOMX136008-○○	TPS43	①TIP15W
	4	MVX4400X4F40	●	2	176	183	213	278	40	63	1.1	SOMX136008-○○	TPS43	①TIP15W
	5	MVX4400X5F40	●	2	220	227	257	322	40	63	1.1	SOMX136008-○○	TPS43	①TIP15W
	4	MVX4400X4F50	★	2	176	183	213	288	50	63	1.1	SOMX136008-○○	TPS43	①TIP15W
	5	MVX4400X5F50	★	2	220	227	257	332	50	63	1.1	SOMX136008-○○	TPS43	①TIP15W
45.0	2	MVX4500X2F40	●	2	90	97	127	192	40	50	1.0	SOMX136008-○○	TPS43	①TIP15W
	3	MVX4500X3F40	●	2	135	142	172	237	40	50	1.0	SOMX136008-○○	TPS43	①TIP15W
	4	MVX4500X4F40	●	2	180	187	217	282	40	63	1.0	SOMX136008-○○	TPS43	①TIP15W
	5	MVX4500X5F40	●	2	225	232	262	327	40	63	1.0	SOMX136008-○○	TPS43	①TIP15W
	4	MVX4500X4F50	★	2	180	187	217	292	50	63	1.0	SOMX136008-○○	TPS43	①TIP15W
	5	MVX4500X5F50	★	2	225	232	262	337	50	63	1.0	SOMX136008-○○	TPS43	①TIP15W
46.0	2	MVX4600X2F40	●	2	92	99	129	194	40	50	0.9	SOMX136008-○○	TPS43	①TIP15W
	3	MVX4600X3F40	●	2	138	145	175	240	40	50	0.9	SOMX136008-○○	TPS43	①TIP15W
	4	MVX4600X4F40	●	2	184	191	221	286	40	63	0.9	SOMX136008-○○	TPS43	①TIP15W
	5	MVX4600X5F40	●	2	230	237	267	332	40	63	0.9	SOMX136008-○○	TPS43	①TIP15W
	4	MVX4600X4F50	★	2	184	191	221	296	50	63	0.9	SOMX136008-○○	TPS43	①TIP15W
	5	MVX4600X5F50	★	2	230	237	267	342	50	63	0.9	SOMX136008-○○	TPS43	①TIP15W
47.0	2	MVX4700X2F40	●	2	94	101	141	206	40	63	1.9	SOMX166508-○○	TPS54	②TIP25D
	3	MVX4700X3F40	●	2	141	148	188	253	40	63	1.9	SOMX166508-○○	TPS54	②TIP25D
	4	MVX4700X4F40	●	2	188	195	235	300	40	63	1.9	SOMX166508-○○	TPS54	②TIP25D
	5	MVX4700X5F40	●	2	235	242	282	347	40	63	1.9	SOMX166508-○○	TPS54	②TIP25D
	4	MVX4700X4F50	★	2	188	195	235	310	50	63	1.9	SOMX166508-○○	TPS54	②TIP25D
	5	MVX4700X5F50	★	2	235	242	282	357	50	63	1.9	SOMX166508-○○	TPS54	②TIP25D
48.0	2	MVX4800X2F40	●	2	96	103	143	208	40	63	1.8	SOMX166508-○○	TPS54	②TIP25D
	3	MVX4800X3F40	●	2	144	151	191	256	40	63	1.8	SOMX166508-○○	TPS54	②TIP25D
	4	MVX4800X4F40	●	2	192	199	239	304	40	63	1.8	SOMX166508-○○	TPS54	②TIP25D
	5	MVX4800X5F40	●	2	240	247	287	352	40	63	1.8	SOMX166508-○○	TPS54	②TIP25D
	4	MVX4800X4F50	★	2	192	199	239	314	50	63	1.8	SOMX166508-○○	TPS54	②TIP25D
	5	MVX4800X5F50	★	2	240	247	287	362	50	63	1.8	SOMX166508-○○	TPS54	②TIP25D
49.0	2	MVX4900X2F40	●	2	98	105	145	210	40	63	1.7	SOMX166508-○○	TPS54	②TIP25D
	3	MVX4900X3F40	●	2	147	154	194	259	40	63	1.7	SOMX166508-○○	TPS54	②TIP25D
	4	MVX4900X4F40	●	2	196	203	243	308	40	63	1.7	SOMX166508-○○	TPS54	②TIP25D
	5	MVX4900X5F40	●	2	245	252	292	357	40	63	1.7	SOMX166508-○○	TPS54	②TIP25D
	4	MVX4900X4F50	★	2	196	203	243	318	50	63	1.7	SOMX166508-○○	TPS54	②TIP25D
	5	MVX4900X5F50	★	2	245	252	292	367	50	63	1.7	SOMX166508-○○	TPS54	②TIP25D

★ Spannmoment (N • m) : TPS43=3.5, TPS54=7.5

● : Lagerstandard. ★ : Lagerstandard in Japan.

DC (mm)	Bohr-tiefe (l/d)	Bestellbezeichnung	Lager	Zähne	Abmessungen (mm) LU	LBX	LPR	OAL	DCON	DCSFMS	S10 (mm)	WSP	Klemmschraube	Schlüssel
50.0	2	**MVX5000X2F40**	●	2	100	107	147	212	40	63	1.6	**SOMX166508-○○**	TPS54	TIP25D
	3	MVX**5000X3F40**	●	2	150	157	197	262	40	63	1.6	SOMX**166508-○○**	TPS54	TIP25D
	4	MVX**5000X4F40**	●	2	200	207	247	312	40	63	1.6	SOMX**166508-○○**	TPS54	TIP25D
	5	MVX**5000X5F40**	●	2	250	257	297	362	40	63	1.6	SOMX**166508-○○**	TPS54	TIP25D
	4	MVX**5000X4F50**	★	2	200	207	247	322	50	63	1.6	SOMX**166508-○○**	TPS54	TIP25D
	5	MVX**5000X5F50**	★	2	250	257	297	372	50	63	1.6	SOMX**166508-○○**	TPS54	TIP25D
51.0	2	MVX**5100X2F40**	●	2	102	109	149	214	40	63	1.5	SOMX**166508-○○**	TPS54	TIP25D
	3	MVX**5100X3F40**	●	2	153	160	200	265	40	63	1.5	SOMX**166508-○○**	TPS54	TIP25D
	4	MVX**5100X4F40**	●	2	204	211	251	316	40	63	1.5	SOMX**166508-○○**	TPS54	TIP25D
	5	MVX**5100X5F40**	●	2	255	262	302	367	40	63	1.5	SOMX**166508-○○**	TPS54	TIP25D
	4	MVX**5100X4F50**	★	2	204	211	251	326	50	63	1.5	SOMX**166508-○○**	TPS54	TIP25D
	5	MVX**5100X5F50**	★	2	255	262	302	377	50	63	1.5	SOMX**166508-○○**	TPS54	TIP25D
52.0	2	MVX**5200X2F40**	●	2	104	111	151	216	40	63	1.4	SOMX**166508-○○**	TPS54	TIP25D
	3	MVX**5200X3F40**	●	2	156	163	203	268	40	63	1.4	SOMX**166508-○○**	TPS54	TIP25D
	4	MVX**5200X4F40**	●	2	208	215	255	320	40	63	1.4	SOMX**166508-○○**	TPS54	TIP25D
	5	MVX**5200X5F40**	●	2	260	267	307	372	40	63	1.4	SOMX**166508-○○**	TPS54	TIP25D
	4	MVX**5200X4F50**	★	2	208	215	255	330	50	63	1.4	SOMX**166508-○○**	TPS54	TIP25D
	5	MVX**5200X5F50**	★	2	260	267	307	382	50	63	1.4	SOMX**166508-○○**	TPS54	TIP25D
53.0	2	MVX**5300X2F40**	●	2	106	113	153	218	40	63	1.3	SOMX**166508-○○**	TPS54	TIP25D
	3	MVX**5300X3F40**	●	2	159	166	206	271	40	63	1.3	SOMX**166508-○○**	TPS54	TIP25D
	4	MVX**5300X4F40**	●	2	212	219	259	324	40	63	1.3	SOMX**166508-○○**	TPS54	TIP25D
	5	MVX**5300X5F40**	●	2	265	272	312	377	40	63	1.3	SOMX**166508-○○**	TPS54	TIP25D
	4	MVX**5300X4F50**	★	2	212	219	259	334	50	63	1.3	SOMX**166508-○○**	TPS54	TIP25D
	5	MVX**5300X5F50**	★	2	265	272	312	387	50	63	1.3	SOMX**166508-○○**	TPS54	TIP25D
54.0	2	MVX**5400X2F40**	●	2	108	115	155	220	40	63	1.2	SOMX**166508-○○**	TPS54	TIP25D
	3	MVX**5400X3F40**	●	2	162	169	209	274	40	63	1.2	SOMX**166508-○○**	TPS54	TIP25D
	4	MVX**5400X4F40**	●	2	216	223	263	328	40	63	1.2	SOMX**166508-○○**	TPS54	TIP25D
	5	MVX**5400X5F40**	●	2	270	277	317	382	40	63	1.2	SOMX**166508-○○**	TPS54	TIP25D
	4	MVX**5400X4F50**	★	2	216	223	263	338	50	63	1.2	SOMX**166508-○○**	TPS54	TIP25D
	5	MVX**5400X5F50**	★	2	270	277	317	392	50	63	1.2	SOMX**166508-○○**	TPS54	TIP25D
55.0	2	MVX**5500X2F40**	●	2	110	117	157	222	40	63	1.1	SOMX**166508-○○**	TPS54	TIP25D
	3	MVX**5500X3F40**	●	2	165	172	212	277	40	63	1.1	SOMX**166508-○○**	TPS54	TIP25D
	4	MVX**5500X4F40**	●	2	220	227	267	332	40	63	1.1	SOMX**166508-○○**	TPS54	TIP25D
	5	MVX**5500X5F40**	●	2	275	282	322	387	40	63	1.1	SOMX**166508-○○**	TPS54	TIP25D
	4	MVX**5500X4F50**	★	2	220	227	267	342	50	63	1.1	SOMX**166508-○○**	TPS54	TIP25D
	5	MVX**5500X5F50**	●	2	275	282	322	397	50	63	1.1	SOMX**166508-○○**	TPS54	TIP25D
56.0	2	MVX**5600X2F40**	●	2	112	119	159	224	40	63	1.0	SOMX**166508-○○**	TPS54	TIP25D
	3	MVX**5600X3F40**	●	2	168	175	215	280	40	63	1.0	SOMX**166508-○○**	TPS54	TIP25D
	4	MVX**5600X4F40**	●	2	224	231	271	336	40	63	1.0	SOMX**166508-○○**	TPS54	TIP25D
	5	MVX**5600X5F40**	●	2	280	287	327	392	40	63	1.0	SOMX**166508-○○**	TPS54	TIP25D
	4	MVX**5600X4F50**	★	2	224	231	271	346	50	63	1.0	SOMX**166508-○○**	TPS54	TIP25D
	5	MVX**5600X5F50**	★	2	280	287	327	402	50	63	1.0	SOMX**166508-○○**	TPS54	TIP25D

✱ Spannmoment (N • m) : TPS54=7.5

WSP BESCHREIBUNG	➤ L159
SCHNITTBEDINGUNGEN	➤ L160
VERSTELLHÜLSEN	➤ L170
EINSATZ HINWEISE	➤ L171
TECHNISCHE DATEN	➤ N001

BOHREN (WSP AUSFÜHRUNG)

MVX

DC (mm)	Bohr-tiefe (l/d)	Bestellbezeichnung	Lager	Zähne	Abmessungen (mm) LU	LBX	LPR	OAL	DCON	DCSFMS	S10 (mm)	WSP	Klemmschraube	Schlüssel
57.0	2	MVX5700X2F40	●	2	114	121	161	226	40	68	1.5	SOMX187008-○○	TPS54	TIP25D
	3	MVX5700X3F40	●	2	171	178	218	283	40	68	1.5	SOMX187008-○○	TPS54	TIP25D
	4	MVX5700X4F40	●	2	228	235	275	340	40	68	1.5	SOMX187008-○○	TPS54	TIP25D
	5	MVX5700X5F40	●	2	285	292	332	397	40	68	1.5	SOMX187008-○○	TPS54	TIP25D
	4	MVX5700X4F50	★	2	228	235	275	350	50	68	1.5	SOMX187008-○○	TPS54	TIP25D
	5	MVX5700X5F50	★	2	285	292	332	407	50	68	1.5	SOMX187008-○○	TPS54	TIP25D
58.0	2	MVX5800X2F40	●	2	116	123	163	228	40	68	1.4	SOMX187008-○○	TPS54	TIP25D
	3	MVX5800X3F40	●	2	174	181	221	286	40	68	1.4	SOMX187008-○○	TPS54	TIP25D
	4	MVX5800X4F40	●	2	232	239	279	344	40	68	1.4	SOMX187008-○○	TPS54	TIP25D
	5	MVX5800X5F40	●	2	290	297	337	402	40	68	1.4	SOMX187008-○○	TPS54	TIP25D
	4	MVX5800X4F50	★	2	232	239	279	354	50	68	1.4	SOMX187008-○○	TPS54	TIP25D
	5	MVX5800X5F50	★	2	290	297	337	412	50	68	1.4	SOMX187008-○○	TPS54	TIP25D
59.0	2	MVX5900X2F40	●	2	118	125	165	230	40	68	1.3	SOMX187008-○○	TPS54	TIP25D
	3	MVX5900X3F40	●	2	177	184	224	289	40	68	1.3	SOMX187008-○○	TPS54	TIP25D
	4	MVX5900X4F40	●	2	236	243	283	348	40	68	1.3	SOMX187008-○○	TPS54	TIP25D
	5	MVX5900X5F40	●	2	295	302	342	407	40	68	1.3	SOMX187008-○○	TPS54	TIP25D
	4	MVX5900X4F50	★	2	236	243	283	358	50	68	1.3	SOMX187008-○○	TPS54	TIP25D
	5	MVX5900X5F50	★	2	295	302	342	417	50	68	1.3	SOMX187008-○○	TPS54	TIP25D
60.0	2	MVX6000X2F40	●	2	120	127	167	232	40	68	1.2	SOMX187008-○○	TPS54	TIP25D
	3	MVX6000X3F40	●	2	180	187	227	292	40	68	1.2	SOMX187008-○○	TPS54	TIP25D
	4	MVX6000X4F40	●	2	240	247	287	352	40	68	1.2	SOMX187008-○○	TPS54	TIP25D
	5	MVX6000X5F40	●	2	300	307	347	412	40	68	1.2	SOMX187008-○○	TPS54	TIP25D
	4	MVX6000X4F50	★	2	240	247	287	362	50	68	1.2	SOMX187008-○○	TPS54	TIP25D
	5	MVX6000X5F50	★	2	300	307	347	422	50	68	1.2	SOMX187008-○○	TPS54	TIP25D
61.0	2	MVX6100X2F40	●	2	122	129	169	234	40	68	1.1	SOMX187008-○○	TPS54	TIP25D
	3	MVX6100X3F40	●	2	183	190	230	295	40	68	1.1	SOMX187008-○○	TPS54	TIP25D
	4	MVX6100X4F40	●	2	244	251	291	356	40	68	1.1	SOMX187008-○○	TPS54	TIP25D
	5	MVX6100X5F40	●	2	305	312	352	417	40	68	1.1	SOMX187008-○○	TPS54	TIP25D
	4	MVX6100X4F50	★	2	244	251	291	366	50	68	1.1	SOMX187008-○○	TPS54	TIP25D
	5	MVX6100X5F50	★	2	305	312	352	427	50	68	1.1	SOMX187008-○○	TPS54	TIP25D
62.0	2	MVX6200X2F40	●	2	124	131	171	236	40	68	1.0	SOMX187008-○○	TPS54	TIP25D
	3	MVX6200X3F40	●	2	186	193	233	298	40	68	1.0	SOMX187008-○○	TPS54	TIP25D
	4	MVX6200X4F40	●	2	248	255	295	360	40	68	1.0	SOMX187008-○○	TPS54	TIP25D
	5	MVX6200X5F40	●	2	310	317	357	422	40	68	1.0	SOMX187008-○○	TPS54	TIP25D
	4	MVX6200X4F50	★	2	248	255	295	370	50	68	1.0	SOMX187008-○○	TPS54	TIP25D
	5	MVX6200X5F50	★	2	310	317	357	432	50	68	1.0	SOMX187008-○○	TPS54	TIP25D
63.0	2	MVX6300X2F40	●	2	126	133	173	238	40	68	0.8	SOMX187008-○○	TPS54	TIP25D
	3	MVX6300X3F40	●	2	189	196	236	301	40	68	0.8	SOMX187008-○○	TPS54	TIP25D
	4	MVX6300X4F40	●	2	252	259	299	364	40	68	0.8	SOMX187008-○○	TPS54	TIP25D
	5	MVX6300X5F40	●	2	315	322	362	427	40	68	0.8	SOMX187008-○○	TPS54	TIP25D
	4	MVX6300X4F50	★	2	252	259	299	374	50	68	0.8	SOMX187008-○○	TPS54	TIP25D
	5	MVX6300X5F50	★	2	315	322	362	437	50	68	0.8	SOMX187008-○○	TPS54	TIP25D

∗ Spannmoment (N • m) : TPS54=7.5

● : Lagerstandard. ★ : Lagerstandard in Japan.

WSP

Form	Bohrer-Durchm.	WSP-Nummer	Abmessungen (mm)			Lager					Geometrie
			IC	S	RE	VP15TF	MC1020	MC5020	DP8020	TF15	
UM	ø17—ø19.5	**SOMX063005-UM**	6.0	3.0	0.5	●	●	●			
	ø20—ø22.5	SOMX**073505-UM**	7.0	3.5	0.5	●	●	●			
	ø23—ø27.5	SOMX**084005-UM**	8.3	4.0	0.5	●	●	●			
	ø28—ø33	SOMX**094506-UM**	9.7	4.5	0.6	●	●	●			
	ø33.5—ø39	SOMX**115506-UM**	11.6	5.5	0.6	●	●	●			
	ø40—ø46	SOMX**136008-UM**	13.8	6.0	0.8	●	●	●			
	ø47—ø56	SOMX**166508-UM**	16.5	6.5	0.8	●	●	●			
Allgemeine Anwendung	ø57—ø63	SOMX**187008-UM**	18.2	7.0	0.8	●	●	●			
US	ø17—ø19.5	**SOMX063005-US**	6.0	3.0	0.5	●					
	ø20—ø22.5	SOMX**073505-US**	7.0	3.5	0.5	●					
	ø23—ø27.5	SOMX**084005-US**	8.0	4.0	0.5	●					
	ø28—ø33	SOMX**094506-US**	9.0	4.5	0.6	●					
	ø33.5—ø39	SOMX**115506-US**	11.6	5.5	0.6	●					
	ø40—ø46	SOMX**136008-US**	13.8	6.0	0.8	●					
	ø47—ø56	SOMX**166508-US**	16.5	6.5	0.8	●					
Für rostfreien Stahl und innere Schneide	ø57—ø63	SOMX**187008-US**	18.2	7.0	0.8	●					
UH NEW	ø17—ø19.5	**SOMX062905-UH**	6.0	2.9	0.5				●		
	ø20—ø22.5	SOMX**073405-UH**	7.0	3.4	0.5				●		
	ø23—ø27.5	SOMX**083905-UH**	8.3	3.9	0.5				●		
	ø28—ø33	SOMX**094406-UH**	9.7	4.4	0.6				●		
	ø33.5—ø39	SOMX**115406-UH**	11.6	5.4	0.6				●		
	ø40—ø46	SOMX**135908-UH**	13.8	5.9	0.8				●		
	ø47—ø56	SOMX**166408-UH**	16.5	6.4	0.8				●		
	ø57—ø63	SOMX**186908-UH**	18.2	6.9	0.8				●		
UN NEW	ø17—ø19.5	**SOGX063005-UN**	6.0	3.0	0.5					●	
	ø20—ø22.5	SOGX**073505-UN**	7.0	3.5	0.5					●	
	ø23—ø27.5	SOGX**084005-UN**	8.3	4.0	0.5					●	
	ø28—ø33	SOGX**094506-UN**	9.7	4.5	0.6					●	
	ø33.5—ø39	SOGX**115506-UN**	11.6	5.5	0.6					●	
	ø40—ø46	SOGX**136008-UN**	13.8	6.0	0.8					●	
	ø47—ø56	SOGX**166508-UN**	16.5	6.5	0.8					●	
	ø57—ø63	SOGX**187008-UN**	18.2	7.0	0.8					●	

(Bemerkung 1) US-Spanbrecher ist ausschließlich für den Einsatz als innere WSP konzipiert.
(Bemerkung 2) MC1020 und MC5020 sind ausschließlich für den Einsatz als äußere WSP konzipiert.

SCHNITTBEDINGUNGEN ➤ L160
EINSATZ HINWEISE ➤ L171
TECHNISCHE DATEN ➤ N001

MVX

EMPFOHLENE SCHNITTDATEN

	Werkstoff	Härte	vc (m/min)	Spanbrecher	ϕ17—ϕ19.5 fr (mm/U)			
			l/d=2—6		l/d=2, 3	l/d=4, 5	l/d=6	
P	Baustahl (C15, Ck15)	≤180HB	200 (180—235)	UM	0.05 (0.04—0.06)	0.05 (0.04—0.06)	0.04 (0.04—0.05)	
	C-Stahl, legierter Stahl (Ck45, 41CrMo4)	180—280HB	140 (115—180)	UM	0.08 (0.06—0.14)	0.08 (0.06—0.09)	0.05 (0.04—0.06)	
	C-Stahl, legierter Stahl (100Cr6)	280—350HB	100 (75—140)	UM	0.08 (0.06—0.14)	0.08 (0.06—0.09)	0.05 (0.04—0.06)	
	Legierter Werkzeugstahl (X210Cr12)	≤350HB	135 (100—170)	UM	0.08 (0.06—0.14)	0.08 (0.06—0.09)	0.05 (0.04—0.06)	
M	Austenitisch rostfreier Stahl (X5CrNi18-10, X5CrNiMo17-12-2)	≤200HB	130 (80—180)	US	0.08 (0.06—0.12)	0.06 (0.04—0.08)	0.05 (0.04—0.06)	
				UM	0.06 (0.04—0.08)	0.05 (0.04—0.06)	0.04 (0.04—0.05)	
	Austenitisch rostfreier Stahl (X2CrNiN18-9, X5CrNiMoN17-11-2)	>200HB	130 (80—180)	US	0.08 (0.06—0.12)	0.06 (0.04—0.08)	0.05 (0.04—0.06)	
				UM	0.06 (0.04—0.08)	0.05 (0.04—0.06)	0.04 (0.04—0.05)	
	Rostfreie Stähle, ferritisch und martensitisch (X12Cr13, X6Cr17)	≤200HB	120 (80—165)	US	0.08 (0.06—0.12)	0.06 (0.04—0.08)	0.05 (0.04—0.06)	
				UM	0.06 (0.04—0.08)	0.05 (0.04—0.06)	0.04 (0.04—0.05)	
	Rostfreie Stähle, ferritisch und martensitisch (X17CrNi16-2, X30Cr13)	>200HB	120 (80—165)	US	0.08 (0.06—0.12)	0.06 (0.04—0.08)	0.05 (0.04—0.06)	
				UM	0.06 (0.04—0.08)	0.05 (0.04—0.06)	0.04 (0.04—0.05)	
K	Guss (GG25, GG30)	≤350MPa	160 (130—195)	UM	0.11 (0.08—0.14)	0.09 (0.08—0.10)	0.05 (0.04—0.06)	
	Duktiler Guss (GG40)	≤450MPa	100 (80—135)	UM	0.11 (0.08—0.14)	0.09 (0.08—0.10)	0.05 (0.04—0.06)	
	Duktiler Guss (GGG70)	≤800HB	100 (70—125)	UM	0.11 (0.08—0.14)	0.09 (0.08—0.10)	0.05 (0.04—0.06)	

1) Schnittgeschwindigkeit um 30 % reduzieren, wenn VP15TF als äußere WSP verwendet wird.
2) L/D=3 ist die empfohlene maximale Tiefe, wenn ausschließlich externe Kühlung verwendet wird.
3) Interne Kühlkanäle sind beim Bohren von rostfreien Stählen unerlässlich.

	ϕ20 – ϕ23.5			ϕ24 – ϕ29.5			ϕ30 – ϕ63		
	fr (mm/U)			fr (mm/U)			fr (mm/U)		
	l/d=2, 3	l/d=4, 5	l/d=6	l/d=2, 3	l/d=4, 5	l/d=6	l/d=2, 3	l/d=4, 5	l/d=6
	0.06 (0.04—0.08)	0.06 (0.04—0.07)	0.04 (0.04—0.05)	0.07 (0.04—0.08)	0.06 (0.04—0.07)	0.05 (0.04—0.06)	0.08 (0.06—0.10)	0.07 (0.06—0.08)	0.06 (0.06—0.07)
	0.10 (0.06—0.18)	0.09 (0.06—0.12)	0.07 (0.06—0.08)	0.12 (0.08—0.18)	0.10 (0.08—0.12)	0.09 (0.08—0.10)	0.14 (0.08—0.24)	0.12 (0.08—0.16)	0.11 (0.10—0.12)
	0.10 (0.06—0.18)	0.09 (0.06—0.12)	0.07 (0.06—0.08)	0.12 (0.08—0.18)	0.10 (0.08—0.12)	0.09 (0.08—0.10)	0.14 (0.08—0.24)	0.12 (0.08—0.16)	0.11 (0.10—0.12)
	0.10 (0.06—0.18)	0.09 (0.06—0.12)	0.07 (0.06—0.08)	0.12 (0.08—0.18)	0.10 (0.08—0.12)	0.09 (0.08—0.10)	0.14 (0.08—0.24)	0.12 (0.08—0.16)	0.10 (0.08—0.12)
	0.10 (0.06—0.14)	0.07 (0.06—0.08)	0.06 (0.06—0.07)	0.10 (0.06—0.14)	0.08 (0.06—0.10)	0.07 (0.06—0.08)	0.10 (0.06—0.14)	0.09 (0.06—0.12)	0.07 (0.06—0.10)
	0.08 (0.06—0.12)	0.07 (0.06—0.08)	0.06 (0.06—0.07)	0.09 (0.06—0.12)	0.07 (0.06—0.09)	0.06 (0.06—0.08)	0.09 (0.06—0.12)	0.08 (0.06—0.10)	0.07 (0.06—0.08)
	0.10 (0.06—0.14)	0.07 (0.06—0.08)	0.06 (0.06—0.07)	0.10 (0.06—0.14)	0.08 (0.06—0.10)	0.07 (0.06—0.08)	0.10 (0.06—0.14)	0.09 (0.06—0.12)	0.07 (0.06—0.10)
	0.08 (0.06—0.12)	0.07 (0.06—0.08)	0.06 (0.06—0.07)	0.09 (0.06—0.12)	0.07 (0.06—0.09)	0.06 (0.06—0.08)	0.09 (0.06—0.12)	0.08 (0.06—0.10)	0.07 (0.06—0.08)
	0.10 (0.06—0.14)	0.07 (0.06—0.08)	0.06 (0.06—0.07)	0.10 (0.06—0.14)	0.08 (0.06—0.10)	0.07 (0.06—0.08)	0.10 (0.06—0.14)	0.09 (0.06—0.12)	0.07 (0.06—0.10)
	0.08 (0.06—0.12)	0.07 (0.06—0.08)	0.06 (0.06—0.07)	0.09 (0.06—0.12)	0.07 (0.06—0.09)	0.06 (0.06—0.08)	0.09 (0.06—0.12)	0.08 (0.06—0.10)	0.07 (0.06—0.08)
	0.10 (0.06—0.14)	0.07 (0.06—0.08)	0.06 (0.06—0.07)	0.10 (0.06—0.14)	0.08 (0.06—0.10)	0.07 (0.06—0.08)	0.10 (0.06—0.14)	0.09 (0.06—0.12)	0.07 (0.06—0.10)
	0.08 (0.06—0.12)	0.07 (0.06—0.08)	0.06 (0.06—0.07)	0.09 (0.06—0.12)	0.07 (0.06—0.09)	0.06 (0.06—0.08)	0.09 (0.06—0.12)	0.08 (0.06—0.10)	0.07 (0.06—0.08)
	0.14 (0.10—0.18)	0.10 (0.10—0.12)	0.07 (0.06—0.08)	0.15 (0.10—0.20)	0.11 (0.10—0.13)	0.09 (0.08—0.10)	0.15 (0.10—0.20)	0.12 (0.10—0.13)	0.11 (0.10—0.12)
	0.13 (0.10—0.16)	0.10 (0.10—0.11)	0.07 (0.06—0.08)	0.14 (0.10—0.18)	0.11 (0.10—0.12)	0.09 (0.08—0.10)	0.15 (0.10—0.20)	0.12 (0.10—0.13)	0.11 (0.10—0.12)
	0.13 (0.10—0.16)	0.10 (0.10—0.11)	0.07 (0.06—0.08)	0.14 (0.10—0.18)	0.11 (0.10—0.12)	0.09 (0.08—0.10)	0.15 (0.10—0.20)	0.12 (0.10—0.13)	0.11 (0.10—0.12)

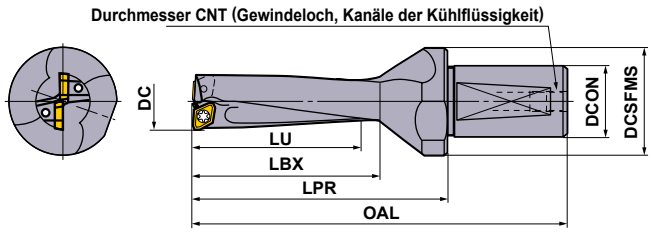
EINSATZ HINWEISE ➤ L171
TECHNISCHE DATEN ➤ N001

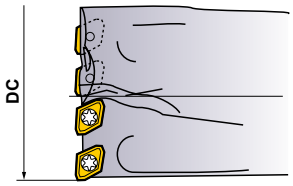
TAFS,TAFM,TAFL

P M K N S H



* Die seitliche Schraube am Flansch dient nicht zur Kühlmittelzufuhr!





Zähnezahl = 4 (DC ≥ 49)

Bohrer Durchm. DC (mm)	Bohr-tiefe (l/d)	Bestellbezeichnung	Lager	Anzahl an WSP	Abmessungen (mm) LU	LBX	LPR	OAL	DCON	DCSFMS	CNT	WSP Bezeichnung	Spannschraube	Schlüssel
12.0	2	TAFS1200F20	●	2	24	29	39	82	20	25	PT1/8	GCMT040204-UO	TS2	TKY06F
	3	TAFM1200F20	●	2	36	41	51	94	20	25	PT1/8	GCMT040204-UO	TS2	TKY06F
	4	TAFL1200F20	●	2	48	53	63	106	20	25	PT1/8	GCMT040204-UO	TS2	TKY06F
12.5	2	TAFS1250F20	●	2	25	29	39	82	20	25	PT1/8	GCMT040204-UO	TS2	TKY06F
	3	TAFM1250F20	●	2	37.5	41	51	94	20	25	PT1/8	GCMT040204-UO	TS2	TKY06F
	4	TAFL1250F20	●	2	50	53	63	106	20	25	PT1/8	GCMT040204-UO	TS2	TKY06F
13.0	2	TAFS1300F20	●	2	26	31	41	84	20	25	PT1/8	GCMT040204-UO	TS2	TKY06F
	3	TAFM1300F20	●	2	39	44	54	97	20	25	PT1/8	GCMT040204-UO	TS2	TKY06F
	4	TAFL1300F20	●	2	52	57	67	110	20	25	PT1/8	GCMT040204-UO	TS2	TKY06F
13.5	2	TAFS1350F20	●	2	27	31	41	84	20	25	PT1/8	GCMT040204-UO	TS2	TKY06F
	3	TAFM1350F20	●	2	40.5	44	54	97	20	25	PT1/8	GCMT040204-UO	TS2	TKY06F
	4	TAFL1350F20	●	2	54	57	67	110	20	25	PT1/8	GCMT040204-UO	TS2	TKY06F
14.0	2	TAFS1400F20	●	2	28	33	43	86	20	25	PT1/8	GCMT040204-UO	TS2	TKY06F
	3	TAFM1400F20	●	2	42	47	57	100	20	25	PT1/8	GCMT040204-UO	TS2	TKY06F
	4	TAFL1400F20	●	2	56	61	71	114	20	25	PT1/8	GCMT040204-UO	TS2	TKY06F
14.5	2	TAFS1450F20	●	2	29	33	43	86	20	25	PT1/8	GCMT040204-UO	TS2	TKY06F
	3	TAFM1450F20	●	2	43.5	47	57	100	20	25	PT1/8	GCMT040204-UO	TS2	TKY06F
	4	TAFL1450F20	●	2	58	61	71	114	20	25	PT1/8	GCMT040204-UO	TS2	TKY06F
15.0	2	TAFS1500F20	●	2	30	35	45	88	20	25	PT1/8	GPMT060204-UO	TS2	TKY06F
	3	TAFM1500F20	●	2	45	50	60	103	20	25	PT1/8	GPMT060204-UO	TS2	TKY06F
	4	TAFL1500F20	●	2	60	65	75	118	20	25	PT1/8	GPMT060204-UO	TS2	TKY06F
15.5	2	TAFS1550F20	●	2	31	35	45	88	20	25	PT1/8	GPMT060204-UO	TS2	TKY06F
	3	TAFM1550F20	●	2	46.5	50	60	103	20	25	PT1/8	GPMT060204-UO	TS2	TKY06F
	4	TAFL1550F20	●	2	62	65	75	118	20	25	PT1/8	GPMT060204-UO	TS2	TKY06F
16.0	2	TAFS1600F25	●	2	32	38	57	107	25	35	PT1/8	GPMT060204-UO	TS2	TKY06F
	3	TAFM1600F25	●	2	48	54	73	123	25	35	PT1/8	GPMT060204-UO	TS2	TKY06F
	4	TAFL1600F25	●	2	64	70	89	139	25	35	PT1/8	GPMT060204-UO	TS2	TKY06F
16.5	2	TAFS1650F25	●	2	33	38	57	107	25	35	PT1/8	GPMT060204-UO	TS2	TKY06F
	3	TAFM1650F25	●	2	49.5	54	73	123	25	35	PT1/8	GPMT060204-UO	TS2	TKY06F

● : Lagerstandard.

Bohrer Durchm. DC (mm)	Bohr-tiefe (l/d)	Bestellbezeichnung	Lager	Anzahl an WSP	Abmessungen (mm)							WSP Bezeichnung		
					LU	LBX	LPR	OAL	DCON	DCSFMS	CNT		Spannschraube	Schlüssel
17.0	2	TAFS1700F25	●	2	34	41	59	109	25	35	PT1/8	GPMT060204-UO	TS2	TKY06F
	3	TAFM1700F25	●	2	51	58	76	126	25	35	PT1/8	GPMT060204-UO	TS2	TKY06F
	4	TAFL1700F25	●	2	68	75	93	143	25	35	PT1/8	GPMT060204-UO	TS2	TKY06F
17.5	2	TAFS1750F25	●	2	35	41	59	109	25	35	PT1/8	GPMT060204-UO	TS2	TKY06F
	3	TAFM1750F25	●	2	52.5	58	76	126	25	35	PT1/8	GPMT060204-UO	TS2	TKY06F
	4	TAFL1750F25	●	2	70	75	93	143	25	35	PT1/8	GPMT060204-UO	TS2	TKY06F
18.0	2	TAFS1800F25	●	2	36	43	61	111	25	35	PT1/8	GPMT070204-UO	TS25	TKY08F
	3	TAFM1800F25	●	2	54	61	79	129	25	35	PT1/8	GPMT070204-UO	TS25	TKY08F
	4	TAFL1800F25	●	2	72	79	97	147	25	35	PT1/8	GPMT070204-UO	TS25	TKY08F
18.5	2	TAFS1850F25	●	2	37	43	61	111	25	35	PT1/8	GPMT070204-UO	TS25	TKY08F
	3	TAFM1850F25	●	2	55.5	61	79	129	25	35	PT1/8	GPMT070204-UO	TS25	TKY08F
19.0	2	TAFS1900F25	●	2	38	46	63	113	25	35	PT1/8	GPMT070204-UO	TS25	TKY08F
	3	TAFM1900F25	●	2	57	65	82	132	25	35	PT1/8	GPMT070204-UO	TS25	TKY08F
	4	TAFL1900F25	●	2	76	84	101	151	25	35	PT1/8	GPMT070204-UO	TS25	TKY08F
19.5	2	TAFS1950F25	●	2	39	46	63	113	25	35	PT1/8	GPMT070204-UO	TS25	TKY08F
	3	TAFM1950F25	●	2	58.5	65	82	132	25	35	PT1/8	GPMT070204-UO	TS25	TKY08F
20.0	2	TAFS2000F25	●	2	40	48	65	115	25	35	PT1/8	GPMT070204-UO	TS25	TKY08F
	3	TAFM2000F25	●	2	60	68	85	135	25	35	PT1/8	GPMT070204-UO	TS25	TKY08F
	4	TAFL2000F25	●	2	80	88	105	155	25	35	PT1/8	GPMT070204-UO	TS25	TKY08F
20.5	2	TAFS2050F25	●	2	41	48	65	115	25	35	PT1/8	GPMT070204-UO	TS25	TKY08F
	3	TAFM2050F25	●	2	61.5	68	85	135	25	35	PT1/8	GPMT070204-UO	TS25	TKY08F
21.0	2	TAFS2100F25	●	2	42	50	67	117	25	35	PT1/8	GPMT070204-UO	TS25	TKY08F
	3	TAFM2100F25	●	2	63	71	88	138	25	35	PT1/8	GPMT070204-UO	TS25	TKY08F
	4	TAFL2100F25	●	2	84	92	109	159	25	35	PT1/8	GPMT070204-UO	TS25	TKY08F
21.5	2	TAFS2150F25	●	2	43	50	67	117	25	35	PT1/8	GPMT070204-UO	TS25	TKY08F
	3	TAFM2150F25	●	2	64.5	71	88	138	25	35	PT1/8	GPMT070204-UO	TS25	TKY08F
22.0	2	TAFS2200F25	●	2	44	53	69	119	25	35	PT1/8	GPMT070204-UO	TS25	TKY08F
	3	TAFM2200F25	●	2	66	75	91	141	25	35	PT1/8	GPMT070204-UO	TS25	TKY08F
	4	TAFL2200F25	●	2	88	97	113	163	25	35	PT1/8	GPMT070204-UO	TS25	TKY08F
22.5	2	TAFS2250F25	●	2	45	53	69	119	25	35	PT1/8	GPMT070204-UO	TS25	TKY08F
	3	TAFM2250F25	●	2	67.5	75	91	141	25	35	PT1/8	GPMT070204-UO	TS25	TKY08F
23.0	2	TAFS2300F25	●	2	46	55	71	121	25	35	PT1/8	GPMT090304-UO	TS3	TKY08F
	3	TAFM2300F25	●	2	69	78	94	144	25	35	PT1/8	GPMT090304-UO	TS3	TKY08F
	4	TAFL2300F25	●	2	92	101	117	167	25	35	PT1/8	GPMT090304-UO	TS3	TKY08F
23.5	2	TAFS2350F25	●	2	47	55	71	121	25	35	PT1/8	GPMT090304-UO	TS3	TKY08F
	3	TAFM2350F25	●	2	70.5	78	94	144	25	35	PT1/8	GPMT090304-UO	TS3	TKY08F
	4	TAFL2350F25	●	2	94	101	117	167	25	35	PT1/8	GPMT090304-UO	TS3	TKY08F
24.0	2	TAFS2400F25	●	2	48	58	73	123	25	35	PT1/8	GPMT090304-UO	TS3	TKY08F
	3	TAFM2400F25	●	2	72	82	97	147	25	35	PT1/8	GPMT090304-UO	TS3	TKY08F
	4	TAFL2400F25	●	2	96	106	121	171	25	35	PT1/8	GPMT090304-UO	TS3	TKY08F
24.5	2	TAFS2450F25	●	2	49	58	73	123	25	35	PT1/8	GPMT090304-UO	TS3	TKY08F
	3	TAFM2450F25	●	2	73.5	82	97	147	25	35	PT1/8	GPMT090304-UO	TS3	TKY08F
25.0	2	TAFS2500F32	●	2	50	60	75	130	32	42	PT1/8	GPMT090304-UO	TS3	TKY08F
	3	TAFM2500F32	●	2	75	85	100	155	32	42	PT1/8	GPMT090304-UO	TS3	TKY08F
	4	TAFL2500F25	●	2	100	110	125	180	25	35	PT1/8	GPMT090304-UO	TS3	TKY08F
	4	TAFL2500F32	●	2	100	110	125	180	32	42	PT1/8	GPMT090304-UO	TS3	TKY08F
25.5	2	TAFS2550F32	●	2	51	60	75	130	32	42	PT1/8	GPMT090304-UO	TS3	TKY08F
	3	TAFM2550F32	●	2	76.5	85	100	155	32	42	PT1/8	GPMT090304-UO	TS3	TKY08F

WSP BESCHREIBUNG	➤ L168
SCHNITTBEDINGUNGEN	➤ L169
VERSTELLHÜLSEN	➤ L170
EINSATZ HINWEISE	➤ L171
TECHNISCHE DATEN	➤ N001

TAFS,TAFM,TAFL

Bohrer Durchm. DC (mm)	Bohr-tiefe (l/d)	Bestellbezeichnung	Lager	Anzahl an WSP	Abmessungen (mm) LU	LBX	LPR	OAL	DCON	DCSFMS	CNT	WSP Bezeichnung	Spannschraube	Schlüssel
26.0	2	TAFS2600F32	●	2	52	62	77	132	32	42	PT1/8	GPMT090304-U○	TS3	①TKY08F
	3	TAFM2600F32	●	2	78	88	103	158	32	42	PT1/8	GPMT090304-U○	TS3	①TKY08F
	4	TAFL2600F32	●	2	104	114	129	184	32	42	PT1/8	GPMT090304-U○	TS3	①TKY08F
26.5	2	TAFS2650F32	●	2	53	62	77	132	32	42	PT1/8	GPMT090304-U○	TS3	①TKY08F
	3	TAFM2650F32	●	2	79.5	88	103	158	32	42	PT1/8	GPMT090304-U○	TS3	①TKY08F
	4	TAFL2650F32	●	2	106	114	129	184	32	42	PT1/8	GPMT090304-U○	TS3	①TKY08F
27.0	2	TAFS2700F32	●	2	54	65	79	134	32	42	PT1/8	GPMT090304-U○	TS3	①TKY08F
	3	TAFM2700F32	●	2	81	92	106	161	32	42	PT1/8	GPMT090304-U○	TS3	①TKY08F
	4	TAFL2700F32	●	2	108	119	133	188	32	42	PT1/8	GPMT090304-U○	TS3	①TKY08F
27.5	2	TAFS2750F32	●	2	55	65	79	134	32	42	PT1/8	GPMT090304-U○	TS3	①TKY08F
	3	TAFM2750F32	●	2	82.5	92	106	161	32	42	PT1/8	GPMT090304-U○	TS3	①TKY08F
28.0	2	TAFS2800F32	●	2	56	67	81	136	32	42	PT1/8	GPMT11T308-U○	TS4	②TKY15D
	3	TAFM2800F32	●	2	84	95	109	164	32	42	PT1/8	GPMT11T308-U○	TS4	②TKY15D
	4	TAFL2800F32	●	2	112	123	137	192	32	42	PT1/8	GPMT11T308-U○	TS4	②TKY15D
28.5	2	TAFS2850F32	●	2	57	67	81	136	32	42	PT1/8	GPMT11T308-U○	TS4	②TKY15D
	3	TAFM2850F32	●	2	85.5	95	109	164	32	42	PT1/8	GPMT11T308-U○	TS4	②TKY15D
	4	TAFL2850F40	●	2	114	123	137	202	40	50	PT1/8	GPMT11T308-U○	TS4	②TKY15D
29.0	2	TAFS2900F32	●	2	58	70	83	138	32	42	PT1/8	GPMT11T308-U○	TS4	②TKY15D
	3	TAFM2900F32	●	2	87	99	112	167	32	42	PT1/8	GPMT11T308-U○	TS4	②TKY15D
	4	TAFL2900F32	●	2	116	128	141	196	32	42	PT1/8	GPMT11T308-U○	TS4	②TKY15D
29.5	2	TAFS2950F32	●	2	59	70	83	138	32	42	PT1/8	GPMT11T308-U○	TS4	②TKY15D
	3	TAFM2950F32	●	2	88.5	99	112	167	32	42	PT1/8	GPMT11T308-U○	TS4	②TKY15D
30.0	2	TAFS3000F32	●	2	60	72	90	145	32	50	PT1/8	GPMT11T308-U○	TS4	②TKY15D
	2	TAFS3000F40	●	2	60	72	90	155	40	50	PT1/4	GPMT11T308-U○	TS4	②TKY15D
	3	TAFM3000F32	●	2	90	102	120	175	32	50	PT1/8	GPMT11T308-U○	TS4	②TKY15D
	3	TAFM3000F40	●	2	90	102	120	185	40	50	PT1/4	GPMT11T308-U○	TS4	②TKY15D
	4	TAFL3000F32	●	2	120	132	150	205	32	42	PT1/8	GPMT11T308-U○	TS4	②TKY15D
	4	TAFL3000F40	●	2	120	132	150	215	40	50	PT1/4	GPMT11T308-U○	TS4	②TKY15D
30.5	2	TAFS3050F40	●	2	61	72	90	155	40	50	PT1/4	GPMT11T308-U○	TS4	②TKY15D
	3	TAFM3050F40	●	2	91.5	102	120	185	40	50	PT1/4	GPMT11T308-U○	TS4	②TKY15D
31.0	2	TAFS3100F32	●	2	62	74	92	147	32	50	PT1/8	GPMT11T308-U○	TS4	②TKY15D
	2	TAFS3100F40	●	2	62	74	92	157	40	50	PT1/4	GPMT11T308-U○	TS4	②TKY15D
	3	TAFM3100F32	●	2	93	105	123	178	32	50	PT1/8	GPMT11T308-U○	TS4	②TKY15D
	3	TAFM3100F40	●	2	93	105	123	188	40	50	PT1/4	GPMT11T308-U○	TS4	②TKY15D
	4	TAFL3100F32	●	2	124	135	154	209	32	42	PT1/8	GPMT11T308-U○	TS4	②TKY15D
	4	TAFL3100F40	●	2	124	136	154	219	40	50	PT1/4	GPMT11T308-U○	TS4	②TKY15D
32.0	2	TAFS3200F32	●	2	64	77	94	149	32	50	PT1/8	GPMT11T308-U○	TS4	②TKY15D
	2	TAFS3200F40	●	2	64	77	94	159	40	50	PT1/4	GPMT11T308-U○	TS4	②TKY15D
	3	TAFM3200F32	●	2	96	109	126	181	32	50	PT1/8	GPMT11T308-U○	TS4	②TKY15D
	3	TAFM3200F40	●	2	96	109	126	191	40	50	PT1/4	GPMT11T308-U○	TS4	②TKY15D
	4	TAFL3200F32	●	2	128	141	158	213	32	42	PT1/8	GPMT11T308-U○	TS4	②TKY15D
	4	TAFL3200F40	●	2	128	141	158	223	40	50	PT1/4	GPMT11T308-U○	TS4	②TKY15D
33.0	2	TAFS3300F32	●	2	66	79	96	151	32	50	PT1/8	GPMT11T308-U○	TS4	②TKY15D
	2	TAFS3300F40	●	2	66	79	96	161	40	50	PT1/4	GPMT11T308-U○	TS4	②TKY15D
	3	TAFM3300F32	●	2	99	112	129	184	32	50	PT1/8	GPMT11T308-U○	TS4	②TKY15D
	3	TAFM3300F40	●	2	99	112	129	194	40	50	PT1/4	GPMT11T308-U○	TS4	②TKY15D
	4	TAFL3300F32	●	2	132	145	162	217	32	42	PT1/8	GPMT11T308-U○	TS4	②TKY15D
	4	TAFL3300F40	●	2	132	145	162	227	40	50	PT1/4	GPMT11T308-U○	TS4	②TKY15D

● : Lagerstandard.

Bohrer Durchm. DC (mm)	Bohr-tiefe (l/d)	Bestellbezeichnung	Lager	Anzahl an WSP	Abmessungen (mm)							WSP Bezeichnung		
					LU	LBX	LPR	OAL	DCON	DCSFMS	CNT		Spannschraube	Schlüssel
34.0	2	**TAFS3400F32**	●	2	68	82	98	153	32	50	PT1/8	**GPMT11T308-U○**	TS4	TKY15D
	2	**TAFS3400F40**	●	2	68	82	98	163	40	50	PT1/4	GPMT**11T308-U○**	TS4	TKY15D
	3	**TAFM3400F32**	●	2	102	116	132	187	32	50	PT1/8	GPMT**11T308-U○**	TS4	TKY15D
	3	**TAFM3400F40**	●	2	102	116	132	197	40	50	PT1/4	GPMT**11T308-U○**	TS4	TKY15D
	4	**TAFL3400F32**	●	2	136	150	166	231	32	42	PT1/8	GPMT**11T308-U○**	TS4	TKY15D
	4	**TAFL3400F40**	●	2	136	150	166	231	40	50	PT1/4	GPMT**11T308-U○**	TS4	TKY15D
35.0	2	**TAFS3500F32**	●	2	70	84	100	155	32	50	PT1/8	GPMT**140408-U○**	TS55	TKY25D
	2	**TAFS3500F40**	●	2	70	84	100	165	40	50	PT1/4	GPMT**140408-U○**	TS55	TKY25D
	3	**TAFM3500F32**	●	2	105	119	135	190	32	50	PT1/8	GPMT**140408-U○**	TS55	TKY25D
	3	**TAFM3500F40**	●	2	105	119	135	200	40	50	PT1/4	GPMT**140408-U○**	TS55	TKY25D
	4	**TAFL3500F32**	●	2	140	154	170	235	32	42	PT1/8	GPMT**140408-U○**	TS5	TKY25D
	4	**TAFL3500F40**	●	2	140	154	170	235	40	50	PT1/4	GPMT**140408-U○**	TS5	TKY25D
36.0	2	**TAFS3600F32**	●	2	72	86	102	157	32	50	PT1/8	GPMT**140408-U○**	TS55	TKY25D
	2	**TAFS3600F40**	●	2	72	86	102	167	40	50	PT1/4	GPMT**140408-U○**	TS55	TKY25D
	3	**TAFM3600F32**	●	2	108	122	138	193	32	50	PT1/8	GPMT**140408-U○**	TS55	TKY25D
	3	**TAFM3600F40**	●	2	108	122	138	203	40	50	PT1/4	GPMT**140408-U○**	TS55	TKY25D
	4	**TAFL3600F32**	●	2	144	158	174	229	32	42	PT1/8	GPMT**140408-U○**	TS5	TKY25D
	4	**TAFL3600F40**	●	2	144	158	174	239	40	50	PT1/4	GPMT**140408-U○**	TS5	TKY25D
37.0	2	**TAFS3700F32**	●	2	74	89	104	159	32	50	PT1/8	GPMT**140408-U○**	TS55	TKY25D
	2	**TAFS3700F40**	●	2	74	89	104	169	40	50	PT1/4	GPMT**140408-U○**	TS55	TKY25D
	3	**TAFM3700F32**	●	2	111	126	141	196	32	50	PT1/8	GPMT**140408-U○**	TS55	TKY25D
	3	**TAFM3700F40**	●	2	111	126	141	206	40	50	PT1/4	GPMT**140408-U○**	TS55	TKY25D
	4	**TAFL3700F32**	●	2	148	163	178	233	32	42	PT1/8	GPMT**140408-U○**	TS5	TKY25D
	4	**TAFL3700F40**	●	2	148	163	178	243	40	50	PT1/4	GPMT**140408-U○**	TS5	TKY25D
37.5	2	**TAFS3750F32**	●	2	75	89	104	159	32	50	PT1/8	GPMT**140408-U○**	TS55	TKY25D
	2	**TAFS3750F40**	●	2	75	89	104	169	40	50	PT1/4	GPMT**140408-U○**	TS55	TKY25D
	3	**TAFM3750F32**	●	2	112.5	126	141	196	32	50	PT1/8	GPMT**140408-U○**	TS55	TKY25D
	3	**TAFM3750F40**	●	2	112.5	126	141	206	40	50	PT1/4	GPMT**140408-U○**	TS55	TKY25D
	4	**TAFL3750F32**	●	2	150	163	178	233	32	42	PT1/8	GPMT**140408-U○**	TS5	TKY25D
	4	**TAFL3750F40**	●	2	150	163	178	243	40	50	PT1/4	GPMT**140408-U○**	TS5	TKY25D
38.0	2	**TAFS3800F32**	●	2	76	91	106	161	32	50	PT1/8	GPMT**140408-U○**	TS55	TKY25D
	2	**TAFS3800F40**	●	2	76	91	106	171	40	50	PT1/4	GPMT**140408-U○**	TS55	TKY25D
	3	**TAFM3800F32**	●	2	114	129	144	199	32	50	PT1/8	GPMT**140408-U○**	TS55	TKY25D
	3	**TAFM3800F40**	●	2	114	129	144	209	40	50	PT1/4	GPMT**140408-U○**	TS55	TKY25D
	4	**TAFL3800F32**	●	2	152	167	182	247	32	42	PT1/8	GPMT**140408-U○**	TS5	TKY25D
	4	**TAFL3800F40**	●	2	152	167	182	247	40	50	PT1/4	GPMT**140408-U○**	TS5	TKY25D
39.0	2	**TAFS3900F32**	●	2	78	94	108	163	32	50	PT1/8	GPMT**140408-U○**	TS55	TKY25D
	2	**TAFS3900F40**	●	2	78	94	108	173	40	50	PT1/4	GPMT**140408-U○**	TS55	TKY25D
	3	**TAFM3900F32**	●	2	117	133	147	202	32	50	PT1/8	GPMT**140408-U○**	TS55	TKY25D
	3	**TAFM3900F40**	●	2	117	133	147	212	40	50	PT1/4	GPMT**140408-U○**	TS55	TKY25D
	4	**TAFL3900F32**	●	2	156	172	186	251	32	42	PT1/8	GPMT**140408-U○**	TS5	TKY25D
	4	**TAFL3900F40**	●	2	156	172	186	251	40	50	PT1/4	GPMT**140408-U○**	TS5	TKY25D
40.0	2	**TAFS4000F32**	●	2	80	96	110	165	32	50	PT1/8	GPMT**140408-U○**	TS55	TKY25D
	2	**TAFS4000F40**	●	2	80	96	110	175	40	50	PT1/4	GPMT**140408-U○**	TS55	TKY25D
	3	**TAFM4000F32**	●	2	120	136	150	205	32	50	PT1/8	GPMT**140408-U○**	TS55	TKY25D
	3	**TAFM4000F40**	●	2	120	136	150	215	40	50	PT1/4	GPMT**140408-U○**	TS55	TKY25D
	4	**TAFL4000F32**	●	2	160	176	190	245	32	42	PT1/8	GPMT**140408-U○**	TS5	TKY25D
	4	**TAFL4000F40**	●	2	160	176	190	255	40	50	PT1/4	GPMT**140408-U○**	TS5	TKY25D

WSP BESCHREIBUNG	➤ L168
SCHNITTBEDINGUNGEN	➤ L169
VERSTELLHÜLSEN	➤ L170
EINSATZ HINWEISE	➤ L171
TECHNISCHE DATEN	➤ N001

TAFS,TAFM,TAFL

Bohrer Durchm. DC (mm)	Bohr-tiefe (l/d)	Bestellbezeichnung	Lager	Anzahl an WSP	Abmessungen (mm) LU	LBX	LPR	OAL	DCON	DCSFMS	CNT	WSP Bezeichnung	Spannschraube	Schlüssel
41.0	2	**TAFS4100F40**	●	2	82	98	112	177	40	50	PT1/4	**GPMT140408-U○**	TS55	②TKY25D
	3	**TAFM4100F40**	●	2	123	139	153	218	40	50	PT1/4	GPMT**140408-U○**	TS55	②TKY25D
	4	**TAFL4100F40**	●	2	164	180	194	259	40	50	PT1/4	GPMT**140408-U○**	TS5	②TKY25D
42.0	2	**TAFS4200F40**	●	2	84	101	114	179	40	50	PT1/4	GPMT**140408-U○**	TS55	②TKY25D
	3	**TAFM4200F40**	●	2	126	143	156	221	40	50	PT1/4	GPMT**140408-U○**	TS55	②TKY25D
	4	**TAFL4200F40**	●	2	168	185	198	263	40	50	PT1/4	GPMT**140408-U○**	TS5	②TKY25D
43.0	2	**TAFS4300F40**	●	2	86	103	116	181	40	50	PT1/4	GPMT**140408-U○**	TS55	②TKY25D
	3	**TAFM4300F40**	●	2	129	146	159	224	40	50	PT1/4	GPMT**140408-U○**	TS55	②TKY25D
	4	**TAFL4300F40**	●	2	172	189	202	267	40	50	PT1/4	GPMT**140408-U○**	TS5	②TKY25D
44.0	2	**TAFS4400F40**	●	2	88	106	118	183	40	50	PT1/4	GPMT**140408-U○**	TS55	②TKY25D
	3	**TAFM4400F40**	●	2	132	150	162	227	40	50	PT1/4	GPMT**140408-U○**	TS55	②TKY25D
	4	**TAFL4400F40**	●	2	176	194	206	271	40	50	PT1/4	GPMT**140408-U○**	TS5	②TKY25D
45.0	2	**TAFS4500F40**	●	2	90	108	120	185	40	54	PT1/4	GPMT**140408-U○**	TS55	②TKY25D
	3	**TAFM4500F40**	●	2	135	153	165	230	40	54	PT1/4	GPMT**140408-U○**	TS55	②TKY25D
	4	**TAFL4500F40**	●	2	180	198	210	275	40	54	PT1/4	GPMT**140408-U○**	TS5	②TKY25D
46.0	2	**TAFS4600F40**	●	2	92	110	122	187	40	54	PT1/4	GPMT**140408-U○**	TS55	②TKY25D
	3	**TAFM4600F40**	●	2	138	156	168	233	40	54	PT1/4	GPMT**140408-U○**	TS55	②TKY25D
	4	**TAFL4600F40**	●	2	184	202	214	279	40	54	PT1/4	GPMT**140408-U○**	TS5	②TKY25D
47.0	2	**TAFS4700F40**	●	2	94	113	124	189	40	54	PT1/4	GPMT**140408-U○**	TS55	②TKY25D
	3	**TAFM4700F40**	●	2	141	160	171	236	40	54	PT1/4	GPMT**140408-U○**	TS55	②TKY25D
	4	**TAFL4700F40**	●	2	188	207	218	283	40	54	PT1/4	GPMT**140408-U○**	TS5	②TKY25D
48.0	2	**TAFS4800F40**	●	2	96	115	126	191	40	54	PT1/4	GPMT**140408-U○**	TS55	②TKY25D
	3	**TAFM4800F40**	●	2	144	163	174	239	40	54	PT1/4	GPMT**140408-U○**	TS55	②TKY25D
	4	**TAFL4800F40**	●	2	192	211	222	287	40	54	PT1/4	GPMT**140408-U○**	TS5	②TKY25D
49.0	2	**TAFS4900F40**	●	4	98	118	133	198	40	58	PT1/4	GPMT**090304-U○**	TS3	①TKY08F
	3	**TAFM4900F40**	●	4	147	167	182	247	40	58	PT1/4	GPMT**090304-U○**	TS3	①TKY08F
	4	**TAFL4900F40**	●	4	196	216	231	296	40	58	PT1/4	GPMT**090304-U○**	TS3	①TKY08F
50.0	2	**TAFS5000F40**	●	4	100	120	135	200	40	58	PT1/4	GPMT**090304-U○**	TS3	①TKY08F
	3	**TAFM5000F40**	●	4	150	170	185	250	40	58	PT1/4	GPMT**090304-U○**	TS3	①TKY08F
	4	**TAFL5000F40**	●	4	200	220	235	300	40	58	PT1/4	GPMT**090304-U○**	TS3	①TKY08F
51.0	2	**TAFS5100F40**	●	4	102	122	137	202	40	58	PT1/4	GPMT**090304-U○**	TS3	①TKY08F
	3	**TAFM5100F40**	●	4	153	173	188	253	40	58	PT1/4	GPMT**090304-U○**	TS3	①TKY08F
	4	**TAFL5100F40**	●	4	204	224	239	304	40	58	PT1/4	GPMT**090304-U○**	TS3	①TKY08F
52.0	2	**TAFS5200F40**	●	4	104	125	139	204	40	58	PT1/4	GPMT**090304-U○**	TS3	①TKY08F
	3	**TAFM5200F40**	●	4	156	177	191	256	40	58	PT1/4	GPMT**090304-U○**	TS3	①TKY08F
	4	**TAFL5200F40**	●	4	208	229	243	308	40	58	PT1/4	GPMT**090304-U○**	TS3	①TKY08F
53.0	2	**TAFS5300F40**	●	4	106	127	141	206	40	63	PT1/4	GPMT**090304-U○**	TS3	①TKY08F
	3	**TAFM5300F40**	●	4	159	180	194	259	40	63	PT1/4	GPMT**090304-U○**	TS3	①TKY08F
	4	**TAFL5300F40**	●	4	212	233	247	312	40	63	PT1/4	GPMT**090304-U○**	TS3	①TKY08F
54.0	2	**TAFS5400F40**	●	4	108	128	143	208	40	63	PT1/4	GPMT**090304-U○**	TS3	①TKY08F
	3	**TAFM5400F40**	●	4	162	182	197	262	40	63	PT1/4	GPMT**090304-U○**	TS3	①TKY08F
	4	**TAFL5400F40**	●	4	216	236	251	316	40	63	PT1/4	GPMT**090304-U○**	TS3	①TKY08F
55.0	2	**TAFS5500F40**	●	4	110	130	145	210	40	63	PT1/4	GPMT**090304-U○**	TS3	①TKY08F
	3	**TAFM5500F40**	●	4	165	185	200	265	40	63	PT1/4	GPMT**090304-U○**	TS3	①TKY08F
	4	**TAFL5500F40**	●	4	220	240	255	320	40	63	PT1/4	GPMT**090304-U○**	TS3	①TKY08F
56.0	2	**TAFS5600F40**	●	4	112	132	147	212	40	63	PT1/4	GPMT**090304-U○**	TS3	①TKY08F
	3	**TAFM5600F40**	●	4	168	188	203	268	40	63	PT1/4	GPMT**090304-U○**	TS3	①TKY08F
	4	**TAFL5600F40**	●	4	224	244	259	324	40	63	PT1/4	GPMT**090304-U○**	TS3	①TKY08F

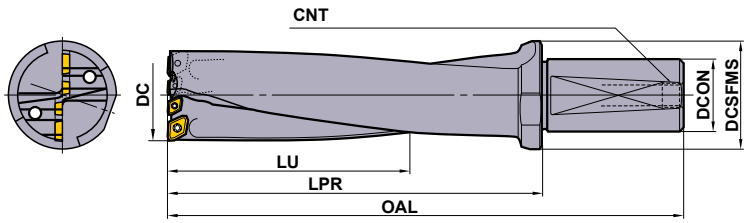
● : Lagerstandard.

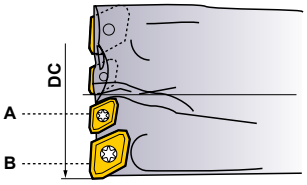
TAFS,TAFM,TAFL

P M K N S H

Ausführung für noch höhere Stabilität







* Die seitliche Schraube am Flansch dient nicht zur Kühlmittelzufuhr!

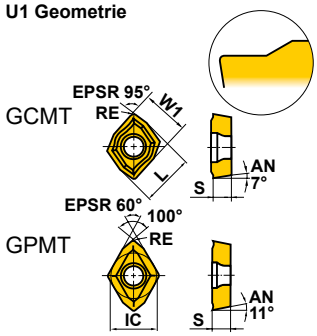
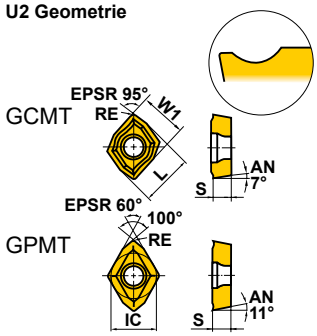
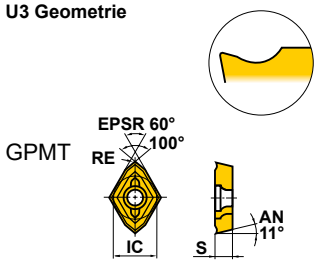
Bohrer Durchm. DC (mm)	Bohr-tiefe (l/d)	Bestellbezeichnung	Lager	Anzahl an WSP	Abmessungen (mm) DCON	DCSFMS	CNT	OAL	LPR	LU	Innen-/Außentyp	WSP Bezeichnung	Spannschraube	Schlüssel
50.0	2	TAFS5000F40-E	●	4	40	58	PT1/4	200	135	120	A	GPMT090304-U○	TS3	①TKY08F
											B	GPMT11T308-U○	TS4	②TKY15D
	3	TAFM5000F40-E	●	4	40	58	PT1/4	250	185	170	A	GPMT090304-U○	TS3	①TKY08F
											B	GPMT11T308-U○	TS4	②TKY15D
	4	TAFL5000F40-E	●	4	40	58	PT1/4	300	235	220	A	GPMT090304-U○	TS3	①TKY08F
											B	GPMT11T308-U○	TS4	②TKY15D
51.0	2	TAFS5100F40-E	●	4	40	58	PT1/4	202	137	122	A	GPMT090304-U○	TS3	①TKY08F
											B	GPMT11T308-U○	TS4	②TKY15D
	3	TAFM5100F40-E	●	4	40	58	PT1/4	253	188	173	A	GPMT090304-U○	TS3	①TKY08F
											B	GPMT11T308-U○	TS4	②TKY15D
	4	TAFL5100F40-E	●	4	40	58	PT1/4	304	239	224	A	GPMT090304-U○	TS3	①TKY08F
											B	GPMT11T308-U○	TS4	②TKY15D
52.0	2	TAFS5200F40-E	●	4	40	58	PT1/4	204	139	125	A	GPMT090304-U○	TS3	①TKY08F
											B	GPMT11T308-U○	TS4	②TKY15D
	3	TAFM5200F40-E	●	4	40	58	PT1/4	256	191	177	A	GPMT090304-U○	TS3	①TKY08F
											B	GPMT11T308-U○	TS4	②TKY15D
	4	TAFL5200F40-E	●	4	40	58	PT1/4	308	243	229	A	GPMT090304-U○	TS3	①TKY08F
											B	GPMT11T308-U○	TS4	②TKY15D
53.0	2	TAFS5300F40-E	●	4	40	63	PT1/4	206	141	127	A	GPMT11T308-U○	TS4	②TKY15D
	3	TAFM5300F40-E	●	4	40	63	PT1/4	259	194	180	A	GPMT11T308-U○	TS4	②TKY15D
	4	TAFL5300F40-E	●	4	40	63	PT1/4	312	247	233	A	GPMT11T308-U○	TS4	②TKY15D
54.0	2	TAFS5400F40-E	●	4	40	63	PT1/4	208	134	128	A	GPMT11T308-U○	TS4	②TKY15D
	3	TAFM5400F40-E	●	4	40	63	PT1/4	262	197	182	A	GPMT11T308-U○	TS4	②TKY15D
	4	TAFL5400F40-E	●	4	40	63	PT1/4	316	251	236	A	GPMT11T308-U○	TS4	②TKY15D
55.0	2	TAFS5500F40-E	●	4	40	63	PT1/4	210	145	130	A	GPMT11T308-U○	TS4	②TKY15D
	3	TAFM5500F40-E	●	4	40	63	PT1/4	265	200	185	A	GPMT11T308-U○	TS4	②TKY15D
	4	TAFL5500F40-E	●	4	40	63	PT1/4	320	255	240	A	GPMT11T308-U○	TS4	②TKY15D
56.0	2	TAFS5600F40-E	●	4	40	63	PT1/4	212	147	132	A	GPMT11T308-U○	TS4	②TKY15D
	3	TAFM5600F40-E	●	4	40	63	PT1/4	268	203	188	A	GPMT11T308-U○	TS4	②TKY15D
	4	TAFL5600F40-E	●	4	40	63	PT1/4	324	259	244	A	GPMT11T308-U○	TS4	②TKY15D

WSP BESCHREIBUNG ➤ L168
SCHNITTBEDINGUNGEN ➤ L169
VERSTELLHÜLSEN ➤ L170
EINSATZ HINWEISE ➤ L171
TECHNISCHE DATEN ➤ N001

BOHREN (WSP AUSFÜHRUNG)

TAFS,TAFM,TAFL

WSP

Abbildung	Bohrer Durchm.	WSP Bezeichnung	Abmessungen (mm)					Lager				
			L	W1	IC	S	RE	VP15TF	UP20M	GP20M	UE6020	US735
U1 Geometrie 	ø12—ø14.5	GCMT040204-U1	5.0	4.7	—	2.38	0.4		●			
	ø15—ø17.5	GPMT060204-U1	—	—	5.56	2.38	0.4		●		●	
	ø18—ø22.5	GPMT070204-U1	—	—	6.35	2.38	0.4		●		●	
	ø23—ø27.5 ø49—ø56	GPMT090304-U1	—	—	7.94	3.18	0.4		●		●	
	ø28—ø34	GPMT11T308-U1	—	—	9.525	3.97	0.8		●		●	
	ø35—ø48	GPMT140408-U1	—	—	12.70	4.76	0.8		●		●	
U2 Geometrie 	ø12—ø14.5	GCMT040204-U2	5.0	4.7	—	2.38	0.4	●		●		
	ø15—ø17.5	GPMT060204-U2	—	—	5.56	2.38	0.4	●	●		●	●
	ø18—ø22.5	GPMT070204-U2	—	—	6.35	2.38	0.4	●	●		●	●
	ø23—ø27.5 ø49—ø56	GPMT090304-U2	—	—	7.94	3.18	0.4	●	●		●	●
	ø28—ø34	GPMT11T308-U2	—	—	9.525	3.97	0.8	●	●		●	●
	ø35—ø48	GPMT140408-U2	—	—	12.70	4.76	0.8	●	●		●	●
U3 Geometrie 	ø15—ø17.5	GPMT060204-U3	—	—	5.56	2.38	0.4		●		●	●
	ø18—ø22.5	GPMT070204-U3	—	—	6.35	2.38	0.4		●		●	●
	ø23—ø27.5 ø49—ø56	GPMT090304-U3	—	—	7.94	3.18	0.4		●		●	●
	ø28—ø34	GPMT11T308-U3	—	—	9.525	3.97	0.8		●		●	●
	ø35—ø48	GPMT140408-U3	—	—	12.70	4.76	0.8		●		●	●

WSP EMPFEHLUNGEN

SPANBRECHER EMPFEHLUNGEN

◎ : 1. Empfehlung ○ : 2. Empfehlung

Werkstoff / Spanbrecher	P						M		K			
	Allg. Baustahl		C-Stahl		Leg. Stahl		Rostfreier Stahl		Guss		Duktiler Guss	
	GCMT	GPMT	GCMT	GPMT	GCMT	GPMT	GCMT	GPMT	GCMT	GPMT	GCMT	GPMT
U1	◎	◎	○	○	○	○	○	○	○	○	○	○
U2	○	○	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
U3		○		○		○		○		○		○

WSP SORTEN EMPFEHLUNGEN

◎ : 1. Empfehlung ○ : 2. Empfehlung

Werkstoff / Sorte	P						M		K			
	Allg. Baustahl		C-Stahl		Leg. Stahl		Rostfreier Stahl		Guss		Duktiler Guss	
	GCMT	GPMT	GCMT	GPMT	GCMT	GPMT	GCMT	GPMT	GCMT	GPMT	GCMT	GPMT
VP15TF		○	◎	◎	◎	◎	◎	◎	◎	◎	◎	◎
UP20M	◎	◎	○	○	○	○	○	○	○	○	○	○
GP20M	○		○		○		○		○		○	
UE6020		○		○		○		○		○		○
US735		○		○		○		○		○		○

● : Lagerstandard.

SCHNITTDATENEMPFEHLUNGEN

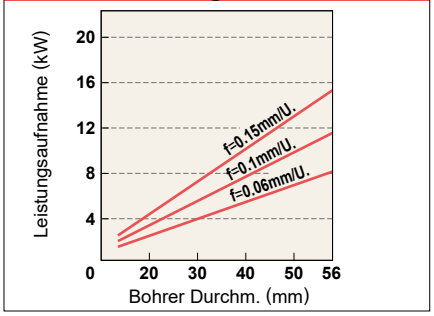
	Werkstoff	Härte	Schnittgeschw. (m/min) For l/d=2, 3 (ø12−ø14.5)	Schnittgeschw. (m/min) For l/d=2, 3 (ø15−)	Schnittgeschw. (m/min) For l/d=4 (ø16−)	Spanbrecher	Vorschub (mm/U.) Bohrer Durchm. (mm) ø12−ø14.5	ø15−ø22.5	ø23−ø34	ø35−ø48	ø49−ø56
P	Allg. Baustahl	≤180HB	150 (100−200)	200 (150−300)	140 (100−200)	U1	0.06 (0.04−0.10)	0.07 (0.04−0.10)	0.08 (0.04−0.10)	0.10 (0.04−0.12)	0.08 (0.04−0.10)
						U2	0.06 (0.04−0.10)	0.08 (0.04−0.12)	0.10 (0.04−0.12)	0.12 (0.04−0.14)	0.10 (0.04−0.12)
						U3	–	0.08 (0.04−0.12)	0.10 (0.04−0.12)	0.12 (0.04−0.14)	0.10 (0.04−0.12)
	C-Stahl	180−280HB	120 (80−160)	150 (120−180)	100 (80−120)	U1	0.06 (0.04−0.10)	0.09 (0.06−0.12)	0.12 (0.08−0.14)	0.15 (0.08−0.18)	0.12 (0.08−0.14)
						U2	0.06 (0.04−0.10)	0.12 (0.06−0.14)	0.14 (0.08−0.18)	0.17 (0.08−0.20)	0.14 (0.08−0.18)
						U3	–	0.12 (0.06−0.14)	0.14 (0.08−0.18)	0.17 (0.08−0.20)	0.14 (0.08−0.18)
	Leg. Stahl	180−280HB	120 (80−160)	150 (120−180)	100 (80−120)	U1	0.06 (0.04−0.10)	0.08 (0.06−0.10)	0.09 (0.06−0.12)	0.11 (0.06−0.14)	0.09 (0.06−0.12)
						U2	0.06 (0.04−0.10)	0.10 (0.06−0.12)	0.12 (0.08−0.16)	0.14 (0.08−0.18)	0.12 (0.08−0.16)
						U3	–	0.10 (0.06−0.12)	0.12 (0.08−0.16)	0.14 (0.08−0.18)	0.12 (0.08−0.16)
M	Rostfreier Stahl	≤200HB	100 (80−120)	150 (120−200)	110 (80−140)	U1	0.07 (0.04−0.10)	0.07 (0.04−0.10)	0.08 (0.04−0.10)	0.10 (0.04−0.12)	0.08 (0.04−0.10)
						U2	0.07 (0.04−0.10)	0.08 (0.04−0.12)	0.10 (0.04−0.14)	0.12 (0.04−0.16)	0.10 (0.04−0.14)
						U3	–	0.08 (0.04−0.12)	0.10 (0.04−0.14)	0.12 (0.04−0.16)	0.10 (0.04−0.14)
K	Guss	Zugfestigkeit ≤350MPa	120 (80−160)	150 (120−180)	140 (110−160)	U1	0.07 (0.06−0.10)	0.07 (0.06−0.10)	0.10 (0.04−0.14)	0.10 (0.06−0.14)	0.10 (0.06−0.14)
						U2	0.07 (0.06−0.10)	0.15 (0.10−0.18)	0.20 (0.10−0.25)	0.20 (0.10−0.25)	0.20 (0.10−0.25)
						U3	–	0.15 (0.10−0.18)	0.20 (0.10−0.25)	0.20 (0.10−0.25)	0.20 (0.10−0.25)
	Duktiler Guss	Zugfestigkeit ≤450MPa	120 (80−150)	150 (120−180)	100 (80−120)	U1	0.06 (0.04−0.10)	0.07 (0.06−0.10)	0.10 (0.06−0.14)	0.10 (0.06−0.14)	0.10 (0.06−0.14)
						U2	0.06 (0.04−0.10)	0.12 (0.08−0.14)	0.15 (0.08−0.20)	0.18 (0.08−0.20)	0.15 (0.08−0.20)
						U3	–	0.12 (0.08−0.14)	0.15 (0.08−0.20)	0.18 (0.08−0.20)	0.15 (0.08−0.20)

(Bemerkung) Bei Einsatz von Bohrern l/d=4, reduzieren Sie die empfohlenen Vorschübe auf 80%.

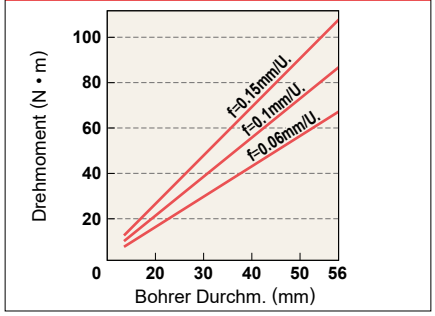
SCHNITTWIDERSTAND

Werkstoff : DIN X5CrNi189 (220HB)　Schnittgeschw. : 150m/min　WSP : U2

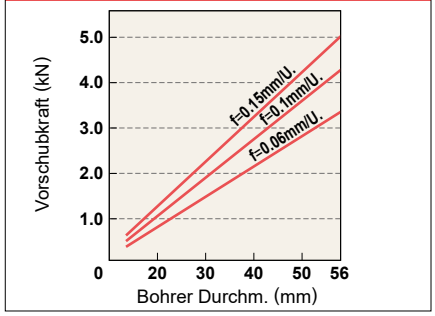
Leistungsbedarf



Drehmoment



Vorschubkraft

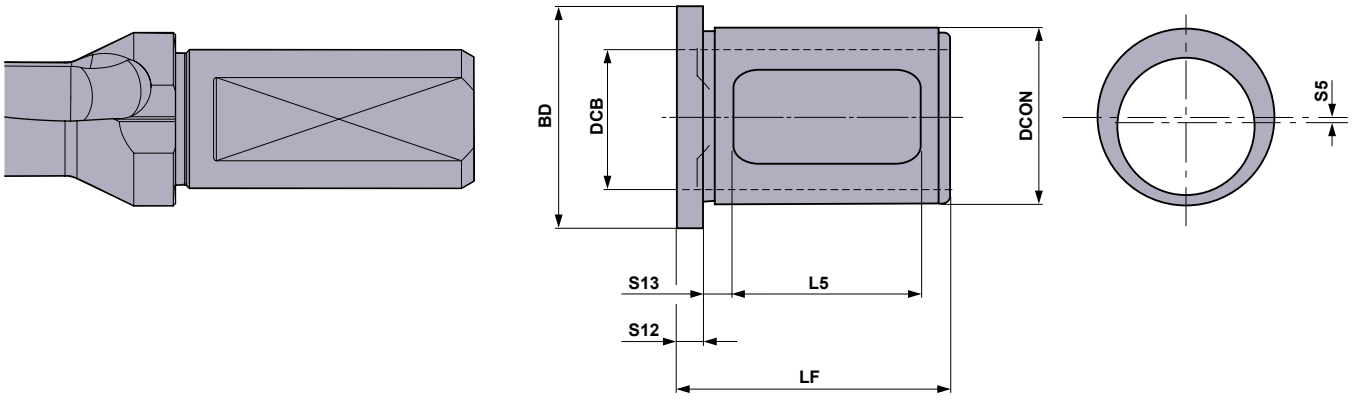


EINSATZ HINWEISE ➤ L171
TECHNISCHE DATEN ➤ N001

HARTMETALL

VERSTELLHÜLSEN [JFS]

● Für die Erweiterung des Bohrerdurchmessers.



*Versatz : Größe des Versatzes auf Durchmesser.

Set Bestell-bezeichnung	Individuelle Bestell - Nummer	Lager	Abmessungen (mm)							*Versatz (S5×2)	Einsetzbar für MVX-Bohrer und TAF-Bohrer
			BD	DCON	DCB	LF	L5	S12	S13		
JFS-1	JFS2520-10	●	33	25	20	43	30	5	5	0.10	MVX1700 X ○F20 ~ TAFS/M/L1200F20 ~ TAFS/M/L1550F20
	JFS2520-20	●	33	25	20	43	30	5	5	0.20	
	JFS2520-30	●	33	25	20	43	30	5	5	0.30	
	JFS2520-40	●	33	25	20	43	30	5	5	0.40	
	JFS2520-50	●	33	25	20	43	30	5	5	0.50	
JFS-2	JFS3225-10	●	40	32	25	50	34	5	5	0.10	MVX1750 X ○F25 ~ MVX2550 X ○F25 ~ TAFS/M/L1600F25 ~ TAFS/M/L2450F25
	JFS3225-20	●	40	32	25	50	34	5	5	0.20	
	JFS3225-30	●	40	32	25	50	34	5	5	0.30	
	JFS3225-40	●	40	32	25	50	34	5	5	0.40	
	JFS3225-50	●	40	32	25	50	34	5	5	0.50	
JFS-3	JFS4032-10	●	48	40	32	55	40	5	5	0.10	TMVX2600 X ○F32 ~ MVX3000 X ○F32 ~ TAFS/M/L2500F32 ~ TAFS/M/L2950F32
	JFS4032-20	●	48	40	32	55	40	5	5	0.20	
	JFS4032-30	●	48	40	32	55	40	5	5	0.30	
	JFS4032-40	●	48	40	32	55	40	5	5	0.40	
	JFS4032-50	●	48	40	32	55	40	5	5	0.50	
NEW JFS-4	JFS5040-10	●	68	50	40	65	50	5	5	0.10	MVX3100 X ○F40 ~ MVX6300 X ○F40 ~ TAFS/M/L2850F40 ~ TAFS/M/L5600F40 ~ TAFS/M/L5○00F40-E
	JFS5040-20	●	68	50	40	65	50	5	5	0.20	
	JFS5040-30	●	68	50	40	65	50	5	5	0.30	
	JFS5040-40	●	68	50	40	65	50	5	5	0.40	
	JFS5040-50	●	68	50	40	65	50	5	5	0.50	

RICHTLINIE FÜR DIE AUSWAHL VON VERSTELLHÜLSEN

Benötigt = Bohrer ϕ + Verstellhülsen + 0.1mm

(z.B.) Benötigter Durchmesser ist 20.3 mm 0.1mm ist Toleranz.

ø20.3=(MVX2000 X ○F25+JFS3225-20)+0.1

- MVX2000 X ○F25 → 20mm Bohrer
- JFS3225-20 → Verwendung einer Hülse mit 0.2mm Versatz.
- 0.1 → Übergröße

(Bemerkung) Toleranzgröße kann variieren, dies ist nur eine generelle Richtlinie.

<Werkzeugauswahl>
BOHRER : **MVX2000 X ○F25**
Verstellhülsen [JFS]
: **JFS3225-20**

BESTELLBEZEICHNUNG DER VERSTELLHÜLSEN

●1. Bestell - Methode
Abmaße können aufgrund der Schnittbedingungen variieren. Daher empfehlen wir die Set-Bestellung. Bei Bestellungen, benennen Sie bitte die Set Bestell-Nr. (5 Hülsen/ Set).

●2. Bestell - Methode
Einzelbestellungen sind möglich, bitte nennen Sie die Produktbezeichnung.

● : Lagerstandard.

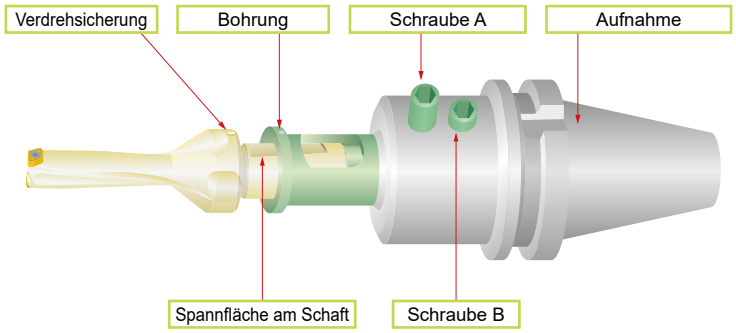
BOHREN

ANWENDUNGSBEREICH DER VERSTELLHÜLSEN

1 Bitte achen Sie darauf, dass beim Einbauen des Bohrers die Spannfläche des Bohrers, der Schlitz der Hülse, und die Spannschrauben in die richtige Position gebracht werden. (siehe Bild)

2 Die Schraube A spannt direkt durch den Büchsenschlitz. Bei manchen Aufnahmen kann es zu Beschädigung der Hülse kommen, da der Lochabstand zu groß ist: Bitte vorab prüfen!

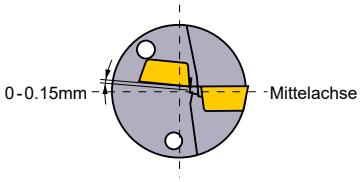
(Bemerkung)
- Feineinstellungen können mit der Verstellhülse nicht vorgenommen werden.
- Kann nicht in Spannzangen gespannt werden.



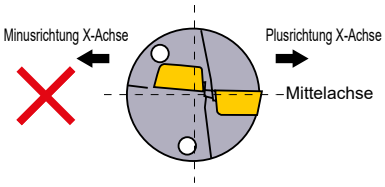
ANWENDUNG VON MVX-BOHRERN

●Einsatz auf einer Drehmaschine

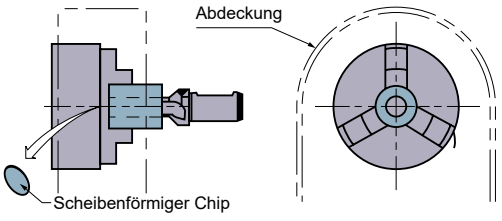
(1) Die äußere WSP muss zur X-Achse der Maschine parallel sein. Der Bohrer ist so konzipiert, dass die Mitte der inneren WSP etwa 0-0,15 mm tiefer liegt, wenn die Mitte des Bohrers und der Werkzeugspindel aneinander ausgerichtet werden.
✱Die innere WSP kann brechen, wenn die Mitte der inneren WSP höher liegt als die X-Achse der Maschine.



(2) Zur Einstellung des Bohrlochdurchmessers durch Versetzen des Bohrers korrigieren Sie bitte in Richtung der positiven X-Achse (Richtung, in der der Bohrlochdurchmesser erweitert wird). Hinweise zu den maximalen Einstellraten der einzelnen Halter finden Sie in den Halterabmessungen.
✱Eine Einstellung zur negativen X-Achse wird nicht empfohlen (Richtung, in der der Bohrlochdurchmesser verkleinert wird), da der Halter mit dem Bohrloch kollidieren kann.



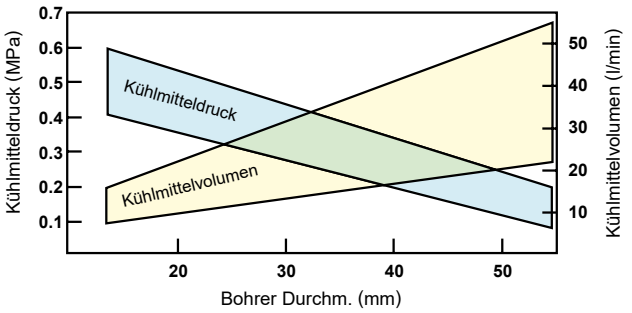
(3) Beim Bohren von Durchgangslöchern auf einer Drehmaschine kann die vom Bohrer erzeugte Scheibe mit hoher Geschwindigkeit aus dem Werkstück herausgeschleudert werden. Aus Sicherheitsgründen und zum Schutz vor Verletzungen sollte eine Schutzabdeckung angebracht werden.



VERSTELLHÜLSEN [JFS]

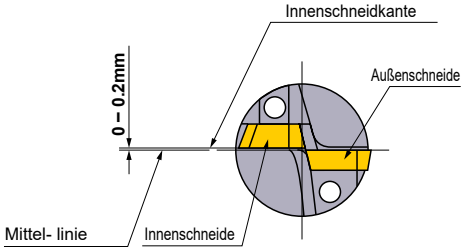
ANWENDUNG VON TAF-BOHRERN

- Stellen Sie höchstmögliche Stabilität für Maschine und Werkstückspannung sicher.
- Kühlmitteldruck und Volumen entnehmen Sie bitte der Abbildung rechts. Das Kühlmittel hat einen großen Einfluss auf die Effizienz des Bohrers.
- Paketbohren ist nicht möglich.
  Dieser Bohrer läßt bei Bohreraustritt einen Deckel entstehen, dies kann zu Schneidkantenausbrüchen an der Schneide führen.

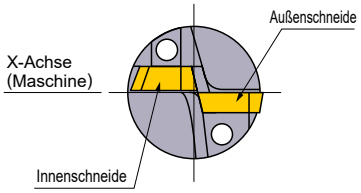


- Einsatz auf Drehmaschinen

(1) Die Innenschneide muß zwischen 0—0.2mm über Mitte stehen.

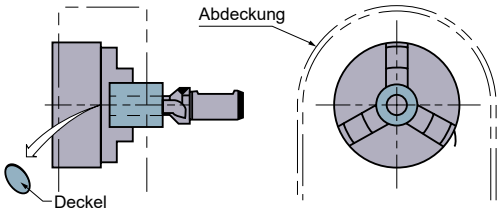


(2) Um den Bohrer außer Mitte stellen zu können, muss die Außenschneide und Maschinenachse parallel verlaufen



(3) Bohren außer Mitte:
Der Mittenversatz des Bohrers sollte nicht mehr als 2% des Durchmessers sein. Es ist nicht möglich eine Bohrung mit Untermaß zu fertigen.

(4) Bei Durchgangsbohrungen auf Drehmaschinen entstehen beim Bohreraustritt Materialdeckel, die aus der Maschine geschleudert werden können. Vorsicht, Verletzungsgefahr.
Sicherheitshinweis: Verwenden Sie immer eine Schutzvorrichtung beim Bohren.



VIOLET BOHRER

VAPDS
Kurze Spirallänge

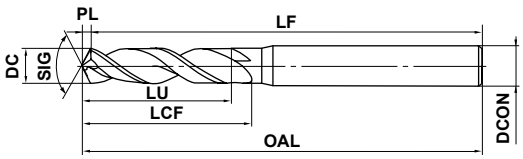


P M K N S H

0.5≤DC≤3	3<DC≤6	6<DC≤10	10<DC≤13
0 −0.014	0 −0.018	0 −0.022	0 −0.027

* Bohrertoleranz: 0−0.009mm
(außer ϕ <1.99mm und ϕ in 0.1mm Stufungen (e.g. 0.5 ; 0.6....))





● Mit der neu entwickelten Violet Beschichtung wird eine noch höhere Effizienz und Standzeit erreicht. (Standard Bohrtiefe: bis zu 3xD)

Standard Bohrtiefe : LU = LCF-3DC

DC (mm)	Bestellbezeichnung	Abmessungen (mm) LCF	OAL	LF	PL	DCON	Lager
0.5	VAPDSD0050	3.15	50.15	50	0.15	3	●
0.51	VAPDSD0051	3.15	50.15	50	0.15	3	★
0.52	VAPDSD0052	3.16	50.16	50	0.16	3	★
0.53	VAPDSD0053	3.16	50.16	50	0.16	3	★
0.54	VAPDSD0054	3.16	50.16	50	0.16	3	★
0.55	VAPDSD0055	3.17	50.17	50	0.17	3	★
0.56	VAPDSD0056	4.17	50.17	50	0.17	3	★
0.57	VAPDSD0057	4.17	50.17	50	0.17	3	★
0.58	VAPDSD0058	4.17	50.17	50	0.17	3	★
0.59	VAPDSD0059	4.18	50.18	50	0.18	3	★
0.6	VAPDSD0060	5.18	50.18	50	0.18	3	★
0.61	VAPDSD0061	5.18	50.18	50	0.18	3	★
0.62	VAPDSD0062	5.19	50.19	50	0.19	3	★
0.63	VAPDSD0063	5.19	50.19	50	0.19	3	★
0.64	VAPDSD0064	5.19	50.19	50	0.19	3	★
0.65	VAPDSD0065	5.20	50.20	50	0.20	3	★
0.66	VAPDSD0066	5.20	50.20	50	0.20	3	★
0.67	VAPDSD0067	5.20	50.20	50	0.20	3	★
0.68	VAPDSD0068	5.20	50.20	50	0.20	3	★
0.69	VAPDSD0069	5.21	50.21	50	0.21	3	★
0.7	VAPDSD0070	5.21	50.21	50	0.21	3	★
0.71	VAPDSD0071	5.21	50.21	50	0.21	3	★
0.72	VAPDSD0072	5.22	50.22	50	0.22	3	★
0.73	VAPDSD0073	5.22	50.22	50	0.22	3	★
0.74	VAPDSD0074	5.22	50.22	50	0.22	3	★
0.75	VAPDSD0075	5.23	50.23	50	0.23	3	★
0.76	VAPDSD0076	5.23	50.23	50	0.23	3	★
0.77	VAPDSD0077	5.23	50.23	50	0.23	3	★
0.78	VAPDSD0078	5.23	50.23	50	0.23	3	★
0.79	VAPDSD0079	5.24	50.24	50	0.24	3	★
0.8	VAPDSD0080	5.24	50.24	50	0.24	3	★
0.81	VAPDSD0081	5.24	50.24	50	0.24	3	★
0.82	VAPDSD0082	5.25	50.25	50	0.25	3	★
0.83	VAPDSD0083	5.25	50.25	50	0.25	3	★
0.84	VAPDSD0084	5.25	50.25	50	0.25	3	★
0.85	VAPDSD0085	5.26	50.26	50	0.26	3	★
0.86	VAPDSD0086	6.26	50.26	50	0.26	3	★
0.87	VAPDSD0087	6.26	50.26	50	0.26	3	★
0.88	VAPDSD0088	6.26	50.26	50	0.26	3	★
0.89	VAPDSD0089	6.27	50.27	50	0.27	3	★

DC (mm)	Bestellbezeichnung	Abmessungen (mm) LCF	OAL	LF	PL	DCON	Lager
0.9	VAPDSD0090	6.27	50.27	50	0.27	3	★
0.91	VAPDSD0091	6.27	50.27	50	0.27	3	★
0.92	VAPDSD0092	6.28	50.28	50	0.28	3	★
0.93	VAPDSD0093	6.28	50.28	50	0.28	3	★
0.94	VAPDSD0094	6.28	50.28	50	0.28	3	★
0.95	VAPDSD0095	6.29	50.29	50	0.29	3	★
0.96	VAPDSD0096	6.29	50.29	50	0.29	3	★
0.97	VAPDSD0097	6.29	50.29	50	0.29	3	★
0.98	VAPDSD0098	6.29	50.29	50	0.29	3	★
0.99	VAPDSD0099	6.30	50.30	50	0.30	3	★
1.0	VAPDSD0100	6.3	50.3	50	0.3	3	●
1.01	VAPDSD0101	6.3	50.3	50	0.3	3	★
1.02	VAPDSD0102	6.3	50.3	50	0.3	3	★
1.03	VAPDSD0103	6.3	50.3	50	0.3	3	★
1.04	VAPDSD0104	6.3	50.3	50	0.3	3	★
1.05	VAPDSD0105	6.3	50.3	50	0.3	3	★
1.06	VAPDSD0106	6.3	50.3	50	0.3	3	★
1.07	VAPDSD0107	8.3	55.3	55	0.3	3	★
1.08	VAPDSD0108	8.3	55.3	55	0.3	3	★
1.09	VAPDSD0109	8.3	55.3	55	0.3	3	★
1.1	VAPDSD0110	8.3	55.3	55	0.3	3	★
1.11	VAPDSD0111	8.3	55.3	55	0.3	3	★
1.12	VAPDSD0112	8.3	55.3	55	0.3	3	★
1.13	VAPDSD0113	8.3	55.3	55	0.3	3	★
1.14	VAPDSD0114	8.3	55.3	55	0.3	3	★
1.15	VAPDSD0115	8.4	55.4	55	0.4	3	★
1.16	VAPDSD0116	8.4	55.4	55	0.4	3	★
1.17	VAPDSD0117	8.4	55.4	55	0.4	3	★
1.18	VAPDSD0118	8.4	55.4	55	0.4	3	★
1.19	VAPDSD0119	8.4	55.4	55	0.4	3	★
1.2	VAPDSD0120	8.4	55.4	55	0.4	3	★
1.21	VAPDSD0121	8.4	55.4	55	0.4	3	★
1.22	VAPDSD0122	8.4	55.4	55	0.4	3	★
1.23	VAPDSD0123	8.4	55.4	55	0.4	3	★
1.24	VAPDSD0124	8.4	55.4	55	0.4	3	★
1.25	VAPDSD0125	8.4	55.4	55	0.4	3	★
1.26	VAPDSD0126	8.4	55.4	55	0.4	3	★
1.27	VAPDSD0127	8.4	55.4	55	0.4	3	★
1.28	VAPDSD0128	8.4	55.4	55	0.4	3	★
1.29	VAPDSD0129	8.4	55.4	55	0.4	3	★

● : Lagerstandard. ★ : Lagerstandard in Japan.

VIOLET BOHRER

VAPDS
Kurze Spirallänge

DC (mm)	Bestellbezeichnung	Abmessungen (mm)					Lager
		LCF	OAL	LF	PL	DCON	
1.3	VAPDSD0130	9.4	55.4	55	0.4	3	★
1.31	VAPDSD0131	9.4	55.4	55	0.4	3	★
1.32	VAPDSD0132	9.4	55.4	55	0.4	3	★
1.33	VAPDSD0133	9.4	55.4	55	0.4	3	★
1.34	VAPDSD0134	9.4	55.4	55	0.4	3	★
1.35	VAPDSD0135	9.4	55.4	55	0.4	3	★
1.36	VAPDSD0136	9.4	55.4	55	0.4	3	★
1.37	VAPDSD0137	9.4	55.4	55	0.4	3	★
1.38	VAPDSD0138	9.4	55.4	55	0.4	3	★
1.39	VAPDSD0139	9.4	55.4	55	0.4	3	★
1.4	VAPDSD0140	9.4	55.4	55	0.4	3	★
1.41	VAPDSD0141	9.4	55.4	55	0.4	3	★
1.42	VAPDSD0142	9.4	55.4	55	0.4	3	★
1.43	VAPDSD0143	9.4	55.4	55	0.4	3	★
1.44	VAPDSD0144	9.4	55.4	55	0.4	3	★
1.45	VAPDSD0145	9.4	55.4	55	0.4	3	★
1.46	VAPDSD0146	9.4	55.4	55	0.4	3	★
1.47	VAPDSD0147	9.4	55.4	55	0.4	3	★
1.48	VAPDSD0148	9.4	55.4	55	0.4	3	★
1.49	VAPDSD0149	9.5	55.5	55	0.5	3	★
1.5	VAPDSD0150	9.5	55.5	55	0.5	3	●
1.51	VAPDSD0151	11.5	55.5	55	0.5	3	★
1.52	VAPDSD0152	11.5	55.5	55	0.5	3	★
1.53	VAPDSD0153	11.5	55.5	55	0.5	3	★
1.54	VAPDSD0154	11.5	55.5	55	0.5	3	★
1.55	VAPDSD0155	11.5	55.5	55	0.5	3	★
1.56	VAPDSD0156	11.5	55.5	55	0.5	3	★
1.57	VAPDSD0157	11.5	55.5	55	0.5	3	★
1.58	VAPDSD0158	11.5	55.5	55	0.5	3	★
1.59	VAPDSD0159	11.5	55.5	55	0.5	3	★
1.6	VAPDSD0160	11.5	55.5	55	0.5	3	★
1.61	VAPDSD0161	11.5	55.5	55	0.5	3	★
1.62	VAPDSD0162	11.5	55.5	55	0.5	3	★
1.63	VAPDSD0163	11.5	55.5	55	0.5	3	★
1.64	VAPDSD0164	11.5	55.5	55	0.5	3	★
1.65	VAPDSD0165	11.5	55.5	55	0.5	3	★
1.66	VAPDSD0166	11.5	55.5	55	0.5	3	★
1.67	VAPDSD0167	11.5	55.5	55	0.5	3	★
1.68	VAPDSD0168	11.5	55.5	55	0.5	3	★
1.69	VAPDSD0169	11.5	55.5	55	0.5	3	★
1.7	VAPDSD0170	11.5	55.5	55	0.5	3	★
1.71	VAPDSD0171	11.5	55.5	55	0.5	3	★
1.72	VAPDSD0172	11.5	55.5	55	0.5	3	★
1.73	VAPDSD0173	11.5	55.5	55	0.5	3	★
1.74	VAPDSD0174	11.5	55.5	55	0.5	3	★
1.75	VAPDSD0175	11.5	55.5	55	0.5	3	★
1.76	VAPDSD0176	11.5	55.5	55	0.5	3	★
1.77	VAPDSD0177	11.5	55.5	55	0.5	3	★
1.78	VAPDSD0178	11.5	55.5	55	0.5	3	★
1.79	VAPDSD0179	11.5	55.5	55	0.5	3	★

DC (mm)	Bestellbezeichnung	Abmessungen (mm)					Lager
		LCF	OAL	LF	PL	DCON	
1.8	VAPDSD0180	11.5	55.5	55	0.5	3	★
1.81	VAPDSD0181	11.5	55.5	55	0.5	3	★
1.82	VAPDSD0182	11.6	55.6	55	0.6	3	★
1.83	VAPDSD0183	11.6	55.6	55	0.6	3	★
1.84	VAPDSD0184	11.6	55.6	55	0.6	3	★
1.85	VAPDSD0185	11.6	55.6	55	0.6	3	★
1.86	VAPDSD0186	11.6	55.6	55	0.6	3	★
1.87	VAPDSD0187	11.6	55.6	55	0.6	3	★
1.88	VAPDSD0188	11.6	55.6	55	0.6	3	★
1.89	VAPDSD0189	11.6	55.6	55	0.6	3	★
1.9	VAPDSD0190	12.6	55.6	55	0.6	3	★
1.91	VAPDSD0191	12.6	60.6	60	0.6	3	★
1.92	VAPDSD0192	12.6	60.6	60	0.6	3	★
1.93	VAPDSD0193	12.6	60.6	60	0.6	3	★
1.94	VAPDSD0194	12.6	60.6	60	0.6	3	★
1.95	VAPDSD0195	12.6	60.6	60	0.6	3	★
1.96	VAPDSD0196	12.6	60.6	60	0.6	3	★
1.97	VAPDSD0197	12.6	60.6	60	0.6	3	★
1.98	VAPDSD0198	12.6	60.6	60	0.6	3	★
1.99	VAPDSD0199	12.6	60.6	60	0.6	3	★
2.0	VAPDSD0200	12.4	60.4	60	0.4	3	●
2.05	VAPDSD0205	12.4	60.4	60	0.4	3	★
2.1	VAPDSD0210	12.4	60.4	60	0.4	3	★
2.15	VAPDSD0215	12.5	60.5	60	0.5	3	★
2.2	VAPDSD0220	12.5	60.5	60	0.5	3	★
2.25	VAPDSD0225	12.5	60.5	60	0.5	3	★
2.3	VAPDSD0230	13.5	60.5	60	0.5	3	★
2.35	VAPDSD0235	13.5	60.5	60	0.5	3	★
2.4	VAPDSD0240	13.5	60.5	60	0.5	3	★
2.45	VAPDSD0245	13.5	60.5	60	0.5	3	★
2.5	VAPDSD0250	13.5	60.5	60	0.5	3	●
2.55	VAPDSD0255	13.5	60.5	60	0.5	3	★
2.6	VAPDSD0260	15.5	60.5	60	0.5	3	★
2.65	VAPDSD0265	15.6	60.6	60	0.6	3	★
2.7	VAPDSD0270	15.6	60.6	60	0.6	3	★
2.75	VAPDSD0275	15.6	60.6	60	0.6	3	★
2.8	VAPDSD0280	15.6	60.6	60	0.6	3	★
2.85	VAPDSD0285	15.6	60.6	60	0.6	3	★
2.9	VAPDSD0290	15.6	60.6	60	0.6	3	★
2.95	VAPDSD0295	15.6	60.6	60	0.6	3	★
3.0	VAPDSD0300	15.6	60.6	60	0.6	3	●
3.05	VAPDSD0305	17.6	70.6	70	0.6	4	★
3.1	VAPDSD0310	17.6	70.6	70	0.6	4	★
3.15	VAPDSD0315	17.7	70.7	70	0.7	4	★
3.2	VAPDSD0320	17.7	70.7	70	0.7	4	★
3.25	VAPDSD0325	17.7	70.7	70	0.7	4	★
3.3	VAPDSD0330	19.7	70.7	70	0.7	4	★
3.35	VAPDSD0335	19.7	70.7	70	0.7	4	★
3.4	VAPDSD0340	19.7	70.7	70	0.7	4	★
3.45	VAPDSD0345	19.7	70.7	70	0.7	4	★

● : Lagerstandard. ★ : Lagerstandard in Japan.

DC (mm)	Bestellbezeichnung	Abmessungen (mm)					Lager
		LCF	OAL	LF	PL	DCON	
3.5	VAPDSD0350	19.7	70.7	70	0.7	4	●
3.55	VAPDSD0355	19.7	70.7	70	0.7	4	★
3.6	VAPDSD0360	21.8	70.8	70	0.8	4	★
3.65	VAPDSD0365	21.8	70.8	70	0.8	4	★
3.7	VAPDSD0370	21.8	70.8	70	0.8	4	★
3.75	VAPDSD0375	21.8	70.8	70	0.8	4	★
3.8	VAPDSD0380	21.8	70.8	70	0.8	4	★
3.85	VAPDSD0385	21.8	70.8	70	0.8	4	★
3.9	VAPDSD0390	21.8	70.8	70	0.8	4	★
3.95	VAPDSD0395	21.8	70.8	70	0.8	4	★
4.0	VAPDSD0400	21.8	70.8	70	0.8	4	●
4.05	VAPDSD0405	21.8	80.8	80	0.8	6	★
4.1	VAPDSD0410	21.9	80.9	80	0.9	6	★
4.15	VAPDSD0415	21.9	80.9	80	0.9	6	★
4.2	VAPDSD0420	21.9	80.9	80	0.9	6	★
4.25	VAPDSD0425	21.9	80.9	80	0.9	6	★
4.3	VAPDSD0430	23.9	80.9	80	0.9	6	★
4.35	VAPDSD0435	23.9	80.9	80	0.9	6	★
4.4	VAPDSD0440	23.9	80.9	80	0.9	6	★
4.45	VAPDSD0445	23.9	80.9	80	0.9	6	★
4.5	VAPDSD0450	23.9	80.9	80	0.9	6	●
4.55	VAPDSD0455	23.9	80.9	80	0.9	6	★
4.6	VAPDSD0460	26.0	81.0	80	1.0	6	★
4.65	VAPDSD0465	26.0	81.0	80	1.0	6	★
4.7	VAPDSD0470	26.0	81.0	80	1.0	6	★
4.75	VAPDSD0475	26.0	81.0	80	1.0	6	★
4.8	VAPDSD0480	26.0	81.0	80	1.0	6	★
4.85	VAPDSD0485	26.0	81.0	80	1.0	6	★
4.9	VAPDSD0490	26.0	81.0	80	1.0	6	★
4.95	VAPDSD0495	26.0	81.0	80	1.0	6	★
5.0	VAPDSD0500	26.0	81.0	80	1.0	6	●
5.05	VAPDSD0505	26.1	81.1	80	1.1	6	★
5.1	VAPDSD0510	26.1	81.1	80	1.1	6	★
5.15	VAPDSD0515	26.1	81.1	80	1.1	6	★
5.2	VAPDSD0520	26.1	81.1	80	1.1	6	★
5.25	VAPDSD0525	26.1	81.1	80	1.1	6	★
5.3	VAPDSD0530	26.1	81.1	80	1.1	6	★
5.35	VAPDSD0535	28.1	81.1	80	1.1	6	★
5.4	VAPDSD0540	28.1	81.1	80	1.1	6	★
5.45	VAPDSD0545	28.1	81.1	80	1.1	6	★
5.5	VAPDSD0550	28.1	81.1	80	1.1	6	●
5.55	VAPDSD0555	28.2	81.2	80	1.2	6	★
5.6	VAPDSD0560	28.2	81.2	80	1.2	6	★
5.65	VAPDSD0565	28.2	81.2	80	1.2	6	★
5.7	VAPDSD0570	28.2	81.2	80	1.2	6	★
5.75	VAPDSD0575	28.2	81.2	80	1.2	6	★
5.8	VAPDSD0580	28.2	81.2	80	1.2	6	★
5.85	VAPDSD0585	28.2	81.2	80	1.2	6	★
5.9	VAPDSD0590	28.2	81.2	80	1.2	6	★
5.95	VAPDSD0595	28.2	81.2	80	1.2	6	★

DC (mm)	Bestellbezeichnung	Abmessungen (mm)					Lager
		LCF	OAL	LF	PL	DCON	
6.0	VAPDSD0600	28.2	81.2	80	1.2	6	●
6.05	VAPDSD0605	31.3	81.3	80	1.3	8	★
6.1	VAPDSD0610	31.3	81.3	80	1.3	8	★
6.15	VAPDSD0615	31.3	81.3	80	1.3	8	★
6.2	VAPDSD0620	31.3	81.3	80	1.3	8	★
6.25	VAPDSD0625	31.3	81.3	80	1.3	8	★
6.3	VAPDSD0630	31.3	81.3	80	1.3	8	★
6.35	VAPDSD0635	31.3	81.3	80	1.3	8	★
6.4	VAPDSD0640	31.3	81.3	80	1.3	8	★
6.45	VAPDSD0645	31.3	81.3	80	1.3	8	★
6.5	VAPDSD0650	31.4	81.4	80	1.4	8	●
6.55	VAPDSD0655	31.4	81.4	80	1.4	8	★
6.6	VAPDSD0660	31.4	81.4	80	1.4	8	★
6.65	VAPDSD0665	31.4	81.4	80	1.4	8	★
6.7	VAPDSD0670	31.4	81.4	80	1.4	8	★
6.75	VAPDSD0675	33.4	81.4	80	1.4	8	★
6.8	VAPDSD0680	33.4	81.4	80	1.4	8	★
6.85	VAPDSD0685	33.4	81.4	80	1.4	8	★
6.9	VAPDSD0690	33.4	81.4	80	1.4	8	★
6.95	VAPDSD0695	33.4	81.4	80	1.4	8	★
7.0	VAPDSD0700	33.5	81.5	80	1.5	8	●
7.05	VAPDSD0705	33.5	81.5	80	1.5	8	★
7.1	VAPDSD0710	33.5	81.5	80	1.5	8	★
7.15	VAPDSD0715	33.5	81.5	80	1.5	8	★
7.2	VAPDSD0720	33.5	81.5	80	1.5	8	★
7.25	VAPDSD0725	33.5	81.5	80	1.5	8	★
7.3	VAPDSD0730	33.5	81.5	80	1.5	8	★
7.35	VAPDSD0735	33.5	81.5	80	1.5	8	★
7.4	VAPDSD0740	33.5	81.5	80	1.5	8	★
7.45	VAPDSD0745	33.5	81.5	80	1.5	8	★
7.5	VAPDSD0750	33.6	81.6	80	1.6	8	●
7.55	VAPDSD0755	36.6	86.6	85	1.6	8	★
7.6	VAPDSD0760	36.6	86.6	85	1.6	8	★
7.65	VAPDSD0765	36.6	86.6	85	1.6	8	★
7.7	VAPDSD0770	36.6	86.6	85	1.6	8	★
7.75	VAPDSD0775	36.6	86.6	85	1.6	8	★
7.8	VAPDSD0780	36.6	86.6	85	1.6	8	★
7.85	VAPDSD0785	36.6	86.6	85	1.6	8	★
7.9	VAPDSD0790	36.6	86.6	85	1.6	8	★
7.95	VAPDSD0795	36.7	86.7	85	1.7	8	★
8.0	VAPDSD0800	36.7	86.7	85	1.7	8	●
8.05	VAPDSD0805	36.7	91.7	90	1.7	10	★
8.1	VAPDSD0810	36.7	91.7	90	1.7	10	★
8.15	VAPDSD0815	36.7	91.7	90	1.7	10	★
8.2	VAPDSD0820	36.7	91.7	90	1.7	10	★
8.25	VAPDSD0825	36.7	91.7	90	1.7	10	★
8.3	VAPDSD0830	36.7	91.7	90	1.7	10	★
8.35	VAPDSD0835	36.7	91.7	90	1.7	10	★
8.4	VAPDSD0840	36.7	91.7	90	1.7	10	★
8.45	VAPDSD0845	36.8	91.8	90	1.8	10	★

HSS

VAPDS

Kurze Spirallänge

DC (mm)	Bestellbezeichnung	Abmessungen (mm)					Lager
		LCF	OAL	LF	PL	DCON	
8.5	VAPDSD0850	36.8	91.8	90	1.8	10	●
8.55	VAPDSD0855	39.8	94.8	93	1.8	10	★
8.6	VAPDSD0860	39.8	94.8	93	1.8	10	★
8.65	VAPDSD0865	39.8	94.8	93	1.8	10	★
8.7	VAPDSD0870	39.8	94.8	93	1.8	10	★
8.75	VAPDSD0875	39.8	94.8	93	1.8	10	★
8.8	VAPDSD0880	39.8	94.8	93	1.8	10	★
8.85	VAPDSD0885	39.8	94.8	93	1.8	10	★
8.9	VAPDSD0890	39.8	94.8	93	1.8	10	★
8.95	VAPDSD0895	39.9	94.9	93	1.9	10	★
9.0	VAPDSD0900	39.9	94.9	93	1.9	10	●
9.1	VAPDSD0910	39.9	94.9	93	1.9	10	★
9.2	VAPDSD0920	39.9	94.9	93	1.9	10	★
9.3	VAPDSD0930	39.9	94.9	93	1.9	10	★
9.4	VAPDSD0940	40.0	95.0	93	2.0	10	★
9.5	VAPDSD0950	40.0	95.0	93	2.0	10	●
9.6	VAPDSD0960	43.0	98.0	96	2.0	10	★
9.7	VAPDSD0970	43.0	98.0	96	2.0	10	★
9.8	VAPDSD0980	43.0	98.0	96	2.0	10	★
9.9	VAPDSD0990	43.1	98.1	96	2.1	10	★
10.0	VAPDSD1000	43.1	98.1	96	2.1	10	●
10.1	VAPDSD1010	43.1	103.1	101	2.1	12	★
10.2	VAPDSD1020	43.1	103.1	101	2.1	12	★
10.3	VAPDSD1030	43.1	103.1	101	2.1	12	★
10.4	VAPDSD1040	43.2	103.2	101	2.2	12	★
10.5	VAPDSD1050	43.2	103.2	101	2.2	12	●
10.6	VAPDSD1060	43.2	103.2	101	2.2	12	★
10.7	VAPDSD1070	47.2	107.2	105	2.2	12	★
10.8	VAPDSD1080	47.2	107.2	105	2.2	12	★
10.9	VAPDSD1090	47.3	107.3	105	2.3	12	★
11.0	VAPDSD1100	47.3	107.3	105	2.3	12	●
11.1	VAPDSD1110	47.3	107.3	105	2.3	12	★
11.2	VAPDSD1120	47.3	107.3	105	2.3	12	★
11.3	VAPDSD1130	47.3	107.3	105	2.3	12	★
11.4	VAPDSD1140	47.4	107.4	105	2.4	12	★
11.5	VAPDSD1150	47.4	107.4	105	2.4	12	★
11.6	VAPDSD1160	47.4	107.4	105	2.4	12	★
11.7	VAPDSD1170	47.4	107.4	105	2.4	12	★
11.8	VAPDSD1180	47.4	107.4	105	2.4	12	★
11.9	VAPDSD1190	51.5	111.5	109	2.5	12	★
12.0	VAPDSD1200	51.5	111.5	109	2.5	12	●
12.1	VAPDSD1210	51.5	111.5	109	2.5	12	★
12.2	VAPDSD1220	51.5	111.5	109	2.5	12	★
12.3	VAPDSD1230	51.6	111.6	109	2.6	12	★
12.4	VAPDSD1240	51.6	111.6	109	2.6	12	★
12.5	VAPDSD1250	51.6	111.6	109	2.6	12	●
12.6	VAPDSD1260	51.6	111.6	109	2.6	12	★
12.7	VAPDSD1270	51.6	111.6	109	2.6	12	★
12.8	VAPDSD1280	51.7	111.7	109	2.7	12	★
12.9	VAPDSD1290	51.7	111.7	109	2.7	12	★
13.0	VAPDSD1300	51.7	111.7	109	2.7	12	★

● : Lagerstandard. ★ : Lagerstandard in Japan.

BOHREN

SCHNITTDATENEMPFEHLUNGEN (Standard Bohrtiefe: 3 x DC oder weniger)

Werkstoff	P		P	K	P	M	P	M
	Baustahl		C-Stahl Ck55 Leg. Stahl 070M55 Guss		Leg. Werkzeugstahl X210Cr12 (Materialien mit geringer Härte) Ferritisch rostfreier Stahl X10CrAl18, X10CrAl13 Martensitischer rostfreier Stahl X20Cr13, X10CrAl13		Leg. Werkzeugstahl X40CrMoV51 (−40HRC) Ausscheidungshärtung von rostfreiem Stahl X7CrNiAl177	
Bohrer Durchm. **DC** (mm)	Drehzahl (min^{-1})	Vorschub (mm/U.)	Drehzahl (min^{-1})	Vorschub (mm/U.)	Drehzahl (min^{-1})	Vorschub (mm/U.)	Drehzahl (min^{-1})	Vorschub (mm/U.)
0.5	18000	0.02	16000	0.02	9000	0.02	8200	0.02
1.0	12000	0.05	10000	0.05	6300	0.05	5500	0.04
2.0	6400	0.09	5500	0.09	3200	0.09	2900	0.05
3.0	4300	0.13	3700	0.13	2100	0.13	1900	0.06
4.0	3200	0.15	2800	0.15	1600	0.15	1400	0.08
5.0	2600	0.18	2200	0.18	1300	0.18	1100	0.10
6.0	2100	0.19	1800	0.19	1100	0.20	950	0.11
8.0	1600	0.24	1400	0.24	800	0.22	720	0.13
10.0	1300	0.28	1100	0.28	640	0.25	570	0.15
12.0	1100	0.34	930	0.34	530	0.30	480	0.17
13.0	980	0.36	860	0.36	490	0.32	440	0.19

1) Bitte passen Sie die Schnittwerte den Bedingungen des Werkstückes und der Maschine an.
2) Bitte setzen Sie Spannzangenfutter mit Präzisionshülsen ein.
3) Verwenden Sie genügend Kühlschmierstoff.
4) VAPDSSUS und VAPDMSUS werden für austenitischen, rostfreien Stahl empfohlen (X5CrNi1810).
5) Bei Bohrungen über 4xDC empfehlen wir Vorschubunterbrechungen.

Bei Verwendung von wasserlöslicher Schmierflüssigkeit sind oben genannte Schnittdaten der Standard.
Bitte reduzieren Sie die Umdrehungen bei Verwendung von nicht-wasserlöslichem Kühlschmierstoff.

VIOLET BOHRER

VAPDM

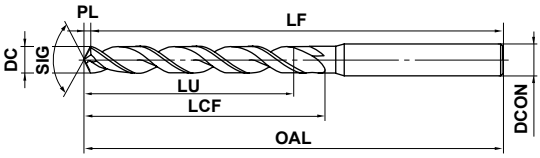
Mittlere Spirallänge



P M K N S H

0.5≤DC≤3	3<DC≤6	6<DC≤10	10<DC≤18	18<DC≤30	30<DC≤32
0 −0.014	0 −0.018	0 −0.022	0 −0.027	0 −0.033	0 −0.039





● Mit der neu entwickelten Violet Beschichtung wird eine noch höhere Effizienz und Standzeit erreicht.
(Standard Bohrtiefe: bis zu 5xDC)

Standard Bohrtiefe : LU = LCF-3DC

DC (mm)	Bestellbezeichnung	Abmessungen (mm) LCF	OAL	LF	PL	DCON	Lager
0.5	VAPDMD0050	6.15	50.15	50	0.15	3	●
0.55	VAPDMD0055	6.17	50.17	50	0.17	3	★
0.6	VAPDMD0060	8.18	50.18	50	0.18	3	★
0.65	VAPDMD0065	8.20	50.20	50	0.20	3	★
0.7	VAPDMD0070	10.21	50.21	50	0.21	3	★
0.75	VAPDMD0075	10.23	50.23	50	0.23	3	★
0.8	VAPDMD0080	10.24	50.24	50	0.24	3	★
0.85	VAPDMD0085	10.26	50.26	50	0.26	3	★
0.9	VAPDMD0090	12.27	50.27	50	0.27	3	★
0.95	VAPDMD0095	12.29	50.29	50	0.29	3	★
1.0	VAPDMD0100	12.3	60.3	60	0.3	3	●
1.05	VAPDMD0105	12.3	60.3	60	0.3	3	★
1.1	VAPDMD0110	16.3	60.3	60	0.3	3	★
1.15	VAPDMD0115	16.4	60.4	60	0.4	3	★
1.2	VAPDMD0120	16.4	60.4	60	0.4	3	★
1.25	VAPDMD0125	16.4	60.4	60	0.4	3	★
1.3	VAPDMD0130	16.4	60.4	60	0.4	3	★
1.35	VAPDMD0135	18.4	60.4	60	0.4	3	★
1.4	VAPDMD0140	18.4	60.4	60	0.4	3	★
1.45	VAPDMD0145	18.4	60.4	60	0.4	3	★
1.5	VAPDMD0150	18.5	60.5	60	0.5	3	●
1.55	VAPDMD0155	20.5	60.5	60	0.5	3	★
1.6	VAPDMD0160	20.5	60.5	60	0.5	3	★
1.65	VAPDMD0165	20.5	60.5	60	0.5	3	★
1.7	VAPDMD0170	20.5	60.5	60	0.5	3	★
1.75	VAPDMD0175	20.5	60.5	60	0.5	3	★
1.8	VAPDMD0180	22.5	60.5	60	0.5	3	★
1.85	VAPDMD0185	22.6	60.6	60	0.6	3	★
1.9	VAPDMD0190	22.6	60.6	60	0.6	3	★
1.95	VAPDMD0195	23.6	60.6	60	0.6	3	★
2.0	VAPDMD0200	23.4	70.4	70	0.4	3	●
2.05	VAPDMD0205	23.4	70.4	70	0.4	3	★
2.1	VAPDMD0210	23.4	70.4	70	0.4	3	★
2.15	VAPDMD0215	23.5	70.5	70	0.5	3	★
2.2	VAPDMD0220	26.5	70.5	70	0.5	3	★
2.25	VAPDMD0225	26.5	70.5	70	0.5	3	★
2.3	VAPDMD0230	26.5	70.5	70	0.5	3	★
2.35	VAPDMD0235	26.5	70.5	70	0.5	3	★
2.4	VAPDMD0240	29.5	70.5	70	0.5	3	★
2.45	VAPDMD0245	29.5	70.5	70	0.5	3	★

DC (mm)	Bestellbezeichnung	Abmessungen (mm) LCF	OAL	LF	PL	DCON	Lager
2.5	VAPDMD0250	29.5	70.5	70	0.5	3	●
2.55	VAPDMD0255	29.5	70.5	70	0.5	3	★
2.6	VAPDMD0260	29.5	70.5	70	0.5	3	★
2.65	VAPDMD0265	29.6	70.6	70	0.6	3	★
2.7	VAPDMD0270	32.6	70.6	70	0.6	3	★
2.75	VAPDMD0275	32.6	70.6	70	0.6	3	★
2.8	VAPDMD0280	32.6	70.6	70	0.6	3	★
2.85	VAPDMD0285	32.6	70.6	70	0.6	3	★
2.9	VAPDMD0290	32.6	70.6	70	0.6	3	★
2.95	VAPDMD0295	32.6	70.6	70	0.6	3	★
3.0	VAPDMD0300	32.6	70.6	70	0.6	3	●
3.05	VAPDMD0305	35.6	85.6	85	0.6	4	★
3.1	VAPDMD0310	35.6	85.6	85	0.6	4	★
3.15	VAPDMD0315	35.7	85.7	85	0.7	4	★
3.2	VAPDMD0320	35.7	85.7	85	0.7	4	★
3.25	VAPDMD0325	35.7	85.7	85	0.7	4	★
3.3	VAPDMD0330	35.7	85.7	85	0.7	4	★
3.35	VAPDMD0335	35.7	85.7	85	0.7	4	★
3.4	VAPDMD0340	38.7	85.7	85	0.7	4	★
3.45	VAPDMD0345	38.7	85.7	85	0.7	4	★
3.5	VAPDMD0350	38.7	85.7	85	0.7	4	●
3.55	VAPDMD0355	38.7	85.7	85	0.7	4	★
3.6	VAPDMD0360	38.8	85.8	85	0.8	4	★
3.65	VAPDMD0365	38.8	85.8	85	0.8	4	★
3.7	VAPDMD0370	38.8	85.8	85	0.8	4	★
3.75	VAPDMD0375	42.8	85.8	85	0.8	4	★
3.8	VAPDMD0380	42.8	85.8	85	0.8	4	★
3.85	VAPDMD0385	42.8	85.8	85	0.8	4	★
3.9	VAPDMD0390	42.8	85.8	85	0.8	4	★
3.95	VAPDMD0395	42.8	85.8	85	0.8	4	★
4.0	VAPDMD0400	42.8	85.8	85	0.8	4	●
4.05	VAPDMD0405	42.8	100.8	100	0.8	6	★
4.1	VAPDMD0410	42.9	100.9	100	0.9	6	★
4.15	VAPDMD0415	42.9	100.9	100	0.9	6	★
4.2	VAPDMD0420	42.9	100.9	100	0.9	6	★
4.25	VAPDMD0425	46.9	100.9	100	0.9	6	★
4.3	VAPDMD0430	46.9	100.9	100	0.9	6	★
4.35	VAPDMD0435	46.9	100.9	100	0.9	6	★
4.4	VAPDMD0440	46.9	100.9	100	0.9	6	★
4.45	VAPDMD0445	46.9	100.9	100	0.9	6	★

● : Lagerstandard. ★ : Lagerstandard in Japan.

DC (mm)	Bestellbezeichnung	Abmessungen (mm)					Lager
		LCF	OAL	LF	PL	DCON	
4.5	VAPDMD0450	46.9	100.9	100	0.9	6	●
4.55	VAPDMD0455	46.9	100.9	100	0.9	6	★
4.6	VAPDMD0460	47.0	101.0	100	1.0	6	★
4.65	VAPDMD0465	47.0	101.0	100	1.0	6	★
4.7	VAPDMD0470	47.0	101.0	100	1.0	6	★
4.75	VAPDMD0475	47.0	101.0	100	1.0	6	★
4.8	VAPDMD0480	52.0	101.0	100	1.0	6	★
4.85	VAPDMD0485	52.0	101.0	100	1.0	6	★
4.9	VAPDMD0490	52.0	101.0	100	1.0	6	★
4.95	VAPDMD0495	52.0	101.0	100	1.0	6	★
5.0	VAPDMD0500	52.0	101.0	100	1.0	6	●
5.05	VAPDMD0505	52.1	101.1	100	1.1	6	★
5.1	VAPDMD0510	52.1	101.1	100	1.1	6	★
5.15	VAPDMD0515	52.1	101.1	100	1.1	6	★
5.2	VAPDMD0520	52.1	101.1	100	1.1	6	★
5.25	VAPDMD0525	52.1	101.1	100	1.1	6	★
5.3	VAPDMD0530	52.1	101.1	100	1.1	6	★
5.35	VAPDMD0535	57.1	107.1	106	1.1	6	★
5.4	VAPDMD0540	57.1	107.1	106	1.1	6	★
5.45	VAPDMD0545	57.1	107.1	106	1.1	6	★
5.5	VAPDMD0550	57.1	107.1	106	1.1	6	●
5.55	VAPDMD0555	57.2	107.2	106	1.2	6	★
5.6	VAPDMD0560	57.2	107.2	106	1.2	6	★
5.65	VAPDMD0565	57.2	107.2	106	1.2	6	★
5.7	VAPDMD0570	57.2	107.2	106	1.2	6	★
5.75	VAPDMD0575	57.2	107.2	106	1.2	6	★
5.8	VAPDMD0580	57.2	107.2	106	1.2	6	★
5.85	VAPDMD0585	57.2	107.2	106	1.2	6	★
5.9	VAPDMD0590	57.2	107.2	106	1.2	6	★
5.95	VAPDMD0595	57.2	107.2	106	1.2	6	★
6.0	VAPDMD0600	57.2	107.2	106	1.2	6	●
6.05	VAPDMD0605	63.3	113.3	112	1.3	8	★
6.1	VAPDMD0610	63.3	113.3	112	1.3	8	★
6.15	VAPDMD0615	63.3	113.3	112	1.3	8	★
6.2	VAPDMD0620	63.3	113.3	112	1.3	8	★
6.25	VAPDMD0625	63.3	113.3	112	1.3	8	★
6.3	VAPDMD0630	63.3	113.3	112	1.3	8	★
6.35	VAPDMD0635	63.3	113.3	112	1.3	8	★
6.4	VAPDMD0640	63.3	113.3	112	1.3	8	★
6.45	VAPDMD0645	63.3	113.3	112	1.3	8	★
6.5	VAPDMD0650	63.4	113.4	112	1.4	8	●
6.55	VAPDMD0655	63.4	113.4	112	1.4	8	★
6.6	VAPDMD0660	63.4	113.4	112	1.4	8	★
6.65	VAPDMD0665	63.4	113.4	112	1.4	8	★
6.7	VAPDMD0670	63.4	113.4	112	1.4	8	★
6.75	VAPDMD0675	68.4	118.4	117	1.4	8	★
6.8	VAPDMD0680	68.4	118.4	117	1.4	8	★
6.85	VAPDMD0685	68.4	118.4	117	1.4	8	★
6.9	VAPDMD0690	68.4	118.4	117	1.4	8	★
6.95	VAPDMD0695	68.4	118.4	117	1.4	8	★

DC (mm)	Bestellbezeichnung	Abmessungen (mm)					Lager
		LCF	OAL	LF	PL	DCON	
7.0	VAPDMD0700	68.5	118.5	117	1.5	8	●
7.05	VAPDMD0705	68.5	118.5	117	1.5	8	★
7.1	VAPDMD0710	68.5	118.5	117	1.5	8	★
7.15	VAPDMD0715	68.5	118.5	117	1.5	8	★
7.2	VAPDMD0720	68.5	118.5	117	1.5	8	★
7.25	VAPDMD0725	68.5	118.5	117	1.5	8	★
7.3	VAPDMD0730	68.5	118.5	117	1.5	8	★
7.35	VAPDMD0735	68.5	118.5	117	1.5	8	★
7.4	VAPDMD0740	68.5	118.5	117	1.5	8	★
7.45	VAPDMD0745	68.5	118.5	117	1.5	8	★
7.5	VAPDMD0750	68.6	118.6	117	1.6	8	●
7.55	VAPDMD0755	74.6	124.6	123	1.6	8	★
7.6	VAPDMD0760	74.6	124.6	123	1.6	8	★
7.65	VAPDMD0765	74.6	124.6	123	1.6	8	★
7.7	VAPDMD0770	74.6	124.6	123	1.6	8	★
7.75	VAPDMD0775	74.6	124.6	123	1.6	8	★
7.8	VAPDMD0780	74.6	124.6	123	1.6	8	★
7.85	VAPDMD0785	74.6	124.6	123	1.6	8	★
7.9	VAPDMD0790	74.6	124.6	123	1.6	8	★
7.95	VAPDMD0795	74.7	124.7	123	1.7	8	★
8.0	VAPDMD0800	74.7	124.7	123	1.7	8	●
8.05	VAPDMD0805	74.7	129.7	128	1.7	10	★
8.1	VAPDMD0810	74.7	129.7	128	1.7	10	★
8.15	VAPDMD0815	74.7	129.7	128	1.7	10	★
8.2	VAPDMD0820	74.7	129.7	128	1.7	10	★
8.25	VAPDMD0825	74.7	129.7	128	1.7	10	★
8.3	VAPDMD0830	74.7	129.7	128	1.7	10	★
8.35	VAPDMD0835	74.7	129.7	128	1.7	10	★
8.4	VAPDMD0840	74.7	129.7	128	1.7	10	★
8.45	VAPDMD0845	74.8	129.8	128	1.8	10	★
8.5	VAPDMD0850	74.8	129.8	128	1.8	10	●
8.55	VAPDMD0855	80.8	135.8	134	1.8	10	★
8.6	VAPDMD0860	80.8	135.8	134	1.8	10	★
8.65	VAPDMD0865	80.8	135.8	134	1.8	10	★
8.7	VAPDMD0870	80.8	135.8	134	1.8	10	★
8.75	VAPDMD0875	80.8	135.8	134	1.8	10	★
8.8	VAPDMD0880	80.8	135.8	134	1.8	10	★
8.85	VAPDMD0885	80.8	135.8	134	1.8	10	★
8.9	VAPDMD0890	80.8	135.8	134	1.8	10	★
8.95	VAPDMD0895	80.9	135.9	134	1.9	10	★
9.0	VAPDMD0900	80.9	135.9	134	1.9	10	●
9.1	VAPDMD0910	80.9	135.9	134	1.9	10	★
9.2	VAPDMD0920	80.9	135.9	134	1.9	10	★
9.3	VAPDMD0930	80.9	135.9	134	1.9	10	★
9.4	VAPDMD0940	81.0	136.0	134	2.0	10	★
9.5	VAPDMD0950	81.0	136.0	134	2.0	10	●
9.6	VAPDMD0960	87.0	142.0	140	2.0	10	★
9.7	VAPDMD0970	87.0	142.0	140	2.0	10	★
9.8	VAPDMD0980	87.0	142.0	140	2.0	10	★
9.9	VAPDMD0990	87.1	142.1	140	2.1	10	★

HSS

VAPDM

Mittlere Spirallänge

DC (mm)	Bestellbezeichnung	Abmessungen (mm)					Lager
		LCF	OAL	LF	PL	DCON	
10.0	VAPDMD1000	87.1	142.1	140	2.1	10	●
10.1	VAPDMD1010	87.1	147.1	145	2.1	12	★
10.2	VAPDMD1020	87.1	147.1	145	2.1	12	★
10.3	VAPDMD1030	87.1	147.1	145	2.1	12	★
10.4	VAPDMD1040	87.2	147.2	145	2.2	12	★
10.5	VAPDMD1050	87.2	147.2	145	2.2	12	●
10.6	VAPDMD1060	87.2	147.2	145	2.2	12	★
10.7	VAPDMD1070	94.2	154.2	152	2.2	12	★
10.8	VAPDMD1080	94.2	154.2	152	2.2	12	★
10.9	VAPDMD1090	94.3	154.3	152	2.3	12	★
11.0	VAPDMD1100	94.3	154.3	152	2.3	12	●
11.1	VAPDMD1110	94.3	154.3	152	2.3	12	★
11.2	VAPDMD1120	94.3	154.3	152	2.3	12	★
11.3	VAPDMD1130	94.3	154.3	152	2.3	12	★
11.4	VAPDMD1140	94.4	154.4	152	2.4	12	★
11.5	VAPDMD1150	94.4	154.4	152	2.4	12	●
11.6	VAPDMD1160	94.4	154.4	152	2.4	12	★
11.7	VAPDMD1170	94.4	154.4	152	2.4	12	★
11.8	VAPDMD1180	94.4	154.4	152	2.4	12	★
11.9	VAPDMD1190	101.5	161.5	159	2.5	12	★
12.0	VAPDMD1200	101.5	161.5	159	2.5	12	●
12.1	VAPDMD1210	101.5	161.5	159	2.5	12	★
12.2	VAPDMD1220	101.5	161.5	159	2.5	12	★
12.3	VAPDMD1230	101.6	161.6	159	2.6	12	★
12.4	VAPDMD1240	101.6	161.6	159	2.6	12	★
12.5	VAPDMD1250	101.6	161.6	159	2.6	12	●
12.6	VAPDMD1260	101.6	161.6	159	2.6	12	★
12.7	VAPDMD1270	101.6	161.6	159	2.6	12	★
12.8	VAPDMD1280	101.7	161.7	159	2.7	12	★
12.9	VAPDMD1290	101.7	161.7	159	2.7	12	★
13.0	VAPDMD1300	101.7	161.7	159	2.7	12	●
13.5	VAPDMD1350	102.8	162.8	160	2.8	16	●
14.0	VAPDMD1400	102.9	162.9	160	2.9	16	●
14.1	VAPDMD1410	107.9	167.9	165	2.9	16	★
14.2	VAPDMD1420	107.9	167.9	165	2.9	16	★
14.5	VAPDMD1450	108.0	168.0	165	3.0	16	●
15.0	VAPDMD1500	108.1	168.1	165	3.1	16	●
15.5	VAPDMD1550	113.2	173.2	170	3.2	16	★
15.6	VAPDMD1560	113.2	173.2	170	3.2	16	★
15.7	VAPDMD1570	113.3	173.3	170	3.3	16	★
16.0	VAPDMD1600	113.3	173.3	170	3.3	16	●
16.5	VAPDMD1650	113.4	178.4	175	3.4	20	●
17.0	VAPDMD1700	113.5	178.5	175	3.5	20	●
17.5	VAPDMD1750	118.6	183.6	180	3.6	20	●
17.6	VAPDMD1760	118.7	183.7	180	3.7	20	★
17.7	VAPDMD1770	118.7	183.7	180	3.7	20	★
18.0	VAPDMD1800	118.7	183.7	180	3.7	20	●
18.5	VAPDMD1850	123.8	188.8	185	3.8	20	★
19.0	VAPDMD1900	123.9	188.9	185	3.9	20	★
19.5	VAPDMD1950	124.0	189.0	185	4.0	20	★

DC (mm)	Bestellbezeichnung	Abmessungen (mm)					Lager
		LCF	OAL	LF	PL	DCON	
19.6	VAPDMD1960	124.1	189.1	185	4.1	20	★
19.7	VAPDMD1970	124.1	189.1	185	4.1	20	★
20.0	VAPDMD2000	124.1	189.1	185	4.1	20	★
20.5	VAPDMD2050	129.3	204.3	200	4.3	25	●
21.0	VAPDMD2100	129.4	204.4	200	4.4	25	●
21.1	VAPDMD2110	129.4	204.4	200	4.4	25	★
21.2	VAPDMD2120	129.4	204.4	200	4.4	25	★
21.5	VAPDMD2150	129.5	204.5	200	4.5	25	★
22.0	VAPDMD2200	129.6	204.6	200	4.6	25	●
22.5	VAPDMD2250	134.7	209.7	205	4.7	25	★
23.0	VAPDMD2300	134.8	209.8	205	4.8	25	●
23.5	VAPDMD2350	134.9	209.9	205	4.9	25	★
24.0	VAPDMD2400	140.0	215.0	210	5.0	25	★
24.5	VAPDMD2450	140.1	215.1	210	5.1	25	★
25.0	VAPDMD2500	140.2	215.2	210	5.2	25	★
25.5	VAPDMD2550	145.3	225.3	220	5.3	32	●
26.0	VAPDMD2600	145.4	225.4	220	5.4	32	★
26.5	VAPDMD2650	145.5	225.5	220	5.5	32	★
27.0	VAPDMD2700	145.6	225.6	220	5.6	32	★
28.0	VAPDMD2800	145.8	225.8	220	5.8	32	★
29.0	VAPDMD2900	151.0	231.0	225	6.0	32	★
30.0	VAPDMD3000	151.2	231.2	225	6.2	32	★
31.0	VAPDMD3100	156.4	236.4	230	6.4	32	★
32.0	VAPDMD3200	161.6	241.6	235	6.6	32	★

● : Lagerstandard. ★ : Lagerstandard in Japan.

BOHREN

SCHNITTDATENEMPFEHLUNGEN (Standard Bohrtiefe: 5 x D oder weniger)

Werkstoff	P		P	K	P	M	P	M
	Baustahl		C-Stahl Ck55 Leg. Stahl 070M55 Guss		Leg. Werkzeugstahl X210Cr12 (Materialien mit geringer Härte) Ferritisch rostfreier Stahl X10CrAl18, X10CrAl13 Martensitischer rostfreier Stahl X20Cr13, X10CrAl13		Leg. Werkzeugstahl X40CrMoV51 (−40HRC) Ausscheidungshärtung von rostfreiem Stahl X7CrNiAl177	
Bohrer Durchm. **DC** (mm)	Drehzahl (min^{-1})	Vorschub (mm/U.)	Drehzahl (min^{-1})	Vorschub (mm/U.)	Drehzahl (min^{-1})	Vorschub (mm/U.)	Drehzahl (min^{-1})	Vorschub (mm/U.)
0.5	17000	0.01	12800	0.01	8000	0.01	6600	0.01
1.0	11000	0.05	8300	0.05	5000	0.05	4100	0.04
2.0	6400	0.09	4800	0.09	2900	0.06	2400	0.05
3.0	4300	0.13	3200	0.13	1900	0.10	1600	0.06
4.0	3200	0.15	2400	0.15	1400	0.10	1200	0.08
5.0	2600	0.18	1900	0.18	1100	0.13	950	0.10
6.0	2100	0.19	1600	0.20	950	0.15	800	0.11
8.0	1600	0.24	1200	0.22	720	0.18	600	0.13
10.0	1300	0.28	950	0.25	570	0.21	480	0.15
12.0	1100	0.34	800	0.30	480	0.25	400	0.17
14.0	910	0.39	680	0.35	410	0.30	340	0.21
15.0	850	0.40	640	0.36	380	0.31	320	0.22
16.0	800	0.42	600	0.38	360	0.32	300	0.23
18.0	710	0.44	530	0.40	320	0.34	270	0.24
20.0	570	0.44	450	0.40	250	0.34	220	0.24
22.0	520	0.46	410	0.42	230	0.36	200	0.25
24.0	480	0.48	370	0.44	210	0.37	190	0.26
26.0	440	0.51	340	0.46	200	0.39	170	0.28
28.0	410	0.53	320	0.48	180	0.41	160	0.29
30.0	380	0.55	300	0.50	170	0.43	150	0.30
32.0	360	0.55	280	0.50	160	0.43	140	0.30

1) Bitte passen Sie die Schnittwerte den Bedingungen des Werkstückes und der Maschine an.
2) Bitte setzen Sie Spannzangenfutter mit Präzisionshülsen ein.
3) Verwenden Sie genügend Kühlschmierstoff.
4) VAPDSSUS und VAPDMSUS werden für austenitischen, rostfreien Stahl empfohlen (X5CrNi1810).
5) Bei Bohrungen über 4xDC empfehlen wir Vorschubunterbrechungen.

Bei Verwendung von wasserlöslicher Schmierflüssigkeit sind oben genannte Schnittdaten der Standard.
Bitte reduzieren Sie die Umdrehungen bei Verwendung von nicht-wasserlöslichem Kühlschmierstoff.

VIOLET BOHRER

VAPDSSUS

Kurz, hochpräzise, für rostfreien Stahl

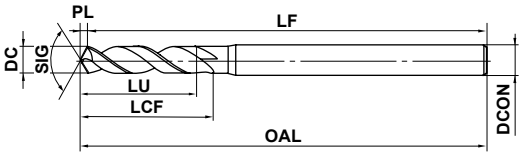


P M K N S H

0.5≤DC≤3	3<DC≤6	6<DC≤10	10<DC≤18	18<DC≤20
0 −0.014	0 −0.018	0 −0.022	0 −0.027	0 −0.033

* Bohrertoleranz: 0−0.009mm
(außer ϕ <4.0mm und ϕ in 0.1mm Stufungen (e.g. 0.5 ; 0.6....))





● Die Kombination aus Design und Violet-Beschichtung ermöglicht hocheffizientes Bohren und lange Standzeit beim Bohren von rostfreien Stahlsorten.

Standard Bohrtiefe : LU = LCF-3DC

DC (mm)	Bestellbezeichnung	Abmessungen (mm) LCF	OAL	LF	PL	DCON	Lager
0.5	VAPDSSUSD0050	3.10	50.10	50	0.10	3	●
0.51	VAPDSSUSD0051	3.11	50.11	50	0.11	3	★
0.52	VAPDSSUSD0052	3.11	50.11	50	0.11	3	★
0.53	VAPDSSUSD0053	3.11	50.11	50	0.11	3	★
0.54	VAPDSSUSD0054	3.11	50.11	50	0.11	3	★
0.55	VAPDSSUSD0055	3.11	50.11	50	0.11	3	★
0.56	VAPDSSUSD0056	4.12	50.12	50	0.12	3	★
0.57	VAPDSSUSD0057	4.12	50.12	50	0.12	3	★
0.58	VAPDSSUSD0058	4.12	50.12	50	0.12	3	★
0.59	VAPDSSUSD0059	4.12	50.12	50	0.12	3	★
0.6	VAPDSSUSD0060	5.12	50.12	50	0.12	3	★
0.61	VAPDSSUSD0061	5.13	50.13	50	0.13	3	★
0.62	VAPDSSUSD0062	5.13	50.13	50	0.13	3	★
0.63	VAPDSSUSD0063	5.13	50.13	50	0.13	3	★
0.64	VAPDSSUSD0064	5.13	50.13	50	0.13	3	★
0.65	VAPDSSUSD0065	5.13	50.13	50	0.13	3	★
0.66	VAPDSSUSD0066	5.14	50.14	50	0.14	3	★
0.67	VAPDSSUSD0067	5.14	50.14	50	0.14	3	★
0.68	VAPDSSUSD0068	5.14	50.14	50	0.14	3	★
0.69	VAPDSSUSD0069	5.14	50.14	50	0.14	3	★
0.7	VAPDSSUSD0070	5.14	50.14	50	0.14	3	★
0.71	VAPDSSUSD0071	5.15	50.15	50	0.15	3	★
0.72	VAPDSSUSD0072	5.15	50.15	50	0.15	3	★
0.73	VAPDSSUSD0073	5.15	50.15	50	0.15	3	★
0.74	VAPDSSUSD0074	5.15	50.15	50	0.15	3	★
0.75	VAPDSSUSD0075	5.16	50.16	50	0.16	3	★
0.76	VAPDSSUSD0076	5.16	50.16	50	0.16	3	★
0.77	VAPDSSUSD0077	5.16	50.16	50	0.16	3	★
0.78	VAPDSSUSD0078	5.16	50.16	50	0.16	3	★
0.79	VAPDSSUSD0079	5.16	50.16	50	0.16	3	★
0.8	VAPDSSUSD0080	5.17	50.17	50	0.17	3	★
0.81	VAPDSSUSD0081	5.17	50.17	50	0.17	3	★
0.82	VAPDSSUSD0082	5.17	50.17	50	0.17	3	★
0.83	VAPDSSUSD0083	5.17	50.17	50	0.17	3	★
0.84	VAPDSSUSD0084	5.17	50.17	50	0.17	3	★
0.85	VAPDSSUSD0085	5.18	50.18	50	0.18	3	★
0.86	VAPDSSUSD0086	6.18	50.18	50	0.18	3	★
0.87	VAPDSSUSD0087	6.18	50.18	50	0.18	3	★
0.88	VAPDSSUSD0088	6.18	50.18	50	0.18	3	★
0.89	VAPDSSUSD0089	6.18	50.18	50	0.18	3	★

DC (mm)	Bestellbezeichnung	Abmessungen (mm) LCF	OAL	LF	PL	DCON	Lager
0.9	VAPDSSUSD0090	6.19	50.19	50	0.19	3	●
0.91	VAPDSSUSD0091	6.19	50.19	50	0.19	3	★
0.92	VAPDSSUSD0092	6.19	50.19	50	0.19	3	★
0.93	VAPDSSUSD0093	6.19	50.19	50	0.19	3	★
0.94	VAPDSSUSD0094	6.19	50.19	50	0.19	3	★
0.95	VAPDSSUSD0095	6.20	50.20	50	0.20	3	★
0.96	VAPDSSUSD0096	6.20	50.20	50	0.20	3	★
0.97	VAPDSSUSD0097	6.20	50.20	50	0.20	3	★
0.98	VAPDSSUSD0098	6.20	50.20	50	0.20	3	★
0.99	VAPDSSUSD0099	6.21	50.21	50	0.21	3	★
1.0	VAPDSSUSD0100	6.2	50.2	50	0.2	3	●
1.01	VAPDSSUSD0101	6.2	50.2	50	0.2	3	★
1.02	VAPDSSUSD0102	6.2	50.2	50	0.2	3	★
1.03	VAPDSSUSD0103	6.2	50.2	50	0.2	3	★
1.04	VAPDSSUSD0104	6.2	50.2	50	0.2	3	★
1.05	VAPDSSUSD0105	6.2	50.2	50	0.2	3	★
1.06	VAPDSSUSD0106	6.2	50.2	50	0.2	3	★
1.07	VAPDSSUSD0107	8.2	55.2	55	0.2	3	★
1.08	VAPDSSUSD0108	8.2	55.2	55	0.2	3	★
1.09	VAPDSSUSD0109	8.2	55.2	55	0.2	3	★
1.1	VAPDSSUSD0110	8.2	55.2	55	0.2	3	★
1.11	VAPDSSUSD0111	8.2	55.2	55	0.2	3	★
1.12	VAPDSSUSD0112	8.2	55.2	55	0.2	3	★
1.13	VAPDSSUSD0113	8.2	55.2	55	0.2	3	★
1.14	VAPDSSUSD0114	8.2	55.2	55	0.2	3	★
1.15	VAPDSSUSD0115	8.2	55.2	55	0.2	3	★
1.16	VAPDSSUSD0116	8.2	55.2	55	0.2	3	★
1.17	VAPDSSUSD0117	8.2	55.2	55	0.2	3	★
1.18	VAPDSSUSD0118	8.2	55.2	55	0.2	3	★
1.19	VAPDSSUSD0119	8.3	55.3	55	0.3	3	★
1.2	VAPDSSUSD0120	8.3	55.3	55	0.3	3	★
1.21	VAPDSSUSD0121	8.3	55.3	55	0.3	3	★
1.22	VAPDSSUSD0122	8.3	55.3	55	0.3	3	★
1.23	VAPDSSUSD0123	8.3	55.3	55	0.3	3	★
1.24	VAPDSSUSD0124	8.3	55.3	55	0.3	3	★
1.25	VAPDSSUSD0125	8.3	55.3	55	0.3	3	★
1.26	VAPDSSUSD0126	8.3	55.3	55	0.3	3	★
1.27	VAPDSSUSD0127	8.3	55.3	55	0.3	3	★
1.28	VAPDSSUSD0128	8.3	55.3	55	0.3	3	★
1.29	VAPDSSUSD0129	8.3	55.3	55	0.3	3	★

● : Lagerstandard. ★ : Lagerstandard in Japan.

DC (mm)	Bestellbezeichnung	Abmessungen (mm)					Lager
		LCF	OAL	LF	PL	DCON	
1.3	VAPDSSUSD0130	9.3	55.3	55	0.3	3	★
1.31	VAPDSSUSD0131	9.3	55.3	55	0.3	3	★
1.32	VAPDSSUSD0132	9.3	55.3	55	0.3	3	★
1.33	VAPDSSUSD0133	9.3	55.3	55	0.3	3	★
1.34	VAPDSSUSD0134	9.3	55.3	55	0.3	3	★
1.35	VAPDSSUSD0135	9.3	55.3	55	0.3	3	★
1.36	VAPDSSUSD0136	9.3	55.3	55	0.3	3	★
1.37	VAPDSSUSD0137	9.3	55.3	55	0.3	3	★
1.38	VAPDSSUSD0138	9.3	55.3	55	0.3	3	★
1.39	VAPDSSUSD0139	9.3	55.3	55	0.3	3	★
1.4	VAPDSSUSD0140	9.3	55.3	55	0.3	3	★
1.41	VAPDSSUSD0141	9.3	55.3	55	0.3	3	★
1.42	VAPDSSUSD0142	9.3	55.3	55	0.3	3	★
1.43	VAPDSSUSD0143	9.3	55.3	55	0.3	3	★
1.44	VAPDSSUSD0144	9.3	55.3	55	0.3	3	★
1.45	VAPDSSUSD0145	9.3	55.3	55	0.3	3	★
1.46	VAPDSSUSD0146	9.3	55.3	55	0.3	3	★
1.47	VAPDSSUSD0147	9.3	55.3	55	0.3	3	★
1.48	VAPDSSUSD0148	9.3	55.3	55	0.3	3	★
1.49	VAPDSSUSD0149	9.3	55.3	55	0.3	3	★
1.5	VAPDSSUSD0150	9.3	55.3	55	0.3	3	●
1.51	VAPDSSUSD0151	11.3	55.3	55	0.3	3	★
1.52	VAPDSSUSD0152	11.3	55.3	55	0.3	3	★
1.53	VAPDSSUSD0153	11.3	55.3	55	0.3	3	★
1.54	VAPDSSUSD0154	11.3	55.3	55	0.3	3	★
1.55	VAPDSSUSD0155	11.3	55.3	55	0.3	3	★
1.56	VAPDSSUSD0156	11.3	55.3	55	0.3	3	★
1.57	VAPDSSUSD0157	11.3	55.3	55	0.3	3	★
1.58	VAPDSSUSD0158	11.3	55.3	55	0.3	3	★
1.59	VAPDSSUSD0159	11.3	55.3	55	0.3	3	★
1.6	VAPDSSUSD0160	11.3	55.3	55	0.3	3	★
1.61	VAPDSSUSD0161	11.3	55.3	55	0.3	3	★
1.62	VAPDSSUSD0162	11.3	55.3	55	0.3	3	★
1.63	VAPDSSUSD0163	11.3	55.3	55	0.3	3	★
1.64	VAPDSSUSD0164	11.3	55.3	55	0.3	3	★
1.65	VAPDSSUSD0165	11.3	55.3	55	0.3	3	★
1.66	VAPDSSUSD0166	11.3	55.3	55	0.3	3	★
1.67	VAPDSSUSD0167	11.4	55.4	55	0.4	3	★
1.68	VAPDSSUSD0168	11.4	55.4	55	0.4	3	★
1.69	VAPDSSUSD0169	11.4	55.4	55	0.4	3	★
1.7	VAPDSSUSD0170	11.4	55.4	55	0.4	3	★
1.71	VAPDSSUSD0171	11.4	55.4	55	0.4	3	★
1.72	VAPDSSUSD0172	11.4	55.4	55	0.4	3	★
1.73	VAPDSSUSD0173	11.4	55.4	55	0.4	3	★
1.74	VAPDSSUSD0174	11.4	55.4	55	0.4	3	★
1.75	VAPDSSUSD0175	11.4	55.4	55	0.4	3	★
1.76	VAPDSSUSD0176	11.4	55.4	55	0.4	3	★
1.77	VAPDSSUSD0177	11.4	55.4	55	0.4	3	★
1.78	VAPDSSUSD0178	11.4	55.4	55	0.4	3	★
1.79	VAPDSSUSD0179	11.4	55.4	55	0.4	3	★

DC (mm)	Bestellbezeichnung	Abmessungen (mm)					Lager
		LCF	OAL	LF	PL	DCON	
1.8	VAPDSSUSD0180	11.4	55.4	55	0.4	3	★
1.81	VAPDSSUSD0181	11.4	55.4	55	0.4	3	★
1.82	VAPDSSUSD0182	11.4	55.4	55	0.4	3	★
1.83	VAPDSSUSD0183	11.4	55.4	55	0.4	3	★
1.84	VAPDSSUSD0184	11.4	55.4	55	0.4	3	★
1.85	VAPDSSUSD0185	11.4	55.4	55	0.4	3	★
1.86	VAPDSSUSD0186	11.4	55.4	55	0.4	3	★
1.87	VAPDSSUSD0187	11.4	55.4	55	0.4	3	★
1.88	VAPDSSUSD0188	11.4	55.4	55	0.4	3	★
1.89	VAPDSSUSD0189	11.4	55.4	55	0.4	3	★
1.9	VAPDSSUSD0190	12.4	55.4	55	0.4	3	★
1.91	VAPDSSUSD0191	12.4	60.4	60	0.4	3	★
1.92	VAPDSSUSD0192	12.4	60.4	60	0.4	3	★
1.93	VAPDSSUSD0193	12.4	60.4	60	0.4	3	★
1.94	VAPDSSUSD0194	12.4	60.4	60	0.4	3	★
1.95	VAPDSSUSD0195	12.4	60.4	60	0.4	3	★
1.96	VAPDSSUSD0196	12.4	60.4	60	0.4	3	★
1.97	VAPDSSUSD0197	12.4	60.4	60	0.4	3	★
1.98	VAPDSSUSD0198	12.4	60.4	60	0.4	3	★
1.99	VAPDSSUSD0199	12.4	60.4	60	0.4	3	★
2.0	VAPDSSUSD0200	12.4	60.4	60	0.4	3	●
2.01	VAPDSSUSD0201	12.4	60.4	60	0.4	3	★
2.02	VAPDSSUSD0202	12.4	60.4	60	0.4	3	★
2.03	VAPDSSUSD0203	12.4	60.4	60	0.4	3	★
2.04	VAPDSSUSD0204	12.4	60.4	60	0.4	3	★
2.05	VAPDSSUSD0205	12.4	60.4	60	0.4	3	★
2.06	VAPDSSUSD0206	12.4	60.4	60	0.4	3	★
2.07	VAPDSSUSD0207	12.4	60.4	60	0.4	3	★
2.08	VAPDSSUSD0208	12.4	60.4	60	0.4	3	★
2.09	VAPDSSUSD0209	12.4	60.4	60	0.4	3	★
2.1	VAPDSSUSD0210	12.4	60.4	60	0.4	3	★
2.11	VAPDSSUSD0211	12.4	60.4	60	0.4	3	★
2.12	VAPDSSUSD0212	12.4	60.4	60	0.4	3	★
2.13	VAPDSSUSD0213	12.4	60.4	60	0.4	3	★
2.14	VAPDSSUSD0214	12.4	60.4	60	0.4	3	★
2.15	VAPDSSUSD0215	12.5	60.5	60	0.5	3	★
2.16	VAPDSSUSD0216	12.5	60.5	60	0.5	3	★
2.17	VAPDSSUSD0217	12.5	60.5	60	0.5	3	★
2.18	VAPDSSUSD0218	12.5	60.5	60	0.5	3	★
2.19	VAPDSSUSD0219	12.5	60.5	60	0.5	3	★
2.2	VAPDSSUSD0220	12.5	60.5	60	0.5	3	★
2.21	VAPDSSUSD0221	12.5	60.5	60	0.5	3	★
2.22	VAPDSSUSD0222	12.5	60.5	60	0.5	3	★
2.23	VAPDSSUSD0223	12.5	60.5	60	0.5	3	★
2.24	VAPDSSUSD0224	12.5	60.5	60	0.5	3	★
2.25	VAPDSSUSD0225	12.5	60.5	60	0.5	3	★
2.26	VAPDSSUSD0226	12.5	60.5	60	0.5	3	★
2.27	VAPDSSUSD0227	12.5	60.5	60	0.5	3	★
2.28	VAPDSSUSD0228	12.5	60.5	60	0.5	3	★
2.29	VAPDSSUSD0229	12.5	60.5	60	0.5	3	★

HSS

VAPDSSUS

Kurze Spirallänge, hochpräzise, für rostfreien Stahl

DC (mm)	Bestellbezeichnung	Abmessungen (mm)					Lager
		LCF	OAL	LF	PL	DCON	
2.3	VAPDSSUSD0230	13.5	60.5	60	0.5	3	★
2.31	VAPDSSUSD0231	13.5	60.5	60	0.5	3	★
2.32	VAPDSSUSD0232	13.5	60.5	60	0.5	3	★
2.33	VAPDSSUSD0233	13.5	60.5	60	0.5	3	★
2.34	VAPDSSUSD0234	13.5	60.5	60	0.5	3	★
2.35	VAPDSSUSD0235	13.5	60.5	60	0.5	3	★
2.36	VAPDSSUSD0236	13.5	60.5	60	0.5	3	★
2.37	VAPDSSUSD0237	13.5	60.5	60	0.5	3	★
2.38	VAPDSSUSD0238	13.5	60.5	60	0.5	3	★
2.39	VAPDSSUSD0239	13.5	60.5	60	0.5	3	★
2.4	VAPDSSUSD0240	13.5	60.5	60	0.5	3	★
2.41	VAPDSSUSD0241	13.5	60.5	60	0.5	3	★
2.42	VAPDSSUSD0242	13.5	60.5	60	0.5	3	★
2.43	VAPDSSUSD0243	13.5	60.5	60	0.5	3	★
2.44	VAPDSSUSD0244	13.5	60.5	60	0.5	3	★
2.45	VAPDSSUSD0245	13.5	60.5	60	0.5	3	★
2.46	VAPDSSUSD0246	13.5	60.5	60	0.5	3	★
2.47	VAPDSSUSD0247	13.5	60.5	60	0.5	3	★
2.48	VAPDSSUSD0248	13.5	60.5	60	0.5	3	★
2.49	VAPDSSUSD0249	13.5	60.5	60	0.5	3	★
2.5	VAPDSSUSD0250	13.5	60.5	60	0.5	3	●
2.51	VAPDSSUSD0251	13.5	60.5	60	0.5	3	★
2.52	VAPDSSUSD0252	13.5	60.5	60	0.5	3	★
2.53	VAPDSSUSD0253	13.5	60.5	60	0.5	3	★
2.54	VAPDSSUSD0254	13.5	60.5	60	0.5	3	★
2.55	VAPDSSUSD0255	13.5	60.5	60	0.5	3	★
2.56	VAPDSSUSD0256	13.5	60.5	60	0.5	3	★
2.57	VAPDSSUSD0257	13.5	60.5	60	0.5	3	★
2.58	VAPDSSUSD0258	13.5	60.5	60	0.5	3	★
2.59	VAPDSSUSD0259	13.5	60.5	60	0.5	3	★
2.6	VAPDSSUSD0260	15.5	60.5	60	0.5	3	★
2.61	VAPDSSUSD0261	15.5	60.5	60	0.5	3	★
2.62	VAPDSSUSD0262	15.5	60.5	60	0.5	3	★
2.63	VAPDSSUSD0263	15.5	60.5	60	0.5	3	★
2.64	VAPDSSUSD0264	15.6	60.6	60	0.6	3	★
2.65	VAPDSSUSD0265	15.6	60.6	60	0.6	3	★
2.66	VAPDSSUSD0266	15.6	60.6	60	0.6	3	★
2.67	VAPDSSUSD0267	15.6	60.6	60	0.6	3	★
2.68	VAPDSSUSD0268	15.6	60.6	60	0.6	3	★
2.69	VAPDSSUSD0269	15.6	60.6	60	0.6	3	★
2.7	VAPDSSUSD0270	15.6	60.6	60	0.6	3	★
2.71	VAPDSSUSD0271	15.6	60.6	60	0.6	3	★
2.72	VAPDSSUSD0272	15.6	60.6	60	0.6	3	★
2.73	VAPDSSUSD0273	15.6	60.6	60	0.6	3	★
2.74	VAPDSSUSD0274	15.6	60.6	60	0.6	3	★
2.75	VAPDSSUSD0275	15.6	60.6	60	0.6	3	★
2.76	VAPDSSUSD0276	15.6	60.6	60	0.6	3	★
2.77	VAPDSSUSD0277	15.6	60.6	60	0.6	3	★
2.78	VAPDSSUSD0278	15.6	60.6	60	0.6	3	★
2.79	VAPDSSUSD0279	15.6	60.6	60	0.6	3	★

DC (mm)	Bestellbezeichnung	Abmessungen (mm)					Lager
		LCF	OAL	LF	PL	DCON	
2.8	VAPDSSUSD0280	15.6	60.6	60	0.6	3	★
2.81	VAPDSSUSD0281	15.6	60.6	60	0.6	3	★
2.82	VAPDSSUSD0282	15.6	60.6	60	0.6	3	★
2.83	VAPDSSUSD0283	15.6	60.6	60	0.6	3	★
2.84	VAPDSSUSD0284	15.6	60.6	60	0.6	3	★
2.85	VAPDSSUSD0285	15.6	60.6	60	0.6	3	★
2.86	VAPDSSUSD0286	15.6	60.6	60	0.6	3	★
2.87	VAPDSSUSD0287	15.6	60.6	60	0.6	3	★
2.88	VAPDSSUSD0288	15.6	60.6	60	0.6	3	★
2.89	VAPDSSUSD0289	15.6	60.6	60	0.6	3	★
2.9	VAPDSSUSD0290	15.6	60.6	60	0.6	3	★
2.91	VAPDSSUSD0291	15.6	60.6	60	0.6	3	★
2.92	VAPDSSUSD0292	15.6	60.6	60	0.6	3	★
2.93	VAPDSSUSD0293	15.6	60.6	60	0.6	3	★
2.94	VAPDSSUSD0294	15.6	60.6	60	0.6	3	★
2.95	VAPDSSUSD0295	15.6	60.6	60	0.6	3	★
2.96	VAPDSSUSD0296	15.6	60.6	60	0.6	3	★
2.97	VAPDSSUSD0297	15.6	60.6	60	0.6	3	★
2.98	VAPDSSUSD0298	15.6	60.6	60	0.6	3	★
2.99	VAPDSSUSD0299	15.6	60.6	60	0.6	3	★
3.0	VAPDSSUSD0300	15.6	60.6	60	0.6	3	●
3.01	VAPDSSUSD0301	17.6	70.6	70	0.6	4	★
3.02	VAPDSSUSD0302	17.6	70.6	70	0.6	4	★
3.03	VAPDSSUSD0303	17.6	70.6	70	0.6	4	★
3.04	VAPDSSUSD0304	17.6	70.6	70	0.6	4	★
3.05	VAPDSSUSD0305	17.6	70.6	70	0.6	4	★
3.06	VAPDSSUSD0306	17.6	70.6	70	0.6	4	★
3.07	VAPDSSUSD0307	17.6	70.6	70	0.6	4	★
3.08	VAPDSSUSD0308	17.6	70.6	70	0.6	4	★
3.09	VAPDSSUSD0309	17.6	70.6	70	0.6	4	★
3.1	VAPDSSUSD0310	17.6	70.6	70	0.6	4	★
3.11	VAPDSSUSD0311	17.6	70.6	70	0.6	4	★
3.12	VAPDSSUSD0312	17.7	70.7	70	0.7	4	★
3.13	VAPDSSUSD0313	17.7	70.7	70	0.7	4	★
3.14	VAPDSSUSD0314	17.7	70.7	70	0.7	4	★
3.15	VAPDSSUSD0315	17.7	70.7	70	0.7	4	★
3.16	VAPDSSUSD0316	17.7	70.7	70	0.7	4	★
3.17	VAPDSSUSD0317	17.7	70.7	70	0.7	4	★
3.18	VAPDSSUSD0318	17.7	70.7	70	0.7	4	★
3.19	VAPDSSUSD0319	17.7	70.7	70	0.7	4	★
3.2	VAPDSSUSD0320	17.7	70.7	70	0.7	4	★
3.21	VAPDSSUSD0321	17.7	70.7	70	0.7	4	★
3.22	VAPDSSUSD0322	17.7	70.7	70	0.7	4	★
3.23	VAPDSSUSD0323	17.7	70.7	70	0.7	4	★
3.24	VAPDSSUSD0324	17.7	70.7	70	0.7	4	★
3.25	VAPDSSUSD0325	17.7	70.7	70	0.7	4	★
3.26	VAPDSSUSD0326	17.7	70.7	70	0.7	4	★
3.27	VAPDSSUSD0327	17.7	70.7	70	0.7	4	★
3.28	VAPDSSUSD0328	17.7	70.7	70	0.7	4	★
3.29	VAPDSSUSD0329	17.7	70.7	70	0.7	4	★

● : Lagerstandard. ★ : Lagerstandard in Japan.

BOHREN

DC (mm)	Bestellbezeichnung	Abmessungen (mm)					Lager
		LCF	OAL	LF	PL	DCON	
3.3	VAPDSSUSD0330	19.7	70.7	70	0.7	4	★
3.31	VAPDSSUSD0331	19.7	70.7	70	0.7	4	★
3.32	VAPDSSUSD0332	19.7	70.7	70	0.7	4	★
3.33	VAPDSSUSD0333	19.7	70.7	70	0.7	4	★
3.34	VAPDSSUSD0334	19.7	70.7	70	0.7	4	★
3.35	VAPDSSUSD0335	19.7	70.7	70	0.7	4	★
3.36	VAPDSSUSD0336	19.7	70.7	70	0.7	4	★
3.37	VAPDSSUSD0337	19.7	70.7	70	0.7	4	★
3.38	VAPDSSUSD0338	19.7	70.7	70	0.7	4	★
3.39	VAPDSSUSD0339	19.7	70.7	70	0.7	4	★
3.4	VAPDSSUSD0340	19.7	70.7	70	0.7	4	★
3.41	VAPDSSUSD0341	19.7	70.7	70	0.7	4	★
3.42	VAPDSSUSD0342	19.7	70.7	70	0.7	4	★
3.43	VAPDSSUSD0343	19.7	70.7	70	0.7	4	★
3.44	VAPDSSUSD0344	19.7	70.7	70	0.7	4	★
3.45	VAPDSSUSD0345	19.7	70.7	70	0.7	4	★
3.46	VAPDSSUSD0346	19.7	70.7	70	0.7	4	★
3.47	VAPDSSUSD0347	19.7	70.7	70	0.7	4	★
3.48	VAPDSSUSD0348	19.7	70.7	70	0.7	4	★
3.49	VAPDSSUSD0349	19.7	70.7	70	0.7	4	★
3.5	VAPDSSUSD0350	19.7	70.7	70	0.7	4	●
3.51	VAPDSSUSD0351	19.7	70.7	70	0.7	4	★
3.52	VAPDSSUSD0352	19.7	70.7	70	0.7	4	★
3.53	VAPDSSUSD0353	19.7	70.7	70	0.7	4	★
3.54	VAPDSSUSD0354	19.7	70.7	70	0.7	4	★
3.55	VAPDSSUSD0355	19.7	70.7	70	0.7	4	★
3.56	VAPDSSUSD0356	19.7	70.7	70	0.7	4	★
3.57	VAPDSSUSD0357	19.7	70.7	70	0.7	4	★
3.58	VAPDSSUSD0358	19.7	70.7	70	0.7	4	★
3.59	VAPDSSUSD0359	19.7	70.7	70	0.7	4	★
3.6	VAPDSSUSD0360	21.8	70.8	70	0.8	4	★
3.61	VAPDSSUSD0361	21.8	70.8	70	0.8	4	★
3.62	VAPDSSUSD0362	21.8	70.8	70	0.8	4	★
3.63	VAPDSSUSD0363	21.8	70.8	70	0.8	4	★
3.64	VAPDSSUSD0364	21.8	70.8	70	0.8	4	★
3.65	VAPDSSUSD0365	21.8	70.8	70	0.8	4	★
3.66	VAPDSSUSD0366	21.8	70.8	70	0.8	4	★
3.67	VAPDSSUSD0367	21.8	70.8	70	0.8	4	★
3.68	VAPDSSUSD0368	21.8	70.8	70	0.8	4	★
3.69	VAPDSSUSD0369	21.8	70.8	70	0.8	4	★
3.7	VAPDSSUSD0370	21.8	70.8	70	0.8	4	★
3.71	VAPDSSUSD0371	21.8	70.8	70	0.8	4	★
3.72	VAPDSSUSD0372	21.8	70.8	70	0.8	4	★
3.73	VAPDSSUSD0373	21.8	70.8	70	0.8	4	★
3.74	VAPDSSUSD0374	21.8	70.8	70	0.8	4	★
3.75	VAPDSSUSD0375	21.8	70.8	70	0.8	4	★
3.76	VAPDSSUSD0376	21.8	70.8	70	0.8	4	★
3.77	VAPDSSUSD0377	21.8	70.8	70	0.8	4	★
3.78	VAPDSSUSD0378	21.8	70.8	70	0.8	4	★
3.79	VAPDSSUSD0379	21.8	70.8	70	0.8	4	★

DC (mm)	Bestellbezeichnung	Abmessungen (mm)					Lager
		LCF	OAL	LF	PL	DCON	
3.8	VAPDSSUSD0380	21.8	70.8	70	0.8	4	★
3.81	VAPDSSUSD0381	21.8	70.8	70	0.8	4	★
3.82	VAPDSSUSD0382	21.8	70.8	70	0.8	4	★
3.83	VAPDSSUSD0383	21.8	70.8	70	0.8	4	★
3.84	VAPDSSUSD0384	21.8	70.8	70	0.8	4	★
3.85	VAPDSSUSD0385	21.8	70.8	70	0.8	4	★
3.86	VAPDSSUSD0386	21.8	70.8	70	0.8	4	★
3.87	VAPDSSUSD0387	21.8	70.8	70	0.8	4	★
3.88	VAPDSSUSD0388	21.8	70.8	70	0.8	4	★
3.89	VAPDSSUSD0389	21.8	70.8	70	0.8	4	★
3.9	VAPDSSUSD0390	21.8	70.8	70	0.8	4	★
3.91	VAPDSSUSD0391	21.8	70.8	70	0.8	4	★
3.92	VAPDSSUSD0392	21.8	70.8	70	0.8	4	★
3.93	VAPDSSUSD0393	21.8	70.8	70	0.8	4	★
3.94	VAPDSSUSD0394	21.8	70.8	70	0.8	4	★
3.95	VAPDSSUSD0395	21.8	70.8	70	0.8	4	★
3.96	VAPDSSUSD0396	21.8	70.8	70	0.8	4	★
3.97	VAPDSSUSD0397	21.8	70.8	70	0.8	4	★
3.98	VAPDSSUSD0398	21.8	70.8	70	0.8	4	★
3.99	VAPDSSUSD0399	21.8	70.8	70	0.8	4	★
4.0	VAPDSSUSD0400	21.8	70.8	70	0.8	4	●
4.05	VAPDSSUSD0405	21.8	80.8	80	0.8	6	★
4.1	VAPDSSUSD0410	21.9	80.9	80	0.9	6	★
4.15	VAPDSSUSD0415	21.9	80.9	80	0.9	6	★
4.2	VAPDSSUSD0420	21.9	80.9	80	0.9	6	★
4.25	VAPDSSUSD0425	21.9	80.9	80	0.9	6	★
4.3	VAPDSSUSD0430	23.9	80.9	80	0.9	6	★
4.35	VAPDSSUSD0435	23.9	80.9	80	0.9	6	★
4.4	VAPDSSUSD0440	23.9	80.9	80	0.9	6	★
4.45	VAPDSSUSD0445	23.9	80.9	80	0.9	6	★
4.5	VAPDSSUSD0450	23.9	80.9	80	0.9	6	●
4.55	VAPDSSUSD0455	23.9	80.9	80	0.9	6	★
4.6	VAPDSSUSD0460	26.0	81.0	80	1.0	6	★
4.65	VAPDSSUSD0465	26.0	81.0	80	1.0	6	★
4.7	VAPDSSUSD0470	26.0	81.0	80	1.0	6	★
4.75	VAPDSSUSD0475	26.0	81.0	80	1.0	6	★
4.8	VAPDSSUSD0480	26.0	81.0	80	1.0	6	★
4.85	VAPDSSUSD0485	26.0	81.0	80	1.0	6	★
4.9	VAPDSSUSD0490	26.0	81.0	80	1.0	6	★
4.95	VAPDSSUSD0495	26.0	81.0	80	1.0	6	★
5.0	VAPDSSUSD0500	26.0	81.0	80	1.0	6	●
5.05	VAPDSSUSD0505	26.1	81.1	80	1.1	6	★
5.1	VAPDSSUSD0510	26.1	81.1	80	1.1	6	★
5.15	VAPDSSUSD0515	26.1	81.1	80	1.1	6	★
5.2	VAPDSSUSD0520	26.1	81.1	80	1.1	6	★
5.25	VAPDSSUSD0525	26.1	81.1	80	1.1	6	★
5.3	VAPDSSUSD0530	26.1	81.1	80	1.1	6	★
5.35	VAPDSSUSD0535	28.1	81.1	80	1.1	6	★
5.4	VAPDSSUSD0540	28.1	81.1	80	1.1	6	★
5.45	VAPDSSUSD0545	28.1	81.1	80	1.1	6	★

HSS

VAPDSSUS

Kurze Spirallänge, hochpräzise, für rostfreien Stahl

DC (mm)	Bestellbezeichnung	Abmessungen (mm)					Lager
		LCF	OAL	LF	PL	DCON	
5.5	VAPDSSUSD0550	28.1	81.1	80	1.1	6	●
5.55	VAPDSSUSD0555	28.2	81.2	80	1.2	6	★
5.6	VAPDSSUSD0560	28.2	81.2	80	1.2	6	★
5.65	VAPDSSUSD0565	28.2	81.2	80	1.2	6	★
5.7	VAPDSSUSD0570	28.2	81.2	80	1.2	6	★
5.75	VAPDSSUSD0575	28.2	81.2	80	1.2	6	★
5.8	VAPDSSUSD0580	28.2	81.2	80	1.2	6	★
5.85	VAPDSSUSD0585	28.2	81.2	80	1.2	6	★
5.9	VAPDSSUSD0590	28.2	81.2	80	1.2	6	★
5.95	VAPDSSUSD0595	28.2	81.2	80	1.2	6	★
6.0	VAPDSSUSD0600	28.2	81.2	80	1.2	6	●
6.05	VAPDSSUSD0605	31.3	81.3	80	1.3	8	★
6.1	VAPDSSUSD0610	31.3	81.3	80	1.3	8	★
6.15	VAPDSSUSD0615	31.3	81.3	80	1.3	8	★
6.2	VAPDSSUSD0620	31.3	81.3	80	1.3	8	★
6.25	VAPDSSUSD0625	31.3	81.3	80	1.3	8	★
6.3	VAPDSSUSD0630	31.3	81.3	80	1.3	8	★
6.35	VAPDSSUSD0635	31.3	81.3	80	1.3	8	★
6.4	VAPDSSUSD0640	31.3	81.3	80	1.3	8	★
6.45	VAPDSSUSD0645	31.3	81.3	80	1.3	8	★
6.5	VAPDSSUSD0650	31.4	81.4	80	1.4	8	●
6.55	VAPDSSUSD0655	31.4	81.4	80	1.4	8	★
6.6	VAPDSSUSD0660	31.4	81.4	80	1.4	8	★
6.65	VAPDSSUSD0665	31.4	81.4	80	1.4	8	★
6.7	VAPDSSUSD0670	31.4	81.4	80	1.4	8	★
6.75	VAPDSSUSD0675	33.4	81.4	80	1.4	8	★
6.8	VAPDSSUSD0680	33.4	81.4	80	1.4	8	★
6.85	VAPDSSUSD0685	33.4	81.4	80	1.4	8	★
6.9	VAPDSSUSD0690	33.4	81.4	80	1.4	8	★
6.95	VAPDSSUSD0695	33.4	81.4	80	1.4	8	★
7.0	VAPDSSUSD0700	33.5	81.5	80	1.5	8	●
7.05	VAPDSSUSD0705	33.5	81.5	80	1.5	8	★
7.1	VAPDSSUSD0710	33.5	81.5	80	1.5	8	★
7.15	VAPDSSUSD0715	33.5	81.5	80	1.5	8	★
7.2	VAPDSSUSD0720	33.5	81.5	80	1.5	8	★
7.25	VAPDSSUSD0725	33.5	81.5	80	1.5	8	★
7.3	VAPDSSUSD0730	33.5	81.5	80	1.5	8	★
7.35	VAPDSSUSD0735	33.5	81.5	80	1.5	8	★
7.4	VAPDSSUSD0740	33.5	81.5	80	1.5	8	★
7.45	VAPDSSUSD0745	33.5	81.5	80	1.5	8	★
7.5	VAPDSSUSD0750	33.6	81.6	80	1.6	8	●
7.55	VAPDSSUSD0755	36.6	86.6	85	1.6	8	★
7.6	VAPDSSUSD0760	36.6	86.6	85	1.6	8	★
7.65	VAPDSSUSD0765	36.6	86.6	85	1.6	8	★
7.7	VAPDSSUSD0770	36.6	86.6	85	1.6	8	★
7.75	VAPDSSUSD0775	36.6	86.6	85	1.6	8	★
7.8	VAPDSSUSD0780	36.6	86.6	85	1.6	8	★
7.85	VAPDSSUSD0785	36.6	86.6	85	1.6	8	★
7.9	VAPDSSUSD0790	36.6	86.6	85	1.6	8	★
7.95	VAPDSSUSD0795	36.7	86.7	85	1.7	8	★

DC (mm)	Bestellbezeichnung	Abmessungen (mm)					Lager
		LCF	OAL	LF	PL	DCON	
8.0	VAPDSSUSD0800	36.7	86.7	85	1.7	8	●
8.05	VAPDSSUSD0805	36.7	91.7	90	1.7	10	★
8.1	VAPDSSUSD0810	36.7	91.7	90	1.7	10	★
8.15	VAPDSSUSD0815	36.7	91.7	90	1.7	10	★
8.2	VAPDSSUSD0820	36.7	91.7	90	1.7	10	★
8.25	VAPDSSUSD0825	36.7	91.7	90	1.7	10	★
8.3	VAPDSSUSD0830	36.7	91.7	90	1.7	10	★
8.35	VAPDSSUSD0835	36.7	91.7	90	1.7	10	★
8.4	VAPDSSUSD0840	36.7	91.7	90	1.7	10	★
8.45	VAPDSSUSD0845	36.8	91.8	90	1.8	10	★
8.5	VAPDSSUSD0850	36.8	91.8	90	1.8	10	●
8.55	VAPDSSUSD0855	39.8	94.8	93	1.8	10	★
8.6	VAPDSSUSD0860	39.8	94.8	93	1.8	10	★
8.65	VAPDSSUSD0865	39.8	94.8	93	1.8	10	★
8.7	VAPDSSUSD0870	39.8	94.8	93	1.8	10	★
8.75	VAPDSSUSD0875	39.8	94.8	93	1.8	10	★
8.8	VAPDSSUSD0880	39.8	94.8	93	1.8	10	★
8.85	VAPDSSUSD0885	39.8	94.8	93	1.8	10	★
8.9	VAPDSSUSD0890	39.8	94.8	93	1.8	10	★
8.95	VAPDSSUSD0895	39.9	94.9	93	1.9	10	★
9.0	VAPDSSUSD0900	39.9	94.9	93	1.9	10	●
9.1	VAPDSSUSD0910	39.9	94.9	93	1.9	10	★
9.2	VAPDSSUSD0920	39.9	94.9	93	1.9	10	★
9.3	VAPDSSUSD0930	39.9	94.9	93	1.9	10	★
9.4	VAPDSSUSD0940	40.0	95.0	93	2.0	10	★
9.5	VAPDSSUSD0950	40.0	95.0	93	2.0	10	★
9.6	VAPDSSUSD0960	43.0	98.0	96	2.0	10	★
9.7	VAPDSSUSD0970	43.0	98.0	96	2.0	10	★
9.8	VAPDSSUSD0980	43.0	98.0	96	2.0	10	★
9.9	VAPDSSUSD0990	43.1	98.1	96	2.1	10	★
10.0	VAPDSSUSD1000	43.1	98.1	96	2.1	10	●
10.1	VAPDSSUSD1010	43.1	103.1	101	2.1	12	★
10.2	VAPDSSUSD1020	43.1	103.1	101	2.1	12	★
10.3	VAPDSSUSD1030	43.1	103.1	101	2.1	12	★
10.4	VAPDSSUSD1040	43.2	103.2	101	2.2	12	★
10.5	VAPDSSUSD1050	43.2	103.2	101	2.2	12	●
10.6	VAPDSSUSD1060	43.2	103.2	101	2.2	12	★
10.7	VAPDSSUSD1070	47.2	107.2	105	2.2	12	★
10.8	VAPDSSUSD1080	47.2	107.2	105	2.2	12	★
10.9	VAPDSSUSD1090	47.3	107.3	105	2.3	12	★
11.0	VAPDSSUSD1100	47.3	107.3	105	2.3	12	●
11.1	VAPDSSUSD1110	47.3	107.3	105	2.3	12	★
11.2	VAPDSSUSD1120	47.3	107.3	105	2.3	12	★
11.3	VAPDSSUSD1130	47.3	107.3	105	2.3	12	★
11.4	VAPDSSUSD1140	47.4	107.4	105	2.4	12	★
11.5	VAPDSSUSD1150	47.4	107.4	105	2.4	12	●
11.6	VAPDSSUSD1160	47.4	107.4	105	2.4	12	★
11.7	VAPDSSUSD1170	47.4	107.4	105	2.4	12	★
11.8	VAPDSSUSD1180	47.4	107.4	105	2.4	12	★
11.9	VAPDSSUSD1190	51.5	111.5	109	2.5	12	★

● : Lagerstandard. ★ : Lagerstandard in Japan.

BOHREN

DC (mm)	Bestellbezeichnung	Abmessungen (mm)					Lager
		LCF	OAL	LF	PL	DCON	
12.0	VAPDSSUSD1200	51.5	111.5	109	2.5	12	●
12.1	VAPDSSUSD1210	51.5	111.5	109	2.5	12	★
12.2	VAPDSSUSD1220	51.5	111.5	109	2.5	12	★
12.3	VAPDSSUSD1230	51.6	111.6	109	2.6	12	★
12.4	VAPDSSUSD1240	51.6	111.6	109	2.6	12	★
12.5	VAPDSSUSD1250	51.6	111.6	109	2.6	12	●
12.6	VAPDSSUSD1260	51.6	111.6	109	2.6	12	★
12.7	VAPDSSUSD1270	51.6	111.6	109	2.6	12	★
12.8	VAPDSSUSD1280	51.7	111.7	109	2.7	12	★
12.9	VAPDSSUSD1290	51.7	111.7	109	2.7	12	★
13.0	VAPDSSUSD1300	51.7	111.7	109	2.7	12	●
13.5	VAPDSSUSD1350	53.8	113.8	111	2.8	16	★
14.0	VAPDSSUSD1400	53.9	113.9	111	2.9	16	●
14.1	VAPDSSUSD1410	55.9	115.9	113	2.9	16	★
14.2	VAPDSSUSD1420	55.9	115.9	113	2.9	16	★
14.5	VAPDSSUSD1450	56.0	116.0	113	3.0	16	★
15.0	VAPDSSUSD1500	56.1	116.1	113	3.1	16	●
15.5	VAPDSSUSD1550	58.2	118.2	115	3.2	16	★
15.6	VAPDSSUSD1560	58.2	118.2	115	3.2	16	★
15.7	VAPDSSUSD1570	58.3	118.3	115	3.3	16	★
16.0	VAPDSSUSD1600	58.3	118.3	115	3.3	16	●
16.5	VAPDSSUSD1650	60.4	125.4	122	3.4	20	★
17.0	VAPDSSUSD1700	60.5	125.5	122	3.5	20	★
17.5	VAPDSSUSD1750	61.6	126.6	123	3.6	20	★
17.6	VAPDSSUSD1760	61.7	126.7	123	3.7	20	★
17.7	VAPDSSUSD1770	61.7	126.7	123	3.7	20	★
18.0	VAPDSSUSD1800	61.7	126.7	123	3.7	20	★
18.5	VAPDSSUSD1850	63.8	128.8	125	3.8	20	★
19.0	VAPDSSUSD1900	63.9	128.9	125	3.9	20	★
19.5	VAPDSSUSD1950	66.0	131.0	127	4.0	20	★
19.6	VAPDSSUSD1960	66.1	131.1	127	4.1	20	★
19.7	VAPDSSUSD1970	66.1	131.1	127	4.1	20	★
20.0	VAPDSSUSD2000	66.1	131.1	127	4.1	20	★

VIOLET BOHRER

VAPDMSUS

Mittellang, hochpräzise, für rostfreien Stahl

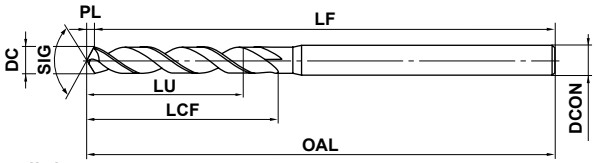


P M K N S H

0.5≤DC≤3	3<DC≤6	6<DC≤10	10<DC≤13
0 −0.014	0 −0.018	0 −0.022	0 −0.027

* Bohrertoleranz: 0−0.009mm
(außer ϕ <4.0mm und ϕ in 0.1mm Stufungen (e.g. 0.5 ; 0.6....))





● Die Kombination aus Design und Violet-Beschichtung ermöglicht hocheffizientes Bohren und lange Standzeit beim Bohren von rostfreien Stahlsorten.

Standard Bohrtiefe : LU = LCF-3DC

DC (mm)	Bestellbezeichnung	Abmessungen (mm) LCF	OAL	LF	PL	DCON	Lager
0.5	VAPDMSUSD0050	6.15	50.15	50	0.15	3	●
0.51	VAPDMSUSD0051	6.15	50.15	50	0.15	3	★
0.52	VAPDMSUSD0052	6.16	50.16	50	0.16	3	★
0.53	VAPDMSUSD0053	6.16	50.16	50	0.16	3	★
0.54	VAPDMSUSD0054	6.16	50.16	50	0.16	3	★
0.55	VAPDMSUSD0055	6.17	50.17	50	0.17	3	★
0.56	VAPDMSUSD0056	8.17	50.17	50	0.17	3	★
0.57	VAPDMSUSD0057	8.17	50.17	50	0.17	3	★
0.58	VAPDMSUSD0058	8.17	50.17	50	0.17	3	★
0.59	VAPDMSUSD0059	8.18	50.18	50	0.18	3	★
0.6	VAPDMSUSD0060	8.18	50.18	50	0.18	3	★
0.61	VAPDMSUSD0061	8.18	50.18	50	0.18	3	★
0.62	VAPDMSUSD0062	8.19	50.19	50	0.19	3	★
0.63	VAPDMSUSD0063	8.19	50.19	50	0.19	3	★
0.64	VAPDMSUSD0064	8.19	50.19	50	0.19	3	★
0.65	VAPDMSUSD0065	8.20	50.20	50	0.20	3	★
0.66	VAPDMSUSD0066	8.20	50.20	50	0.20	3	★
0.67	VAPDMSUSD0067	8.20	50.20	50	0.20	3	★
0.68	VAPDMSUSD0068	8.20	50.20	50	0.20	3	★
0.69	VAPDMSUSD0069	8.21	50.21	50	0.21	3	★
0.7	VAPDMSUSD0070	10.21	50.21	50	0.21	3	★
0.71	VAPDMSUSD0071	10.21	50.21	50	0.21	3	★
0.72	VAPDMSUSD0072	10.22	50.22	50	0.22	3	★
0.73	VAPDMSUSD0073	10.22	50.22	50	0.22	3	★
0.74	VAPDMSUSD0074	10.22	50.22	50	0.22	3	★
0.75	VAPDMSUSD0075	10.23	50.23	50	0.23	3	★
0.76	VAPDMSUSD0076	10.23	50.23	50	0.23	3	★
0.77	VAPDMSUSD0077	10.23	50.23	50	0.23	3	★
0.78	VAPDMSUSD0078	10.23	50.23	50	0.23	3	★
0.79	VAPDMSUSD0079	10.24	50.24	50	0.24	3	★
0.8	VAPDMSUSD0080	10.24	50.24	50	0.24	3	★
0.81	VAPDMSUSD0081	10.24	50.24	50	0.24	3	★
0.82	VAPDMSUSD0082	10.25	50.25	50	0.25	3	★
0.83	VAPDMSUSD0083	10.25	50.25	50	0.25	3	★
0.84	VAPDMSUSD0084	10.25	50.25	50	0.25	3	★
0.85	VAPDMSUSD0085	10.26	50.26	50	0.26	3	★
0.86	VAPDMSUSD0086	12.26	50.26	50	0.26	3	★
0.87	VAPDMSUSD0087	12.26	50.26	50	0.26	3	★
0.88	VAPDMSUSD0088	12.26	50.26	50	0.26	3	★
0.89	VAPDMSUSD0089	12.27	50.27	50	0.27	3	★

DC (mm)	Bestellbezeichnung	Abmessungen (mm) LCF	OAL	LF	PL	DCON	Lager
0.9	VAPDMSUSD0090	12.27	50.27	50	0.27	3	★
0.91	VAPDMSUSD0091	12.27	50.27	50	0.27	3	★
0.92	VAPDMSUSD0092	12.28	50.28	50	0.28	3	★
0.93	VAPDMSUSD0093	12.28	50.28	50	0.28	3	★
0.94	VAPDMSUSD0094	12.28	50.28	50	0.28	3	★
0.95	VAPDMSUSD0095	12.29	50.29	50	0.29	3	★
0.96	VAPDMSUSD0096	12.29	50.29	50	0.29	3	★
0.97	VAPDMSUSD0097	12.29	50.29	50	0.29	3	★
0.98	VAPDMSUSD0098	12.29	50.29	50	0.29	3	★
0.99	VAPDMSUSD0099	12.30	50.30	50	0.30	3	★
1.0	VAPDMSUSD0100	12.3	60.3	60	0.3	3	●
1.01	VAPDMSUSD0101	12.3	60.3	60	0.3	3	★
1.02	VAPDMSUSD0102	12.3	60.3	60	0.3	3	★
1.03	VAPDMSUSD0103	12.3	60.3	60	0.3	3	★
1.04	VAPDMSUSD0104	12.3	60.3	60	0.3	3	★
1.05	VAPDMSUSD0105	12.3	60.3	60	0.3	3	★
1.06	VAPDMSUSD0106	12.3	60.3	60	0.3	3	★
1.07	VAPDMSUSD0107	16.3	60.3	60	0.3	3	★
1.08	VAPDMSUSD0108	16.3	60.3	60	0.3	3	★
1.09	VAPDMSUSD0109	16.3	60.3	60	0.3	3	★
1.1	VAPDMSUSD0110	16.3	60.3	60	0.3	3	★
1.11	VAPDMSUSD0111	16.3	60.3	60	0.3	3	★
1.12	VAPDMSUSD0112	16.3	60.3	60	0.3	3	★
1.13	VAPDMSUSD0113	16.3	60.3	60	0.3	3	★
1.14	VAPDMSUSD0114	16.3	60.3	60	0.3	3	★
1.15	VAPDMSUSD0115	16.4	60.4	60	0.4	3	★
1.16	VAPDMSUSD0116	16.4	60.4	60	0.4	3	★
1.17	VAPDMSUSD0117	16.4	60.4	60	0.4	3	★
1.18	VAPDMSUSD0118	16.4	60.4	60	0.4	3	★
1.19	VAPDMSUSD0119	16.4	60.4	60	0.4	3	★
1.2	VAPDMSUSD0120	16.4	60.4	60	0.4	3	★
1.21	VAPDMSUSD0121	16.4	60.4	60	0.4	3	★
1.22	VAPDMSUSD0122	16.4	60.4	60	0.4	3	★
1.23	VAPDMSUSD0123	16.4	60.4	60	0.4	3	★
1.24	VAPDMSUSD0124	16.4	60.4	60	0.4	3	★
1.25	VAPDMSUSD0125	16.4	60.4	60	0.4	3	★
1.26	VAPDMSUSD0126	16.4	60.4	60	0.4	3	★
1.27	VAPDMSUSD0127	16.4	60.4	60	0.4	3	★
1.28	VAPDMSUSD0128	16.4	60.4	60	0.4	3	★
1.29	VAPDMSUSD0129	16.4	60.4	60	0.4	3	★

● : Lagerstandard. ★ : Lagerstandard in Japan.

DC (mm)	Bestellbezeichnung	Abmessungen (mm)					Lager
		LCF	OAL	LF	PL	DCON	
1.3	VAPDMSUSD0130	16.4	60.4	60	0.4	3	★
1.31	VAPDMSUSD0131	18.4	60.4	60	0.4	3	★
1.32	VAPDMSUSD0132	18.4	60.4	60	0.4	3	★
1.33	VAPDMSUSD0133	18.4	60.4	60	0.4	3	★
1.34	VAPDMSUSD0134	18.4	60.4	60	0.4	3	★
1.35	VAPDMSUSD0135	18.4	60.4	60	0.4	3	★
1.36	VAPDMSUSD0136	18.4	60.4	60	0.4	3	★
1.37	VAPDMSUSD0137	18.4	60.4	60	0.4	3	★
1.38	VAPDMSUSD0138	18.4	60.4	60	0.4	3	★
1.39	VAPDMSUSD0139	18.4	60.4	60	0.4	3	★
1.4	VAPDMSUSD0140	18.4	60.4	60	0.4	3	★
1.41	VAPDMSUSD0141	18.4	60.4	60	0.4	3	★
1.42	VAPDMSUSD0142	18.4	60.4	60	0.4	3	★
1.43	VAPDMSUSD0143	18.4	60.4	60	0.4	3	★
1.44	VAPDMSUSD0144	18.4	60.4	60	0.4	3	★
1.45	VAPDMSUSD0145	18.4	60.4	60	0.4	3	★
1.46	VAPDMSUSD0146	18.4	60.4	60	0.4	3	★
1.47	VAPDMSUSD0147	18.4	60.4	60	0.4	3	★
1.48	VAPDMSUSD0148	18.4	60.4	60	0.4	3	★
1.49	VAPDMSUSD0149	18.5	60.5	60	0.5	3	★
1.5	VAPDMSUSD0150	18.5	60.5	60	0.5	3	●
1.51	VAPDMSUSD0151	20.5	60.5	60	0.5	3	★
1.52	VAPDMSUSD0152	20.5	60.5	60	0.5	3	★
1.53	VAPDMSUSD0153	20.5	60.5	60	0.5	3	★
1.54	VAPDMSUSD0154	20.5	60.5	60	0.5	3	★
1.55	VAPDMSUSD0155	20.5	60.5	60	0.5	3	★
1.56	VAPDMSUSD0156	20.5	60.5	60	0.5	3	★
1.57	VAPDMSUSD0157	20.5	60.5	60	0.5	3	★
1.58	VAPDMSUSD0158	20.5	60.5	60	0.5	3	★
1.59	VAPDMSUSD0159	20.5	60.5	60	0.5	3	★
1.6	VAPDMSUSD0160	20.5	60.5	60	0.5	3	★
1.61	VAPDMSUSD0161	20.5	60.5	60	0.5	3	★
1.62	VAPDMSUSD0162	20.5	60.5	60	0.5	3	★
1.63	VAPDMSUSD0163	20.5	60.5	60	0.5	3	★
1.64	VAPDMSUSD0164	20.5	60.5	60	0.5	3	★
1.65	VAPDMSUSD0165	20.5	60.5	60	0.5	3	★
1.66	VAPDMSUSD0166	20.5	60.5	60	0.5	3	★
1.67	VAPDMSUSD0167	20.5	60.5	60	0.5	3	★
1.68	VAPDMSUSD0168	20.5	60.5	60	0.5	3	★
1.69	VAPDMSUSD0169	20.5	60.5	60	0.5	3	★
1.7	VAPDMSUSD0170	20.5	60.5	60	0.5	3	★
1.71	VAPDMSUSD0171	20.5	60.5	60	0.5	3	★
1.72	VAPDMSUSD0172	20.5	60.5	60	0.5	3	★
1.73	VAPDMSUSD0173	20.5	60.5	60	0.5	3	★
1.74	VAPDMSUSD0174	20.5	60.5	60	0.5	3	★
1.75	VAPDMSUSD0175	20.5	60.5	60	0.5	3	★
1.76	VAPDMSUSD0176	20.5	60.5	60	0.5	3	★
1.77	VAPDMSUSD0177	20.5	60.5	60	0.5	3	★
1.78	VAPDMSUSD0178	20.5	60.5	60	0.5	3	★
1.79	VAPDMSUSD0179	20.5	60.5	60	0.5	3	★

DC (mm)	Bestellbezeichnung	Abmessungen (mm)					Lager
		LCF	OAL	LF	PL	DCON	
1.8	VAPDMSUSD0180	22.5	60.5	60	0.5	3	★
1.81	VAPDMSUSD0181	22.5	60.5	60	0.5	3	★
1.82	VAPDMSUSD0182	22.6	60.6	60	0.6	3	★
1.83	VAPDMSUSD0183	22.6	60.6	60	0.6	3	★
1.84	VAPDMSUSD0184	22.6	60.6	60	0.6	3	★
1.85	VAPDMSUSD0185	22.6	60.6	60	0.6	3	★
1.86	VAPDMSUSD0186	22.6	60.6	60	0.6	3	★
1.87	VAPDMSUSD0187	22.6	60.6	60	0.6	3	★
1.88	VAPDMSUSD0188	22.6	60.6	60	0.6	3	★
1.89	VAPDMSUSD0189	22.6	60.6	60	0.6	3	★
1.9	VAPDMSUSD0190	22.6	60.6	60	0.6	3	★
1.91	VAPDMSUSD0191	23.6	60.6	60	0.6	3	★
1.92	VAPDMSUSD0192	23.6	60.6	60	0.6	3	★
1.93	VAPDMSUSD0193	23.6	60.6	60	0.6	3	★
1.94	VAPDMSUSD0194	23.6	60.6	60	0.6	3	★
1.95	VAPDMSUSD0195	23.6	60.6	60	0.6	3	★
1.96	VAPDMSUSD0196	23.6	60.6	60	0.6	3	★
1.97	VAPDMSUSD0197	23.6	60.6	60	0.6	3	★
1.98	VAPDMSUSD0198	23.6	60.6	60	0.6	3	★
1.99	VAPDMSUSD0199	23.6	60.6	60	0.6	3	★
2.0	VAPDMSUSD0200	23.6	70.6	70	0.6	3	●
2.01	VAPDMSUSD0201	23.6	70.6	70	0.6	3	★
2.02	VAPDMSUSD0202	23.6	70.6	70	0.6	3	★
2.03	VAPDMSUSD0203	23.6	70.6	70	0.6	3	★
2.04	VAPDMSUSD0204	23.6	70.6	70	0.6	3	★
2.05	VAPDMSUSD0205	23.6	70.6	70	0.6	3	★
2.06	VAPDMSUSD0206	23.6	70.6	70	0.6	3	★
2.07	VAPDMSUSD0207	23.6	70.6	70	0.6	3	★
2.08	VAPDMSUSD0208	23.6	70.6	70	0.6	3	★
2.09	VAPDMSUSD0209	23.6	70.6	70	0.6	3	★
2.1	VAPDMSUSD0210	23.6	70.6	70	0.6	3	★
2.11	VAPDMSUSD0211	23.6	70.6	70	0.6	3	★
2.12	VAPDMSUSD0212	23.6	70.6	70	0.6	3	★
2.13	VAPDMSUSD0213	23.6	70.6	70	0.6	3	★
2.14	VAPDMSUSD0214	23.6	70.6	70	0.6	3	★
2.15	VAPDMSUSD0215	23.7	70.7	70	0.7	3	★
2.16	VAPDMSUSD0216	23.7	70.7	70	0.7	3	★
2.17	VAPDMSUSD0217	23.7	70.7	70	0.7	3	★
2.18	VAPDMSUSD0218	23.7	70.7	70	0.7	3	★
2.19	VAPDMSUSD0219	23.7	70.7	70	0.7	3	★
2.2	VAPDMSUSD0220	26.7	70.7	70	0.7	3	★
2.21	VAPDMSUSD0221	26.7	70.7	70	0.7	3	★
2.22	VAPDMSUSD0222	26.7	70.7	70	0.7	3	★
2.23	VAPDMSUSD0223	26.7	70.7	70	0.7	3	★
2.24	VAPDMSUSD0224	26.7	70.7	70	0.7	3	★
2.25	VAPDMSUSD0225	26.7	70.7	70	0.7	3	★
2.26	VAPDMSUSD0226	26.7	70.7	70	0.7	3	★
2.27	VAPDMSUSD0227	26.7	70.7	70	0.7	3	★
2.28	VAPDMSUSD0228	26.7	70.7	70	0.7	3	★
2.29	VAPDMSUSD0229	26.7	70.7	70	0.7	3	★

HSS

VAPDMSUS

Mittlere Spirallänge, hochpräzise, für rostfreien Stahl

DC (mm)	Bestellbezeichnung	Abmessungen (mm)					Lager
		LCF	OAL	LF	PL	DCON	
2.3	VAPDMSUSD0230	26.7	70.7	70	0.7	3	★
2.31	VAPDMSUSD0231	26.7	70.7	70	0.7	3	★
2.32	VAPDMSUSD0232	26.7	70.7	70	0.7	3	★
2.33	VAPDMSUSD0233	26.7	70.7	70	0.7	3	★
2.34	VAPDMSUSD0234	26.7	70.7	70	0.7	3	★
2.35	VAPDMSUSD0235	26.7	70.7	70	0.7	3	★
2.36	VAPDMSUSD0236	26.7	70.7	70	0.7	3	★
2.37	VAPDMSUSD0237	26.7	70.7	70	0.7	3	★
2.38	VAPDMSUSD0238	26.7	70.7	70	0.7	3	★
2.39	VAPDMSUSD0239	26.7	70.7	70	0.7	3	★
2.4	VAPDMSUSD0240	29.7	70.7	70	0.7	3	★
2.41	VAPDMSUSD0241	29.7	70.7	70	0.7	3	★
2.42	VAPDMSUSD0242	29.7	70.7	70	0.7	3	★
2.43	VAPDMSUSD0243	29.7	70.7	70	0.7	3	★
2.44	VAPDMSUSD0244	29.7	70.7	70	0.7	3	★
2.45	VAPDMSUSD0245	29.7	70.7	70	0.7	3	★
2.46	VAPDMSUSD0246	29.7	70.7	70	0.7	3	★
2.47	VAPDMSUSD0247	29.7	70.7	70	0.7	3	★
2.48	VAPDMSUSD0248	29.8	70.8	70	0.8	3	★
2.49	VAPDMSUSD0249	29.8	70.8	70	0.8	3	★
2.5	VAPDMSUSD0250	29.8	70.8	70	0.8	3	●
2.51	VAPDMSUSD0251	29.8	70.8	70	0.8	3	★
2.52	VAPDMSUSD0252	29.8	70.8	70	0.8	3	★
2.53	VAPDMSUSD0253	29.8	70.8	70	0.8	3	★
2.54	VAPDMSUSD0254	29.8	70.8	70	0.8	3	★
2.55	VAPDMSUSD0255	29.8	70.8	70	0.8	3	★
2.56	VAPDMSUSD0256	29.8	70.8	70	0.8	3	★
2.57	VAPDMSUSD0257	29.8	70.8	70	0.8	3	★
2.58	VAPDMSUSD0258	29.8	70.8	70	0.8	3	★
2.59	VAPDMSUSD0259	29.8	70.8	70	0.8	3	★
2.6	VAPDMSUSD0260	29.8	70.8	70	0.8	3	★
2.61	VAPDMSUSD0261	29.8	70.8	70	0.8	3	★
2.62	VAPDMSUSD0262	29.8	70.8	70	0.8	3	★
2.63	VAPDMSUSD0263	29.8	70.8	70	0.8	3	★
2.64	VAPDMSUSD0264	29.8	70.8	70	0.8	3	★
2.65	VAPDMSUSD0265	29.8	70.8	70	0.8	3	★
2.66	VAPDMSUSD0266	29.8	70.8	70	0.8	3	★
2.67	VAPDMSUSD0267	29.8	70.8	70	0.8	3	★
2.68	VAPDMSUSD0268	29.8	70.8	70	0.8	3	★
2.69	VAPDMSUSD0269	29.8	70.8	70	0.8	3	★
2.7	VAPDMSUSD0270	32.8	70.8	70	0.8	3	★
2.71	VAPDMSUSD0271	32.8	70.8	70	0.8	3	★
2.72	VAPDMSUSD0272	32.8	70.8	70	0.8	3	★
2.73	VAPDMSUSD0273	32.8	70.8	70	0.8	3	★
2.74	VAPDMSUSD0274	32.8	70.8	70	0.8	3	★
2.75	VAPDMSUSD0275	32.8	70.8	70	0.8	3	★
2.76	VAPDMSUSD0276	32.8	70.8	70	0.8	3	★
2.77	VAPDMSUSD0277	32.8	70.8	70	0.8	3	★
2.78	VAPDMSUSD0278	32.8	70.8	70	0.8	3	★
2.79	VAPDMSUSD0279	32.8	70.8	70	0.8	3	★

DC (mm)	Bestellbezeichnung	Abmessungen (mm)					Lager
		LCF	OAL	LF	PL	DCON	
2.8	VAPDMSUSD0280	32.8	70.8	70	0.8	3	★
2.81	VAPDMSUSD0281	32.8	70.8	70	0.8	3	★
2.82	VAPDMSUSD0282	32.9	70.9	70	0.9	3	★
2.83	VAPDMSUSD0283	32.9	70.9	70	0.9	3	★
2.84	VAPDMSUSD0284	32.9	70.9	70	0.9	3	★
2.85	VAPDMSUSD0285	32.9	70.9	70	0.9	3	★
2.86	VAPDMSUSD0286	32.9	70.9	70	0.9	3	★
2.87	VAPDMSUSD0287	32.9	70.9	70	0.9	3	★
2.88	VAPDMSUSD0288	32.9	70.9	70	0.9	3	★
2.89	VAPDMSUSD0289	32.9	70.9	70	0.9	3	★
2.9	VAPDMSUSD0290	32.9	70.9	70	0.9	3	★
2.91	VAPDMSUSD0291	32.9	70.9	70	0.9	3	★
2.92	VAPDMSUSD0292	32.9	70.9	70	0.9	3	★
2.93	VAPDMSUSD0293	32.9	70.9	70	0.9	3	★
2.94	VAPDMSUSD0294	32.9	70.9	70	0.9	3	★
2.95	VAPDMSUSD0295	32.9	70.9	70	0.9	3	★
2.96	VAPDMSUSD0296	32.9	70.9	70	0.9	3	★
2.97	VAPDMSUSD0297	32.9	70.9	70	0.9	3	★
2.98	VAPDMSUSD0298	32.9	70.9	70	0.9	3	★
2.99	VAPDMSUSD0299	32.9	70.9	70	0.9	3	★
3.0	VAPDMSUSD0300	32.9	70.9	70	0.9	3	●
3.01	VAPDMSUSD0301	35.9	85.9	85	0.9	4	★
3.02	VAPDMSUSD0302	35.9	85.9	85	0.9	4	★
3.03	VAPDMSUSD0303	35.9	85.9	85	0.9	4	★
3.04	VAPDMSUSD0304	35.9	85.9	85	0.9	4	★
3.05	VAPDMSUSD0305	35.9	85.9	85	0.9	4	★
3.06	VAPDMSUSD0306	35.9	85.9	85	0.9	4	★
3.07	VAPDMSUSD0307	35.9	85.9	85	0.9	4	★
3.08	VAPDMSUSD0308	35.9	85.9	85	0.9	4	★
3.09	VAPDMSUSD0309	35.9	85.9	85	0.9	4	★
3.1	VAPDMSUSD0310	35.9	85.9	85	0.9	4	★
3.11	VAPDMSUSD0311	35.9	85.9	85	0.9	4	★
3.12	VAPDMSUSD0312	35.9	85.9	85	0.9	4	★
3.13	VAPDMSUSD0313	35.9	85.9	85	0.9	4	★
3.14	VAPDMSUSD0314	35.9	85.9	85	0.9	4	★
3.15	VAPDMSUSD0315	36.0	86.0	85	1.0	4	★
3.16	VAPDMSUSD0316	36.0	86.0	85	1.0	4	★
3.17	VAPDMSUSD0317	36.0	86.0	85	1.0	4	★
3.18	VAPDMSUSD0318	36.0	86.0	85	1.0	4	★
3.19	VAPDMSUSD0319	36.0	86.0	85	1.0	4	★
3.2	VAPDMSUSD0320	36.0	86.0	85	1.0	4	★
3.21	VAPDMSUSD0321	36.0	86.0	85	1.0	4	★
3.22	VAPDMSUSD0322	36.0	86.0	85	1.0	4	★
3.23	VAPDMSUSD0323	36.0	86.0	85	1.0	4	★
3.24	VAPDMSUSD0324	36.0	86.0	85	1.0	4	★
3.25	VAPDMSUSD0325	36.0	86.0	85	1.0	4	★
3.26	VAPDMSUSD0326	36.0	86.0	85	1.0	4	★
3.27	VAPDMSUSD0327	36.0	86.0	85	1.0	4	★
3.28	VAPDMSUSD0328	36.0	86.0	85	1.0	4	★
3.29	VAPDMSUSD0329	36.0	86.0	85	1.0	4	★

● : Lagerstandard. ★ : Lagerstandard in Japan.

BOHREN

DC (mm)	Bestellbezeichnung	Abmessungen (mm)					Lager
		LCF	OAL	LF	PL	DCON	
3.3	VAPDMSUSD0330	36.0	86.0	85	1.0	4	★
3.31	VAPDMSUSD0331	39.0	86.0	85	1.0	4	★
3.32	VAPDMSUSD0332	39.0	86.0	85	1.0	4	★
3.33	VAPDMSUSD0333	39.0	86.0	85	1.0	4	★
3.34	VAPDMSUSD0334	39.0	86.0	85	1.0	4	★
3.35	VAPDMSUSD0335	39.0	86.0	85	1.0	4	★
3.36	VAPDMSUSD0336	39.0	86.0	85	1.0	4	★
3.37	VAPDMSUSD0337	39.0	86.0	85	1.0	4	★
3.38	VAPDMSUSD0338	39.0	86.0	85	1.0	4	★
3.39	VAPDMSUSD0339	39.0	86.0	85	1.0	4	★
3.4	VAPDMSUSD0340	39.0	86.0	85	1.0	4	★
3.41	VAPDMSUSD0341	39.0	86.0	85	1.0	4	★
3.42	VAPDMSUSD0342	39.0	86.0	85	1.0	4	★
3.43	VAPDMSUSD0343	39.0	86.0	85	1.0	4	★
3.44	VAPDMSUSD0344	39.0	86.0	85	1.0	4	★
3.45	VAPDMSUSD0345	39.0	86.0	85	1.0	4	★
3.46	VAPDMSUSD0346	39.0	86.0	85	1.0	4	★
3.47	VAPDMSUSD0347	39.0	86.0	85	1.0	4	★
3.48	VAPDMSUSD0348	39.1	86.1	85	1.1	4	★
3.49	VAPDMSUSD0349	39.1	86.1	85	1.1	4	★
3.5	VAPDMSUSD0350	39.1	86.1	85	1.1	4	●
3.51	VAPDMSUSD0351	39.1	86.1	85	1.1	4	★
3.52	VAPDMSUSD0352	39.1	86.1	85	1.1	4	★
3.53	VAPDMSUSD0353	39.1	86.1	85	1.1	4	★
3.54	VAPDMSUSD0354	39.1	86.1	85	1.1	4	★
3.55	VAPDMSUSD0355	39.1	86.1	85	1.1	4	★
3.56	VAPDMSUSD0356	39.1	86.1	85	1.1	4	★
3.57	VAPDMSUSD0357	39.1	86.1	85	1.1	4	★
3.58	VAPDMSUSD0358	39.1	86.1	85	1.1	4	★
3.59	VAPDMSUSD0359	39.1	86.1	85	1.1	4	★
3.6	VAPDMSUSD0360	39.1	86.1	85	1.1	4	★
3.61	VAPDMSUSD0361	39.1	86.1	85	1.1	4	★
3.62	VAPDMSUSD0362	39.1	86.1	85	1.1	4	★
3.63	VAPDMSUSD0363	39.1	86.1	85	1.1	4	★
3.64	VAPDMSUSD0364	39.1	86.1	85	1.1	4	★
3.65	VAPDMSUSD0365	39.1	86.1	85	1.1	4	★
3.66	VAPDMSUSD0366	39.1	86.1	85	1.1	4	★
3.67	VAPDMSUSD0367	39.1	86.1	85	1.1	4	★
3.68	VAPDMSUSD0368	39.1	86.1	85	1.1	4	★
3.69	VAPDMSUSD0369	39.1	86.1	85	1.1	4	★
3.7	VAPDMSUSD0370	39.1	86.1	85	1.1	4	★
3.71	VAPDMSUSD0371	43.1	86.1	85	1.1	4	★
3.72	VAPDMSUSD0372	43.1	86.1	85	1.1	4	★
3.73	VAPDMSUSD0373	43.1	86.1	85	1.1	4	★
3.74	VAPDMSUSD0374	43.1	86.1	85	1.1	4	★
3.75	VAPDMSUSD0375	43.1	86.1	85	1.1	4	★
3.76	VAPDMSUSD0376	43.1	86.1	85	1.1	4	★
3.77	VAPDMSUSD0377	43.1	86.1	85	1.1	4	★
3.78	VAPDMSUSD0378	43.1	86.1	85	1.1	4	★
3.79	VAPDMSUSD0379	43.1	86.1	85	1.1	4	★

DC (mm)	Bestellbezeichnung	Abmessungen (mm)					Lager
		LCF	OAL	LF	PL	DCON	
3.8	VAPDMSUSD0380	43.1	86.1	85	1.1	4	★
3.81	VAPDMSUSD0381	43.1	86.1	85	1.1	4	★
3.82	VAPDMSUSD0382	43.2	86.2	85	1.2	4	★
3.83	VAPDMSUSD0383	43.2	86.2	85	1.2	4	★
3.84	VAPDMSUSD0384	43.2	86.2	85	1.2	4	★
3.85	VAPDMSUSD0385	43.2	86.2	85	1.2	4	★
3.86	VAPDMSUSD0386	43.2	86.2	85	1.2	4	★
3.87	VAPDMSUSD0387	43.2	86.2	85	1.2	4	★
3.88	VAPDMSUSD0388	43.2	86.2	85	1.2	4	★
3.89	VAPDMSUSD0389	43.2	86.2	85	1.2	4	★
3.9	VAPDMSUSD0390	43.2	86.2	85	1.2	4	★
3.91	VAPDMSUSD0391	43.2	86.2	85	1.2	4	★
3.92	VAPDMSUSD0392	43.2	86.2	85	1.2	4	★
3.93	VAPDMSUSD0393	43.2	86.2	85	1.2	4	★
3.94	VAPDMSUSD0394	43.2	86.2	85	1.2	4	★
3.95	VAPDMSUSD0395	43.2	86.2	85	1.2	4	★
3.96	VAPDMSUSD0396	43.2	86.2	85	1.2	4	★
3.97	VAPDMSUSD0397	43.2	86.2	85	1.2	4	★
3.98	VAPDMSUSD0398	43.2	86.2	85	1.2	4	★
3.99	VAPDMSUSD0399	43.2	86.2	85	1.2	4	★
4.0	VAPDMSUSD0400	42.8	85.8	85	0.8	4	●
4.05	VAPDMSUSD0405	42.8	100.8	100	0.8	6	★
4.1	VAPDMSUSD0410	42.9	100.9	100	0.9	6	★
4.15	VAPDMSUSD0415	42.9	100.9	100	0.9	6	★
4.2	VAPDMSUSD0420	42.9	100.9	100	0.9	6	★
4.25	VAPDMSUSD0425	46.9	100.9	100	0.9	6	★
4.3	VAPDMSUSD0430	46.9	100.9	100	0.9	6	★
4.35	VAPDMSUSD0435	46.9	100.9	100	0.9	6	★
4.4	VAPDMSUSD0440	46.9	100.9	100	0.9	6	★
4.45	VAPDMSUSD0445	46.9	100.9	100	0.9	6	★
4.5	VAPDMSUSD0450	46.9	100.9	100	0.9	6	●
4.55	VAPDMSUSD0455	46.9	100.9	100	0.9	6	★
4.6	VAPDMSUSD0460	47.0	101.0	100	1.0	6	★
4.65	VAPDMSUSD0465	47.0	101.0	100	1.0	6	★
4.7	VAPDMSUSD0470	47.0	101.0	100	1.0	6	★
4.75	VAPDMSUSD0475	47.0	101.0	100	1.0	6	★
4.8	VAPDMSUSD0480	52.0	101.0	100	1.0	6	★
4.85	VAPDMSUSD0485	52.0	101.0	100	1.0	6	★
4.9	VAPDMSUSD0490	52.0	101.0	100	1.0	6	★
4.95	VAPDMSUSD0495	52.0	101.0	100	1.0	6	★
5.0	VAPDMSUSD0500	52.0	101.0	100	1.0	6	●
5.05	VAPDMSUSD0505	52.1	101.1	100	1.1	6	★
5.1	VAPDMSUSD0510	52.1	101.1	100	1.1	6	★
5.15	VAPDMSUSD0515	52.1	101.1	100	1.1	6	★
5.2	VAPDMSUSD0520	52.1	101.1	100	1.1	6	★
5.25	VAPDMSUSD0525	52.1	101.1	100	1.1	6	★
5.3	VAPDMSUSD0530	52.1	101.1	100	1.1	6	★
5.35	VAPDMSUSD0535	57.1	107.1	106	1.1	6	★
5.4	VAPDMSUSD0540	57.1	107.1	106	1.1	6	★
5.45	VAPDMSUSD0545	57.1	107.1	106	1.1	6	★

HSS

VAPDMSUS

Mittlere Spirallänge, hochpräzise, für rostfreien Stahl

DC (mm)	Bestellbezeichnung	Abmessungen (mm)					Lager
		LCF	OAL	LF	PL	DCON	
5.5	VAPDMSUSD0550	57.1	107.1	106	1.1	6	●
5.55	VAPDMSUSD0555	57.2	107.2	106	1.2	6	★
5.6	VAPDMSUSD0560	57.2	107.2	106	1.2	6	★
5.65	VAPDMSUSD0565	57.2	107.2	106	1.2	6	★
5.7	VAPDMSUSD0570	57.2	107.2	106	1.2	6	★
5.75	VAPDMSUSD0575	57.2	107.2	106	1.2	6	★
5.8	VAPDMSUSD0580	57.2	107.2	106	1.2	6	★
5.85	VAPDMSUSD0585	57.2	107.2	106	1.2	6	★
5.9	VAPDMSUSD0590	57.2	107.2	106	1.2	6	★
5.95	VAPDMSUSD0595	57.2	107.2	106	1.2	6	★
6.0	VAPDMSUSD0600	57.2	107.2	106	1.2	6	●
6.05	VAPDMSUSD0605	63.3	113.3	112	1.3	8	★
6.1	VAPDMSUSD0610	63.3	113.3	112	1.3	8	★
6.15	VAPDMSUSD0615	63.3	113.3	112	1.3	8	★
6.2	VAPDMSUSD0620	63.3	113.3	112	1.3	8	★
6.25	VAPDMSUSD0625	63.3	113.3	112	1.3	8	★
6.3	VAPDMSUSD0630	63.3	113.3	112	1.3	8	★
6.35	VAPDMSUSD0635	63.3	113.3	112	1.3	8	★
6.4	VAPDMSUSD0640	63.3	113.3	112	1.3	8	★
6.45	VAPDMSUSD0645	63.3	113.3	112	1.3	8	★
6.5	VAPDMSUSD0650	63.4	113.4	112	1.4	8	●
6.55	VAPDMSUSD0655	63.4	113.4	112	1.4	8	★
6.6	VAPDMSUSD0660	63.4	113.4	112	1.4	8	★
6.65	VAPDMSUSD0665	63.4	113.4	112	1.4	8	★
6.7	VAPDMSUSD0670	63.4	113.4	112	1.4	8	★
6.75	VAPDMSUSD0675	68.4	118.4	117	1.4	8	★
6.8	VAPDMSUSD0680	68.4	118.4	117	1.4	8	★
6.85	VAPDMSUSD0685	68.4	118.4	117	1.4	8	★
6.9	VAPDMSUSD0690	68.4	118.4	117	1.4	8	★
6.95	VAPDMSUSD0695	68.4	118.4	117	1.4	8	★
7.0	VAPDMSUSD0700	68.5	118.5	117	1.5	8	●
7.05	VAPDMSUSD0705	68.5	118.5	117	1.5	8	★
7.1	VAPDMSUSD0710	68.5	118.5	117	1.5	8	★
7.15	VAPDMSUSD0715	68.5	118.5	117	1.5	8	★
7.2	VAPDMSUSD0720	68.5	118.5	117	1.5	8	★
7.25	VAPDMSUSD0725	68.5	118.5	117	1.5	8	★
7.3	VAPDMSUSD0730	68.5	118.5	117	1.5	8	★
7.35	VAPDMSUSD0735	68.5	118.5	117	1.5	8	★
7.4	VAPDMSUSD0740	68.5	118.5	117	1.5	8	★
7.45	VAPDMSUSD0745	68.5	118.5	117	1.5	8	★
7.5	VAPDMSUSD0750	68.6	118.6	117	1.6	8	●
7.55	VAPDMSUSD0755	74.6	124.6	123	1.6	8	★
7.6	VAPDMSUSD0760	74.6	124.6	123	1.6	8	★
7.65	VAPDMSUSD0765	74.6	124.6	123	1.6	8	★
7.7	VAPDMSUSD0770	74.6	124.6	123	1.6	8	★
7.75	VAPDMSUSD0775	74.6	124.6	123	1.6	8	★
7.8	VAPDMSUSD0780	74.6	124.6	123	1.6	8	★
7.85	VAPDMSUSD0785	74.6	124.6	123	1.6	8	★
7.9	VAPDMSUSD0790	74.6	124.6	123	1.6	8	★
7.95	VAPDMSUSD0795	74.7	124.7	123	1.7	8	★

DC (mm)	Bestellbezeichnung	Abmessungen (mm)					Lager
		LCF	OAL	LF	PL	DCON	
8.0	VAPDMSUSD0800	74.7	124.7	123	1.7	8	●
8.05	VAPDMSUSD0805	74.7	129.7	128	1.7	10	★
8.1	VAPDMSUSD0810	74.7	129.7	128	1.7	10	★
8.15	VAPDMSUSD0815	74.7	129.7	128	1.7	10	★
8.2	VAPDMSUSD0820	74.7	129.7	128	1.7	10	★
8.25	VAPDMSUSD0825	74.7	129.7	128	1.7	10	★
8.3	VAPDMSUSD0830	74.7	129.7	128	1.7	10	★
8.35	VAPDMSUSD0835	74.7	129.7	128	1.7	10	★
8.4	VAPDMSUSD0840	74.7	129.7	128	1.7	10	★
8.45	VAPDMSUSD0845	74.8	129.8	128	1.8	10	★
8.5	VAPDMSUSD0850	74.8	129.8	128	1.8	10	●
8.55	VAPDMSUSD0855	80.8	135.8	134	1.8	10	★
8.6	VAPDMSUSD0860	80.8	135.8	134	1.8	10	★
8.65	VAPDMSUSD0865	80.8	135.8	134	1.8	10	★
8.7	VAPDMSUSD0870	80.8	135.8	134	1.8	10	★
8.75	VAPDMSUSD0875	80.8	135.8	134	1.8	10	★
8.8	VAPDMSUSD0880	80.8	135.8	134	1.8	10	★
8.85	VAPDMSUSD0885	80.8	135.8	134	1.8	10	★
8.9	VAPDMSUSD0890	80.8	135.8	134	1.8	10	★
8.95	VAPDMSUSD0895	80.9	135.9	134	1.9	10	★
9.0	VAPDMSUSD0900	80.9	135.9	134	1.9	10	●
9.1	VAPDMSUSD0910	80.9	135.9	134	1.9	10	★
9.2	VAPDMSUSD0920	80.9	135.9	134	1.9	10	★
9.3	VAPDMSUSD0930	80.9	135.9	134	1.9	10	★
9.4	VAPDMSUSD0940	81.0	136.0	134	2.0	10	★
9.5	VAPDMSUSD0950	81.0	136.0	134	2.0	10	★
9.6	VAPDMSUSD0960	87.0	142.0	140	2.0	10	★
9.7	VAPDMSUSD0970	87.0	142.0	140	2.0	10	★
9.8	VAPDMSUSD0980	87.0	142.0	140	2.0	10	★
9.9	VAPDMSUSD0990	87.1	142.1	140	2.1	10	★
10.0	VAPDMSUSD1000	87.1	142.1	140	2.1	10	●
10.1	VAPDMSUSD1010	87.1	147.1	145	2.1	12	★
10.2	VAPDMSUSD1020	87.1	147.1	145	2.1	12	★
10.3	VAPDMSUSD1030	87.1	147.1	145	2.1	12	★
10.4	VAPDMSUSD1040	87.2	147.2	145	2.2	12	★
10.5	VAPDMSUSD1050	87.2	147.2	145	2.2	12	●
10.6	VAPDMSUSD1060	87.2	147.2	145	2.2	12	★
10.7	VAPDMSUSD1070	94.2	154.2	152	2.2	12	★
10.8	VAPDMSUSD1080	94.2	154.2	152	2.2	12	★
10.9	VAPDMSUSD1090	94.3	154.3	152	2.3	12	★
11.0	VAPDMSUSD1100	94.3	154.3	152	2.3	12	●
11.1	VAPDMSUSD1110	94.3	154.3	152	2.3	12	★
11.2	VAPDMSUSD1120	94.3	154.3	152	2.3	12	★
11.3	VAPDMSUSD1130	94.3	154.3	152	2.3	12	★
11.4	VAPDMSUSD1140	94.4	154.4	152	2.4	12	★
11.5	VAPDMSUSD1150	94.4	154.4	152	2.4	12	★
11.6	VAPDMSUSD1160	94.4	154.4	152	2.4	12	★
11.7	VAPDMSUSD1170	94.4	154.4	152	2.4	12	★
11.8	VAPDMSUSD1180	94.4	154.4	152	2.4	12	★
11.9	VAPDMSUSD1190	101.5	161.5	159	2.5	12	★

● : Lagerstandard. ★ : Lagerstandard in Japan.

BOHREN

DC (mm)	Bestellbezeichnung	Abmessungen (mm)					Lager
		LCF	OAL	LF	PL	DCON	
12.0	**VAPDMSUSD1200**	101.5	161.5	159	2.5	12	●
12.1	VAPDMSUS**D1210**	101.5	161.5	159	2.5	12	★
12.2	VAPDMSUS**D1220**	101.5	161.5	159	2.5	12	★
12.3	VAPDMSUS**D1230**	101.6	161.6	159	2.6	12	★
12.4	VAPDMSUS**D1240**	101.6	161.6	159	2.6	12	★
12.5	VAPDMSUS**D1250**	101.6	161.6	159	2.6	12	●
12.6	VAPDMSUS**D1260**	101.6	161.6	159	2.6	12	★
12.7	VAPDMSUS**D1270**	101.6	161.6	159	2.6	12	★
12.8	VAPDMSUS**D1280**	101.7	161.7	159	2.7	12	★
12.9	VAPDMSUS**D1290**	101.7	161.7	159	2.7	12	★
13.0	VAPDMSUS**D1300**	101.7	161.7	159	2.7	12	★

HSS

VAPDSSUS VAPDMSUS

VIOLET BOHRER, kurze und mittlere Spirallänge, für rostfreie Materialien, hohe Bohrgenauigkeit

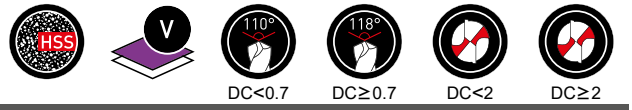
SCHNITTDATENEMPFEHLUNGEN

Werkstoff	M				P	N	P	N
	Rostfreier Stahl				C-Stahl Cf53, Leg. Stahl 070M55, Guss, Kupfer,Kupfer Leg.		Baustahl, Aluminium Leg.	
	Austenitisch X5CrNi1810 X5CrNiMo17122		Martensitisch, Vorschub X10CrAl18					
Bohrer Durchm. **DC** (mm)	Drehzahl (min^{-1})	Vorschub (mm/U.)	Drehzahl (min^{-1})	Vorschub (mm/U.)	Drehzahl (min^{-1})	Vorschub (mm/U.)	Drehzahl (min^{-1})	Vorschub (mm/U.)
0.5	7600	0.01	8800	0.01	11250	0.01	15000	0.02
1.0	4800	0.02	6300	0.05	10000	0.05	12000	0.05
2.0	2400	0.04	3200	0.06	5500	0.09	6400	0.09
3.0	1600	0.07	2100	0.10	3700	0.13	4300	0.13
4.0	1200	0.09	1600	0.10	2800	0.15	3200	0.15
5.0	950	0.12	1300	0.13	2200	0.18	2600	0.18
6.0	800	0.14	1100	0.15	1800	0.20	2100	0.19
8.0	600	0.18	800	0.18	1400	0.22	1600	0.24
10.0	480	0.22	640	0.21	1100	0.25	1300	0.28
12.0	400	0.24	530	0.25	930	0.30	1100	0.34
13.0	370	0.26	490	0.28	860	0.32	1000	0.36
14.0	340	0.30	450	0.27	730	0.31	930	0.36
15.0	320	0.31	425	0.28	680	0.32	870	0.38
16.0	300	0.32	400	0.30	640	0.34	820	0.42
18.0	270	0.34	350	0.32	570	0.36	725	0.43
20.0	240	0.36	320	0.35	510	0.38	660	0.45

1) Bitte passen Sie die Schnittwerte den Bedingungen des Werkstückes und der Maschine an.
2) Bitte verwenden Sie ein Spannzangenfutter.
3) Verwenden Sie genügend Kühlschmierstoff.
4) Bei Bohrtiefen > 3DC reduzieren Sie bitte die Schnittwerte und bohren mit Entspanzyklus.

Bei Verwendung von wasserlöslicher Schmierflüssigkeit sind oben genannte Schnittdaten der Standard.
Bitte reduzieren Sie die Umdrehungen bei Verwendung von nicht-wasserlöslichem Kühlschmierstoff.

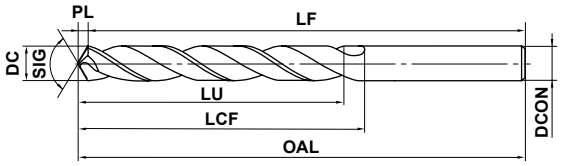
VSD
Zylindrischer Schaft



P M K N S H



0.5≤DC≤1	1≤DC≤3	3<DC≤6	6<DC≤10	10<DC≤13
0 −0.010	0 −0.014	0 −0.018	0 −0.022	0 −0.027



Standard Bohrtiefe : LU = LCF-3DC

DC (mm)	Bestellbezeichnung	Abmessungen (mm) LCF	OAL	LF	PL	DCON	Lager
0.5	VSDD0050	6.18	27.18	27	0.18	0.5	★
0.6	VSDD0060	7.21	30.21	30	0.21	0.6	●
0.7	VSDD0070	9.21	32.21	32	0.21	0.7	●
0.8	VSDD0080	10.24	34.24	34	0.24	0.8	●
0.9	VSDD0090	11.27	36.27	36	0.27	0.9	●
1.0	VSDD0100	12.3	40.3	40	0.3	1.0	●
1.1	VSDD0110	14.3	42.3	42	0.3	1.1	●
1.2	VSDD0120	16.4	42.4	42	0.4	1.2	●
1.3	VSDD0130	16.4	45.4	45	0.4	1.3	●
1.4	VSDD0140	18.4	48.4	48	0.4	1.4	●
1.5	VSDD0150	18.5	48.5	48	0.5	1.5	●
1.6	VSDD0160	20.5	50.5	50	0.5	1.6	●
1.7	VSDD0170	20.5	50.5	50	0.5	1.7	★
1.8	VSDD0180	22.5	52.5	52	0.5	1.8	●
1.9	VSDD0190	22.6	52.6	52	0.6	1.9	●
2.0	VSDD0200	23.6	55.6	55	0.6	2.0	●
2.1	VSDD0210	23.6	55.6	55	0.6	2.1	●
2.2	VSDD0220	26.7	58.7	58	0.7	2.2	●
2.3	VSDD0230	26.7	58.7	58	0.7	2.3	★
2.4	VSDD0240	29.7	61.7	61	0.7	2.4	★
2.5	VSDD0250	29.8	61.8	61	0.8	2.5	●
2.6	VSDD0260	29.8	64.8	64	0.8	2.6	★
2.7	VSDD0270	32.8	64.8	64	0.8	2.7	★
2.8	VSDD0280	32.8	67.8	67	0.8	2.8	●
2.9	VSDD0290	32.9	71.9	71	0.9	2.9	★
3.0	VSDD0300	32.9	71.9	71	0.9	3.0	●
3.1	VSDD0310	35.9	71.9	71	0.9	3.1	●
3.2	VSDD0320	36.0	72.0	71	1.0	3.2	●
3.3	VSDD0330	36.0	74.0	73	1.0	3.3	●
3.4	VSDD0340	39.0	74.0	73	1.0	3.4	●
3.5	VSDD0350	39.1	74.1	73	1.1	3.5	●
3.6	VSDD0360	39.1	77.1	76	1.1	3.6	★
3.7	VSDD0370	39.1	77.1	76	1.1	3.7	★
3.8	VSDD0380	43.1	77.1	76	1.1	3.8	★
3.9	VSDD0390	43.2	80.2	79	1.2	3.9	★
4.0	VSDD0400	43.2	84.2	83	1.2	4.0	●
4.1	VSDD0410	43.2	84.2	83	1.2	4.1	●
4.2	VSDD0420	43.3	84.3	83	1.3	4.2	●
4.3	VSDD0430	47.3	84.3	83	1.3	4.3	●
4.4	VSDD0440	47.3	87.3	86	1.3	4.4	★

DC (mm)	Bestellbezeichnung	Abmessungen (mm) LCF	OAL	LF	PL	DCON	Lager
4.5	VSDD0450	47.4	87.4	86	1.4	4.5	●
4.6	VSDD0460	47.4	87.4	86	1.4	4.6	★
4.7	VSDD0470	47.4	90.4	89	1.4	4.7	★
4.8	VSDD0480	52.4	90.4	89	1.4	4.8	●
4.9	VSDD0490	52.5	93.5	92	1.5	4.9	★
5.0	VSDD0500	52.5	93.5	92	1.5	5.0	●
5.1	VSDD0510	52.5	93.5	92	1.5	5.1	●
5.2	VSDD0520	52.6	96.6	95	1.6	5.2	●
5.3	VSDD0530	52.6	96.6	95	1.6	5.3	★
5.4	VSDD0540	57.6	96.6	95	1.6	5.4	★
5.5	VSDD0550	57.7	96.7	95	1.7	5.5	●
5.6	VSDD0560	57.7	99.7	98	1.7	5.6	★
5.7	VSDD0570	57.7	99.7	98	1.7	5.7	★
5.8	VSDD0580	57.7	99.7	98	1.7	5.8	★
5.9	VSDD0590	57.8	99.8	98	1.8	5.9	●
6.0	VSDD0600	57.8	103.8	102	1.8	6.0	●
6.1	VSDD0610	63.8	103.8	102	1.8	6.1	★
6.2	VSDD0620	63.9	103.9	102	1.9	6.2	●
6.3	VSDD0630	63.9	103.9	102	1.9	6.3	●
6.4	VSDD0640	63.9	106.9	105	1.9	6.4	★
6.5	VSDD0650	64.0	107.0	105	2.0	6.5	●
6.6	VSDD0660	64.0	107.0	105	2.0	6.6	★
6.7	VSDD0670	64.0	107.0	105	2.0	6.7	★
6.8	VSDD0680	69.0	107.0	105	2.0	6.8	●
6.9	VSDD0690	69.1	107.1	105	2.1	6.9	★
7.0	VSDD0700	69.1	107.1	105	2.1	7.0	●
7.1	VSDD0710	69.1	110.1	108	2.1	7.1	★
7.2	VSDD0720	69.2	110.2	108	2.2	7.2	★
7.3	VSDD0730	69.2	110.2	108	2.2	7.3	●
7.4	VSDD0740	69.2	113.2	111	2.2	7.4	★
7.5	VSDD0750	69.3	113.3	111	2.3	7.5	★
7.6	VSDD0760	75.3	113.3	111	2.3	7.6	★
7.7	VSDD0770	75.3	116.3	114	2.3	7.7	★
7.8	VSDD0780	75.3	116.3	114	2.3	7.8	★
7.9	VSDD0790	75.4	116.4	114	2.4	7.9	●
8.0	VSDD0800	75.4	116.4	114	2.4	8.0	●
8.1	VSDD0810	75.4	119.4	117	2.4	8.1	★
8.2	VSDD0820	75.5	119.5	117	2.5	8.2	★
8.3	VSDD0830	75.5	119.5	117	2.5	8.3	★
8.4	VSDD0840	75.5	123.5	121	2.5	8.4	★

● : Lagerstandard. ★ : Lagerstandard in Japan.

SCHNITTBEDINGUNGEN ➤L196

VIOLET BOHRER

VSD
Zylindrischer Schaft

DC (mm)	Bestellbezeichnung	Abmessungen (mm) LCF	OAL	LF	PL	DCON	Lager
8.5	VSDD0850	75.6	123.6	121	2.6	8.5	●
8.6	VSDD0860	81.6	123.6	121	2.6	8.6	●
8.7	VSDD0870	81.6	123.6	121	2.6	8.7	●
8.8	VSDD0880	81.6	126.6	124	2.6	8.8	★
8.9	VSDD0890	81.7	126.7	124	2.7	8.9	★
9.0	VSDD0900	81.7	126.7	124	2.7	9.0	●
9.1	VSDD0910	81.7	126.7	124	2.7	9.1	★
9.2	VSDD0920	81.8	129.8	127	2.8	9.2	★
9.3	VSDD0930	81.8	129.8	127	2.8	9.3	★
9.4	VSDD0940	81.8	129.8	127	2.8	9.4	★
9.5	VSDD0950	81.9	129.9	127	2.9	9.5	●
9.6	VSDD0960	87.9	132.9	130	2.9	9.6	★
9.7	VSDD0970	87.9	132.9	130	2.9	9.7	★
9.8	VSDD0980	87.9	132.9	130	2.9	9.8	★
9.9	VSDD0990	88.0	133.0	130	3.0	9.9	★
10.0	VSDD1000	88.0	133.0	130	3.0	10.0	●
10.1	VSDD1010	88.0	136.0	133	3.0	10.1	★
10.2	VSDD1020	88.1	136.1	133	3.1	10.2	●
10.3	VSDD1030	88.1	136.1	133	3.1	10.3	●
10.4	VSDD1040	88.1	136.1	133	3.1	10.4	★
10.5	VSDD1050	88.2	140.2	137	3.2	10.5	●
10.6	VSDD1060	88.2	140.2	137	3.2	10.6	★
10.7	VSDD1070	95.2	140.2	137	3.2	10.7	★

DC (mm)	Bestellbezeichnung	Abmessungen (mm) LCF	OAL	LF	PL	DCON	Lager
10.8	VSDD1080	95.2	143.2	140	3.2	10.8	★
10.9	VSDD1090	95.3	143.3	140	3.3	10.9	★
11.0	VSDD1100	95.3	143.3	140	3.3	11.0	●
11.1	VSDD1110	95.3	143.3	140	3.3	11.1	★
11.2	VSDD1120	95.4	146.4	143	3.4	11.2	★
11.3	VSDD1130	95.4	146.4	143	3.4	11.3	★
11.4	VSDD1140	95.4	146.4	143	3.4	11.4	★
11.5	VSDD1150	95.5	146.5	143	3.5	11.5	★
11.6	VSDD1160	95.5	149.5	146	3.5	11.6	★
11.7	VSDD1170	95.5	149.5	146	3.5	11.7	★
11.8	VSDD1180	95.5	149.5	146	3.5	11.8	★
11.9	VSDD1190	102.6	149.6	146	3.6	11.9	★
12.0	VSDD1200	102.6	152.6	149	3.6	12.0	●
12.1	VSDD1210	102.6	152.6	149	3.6	12.1	★
12.2	VSDD1220	102.7	152.7	149	3.7	12.2	★
12.3	VSDD1230	102.7	152.7	149	3.7	12.3	★
12.4	VSDD1240	102.7	155.7	152	3.7	12.4	★
12.5	VSDD1250	102.8	155.8	152	3.8	12.5	★
12.6	VSDD1260	102.8	155.8	152	3.8	12.6	★
12.7	VSDD1270	102.8	155.8	152	3.8	12.7	★
12.8	VSDD1280	102.8	155.8	152	3.8	12.8	★
12.9	VSDD1290	102.9	155.9	152	3.9	12.9	★
13.0	VSDD1300	102.9	155.9	152	3.9	13.0	●

SCHNITTDATENEMPFEHLUNGEN

Werkstoff	P: Baustahl	P: C-Stahl Ck55	M: Rostfreier Stahl X20Cr13	M/K: Rostfreier Stahl X5CrNi1810 Werkzeugstahl X210Cr12 (Materialien mit geringer Härte) Vergüteter Stahl X40CrMoV51 (−40HRC)
Schnittgeschw.	40m/min	30m/min	20m/min	10−14m/min

Bohrer Durchm. DC (mm)	Drehzahl (min^{-1})	Vorschub (mm/U.)	Drehzahl (min^{-1})	Vorschub (mm/U.)	Drehzahl (min^{-1})	Vorschub (mm/U.)	Drehzahl (min^{-1})	Vorschub (mm/U.)
0.5	15000	0.01	11250	0.01	7500	0.01	5620	0.01
1.0	10000	0.02	7500	0.02	5000	0.02	3750	0.02
1.5	8200	0.03	6150	0.03	4100	0.03	2800	0.03
2.0	6370	0.05	4780	0.05	3180	0.05	2200	0.04
3.0	4250	0.10	3180	0.10	2120	0.07	1400	0.06
4.0	3180	0.13	2390	0.13	1590	0.09	1100	0.08
5.0	2550	0.15	1910	0.15	1270	0.11	860	0.10
6.0	2120	0.18	1590	0.18	1060	0.13	720	0.11
7.0	1820	0.20	1360	0.20	910	0.14	610	0.12
8.0	1590	0.22	1190	0.21	800	0.15	540	0.13
9.0	1420	0.24	1060	0.22	710	0.17	480	0.14
10.0	1270	0.26	960	0.23	640	0.18	430	0.15
11.0	1160	0.28	870	0.24	580	0.19	390	0.16
12.0	1060	0.30	800	0.25	530	0.20	360	0.17
13.0	980	0.30	730	0.26	490	0.20	330	0.17

1) Bitte passen Sie die Schnittwerte den Bedingungen des Werkstückes und der Maschine an.
2) Bei Bohrtiefen > l/d3 reduzieren Sie bitte die Schnittwerte und bohren mit Entspanzyklus.
3) Bei Verwendung von wasserlöslicher Schmierflüssigkeit sind oben genannte Schnittdaten der Standard.
Bitte reduzieren Sie die Umdrehungen bei Verwendung von nicht-wasserlöslichem Kühlschmierstoff.

VAPDSCB

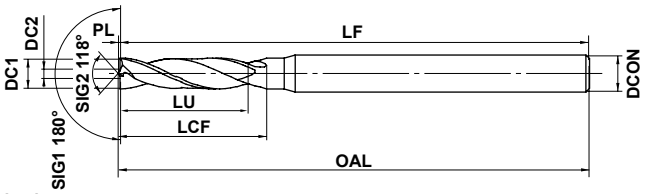
Kurze Schneidenlänge, hohe Präzision, mit Zentrumspitze, für das Anbohren

HG HSS | V | 180° 118°

P M K N S H

DC≤3	3<DC≤6	6<DC≤10	10<DC≤18	18<DC≤30	30<DC≤32
0 −0.014	0 −0.018	0 −0.022	0 −0.027	0 −0.033	0 −0.039





- Die einzigartige Geometrie ermöglicht hocheffizientes Anbohren. Ausgezeichnete Spanbrechung und flacher Boden der gegengebohrten Oberfläche.

Standard Bohrtiefe : LU = LCF-3DC

DC1 (mm)	Bestellbezeichnung	Abmessungen (mm) DC2	LCF	OAL	LF	PL	DCON	Lager
2.0	VAPDSCBD0200	0.7	12	60.2	60	0.2	3	★
2.1	VAPDSCBD0210	0.7	12	60.2	60	0.2	3	★
2.2	VAPDSCBD0220	0.7	12	60.2	60	0.2	3	★
2.3	VAPDSCBD0230	0.7	13	60.2	60	0.2	3	★
2.4	VAPDSCBD0240	0.7	13	60.2	60	0.2	3	★
2.5	VAPDSCBD0250	0.7	13	60.2	60	0.2	3	★
2.6	VAPDSCBD0260	0.8	15	60.2	60	0.2	3	★
2.7	VAPDSCBD0270	0.8	15	60.2	60	0.2	3	★
2.8	VAPDSCBD0280	0.8	15	60.2	60	0.2	3	★
2.9	VAPDSCBD0290	0.8	15	60.2	60	0.2	3	★
3.0	VAPDSCBD0300	0.8	15	60.2	60	0.2	3	★
3.1	VAPDSCBD0310	0.8	17	70.2	70	0.2	4	★
3.2	VAPDSCBD0320	0.8	17	70.2	70	0.2	4	★
3.3	VAPDSCBD0330	0.8	19	70.2	70	0.2	4	★
3.4	VAPDSCBD0340	0.8	19	70.2	70	0.2	4	★
3.5	VAPDSCBD0350	0.8	19	70.2	70	0.2	4	★
3.6	VAPDSCBD0360	1.0	21	70.2	70	0.2	4	★
3.7	VAPDSCBD0370	1.0	21	70.2	70	0.2	4	★
3.8	VAPDSCBD0380	1.0	21	70.2	70	0.2	4	★
3.9	VAPDSCBD0390	1.0	21	70.2	70	0.2	4	★
4.0	VAPDSCBD0400	1.0	21	70.3	70	0.3	4	★
4.1	VAPDSCBD0410	1.0	21	80.3	80	0.3	6	★
4.2	VAPDSCBD0420	1.0	21	80.3	80	0.3	6	★
4.3	VAPDSCBD0430	1.0	23	80.3	80	0.3	6	★
4.4	VAPDSCBD0440	1.0	23	80.3	80	0.3	6	★
4.5	VAPDSCBD0450	1.0	23	80.3	80	0.3	6	★
4.6	VAPDSCBD0460	1.4	25	80.3	80	0.3	6	★
4.7	VAPDSCBD0470	1.4	25	80.3	80	0.3	6	★
4.8	VAPDSCBD0480	1.4	25	80.3	80	0.3	6	★
4.9	VAPDSCBD0490	1.4	25	80.3	80	0.3	6	★
5.0	VAPDSCBD0500	1.4	25	80.4	80	0.4	6	★
5.1	VAPDSCBD0510	1.4	25	80.4	80	0.4	6	★
5.2	VAPDSCBD0520	1.4	25	80.4	80	0.4	6	★
5.3	VAPDSCBD0530	1.4	25	80.4	80	0.4	6	★
5.4	VAPDSCBD0540	1.4	27	80.4	80	0.4	6	★
5.5	VAPDSCBD0550	1.4	27	80.4	80	0.4	6	★
5.6	VAPDSCBD0560	1.4	27	80.4	80	0.4	6	★
5.7	VAPDSCBD0570	1.4	27	80.4	80	0.4	6	★
5.8	VAPDSCBD0580	1.4	27	80.4	80	0.4	6	★
5.9	VAPDSCBD0590	1.4	27	80.4	80	0.4	6	★

DC1 (mm)	Bestellbezeichnung	Abmessungen (mm) DC2	LCF	OAL	LF	PL	DCON	Lager
6.0	VAPDSCBD0600	1.4	27	80.4	80	0.4	6	★
6.1	VAPDSCBD0610	1.4	30	80.4	80	0.4	8	★
6.2	VAPDSCBD0620	1.4	30	80.4	80	0.4	8	★
6.3	VAPDSCBD0630	1.4	30	80.4	80	0.4	8	★
6.4	VAPDSCBD0640	1.4	30	80.4	80	0.4	8	★
6.5	VAPDSCBD0650	1.4	30	80.4	80	0.4	8	★
6.6	VAPDSCBD0660	1.8	30	80.4	80	0.4	8	★
6.7	VAPDSCBD0670	1.8	30	80.4	80	0.4	8	★
6.8	VAPDSCBD0680	1.8	32	80.4	80	0.4	8	★
6.9	VAPDSCBD0690	1.8	32	80.4	80	0.4	8	★
7.0	VAPDSCBD0700	1.8	32	80.6	80	0.6	8	★
7.1	VAPDSCBD0710	1.8	32	80.6	80	0.6	8	★
7.2	VAPDSCBD0720	1.8	32	80.6	80	0.6	8	★
7.3	VAPDSCBD0730	1.8	32	80.6	80	0.6	8	★
7.4	VAPDSCBD0740	1.8	32	80.6	80	0.6	8	★
7.5	VAPDSCBD0750	1.8	32	80.6	80	0.6	8	★
7.6	VAPDSCBD0760	2.0	35	85.6	85	0.6	8	★
7.7	VAPDSCBD0770	2.0	35	85.6	85	0.6	8	★
7.8	VAPDSCBD0780	2.0	35	85.6	85	0.6	8	★
7.9	VAPDSCBD0790	2.0	35	85.6	85	0.6	8	★
8.0	VAPDSCBD0800	2.0	35	85.6	85	0.6	8	★
8.1	VAPDSCBD0810	2.0	35	90.6	90	0.6	10	★
8.5	VAPDSCBD0850	2.0	35	90.6	90	0.6	10	★
8.6	VAPDSCBD0860	2.8	38	93.6	93	0.6	10	★
8.8	VAPDSCBD0880	2.8	38	93.6	93	0.6	10	★
9.0	VAPDSCBD0900	2.8	38	93.8	93	0.8	10	★
9.1	VAPDSCBD0910	2.8	38	93.8	93	0.8	10	★
9.5	VAPDSCBD0950	2.8	38	93.8	93	0.8	10	★
9.6	VAPDSCBD0960	3.2	41	96.8	96	0.8	10	★
9.8	VAPDSCBD0980	3.2	41	96.8	96	0.8	10	★
10.0	VAPDSCBD1000	3.2	41	96.9	96	0.9	10	★
10.1	VAPDSCBD1010	3.2	41	101.9	101	0.9	12	★
10.3	VAPDSCBD1030	3.2	41	101.9	101	0.9	12	★
10.5	VAPDSCBD1050	3.2	41	101.9	101	0.9	12	★
10.8	VAPDSCBD1080	3.7	45	105.9	105	0.9	12	★
11.0	VAPDSCBD1100	3.7	45	105.9	105	0.9	12	★
11.1	VAPDSCBD1110	3.7	45	105.9	105	0.9	12	★
11.5	VAPDSCBD1150	3.7	45	105.9	105	0.9	12	★
11.8	VAPDSCBD1180	3.7	45	105.9	105	0.9	12	★
12.0	VAPDSCBD1200	3.7	49	109.9	109	0.9	12	★

★ : Lagerstandard in Japan.

VAPDSCB

Kurze Schneidenlänge, hohe Präzision, mit Zentrumspitze, für das Anbohren

DC1 (mm)	Bestellbezeichnung	Abmessungen (mm)						Lager
		DC2	LCF	OAL	LF	PL	DCON	
12.5	VAPDSCBD1250	3.7	49	109.9	109	0.9	12	★
13.0	VAPDSCBD1300	4.2	49	110.1	109	1.1	12	★
13.5	VAPDSCBD1350	4.2	51	122.1	121	1.1	16	★
13.8	VAPDSCBD1380	4.2	51	122.1	121	1.1	16	★
14.0	VAPDSCBD1400	4.2	51	122.1	121	1.1	16	★
14.1	VAPDSCBD1410	5.5	58	124.1	123	1.1	16	★
14.2	VAPDSCBD1420	5.5	58	124.1	123	1.1	16	★
14.5	VAPDSCBD1450	5.5	58	124.1	123	1.1	16	★
14.8	VAPDSCBD1480	5.5	58	124.1	123	1.1	16	★
15.0	VAPDSCBD1500	5.5	58	124.3	123	1.3	16	★
15.5	VAPDSCBD1550	5.5	60	126.3	125	1.3	16	★
15.7	VAPDSCBD1570	5.5	60	126.3	125	1.3	16	★
15.8	VAPDSCBD1580	5.5	60	126.3	125	1.3	16	★
16.0	VAPDSCBD1600	5.5	60	126.3	125	1.3	16	★
17.0	VAPDSCBD1700	5.5	62	133.3	132	1.3	20	★
17.5	VAPDSCBD1750	5.5	63	134.6	133	1.6	20	★
17.6	VAPDSCBD1760	6.5	63	134.6	133	1.6	20	★
17.7	VAPDSCBD1770	6.5	63	134.6	133	1.6	20	★
17.8	VAPDSCBD1780	6.5	63	134.6	133	1.6	20	★
18.0	VAPDSCBD1800	6.5	63	134.6	133	1.6	20	★
18.1	VAPDSCBD1810	6.5	65	136.6	135	1.6	20	★
19.0	VAPDSCBD1900	6.5	65	136.6	135	1.6	20	★
19.8	VAPDSCBD1980	7.5	67	138.6	137	1.6	20	★
20.0	VAPDSCBD2000	7.5	67	138.8	137	1.8	20	★
20.1	VAPDSCBD2010	7.5	67	138.8	137	1.8	20	★
21.0	VAPDSCBD2100	7.5	75	166.8	165	1.8	25	★
22.0	VAPDSCBD2200	7.5	75	166.8	165	1.8	25	★
23.0	VAPDSCBD2300	7.5	80	171.8	170	1.8	25	★
24.0	VAPDSCBD2400	8.5	80	172.2	170	2.2	25	★
25.0	VAPDSCBD2500	8.5	85	182.2	180	2.2	25	★
26.0	VAPDSCBD2600	9.0	85	182.2	180	2.2	32	★
27.0	VAPDSCBD2700	9.0	95	192.2	190	2.2	32	★
28.0	VAPDSCBD2800	10.0	95	192.6	190	2.6	32	★
29.0	VAPDSCBD2900	10.0	100	197.6	195	2.6	32	★
30.0	VAPDSCBD3000	11.0	100	197.6	195	2.6	32	★
31.0	VAPDSCBD3100	11.0	105	202.6	200	2.6	32	★
32.0	VAPDSCBD3200	13.0	105	202.6	200	2.6	32	★

★ : Lagerstandard in Japan.

SCHNITTDATENEMPFEHLUNGEN

Werkstoff	P N		P K		P M		P M	
	Baustahl, Aluminium Leg.		C-Stahl Ck55, Legierter Stahl 070M55, Duktiles Gusseisen		Leg. Werkzeugstahl X210Cr12, (Werkstoffe mit geringer Härte) Ferritischer rostfreier Stahl, X10CrAl18, X10CrAl13 Martensitischer rostfreier Stahl, X20Cr13, X10CrAl13		Leg. Werkzeugstahl, X40CrMoV51 (−40HRC) Aushärtbarer rostfreier Stahl, X7CrNiAl177	
Bohrer Durchm. **DC** (mm)	Drehzahl (min^{-1})	Vorschub (mm/U.)	Drehzahl (min^{-1})	Vorschub (mm/U.)	Drehzahl (min^{-1})	Vorschub (mm/U.)	Drehzahl (min^{-1})	Vorschub (mm/U.)
2.0	5600	0.07	4800	0.07	3200	0.07	2800	0.04
3.0	3700	0.10	3200	0.10	2100	0.10	1900	0.05
4.0	2800	0.12	2400	0.12	1600	0.12	1400	0.06
5.0	2200	0.14	1900	0.14	1300	0.14	1150	0.07
6.0	1850	0.15	1600	0.15	1050	0.15	950	0.08
8.0	1400	0.20	1200	0.20	800	0.20	720	0.10
10.0	1100	0.23	960	0.23	640	0.21	570	0.11
12.0	950	0.26	800	0.26	530	0.24	470	0.12
14.0	800	0.27	680	0.27	450	0.25	410	0.13
16.0	700	0.28	500	0.28	360	0.26	300	0.14
18.0	620	0.29	450	0.29	320	0.27	260	0.15
20.0	560	0.30	400	0.30	290	0.27	240	0.15
22.0	510	0.32	360	0.32	260	0.29	220	0.16
24.0	460	0.33	330	0.33	240	0.30	200	0.16
26.0	430	0.35	310	0.35	220	0.31	180	0.17
28.0	400	0.36	290	0.36	210	0.33	170	0.18
30.0	370	0.37	270	0.37	190	0.34	160	0.18
32.0	350	0.38	250	0.38	180	0.35	150	0.19

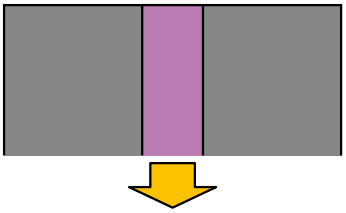
1) Die angegebenen Schnittdaten beziehen sich auf Bohrtiefen bis 2xDC bei Bohrungen ohne Pilotbohrung.
   Wenn Löcher mit einer Tiefe kleiner als 1xDC gebohrt werden, kann die Drehzahl um 20 % erhöht werden.
2) Es wird empfohlen auf eine Pilotbohrung zu verzichten.
   Wenn eine Pilotbohrung vorhanden ist, können die Späne möglicherweise nicht gebrochen werden. Wir empfehlen das Lüften, wenn die Späne gebrochen werden müssen.
3) Beim Anbohren an geneigten Flächen ist die Verwendung eines Hartmetall-Fräsers zu empfehlen.
4) Verringern Sie bei der Bearbeitung von rostfreien Austenitstählen (X5CrNi1810) die Drehzahl um 30 - 60 %, und reduzieren Sie den Vorschub um 40 - 60 %.
5) Verwenden Sie ein Bohrfutter mit Spannvorrichtung.
6) Verringern Sie in Abhängigkeit von der Bohrsituation Drehzahl und Vorschub, wenn Werkstück oder Maschine zu wenig Stabilität aufweisen.
7) Verwenden Sie ausreichend Kühlschmierstoff.
   Die oben angegebenen Schnittdaten dienen als Leitfaden für die Verwendung eines wasserlöslichen Kühlschmierstoffes.
   Bei Verwendung eines nicht wasserlöslichen Kühlschmierstoffes muss die Drehzahl verringert werden.

EMPFOHLENE SCHNITTMETHODE

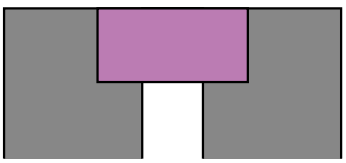
Mit VAPDSCB ist eine hocheffiziente Bearbeitung möglich, ohne dass es zu Spanstau kommt.

Herkömmliche Schnittmethode

①Bohren des Durchgangslochs



②Anbohren



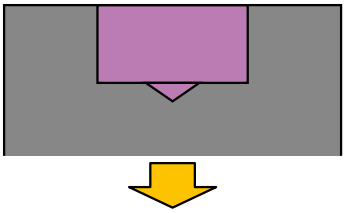
Spangeometrie



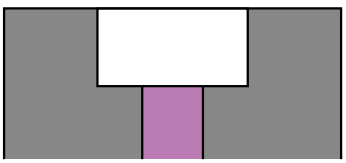


VAPDSCB-Schnittmethode

①Anbohren



②Bohren des Durchgangslochs



Spangeometrie





(Hinweis) Falls beim Anbohren mit dem VAPDSCB zuerst eine Pilotbohrung durchgeführt wird, können lange, zusammenhängende Späne entstehen, die sich um das Werkzeug wickeln.

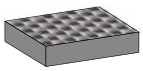
DIAMANTBESCHICHTETER VHM-BOHRER

MCC

P | M | K | **N** | S | H

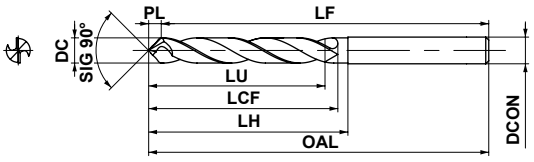

Bearbeitungszentrum

×


CFK



	3<DC≤6	6<DC≤10	10<DC≤18	18<DC≤20
	0 −0.018	0 −0.022	0 −0.027	0 −0.033
h6	0 −0.008	0 −0.009	0 −0.011	0 −0.013



Loch Durchm.		Bohrer Durchm.		Bohrtiefe	Bestellbezeichnung	Sorte	Abmessungen (mm)						
* AWG	Zoll	DC (mm)	Zoll	(L/D)		DD2105	LU	LCF	LH	OAL	LF	PL	DCON
—	3/16	4.76	.1875	3	**MCC0476X03S060**	★	16.7	40	40	80	77.6	2.4	6
—	1/4	6.38	.251	3	**MCC0638X03S080**	★	22.3	50	50	90	86.8	3.2	8
—	5/16	7.96	.3125	3	**MCC0796X03S080**	★	27.9	50	50	90	86.0	4.0	8
—	3/8	9.55	.375	3	**MCC0955X03S100**	★	33.5	50	50	100	95.2	4.8	10
—	7/16	11.14	.4375	3	**MCC1114X03S120**	★	39.0	60	60	110	104.4	5.6	12

★**AWG** : American Wire Gage

SCHNITTDATENEMPFEHLUNGEN

Werkstoff		N			
		CFK			
Durchm. DC (Zoll)	Durchm. DC (mm)	Schnittgeschw. (m/min)	Drehzahl (min^{-1})	Vorschub (Min.−Max.) (mm/U.)	Tischvorschub (mm/min)
.1875	**4.76**	100	6700	0.08 (0.05−0.12)	540
.251	**6.38**	100	5000	0.1 (0.05−0.12)	500
.3125	**7.96**	100	4000	0.1 (0.05−0.12)	400
.375	**9.55**	100	3400	0.1 (0.05−0.12)	340
.4375	**11.14**	100	2900	0.1 (0.05−0.12)	290

★ : Lagerstandard in Japan. □ : Nichtstandard, Herstellung nur auf Anfrage.

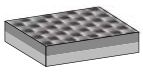
DIAMANTBESCHICHTETER VHM-BOHRER

MCA

P | M | K | **N** | S | H

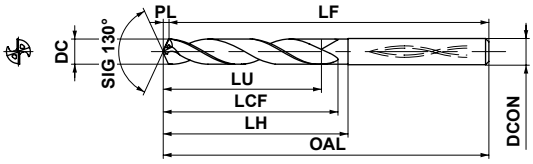

Bearbeitungszentrum

×


CFK+Al



	3<DC≤6	6<DC≤10	10<DC≤18	18<DC≤20
	0 −0.018	0 −0.022	0 −0.027	0 −0.033
h6	0 −0.008	0 −0.009	0 −0.011	0 −0.013



Loch Durchm.		Bohrer Durchm.		Bohrtiefe	Bestellbezeichnung	Sorte	Abmessungen (mm)						
*AWG	Zoll	DC (mm)	Zoll	(L/D)		DD2110	LU	LCF	LH	OAL	LF	PL	DCON
—	1/4	6.38	.251	5	**MCA0638X05S070**	□	33.4	51	51	91	89.5	1.5	7
—	3/8	9.55	.375	5	**MCA0955X05S100**	□	50.0	77	77	118	115.8	2.2	10

∗**AWG** : American Wire Gage

SCHNITTDATENEMPFEHLUNGEN

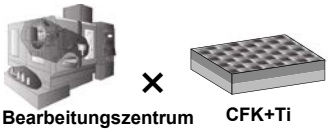
Werkstoff		N							
		CFK				Aluminium Leg. (Si<5%) ASTM A6061, ASTM A7075 etc			
Durchm. DC (Zoll)	Durchm. DC (mm)	Schnittgeschw. (m/min)	Drehzahl (min^{-1})	Vorschub (Min.—Max.) (mm/U.)	Tischvorschub (mm/min)	Schnittgeschw. (m/min)	Drehzahl (min^{-1})	Vorschub (Min.—Max.) (mm/U.)	Tischvorschub (mm/min)
.251	**6.38**	100	5000	0.15 (0.10—0.20)	750	100	5000	0.03 (0.02—0.04)	150
.375	**9.55**	100	3400	0.15 (0.10—0.20)	680	100	3400	0.03 (0.02—0.04)	100

1) Wir empfehlen, die Schneidbedingungen jedem Arbeitsmaterial anzupassen.

UNBESCHICHTETE BOHRER

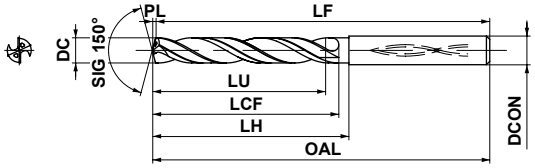
MCT

P | M | K | **N** | S | H





	3<DC≤6	6<DC≤10	10<DC≤18	18<DC≤20
	0 −0.018	0 −0.022	0 −0.027	0 −0.033
h6	0 −0.008	0 −0.009	0 −0.011	0 −0.013



Loch Durchm.		Bohrer Durchm.		Bohrtiefe	Bestellbezeichnung	Sorte	Abmessungen (mm)						
AWG *	Zoll	DC (mm)	Zoll	(L/D)		TF15	LU	LCF	LH	OAL	LF	PL	DCON
—	1/4	6.38	.251	5	**MCT0638X05S070**	□	32.8	47	47	96	95.1	0.9	7
—	3/8	9.55	.375	5	**MCT0955X05S100**	□	49.1	71	71	122	120.7	1.3	10

∗**AWG** : American Wire Gage

SCHNITTDATENEMPFEHLUNGEN

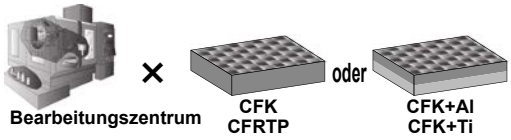
Werkstoff		N				S				
		CFK				Titanlegierung Ti-6Al-4V usw.				
Durchm. DC (Zoll)	Durchm. DC (mm)	Schnittgeschw. (m/min)	Drehzahl (min^{-1})	Vorschub (Min.—Max.) (mm/U.)	Tischvorschub (mm/min)	Schnittgeschw. (m/min)	Drehzahl (min^{-1})	Vorschub (Min.—Max.) (mm/U.)	Tischvorschub (mm/min)	Bearbeitung in Schritten (mm)
.251	**6.38**	100	5000	0.15 (0.10—0.20)	750	15	750	0.02 (0.01—0.03)	15	1
.375	**9.55**	100	3400	0.15 (0.10—0.20)	680	15	500	0.02 (0.01—0.03)	10	1

1) Bitte verwenden sie Luft oder Ölnebel
2) Wir empfehlen, die Schneidbedingungen jedem Arbeitsmaterial anzupassen.

□ : **Nichtstandard, Herstellung nur auf Anfrage.**

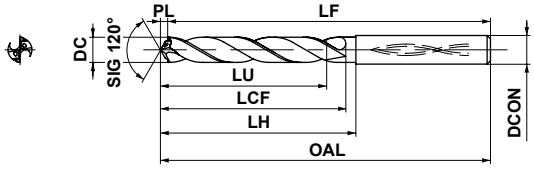
MCW

P M K **N** S H





	3<DC≤6	6<DC≤10	10<DC≤18	18<DC≤20
	0 −0.018	0 −0.022	0 −0.027	0 −0.033
h6	0 −0.008	0 −0.009	0 −0.011	0 −0.013



Loch Durchm.		Bohrer Durchm.		Bohrtiefe	Bestellbezeichnung	Sorte		Abmessungen (mm)						
AWG *	Zoll	DC (mm)	Zoll	(L/D)		HTi10	DD2110	LU	LCF	LH	OAL	LF	PL	DCON
—	1/4	6.38	.251	5	**MCW0638X05S070**	□	□	33.7	52	52	92	90.2	1.8	7
—	3/8	9.55	.375	5	**MCW0955X05S100**	□	□	50.6	73	73	119	116.2	2.8	10

∗**AWG** : American Wire Gage

SCHNITTDATENEMPFEHLUNGEN

Werkstoff		CFK			
Durchm. DC (Zoll)	Durchm. DC (mm)	Schnittgeschw. (m/min)	Drehzahl (min^{-1})	Vorschub (Min.—Max.) (mm/U.)	Tischvorschub (mm/min)
.251	**6.38**	100	5000	0.15 (0.10—0.20)	750
.375	**9.55**	100	3400	0.15 (0.10—0.20)	680

Werkstoff		N					S				
		Aluminium Leg. (Si<5%) A6061, A7075 usw.					Titanlegierung Ti-6Al-4V usw.				
Durchm. DC (Zoll)	Durchm. DC (mm)	Schnittgeschw. (m/min)	Drehzahl (min^{-1})	Vorschub (Min.—Max.) (mm/U.)	Tischvorschub (mm/min)	Bearbeitung in Schritten (mm)	Schnittgeschw. (m/min)	Drehzahl (min^{-1})	Vorschub (Min.—Max.) (mm/U.)	Tischvorschub (mm/min)	Bearbeitung in Schritten (mm)
.251	**6.38**	100	5000	0.15 (0.10—0.20)	750	3	15	750	0.02 (0.01—0.03)	15	1
.375	**9.55**	100	3400	0.15 (0.10—0.20)	500	3	15	500	0.02 (0.01—0.03)	10	1

1) Bitte verwenden sie Luft oder Ölnebel
2) Wir empfehlen, die Schneidbedingungen jedem Arbeitsmaterial anzupassen.

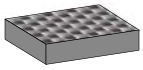
UNBESCHICHTETE BOHRER

MCCH

P M K **N** S H

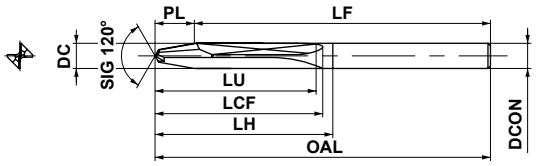

Handwerkzeug

×


CFK



	1<DC≤3	3<DC≤6	6<DC≤10	10<DC≤18	18<DC≤20
	0 −0.014	0 −0.018	0 −0.022	0 −0.027	0 −0.033
h6	0 −0.006	0 −0.008	0 −0.009	0 −0.011	0 −0.013



Loch Durchm.		Bohrer Durchm.		Bohrtiefe	Bestellbezeichnung	Sorte	Abmessungen (mm)						
AWG *	Zoll	DC (mm)	Zoll	(L/D)		DT2030	LU	LCF	LH	OAL	LF	PL	DCON
#40	—	2.5	.0985	15	**MCCH0250X15S030**	★	42.1	48	50	100	95.4	4.6	3
#30	—	3.26	.1285	10	MCCH**0326X10S040**	★	38.6	48	50	100	94.0	6.0	4
#20	—	4.1	.1615	8	MCCH**0410X08S050**	★	40.3	48	50	100	92.5	7.5	5
#11	—	4.86	.1915	5	MCCH**0486X05S050**	★	33.2	48	50	100	91.1	8.9	5
—	1/4	6.38	.251	3	MCCH**0638X03S070**	★	30.8	48	50	100	88.3	11.7	7
—	3/8	9.55	.375	2	MCCH**0955X02S100**	★	36.6	48	50	100	82.5	17.5	10

★AWG : American Wire Gage
(Bemerkung) Bitte vergewissern sie sich ob ihr Werkzeug zur Bearbeitung geeignet ist.

★ : Lagerstandard in Japan.

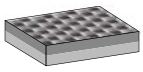
MCAH

P | M | K | **N** | S | H



Handwerkzeug

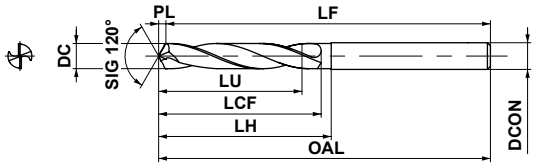
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CFK+Al



	1<DC≤3	3<DC≤6	6<DC≤10	10<DC≤18	18<DC≤20
	0 −0.014	0 −0.018	0 −0.022	0 −0.027	0 −0.033
h6	0 −0.006	0 −0.008	0 −0.009	0 −0.011	0 −0.013



Loch Durchm.		Bohrer Durchm.		Bohrtiefe	Bestellbezeichnung	Sorte	Abmessungen (mm)						
* AWG	Zoll	DC (mm)	Zoll	(L/D)		DT2030	LU	LCF	LH	OAL	LF	PL	DCON
#40	—	2.5	.0985	15	**MCAH0250X15S030**	★	38.2	50	50	100	99.3	0.7	3
#30	—	3.26	.1285	15	MCAH**0326X15S040**	★	49.8	50	50	100	99.1	0.9	4
#20	—	4.1	.1615	10	MCAH**0410X10S050**	★	42.2	50	50	100	98.8	1.2	5
#11	—	4.86	.1915	8	MCAH**0486X08S050**	★	40.3	50	50	100	98.6	1.4	5
—	1/4	6.38	.251	5	MCAH**0638X05S070**	★	33.7	50	50	100	98.2	1.8	7
—	3/8	9.55	.375	3	MCAH**0955X03S100**	★	31.5	50	50	100	97.2	2.8	10

∗**AWG** : American Wire Gage
(Bemerkung) Bitte vergewissern sie sich ob ihr Werkzeug zur Bearbeitung geeignet ist.

Notizen

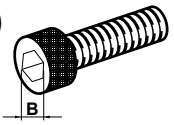
ERSATZTEILE

IDENTIFIZIERUNG M002
ERSATZTEILE
- KLEMMSCHRAUBEN M003
- SCHRAUBE M009
- UNTERLEGPLATTE M010
- BEFESTIGUNGSFEDER UND KNIEHEBEL M013
- KNIEHEBEL M014
- SPANNPRATZE M014
- SPANBRECHER M016
- KUPFERPASTEN M017

IDENTIFIZIERUNG

IDENTIFIZIERUNG VON KLEMMSCHRAUBEN (Grobgewinde in Rechtsausführung)

H SC 060 05



Länge

Beispiel	
Symbol	L
05	5
10	10
20	20
30	30

Schrauben Durchmesser

Beispiel	
Symbol	d
050	M5
060	M6

● **Hexagonale Lochabmessungen**

Durch-messer	Gewinde-steigung	B Abmessungen			
		HBH	HFC	HSC	HS◌
M2	0.4	—	—	1.5	0.9
M2.5	0.45	—	—	2	1.3
M3	0.5	2	2	2.5	1.5
M4	0.7	2.5	2.5	3	2
M5	0.8	3	3	4	2.5
M6	1	4	4	5	3
M8	1.25	5	5	6	4
M10	1.5	6	6	8	5

Schraubenkopf

BH / BHA	CHUUBURASHI CO. / UNBRAKO CO.	Halbrundkopf
FC	CHUUBURASHI CO.	Flacher Kopf
SC	JIS Standard	Sockel Kopf
PM	JIS Standard	Kegelkopf
FM	JIS Standard	Flacher Kopf (Flacher Punkt)
SD	JIS Standard	Schraube (Schnittpunkt)
SP	JIS Standard	Schraube (Druckpunkt)
SR	JIS Standard	Schraube (Druckpunkt)
SS	JIS Standard	Schraube (Flacher Punkt)

Hexagonale Lochabmessungen

Symbol	Geometrie
H	

Mit Nut

Symbol	Geometrie
S	

Mit Kreuzloch

Symbol	Geometrie
C	

IDENTIFIZIERUNG VON SCHLÜSSEL

HKY 15 R

Symbol	Schlüssel
HKY	Hexagobaler Schlüssel
TKY	Torx Schlüssel
RKY	R Schlüssel
TIP	Torx plus® Schlüssel

Hexagonaler Schlüssel



Symbol	B
15	1.5
20	2
25	2.5
30	3
40	4
50	5
60	6

Torx Schlüssel



Symbol	B	Größe
06	1.7	T6
08	2.3	T8
10	2.7	T10
15	3.3	T15
20	3.8	T20
25	4.4	T25
27	5.0	T27
30	5.5	T30

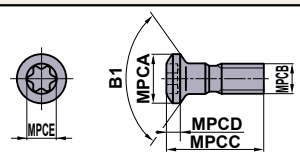
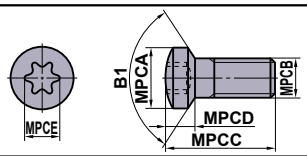
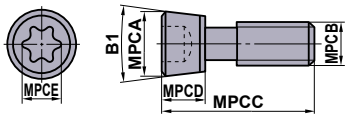
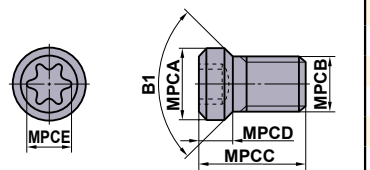
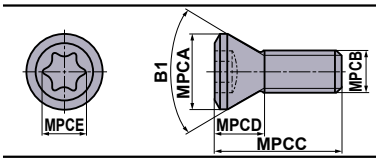
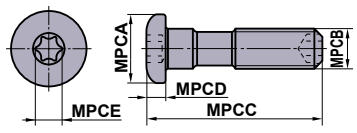
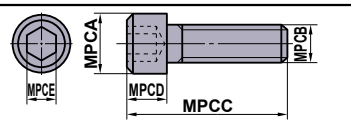
Torx plus® Schlüssel

Symbol	Größe
06	6IP
07	7IP
08	8IP
15	15IP

R	Standard L-Schlüssel	
L	L-Schlüssel in langer Ausführung	
T	T-Schlüssel	
F FS	Flaggen-schlüssel	
W	Flaggen-schlüssel	
D	Schrauben-dreher	
S	Schlüssel	

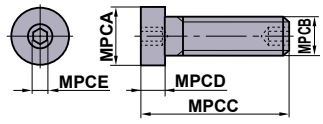
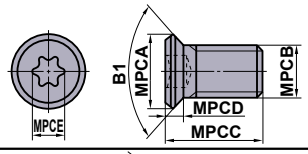
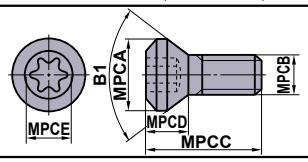
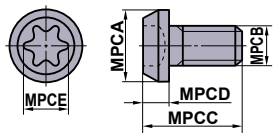
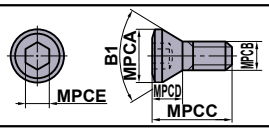
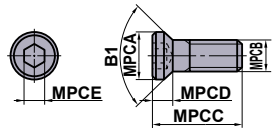
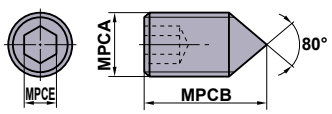
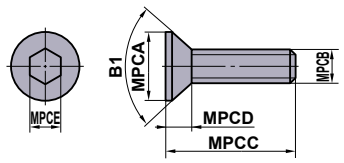
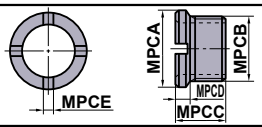
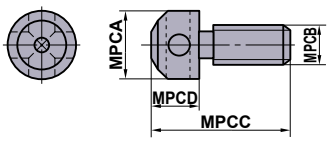
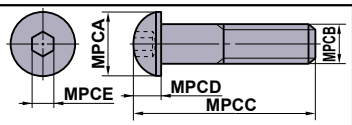
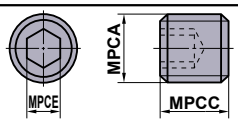
ERSATZTEILE

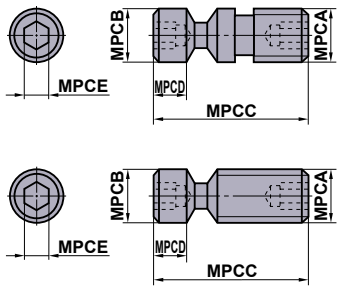
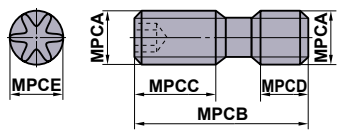
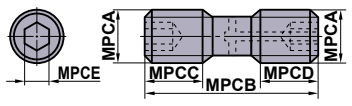
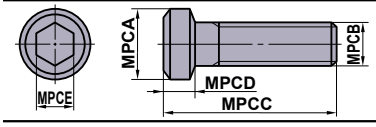
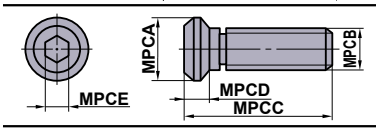
KLEMMSCHRAUBEN

Geometrie	Bestell-bezeichnung	Abmessungen (mm)					Winkel	MPCDS	TQ (N•m)	Werkzeughalter
		MPCA	MPCB	MPCC	MPCD	MPCE	B1			
	**AJS3010T10**	5	M3×0.5	10	1.5	2.8	120°	T10	2.5	**Profil** Halter
	AJS4012T15	7	M4×0.7	12	2.2	3.4	120°	T15	3.5	**AJX** Fräser
	AJS5014T25	8	M5×0.8	14	2.7	4.5	120°	T25	7.5	
	**BRS103**	5	M3×0.5	9.9	2.9	3.4	120°	T15	3.5	**BRE** Fräser
	BRS105	8	M5×0.8	13.8	3.8	4.5	120°	T25	7.5	
	**CAS51T**	7.9	M5×0.8	19	5	4.5	10°	T25	8.5	**BF407** Fräser
	**CS200T**	3.2	M2×0.4	5	1.6	1.8	90°	T6	0.6	**AL** Halter
	CS250T	3.7	M2.5×0.45	6	1.8	2.4	90°	T8	1.0	**F** Bohrstange
	* **CS250560T**	3.9	M2.5×0.45	5.2	2.5	2.4	60°	T8	1.0	**MMTI** Bohrstange
	CS300590T	4.1	M3×0.5	5.5	2.1	2.4	90°	T8	1.0	**SNT** Bohrstange
	CS300790TS	4.7	M3×0.5	7	2.3	2.8	90°	T10	2.0	**Fräswerkzeug**-Serien
	CS300890T	4.1	M3×0.5	8	2.1	2.4	90°	T8	1.0	**AHX640S** Fräser
	CS350690T	4.8	M3.5×0.6	6.5	2.4	2.8	90°	T10	2.5	
	* **CS350760T**	5.5	M3.5×0.6	7	4	3.4	60°	T15	3.5	
	CS350790T	4.8	M3.5×0.6	7	2.4	2.8	90°	T10	2.5	
	* **CS350860T**	5.5	M3.5×0.6	8.4	4	3.4	60°	T15	3.5	
	CS350990T	4.8	M3.5×0.6	9	2.4	2.8	90°	T10	2.5	
	CS400990T	6.0	M4×0.7	9	2.8	3.4	90°	T15	3.5	
	CS401160T	5.7	M4×0.7	11	4.5	3.4	60°	T15	3.5	
	CS401990T	6.0	M4×0.7	19	3.0	3.9	90°	T20	3.5	
	CS451190T	6.3	M4.5×0.75	11	2.9	3.9	90°	T20	5.0	
	* **CS501160T**	7.0	M5×0.8	11	3.6	3.9	60°	T20	5.0	
	CS501290T	7.0	M5×0.8	11	3.5	4.5	90°	T25	7.5	
	CS5015060T	7.2	M5×0.8	15	2.4	3.9	60°	T20	5.0	
	CS502190T	8.5	M5×0.8	21	4.0	5.1	90°	T27	7.5	
	CS6016060T	8.5	M6×1.0	16	4.5	4.5	60°	T25	7.5	
	**CSF401260T**	7.2	M4×0.5	12	5.2	3.9	60°	T20	5.0	**PMR** Fräser
	**DC0520T**	8.5	M5×0.8	22.5	2.5	3.4	—	T15	3.5	**DOPPELKLEMM** Halter
	DC0621T	10.5	M6×1.0	25	4	3.9	—	T20	5.0	**DIMPLE BAR-BOHRSTANGE**
										HSK System
	**DKS4**	5.6	M4×0.7	18	3.5	3	—	—	3.3	
	DKS5	7.6	M5×0.8	19	4.5	4	—	—	7.0	

ERSATZTEILE

KLEMMSCHRAUBEN

Geometrie	Bestell-bezeichnung	Abmessungen (mm)					Winkel	MPCDS	TQ (N•m)	Werkzeughalter
		MPCA	MPCB	MPCC	MPCD	MPCE	B1			
	**EGS06019**	9	M6×1	22.5	3.5	3	—	—	3.3	
	EGS**08024**	11	M8×1.25	28.5	4.5	4	—	—	7.0	
	**FC400890T**	5.6	M4×0.7	7.5	1.3	2.8	90°	T10	2.5	**AL** Halter **AL** Bohrstange **SMG** Halter
	**GY05016S**	8.7	M5×0.8	16	3.5	3.9	90°	T20	4.5	**GY** Serie
	**GY06013M**	12	M6×1	18	5	5.6	—	T30	6.0	**GY** Serie
	**HFF06015**	10	M6×1	15	6	5	80°	—	8.2	
	**HS4L**	5.4	M4×0.7	14	2.3	2.5	80°	—	3.8	
	HS**5S**	6.8	M5×0.8	9	2.8	3	80°	—	3.3	
	HS**5L**	6.8	M5×0.8	15	2.8	3	80°	—	6.6	
	**HSP05008C**	M5×0.8	8	—	—	2.5	—	—	2.5	**MP** Halter
	**HY-A1**	4.4	M3×0.5	7	2.1	2	82°	—	1.5	
	HY**-V1**	5.5	M3×0.5	7	2.5	2	82°	—	1.5	
	HY**2**	5.5	M3×0.5	10	2.5	2	82°	—	1.5	
	HY**3**	7	M3.5×0.6	12	2.9	2	82°	—	1.5	
	HY**4**	9.3	M5×0.8	16	3.6	3	82°	—	3.3	
	**JSS6**	6.9	M6×0.75	4.5	1.5	0.8	—	—	—	
	JSS**7**	8	M7×0.75	4.4	1.5	1	—	—	—	
	**KS1**	7	M4×0.7	14	5	—	—	—	—	
	KS**2**	10	M6×1	18	7	—	—	—	—	
	KS**2S**	10	M6×1	18	7	—	—	—	—	
	**KS12**	10	M6×1	26	4	4	—	—	7.0	
	**LLR1**	M5×0.8	—	3.5	—	2.5	—	—	—	
	LLR**2**	M6×1	—	5	—	3	—	—	—	

Geometrie	Bestell-bezeichnung	Abmessungen (mm)					Winkel	MPCDS	TQ (N•m)	Werkzeughalter
		MPCA	MPCB	MPCC	MPCD	MPCE	B1			
	☆**LLCS103**	M3×0.5	4	11	4.6	2	—	—	1.5	**LL** Halter
	* **LLCS105**	M5×0.8	M5×0.8	10	1.5	2	—	—	1.5	**P** Bohrstange
	LLCS106	M6×1	6	16.5	3.5	2.5	—	—	2.2	**HSK** System
	* **LLCS106S**	M6×1	6	13.4	0.7	2.5	—	—	2.2	**KSMG** Fräser
	LLCS108	M8×1.25	8	21	6.5	3	—	—	3.3	
	* **LLCS108S**	M8×1.25	8	16.5	2	3	—	—	3.3	
	LLCS110	M10×1.5	10	29	8	4	—	—	7.0	
	LLCS112	M12×1	11.9	36.2	9	5	—	—	8.0	
	LLCS125	M5×0.8	M5×0.8	12	2	2	—	—	1.5	
	LLCS205	M5×0.8	M5×0.8	16	4	2	—	—	1.5	
	LLCS206	M6×1	6	26	13	2.5	—	—	2.2	
	LLCS208	M8×1.25	8	24	6.5	3	—	—	3.3	
	LLCS306	M6×1	6	21	4	2.5	—	—	2.2	
	LLCS308	M8×1.25	8	42	27.5	3	—	—	3.3	
	LLCS310	M10×1	10	29	8	4	—	—	7.0	
	LLCS410	M10×1	10	30	6.6	4	—	—	7.0	
	LLCS508	M8×1	8	24	6.5	3	—	—	3.3	
	* **LLCS508S**	M8×1	8	20.5	3	3	—	—	3.3	
	LS1	M6×1	22	8	8	3	—	—	5.0	**DOPPELKLEMM** Halter (für Schwerzerspanung)
	LS2	M8×1	29	13	10	4	—	—	8.2	
	LS3	M8×1	32	13	13	4	—	—	8.2	**UG** Halter
	LS4	M6×1	15	8	4	3	—	—	5.0	**ROTIERENDE WERKZEUGE**
	LS5	M6×1	18	8	5	3	—	—	5.0	
	LS6	M8×1	24	13	5	4	—	—	8.2	
	LS7	M8×1	27	13	8	4	—	—	8.2	
	LS8	M6×0.75	18	7	7	3	—	—	5.0	
	LS9	M6×0.75	22	8	8	3	—	—	5.0	
	LS10	M7×0.75	16	6	6	4	—	—	8.2	
	LS11	M8×1	16	6	6	4	—	—	8.2	
	LS12	M8×1	24	7	7	4	—	—	8.2	
	LS13	M8×1	34	12	12	4	—	—	8.2	
	LS14	M7×0.75	24	10	10	4	—	—	8.2	
	LS16	M7×0.75	23	11	8	4	—	—	8.2	
	LS18	M7×0.75	14	6	4	4	—	—	8.2	
	LS20	M10×1.5	26	9	9	5	—	—	9.0	
	LS21	M10×1.5	32	12	12	5	—	—	9.0	
	LS24	M8×1.25	24	8.5	8.5	4	—	—	8.2	
	LS25	M8×1.0	28.5	12.0	10.5	4	—	—	8.2	
	**LS10T**	M7×0.75	14	6	5	4.5	—	T25	8.5	
	LS14T	M7×0.75	24	10	10	4.5	—	T25	8.5	
	LS15T	M7×0.75	18	7	7	4.5	—	T25	8.5	
	LS19T	M6×0.75	11	4	4	3.4	—	T15	5.0	
	LS10TS	M7×0.75	13	6	4	4.5	—	T25	8.5	
	LS0622T	M6×0.75	22	8	8	3.4	—	T15	6.0	
	**LS24H**	M8×1.25	24	8.5	8.5	4	—	—	8.2	**APX3000** Fräser
	**MGS6**	10	M6×1	26	4	5	—	—	9.0	
	**MHT1**	11	M8×1	18.5	3.5	4	—	—	8.7	

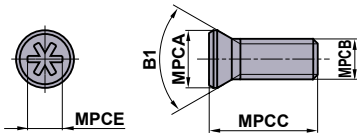
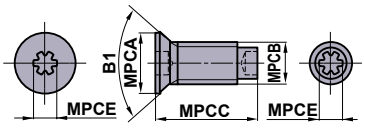
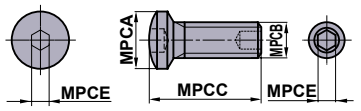
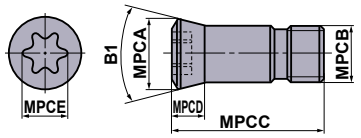
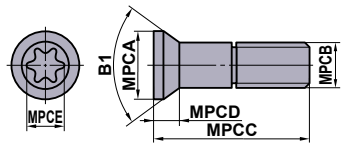
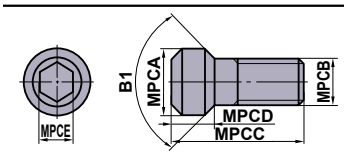
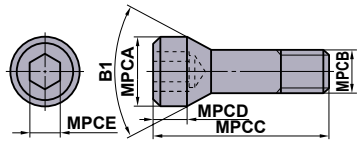
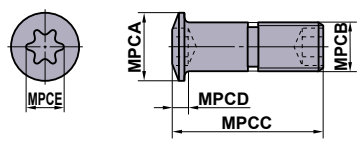
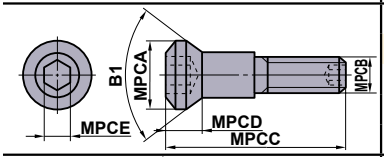
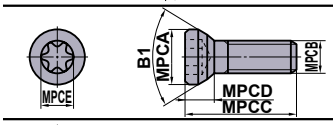
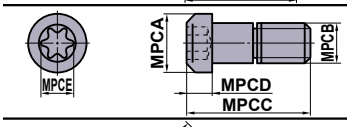
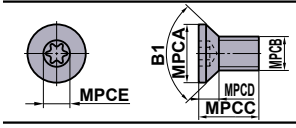
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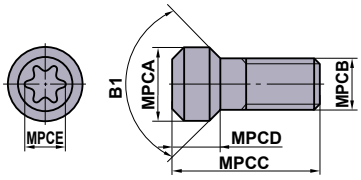
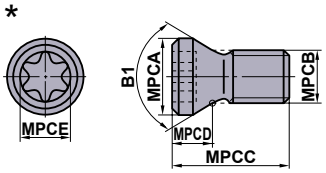
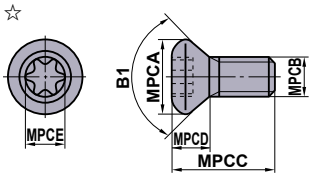
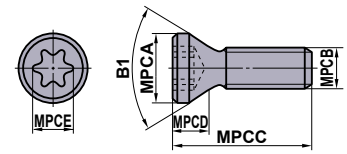
Mit "*" gekennzeichnete Produkte sind am Ende nicht mit der mit **MPCB** gekennzeichneten Bohrung ausgestattet.

Mit "☆" gekennzeichnete Produkte sind am Ende nicht mit der mit **MPCA** gekennzeichneten Bohrung ausgestattet.

ERSATZTEILE

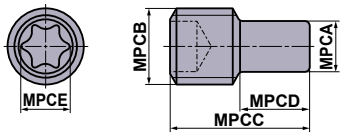
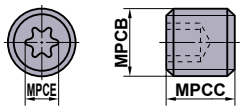
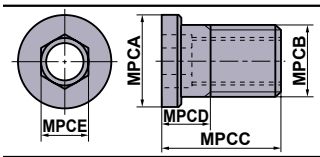
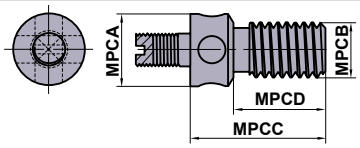
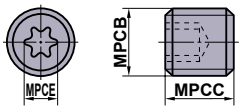
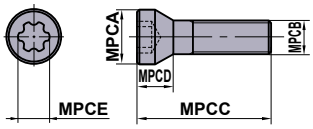
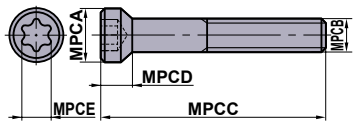
KLEMMSCHRAUBEN

Geometrie	Bestell-bezeichnung	Abmessungen (mm)					Winkel	MPCDS	TQ (N•m)	Werkzeughalter
		MPCA	MPCB	MPCC	MPCD	MPCE	B1			
	**NS251**	3.6	M2.5×0.45	7	—	2.2	60°	—	0.7	**SMALL TOOLS**
	NS401	5.8	M4×0.7	6	—	3.6	60°	—	3.5	
	**NS402W**	5.85	M4×0.7	10	—	2.2	60°	—	0.7	**SMALL TOOLS**
	NS403W	5.85	M4×0.7	12	—	2.2	60°	—	0.7	
	NS404W	5.8	M4×0.7	10	—	2.2	90°	—	0.7	
	**NS501W**	8	M5×0.8	16	—	2.5	120°	—	2.2	**SMALL TOOLS**
	NS502W	8	M5×0.8	20	—	2.5	120°	—	2.2	
	**RN-S5**	8.1	M5×0.5	15.4	3.6	3.9	61°	T20	5.0	
	RN-S6	9.5	M6×0.75	20.3	4.6	3.9	61°	T20	5.0	
	RN-S7	11	M7×0.75	24.7	5.2	4.5	61°	T25	7.5	
	**RS3008T**	4.3	M3×0.35	8.6	2	2.4	61°	T8	1.5	**SRF** Fräser
	RS3510T	5	M3.5×0.35	10	2.3	2.8	61°	T10	2.5	
	RS4015T	6	M4×0.5	14	2.7	3.4	61°	T15	3.3	
	RS5020T	8.1	M5×0.5	16.4	3.6	3.9	61°	T20	5.0	
	RS6025T	9.5	M6×0.75	21.5	4.2	4.5	61°	T25	7.5	
	RS8030T	12	M8×0.75	25	5	5.6	61°	T30	10.0	
	**S1**	3.5	M2×0.4	5.5	2.2	1.5	92°	—	1.0	
	S3	4.5	M3×0.5	7.7	2.4	2	92°	—	1.5	
	S4	5.3	M4×0.7	8	1.8	2.5	62°	—	2.2	
	S5	6.8	M5×0.8	9	2.4	3	62°	—	3.3	
	**SD32**	12	M8×1.25	28	7.2	6	50°	—	9.5	**D** Bohrkopfaufnahme
	SD40	12	M8×1.25	36	7.2	6	50°	—	9.5	
	SD50	16	M10×1.5	46	8.2	8	50°	—	1.0	
	SD63	16	M10×1.5	61	8.2	8	50°	—	1.0	
	**SETS51**	6.8	M5×0.8	14.8	1.5	3.4	—	T15	3.5	**MMTE** Halter
	SETS61	8	M6×1	20	1.8	3.9	—	T20	5.0	**MMTI** Bohrstange
										SET Halter
										HSK System
	**SLCS105**	10	M5×0.8	25	6.3	4	90°	—	7.0	**WP** Halter
	SLCS106	12	M6×1	32	6.2	4	90°	—	7.0	**M** Bohrstange
	**SPS1**	8.5	M5×0.8	16	4	4.5	70°	T25	5.0	
	**SRS5**	6.7	M5×0.8	16	3.5	3.9	—	T20	5.0	**SRE** Fräser
	**STS1**	6.8	M3×0.5	7	2.2	2.8	90°	T10	2.5	

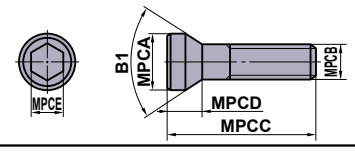
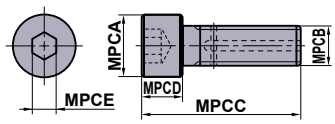
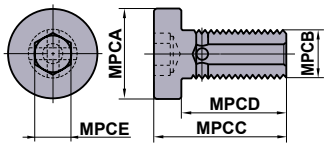
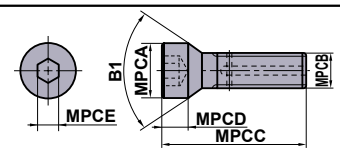
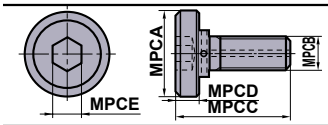
Geometrie	Bestell-bezeichnung	Abmessungen (mm)					Winkel	MPCDS	TQ (N•m)	Werkzeughalter
		MPCA	MPCB	MPCC	MPCD	MPCE	B1			
	* **TS16**	2.5	M1.6×0.35	3.2	1.6	1.8	60°	T6	0.6	**SP** Halter
	TS**2**	2.7	M2×0.4	4.6	1.4	1.8	60°	T6	0.6	**Profil** Halter
	* TS**2A**	2.7	M2×0.4	4.5	1.2	1.8	60°	T6	0.6	**SMALL TOOLS**
	TS**2C**	2.7	M2×0.4	3.8	1.4	1.8	60°	T6	0.6	**DIMPLE BAR**
	☆ TS**2D**	3.8	M2×0.4	5.3	1.9	1.8	82°	T6	0.6	**MICRO-DEX**
	TS**21**	2.7	M2×0.4	3.4	1.4	1.8	60°	T6	0.6	**F** Bohrstange
	* TS**22**	3.0	M2.2×0.45	5	1.2	1.8	60°	T6	0.6	**S** Bohrstange
	* TS**25**	3.3	M2.5×0.45	5.5	1.7	2.4	60°	T8	1.0	**GY** Serie
	☆ TS**25D**	4.4	M2.5×0.45	6.2	2.2	2.4	82°	T8	1.0	**MMTI** Bohrstange
	* TS**25H**	3.6	M2.5×0.45	5.5	2	2.4	60°	T8	1.0	**HSK** System
	TS**202**	2.7	M2×0.4	5.5	1.8	1.8	60°	T6	0.6	**ROTIERENDE WERKZEUGE**
	TS**253**	3.3	M2.5×0.45	4.5	1.7	2.4	60°	T8	1.0	**TAF** Bohrer
	TS**254**	3.3	M2.5×0.45	7	1.7	2.4	60°	T8	1.0	
	* TS**255**	3.5	M2.5×0.45	7.5	1.6	2.4	60°	T8	1.0	
	TS**3**	3.9	M3×0.5	6	2	2.4	60°	T8	1.0	
	TS**3D**	5.0	M3×0.5	6	2.3	2.8	82°	T10	2.5	
	* TS**3SB**	4.4	M3×0.5	8	2	2.4	80°	T8	1.5	
	TS**31D**	4.8	M3×0.5	7.2	2.2	2.8	82°	T10	2.5	
	* TS**32**	3.9	M3×0.5	7.5	2	2.4	60°	T8	1.0	
	* TS**33**	3.9	M3×0.5	6.7	2	2.4	60°	T8	1.0	
	TS**35**	4.8	M3.5×0.6	6.5	2.4	2.8	60°	T10	2.5	
* 	* TS**35D**	5.3	M3.5×0.6	12	2.8	3.4	60°	T15	3.5	
	TS**35R**	5.7	M3.5×0.6	10	3.6	3.4	60°	T15	3.5	**AHX440** Fräser **AHX475** Fräser
	TS**351**	4.8	M3.5×0.6	7.2	2.4	2.8	60°	T10	2.5	
	TS**352**	4.8	M3.5×0.6	10	3	2.8	60°	T10	2.5	
	TS**4S**	5.4	M4×0.7	7	2.4	3.4	80°	T15	3.5	
	* TS**4SL**	5.4	M4×0.7	8	2.4	3.4	80°	T15	4.0	
	* TS**4SB**	5.8	M4×0.7	9	2.7	3.4	80°	T15	3.5	
☆ 	* TS**4SBL**	5.8	M4×0.7	10.5	2.7	3.4	80°	T15	3.5	
	TS**4**	5.4	M4×0.7	8	2.6	3.4	60°	T15	3.5	
	TS**4D**	5.6	M4×0.7	7.7	2.5	3.4	82°	T15	3.5	
	TS**42**	5.4	M4×0.7	6	2.6	3.4	60°	T15	3.5	
	TS**43**	5.4	M4×0.7	10	2.6	3.4	60°	T15	3.5	
	TS**44**	5.4	M4×0.7	12	2.6	3.4	60°	T15	3.5	
	TS**406**	5.4	M4×0.7	15.5	2.6	3.4	60°	T15	3.5	
	TS**407**	5.4	M4×0.7	9	2.6	3.4	60°	T15	3.5	
	TS**450**	5.9	M4.5×0.75	13	3.6	3.9	60°	T20	5.0	
	TS**5S**	6.8	M5×0.8	9	2.9	4.5	80°	T25	7.5	
	* TS**5SL**	6.8	M5×0.8	12	2.9	4.5	80°	T25	7.5	
	TS**5**	6.8	M5×0.8	9	3.2	4.5	60°	T25	7.5	
	TS**5L**	6.8	M5×0.8	15	2.9	4.5	80°	T25	7.5	
	TS**52**	6.8	M5×0.8	8	3.2	4.5	60°	T25	7.5	
	TS**53**	6.8	M5×0.8	16	3.2	4.5	60°	T25	7.5	
	TS**54**	6.8	M5×0.8	12	3.2	4.5	60°	T25	7.5	
	TS**55**	6.8	M5×0.8	10.5	3.2	4.5	60°	T25	7.5	
	* TS**6S**	8.5	M6×1.0	13	4.4	5.6	60°	T30	10.0	**AQX** Fräser
	* TS**6**	8.5	M6×1.0	16	4.4	5.6	60°	T30	10.0	
	**TPS20**	2.7	M2×0.4	3.5	1.3	1.8	60°	6IP	0.6	**ASX445** Fräser
	TPS**22**	3.0	M2.2×0.45	4.7	1.6	2.1	60°	7IP	0.6	**ASX400** Fräser
	TPS**22S**	3.0	M2.2×0.45	4.2	1.6	2.1	60°	7IP	0.6	**APX3000** Fräser
	TPS**25**	3.3	M2.5×0.45	5.5	1.7	2.1	60°	7IP	1.0	**APX4000** Fräser
	TPS**25-1**	3.3	M2.5×0.45	6.5	1.7	2.1	60°	7IP	1.0	**ARX** Fräser
	TPS**3**	3.9	M3×0.5	6.7	1.4	2.82	60°	10IP	1.0	**MVX** Bohrer
	TPS**35**	5.3	M3.5×0.6	11.5	2.8	3.4	60°	15IP	3.5	**PMR** Fräser
	TPS**4**	5.3	M4×0.7	8	2.6	3.4	60°	15IP	3.5	**MVX** Bohrer
	TPS**43**	5.3	M4×0.7	10	2.6	3.4	60°	15IP	3.5	
	TPS**4R**	6.4	M4×0.7	10.6	2.9	3.4	60°	15IP	3.5	**WSX** Fräser
	TPS**54**	6.8	M5×0.8	12	3.2	4.5	60°	P25	3.5	**MVX** Große Durchmesser

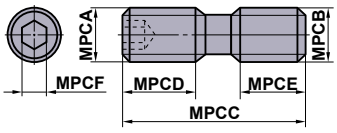
ERSATZTEILE

KLEMMSCHRAUBEN

Geometrie	Bestell-bezeichnung	Abmessungen (mm)					Winkel	MPCDS	TQ (N•m)	Werkzeughalter
		MPCA	MPCB	MPCC	MPCD	MPCE	B1			
	**TSR05008S**	3.5	M5×0.8	8	—	2.8	—	T10	—	FASRING
	TSR06011S	4	M6×1.0	11	—	3.9	—	T20	—	
	**TSS04005**	—	M4×0.7	5	—	2.4	—	T8	—	**PMF** Fräser
	TSS04505S	—	M4×0.5	5	—	2.8	—	T10	—	**FMAX** Fräser
	TSS05006	—	M5×0.8	6	—	2.8	—	T10	—	
	TSS06010	—	M6×1	10	—	3.9	—	T20	—	
	**WCS503507H**	6.3	M5×0.5	7	3.3	3.5	—	—	5.0	**ASX445** Fräser
	WCS604010H	7.8	M6×0.75	10	4.1	4.0	—	—	7.0	**ASX400** Fräser
										PMR Fräser
	**KSN2**	8.6	M3×0.35	4.3	—	—	—	—	—	**FMAX** Fräser
	**KSS2**	6.6	M5×0.8	17.5	8.5	—	—	—	—	**FMAX** Fräser
	**WS203107TPS**	3.1	M2×0.25	7.3	1.7	1.8	60°	IP6	1.0	**STAW** Bohrer
	WS203108TPS	3.1	M2×0.25	8.3	1.9	1.8	60°	IP6	1.0	
	WS253909TPS	3.9	M2.5×0.35	9.5	2.4	2.4	60°	IP8	2.0	
	WS304912TPS	4.9	M3×0.35	12	3.25	2.82	60°	IP10	2.5	
	**WS254012T**	4	M2.5×0.45	11.5	2.2	2.4	80°	T8	2.0	**TAW** Bohrer
	WS254013T	4	M2.5×0.45	12.5	2.2	2.4	80°	T8	2.0	
	WS254014T	4	M2.5×0.45	13.5	2.2	2.4	80°	T8	2.0	
	WS254015T	4	M2.5×0.45	14.5	2.2	2.4	80°	T8	2.0	
	WS254016T	4	M2.5×0.45	15.5	2.2	2.4	80°	T8	2.0	
	WS304517T	4.5	M3×0.5	16.5	3.4	2.8	60°	T10	3.5	
	WS304518T	4.5	M3×0.5	17.5	3.4	2.8	60°	T10	3.5	
	WS355520T	5.5	M3.5×0.6	19.5	3.9	3.4	60°	T15	5.5	
	WS355521T	5.5	M3.5×0.6	20.5	3.9	3.4	60°	T15	5.5	
	WS406023T	6	M4×0.7	22.0	4.4	4.5	60°	T25	8.5	
	WS406024T	6	M4×0.7	23.0	4.4	4.5	60°	T25	8.5	
	WS508026T	8	M5×0.8	25.0	5.2	5.1	60°	T27	12.0	
	WS508027T	8	M5×0.8	26.0	5.2	5.1	60°	T27	12.0	

SCHRAUBE

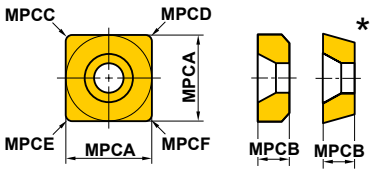
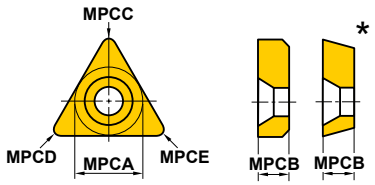
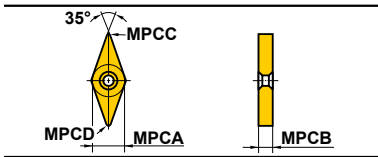
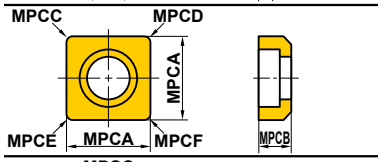
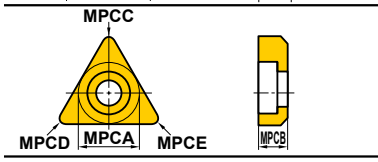
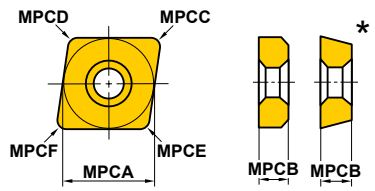
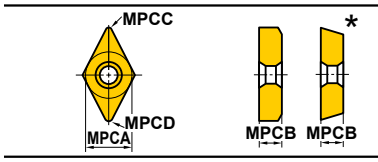
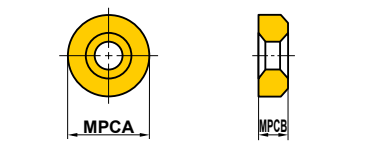
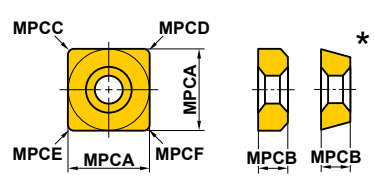
Geometrie	Bestell-bezeichnung	Abmessungen (mm) MPCA	MPCB	MPCC	MPCD	MPCE	Winkel B1	MPCDS	TQ (N•m)	Werkzeughalter
	**BOES101**	15	M10×1.5	45	10	8	60°	—	10.0	**OCTACUT** Fräser
	**HSC05030**	8.5	M5×0.8	35	5	4	—	—	10	**GY** Halter
	HSC**08030H**	13	M8×1.25	38	8	5	—	—	24	**APX3000/4000** Fräser **AJX** Fräser
	HSC**08040**	13	M8×1.25	48	8	5	—	—	24	**APX4000** Fräser **WSX445** Fräser
	HSC**08050**	13	M8×1.25	58	8	5	—	—	24	**AXD4000** Fräser
	HSC**10030H**	16	M10×1.5	40	10	6	—	—	40	**AXD7000** Fräser
	HSC**10035**	16	M10×1.5	45	10	6	—	—	40	**APX3000/4000** Fräser **AJX** Fräser **WSX445** Fräser
	HSC**10055**	16	M10×1.5	65	10	6	—	—	40	**BXD** Fräser
	HSC**12035H**	18	M12×1.75	47	12	10	—	—	80	**VFX5/6** Fräser
	HSC**12045**	18	M12×1.75	57	12	10	—	—	80	**WSX445** Fräser
	HSC**12070**	18	M12×1.75	82	12	10	—	—	80	**APX3000/4000** Fräser **AJX** Fräser **WSX445** Fräser
	HSC**16040**	24	M16×2	56	16	14	—	—	150	**WSX445** Fräser
	HSC**16040H**	24	M16×2	56	16	14	—	—	150	
	HSC**16065**	24	M16×2	81	16	14	—	—	150	
	HSC**16080**	24	M16×2	96	16	14	—	—	150	**APX3000/4000** Fräser **AJX** Fräser
	HSC**20040**	30	M20×2.5	60	20	17	—	—	320	
	HSC**20090**	30	M20×2.5	110	20	17	—	—	320	
	**HSCX12030H**	12	M12×1.75	37	30	8	—	—	—	**FMAX** Fräser
	HSC**X16035H**	16	M16×2	44	35	12	—	—	—	**FMAX** Fräser
	HSC**X20035H**	20	M20×2.5	46	35	14	—	—	—	**FMAX** Fräser
	**HFF08043H**	11	M8×1.25	43	5	5	90°	—	8.2	**AXD4000** Fräser **BXD** Fräser
	**MBA16033H**	40	M16×2	43	10	14	—	—	150	**AHX640** Fräser (für ϕ100) **WSX445** Fräser **APX4000** Fräser **AXD4000** Fräser **AXD7000** Fräser **AJX** Fräser **BXD** Fräser
	MBA**20040H**	50	M20×2.5	54	14	17	—	—	320	

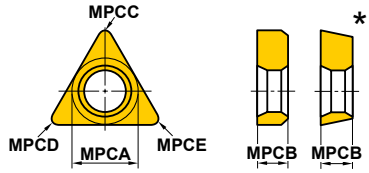
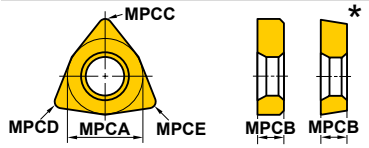
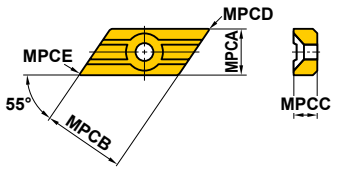
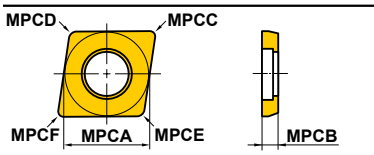
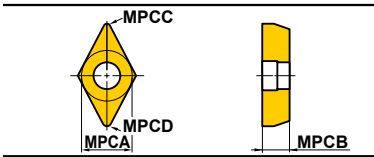
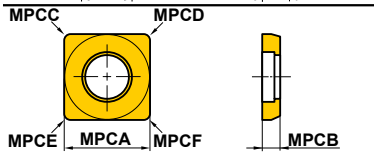
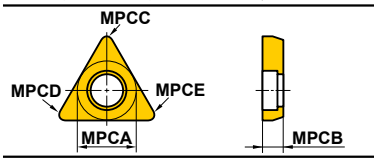
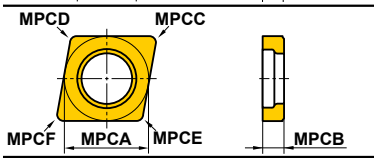
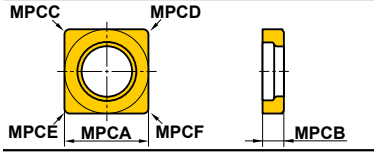
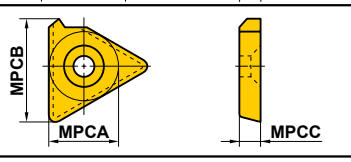
Geometrie	Bestell-bezeichnung	Abmessungen (mm) MPCA	MPCB	MPCC	MPCD	MPCE	MPCF	TQ (N•m)	Werkzeughalter
	**HDS08030**	M8×0.75	M8×1.25	30	13.5	11.5	4	8.2	**BRP** Fräser
	HDS**10031**	M10×1.0	M10×1.5	31	14	12	5	9.0	**OCTACUT** Fräser **PMF** Fräser

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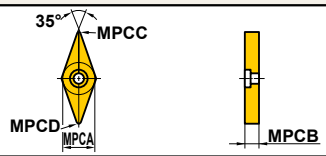
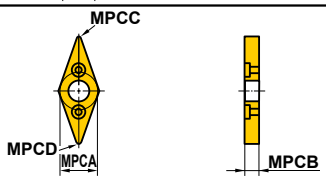
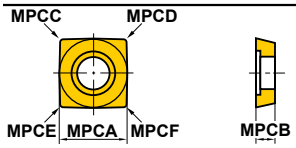
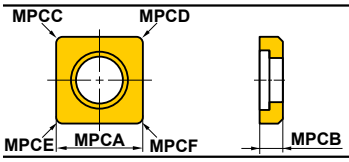
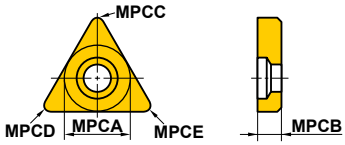
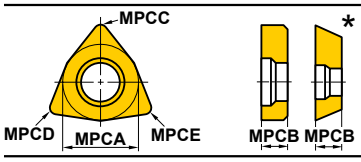
Geometrie	Bestell-bezeichnung	Abmessungen (mm)						Werkzeughalter
		MPCA	MPCB	MPCC	MPCD	MPCE	MPCF	
	**CS32**	9.52	3.18	0.8	0.8	1.2	1.2	
	CS**42**	12.70	3.18	0.8	0.8	1.2	1.6	
	CS**43**	12.70	4.76	0.8	0.8	1.2	1.6	
	* **PS31**	8.28	2.38	0.2	0.2	0.6	0.6	
	* PS**42**	11.46	3.18	0.2	0.2	0.6	1.0	
	**CT22**	6.35	3.18	0.4	0.8	1.2	–	
	CT**32**	9.52	3.18	0.4	0.8	1.2	–	
	* **PT21**	5.11	2.38	0.2	0.2	0.6	–	**F** Bohrstange
	* PT**32**	8.28	3.18	0.2	0.2	0.6	–	
	* PT**42**	10.85	3.18	0.3	0.3	0.7	–	
	BPT322	7.8	3.18	–	–	–	–	
	**DCSVN32**	9.52	3.18	0.8	1.2	–	–	**DOPPELKLEMM** Halter **DIMPLE BAR-BOHRSTANGE**
	**ESS42**	12.70	3.18	0.8	0.8	1.2	1.6	**ML** Halter
	**EST32**	9.52	3.18	0.4	0.8	1.2	–	**ML** Halter
	EST**43**	12.70	4.76	0.4	0.8	1.2	–	
	**LLSCN3T3**	9.52	3.97	0.4	0.4	0.8	0.8	**DOPPELKLEMM** Halter
	LLSCN**33**	9.52	4.76	0.4	0.4	0.8	0.8	**LL** Halter
	LLSCN**42**	12.70	3.18	0.8	0.8	1.2	1.2	**DIMPLE BAR-BOHRSTANGE**
	LLSCN**53**	15.87	4.76	1.2	1.2	1.6	1.6	**P** Bohrstange
	LLSCN**63**	19.05	4.76	1.2	1.2	1.6	1.6	**HSK** System
	* **LLSCP42**	12.70	3.18	0.8	0.8	1.2	1.2	**DIMPLE BAR-BOHRSTANGE**
	* LLSCP**63**	19.05	4.76	1.2	1.2	1.6	1.6	**P** Bohrstange
								HSK System
	**LLSDN32**	9.52	3.18	0.8	1.2	–	–	**DOPPELKLEMM** Halter
	LLSDN**42**	12.70	3.18	0.8	1.2	–	–	**LL** Halter
	LLSDN**43**	12.70	4.76	0.8	1.2	–	–	**DIMPLE BAR-BOHRSTANGE**
	LLSDN**53**	15.87	4.76	1.2	1.6	–	–	**P** Bohrstange
	* **LLSDP42**	12.70	3.18	0.8	1.2	–	–	**HSK** System **DIMPLE BAR-BOHRSTANGE**
	**LLSRN103**	8.3	3.18	–	–	–	–	**LL** Halter
	LLSRN**123**	9.8	3.18	–	–	–	–	**HSK** System
	LLSRN**164**	13.6	4.76	–	–	–	–	
	LLSRN**204**	17.3	4.76	–	–	–	–	
	LLSRN**256**	22.0	6.35	–	–	–	–	
	LLSRN**326**	28.0	6.35	–	–	–	–	
	**LLSSN32**	9.52	3.18	0.8	0.8	1.2	1.2	**LL** Halter
	LLSSN**33**	9.52	4.76	0.8	0.8	1.2	1.2	**DIMPLE BAR-BOHRSTANGE**
	LLSSN**42**	12.70	3.18	0.8	0.8	1.2	1.6	**P** Bohrstange
	LLSSN**53**	15.87	4.76	1.2	1.2	1.6	1.6	
	LLSSN**63**	19.05	4.76	1.2	1.2	1.6	2.0	
	LLSSN**84**	25.40	6.35	1.6	1.6	2.4	2.4	
	* **LLSSP42**	12.70	3.18	0.8	0.8	1.2	1.6	

Geometrie	Bestell-bezeichnung	Abmessungen (mm)						Werkzeughalter
		MPCA	MPCB	MPCC	MPCD	MPCE	MPCF	
	**LLSTE32**	7.6	3.18	0.4	0.4	0.4	—	**LL** Halter
	LLSTN32	9.52	3.18	0.4	0.8	1.2	—	**DOPPELKLEMM** Halter
	LLSTN33	9.52	4.76	0.4	0.8	1.2	—	**DIMPLE BAR-BOHRSTANGE**
	LLSTN42	12.70	3.18	0.4	0.8	1.2	—	**P** Bohrstange
	LLSTN53	15.87	4.76	0.8	1.2	1.6	—	
	* **LLSTP32**	9.52	3.18	0.4	0.8	1.2	—	
	* **LLSTP42**	12.70	3.18	0.4	0.8	1.2	—	
	**LLSWN32**	9.52	3.18	0.4	0.8	1.2	—	**LL** Halter
	LLSWN3T3	9.52	3.97	0.4	0.8	1.2	—	**DOPPELKLEMM** Halter
	LLSWN42	12.70	3.18	0.4	0.8	1.2	—	**DIMPLE BAR-BOHRSTANGE**
	* **LLSWP32**	9.52	3.18	0.4	0.8	1.2	—	
	* **LLSWP42**	12.70	3.18	0.4	0.8	1.2	—	
	**MHS532R/L**	9.4	15.7	4.5	0.8	0.8	—	
	MHS533R/L	9.4	15.7	4.5	1.2	1.2	—	
	MHS534R/L	9.4	15.7	4.5	1.6	1.6	—	
	MHS543R/L	9.4	15.7	6.5	1.2	1.2	—	
	**MLCP42**	12.58	3.18	1.2	1.2	1.2	1.2	**P** Bohrstange
	**MLDP42**	12.56	3.18	1.2	1.2	—	—	**P** Bohrstange
	**MLSP42**	12.63	3.18	1.2	1.2	1.2	1.2	**P** Bohrstange
	**MLTP32**	9.50	3.18	1.2	1.2	1.2	—	**P** Bohrstange
	**MSCN63**	18.8	4.76	1.6	1.6	1.6	1.6	**DOPPELKLEMM** Halter (für Schwerzerspanung)
	**MSSN63**	18.8	4.76	1.6	1.6	1.6	1.6	**DOPPELKLEMM** Halter (für Schwerzerspanung)
	**CT32T1**	9.525	15.03	3.18	—	—	—	**SET** Halter **SNT** Bohrstange **SET** Kurzklemmhalter
	PT32T1R	8.28	13.34	3.18	—	—	—	
	PT32T2R	8.28	13.19	3.18	—	—	—	

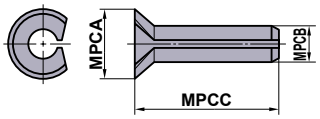
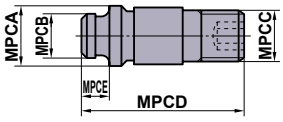
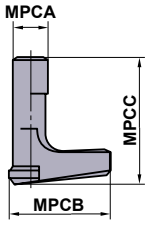
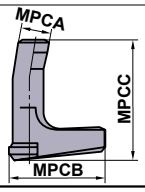
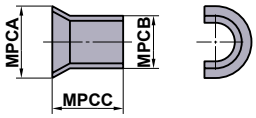
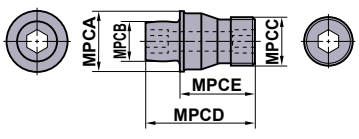
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UNTERLEGPLATTE

Geometrie	Bestell-bezeichnung	Abmessungen (mm)						Werkzeughalter
		MPCA	MPCB	MPCC	MPCD	MPCE	MPCF	
	**PV321**	9.52	3.18	0.4	0.4	–	–	**MP** Halter
	PV322	9.52	3.18	0.8	0.8	–	–	
	PV323	9.52	3.18	1.2	1.2	–	–	
	**SPSVN32**	8.06	3.18	0.3	0.3	–	–	**SP** Halter **HSK** System
	**STASX400N**	11.00	3.00	0.4	0.4	0.4	0.4	**ASX400** Fräser
	**STASX445N**	10.76	3.00	–	–	–	–	**ASX445** Fräser
	**STBS500N**	12.7	3.18	0.8	0.8	0.8	0.8	
	**WPSTN33**	9.3	4.76	0.8	0.4	1.2	–	**WP** Halter
	WPSTN**43**	12.50	4.76	0.8	0.4	1.2	–	
	* **WPSWC43**	12.50	4.76	0.4	0.8	1.2	–	**M** Bohrstange
	WPSWN43	12.50	4.76	0.4	0.8	1.2	–	**WP** Halter

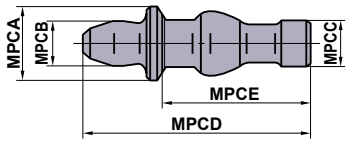
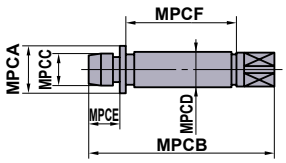
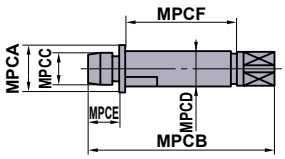
BEFESTIGUNGSFEDER UND KNIEHEBEL

Geometrie	Bestell-bezeichnung	Abmessungen (mm)					Werkzeughalter
		MPCA	MPCB	MPCC	MPCD	MPCE	
	**BCP141**	3.0	1.4	5.6	–	–	**SP** Halter
	BCP201	4.3	2	7.4	–	–	**F** Bohrstange
	BCP202	4.3	2	6.4	–	–	**HSK** System
	BCP251	4.8	2.5	7.4	–	–	
	BCP252	4.8	2.5	6.4	–	–	
	BCP301	5.3	3	7.4	–	–	
	**CCP33**	6.5	3.66	M5×0.8	18.5	3	**WP** Halter
	CCP34	7.5	5.0	M6×1.0	18.5	3	**M** Bohrstange
	CCP44	7.5	5.0	M5×0.8	14.2	3	
	**LLCL12S**	2.1	9.3	5.6	–	–	**LL** Halter
	LLCL13	3.6	10	12.5	–	–	**P** Bohrstange
	LLCL13S	3.6	10	7.8	–	–	**HSK** System
	LLCL14	4.7	13.4	13.2	–	–	**KSMG** Fräser
	LLCL14S	4.7	13.6	12.2	–	–	
	LLCL15	6.0	19	17	–	–	
	LLCL16	7.5	20.8	21	–	–	
	LLCL18	8.6	25.4	25.2	–	–	
	LLCL23	3.6	12.0	11.5	–	–	
	LLCL23S	3.6	11.6	9.5	–	–	
	LLCL24	4.7	16.2	14.8	–	–	
	LLCL25	6.0	17.1	17	–	–	
	**LLCL110**	3.0	10.7	11.6	–	–	
	LLCL112	3.5	13	13.5	–	–	
	LLCL116	4.5	18.5	18	–	–	
	LLCL120	5.6	20.3	19	–	–	
	LLCL125	6	24	24	–	–	
	LLCL132	8	30	27	–	–	
	**LLP13**	5.55	4.85	5.3	–	–	**LL** Halter
	LLP14	7.25	6.55	5.8	–	–	**DOPPELKLEMM** Halter
	LLP15	8.8	8.05	8.6	–	–	**DIMPLE BAR-BOHRSTANGE**
	LLP16	10.85	9.85	11.1	–	–	**P** Bohrstange
	LLP18	15.35	13.05	12.0	–	–	**HSK** System
	LLP23	5.55	4.85	6.8	–	–	**KSMG** Fräser
	LLP24	7.25	6.55	9.1	–	–	
	**MP6**	11.9	7.8	M10×1	22.1	15	**DOPPELKLEMM** Halter (für Schwerzerspanung)

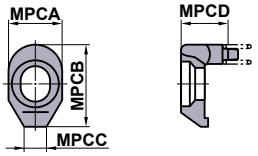
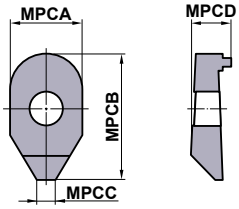
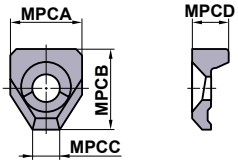
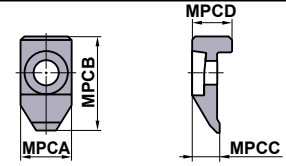
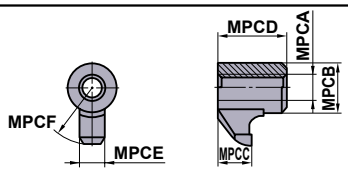
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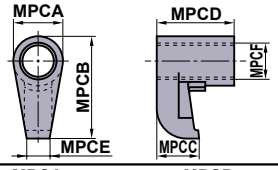
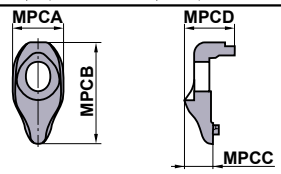
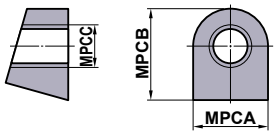
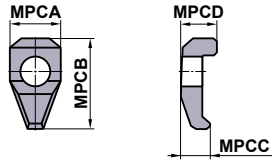
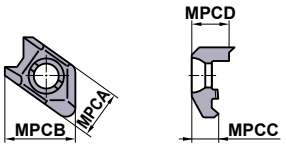
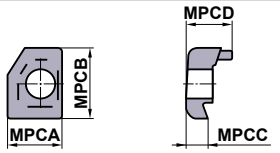
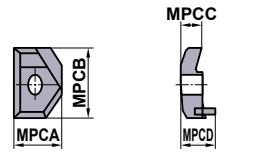
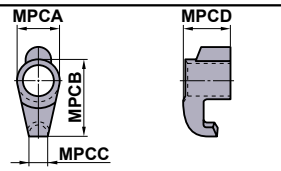
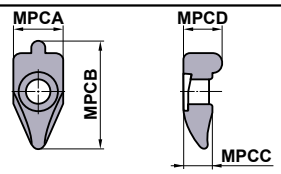
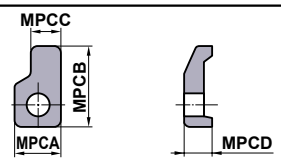
KNIEHEBEL

Geometrie	Bestell-bezeichnung	Abmessungen (mm)						Werkzeughalter
		MPCA	MPCB	MPCC	MPCD	MPCE	MPCF	
	**P11S**	6	3.7	4	17	11.1	—	**MP** Halter
	P21S	7.5	4.9	4.5	17.2	11.5	—	
	**P221US**	4	18	2.11	3.5	3.3	7.7	**ML** Halter
	**P333WS**	5.75	24	3.64	5.0	4.9	11.3	**ML** Halter
	P434W	7.75	30	5.03	7.0	4.9	16.8	

SPANNPRATZE

Geometrie	Bestell-bezeichnung	Abmessungen (mm)						Werkzeughalter
		MPCA	MPCB	MPCC	MPCD	MPCE	MPCF	
	**AMS3**	7	12	3	3.3	—	—	**Profil** Halter
	AMS4	9	13.5	3	3.8	—	—	**AJX** Fräser
	AMS5	10	15	3.5	5	—	—	**BRE** Fräser
	**CA142**	8	15	4	7	—	—	
	CA150	9	16	4.5	7	—	—	
	CA151	10	17	5	7	—	—	
	CA152	10	19	5	7	—	—	
	CA153	10	24	5	7	—	—	
	CA161	13	20	6	8	—	—	
	CA162	13	24	6	8	—	—	
	CA163	13	27	6	8	—	—	
	CA181	16	30	8	10	—	—	
	CA183	16	37	8	10	—	—	
	**CCK13**	15	18.5	6	9	—	—	**WP** Halter
	CCK14	19	22	8	9.5	—	—	**M** Bohrstange
	**CCTC1**	13	25	7	10.2	—	—	
	**CK231**	M6×1	8	4	7.5	4.5	9.5	**MC** Halter
	CK232	M6×1	8	4.5	8	4.5	11.5	
	CK341	M8×1	11	5.5	13.5	6	13.5	
	CK342	M8×1	11	6	14	6	16.5	

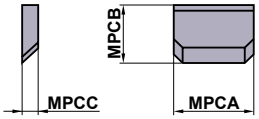
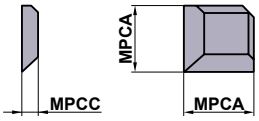
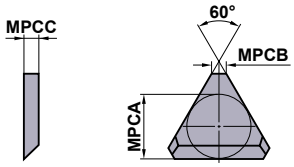
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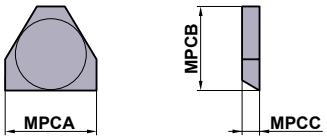
Geometrie	Bestell-bezeichnung	Abmessungen (mm)						Werkzeughalter
		MPCA	MPCB	MPCC	MPCD	MPCE	MPCF	
	**CKW6**	10.9	22.5	9.2	16.8	5	M8×1	**DOPPELKLEMM** Halter (für Schwerzerspanung)
	**DCK2211**	11	22	6.57	11.1	—	—	**DOPPELKLEMM** Halter **DIMPLE BAR-BOHRSTANGE** **HSK** System
	DCK**2613**	13	26.5	7.35	12.9	—	—	
	DCK**3113**	13	31	9	14.5	—	—	
	**KGC1**	12.0	15.0	M7×0.75	—	—	—	**UG** Halter
	**LK1**	8	14.3	4.5	5.9	—	—	
	**MHK5NR/L**	15.5	23.5	8.1	12.1	—	—	
	**MTK1R/L**	13	17.5	5	12	—	—	**MG** Halter **MT** Halter **MT1** Halter **HSK** System **MG** Kurzklemmhalter
	**MTK2R/L**	18	28	7	14	—	—	
	**SETK51**	6.8	14.5	2.9	8	—	—	**MMTE** Halter **MMTI** Halter **SET** Halter **HSK** System
	SETK**61**	8.9	18.1	4.1	8.6	—	—	
	**SRK1R**	9.4	21	5.5	7.5	—	—	**SRE** Fräser
	**UCR**	12	24	8	7	—	—	

ERSATZTEILE

ERSATZTEILE

SPANBRECHER

Geometrie	Bestell-bezeichnung	Abmessungen (mm)					Werkzeughalter
		MPCA	**MPCB**	**MPCC**	**IC**	**LBB**	
	**CBS3**	9.4	8.0	1.5	9.525	1.5	
	CBS**4**	12.6	9.2	2.5	12.70	3.5	
	CBS**4N**	12.6	10.2	2.5	12.70	2.5	
	CBS**4F**	12.6	11.2	2.5	12.70	1.5	
	CBS**6**	18.9	14.6	2.5	19.05	4.5	
	CBS**6F**	18.9	17.6	2.5	19.05	1.5	
	**CBS3D**	8.0	—	1.5	9.525	1.5	
	CBS**4D**	10.2	—	2.5	12.70	2.5	
	**CBT2N**	5.67	1.4	1.5	6.35	1.0	**F** Bohrstange *Für positive WSP ist die Spanbrecherbreite 0.5mm größer als in der Liste angegeben.
	CBT**3**	7.20	1.4	2.5	9.525	3.5	
	CBT**3N**	7.87	1.4	2.5	9.525	2.5	
	CBT**3F**	8.53	1.4	2.5	9.525	1.5	
	CBT**4N**	11.07	1.4	2.5	12.70	2.5	
	CBT**4F**	11.73	1.4	2.5	12.70	1.5	

Geometrie	Bestell-bezeichnung	Abmessungen (mm)			**MPCD** (mm)	Werkzeughalter
		MPCA	**MPCB**	**MPCC**		
	**CBT3106**	11.5	10.6	2.0	2.5—3.0	
	CBT**3113**	11.5	11.3	2.0	1.5—2.0	
	CBT**3120**	11.5	12	2.0	0.75—1.25	

KUPFERPASTEN

KUPFERPASTEN

Form	Bestellbezeichnung	Lager	Inhalt (g)
	**MK1K**	★	20
	**MK1KS**	★	3

★ : **Lagerstandard in Japan.**

Notizen

TECHNISCHE DATEN

ÜBEREINSTIMMUNG MIT ISO13399 ..... N002
STÖRUNGSBESEITIGUNG (BOHREN) N006
BOHRERVERSCHLEISS UND SCHNEIDPLATTENBESCHÄDIGUNG N007
MERKMALE UND SPEZIFIKATIONEN BEIM BOHREN N008
KALKULATIONSFORMELN BOHREN N011
WERKSTOFFVERGLEICHSTABELLE N012
OBERFLÄCHENRAUHIGKEIT N016
HÄRTEVERGLEICHSTABELLE N017
TOLERANZANGABEN FÜR INNENDURCHMESSER (BOHRUNG) N018
ISO-PASSUNGEN EINHEITSWELLE N020
BOHRDURCHMESSER FÜR VORBEREITETE LÖCHER N022
HEXYGON ZYLINDERSCHRAUBE N023
INTERNATIONAL EINHEITLICHES SYSTEM N024

ÜBEREINSTIMMUNG MIT ISO13399

Liste der Eigenschaften nach ISO13399

Alphabetisch

Quelle: Norm ISO13399
URL : https://www.iso.org/search/x/query/13399

ISO13399 Eigenschaften	Inhalte	Internationale Bezeichnungen
ADJLX	Einstellgrenze maximal	adjustment limit maximum
ADJRG	Einstellbereich	adjustment range
ALF	Freiwinkel radial	clearance angle radial
ALP	Freiwinkel axial	clearance angle axial
AN	Hauptfreiwinkel	clearance angle major
ANN	Hauptfreiwinkel	clearance angle minor
APMX	Max. Schnitttiefe	depth of cut maximum
AS	Freiwinkel Wiper-Schneide	clearance angle wiper edge
ASP	Überstand Justierschraube	adjusting screw protrusion
AZ	Max. Eintauchtiefe	plunge depth maximum
B	Schaftbreite	shank width
BBD	Konstruktiv gewuchtete Ausführung	balanced by design
BCH	Fasenlänge Radius	corner chamfer length
BD	Körperdurchmesser	body diameter
BDX	Max. Körperdurchmesser	body diameter maximum
BHCC	Lochkreiszahl	bolt hole circle count
BHTA	Halber Kegeleinstellwinkel	body half taper angle
BMC	Bezeichnung Gehäusewerkstoff	body material code
BS	Planschneidenbreite	wiper edge length
BSR	Wiper-Schneidkantenradius	wiper edge radius
CASC	Bezeichnung Einsatzgröße	cartridge size code
CB	Anzahl der Spanbrecherflächen	chip breaker face count
CBDP	Anschluss Bohrungstiefe	connection bore depth
CBMD	Spanbrecher Herstellerbezeichnung	chip breaker manufacturers designation
CBP	Eigenschaft Spanbrecher	chip breaker property
CCMS	Anschlusscode maschinenseitig	connection code machine side
CCWS	Anschlusscode werkstückseitig	connection code workpiece side
CCP	Eigenschaft Eckfase	chamfer corner property
CDI	WSP-Schnittdurchmesser	insert cutting diameter
CDX	Max. Stechtiefe	cutting depth maximum
CEATC	Code Winkeltyp Schneidkante	tool cutting edge angle type code
CECC	Code Schneidkantenzustand	cutting edge condition code
CEDC	Anzahl Schneiden	cutting edge count
CF	Punktfase	spot chamfer
CHW	Eckfasenbreite	corner chamfer width
CICT	Anzahl Schneidteile	cutting item count
CNC	Anzahl Ecken	corner count
CND	Kühlschmierstoffeintritt, Durchmesser	coolant entry diameter
CNSC	Kühlschmierstoffeintritt	coolant entry style code
CNT	Kühlschmierstoffeintritt, Gewindegröße	coolant entry thread size
CP	Kühlmitteldruck	coolant pressure
CRE	Punktradius	spot radius
CRKS	Gewindegröße des Anzugsbolzens	connection retention knob thread size
CSP	Eigenschaft Kühlmittelzufuhr	coolant supply property
CTP	Eigenschaft Beschichtung	coating property
CTX	Schnittpunktübertragung X-Richtung	cutting point translation X-direction
CTY	Schnittpunktübertragung Y-Richtung	cutting point translation Y-direction
CUTDIA	Maximaler Werkstückdurchmesser für das Abstechen	work piece parting diameter maximum
CUB	Anschlusseinheit Basis	connection unit basis
CW	Stechbreite	cutting width
CWX	Max. Stechbreite	cutting width maximum
CXD	Durchmesser Kühlmittelauslass	coolant exit diameter

ISO13399 Eigenschaften	Inhalte	Internationale Bezeichnungen
CXSC	Kühlschmierstoffaustritt	coolant exit style code
CZC	Aufnahmegröße	connection size code
D1	Durchmesser Befestigungsbohrung	fixing hole diameter
DAH	Durchmesser Zugangsbohrung	diameter access hole
DAXN	Min. axialer Stechdurchmesser	axial groove outside diameter minimum
DAXX	Max. axialer Stechdurchmesser	axial groove outside diameter maximum
DBC	Durchmesser Lochkreis	diameter bolt circle
DC	Schnittdurchmesser	cutting diameter
DCB	Spanndurchmesser, nominal, werkstückseitig	connection bore diameter
DCBN	Spanndurchmesser, min.	connection bore diameter minimum
DCBX	Spanndurchmesser, max.	connection bore diameter maximum
DCC	Design-Konfigurationscode	design configuration style code
DCCB	Senkbohrung Durchmesser Anschlussbohrung	counterbore diameter connection bore
DCIN	Schnittdurchmesser intern	cutting diameter internal
DCINN	Schnittdurchmesser intern minimal	cutting diameter internal minimum
DCINX	Schnittdurchmesser intern maximal	cutting diameter internal maximum
DCN	Min. Schneiddurchmesser	cutting diameter minimum
DCON	Aufnahmedurchmesser, werkstückseitig	connection diameter
DCONMS	Aufnahmedurchmesser maschinenseitig	connection diameter machine side
DCONWS	Aufnahmedurchmesser werkstückseitig	connection diameter workpiece side
DCSC	Code Schnittdurchmessergröße	cutting diameter size code
DCSFMS	Durchmesser Plananlage maschinenseitig	contact surface diameter machine side
DCX	Max. Schneiddurchmesser	cutting diameter maximum
DF	Flanschdurchmesser	flange diameter
DHUB	Nabendurchmesser	hub diameter
DMIN	Bohrungsdurchmesser, min.	minimum bore diameter
DMM	Schaftdurchmesser	shank diameter
DN	Durchmesser des Freistichs	neck diameter
DRVA	Antriebswinkel	drive angle
EPSR	Wendeplatten Winkel	insert included angle
FHA	Drallwinkel	flute helix angle
FHCSA	Winkel der Senkung der Befestigungsbohrung	fixing hole countersunk angle
FHCSD	Befestigungsloch Senkdurchmesser	fixing hole countersunk diameter
FLGT	Flanschdicke	flange thickness
FMT	Gewindeart	form type
FXHLP	Eigenschaft Befestigungsloch	fixing hole property
GAMF	Spanwinkel radial	rake angle radial
GAMN	Spanwinkel normal	rake angle normal
GAMO	Spanwinkel orthogonal	rake angle orthogonal
GAMP	Spanwinkel axial	rake angle axial
GAN	Spanwinkel	insert rake angle
H	Schafthöhe	shank height
HA	Gewindehöhe theoretisch	thread height theoretical
HAND	Richtung	hand
HBH	Kopf Boden Versatzhöhe	head bottom offset height
HBKL	Kopf Rückseite Versatzlänge	head back offset length
HBKW	Kopf Rückseite Versatzbreite	head back offset width
HBL	Kopf Boden Versatzlänge	head bottom offset length
HC	Gewindehöhe tatsächlich	thread height actual
HF	Funktionshöhe	functional height
HHUB	Nabenhöhe	hub height
HTB	Körperhöhe	body height
IC	Einbeschriebener Kreis	inscribed circle diameter
IFS	Code WSP-Montageart	insert mounting style code
IIC	Code WSP-Schnittstelle	insert interface code
INSL	Schneidkantenlänge	insert length
KAPR	Einstellwinkel	tool cutting edge angle
KCH	Eckfasenwinkel	corner chamfer angle

ISO13399 Eigenschaften	Inhalte	Internationale Bezeichnungen
KRINS	Winkel der Hauptschneide	cutting edge angle major
KWW	Keilnutbreite	keyway width
KYP	Eigenschaft der Mitnehmernut	keyway property
L	Nutzlänge	cutting edge length
LAMS	Neigungswinkel	inclination angle
LB	Körperlänge	body length
LBB	Breite Spanbrecher	chip breaker width
LBX	Max. Körperlänge	body length maximum
LCCB	Senkbohrung Tiefe Anschlussbohrung	counterbore depth connection bore
LCF	Spannutlänge	length chip flute
LDRED	Reduzierte Länge Körperdurchmesser	reduced body diameter length
LE	Effektive Länge Schneidkante	cutting edge effective length
LF	Funktionslänge	functional length
LFA	Eine Abmessung der Funktionslänge	a dimension on lf
LH	Kopflänge	head length
LPR	Überstehende Länge	protruding length
LS	Schaftlänge	shank length
LSC	Einspannlänge	clamping length
LSCN	Min. Einspannlänge	clamping length minimum
LSCX	Max. Einspannlänge	clamping length maximum
LTA	LTA-Länge (Länge von MCS zu CRP)	LTA length (length from MCS to CRP)
LU	Nutzlänge	usable length
LUX	Max. Nutzlänge	usable length maximum
M	M-Maß	m-dimension
M2	M2-Maß	m2-dimension
MHA	Winkel Montagebohrung	mounting hole angle
MHD	Abstand Montageloch	mounting hole distance
MHH	Höhe Montageloch	mounting hole height
MIID	Bezeichnung Schneidplatte	master insert identification
MTP	Code Auflageart	clamping type code
NCE	Anzahl Schnittenden	cutting end count
NOF	Anzahl Schneiden	flute count
NOI	Anzahl WSP-Index	insert index count
NT	Anzahl Zähne	tooth count
OAH	Gesamthöhe	overall height
OAL	Gesamtlänge	overall length
OAW	Gesamtbreite	overall width
PDPT	Profiltiefe WSP	profile depth insert
PDX	Profilabstand ex	profile distance ex
PDY	Profilabstand ey	profile distance ey
PFS	Code Profilart	profile style code
PL	Abstand	point length
PNA	Winkelprofil	profile included angle
PRFRAD	Profilradius	profile radius
PSIR	Hauptschneidenwinkel	tool lead angle
PSIRL	Winkel der Hauptschneide Linksausführung	cutting edge angle major left hand
PSIRR	Winkel der Hauptschneide Rechtsausführung	cutting edge angle major right hand
RAL	Freiwinkel Linksausführung	relief angle left hand
RAR	Freiwinkel Rechtsausführung	relief angle right hand
RCP	Eigenschaft abgerundete Ecke	rounded corner property
RE	Eckenradius	corner radius
REL	Eckenradius Linksausführung	corner radius left hand
RER	Eckenradius Rechtsausführung	corner radius right hand
RMPX	Max. Eintauchwinkel	ramping angle maximum
RPMX	Max. Drehzahl	rotational speed maximum
S	WSP-Stärke	insert thickness
S1	Schneidplattendicke	insert thickness total
SC	Schneidplattendicke gesamt	insert shape code
SDL	Stufenlänge	step diameter length
SIG	Spitzenwinkel	point angle

ISO13399 Eigenschaften	Inhalte	Internationale Bezeichnungen
SSC	Code Plattensitzgröße	insert seat size code
SX	Code Querschnittsform des Schafts	shank cross section shape code
TC	WSP Toleranzklasse	tolerance class insert
TCE	Code bestückte Schneidkante	tipped cutting edge code
TCTR	Gewindetoleranzklasse	thread tolerance class
TD	Gewindenenndurchmesser, metrisch	thread diameter
THFT	Gewindeart	thread form type
THL	Länge Gewindedrehen	threading length
THLGTH	Gewindelänge	thread length
THSC	Code Werkzeughalterform	tool holder shape code
THUB	Nabendicke	hub thickness
TP	Gewindesteigung	thread pitch
TPI	Gewindegänge je Inch	threads per inch
TPIN	Gewindegänge je Inch min.	threads per inch minimum
TPIX	Gewindegänge je Inch max.	threads per inch maximum
TPN	Min. Gewindesteigung	thread pitch minimum
TPT	Gewindeprofiltyp	thread profile type
TPX	Max. Gewindesteigung	thread pitch maximum
TQ	Drehmoment	torque
TSYC	Code für Werkzeugtyp	tool style code
TTP	Gewindeform	thread type
ULDR	Verhältnis Nutzlänge/Durchmesser	usable length diameter ratio
UST	Einheitssystem	unit system
W1	Breite der Wendeplatte	insert width
WEP	Eigenschaft Wiper-Kante	wiper edge property
WF	Funktionsbreite	functional width
WFS	Funktionsbreite sekundär	functional width secondary
WT	Masse	weight of item
ZEFF	Anzahl wirksamer Schneiden, stirnseitig	face effective cutting edge count
ZEFP	Anzahl wirksamer Schneiden, umfangseitig	peripheral effective cutting edge count
ZNC	Anzahl Schneidkantenzentren	cutting edge center count
ZNF	Anzahl stirnseitig montierte WSP	face mounted insert count
ZNP	Anzahl peripher montierte WSP	peripheral mounted insert count

Liste der Referenzsymbole nach ISO13399

ISO13399 Referenzsymbole	Inhalte	Internationale Bezeichnungen
CIP	Koordinatensystem in der Bearbeitung	Coordinate system In Process
CRP	Schnittreferenzpunkt	Cutting Reference Point
CSW	Koordinatensystem werkstückseitig	Coordinate System Workpiece side
MCS	Befestigungskoordinatensystem	Mounting Coordinate System
PCS	Primäres Koordinatensystem	Primary Coordinate System

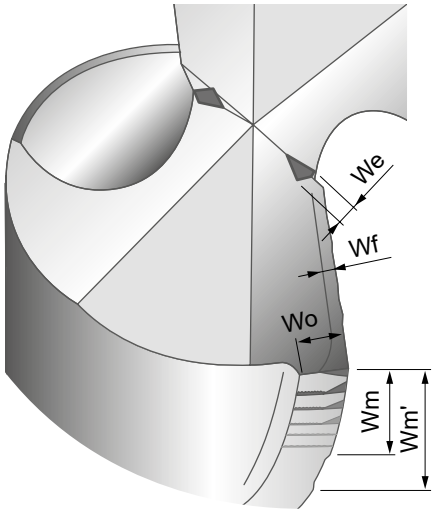
STÖRUNGSBESEITIGUNG (BOHREN)

Störung		Lösung / Faktoren	Schnittbedingungen: Schnittgeschwindigkeit (Höher ↗ / Niedriger ↘)	Schnittbedingungen: Vorschub (Höher ↗ / Niedriger ↘)	Schnittbedingungen: Geringerer Vorschub beim Anschnitt	Schnittbedingungen: Geringerer Vorschub beim Austritt	Schnittbedingungen: Gestufter Vorschub	Schnittbedingungen: Präzision der Vorbohrung und Tiefe erhöhen	Schnittbedingungen: Kühlung: Höherer Ölanteil	Schnittbedingungen: Kühlung: Größeres Volumen	Schnittbedingungen: Kühlung: Höherer Kühlschmiermitteldruck	Art und Design: Querschneidenbreite (Höher ↗ / Niedriger ↘)	Art und Design: Fasenbreite (Höher ↗ / Niedriger ↘)	Art und Design: Kerndicke (Höher ↗ / Niedriger ↘)	Art und Design: Nutlänge verringern	Art und Design: Lippenhöhe verringern	Art und Design: Bohrer mit internem Kühlmittel verwenden	Art und Design: Zu Bohrer mit X-Ausspitzung wechseln	Maschine Einbau des Werkzeugs: Installationspräzision des Werkzeugs erhöhen	Maschine Einbau des Werkzeugs: Kürzere Auskragung	Maschine Einbau des Werkzeugs: Flache Werkstückoberfläche	Maschine Einbau des Werkzeugs: Klemmsteifigkeit des Werkzeugs erhöhen	Maschine Einbau des Werkzeugs: Maschinenspiel verringern und Steifigkeit erhöhen
Verkürzung der Werkzeugstandzeit	Bohrerbruch	Fehlende Bohrersteifigkeit												↗ ●	●								
		Ungeeignete Schnittbedingungen		● ↘																			
		Starke Ablenkung des Werkzeughalters																	●				●
		Werkstückfläche ist angewinkelt																			●		
	Starker Verschleiß an der Schneidkantenecke und an den Querschneiden	Ungeeignete Schnittbedingungen	● ↘																				
		Erhöhung der Temperatur am Schnittpunkt							●	●								●					
		Unzureichende Rundlauftoleranz																	●				
	Bruch der Schneidkantenecke	Ungeeignete Schnittbedingungen		● ↘			●																
		Starke Ablenkung des Werkzeughalters																	●				●
		Rattern, Vibration											● ↘							●		●	●
	Bruch der Querschneide	Querschneidenbreite ist zu breit										● ↘											
		Unzureichender Eintritt			●																		
		Rattern, Vibration											● ↘							●		●	●
Minderung der Bohrlochqualität	Bohrungsdurchmesser wird größer	Fehlende Bohrersteifigkeit												↗ ●	●								
		Ungeeignete Bohrergeometrie														●							
	Bohrungsdurchmesser wird kleiner	Erhöhung der Temperatur am Schnittpunkt							●	●								●					
		Ungeeignete Schnittbedingungen	● ↘																				
		Ungeeignete Bohrergeometrie														●							
	Unzureichende Geradheit	Fehlende Bohrersteifigkeit												↗ ●	●								
		Starke Ablenkung des Werkzeughalters																		●			●
		Unzureichende Führungseigenschaften						●															
	Unzureichende Präzision der Bohrungsposition, Rundheit und Oberflächenbeschaffenheit	Fehlende Bohrersteifigkeit												↗ ●	●								
		Unzureichender Eintritt																	●				
		Ungeeignete Schnittbedingungen			●																		
		Starke Ablenkung des Werkzeughalters																		●			●
Gratbildung	Gratbildung am Bohrungsausgang	Ungeeignete Bohrergeometrie											● ↘										
		Ungeeignete Schnittbedingungen				●																	
Schlechter Spanabfluß	Lange Späne	Ungeeignete Schnittbedingungen		↗ ●				●															
		Schlechte Späneabfuhr								●	●			● ↘				●					
	Spänestau	Ungeeignete Schnittbedingungen	● ↘	● ↘				●															
		Schlechte Späneabfuhr								●	●			● ↘				●					

BOHRERVERSCHLEISS UND SCHNEIDKANTENBESCHÄDIGUNG

VERSCHLEISSBEDINGUNGEN

Die folgende Tabelle enthält eine einfache Zeichnung, die den Verschleiß der Schneidkante eines Bohrers darstellt. Entstehung und Umfang des Verschleißes variieren in Abhängigkeit von den Werkstückmaterialien und Schnittbedingungen der Anwendung. Im Allgemeinen ist jedoch der periphere Verschleiß am höchsten und bestimmt die Standzeit eines Bohrwerkzeugs. Beim Nachschleifen muss der Flankenverschleiß an der Spitze komplett abgetragen werden. Wenn der Verschleiß hoch ist, muss daher mehr Material entfernt werden, um die Schneidkante wiederherzustellen.



We : **Verschleiß der Querschneiden**

Wf : **Freiwinkelverschleiß (Mitte der Hauptschneide)**

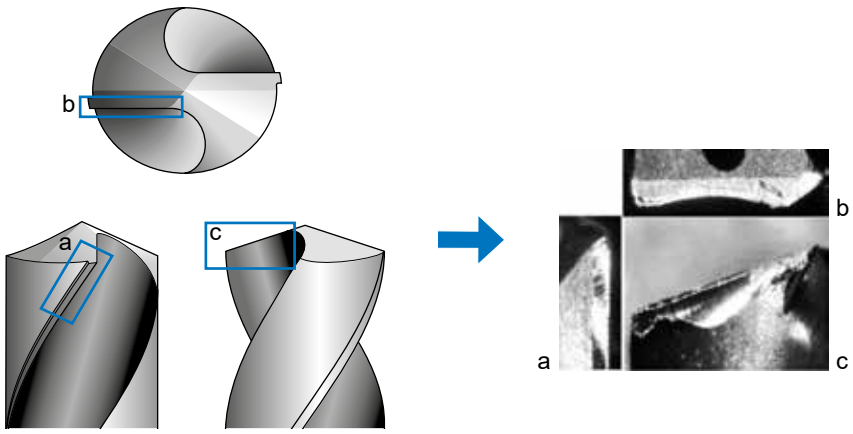
Wo : **Verschleiß der Schneidecken**

Wm : **Verschleiß der Führungsfasen**

Wm' : **Verschleiß der Führungsfasen (Nebenschneiden)**

SCHNEIDKANTENBESCHÄDIGUNG

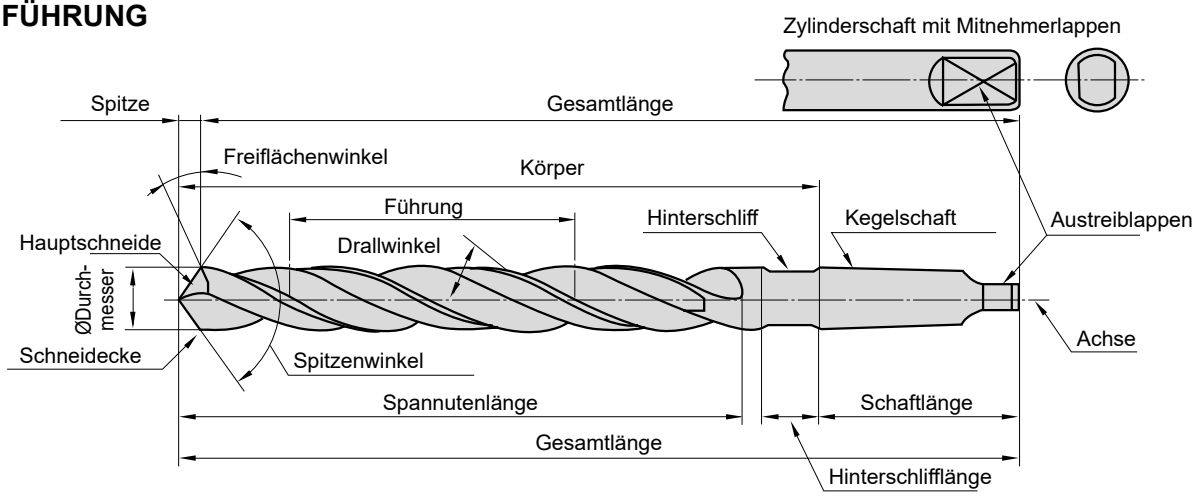
Beim Bohren kann die Schneidkante durch Spanbildung, Bruch und annormale Beschädigung beeinträchtigt werden.
In solchen Fällen ist es wichtig, den Schaden genau zu begutachten, die Ursache zu untersuchen und Gegenmaßnahmen zu ergreifen.

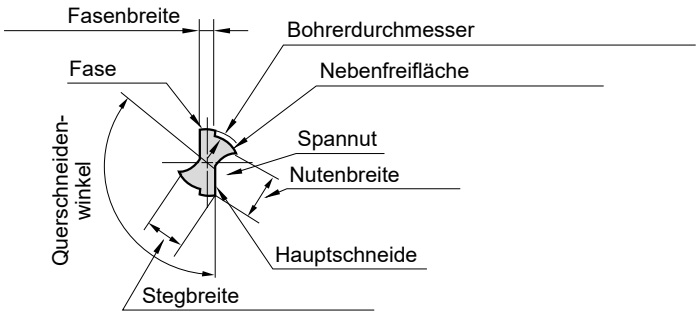


Schneidkantenbeschädigung

MERKMALE UND SPEZIFIKATIONEN BEIM BOHREN

AUSFÜHRUNG





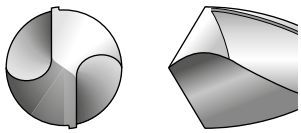
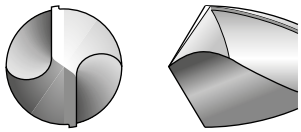
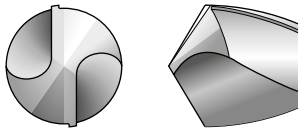
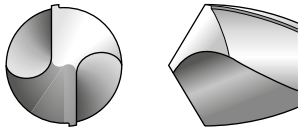
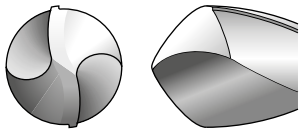
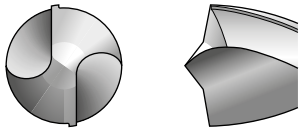
FORMEN UND ZERSPANUNGSEIGENSCHAFTEN

Spiralwinkel	Ist der Anstellwinkel der Schneiden im Verhältniss zur Bohrrichtung. Der Neigungswinkel des Bohrers differenziert in Abhängigkeit von der Schneidkantenposition, und er verkleinert sich immens, je näher er zum Zentrum gelangt. **Hoch vergütete Materialien** **Klein** ◀·· **Spanwinkel** ··▶ **Groß** **Weiches, abrasives Material** (Aluminium, usw.)
Schneidenlänge	Schneidenlänge des Bohrers (z. B. 3xD oder 5xD). Es empfiehlt sich sofern möglich Bohrer mit kurzen Schneiden zu verwenden um eine hohe Präzision zu gewährleisten.
Spitzenwinkel	Ein Standard-Spitzenwinkel beträgt 118° und muss in Abstimmung auf verschiedene Anwendungen verändert werden. **Weiches Material für gute Bearbeitbarkeit** **Klein** ◀·· **Spitzenwinkel** ··▶ **Groß** **Für harte Materialien und Hochleistungsbearbeitung**
Dicke der Ausspreitzung	Ein wesentlicher Bestandteil für die Ermittlung der Festigkeit und Spanförderleistung eines Bohrers. Die Trägerstärke ist abhängig von der Anwendung. Geringer Schnittwiderstand Geringe Biegefestigkeit Gute Spanabfuhr Bearbeitbares Material **Dünn** ◀·· **Kerndicke, bzw. dicke der Ausspreitzung** ··▶ **Dick** Hoher Schnittwiderstand Hohe Stabilität Schlechte Spanabfuhr Für gehärtete Materialien, Kreuzlochbohrungen, usw.
Führungsfase	Die Fase ermittelt den Bohrdurchmesser und hat eine Führungsfunktion während des Bohrens. **Schlechte Führungsleistung** **Klein** ◀·· **Fase** ··▶ **Groß** **Gute Führungsleistung**
Verjüngung	Um Reibung innerhalb des Bohrloches zu verringern, ist der Teil von der Spitze bis zum Schaft leicht verjüngt. Dies reduziert zusätzlich den Schnittwiderstand. Der Grad der Verjüngung wird gewöhnlich durch die Herabsetzung des Durchmessers dargestellt, welche ca. 0.04−0.1mm beträgt.

DIE SCHNEIDKANTENGEOMETRIE UND IHR EINFLUSS

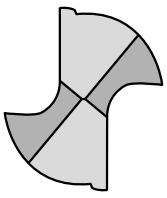
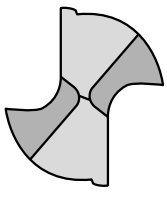
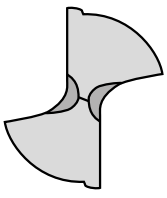
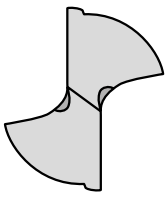
Wie in der folgenden Tabelle dargestellt, lässt sich die optimale Schneidkantengeometrie für verschiedene Anwendungen auswählen. Wenn die optimale Schneidkantengeometrie zum Einsatz kommt, sind höhere Maschineneffizienz und bessere Bohrungspräzision möglich.

Schneidkanten

Anschliff	Form	Eigenschaften und Wirkung	Anwendungsgebiet
konisch		• Die Flanke ist konisch und der Freiwinkel vergrößert sich zur Bohrermitte.	• Allg. Anwendung
flach		• Die Flanke ist flach. • Einfaches Schleifen	• Hauptsächlich für Bohrer mit kleinem Durchmesser
Dreistufige Winkel		• Aufgrund der fehlenden Querschneidenkante kommt es zu hoher Zentripetalkraft und Überdimensionierung kleiner Bohrungen. • Erfordert eine Spezialschleifmaschine • Planschleifen von drei Seiten	• Für Bohrungen, die eine hohe Bohrungspräzision und Positionierungsgenauigkeit erfordern.
Spiralpunkt		• Um den Freiwinkel in der Nähe der Bohrungsmitte zu erhöhen, wird Kegelschleifen mit unregelmäßigem Drall kombiniert. • S-Querschneidenkante mit hoher Zentripetalkraft und Bearbeitungspräzision	• Für Bohrungen, die eine hohe Präzision erfordern
Radiallippe		• Die Schneidkante wird radial geschliffen, um die Last zu verteilen. • Hohe Bohrlochpräzision und Oberflächengüte. • Bei Durchgangsbohrungen kleine Grate an der Basis • Erfordert eine Spezialschleifmaschine	• Gusseisen, Aluminium Leg. • Für Gusseisenplatten • Stahl
Mittelpunktbohrung		• Diese Geometrie weist einen zweistufigen Keilwinkel auf, der eine bessere Zentrierung und eine Verringerung der Schnittkräfte beim Austritt aus dem Werkstück gewährleistet.	• Für Dünnblechbohrungen

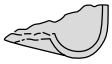
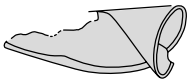
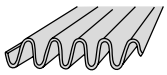
AUSSPITZUNG

Der Neigungswinkel der Bohrer Schneidkante wird kleiner, je näher er sich dem Zentrum bewegt, er wird negativ an der Bohrkante. Beim Bohren zerdrückt das Zentrum des Bohrers das Material, indem er 50−70% des Zerspanungswiderstandes erzeugt. Die Ausspreitzung ist für die Reduzierung des Schnittwiderstandes eines Bohrers sehr effektiv, frühe Beseitigung der Späne an der Bohrkante und bessere Schnittleistung.

Form	 **X TYP**	 **XR TYP**	 **S TYP**	 **N TYP**
Eigenschaften	Die Schubkraft reduziert sich und die Schnittleistung verbessert sich. Effektiv, wenn Ausspreitzung vergleichsweise dick ist.	Die Schnittleistung ist gegenüber der X- Ausführung minderwertig, jedoch ist die Schneidkante hart und der Anwendungsbereich groß.	Leichtes Schneiden. Gebräuchliche Form.	Effektiv, wenn die Ausspreitzung vergleichsweise dick ist.
Haupt Anwendungsbereiche	Allg. Bohren und Tieflochbohren.	Lange Standzeit. Allg. Bohren und Bohren von rostfreien Stahl.	Bohren für Stahl, Gusseisen und Nicht-Eisen-Metalle.	Tieflochbohren.

MERKMALE UND SPEZIFIKATIONEN BEIM BOHREN

SPANBILDUNG BEIM BOHREN

Spanformen	Form	Merkmale und Entstehung
Spirale		Lüftungsgeformte Späne, die durch Schnitte an der Schneidkante entstehen, sind durch die Spannut gebogen. Späne dieser Art entstehen, wenn duktiler Guss mit niedriger Vorschubgeschwindigkeit gebohrt wird. Wenn der Span nach mehrmaligen Umdrehungen bricht, ist die Spanleistung zufriedenstellend.
Reisspan		Lange Späne werden ohne Aufwickelungen abgeführt. Verwicklungen um den Bohrer herum sind leicht möglich.
Halbschale		Dies ist ein Span, der durch die Bohrnut und Wand des Bohrloches gebrochen wurde. Dies wird erzeugt bei hohem Vorschub.
Fahne		Ein konisch gewundener Span der gebrochen ist, bevor er eine lange Form erhält. Die Wand des Bohrloches zeigt unzureichendes Dehnungsvermögen. Exzellente Späneförderung und Spanabfuhr.
Zickzack		Ein verwickelter Span entsteht durch die Nutenform und die Materialeigenschaften. Es wird leicht ein Spänestau an der Nut verursacht.
Nadeln		Spanbruch durch Vibrationen oder durch sprödes Material bei kleinem Radius. Die ansteigende Leistung ist vergleichsweise befriedigend, aber diese Späne können eng gepackt werden.

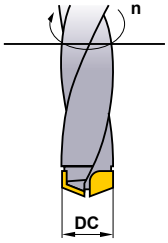
KALKULATIONSFORMELN BOHREN

SCHNITTGESCHWINDIGKEIT (vc)

$$vc = \frac{\pi \cdot DC \cdot n}{1000} \ (m/min)$$

vc (m/min) : Schnittgeschwindigkeit
π (3.14) : Pi
DC (mm) : Bohrerdurchmesser
n (U/min) : Drehzahl der Hauptspindel

*Einheitliche Umwandlung (von "mm" zu "m")



(Aufgabe) Wie hoch ist die Schnittgeschwindigkeit wenn die Geschwindigkeit der Spindelachse 1350U/min und der Bohrdurchmesser 12mm beträgt ?

(Lösung) Setzen Sie π=3.14, DC=12, n=1350 in die Formel.

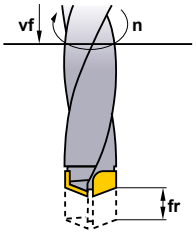
$$vc = \frac{\pi \cdot DC \cdot n}{1000} = \frac{3.14 \times 12 \times 1350}{1000} = 50.9 m/min$$

Die Schnittgeschwindigkeit beträgt 50.9m/min.

VORSCHUB DER HAUPTSPINDEL (vf)

$$vf = fr \cdot n (mm/min)$$

vf (mm/min) : Vorschubgeschwindigkeit der Hauptspindel (Z-achse)
fr (mm/U.) : Vorschub pro Umdrehung
n (U/min) : Drehzahl der Hauptspindel



(Aufgabe) Wie hoch ist der Spindelvorschub (vf), bei einer Drehzahl von 0.2mm/U. und der Hauptspindelvorschub 1350U/min beträgt ?

(Lösung) Setzen Sie fr=0.2, n=1350 in die Formel.

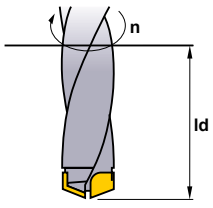
vf = fr×n = 0.2×1350 = 270mm/min

Der Spindelvorschub = vc 270mm/min.

BEARBEITUNGSZEIT (Tc)

$$Tc = \frac{ld \cdot i}{n \cdot fr}$$

Tc (min) : Bearbeitungszeit
n (U/min) : Drehzahl
ld (mm) : Bohrungstiefe
fr (mm/U.) : Vorschub pro Umdrehung
i : Anzahl Bohrungen



(Aufgabe) Ermitteln Sie die benötigte Bearbeitungszeit für eine Bohrungstiefe von 30mm in Stahl bei einer Schnittgeschw. Von vc 50m/min. und einem Vorschub von f 0.15mm/U.

(Lösung) Drehzahl $n = \frac{50 \times 1000}{15 \times 3.14} = 1061.57 U/min$

$$Tc = \frac{30 \times 1}{1061.57 \times 0.15} = 0.188$$

$$= 0.188 \times 60 \fallingdotseq 11.3 \ sec$$

WERKSTOFFVERGLEICHSTABELLE

C-STAHL

Deutschland		U.K.		Frankreich	Italien	Spanien	Schweden	Japan	USA	China
W-nr.	DIN	BS	EN	AFNOR	UNI	UNE	SS	JIS	AISI/SAE	GB
1.0038	RSt.37-2	4360 40 C	–	E 24-2 Ne	–	–	1311	STKM 12A STKM 12C	A570.36	15
1.0401	C15	080M15	–	CC12	C15, C16	F.111	1350	–	1015	15
1.0402	C22	050A20	2C	CC20	C20, C21	F.112	1450	–	1020	20
1.0715	9SMn28	230M07	1A	S250	CF9SMn28	F.2111 11SMn28	1912	SUM22	1213	Y15
1.0718	9SMnPb28	–	–	S250Pb	CF9SMnPb28	11SMnPb28	1914	SUM22L	12L13	–
1.0722	10SPb20	–	–	10PbF2	CF10Pb20	10SPb20	–	–	–	–
1.0736	9SMn36	240M07	1B	S300	CF9SMn36	12SMn35	–	–	1215	Y13
1.0737	9SMnPb36	–	–	S300Pb	CF9SMnPb36	12SMnP35	1926	–	12L14	–
1.1141	Ck15	080M15	32C	XC12	C16	C15K	1370	S15C	1015	15
1.1158	Ck25	–	–	–	–	–	–	S25C	1025	25
1.8900	StE380	4360 55 E	–	–	FeE390KG	–	2145	–	A572-60	–
1.0501	C35	060A35	–	CC35	C35	F.113	1550	–	1035	35
1.0503	C45	080M46	–	CC45	C45	F.114	1650	–	1045	45
1.0726	35S20	212M36	8M	35MF4	–	F210G	1957	–	1140	–
1.1157	40Mn4	150M36	15	35M5	–	–	–	–	1039	40Mn
1.1167	36Mn5	–	–	40M5	–	36Mn5	2120	SMn438(H)	1335	35Mn2
1.1170	28Mn6	150M28	14A	20M5	C28Mn	–	–	SCMn1	1330	30Mn
1.1183	Cf35	060A35	–	XC38TS	C36	–	1572	S35C	1035	35Mn
1.1191	Ck45	080M46	–	XC42	C45	C45K	1672	S45C	1045	Ck45
1.1213	Cf53	060A52	–	XC48TS	C53	–	1674	S50C	1050	50
1.0535	C55	070M55	9	–	C55	–	1655	–	1055	55
1.0601	C60	080A62	43D	CC55	C60	–	–	–	1060	60
1.1203	Ck55	070M55	–	XC55	C50	C55K	–	S55C	1055	55
1.1221	Ck60	080A62	43D	XC60	C60	–	1678	S58C	1060	60Mn
1.1274	Ck101	060A96	–	XC100	–	F.5117	1870	–	1095	–
1.1545	C105W1	BW1A	–	Y105	C36KU	F.5118	1880	SK3	W1	–
1.1545	C105W1	BW2	–	Y120	C120KU	F.515	2900	SUP4	W210	–

LEG. STAHL

Deutschland		U.K.		Frankreich	Italien	Spanien	Schweden	Japan	USA	China
W-nr.	DIN	BS	EN	AFNOR	UNI	UNE	SS	JIS	AISI/SAE	GB
1.0144	St.44.2	4360 43 C	–	E28-3	–	–	1412	SM400A, SM400B SM400C	A573-81	–
1.0570	St52-3	4360 50 B	–	E36-3	Fe52BFN Fe52CFN	–	2132	SM490A, SM490B SM490C	–	–
1.0841	St52-3	150M19	–	20MC5	Fe52	F.431	2172	–	5120	–
1.0904	55Si7	250A53	45	55S7	55Si8	56Si7	2085	–	9255	55Si2Mn
1.0961	60SiCr7	–	–	60SC7	60SiCr8	60SiCr8	–	–	9262	–
1.3505	100Cr6	534A99	31	100C6	100Cr6	F.131	2258	SUJ2	ASTM 52100	Gr15, 45G
1.5415	15Mo3	1501-240	–	15D3	16Mo3KW	16Mo3	2912	–	ASTM A204Gr.A	–
1.5423	16Mo5	1503-245-420	–	–	16Mo5	16Mo5	–	–	4520	–
1.5622	14Ni6	–	–	16N6	14Ni6	15Ni6	–	–	ASTM A350LF5	–
1.5662	X8Ni9	1501-509-510	–	–	X10Ni9	XBNi09	–	–	ASTM A353	–
1.5710	36NiCr6	640A35	111A	35NC6	–	–	–	SNC236	3135	–
1.5732	14NiCr10	–	–	14NC11	16NiCr11	15NiCr11	–	SNC415(H)	3415	–
1.5752	14NiCr14	655M13	36A	12NC15	–	–	–	SNC815(H)	3415, 3310	–
1.6523	21NiCrMo2	805M20	362	20NCD2	20NiCrMo2	20NiCrMo2	2506	SNCM220(H)	8620	–
1.6546	40NiCrMo22	311-Type 7	–	–	40NiCrMo2(KB)	40NiCrMo2	–	SNCM240	8740	–
1.6587	17CrNiMo6	820A16	–	18NCD6	–	14NiCrMo13	–	–	–	–
1.7015	15Cr3	523M15	–	12C3	–	–	–	SCr415(H)	5015	15Cr

Deutschland		U.K.		Frankreich	Italien	Spanien	Schweden	Japan	USA	China
W-nr.	DIN	BS	EN	AFNOR	UNI	UNE	SS	JIS	AISI/SAE	GB
1.7045	42Cr4	–	–	–	–	42Cr4	2245	SCr440	5140	40Cr
1.7176	55Cr3	527A60	48	55C3	–	–	–	SUP9(A)	5155	20CrMn
1.7262	15CrMo5	–	–	12CD4	–	12CrMo4	2216	SCM415(H)	–	–
1.7335	13CrMo4 4	1501-620Gr27	–	15CD3.5 15CD4.5	14CrMo45	14CrMo45	–	–	ASTM A182 F11, F12	–
1.7380	10CrMo910	1501-622 Gr31, 45	–	12CD9 12CD10	12CrMo9 12CrMo10	TU.H	2218	–	ASTM A182 F.22	–
1.7715	14MoV63	1503-660-440	–	–	–	13MoCrV6	–	–	–	–
1.8523	39CrMoV13 9	897M39	40C	–	36CrMoV12	–	–	–	–	–
1.6511	36CrNiMo4	816M40	110	40NCD3	38NiCrMo4(KB)	35NiCrMo4	–	–	9840	–
1.6582	34CrNiMo6	817M40	24	35NCD6	35NiCrMo6(KB)	–	2541	–	4340	40CrNiMoA
1.7033	34Cr4	530A32	18B	32C4	34Cr4(KB)	35Cr4	–	SCr430(H)	5132	35Cr
1.7035	41Cr4	530M40	18	42C4	41Cr4	42Cr4	–	SCr440(H)	5140	40Cr
1.7131	16MnCr5	(527M20)	–	16MC5	16MnCr5	16MnCr5	2511	–	5115	18CrMn
1.7218	25CrMo4	1717CDS110 708M20	–	25CD4	25CrMo4(KB)	55Cr3	2225	SCM420 SCM430	4130	30CrMn
1.7220	34CrMo4	708A37	19B	35CD4	35CrMo4	34CrMo4	2234	SCM432 SCCRM3	4137 4135	35CrMo
1.7223	41CrMo4	708M40	19A	42CD4TS	41CrMo4	42CrMo4	2244	SCM 440	4140 4142	40CrMoA
1.7225	42CrMo4	708M40	19A	42CD4	42CrMo4	42CrMo4	2244	SCM440(H)	4140	42CrMo 42CrMnMo
1.7361	32CrMo12	722M24	40B	30CD12	32CrMo12	F.124.A	2240	–	–	–
1.8159	50CrV4	735A50	47	50CV4	50CrV4	51CrV4	2230	SUP10	6150	50CrVA
1.8509	41CrAlMo7	905M39	41B	40CAD6 40CAD2	41CrAlMo7	41CrAlMo7	2940	–	–	–
1.2067	100Cr6	BL3	–	Y100C6	–	100Cr6	–	–	L3	CrV, 9SiCr
1.2419	105WCr6	–	–	105WC13	100WCr6 107WCr5KU	105WCr5	2140	SKS31 SKS2, SKS3	–	CrWMo
1.2713	55NiCrMoV6	BH224/5	–	55NCDV7	–	F.520.S	–	SKT4	L6	5CrNiMo
1.5662	X8Ni9	1501-509	–	–	X10Ni9	XBNi09	–	–	ASTM A353	–
1.5680	12Ni19	–	–	Z18N5	–	–	–	–	2515	–
1.6657	14NiCrMo134	832M13	36C	–	15NiCrMo13	14NiCrMo131	–	–	–	–
1.2080	X210Cr12	BD3	–	Z200C12	X210Cr13KU X250Cr12KU	X210Cr12	–	SKD1	D3 ASTM D3	Cr12
1.2601	X153CrMoV12	BD2	–	–	X160CrMoV12	–	–	SKD11	D2	Cr12MoV
1.2363	X100CrMoV5	BA2	–	Z100CDV5	X100CrMoV5	F.5227	2260	SKD12	A2	Cr5Mo1V
1.2344	X40CrMoV51 X40CrMoV51	BH13	–	Z40CDV5	X35CrMoV05KU X40CrMoV51KU	X40CrMoV5	2242	SKD61	H13 ASTM H13	40CrMoV5
1.2436	X210CrW12	–	–	–	X215CrW121KU	X210CrW12	2312	SKD2	–	–
1.2542	45WCrV7	BS1	–	–	45WCrV8KU	45WCrSi8	2710	–	S1	–
1.2581	X30WCrV93	BH21	–	Z30WCV9	X28W09KU	X30WCrV9	–	SKD5	H21	30WCrV9
1.2601	X165CrMoV12	–	–	–	X165CrMoW12KU	X160CrMoV12	2310	–	–	–
1.2833	100V1	BW2	–	Y1105V	–	–	–	SKS43	W210	V
1.3255	S 18-1-2-5	BT4	–	Z80WKCV	X78WCo1805KU	HS18-1-1-5	–	SKH3	T4	W18Cr4VCo5
1.3355	S 18-0-1	BT1	–	Z80WCV	X75W18KU	HS18-0-1	–	SKH2	T1	–
1.3401	G-X120Mn12	Z120M12	–	Z120M12	XG120Mn12	X120MN12	–	SCMnH/1	–	–
1.4718	X45CrSi93	401S45	52	Z45CS9	X45CrSi8	F.322	–	SUH1	HW3	X45CrSi93
1.3343	S6-5-2	4959BA2	–	Z40CSD10	15NiCrMo13	–	2715	SUH3	D3	–
1.3343	S6/5/2	BM2	–	Z85WDCV	HS6-5-2-2	F.5603	2722	SKH9, SKH51	M2	–
1.3348	S 2-9-2	–	–	–	HS2-9-2	HS2-9-2	2782	–	M7	–
1.3243	S6/5/2/5	BM35	–	6-5-2-5	HS6-5-2-5	F.5613	2723	SKH55	M35	–

WERKSTOFFVERGLEICHSTABELLE

ROSTFREIER STAHL (FERRITISCH,MARTENSITISCH)

Deutschland		U.K.		Frankreich	Italien	Spanien	Schweden	Japan	USA	China
W-nr.	DIN	BS	EN	AFNOR	UNI	UNE	SS	JIS	AISI/SAE	GB
1.4000	X7Cr13	403S17	–	Z6C13	X6Cr13	F.3110	2301	SUS403	403	OCr13 1Cr12
1.4001	X7Cr14	–	–	–	–	F.8401	–	–	–	–
1.4005	X12CrS13	416S21	–	Z11CF13	X12CrS13	F.3411	2380	SUS416	416	–
1.4006	X10Cr13	410S21	56A	Z10C14	X12Cr13	F.3401	2302	SUS410	410	1Cr13
1.4016	X8Cr17	430S15	60	Z8C17	X8Cr17	F.3113	2320	SUS430	430	1Cr17
1.4027	G-X20Cr14	420C29	56B	Z20C13M	–	–	–	SCS2	–	–
1.4034	X46Cr13	420S45	56D	Z40CM Z38C13M	X40Cr14	F.3405	2304	SUS420J2	–	4Cr13
1.4003	–	405S17	–	Z8CA12	X6CrAl13	–	–	–	405	–
1.4021	–	420S37	–	Z8CA12	X20Cr13	–	2303	–	420	–
1.4057	X22CrNi17	431S29	57	Z15CNi6.02	X16CrNi16	F.3427	2321	SUS431	431	1Cr17Ni2
1.4104	X12CrMoS17	–	–	Z10CF17	X10CrS17	F.3117	2383	SUS430F	430F	Y1Cr17
1.4113	X6CrMo17	434S17	–	Z8CD17.01	X8CrMo17	–	2325	SUS434	434	1Cr17Mo
1.4313	X5CrNi134	425C11	–	Z4CND13.4M	(G)X6CrNi304	–	2385	SCS5	CA6-NM	–
1.4724	X10CrA113	403S17	–	Z10C13	X10CrA112	F.311	–	SUS405	405	OCr13Al
1.4742	X10CrA118	430S15	60	Z10CAS18	X8Cr17	F.3113	–	SUS430	430	Cr17
1.4747	X80CrNiSi20	443S65	59	Z80CSN20.02	X80CrSiNi20	F.320B	–	SUH4	HNV6	–
1.4762	X10CrA124	–	–	Z10CAS24	X16Cr26	–	2322	SUH446	446	2Cr25N
1.4871	X53CrMnNiN219	349S54	–	Z52CMN21.09	X53CrMnNiN219	–	–	SUH35	EV8	5Cr2Mn9Ni4N
1.4521	X1CrMoTi182	–	–	–	–	–	2326	–	S44400	–
1.4922	X20CrMoV12-1	–	–	–	X20CrMoNi1201	–	2317	–	–	–
1.4542	–	–	–	Z7CNU17-04	–	–	–	–	630	–

ROSTFREIER STAHL (AUSTENITISCH)

Deutschland		U.K.		Frankreich	Italien	Spanien	Schweden	Japan	USA	China
W-nr.	DIN	BS	EN	AFNOR	UNI	UNE	SS	JIS	AISI/SAE	GB
1.4306	X2CrNi1911	304S11	–	Z2CN18.10	X2CrNi18.11	–	2352	SUS304L	304L	OCr19Ni10
1.4350	X5CrNi189	304S11	58E	Z6CN18.09	X5CrNi1810	F.3551 F.3541 F.3504	2332	SUS304	304	OCr18Ni9
1.4305	X12CrNiS188	303S21	58M	Z10CNF18.09	X10CrNiS18.09	F.3508	2346	SUS303	303	1Cr18Ni9MoZr
–	–	304C12	–	Z3CN19.10	–	–	2333	SUS304L	–	–
1.4306	X2CrNi189	304S12	–	Z2CrNi1810	X2CrNi18.11	F.3503	2352	SCS19	304L	–
1.4310	X12CrNi177	–	–	Z12CN17.07	X12CrNi1707	F.3517	2331	SUS301	301	Cr17Ni7
1.4311	X2CrNiN1810	304S62	–	Z2CN18.10	–	–	2371	SUS304LN	304LN	–
1.4401	X5CrNiMo1810	316S16	58J	Z6CND17.11	X5CrNiMo1712	F.3543	2347	SUS316	316	0Cr17Ni11Mo2
1.4308	G-X6CrNi189	304C15	–	Z6CN18.10M	–	–	–	SCS13	–	–
1.4408	G-X6CrNiMo1810	316C16	–	–	–	F.8414	–	SCS14	–	–
1.4581	G-X5CrNiMoNb1810	318C17	–	Z4CNDNb1812M	XG8CrNiMo1811	–	–	SCS22	–	–
1.4429	X2CrNiMoN1813	–	–	Z2CND17.13	–	–	2375	SUS316LN	316LN	OCr17Ni13Mo
1.4404	–	316S13	–	Z2CND17.12	X2CrNiMo1712	–	2348	–	316L	–
1.4435	X2CrNiMo1812	316S13	–	Z2CND17.12	X2CrNiMo1712	–	2353	SCS16 SUS316L	316L	0Cr27Ni12Mo3
1.4436	–	316S13	–	Z6CND18-12-03	X8CrNiMo1713	–	2343, 2347	–	316	–
1.4438	X2CrNiMo1816	317S12	–	Z2CND19.15	X2CrNiMo1816	–	2367	SUS317L	317L	00Cr19Ni13Mo
1.4539	X1NiCrMo	–	–	Z6CNT18.10	–	–	2562	–	UNS V 0890A	–
1.4541	X10CrNiTi189	321S12	58B	Z6CNT18.10	X6CrNiTi1811	F.3553 F.3523	2337	SUS321	321	1Cr18NI9Ti
1.4550	X10CrNiNb189	347S17	58F	Z6CNNb18.10	X6CrNiNb1811	F.3552 F.3524	2338	SUS347	347	1Cr18Ni11Nb
1.4571	X10CrNiMoTi1810	320S17	58J	Z6CNDT17.12	X6CrNiMoTi1712	F.3535	2350	–	316Ti	Cr18Ni12Mo2T
1.4583	X10CrNiMoNb1812	–	–	Z6CNDNb1713B	X6CrNiMoNb1713	–	–	–	318	Cr17Ni12Mo3Mb

Deutschland		U.K.		Frankreich	Italien	Spanien	Schweden	Japan	USA	China
W-nr.	DIN	BS	EN	AFNOR	UNI	UNE	SS	JIS	AISI/SAE	GB
1.4828	X15CrNiSi2012	309S24	–	Z15CNS20.12	X6CrNi2520	–	–	SUH309	309	1Cr23Ni13
1.4845	X12CrNi2521	310S24	–	Z12CN2520	X6CrNi2520	F.331	2361	SUH310	310S	OCr25Ni20
1.4406	X10CrNi18.08	–	58C	Z1NCDU25.20	–	F.8414	2370	SCS17	308	–
1.4418	X4CrNiMo165	–	–	Z6CND16-04-01	–	–	–	–	–	–
1.4568 1.4504	–	316S111	–	Z8CNA17-07	X2CrNiMo1712	–	–	–	17-7PH	–
1.4563	–	–	–	Z1NCDU31-27-03 Z1CNDU20-18-06AZ	–	–	2584 2378	–	NO8028 S31254	–
1.4878	X12CrNiTi189	321S32	58B, 58C	Z6CNT18.12B	X6CrNiTi18 11	F.3523	–	SUS321	321	1Cr18Ni9Ti

HITZEBESTÄNDIGE STÄHLE

Deutschland		U.K.		Frankreich	Italien	Spanien	Schweden	Japan	USA	China
W-nr.	DIN	BS	EN	AFNOR	UNI	UNE	SS	JIS	AISI/SAE	GB
1.4864	X12NiCrSi3616	–	–	Z12NCS35.16	–	–	–	SUH330	330	–
1.4865	G-X40NiCrSi3818	330C11	–	–	XG50NiCr3919	–	–	SCH15	HT, HT 50	–

GRAUGUSS

Deutschland		U.K.		Frankreich	Italien	Spanien	Schweden	Japan	USA	China
W-nr.	DIN	BS	EN	AFNOR	UNI	UNE	SS	JIS	AISI/SAE	GB
–	–	–	–	–	–	–	0100	–	–	–
–	GG 10	–	–	Ft 10 D	–	–	0110	FC100	No 20 B	–
0.6015	GG 15	Grade 150	–	Ft 15 D	G15	FG15	0115	FC150	No 25 B	HT150
0.6020	GG 20	Grade 220	–	Ft 20 D	G20	–	0120	FC200	No 30 B	HT200
0.6025	GG 25	Grade 260	–	Ft 25 D	G25	FG25	0125	FC250	No 35 B	HT250
–	–	–	–	–	–	–	–	–	No 40 B	–
0.6030	GG 30	Grade 300	–	Ft 30 D	G30	FG30	0130	FC300	No 45 B	HT300
0.6035	GG 35	Grade 350	–	Ft 35 D	G35	FG35	0135	FC350	No 50 B	HT350
0.6040	GG 40	Grade 400	–	Ft 40 D	–	–	0140	–	No 55 B	HT400
0.6660	GGL NiCr202	L-NiCuCr202	–	L-NC 202	–	–	0523	–	A436 Type 2	–

DUKTILER GUSS

Deutschland		U.K.		Frankreich	Italien	Spanien	Schweden	Japan	USA	China
W-nr.	DIN	BS	EN	AFNOR	UNI	UNE	SS	JIS	AISI/SAE	GB
0.7040	GGG 40	SNG 420/12	–	FCS 400-12	GS 370-17	FGE 38-17	07 17-02	FCD400	60-40-18	QT400-18
–	GGG 40.3	SNG 370/17	–	FGS 370-17	–	–	07 17-12	–	–	–
0.7033	GGG 35.3	–	–	–	–	–	07 17-15	–	–	–
0.7050	GGG 50	SNG 500/7	–	FGS 500-7	GS 500	FGE 50-7	07 27-02	FCD500	80-55-06	QT500-7
0.7660	GGG NiCr202	Grade S6	–	S-NC202	–	–	07 76	–	A43D2	–
–	GGG NiMn137	L-NiMn 137	–	L-MN 137	–	–	07 72	–	–	–
–	GGG 60	SNG 600/3	–	FGS 600-3	–	–	07 32-03	FCD600	–	QT600-3
0.7070	GGG 70	SNG 700/2	–	FGS 700-2	GS 700-2	FGS 70-2	07 37-01	FCD700	100-70-03	QT700-18

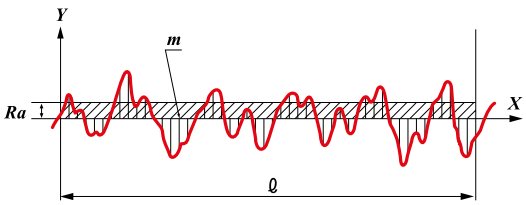
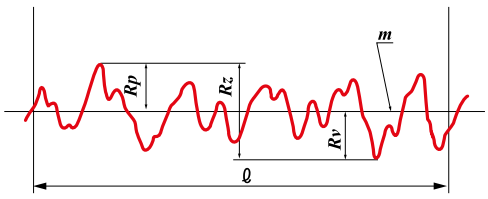
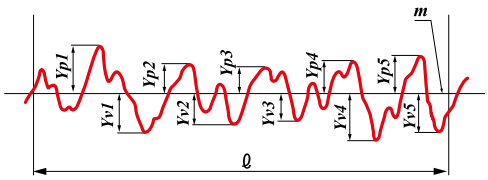
TEMPERGUSS

Deutschland		U.K.		Frankreich	Italien	Spanien	Schweden	Japan	USA	China
W-nr.	DIN	BS	EN	AFNOR	UNI	UNE	SS	JIS	AISI/SAE	GB
–	–	8 290/6	–	MN 32-8	–	–	08 14	FCMB310	–	–
–	GTS-35	B 340/12	–	MN 35-10	–	–	08 15	FCMW330	32510	–
0.8145	GTS-45	P 440/7	–	Mn 450	GMN45	–	08 52	FCMW370	40010	–
0.8155	GTS-55	P 510/4	–	MP 50-5	GMN55	–	08 54	FCMP490	50005	–
–	GTS-65	P 570/3	–	MP 60-3	–	–	08 58	FCMP540	70003	–
0.8165	GTS-65-02	P 570/3	–	Mn 650-3	GMN 65	–	08 56	FCMP590	A220-70003	–
–	GTS-70-02	P 690/2	–	Mn 700-2	GMN 70	–	08 62	FCMP690	A220-80002	–

OBERFLÄCHENRAUHIGKEIT

OBERFLÄCHENRAUHIGKEIT

(von JIS B 0601-1994)

Typ	Symbol	Berechnungsmethode	Meßaufnahme (Abbildung)
Mittlere Rauhtiefe	Ra	**Der Mittelrauhwert Ra ist der arithmetische Mittelwert der absoluten Beträge der Abstände y des Rauhheitsprofils von der Mittellinie innerhalb der Messtrecke. Dies ist gleichbedeutend mit der Höhe des Rechtecks, dessen Länge gleich der Gesamtstrecke l ist und das flächengleich mit der Summe der zwischen dem Rauheitsprofil und der Mittellinie eingeschlossenen Fläche ist y=f** $Ra=\frac{1}{\ell}\int_0^{\ell}\{f(x)\}dx$	
Maximale Rauhtiefe	Rz	**Die maximale Rauhtiefe Ry ist die größte der auf der Gesamtmeßstrecke l vorkommenden Einzelrauhtiefen. Ry wird auch in (μm) Mikrometer angegeben.** **(Bemerkung) Um Rz herauszufinden, wird ein Anteil ohne außergewöhnliche Höhen und Tiefen als Stichprobenlänge ausgewählt und als Schwachstelle betrachtet.** $Rz=R_P+Rv$	
Gemittelte Rauhtiefe	RzJIS	**Die gemittelte Rauhtiefe Rz ist das arithmetische Mittel aus den Einzelrauhtiefen fünf aufeinander grenzender Einzelmessstrecken gleicher Länge. Rz wird ebenfalls in (μm) angegeben.** $Rz_{JIS}=\frac{(Yp1+Yp2+Yp3+Yp4+Yp5)+(Yv1+Yv2+Yv3+Yv4+Yv5)}{5}$	 $Yp1,Yp2,Yp3,Yp4,Yp5$: Die 5 tiefsten Meßpunkte einer ausgewählten Strecke entsprechend der Länge l. $Yv1,Yv2,Yv3,Yv4,Yv5$: Die 5 tiefsten Meßpunkte einer ausgewählten Strecke entsprechend der Länge l.

ZUORDNUNG DER GEMITTELTEN WERTE (Ra) ZU DEN OBERFLÄCHENANGABEN

Mittlere Rauhtiefe **Ra**		Maximale Rauhtiefe **Rz**	Gemittelte Rauhtiefe **RzJIS**	Prüflänge für **Rz • RzJIS** l (mm)	Oberflächenzeichen
Standard	Richtwerte λc (mm)	Standard			
0.012 a	0.08	0.05s	0.05z	0.08	▽▽▽▽
0.025 a	0.25	0.1 s	0.1 z		
0.05 a		0.2 s	0.2 z	0.25	
0.1 a	0.8	0.4 s	0.4 z		
0.2 a		0.8 s	0.8 z	0.8	
0.4 a		1.6 s	1.6 z		▽▽▽
0.8 a		3.2 s	3.2 z		
1.6 a		6.3 s	6.3 z		
3.2 a	2.5	12.5 s	12.5 z	2.5	▽▽
6.3 a		25 s	25 z		
12.5 a	8	50 s	50 z		▽
25 a		100 s	100 z	8	
50 a		200 s	200 z		–
100 a	–	400 s	400 z	–	

*Die Zuordnung dieser 3 Darstellungen ist zweckdienlich und nicht exakt.
*Ra: Die Bewertungslänge von Rz und RzJIS ist der Abschaltwert und die Stichprobenlänge multipliziert x 5.

HÄRTEVERGLEICHSTABELLE

VERGLEICHSTABELLEN HÄRTE VON STAHL

Brinell Härte (**HB**) 10mm Kugel, Last: 3000kgf		Vickers Härte (**HV**)	Rockwell Härte (3)				Shore Härte (**HS**)	Streckgrenze (ca.)
Standard Kugel	Hartmetallkugel		A Skala, Last: 60kgf Diamant Diamantkegel (**HRA**)	B Skala, Last: 100kgf 1/16" Kugel (**HRB**)	C Skala, Last: 150kgf Diamant Diamantkegel (**HRC**)	D Skala, Last: 100kgf Diamant Diamantkegel (**HRD**)		MPa (2)
—	—	940	85.6	—	68.0	76.9	97	—
—	—	920	85.3	—	67.5	76.5	96	—
—	—	900	85.0	—	67.0	76.1	95	—
—	(767)	880	84.7	—	66.4	75.7	93	—
—	(757)	860	84.4	—	65.9	75.3	92	—
—	(745)	840	84.1	—	65.3	74.8	91	—
—	(733)	820	83.8	—	64.7	74.3	90	—
—	(722)	800	83.4	—	64.0	73.8	88	—
—	(712)	—	—	—	—	—	—	—
—	(710)	780	83.0	—	63.3	73.3	87	—
—	(698)	760	82.6	—	62.5	72.6	86	—
—	(684)	740	82.2	—	61.8	72.1	—	—
—	(682)	737	82.2	—	61.7	72.0	84	—
—	(670)	720	81.8	—	61.0	71.5	83	—
—	(656)	700	81.3	—	60.1	70.8	—	—
—	(653)	697	81.2	—	60.0	70.7	81	—
—	(647)	690	81.1	—	59.7	70.5	—	—
—	(638)	680	80.8	—	59.2	70.1	80	—
—	630	670	80.6	—	58.8	69.8	—	—
—	627	667	80.5	—	58.7	69.7	79	—
—	—	677	80.7	—	59.1	70.0	—	—
—	601	640	79.8	—	57.3	68.7	77	—
—	—	640	79.8	—	57.3	68.7	—	—
—	578	615	79.1	—	56.0	67.7	75	—
—	—	607	78.8	—	55.6	67.4	—	—
—	555	591	78.4	—	54.7	66.7	73	2055
—	—	579	78.0	—	54.0	66.1	—	2015
—	534	569	77.8	—	53.5	65.8	71	1985
—	—	533	77.1	—	52.5	65.0	—	1915
—	514	547	76.9	—	52.1	64.7	70	1890
(495)	—	539	76.7	—	51.6	64.3	—	1855
—	—	530	76.4	—	51.1	63.9	—	1825
	495	528	76.3	—	51.0	63.8	68	1820
(477)	—	516	75.9	—	50.3	63.2	—	1780
—	—	508	75.6	—	49.6	62.7	—	1740
	477	508	75.6	—	49.6	62.7	66	1740
(461)	—	495	75.1	—	48.8	61.9	—	1680
—	—	491	74.9	—	48.5	61.7	—	1670
	461	491	74.9	—	48.5	61.7	65	1670
444	—	474	74.3	—	47.2	61.0	—	1595
—	—	472	74.2	—	47.1	60.8	—	1585
—	444	472	74.2	—	47.1	60.8	63	1585

Brinell Härte (**HB**) 10mm Kugel, Last: 3000kgf		Vickers Härte (**HV**)	Rockwell Härte (3)				Shore Härte (**HS**)	Streckgrenze (ca.)
Standard Kugel	Hartmetallkugel		A Skala, Last: 60kgf Diamant Diamantkegel (**HRA**)	B Skala, Last: 100kgf 1/16" Kugel (**HRB**)	C Skala, Last: 150kgf Diamant Diamantkegel (**HRC**)	D Skala, Last: 100kgf Diamant Diamantkegel (**HRD**)		MPa (2)
429	429	455	73.4	—	45.7	59.7	61	1510
415	415	440	72.8	—	44.5	58.8	59	1460
401	401	425	72.0	—	43.1	57.8	58	1390
388	388	410	71.4	—	41.8	56.8	56	1330
375	375	396	70.6	—	40.4	55.7	54	1270
363	363	383	70.0	—	39.1	54.6	52	1220
352	352	372	69.3	(110.0)	37.9	53.8	51	1180
341	341	360	68.7	(109.0)	36.6	52.8	50	1130
331	331	350	68.1	(108.5)	35.5	51.9	48	1095
321	321	339	67.5	(108.0)	34.3	51.0	47	1060
311	311	328	66.9	(107.5)	33.1	50.0	46	1025
302	302	319	66.3	(107.0)	32.1	49.3	45	1005
293	293	309	65.7	(106.0)	30.9	48.3	43	970
285	285	301	65.3	(105.5)	29.9	47.6	—	950
277	277	292	64.6	(104.5)	28.8	46.7	41	925
269	269	284	64.1	(104.0)	27.6	45.9	40	895
262	262	276	63.6	(103.0)	26.6	45.0	39	875
255	255	269	63.0	(102.0)	25.4	44.2	38	850
248	248	261	62.5	(101.0)	24.2	43.2	37	825
241	241	253	61.8	100	22.8	42.0	36	800
235	235	247	61.4	99.0	21.7	41.4	35	785
229	229	241	60.8	98.2	20.5	40.5	34	765
223	223	234	—	97.3	(18.8)	—	—	—
217	217	228	—	96.4	(17.5)	—	33	725
212	212	222	—	95.5	(16.0)	—	—	705
207	207	218	—	94.6	(15.2)	—	32	690
201	201	212	—	93.8	(13.8)	—	31	675
197	197	207	—	92.8	(12.7)	—	30	655
192	192	202	—	91.9	(11.5)	—	29	640
187	187	196	—	90.7	(10.0)	—	—	620
183	183	192	—	90.0	(9.0)	—	28	615
179	179	188	—	89.0	(8.0)	—	27	600
174	174	182	—	87.8	(6.4)	—	—	585
170	170	178	—	86.8	(5.4)	—	26	570
167	167	175	—	86.0	(4.4)	—	—	560
163	163	171	—	85.0	(3.3)	—	25	545
156	156	163	—	82.9	(0.9)	—	—	525
149	149	156	—	80.8	—	—	23	505
143	143	150	—	78.7	—	—	22	490
137	137	143	—	76.4	—	—	21	460
131	131	137	—	74.0	—	—	—	450
126	126	132	—	72.0	—	—	20	435
121	121	127	—	69.8	—	—	19	415
116	116	122	—	67.6	—	—	18	400
111	111	117	—	65.7	—	—	15	385

(Bemerkung 1) Die obige Tabelle ist vergleichbar mit den Angaben aus dem AMS Metallhandbuch mit genäherten Werten für Streckgrenze und Brinellhärte über einer empfohlenen Strecke.
(Bemerkung 2) 1MPa=1N/mm^2
(Bemerkung 3) Werte in Klammern werden selten benutzt und stehen nur als Ergänzung in der Tabelle.
Diese Tabelle ist aus dem JIS Handbuch für Stahl entnommen.

TOLERANZANGABEN FÜR INNENDURCHMESSER (BOHRUNG)

Klassifizierung der Standard Abmessungen (mm)		Baureihe des geometrischen Toleranzbereiches der Löcher															
>	≤	B10	C9	C10	D8	D9	D10	E7	E8	E9	F6	F7	F8	G6	G7	H6	H7
—	3	+180 +140	+85 +60	+100 +60	+34 +20	+45 +20	+60 +20	+24 +14	+28 +14	+39 +14	+12 +6	+16 +6	+20 +6	+8 +2	+12 +2	+6 0	+10 0
3	6	+188 +140	+100 +70	+118 +70	+48 +30	+60 +30	+78 +30	+32 +20	+38 +20	+50 +20	+18 +10	+22 +10	+28 +10	+12 +4	+16 +4	+8 0	+12 0
6	10	+208 +150	+116 +80	+138 +80	+62 +40	+76 +40	+98 +40	+40 +25	+47 +25	+61 +25	+22 +13	+28 +13	+35 +13	+14 +5	+20 +5	+9 0	+15 0
10	14	+220 +150	+138 +95	+165 +95	+77 +50	+93 +50	+120 +50	+50 +32	+59 +32	+75 +32	+27 +16	+34 +16	+43 +16	+17 +6	+24 +6	+11 0	+18 0
14	18																
18	24	+244 +160	+162 +110	+194 +110	+98 +65	+117 +65	+149 +65	+61 +40	+73 +40	+92 +40	+33 +20	+41 +20	+53 +20	+20 +7	+28 +7	+13 0	+21 0
24	30																
30	40	+270 +170	+182 +120	+220 +120	+119	+142	+180	+75	+89	+112	+41	+50	+64	+25	+34	+16	+25
40	50	+280 +180	+192 +130	+230 +130	+80	+80	+80	+50	+50	+50	+25	+25	+25	+9	+9	0	0
50	65	+310 +190	+214 +140	+260 +140	+146	+174	+220	+90	+106	+134	+49	+60	+76	+29	+40	+19	+30
65	80	+320 +200	+224 +150	+270 +150	+100	+100	+100	+60	+60	+60	+30	+30	+30	+10	+10	0	0
80	100	+360 +220	+257 +170	+310 +170	+174	+207	+260	+107	+126	+159	+58	+71	+90	+34	+47	+22	+35
100	120	+380 +240	+267 +180	+320 +180	+120	+120	+120	+72	+72	+72	+36	+36	+36	+12	+12	0	0
120	140	+420 +260	+300 +200	+360 +200													
140	160	+440 +280	+310 +210	+370 +210	+208 +145	+245 +145	+305 +145	+125 +85	+148 +85	+185 +85	+68 +43	+83 +43	+106 +43	+39 +14	+54 +14	+25 0	+40 0
160	180	+470 +310	+330 +230	+390 +230													
180	200	+525 +340	+355 +240	+425 +240													
200	225	+565 +380	+375 +260	+445 +260	+242 +170	+285 +170	+355 +170	+146 +100	+172 +100	+215 +100	+79 +50	+96 +50	+122 +50	+44 +15	+61 +15	+29 0	+46 0
225	250	+605 +420	+395 +280	+465 +280													
250	280	+690 +480	+430 +300	+510 +300	+271	+320	+400	+162	+191	+240	+88	+108	+137	+49	+69	+32	+52
280	315	+750 +540	+460 +330	+540 +330	+190	+190	+190	+110	+110	+110	+56	+56	+56	+17	+17	0	0
315	355	+830 +600	+500 +360	+590 +360	+299	+350	+440	+182	+214	+265	+98	+119	+151	+54	+75	+36	+57
355	400	+910 +680	+540 +400	+630 +400	+210	+210	+210	+125	+125	+125	+62	+62	+62	+18	+18	0	0
400	450	+1010 +760	+595 +440	+690 +440	+327	+385	+480	+198	+232	+290	+108	+131	+165	+60	+83	+40	+63
450	500	+1090 +840	+635 +480	+730 +480	+230	+230	+230	+135	+135	+135	+68	+68	+68	+20	+20	0	0

(Bemerkung) Aufgezeigte Werte im oberen Teil der jeweiligen Linien weisen überdimensionale Toleranzen auf, während die Werte in dem unteren Teil niedrige Toleranzangaben aufweisen.

Maßeinheit : μm

Baureihe des geometrischen Toleranzbereiches der Löcher

H8	H9	H10	JS6	JS7	K6	K7	M6	M7	N6	N7	P6	P7	R7	S7	T7	U7	X7
+14 0	+25 0	+40 0	±3	±5	0 −6	0 −10	−2 −8	−2 −12	−4 −10	−4 −14	−6 −12	−6 −16	−10 −20	−14 −24	–	−18 −28	−20 −30
+18 0	+30 0	+48 0	±4	±6	+2 −6	+3 −9	−1 −9	0 −12	−5 −13	−4 −16	−9 −17	−8 −20	−11 −23	−15 −27	–	−19 −31	−24 −36
+22 0	+36 0	+58 0	±4.5	±7	+2 −7	+5 −10	−3 −12	0 −15	−7 −16	−4 −19	−12 −21	−9 −24	−13 −28	−17 −32	–	−22 −37	−28 −43
+27 0	+43 0	+70 0	±5.5	±9	+2 −9	+6 −12	−4 −15	0 −18	−9 −20	−5 −23	−15 −26	−11 −29	−16 −34	−21 −39	– –	−26 −44	−33 −51 −38 −56
+33 0	+52 0	+84 0	±6.5	±10	+2 −11	+6 −15	−4 −17	0 −21	−11 −24	−7 −28	−18 −31	−14 −35	−20 −41	−27 −48	– −33 −54	−33 −54 −40 −61	−46 −67 −56 −77
+39 0	+62 0	+100 0	±8	±12	+3 −13	+7 −18	−4 −20	0 −25	−12 −28	−8 −33	−21 −37	−17 −42	−25 −50	−34 −59	−39 −64 −45 −70	−51 −76 −61 −86	–
+46 0	+74 0	+120 0	±9.5	±15	+4 −15	+9 −21	−5 −24	0 −30	−14 −33	−9 −39	−26 −45	−21 −51	−30 −60 −32 −62	−42 −72 −48 −78	−55 −85 −64 −94	−76 −106 −91 −121	–
+54 0	+87 0	+140 0	±11	±17	+4 −18	+10 −25	−6 −28	0 −35	−16 −38	−10 −45	−30 −52	−24 −59	−38 −73 −41 −76	−58 −93 −66 −101	−78 −113 −91 −126	−111 −146 −131 −166	–
+63 0	+100 0	+160 0	±12.5	±20	+4 −21	+12 −28	−8 −33	0 −40	−20 −45	−12 −52	−36 −61	−28 −68	−48 −88 −50 −90 −53 −93	−77 −117 −85 −125 −93 −133	−107 −147 −119 −159 −131 −171	–	–
+72 0	+115 0	+185 0	±14.5	±23	+5 −24	+13 −33	−8 −37	0 −46	−22 −51	−14 −60	−41 −70	−33 −79	−60 −106 −63 −109 −67 −113	−105 −151 −113 −159 −123 −169	–	–	–
+81 0	+130 0	+210 0	±16	±26	+5 −27	+16 −36	−9 −41	0 −52	−25 −57	−14 −66	−47 −79	−36 −88	−74 −126 −78 −130	–	–	–	–
+89 0	+140 0	+230 0	±18	±28	+7 −29	+17 −40	−10 −46	0 −57	−26 −62	−16 −73	−51 −87	−41 −98	−87 −144 −93 −150	–	–	–	–
+97 0	+155 0	+250 0	±20	±31	+8 −32	+18 −45	−10 −50	0 −63	−27 −67	−17 −80	−55 −95	−45 −108	−103 −166 −109 −172	–	–	–	–

TECHNISCHE DATEN

ISO-PASSUNGEN EINHEITSWELLE

Klassifizierung der Standard Abmessungen (mm)		Baureihe des geometrischen Toleranzbereiches der Schäfte													
>	≤	b9	c9	d8	d9	e7	e8	e9	f6	f7	f8	g5	g6	h5	h6	h7
—	3	−140 −165	−60 −85	−20 −34	−20 −45	−14 −24	−14 −28	−14 −39	−6 −12	−6 −16	−6 −20	−2 −6	−2 −8	0 −4	0 −6	0 −10
3	6	−140 −170	−70 −100	−30 −48	−30 −60	−20 −32	−20 −38	−20 −50	−10 −18	−10 −22	−10 −28	−4 −9	−4 −12	0 −5	0 −8	0 −12
6	10	−150 −186	−80 −116	−40 −62	−40 −76	−25 −40	−25 −47	−25 −61	−13 −22	−13 −28	−13 −35	−5 −11	−5 −14	0 −6	0 −9	0 −15
10	14	−150 −193	−95 −138	−50 −77	−50 −93	−32 −50	−32 −59	−32 −75	−16 −27	−16 −34	−16 −43	−6 −14	−6 −17	0 −8	0 −11	0 −18
14	18															
18	24	−160 −212	−110 −162	−65 −98	−65 −117	−40 −61	−40 −73	−40 −92	−20 −33	−20 −41	−20 −53	−7 −16	−7 −20	0 −9	0 −13	0 −21
24	30															
30	40	−170 −232	−120 −182	−80 −119	−80 −142	−50 −75	−50 −89	−50 −112	−25 −41	−25 −50	−25 −64	−9 −20	−9 −25	0 −11	0 −16	0 −25
40	50	−180 −242	−130 −192													
50	65	−190 −264	−140 −214	−100 −146	−100 −174	−60 −90	−60 −106	−60 −134	−30 −49	−30 −60	−30 −76	−10 −23	−10 −29	0 −13	0 −19	0 −30
65	80	−200 −274	−150 −224													
80	100	−220 −307	−170 −257	−120 −174	−120 −207	−72 −107	−72 −126	−72 −159	−36 −58	−36 −71	−36 −90	−12 −27	−12 −34	0 −15	0 −22	0 −35
100	120	−240 −327	−180 −267													
120	140	−260 −360	−200 −300	−145 −208	−145 −245	−85 −125	−85 −148	−85 −185	−43 −68	−43 −83	−43 −106	−14 −32	−14 −39	0 −18	0 −25	0 −40
140	160	−280 −380	−210 −310													
160	180	−310 −410	−230 −330													
180	200	−340 −455	−240 −355	−170 −242	−170 −285	−100 −146	−100 −172	−100 −215	−50 −79	−50 −96	−50 −122	−15 −35	−15 −44	0 −20	0 −29	0 −46
200	225	−380 −495	−260 −375													
225	250	−420 −535	−280 −395													
250	280	−480 −610	−300 −430	−190 −271	−190 −320	−110 −162	−110 −191	−110 −240	−56 −88	−56 −108	−56 −137	−17 −40	−17 −49	0 −23	0 −32	0 −52
280	315	−540 −670	−330 −460													
315	355	−600 −740	−360 −500	−210 −299	−210 −350	−125 −182	−125 −214	−125 −265	−62 −98	−62 −119	−62 −151	−18 −43	−18 −54	0 −25	0 −36	0 −57
355	400	−680 −820	−400 −540													
400	450	−760 −915	−440 −595	−230 −327	−230 −385	−135 −198	−135 −232	−135 −290	−68 −108	−68 −131	−68 −165	−20 −47	−20 −60	0 −27	0 −40	0 −63
450	500	−840 −995	−480 −635													

(Bemerkung) Aufgezeigte Werte im oberen Teil der jeweiligen Linien weisen überdimensionale Toleranzen auf, während die Werte in dem unteren Teil niedrige Toleranzangaben aufweisen.

Maßeinheit : μm

Baureihe des geometrischen Toleranzbereiches der Schäfte

h8	h9	js5	js6	js7	k5	k6	m5	m6	n6	p6	r6	s6	t6	u6	x6
0 − 14	0 − 25	±2	±3	±5	+4 0	+6 0	+6 +2	+8 +2	+10 +4	+12 +6	+16 +10	+20 +14	—	+24 +18	+26 +20
0 − 18	0 − 30	±2.5	±4	±6	+6 +1	+9 +1	+9 +4	+12 +4	+16 +8	+20 +12	+23 +15	+27 +19	—	+31 +23	+36 +28
0 − 22	0 − 36	±3	±4.5	±7	+7 +1	+10 +1	+12 +6	+15 +6	+19 +10	+24 +15	+28 +19	+32 +23	—	+37 +28	+43 +34
0 − 27	0 − 43	±4	±5.5	±9	+9 +1	+12 +1	+15 +7	+18 +7	+23 +12	+29 +18	+34 +23	+39 +28	—	+44 +33	+51 +40 +56 +45
0 − 33	0 − 52	±4.5	±6.5	±10	+11 +2	+15 +2	+17 +8	+21 +8	+28 +15	+35 +22	+41 +28	+48 +35	— +54 +41	+54 +41 +61 +48	+67 +54 +77 +64
0 − 39	0 − 62	±5.5	±8	±12	+13 +2	+18 +2	+20 +9	+25 +9	+33 +17	+42 +26	+50 +34	+59 +43	+64 +48 +70 +54	+76 +60 +86 +70	—
0 − 46	0 − 74	±6.5	±9.5	±15	+15 +2	+21 +2	+24 +11	+30 +11	+39 +20	+51 +32	+60 +41 +62 +43	+72 +53 +78 +59	+85 +66 +94 +75	+106 +87 +121 +102	—
0 − 54	0 − 87	±7.5	±11	±17	+18 +3	+25 +3	+28 +13	+35 +13	+45 +23	+59 +37	+73 +51 +76 +54	+93 +71 +101 +79	+113 +91 +126 +104	+146 +124 +166 +144	—
0 − 63	0 − 100	±9	±12.5	±20	+21 +3	+28 +3	+33 +15	+40 +15	+52 +27	+68 +43	+88 +63 +90 +65 +93 +68	+117 +92 +125 +100 +133 +108	+147 +122 +159 +134 +171 +146	—	—
0 − 72	0 − 115	±10	±14.5	±23	+24 +4	+33 +4	+37 +17	+46 +17	+60 +31	+79 +50	+106 +77 +109 +80 +113 +84	+151 +122 +159 +130 +169 +140	—	—	—
0 − 81	0 − 130	±11.5	±16	±26	+27 +4	+36 +4	+43 +20	+52 +20	+66 +34	+88 +56	+126 +94 +130 +98	—	—	—	—
0 − 89	0 − 140	±12.5	±18	±28	+29 +4	+40 +4	+46 +21	+57 +21	+73 +37	+98 +62	+144 +108 +150 +114	—	—	—	—
0 − 97	0 − 155	±13.5	±20	±31	+32 +5	+45 +5	+50 +23	+63 +23	+80 +40	+108 +68	+166 +126 +172 +132	—	—	—	—

TECHNISCHE DATEN

BOHRDURCHMESSER FÜR VORBEREITETE LÖCHER

●Metrische Gewindekernlöcher

Nominal	Bohrerdurchmesser	
	HSS	Hartmetall
M1 ×0.25	0.75	0.75
M1.1×0.25	0.85	0.85
M1.2×0.25	0.95	0.95
M1.4×0.3	1.10	1.10
M1.6×0.35	1.25	1.30
M1.7×0.35	1.35	1.40
M1.8×0.35	1.45	1.50
M2 ×0.4	1.60	1.65
M2.2×0.45	1.75	1.80
M2.3×0.4	1.90	1.95
M2.5×0.45	2.10	2.15
M2.6×0.45	2.15	2.20
M3 ×0.5	2.50	2.55
M3.5×0.6	2.90	2.95
M4 ×0.7	3.3	3.4
M4.5×0.75	3.8	3.9
M5 ×0.8	4.2	4.3
M6 ×1.0	5.0	5.1
M7 ×1.0	6.0	6.1
M8 ×1.25	6.8	6.9
M9 ×1.25	7.8	7.9
M10 ×1.5	8.5	8.7
M11 ×1.5	9.5	9.7
M12 ×1.75	10.3	10.5
M14 ×2.0	12.0	12.2
M16 ×2.0	14.0	14.2
M18 ×2.5	15.5	15.7
M20 ×2.5	17.5	17.7
M22 ×2.5	19.5	19.7
M24 ×3.0	21.0	—
M27 ×3.0	24.0	—
M30 ×3.5	26.5	—
M33 ×3.5	29.5	—
M36 ×4.0	32.0	—
M39 ×4.0	35.0	—
M42 ×4.5	37.5	—
M45 ×4.5	40.5	—
M48 ×5.0	43.0	—

●Metrisches Feingewinde

Nominal	Bohrerdurchmesser	
	HSS	Hartmetall
M1 ×0.2	0.80	0.80
M1.1×0.2	0.90	0.90
M1.2×0.2	1.00	1.00
M1.4×0.2	1.20	1.20
M1.6×0.2	1.40	1.40
M1.8×0.2	1.60	1.60
M2 ×0.25	1.75	1.75
M2.2×0.25	1.95	2.00
M2.5×0.35	2.20	2.20
M3 ×0.35	2.70	2.70
M3.5×0.35	3.20	3.20
M4 ×0.5	3.50	3.55
M4.5×0.5	4.00	4.05
M5 ×0.5	4.50	4.55
M5.5×0.5	5.00	5.05
M6 ×0.75	5.30	5.35
M7 ×0.75	6.30	6.35
M8 ×1.0	7.00	7.10
M8 ×0.75	7.30	7.35
M9 ×1.0	8.00	8.10
M9 ×0.75	8.30	8.35
M10 ×1.25	8.80	8.90
M10 ×1.0	9.00	9.10
M10 ×0.75	9.30	9.35
M11 ×1.0	10.0	10.1
M11 ×0.75	10.3	10.3
M12 ×1.5	10.5	10.7
M12 ×1.25	10.8	10.9
M12 ×1.0	11.0	11.1
M14 ×1.5	12.5	12.7
M14 ×1.0	13.0	13.1
M15 ×1.5	13.5	13.7
M15 ×1.0	14.0	14.1
M16 ×1.5	14.5	14.7
M16 ×1.0	15.0	15.1
M17 ×1.5	15.5	15.7
M17 ×1.0	16.0	16.1
M18 ×2.0	16.0	16.3
M18 ×1.5	16.5	16.7
M18 ×1.0	17.0	17.1

Nominal	Bohrerdurchmesser	
	HSS	Hartmetall
M20 ×2.0	18.0	18.3
M20 ×1.5	18.5	18.7
M20 ×1.0	19.0	19.1
M22 ×2.0	20.0	—
M22 ×1.5	20.5	—
M22 ×1.0	21.0	—
M24 ×2.0	22.0	—
M24 ×1.5	22.5	—
M24 ×1.0	23.0	—
M25 ×2.0	23.0	—
M25 ×1.5	23.5	—
M25 ×1.0	24.0	—
M26 ×1.5	24.5	—
M27 ×2.0	25.0	—
M27 ×1.5	25.5	—
M27 ×1.0	26.0	—
M28 ×2.0	26.0	—
M28 ×1.5	26.5	—
M28 ×1.0	27.0	—
M30 ×3.0	27.0	—
M30 ×2.0	28.0	—
M30 ×1.5	28.5	—
M30 ×1.0	29.0	—
M32 ×2.0	30.0	—
M32 ×1.5	30.5	—
M33 ×3.0	30.0	—
M33 ×2.0	31.0	—
M33 ×1.5	31.5	—
M35 ×1.5	33.5	—
M36 ×3.0	33.0	—
M36 ×2.0	34.0	—
M36 ×1.5	34.5	—
M38 ×1.5	36.5	—
M39 ×3.0	36.0	—
M39 ×2.0	37.0	—
M39 ×1.5	37.5	—
M40 ×3.0	37.0	—
M40 ×2.0	38.0	—
M40 ×1.5	38.5	—
M42 ×4.0	38.0	—

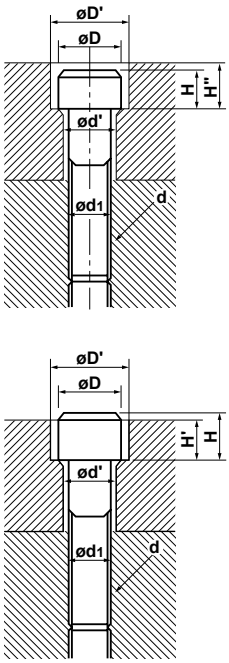
Nominal	Bohrerdurchmesser	
	HSS	Hartmetall
M42 ×3.0	39.0	—
M42 ×2.0	40.0	—
M42 ×1.5	40.5	—
M45 ×4.0	41.0	—
M45 ×3.0	42.0	—
M45 ×2.0	43.0	—
M45 ×1.5	43.5	—
M48 ×4.0	44.0	—
M48 ×3.0	45.0	—
M48 ×2.0	46.0	—
M48 ×1.5	46.5	—
M50 ×3.0	47.0	—
M50 ×2.0	48.0	—
M50 ×1.5	48.5	—

HEXYGON ZYLINDERSCHRAUBE

HEXAGONALE LOCHABMESSUNGEN FÜR KLEMMSCHRAUBEN usw.

Maß. : mm

Nominale Gewindeabmessung d	M3	M4	M5	M6	M8	M10	M12	M14	M16	M18	M20	M22	M24	M27	M30
d_1	3	4	5	6	8	10	12	14	16	18	20	22	24	27	30
d'	3.4	4.5	5.5	6.6	9	11	14	16	18	20	22	24	26	30	33
D	5.5	7	8.5	10	13	16	18	21	24	27	30	33	36	40	45
D'	6.5	8	9.5	11	14	17.5	20	23	26	29	32	35	39	43	48
H	3	4	5	6	8	10	12	14	16	18	20	22	24	27	30
H'	2.7	3.6	4.6	5.5	7.4	9.2	11	12.8	14.5	16.5	18.5	20.5	22.5	25	28
H"	3.3	4.4	5.4	6.5	8.6	10.8	13	15.2	17.5	19.5	21.5	23.5	25.5	29	32



TECHNISCHE DATEN

INTERNATIONAL EINHEITLICHES SYSTEM

EINHEITLICHE UMRECHNUNGSTABELLE ZUR VEREINFACHUNG DER WANDLUNG IN SI - EINHEITEN (Fettschrift zeigt die SI Einheiten)

Druck

Pa	**kPa**	**MPa**	bar	kgf/cm^2	atm	mmH$_2$O	mmHg / Torr
1	1×10^{-3}	1×10^{-6}	1×10^{-5}	1.01972×10^{-5}	9.86923×10^{-6}	1.01972×10^{-1}	7.50062×10^{-3}
1×10^{3}	1	1×10^{-3}	1×10^{-2}	1.01972×10^{-2}	9.86923×10^{-3}	1.01972×10^{2}	7.50062
1×10^{6}	1×10^{3}	1	1×10	1.01972×10	9.86923	1.01972×10^{5}	7.50062×10^{3}
1×10^{5}	1×10^{2}	1×10^{-1}	1	1.01972	9.86923×10^{-1}	1.01972×10^{4}	7.50062×10^{2}
9.80665×10^{4}	9.80665×10	9.80665×10^{-2}	9.80665×10^{-1}	1	9.67841×10^{-1}	1×10^{4}	7.35559×10^{2}
1.01325×10^{5}	1.01325×10^{2}	1.01325×10^{-1}	1.01325	1.03323	1	1.03323×10^{4}	7.60000×10^{2}
9.80665	9.80665×10^{-3}	9.80665×10^{-6}	9.80665×10^{-5}	1×10^{-4}	9.67841×10^{-5}	1	7.35559×10^{-2}
1.33322×10^{2}	1.33322×10^{-1}	1.33322×10^{-4}	1.33322×10^{-3}	1.35951×10^{-3}	1.31579×10^{-3}	1.35951×10	1

(Bemerkung) 1Pa=1N/m^2

Kraft

N	dyn	kgf
1	1×10^{5}	1.01972×10^{-1}
1×10^{-5}	1	1.01972×10^{-6}
9.80665	9.80665×10^{5}	1

Beanspruchung

Pa	**MPa** oder **N/mm^2**	kgf/mm^2	kgf/cm^2
1	1×10^{-6}	1.01972×10^{-7}	1.01972×10^{-5}
1×10^{6}	1	1.01972×10^{-1}	1.01972×10
9.80665×10^{6}	9.80665	1	1×10^{2}
9.80665×10^{4}	9.80665×10^{-2}	1×10^{-2}	1

(Bemerkung) 1Pa=1N/m^2

Arbeit / Energie / Hitzeleistung

J	kW•h	kgf•m	kcal
1	2.77778×10^{-7}	1.01972×10^{-1}	2.38889×10^{-4}
3.600×10^{6}	1	3.67098×10^{5}	8.6000×10^{2}
9.80665	2.72407×10^{-6}	1	2.34270×10^{-3}
4.18605×10^{3}	1.16279×10^{-3}	4.26858×10^{2}	1

(Bemerkung) 1J=1W•s, 1J=1N•m
1cal=4.18605J
(Nach geltendem Recht über Gewichte und Maße)

Produktionsanteil / Antriebskraft / Hitzedurchflussverhältnis

W	kgf•m/s	PS	kcal/h
1	1.01972×10^{-1}	1.35962×10^{-3}	8.6000×10^{-1}
9.80665	1	1.33333×10^{-2}	8.43371
7.355×10^{2}	7.5×10	1	6.32529×10^{2}
1.16279	1.18572×10^{-1}	1.58095×10^{-3}	1

(Bemerkung) 1W=1J/s, PS:Pferdestärke
1PS=0.7355kW
1cal=4.18605J
(Nach geltendem Recht über Gewichte und Maße)

INHALTSVERZEICHNIS

INHALTSVERZEICHNIS
FÜR WERKZEUGBEZEICHNUNG

A 2
B 2
C 2
D 2
E 2
F 2
G 2
H 2
J 2
K 2
L 2
M 3
N 3
P 3
R 3
S 3
T 4
U 4
V 4
W 4

INHALTSVERZEICHNIS FÜR WERKZEUGBEZEICHNUNG

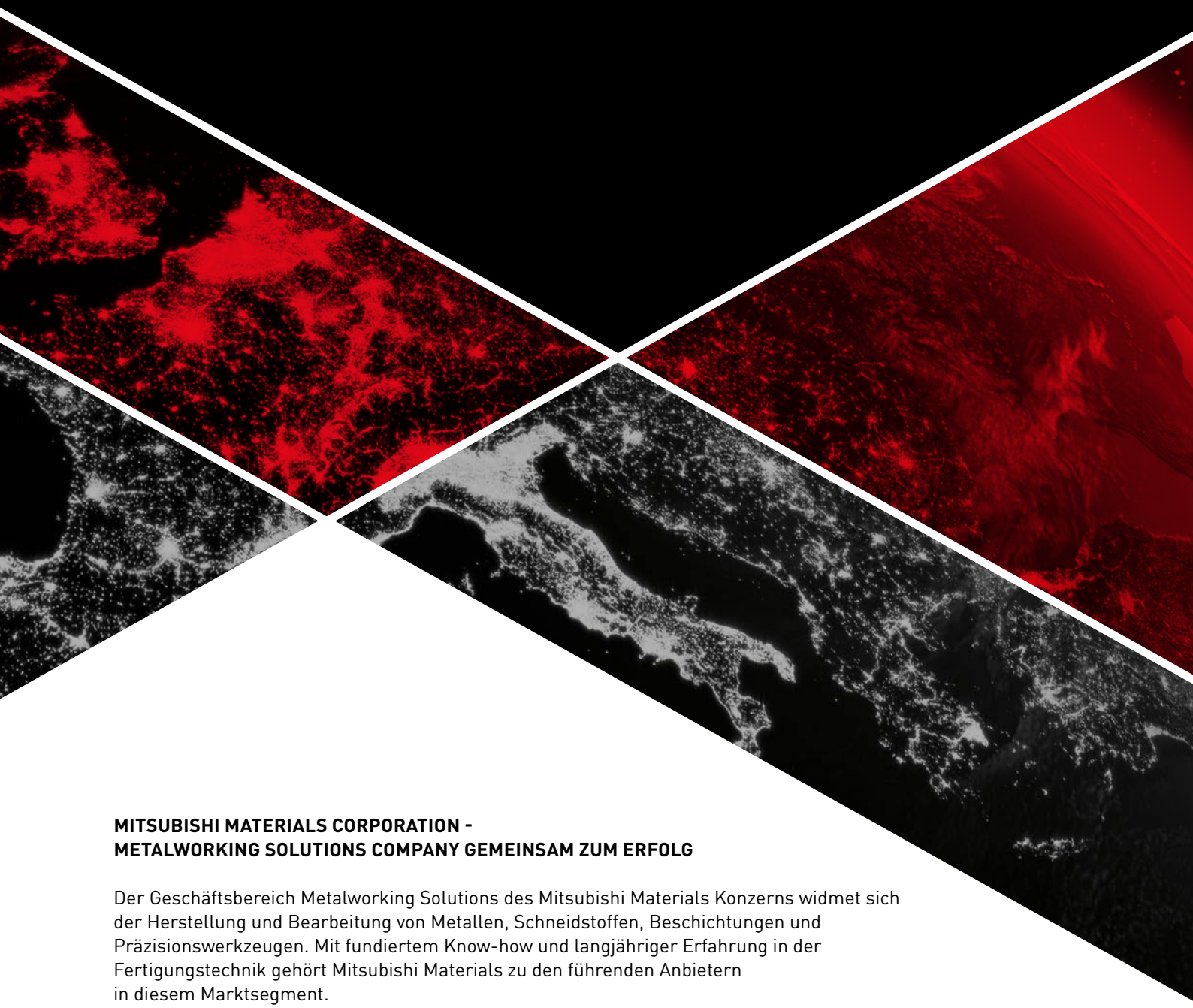
Bestellbezeichnung	PRODUKTNAME	Seite
A		
AJS○○○○T○○	Spannschraube	M003
AMS○	Spannpratze	M014
B		
BCP○○○	Befestigungsfeder	M013
BOES101	Schrauben	M009
BPT322	Unterlegplatte	M010
BRS○○○	Spannschraube	M003
C		
CA○○○	Spannpratze	M014
CAS51T	Schrauben	M003
CBS○	Spanbrecher	M016
CBS○○	Spanbrecher	M016
CBT○	Spanbrecher	M016
CBT○○	Spanbrecher	M016
CBT○○○○	Spanbrecher	M016
CCK○○	Spannpratze	M014
CCP○○	Befestigungsfeder	M013
CCTC1	Spannpratze	M014
CK○○○	Spannpratze	M014
CKW6	Spannpratze	M015
CSF401260T	Spannschraube	M003
CS○○	Unterlegplatte	M010
CS○○○○○○T	Spannschraube	M003
CS○○○○○○TS	Spannschraube	M003
CS○○○T	Spannschraube	M003
CT32T1	Unterlegplatte	M011
CT○○	Unterlegplatte	M010
D		
DCK○○○○	Spannpratze	M015
DC○○○○T	Spannschraube	M003
DCSVN32	Unterlegplatte	M010
DKS○	Spannschraube	M003
E		
EGS○○○○○	Spannschraube	M004
ESS42	Unterlegplatte	M010
EST○○	Unterlegplatte	M010
F		
FC400890T	Spannschraube	M004
G		
GCMT040204-U○	WSP (Für TAF Bohrer)	L168
GPMT○○○○○○-U○	WSP (Für TAF Bohrer)	L168
GY05016S	Spannschraube	M004
GY06013M	Spannschraube	M004
H		
HBHA○○○○○	Spannschraube	M002
HBH○○○○○	Spannschraube	M002
HDS○○○○○	Spannschraube	M009
HFF06015	Spannschraube	M004
HFF08043H	Spannschraube	M009
HKY○○D	Schlüssel	M002
HKY○○F	Schlüssel	M002
HKY○○L	L-Schlüssel	M002
HKY○○R	L-Schlüssel	M002
HKY○○T	T-Schlüssel	M002
HKY○○W	Schlüssel	M002
HSC○○○○○	Spannschraube	M002,M009
HSC○○○○○H	Schrauben	M009
HSCX○○○○○H	Schrauben	M009
HS○○	Spannschraube	M004
HSP05008C	Verriegelungsschraube	M004
HSS○○○○○	Spannschraube	M002
HY-A1	Schraube	M004
HY○	Schraube	M004
HY-V1	Schraube	M004
J		
JFS-○	JUST FIT SLEEVE - SET Bezeichnung	L170
JFS○○○○-○○	JFS VERSTELLHÜLSE	L170
JSS○	Schraube	M004
K		
KGC1	Spannpratze	M015
KSN○	Spannschraube	M008
KS○	Axial Schraube	M004
KS○○	Schrauben	M004
KS○S	Schrauben	M004
KSS○	Spannschraube	M008
L		
LK1	Spannpratze	M015
LLCL○○○	Kniehebel	M013
LLCL○○S	Kniehebel	M013
LLCS○○○	Spannschraube	M005
LLCS○○○S	Spannschraube	M005
LLP○○	Befestigungsfeder	M013
LLR○	Radial Schraube	M004
LLSCN○○	Unterlegplatte	M010
LLSCN○T○	Unterlegplatte	M010
LLSCP○○	Unterlegplatte	M010
LLSDN○○	Unterlegplatte	M010
LLSDP42	Unterlegplatte	M010

Bestellbezeichnung	PRODUKTNAME	Seite
LLSRN○○○	Unterlegplatte	M010
LLSSN○○	Unterlegplatte	M010
LLSSP42	Unterlegplatte	M010
LLSTE32	Unterlegplatte	M011
LLSTN○○	Unterlegplatte	M011
LLSTP○○	Unterlegplatte	M011
LLSWN○○○	Unterlegplatte	M011
LLSWN○T○	Unterlegplatte	M011
LLSWP○○	Unterlegplatte	M011
LS10TS	Spannschraube	M005
LS24H	Spannschraube	M005
LS○	Spannschraube	M005
LS○○	Spannschraube	M005
LS○○○○T	Spannschraube	M005
LS○○T	Spannschraube	M005
M		
MAE○○○○MB	MAE Bohrer (Externe Kühlung)	L100─L104
MAS○○○○LB/MB	MAS Bohrer (Interne Kühlung)	L100─L104
MBA○○○○○H	Spannschraube	M009
MCA	MCA Bohrer	L201
MCAH	MCAH Bohrer	L205
MCC	MCC Bohrer	L200
MCCH	MCCH Bohrer	L204
MCT	MCT Bohrer	L202
MCW	MCW Bohrer	L203
MFE	MFE Bohrer	L014
MGS6	Spannschraube	M005
MGS○○○○L○○○B	MGS Bohrer	L059
MHK5NR/L	Spannpratze	M015
MHS○○○○L○○○B	MHS Bohrer	L106─L113
MHS○○○R/L	Unterlegplatte	M011
MHT1	Spannschraube	M005
MK1K	Kupferpasten	M017
MK1KS	Kupferpasten	M017
MLCP42	Unterlegplatte	M011
MLDP42	Unterlegplatte	M011
MLSP42	Unterlegplatte	M011
MLTP32	Unterlegplatte	M011
MMS○○○○S/L-DIN	MMS Bohrer	L062─L073
MMS○○○○S/L-DIN-C	MMS Bohrer	L062─L073
MMS○○○○X○DB	MMS Bohrer	L062─L073
MNS○○○○LB/X○○DB	MNS Bohrer	L076─L093
MNS○○○○-L○○C	MNS Bohrer	L076─L093
MNS○○○○S/L-DIN	MNS DIN6537 (Schaft mit Whistle Notch)	L076─L095
MNS○○○○S/L-DIN-C	MNS DIN6537 (Zylind. Schaft)	L076─L095
MP6	Befestigungsfeder	M013
MPS1-○○○○-L8C	MPS1 Bohrer	L024─L038
MPS1-○○○○S/L-DIN	MPS1 DIN6537 (Schaft mit Whistle Notch)	L024─L038
MPS1-○○○○S/L-DIN-C	MPS1 DIN6537 (Zylind. Schaft)	L024─L038
MPS○○○○-L○○C	MPS Bohrer	L042─L053
MSCN63	Unterlegplatte	M011
MSE○○○○SB	MSE Bohrer	L008,L009
MSL○○○○-L○○C	MSL Bohrer	L054─L056
MSP0300SB	MSP Zentriebohrer	L011
MSSN63	Unterlegplatte	M011
MTK○R/L	Spannpratze	M015
MVS○○○○X○○S○○○	MVS Bohrer	L016,L017
MVX○○○○X○F○○	MVX Bohrer	L152─L158
MWS○○○○SB/LB/XB	MWS Bohrer	L020,L021
N		
NS○○○	Spannschraube	M006
NS○○○W	Spannschraube	M006
P		
P○○○US	Fixierstift	M014
P○○○W	Fixierstift	M014
P○○○WS	Fixierstift	M014
P○○S	Fixierstift	M014
PS○○	Unterlegplatte	M010
PT○○	Unterlegplatte	M010
PT○○T○R	Unterlegplatte	M011
PV○○○	Unterlegplatte	M012
R		
RKY○○S	Schlüssel	M002
RN-S○	Spannschraube	M006
RS○○○○T	Spannschraube	M006
S		
SD○○	Schrauben	M006
SETK○○	Spannpratze	M015
SETS○○	Spannschraube	M006
SLCS○○○	Spannschraube	M006
S○	Spannschraube	M006
SOMX○○○○○○-○○	WSP (Für MVX Bohrer)	L159
SPS1	Lokatorschraube	M006
SPSVN32	Unterlegplatte	M012
SRK1R	Spannpratze	M015
SRS5	Spannschraube	M006
STASX○○○N	Unterlegplatte	M012
STAWK○○○○TG	WSP (Für STAW Bohrer)	L117─L126,L129,L130
STAWN○○○○T	WSP (Für STAW Bohrer)	L122─L126,L128
STAWN○○○○TH	WSP (Für STAW Bohrer)	L117─L122,L127,L128
STAW○N○○○○S○○	STAW Bohrer	L117─L126
STAW○S○○○○S○○	STAW Bohrer	L117─L126

INHALTSVERZEICHNIS FÜR WERKZEUGBEZEICHNUNG

Bestellbezeichnung	PRODUKTNAME	Seite
STBS500N	Unterlegplatte	M012
STS1	Schraube	M006
	T	
TAFL/M/S○○○○F○○	TAF Bohrer	L162─L166
TAFL/M/S○○○○F○○-E	TAF Bohrer	L167
TAWKH○○○○TG	WSP (Für TAW Bohrer)	L133─L145,L148,L149
TAWNH○○○○T	WSP (Für TAW Bohrer)	L133─L147
TAW○N○○○○S○○	TAW Bohrer (Allg. Anwendung)	L133─L145
TIP○○○	Schlüssel	M002
TKY○○D	Schlüssel	M002
TKY○○F	Schlüssel	M002
TKY○○L	Schlüssel (lang)	M002
TKY○○R	L-Schlüssel	M002
TKY○○T	T-Schlüssel	M002
TKY○○W	Schlüssel	M002
TPS○	Spannschraube	M007
TPS○○	Spannschraube	M007
TPS○○○	Spannschraube	M007
TS○	Spannschraube	M007
TS○○	Spannschraube	M007
TS○○○	Spannschraube	M007
TS○○○○	Spannschraube	M007
TSR○○○○○S	Spannschraube	M008
TSS○○○○○	Radial Schraube	M008
TSS○○○○○S	Spannschraube	M008
	U	
UCR	Spannpratze	M015
	V	
VAPDM	VIOLET Bohrer	L178─L180
VAPDMSUS	VIOLET Bohrer	L188─L193
VAPDS	VIOLET Bohrer	L173─L176
VAPDSCB	VIOLET Bohrer	L197,L198
VAPDSSUS	VIOLET Bohrer	L182─L187
VSD	VIOLET Bohrer, Zyl. Schaft	L195,L196
	W	
WCS○○○○○○H	Schraube	M008
WPSTN○○	Unterlegplatte	M012
WPSWC43	Unterlegplatte	M012
WPSWN43	Unterlegplatte	M012
WPT4405	Schlitz-Reiniger (Für TAW Bohrer)	L133─L145
WS○○○○○○T	Spannschraube	M008
WS○○○○○○TPS	Spannschraube	M008

WELTWEIT



MITSUBISHI MATERIALS CORPORATION -
METALWORKING SOLUTIONS COMPANY GEMEINSAM ZUM ERFOLG

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