

# Hülsen und Dorne

## *Sleeves and arbors*



### ■ Inhalt:

- | Reduzierhülsen
- | Verlängerungshülsen
- | Bohrer- und Reibahlenverlängerungen
- | Reduzierhülsen für Hydrodehnspannfutter
- | Spindelhülsen
- | Klemmhülsen
- | Gewindebohrer-Spannhülsen
- | Gewindebohrerhalter mit Schnellwechselsystem
- | Kegeldorne

### ■ Content:

- | *Reducing sleeves*
- | *Extension sleeves*
- | *Drill and reamer extensions*
- | *Reducing sleeves for hydraulic expansion mandrels*
- | *Spindle sleeves*
- | *Clamping sleeves*
- | *Tap holders*
- | *Tap holders with quick change mechanism*
- | *Taper arbors*

## Reduzierhülsen Reducing sleeves

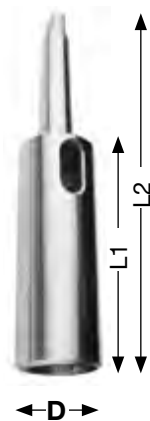
### DIN 2185, ganz gehärtet und geschliffen DIN 2185, completely hardened and ground



Außenkegel / External taper	Innenkegel / Internal taper	L mm	ca. g	Art.-Nr. / Order no.	EUR
1	0	80	30	01-52-1/0	3,60
2	1	92	95	01-52-2/1	3,40
3	1	99	190	01-52-3/1	4,40
3	2	112	250	01-52-3/2	4,10
4	1	124	550	01-52-4/1	6,90
4	2	124	480	01-52-4/2	6,50
4	3	140	360	01-52-4/3	6,40
5	1	156	1700	01-52-5/1	14,00
5	2	156	1520	01-52-5/2	14,00
5	3	156	1360	01-52-5/3	14,40
5	4	171	950	01-52-5/4	13,60
6	1	218	4400	01-52-6/1	45,00
6	2	218	4300	01-52-6/2	34,00
6	3	218	4100	01-52-6/3	34,00
6	4	218	3600	01-52-6/4	30,00
6	5	218	2550	01-52-6/5	28,90

## 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.	EUR
1	1	20	145	83	190	01-65-1/1	6,80
1	2	30	160	98	340	01-65-1/2	8,30
2	1	20	160	85	250	01-65-2/1	8,30
2	2	30	175	100	400	01-65-2/2	8,30
2	3	36	196	121	840	01-65-2/3	10,80
2	4	48	220	94	1300	01-65-2/4	15,60
3	1	20	175	81	400	01-65-3/1	9,60
3	2	30	194	100	550	01-65-3/2	9,80
3	3	36	215	112	1000	01-65-3/3	12,50
3	4	48	240	146	1500	01-65-3/4	15,60
4	1	20	200	82,5	800	01-65-4/1	15,70
4	2	30	215	97,5	850	01-65-4/2	15,00
4	3	36	240	122,5	1300	01-65-4/3	16,90
4	4	48	265	147,5	1900	01-65-4/4	16,90
4	5	63	300	182,5	3310	01-65-4/5	32,70
5	1	20	232	82,5	1800	01-65-5/1	21,70
5	2	30	247	97,5	1900	01-65-5/2	21,70
5	3	36	268	118,5	2150	01-65-5/3	21,70
5	4	48	300	150,5	2750	01-65-5/4	27,70
5	5	63	335	182,5	4200	01-65-5/5	31,90
5	6	82	396	247	640	01-65-5/6	76,10
6	3	36	330	120	4580	01-65-6/3	54,40
6	4	48	355	180	5420	01-65-6/4	49,50
6	5	63	390	180	6750	01-65-6/5	49,50
6	6	82	451	241	11890	01-65-6/6	118,80

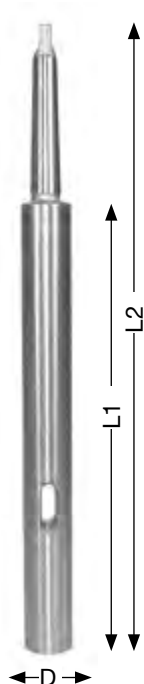
### Sonderhülsen auf Anfrage Special sleeves available upon request

- 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.	EUR
1	1	20	138	200	250	01-75-1/1-200	22,20
1	1	20	188	250	375	01-75-1/1-250	22,70
1	1	20	238	300	500	01-75-1/1-300	25,50
1	1	20	288	350	625	01-75-1/1-350	25,70
1	1	20	338	400	750	01-75-1/1-400	29,80
1	1	20	388	450	900	01-75-1/1-450	35,40
1	1	20	438	500	1000	01-75-1/1-500	37,10
2	2	25	125	200	430	01-75-2/2-200	24,90
2	2	25	175	250	625	01-75-2/2-250	27,10
2	2	25	225	300	820	01-75-2/2-300	30,20
2	2	25	275	350	1015	01-75-2/2-350	32,70
2	2	25	325	400	1200	01-75-2/2-400	37,10
2	2	25	375	450	1400	01-75-2/2-450	42,70
2	2	25	425	500	1600	01-75-2/2-500	44,50
2	2	25	525	600	1800	01-75-2/2-600	68,00
3	3	32	156	250	1000	01-75-3/3-250	30,60
3	3	32	206	300	1300	01-75-3/3-300	34,50
3	3	32	256	350	1550	01-75-3/3-350	37,10
3	3	32	306	400	1850	01-75-3/3-400	41,50
3	3	32	356	450	2100	01-75-3/3-450	47,70
3	3	32	405	500	2400	01-75-3/3-500	52,90
3	3	32	506	600	2700	01-75-3/3-600	71,70
4	4	40	182,5	300	1650	01-75-4/4-300	44,20
4	4	40	232,5	350	2150	01-75-4/4-350	45,90
4	4	40	282,5	400	2650	01-75-4/4-400	52,80
4	4	40	332,5	450	3100	01-75-4/4-450	57,80
4	4	40	382,5	500	3600	01-75-4/4-500	66,00
4	4	40	482,5	600	4200	01-75-4/4-600	94,00

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.

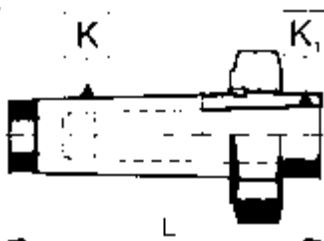
Kühlmitteldicht bis 60 bar  
 Mechanically sealed up to 60 bar

D mm	Bohrungen / Bores Ø mm	E mm	L mm	L1 mm	Art.-Nr. / Order no.	EUR
20	3, 4, 5, 6, 8, 10, 12, 14, 16	24	50,5	2	94-52-20/Ø	48,00
32	10, 12, 16, 18, 20, 25	36	60,5	3	94-52-32/Ø	53,50

Weitere Abmessungen auf Anfrage  
 Further sizes available upon request

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

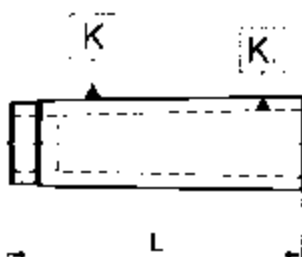
### Mit Abdrückgewinde und Mutter With draw-off thread and nut



Außenkegel-MK / External taper-MT	Innenkegel-MK / Internal taper-MT	L mm	Art.-Nr. / Order no.	EUR
2*	1	84	01-84-2/1	40,50
3*	1	102	01-84-3/1	40,50
4*	1	122	01-84-4/1	46,80
3	2	102	01-84-3/2	28,80
4	2	122	01-84-4/2	33,30
4	3	122	01-84-4/3	33,30
5	2	153	01-84-5/2	42,30
5	3	153	01-84-5/3	42,30
5	4	153	01-84-5/4	46,80
6	3	212	01-84-6/3	63,90
6	4	212	01-84-6/4	63,90
6	5	212	01-84-6/5	68,20

\* 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.	EUR
2	1	60	01-83-2/1	12,00
3	1	70	01-83-3/1	13,00
3	2	70	01-83-3/2	13,00
4	2	70	01-83-4/2	16,40
4	3	70	01-83-4/3	16,40
5	2	77	01-83-5/2	21,60
5	3	77	01-83-5/3	21,60
5	4	77	01-83-5/4	21,60
6	3	110	01-83-6/3	37,20
6	4	110	01-83-6/4	37,20
6	5	110	01-83-6/5	37,20
metrisch / metric 80	5	110	01-83-80/5	66,20
metrisch / metric 80	6	110	01-83-80/6	66,20
metrisch / metric 100	6	132	01-83-100/6	122,70

- 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.	EUR
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	12,90
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	14,70
3	24,0	98,0	8,0/9,0/10,0/ 11,0/12,0/ 12,5/14,0/16,0	06-535E-Ø	19,60
4	31,5	123,0	12,0/14,0/ 16,0/18,0/20,0/ 22,0/25,0	06-538E-Ø	26,30
5	44,7	156,0	22,0/25,0/28,0/ 30,0/32,0/36,0	06-589E-Ø	109,00

## 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.	EUR
1	12,2	65,5	3,0 - 8,0	0,5	06-511E-Ø	12,90
2	18,0	78,5	5,0 - 13,0	0,5	06-514E-Ø	14,70
3	24,0	98,0	8,0 - 18,0	0,5	06-545E-Ø	19,60
4	31,5	123,0	12,0 - 20,0	1,0	* 06-548E-Ø	26,30
5	44,7	156,0	20,0 - 36,0	1,0	○ 06-599E-Ø	a. A.

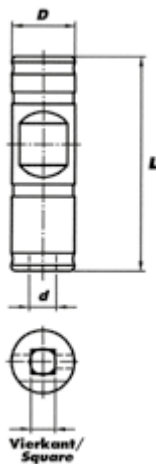
Weitere Abmessungen lieferbar auf Anfrage  
Further dimensions available upon request

### 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.	EUR
8	2,5	2,1	27	● 81-GEW-8X2,5	30,30
8	2,8	2,1	27	● 81-GEW-8X2,8	30,30
10	3,5	2,7	35	● 81-GEW-10X3,5	30,30
10	4,0	3,0	35	● 81-GEW-10X4,0	30,30
10	4,5	3,4	35	● 81-GEW-10X4,5	30,30
12	6,0	4,9	45	● 81-GEW-12X6,0	24,40
14	7,0	5,5	45	● 81-GEW-14X7,0	24,40
14	8,0	6,2	45	● 81-GEW-14X8,0	24,40
16	9,0	7,0	48	● 81-GEW-16X9,0	24,40
16	10,0	8,0	48	● 81-GEW-16X10,0	24,40
18	11,0	9,0	48	● 81-GEW-18X11,0	24,40
20	12,0	9,0	50	● 81-GEW-20X12,0	24,40
25	14,0	11,0	56	● 81-GEW-25X14,0	27,30
25	16,0	12,0	56	● 81-GEW-25X16,0	27,30
32	18,0	14,5	60	● 81-GEW-32X18,0	30,90
32	20,0	16,0	60	● 81-GEW-32X20,0	30,90
32	22,0	18,0	60	● 81-GEW-32X22,0	30,90
40	25,0	20,0	70	● 81-GEW-40X25,0	36,50
40	28,0	22,0	70	● 81-GEW-40X28,0	42,60
50	32,0	24,0	80	● 81-GEW-50X32,0	42,60
50	36,0	29,0	80	● 81-GEW-50X36,0	52,30
50	40,0	32,0	80	● 81-GEW-50X40,0	52,30

# 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.	EUR
16	3,5	2,7	56	09-GBE-16/3,5	22,80
16	4,0	3,0	56	09-GBE-16/4,0	22,80
16	4,5	3,4	56	09-GBE-16/4,5	22,80
16	6,0	4,9	56	09-GBE-16/6,0	22,80
20	4,5	3,4	58	09-GBE-20/4,5	22,80
20	6,0	4,9	58	09-GBE-20/6,0	22,80
20	7,0	5,5	58	09-GBE-20/7,0	22,80
20	8,0	6,2	58	09-GBE-20/8,0	22,80
20	9,0	7,0	58	09-GBE-20/9,0	22,80
20	10,0	8,0	58	09-GBE-20/10	22,80
25	4,5	3,4	66	09-GBE-25/4,5	29,30
25	6,0	4,9	66	09-GBE-25/6,0	29,30
25	7,0	5,5	66	09-GBE-25/7,0	29,30
25	8,0	6,2	66	09-GBE-25/8,0	29,30
25	9,0	7,0	66	09-GBE-25/9,0	29,30
25	10,0	8,0	66	09-GBE-25/10,0	29,30
25	11,0	9,0	66	09-GBE-25/11,0	29,30
25	12,0	9,0	66	09-GBE-25/12,0	29,30
32	6,0	4,9	70	09-GBE-32/6,0	31,90
32	7,0	5,5	70	09-GBE-32/7,0	31,90
32	8,0	6,2	70	09-GBE-32/8,0	31,90
32	9,0	7,0	70	09-GBE-32/9,0	31,90
32	10,0	8,0	70	09-GBE-32/10,0	31,90
32	11,0	9,0	70	09-GBE-32/11,0	31,90
32	12,0	9,0	70	09-GBE-32/12,0	31,90
32	14,0	11,0	70	09-GBE-32/14,0	31,90
32	16,0	12,0	70	09-GBE-32/16,0	31,90
32	18,0	14,5	70	09-GBE-32/18,0	31,90

# DIN 238, Kegeldorne mit Morsekegelschaft

## DIN 238, taper arbors with morse taper shanks



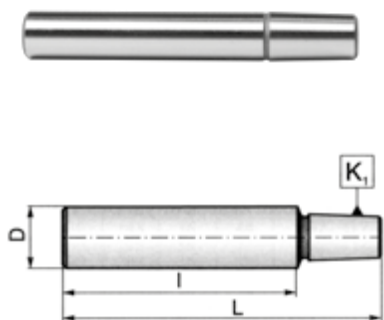
Ganz gehärtet und geschliffen  
Completely hardened and ground

MK / MT	Kegel / Taper	L mm	ca. g	Art.-Nr. / Order no.	EUR
1	B 10	86	55	● 41-1/B10	2,60
1	B 12	90	60	● 41-1/B12	2,70
1	B 16	97	90	● 41-1/B16	2,70
1	B 18	105	110	● 41-1/B18	2,80
1	B 18 VK	97	95	● 41-1/B18VK	3,40
2	B 10	101	130	● 41-2/B10	2,60
2	B 12	105	135	● 41-2/B12	2,70
2	B 16	112	160	● 41-2/B16	2,70
2	B 18	120	180	● 41-2/B18	2,80
2	B 18 VK	108,5	165	● 41-2/B18VK	3,20
2	B 22	128	245	● 41-2/B22	4,00
3	B 12	124	280	● 41-3/B12	3,50
3	B 16	131	310	● 41-3/B16	3,50
3	B 18	139	320	● 41-3/B18	3,60
3	B 18 VK	132	320	● 41-3/B18VK	5,00
3	B 22	147	390	● 41-3/B22	3,70
3	B 24	157	440	● 41-3/B24	6,40
4	B 16	156	625	● 41-4/B16	6,50
4	B 18	164	660	● 41-4/B18	6,50
4	B 18 VK	159	640	● 41-4/B18VK	9,60
4	B 22	172	715	● 41-4/B22	8,20
4	B 24	182	770	● 41-4/B24	8,70
5	B 16	188	1600	● 41-5/B16	15,90
5	B 18	196	1600	● 41-5/B18	16,50
5	B 22	204	1650	● 41-5/B22	17,10
5	B 24	214	1700	● 41-5/B24	17,90

VK = verkürzter Bohrfutterkegel  
VK = shortened drill chuck taper

# Kegeldorne mit Zylinderschaft

## Taper arbors with cylinder shanks



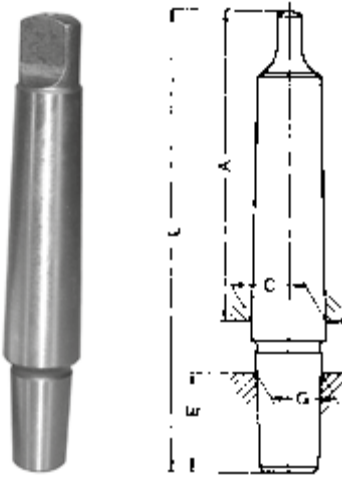
Ganz gehärtet und geschliffen  
Completely hardened and ground

D mm	l mm	Kegel / Taper	L mm	Art.-Nr. / Order no.	EUR
8	35	B 10	55	● 13-5348-8-35-B10	6,90
10	50	B 10	70	● 13-5348-10-50-B10	6,90
10	50	B 12	75	● 13-5348-10-50-B12	6,90
10	50	B 16	82	● 13-5348-10-50-B16	8,00
12	50	B 16	82	● 13-5348-12-50-B16	8,00
12	60	B 16	92	● 13-5348-12-60-B16	8,00
16	50	B 16	81	● 13-5348-16-50-B16	8,00
16	70	B 16	101	● 13-5348-16-70-B16	8,00
16	70	B 18	110	● 13-5348-16-70-B18	8,00
20	60	B 12	87	● 13-5348-20-60-B12	9,90
20	60	B16	93	● 13-5348-20-60-B16	9,90
20	60	B 18	100	● 13-5348-20-60-B18	9,90
25	75	B 16	107	● 13-5348-25-75-B16	9,90
30	70	B 16	106	● 13-5348-30-70-B16	9,90
30	70	B 18	112	● 13-5348-30-70-B18	9,90



## Kegeldorne mit Jacobs-Kegel Taper arbors with Jacobs taper

### Typ 236 Type 236

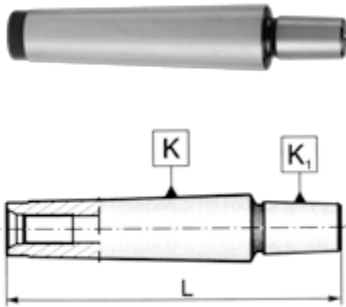


Ganz gehärtet und geschliffen  
Completely hardened and ground

MK / MT	Kegel / Taper	L mm	A mm	C mm	E mm	G mm	Art.-Nr. / Order no.	EUR
1	J1	85	62	12,065	16,7	9,754	41-1/J1	4,50
1	J2	90	62	12,065	22,2	14,199	41-1/J2	4,50
1	J3	99	62	12,065	31	20,599	41-1/J3	4,50
1	J6	94	62	12,065	25,4	17,170	41-1/J6	4,50
2	J1	100	75	17,788	16,7	9,754	41-2/J1	4,00
2	J2	105	75	17,788	22,2	14,199	41-2/J2	4,00
2	J3	114	75	17,788	31	20,599	41-2/J3	4,00
2	J6	108	75	17,788	25,4	17,170	41-2/J6	4,00
3	J2	124	94	23,825	22,2	14,199	41-3/J2	4,80
3	J3	133	94	23,825	31	20,599	41-3/J3	4,80
3	J33	127	94	23,825	25,4	17,170	41-3/J33	4,80
3	J4	144	94	23,825	42	-	41-3/J4	4,80
3	J6	127	94	23,825	25,4	15,850	41-3/J6	4,80
4	J3	158	117,5	31,267	31	20,599	41-4/J3	7,00
4	J6	152	117,5	31,267	25,4	17,170	41-4/J6	7,00

## 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.	EUR
2	90	M 10	B 10	41-2/B10-M10	11,10
2	95	M 10	B 12	41-2/B12-M10	11,10
2	101	M 10	B 16	41-2/B16-M10	11,10
3	121	M 12	B 16	41-3/B16-M12	11,10
4	143	M 16	B 16	41-4/B16-M16	12,60

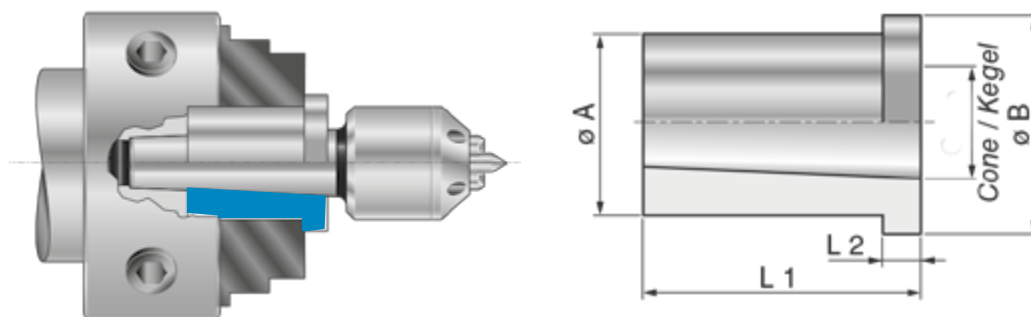
## Kegeldorne mit Gewinde Taper arbors with thread



MK / MT	Gewinde / Thread	Länge / Length mm	kg	Art.-Nr. / Order no.	EUR
2	3/8-24	101	0,2	41-2-3/8-24	13,60
2	1/2-20	104	0,2	41-2-1/2-20	13,60
2	5/8-16	106	0,2	41-2-5/8-16	13,60
3	M20	122	0,4	41-3-3/M20	17,00

# Kegelhülsen Conic bushes

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



MK / MT	L1 mm	L2 mm	Ø A mm	Ø B mm	kg	Art.-Nr. / Order no.	EUR
3	65	8	35	44	0,3	▶ 03-KH-3	97,90
4	70	8	42	49	0,45	▶ 03-KH-4	113,10
5	80	10	54	59	0,6	▶ 03-KH-5	146,80
6	85	10	75	84	0,75	▶ 03-KH-6	242,30