

Hülsen und Dorne

Sleeves and arbors

Втулки и переходники



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Reduzierhülsen Reducing sleeves

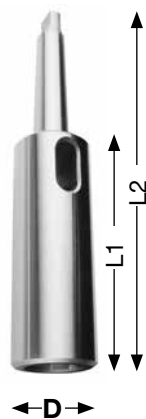
DIN 2185, ganz gehärtet und geschliffen DIN 2185, completely hardened and ground



Außenkegel / External taper	Innenkegel / Internal taper	L mm	ca. g	Art.-Nr. / Order no.
1	0	80	30	01-52-1/0
2	1	92	95	01-52-2/1
3	1	99	190	01-52-3/1
3	2	112	250	01-52-3/2
4	1	124	550	01-52-4/1
4	2	124	480	01-52-4/2
4	3	140	360	01-52-4/3
5	1	156	1700	01-52-5/1
5	2	156	1520	01-52-5/2
5	3	156	1360	01-52-5/3
5	4	171	950	01-52-5/4
6	1	218	4400	01-52-6/1
6	2	218	4300	01-52-6/2
6	3	218	4100	01-52-6/3
6	4	218	3600	01-52-6/4
6	5	218	2550	01-52-6/5

Verlängerungshülsen Extension sleeves

DIN 2187, ganz gehärtet und geschliffen DIN 2187, completely hardened and ground



Außenkegel / External taper	Innenkegel / Internal taper	D mm	L2 mm	L1 mm	ca. g	Art.-Nr. / Order no.
1	1	20	145	83	190	01-65-1/1
1	2	30	160	98	340	01-65-1/2
2	1	20	160	85	250	01-65-2/1
2	2	30	175	100	400	01-65-2/2
2	3	36	196	121	840	01-65-2/3
2	4	48	169	94	1300	01-65-2/4
3	1	20	175	81	400	01-65-3/1
3	2	30	194	100	550	01-65-3/2
3	3	36	215	121	1000	01-65-3/3
3	4	48	240	146	1500	01-65-3/4
4	1	20	200	82,5	800	01-65-4/1
4	2	30	215	97,5	850	01-65-4/2
4	3	36	240	122,5	1300	01-65-4/3
4	4	48	265	147,5	1900	01-65-4/4
4	5	63	300	182,5	3310	01-65-4/5
5	1	20	232	82,5	1800	01-65-5/1
5	2	30	247	97,5	1900	01-65-5/2
5	3	36	268	118,5	2150	01-65-5/3
5	4	48	300	150,5	2750	01-65-5/4
5	5	63	335	182,5	4200	01-65-5/5
5	6	82	396	247	640	01-65-5/6
6	3	36	330	120	4580	01-65-6/3
6	4	48	355	180	5420	01-65-6/4
6	5	63	390	180	6750	01-65-6/5
6	6	82	451	241	11890	01-65-6/6

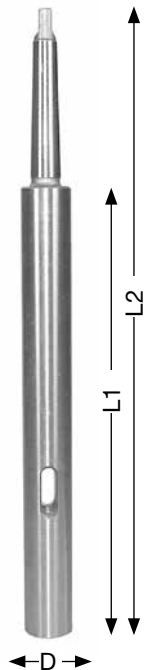
Sonderhülsen auf Anfrage Special sleeves available upon request

- Lagerstandard / in stock
- ▶ innerhalb weniger Tage / within a few days
- auf Anfrage / on request

Bohrer- und Reibahlen-Verlängerungen

Drill and reamer extensions

Ganz geschliffen, Kegel gehärtet
Completely ground, taper hardened



Außenkegel / External taper	Innenkegel / Internal taper	D mm	L1 mm	L2 mm	ca. g	Art.-Nr. / Order no.
1	1	20	138	200	250	01-75-1/1-200
1	1	20	188	250	375	01-75-1/1-250
1	1	20	238	300	500	01-75-1/1-300
1	1	20	288	350	625	01-75-1/1-350
1	1	20	338	400	750	01-75-1/1-400
1	1	20	388	450	900	01-75-1/1-450
1	1	20	438	500	1000	01-75-1/1-500
2	2	25	125	200	430	01-75-2/2-200
2	2	25	175	250	625	01-75-2/2-250
2	2	25	225	300	820	01-75-2/2-300
2	2	25	275	350	1015	01-75-2/2-350
2	2	25	325	400	1200	01-75-2/2-400
2	2	25	375	450	1400	01-75-2/2-450
2	2	25	425	500	1600	01-75-2/2-500
2	2	25	525	600	1800	01-75-2/2-600
3	3	32	156	250	1000	01-75-3/3-250
3	3	32	206	300	1300	01-75-3/3-300
3	3	32	256	350	1550	01-75-3/3-350
3	3	32	306	400	1850	01-75-3/3-400
3	3	32	356	450	2100	01-75-3/3-450
3	3	32	405	500	2400	01-75-3/3-500
3	3	32	506	600	2700	01-75-3/3-600
4	4	40	182,5	300	1650	01-75-4/4-300
4	4	40	232,5	350	2150	01-75-4/4-350
4	4	40	282,5	400	2650	01-75-4/4-400
4	4	40	332,5	450	3100	01-75-4/4-450
4	4	40	382,5	500	3600	01-75-4/4-500
4	4	40	482,5	600	4200	01-75-4/4-600

Sonderhülsen auf Anfrage
Special sleeves available upon request

Reduzierhülsen für Hydrodehnspannfutter

Reducing sleeves for hydraulic expansion mandrels

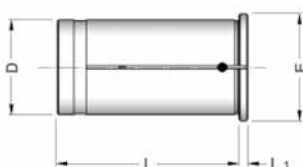


Für die Reduzierung des Spanndurchmessers bei Hydrodehnspannfuttern.

For diameter reduction of hydraulic expansion mandrels.

Kühlmitteldicht bis 60 bar
Mechanically sealed up to 60 bar

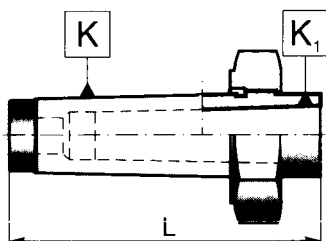
D mm	Bohrungen / Bores Ø mm	E mm	L mm	L1 mm	Art.-Nr. / Order no.
20	3, 4, 5, 6, 8, 10, 12, 14, 16	24	50,5	2	94-52-20/Ø
32	10, 12, 16, 18, 20, 25	36	60,5	3	94-52-32/Ø



Weitere Abmessungen auf Anfrage
Further sizes available upon request

Spindelhülsen für Werkzeuge mit Morsekegel Spindle sleeves for tools with morse taper

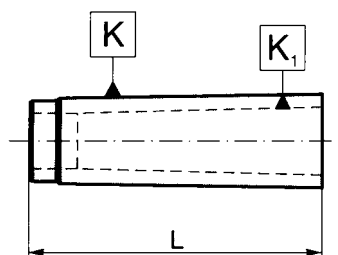
Mit Abdrückgewinde und Mutter With draw-off thread and nut



Außenkegel-MK / External taper-MT	Innenkegel-MK / Internal taper-MT	L mm	Art.-Nr. / Order no.
2*	1	84	01-84-2/1
3*	1	102	01-84-3/1
4*	1	122	01-84-4/1
3	2	102	01-84-3/2
4	2	122	01-84-4/2
4	3	122	01-84-4/3
5	2	153	01-84-5/2
5	3	153	01-84-5/3
5	4	153	01-84-5/4
6	3	212	01-84-6/3
6	4	212	01-84-6/4
6	5	212	01-84-6/5

* mit Austreibschlitz
* with drift slot

Spindelhülsen für Werkzeuge mit Morsekegel Spindle sleeves for tools with morse taper



Außenkegel-MK / External taper-MT	Innenkegel-MK / Internal taper-MT	L mm	Art.-Nr. / Order no.
2	1	60	01-83-2/1
3	1	70	01-83-3/1
3	2	70	01-83-3/2
4	2	70	01-83-4/2
4	3	70	01-83-4/3
5	2	77	01-83-5/2
5	3	77	01-83-5/3
5	4	77	01-83-5/4
6	3	110	01-83-6/3
6	4	110	01-83-6/4
6	5	110	01-83-6/5
metrisch / metric 80	5	110	01-83-80/5
metrisch / metric 80	6	110	01-83-80/6
metrisch / metric 100	6	132	01-83-100/6

Klemmhülsen Clamping sleeves



Ganz gehärtet und geschliffen
Completely hardened and ground

Nach DIN 6328 für Gewindebohrer According to DIN 6328 for taps

MK / MT	Außen-Ø / External-Ø mm	L mm	Bohrung / Bore mm	Art.-Nr. / Order no.
1	12,2	65,5	2,5/2,8/ 3,5/4,0/4,5/5,0/ 5,5/6,0/7,0/8,0	● 06-501E-Ø
2	18,0	78,5	4,5/5,5/6,0/7,0/ 8,0/9,0/10,0/ 11,0/12,0/12,5	● 06-504E-Ø
3	24,0	98,0	8,0/9,0/10,0/ 11,0/12,0/ 12,5/14,0/16,0	● 06-535E-Ø
4	31,5	123,0	12,0/14,0/ 16,0/18,0/20,0/ 22,0/25,0	● 06-538E-Ø
5	44,7	156,0	22,0/25,0/28,0/ 30,0/32,0/36,0	● 06-589E-Ø

Nach DIN 6329 für Spiralbohrer According to DIN 6329 for spiral drills

MK / MT	Außen-Ø / External-Ø mm	L mm	Abmessungen / Dimensions	Bohrung / Bore mm	Art.-Nr. / Order no.
1	12,2	65,5	3,0 - 8,0	0,5	● 06-511E-Ø
2	18,0	78,5	5,0 - 13,0	0,5	● 06-514E-Ø
3	24,0	98,0	8,0 - 18,0	0,5	● 06-545E-Ø
4	31,5	123,0	12,0 - 20,0	1,0	● 06-548E-Ø
5	44,7	156,0	20,0 - 36,0	1,0	○ 06-599E-Ø

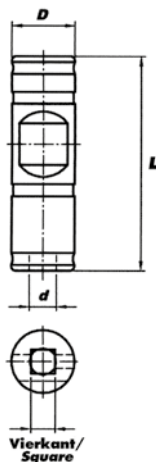
Weitere Abmessungen lieferbar auf Anfrage
Further dimensions available upon request

Für Maschinen mit steigungssynchronem Vorschub

For machines with rigid tapping



- einsetzbar in herkömmlichen Weldon Spannfuttern nach DIN 1835 B
- kein Schlupf zwischen Hülse und Bohrer
- bei innerer Kühlmittelzufuhr 100% Kühlung an der Schneide
- suitable for standard Weldon chucks according to DIN 1835 B
- no slip between tap holder and drill
- 100% blade cooling if internal coolant supply is selected



Außen-Ø / External-Ø mm	Innen-Ø / Internal-Ø mm	Vierkant / Square mm	L mm	Art.-Nr. / Order no.
8	2,5	2,1	27	● 81-GEW-8X2,5
8	2,8	2,1	27	● 81-GEW-8X2,8
10	3,5	2,7	35	● 81-GEW-10X3,5
10	4,0	3,0	35	● 81-GEW-10X4,0
10	4,5	3,4	35	● 81-GEW-10X4,5
12	6,0	4,9	45	● 81-GEW-12X6,0
14	7,0	5,5	45	● 81-GEW-14X7,0
14	8,0	6,2	45	● 81-GEW-14X8,0
16	9,0	7,0	48	● 81-GEW-16X9,0
16	10,0	8,0	48	● 81-GEW-16X10,0
18	11,0	9,0	48	● 81-GEW-18X11,0
20	12,0	9,0	50	● 81-GEW-20X12,0
25	14,0	11,0	56	● 81-GEW-25X14,0
25	16,0	12,0	56	● 81-GEW-25X16,0
32	18,0	14,5	60	● 81-GEW-32X18,0
32	20,0	16,0	60	● 81-GEW-32X20,0
32	22,0	18,0	60	● 81-GEW-32X22,0
40	25,0	20,0	70	● 81-GEW-40X25,0
40	28,0	22,0	70	● 81-GEW-40X28,0
50	32,0	24,0	80	● 81-GEW-50X32,0
50	36,0	29,0	80	● 81-GEW-50X36,0
50	40,0	32,0	80	● 81-GEW-50X40,0

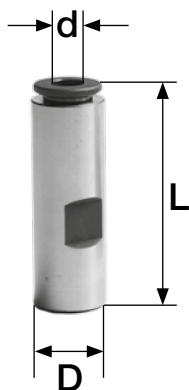


Gewindebohrerhalter mit Weldon-Spannfläche

Tap holders for Weldon chucks



- für den Einsatz von Gewindebohrern mit 4-Kant in Weldonfuttern
- mit Schnellwechselsystem
- to use tapping collets with internal square in weldon chucks
- with quick change mechanism



D mm	d mm	Vierkant / Square mm	L mm	Art.-Nr. / Order no.
16	3,5	2,7	56	● 09-GBE-16/3,5
16	4,0	3,0	56	● 09-GBE-16/4,0
16	4,5	3,4	56	● 09-GBE-16/4,5
16	6,0	4,9	56	● 09-GBE-16/6,0
20	4,5	3,4	58	● 09-GBE-20/4,5
20	6,0	4,9	58	● 09-GBE-20/6,0
20	7,0	5,5	58	● 09-GBE-20/7,0
20	8,0	6,2	58	● 09-GBE-20/8,0
20	9,0	7,0	58	● 09-GBE-20/9,0
20	10,0	8,0	58	● 09-GBE-20/10
25	4,5	3,4	66	● 09-GBE-25/4,5
25	6,0	4,9	66	● 09-GBE-25/6,0
25	7,0	5,5	66	● 09-GBE-25/7,0
25	8,0	6,2	66	● 09-GBE-25/8,0
25	9,0	7,0	66	● 09-GBE-25/9,0
25	10,0	8,0	66	● 09-GBE-25/10,0
25	11,0	9,0	66	● 09-GBE-25/11,0
25	12,0	9,0	66	● 09-GBE-25/12,0
32	6,0	4,9	70	● 09-GBE-32/6,0
32	7,0	5,5	70	● 09-GBE-32/7,0
32	8,0	6,2	70	● 09-GBE-32/8,0
32	9,0	7,0	70	● 09-GBE-32/9,0
32	10,0	8,0	70	● 09-GBE-32/10,0
32	11,0	9,0	70	● 09-GBE-32/11,0
32	12,0	9,0	70	● 09-GBE-32/12,0
32	14,0	11,0	70	● 09-GBE-32/14,0
32	16,0	12,0	70	● 09-GBE-32/16,0
32	18,0	14,5	70	● 09-GBE-32/18,0

DIN 238, Kegeldorne mit Morsekegelschaft DIN 238, taper arbors with morse taper shanks

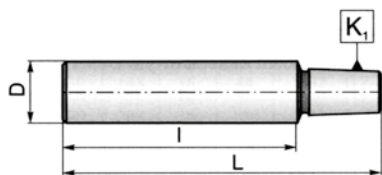


MK / MT	Kegel / Taper	L mm	ca. g	Art.-Nr. / Order no.
1	B 10	86	55	41-1/B10
1	B 12	90	60	41-1/B12
1	B 16	97	90	41-1/B16
1	B 18	105	110	41-1/B18
1	B 18 VK	97	95	41-1/B18VK
2	B 10	101	130	41-2/B10
2	B 12	105	135	41-2/B12
2	B 16	112	160	41-2/B16
2	B 18	120	180	41-2/B18
2	B 18 VK	108,5	165	41-2/B18VK
2	B 22	128	245	41-2/B22
3	B 12	124	280	41-3/B12
3	B 16	131	310	41-3/B16
3	B 18	139	320	41-3/B18
3	B 18 VK	132	320	41-3/B18VK
3	B 22	147	390	41-3/B22
3	B 24	157	440	41-3/B24
4	B 16	156	625	41-4/B16
4	B 18	164	660	41-4/B18
4	B 18 VK	159	640	41-4/B18VK
4	B 22	172	715	41-4/B22
4	B 24	182	770	41-4/B24
5	B 16	188	1600	41-5/B16
5	B 18	196	1600	41-5/B18
5	B 22	204	1650	41-5/B22
5	B 24	214	1700	41-5/B24

Ganz gehärtet und geschliffen
Completely hardened and ground

VK = verkürzter Bohrfutterkegel
VK = shortened drill chuck taper

Kegeldorne mit Zylinderschaft Taper arbors with cylinder shanks

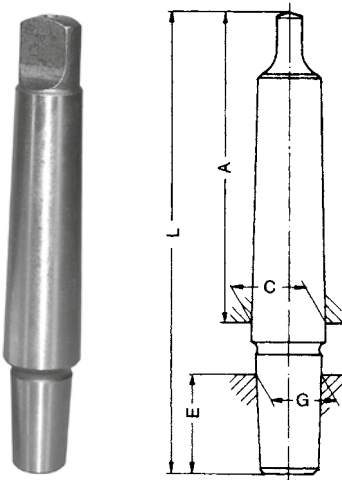


D mm	l mm	Kegel / Taper	L mm	Art.-Nr. / Order no.
8	35	B 10	55	13-5348-8-35-B10
10	50	B 10	70	13-5348-10-50-B10
10	50	B 12	75	13-5348-10-50-B12
10	50	B 16	82	13-5348-10-50-B16
12	50	B 16	82	13-5348-12-50-B16
12	60	B 16	92	13-5348-12-60-B16
16	50	B 16	81	13-5348-16-50-B16
16	70	B 16	101	13-5348-16-70-B16
16	70	B 18	110	13-5348-16-70-B18
20	60	B 12	87	13-5348-20-60-B12
20	60	B16	93	13-5348-20-60-B16
20	60	B 18	100	13-5348-20-60-B18
25	75	B 16	107	13-5348-25-75-B16
30	70	B 16	106	13-5348-30-70-B16
30	70	B 18	112	13-5348-30-70-B18

Ganz gehärtet und geschliffen
Completely hardened and ground

Kegeldorne mit Jacobs-Kegel Taper arbors with Jacobs taper

Typ 236 Type 236

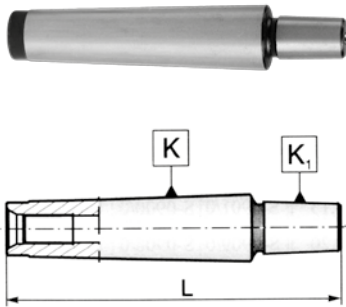


Ganz gehärtet und geschliffen
Completely hardened and ground

MK / MT	Kegel / Taper	L mm	A mm	C mm	E mm	G mm	Art.-Nr. / Order no.
1	J1	85	62	12,065	16,7	9,754	41-1/J1
1	J2	90	62	12,065	22,2	14,199	41-1/J2
1	J3	99	62	12,065	31	20,599	41-1/J3
1	J6	94	62	12,065	25,4	17,170	41-1/J6
2	J1	100	75	17,788	16,7	9,754	41-2/J1
2	J2	105	75	17,788	22,2	14,199	41-2/J2
2	J3	114	75	17,788	31	20,599	41-2/J3
2	J6	108	75	17,788	25,4	17,170	41-2/J6
3	J2	124	94	23,825	22,2	14,199	41-3/J2
3	J3	133	94	23,825	31	20,599	41-3/J3
3	J33	127	94	23,825	25,4	17,170	41-3/J33
3	J4	144	94	23,825	42	-	41-3/J4
3	J6	127	94	23,825	25,4	15,850	41-3/J6
4	J3	158	117,5	31,267	31	20,599	41-4/J3
4	J6	152	117,5	31,267	25,4	17,170	41-4/J6

Kegeldorne mit Morsekegel und Anzugsgewinde Taper arbors with morse taper and internal thread

DIN 228 A DIN 228 A



MK / MT	L mm	Gewinde / Thread	Kegel / Taper	Art.-Nr. / Order no.
N 2	90	M 10	B 10	41-2/B10-M10
2	95	M 10	B 12	41-2/B12-M10
2	101	M 10	B 16	41-2/B16-M10
3	121	M 12	B 16	41-3/B16-M12
4	143	M 16	B 16	41-4/B16-M16

Kegeldorne mit Gewinde Taper arbors with thread



MK / MT	Gewinde / Thread	Länge / Length mm	kg	Art.-Nr. / Order no.
2	3/8-24	101	0,2	41-2-3/8-24
2	1/2-20	104	0,2	41-2-1/2-20
2	5/8-16	106	0,2	41-2-5/8-16
3	M20	122	0,4	41-3-3/M20

