

Hülsen und Dorne

Sleeves and arbors



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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

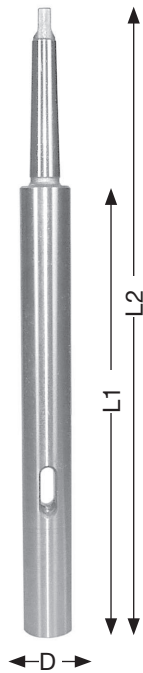
Außenkegel / External taper	Innenkegel / Internal taper	D mm	L2 mm	L1 mm	ca. g	Art.-Nr. / Order no.
1	1	20	145	83	190	● 01-65-1/1
1	2	30	160	98	340	● 01-65-1/2
2	1	20	160	85	250	● 01-65-2/1
2	2	30	175	100	400	● 01-65-2/2
2	3	36	196	121	840	● 01-65-2/3
2	4	48	220	94	1300	● 01-65-2/4
3	1	20	175	81	400	● 01-65-3/1
3	2	30	194	100	550	● 01-65-3/2
3	3	36	215	112	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
- * auslaufende Größe / as stock lasts

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	406	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

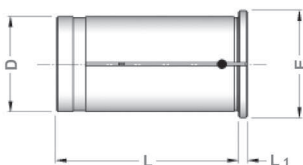


Für die Reduzierung des Spanndurchmessers bei Hydrodehnspannfuttern.

For diameter reduction of hydraulic expansion mandrels.

Kühlmitteldicht bis 60 bar
Mechanically sealed up to 60 bar

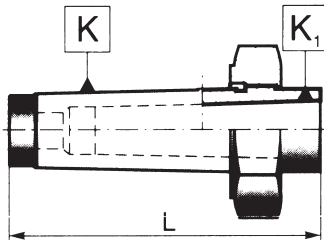
D mm	Bohrungen / Bores Ø mm	E mm	L mm	L1 mm	Art.-Nr. / Order no.
20	3, 4, 5, 6, 8, 10, 12, 14, 16	24	50,5	2	94-52-20/Ø
32	10, 12, 16, 18, 20, 25	36	60,5	3	94-52-32/Ø



Weitere Abmessungen auf Anfrage
Further sizes available upon request

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

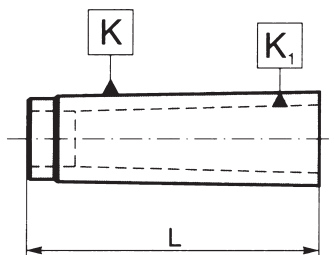
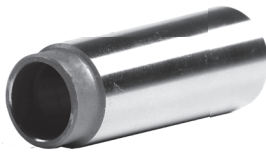
Mit Abdrückgewinde und Mutter With draw-off thread and nut



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 Austreibrschlitz
* 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

- Lagerstandard / in stock
- ▶ innerhalb weniger Tage / within a few days
- auf Anfrage / on request
- * auslaufende Größe / as stock lasts

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

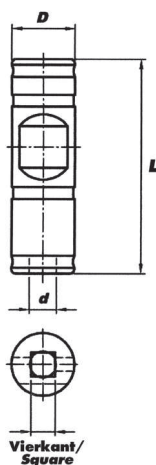
Weitere Abmessungen lieferbar auf Anfrage
Further dimensions available upon request

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

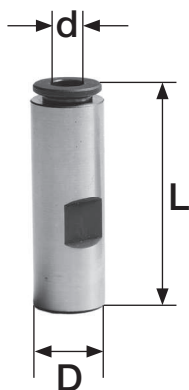


Außen-Ø / External-Ø mm	Innen-Ø / Internal-Ø mm	Vierkant / Square mm	L mm	Art.-Nr. / Order no.
8	2,5	2,1	27	● 81-GEW-8X2,5
8	2,8	2,1	27	● 81-GEW-8X2,8
10	3,5	2,7	35	● 81-GEW-10X3,5
10	4,0	3,0	35	● 81-GEW-10X4,0
10	4,5	3,4	35	● 81-GEW-10X4,5
12	6,0	4,9	45	● 81-GEW-12X6,0
14	7,0	5,5	45	● 81-GEW-14X7,0
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 Schnellwechselsystem

Tap holders with quick change mechanism



Gewindebohrerhalter mit Weldon-Spannfläche

Tap holders for Weldon chucks

- mit Innenvierkant
- für den Einsatz von Gewindebohrern in Weldonfuttern
- mit Schnellwechselsystem
- with internal square
- to use tapping collets 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

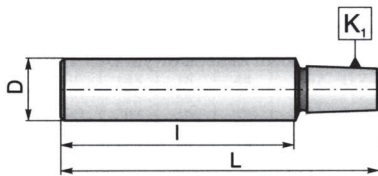


MK / MT	Kegel / Taper	L mm	ca. g	Art.-Nr. / Order no.
1	B 10	86	55	● 41-1/B10
1	B 12	90	60	● 41-1/B12
1	B 16	97	90	● 41-1/B16
1	B 18	105	110	● 41-1/B18
1	B 18 VK	97	95	● 41-1/B18VK
2	B 10	101	130	● 41-2/B10
2	B 12	105	135	● 41-2/B12
2	B 16	112	160	● 41-2/B16
2	B 18	120	180	● 41-2/B18
2	B 18 VK	108,5	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

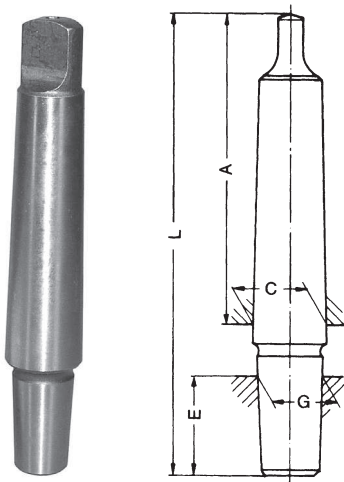


D mm	l mm	Kegel / Taper	L mm	Art.-Nr. / Order no.
8	35	B 10	55	● 13-5348-8-35-B10
10	50	B 10	70	● 13-5348-10-50-B10
10	50	B 12	75	● 13-5348-10-50-B12
10	50	B 16	82	● 13-5348-10-50-B16
12	50	B 16	82	● 13-5348-12-50-B16
12	60	B 16	92	● 13-5348-12-60-B16
16	50	B 16	81	● 13-5348-16-50-B16
16	70	B 16	101	● 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

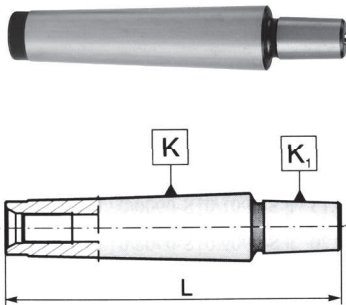


Ganz gehärtet und geschliffen
Completely hardened and ground

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.
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

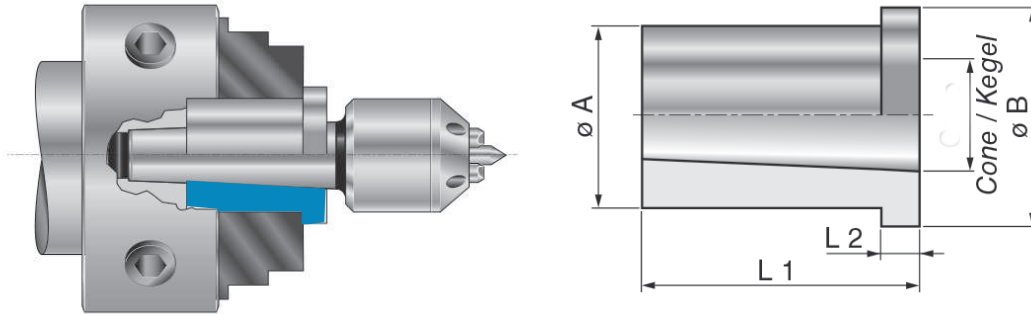
Kegeldorne mit Gewinde Taper arbors with thread



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

Kegelhülsen Conic bushes

Kegelhülsen, zylindrisch mit Innenkegel (MK) Conic bushes, cylindrical with internal taper (MT)



MK / MT	L1 mm	L2 mm	$\varnothing A$ mm	$\varnothing B$ mm	kg	Art.-Nr. / Order no.
3	65	8	35	44	0,3	▶ 03-KH-3
4	70	8	42	49	0,45	▶ 03-KH-4
5	80	10	54	59	0,6	▶ 03-KH-5
6	85	10	75	84	0,75	▶ 03-KH-6