

Werkzeugaufnahmen für Fräsmaschinen

MK-SK-Zylinderschaft-HSK

Tool holders for milling machines

MT-SK-Straight shank-HSK



■ Inhalt:

- 11.1 | Werkzeugaufnahmen-Sätze
- 11.2 | Morsekegelaufnahmen
- 11.3 | DIN 2080
- 11.4 | DIN 69871
- 11.5 | MAS BT
- 11.6 | Aufnahmen mit Zylinderschaft
- 11.7 | DIN 69893 HSK - A
- 11.8 | Anzugsbolzen

■ Content:

- 11.1 | Tool holder sets
- 11.2 | Morse taper tooling
- 11.3 | DIN 2080
- 11.4 | DIN 69871
- 11.5 | MAS BT
- 11.6 | Straight shank tooling
- 11.7 | DIN 69893 HSK - A
- 11.8 | Pull studs



Werkzeugaufnahmen-Sätze

Tool holder sets

11
11.1

Werkzeugaufnahmen-Sätze / Tool holder sets



Spannzangen-Sätze ER mit Futter im Aluminium-Koffer

Collet sets ER with chucks in aluminium case

- Lieferumfang: Spannzangenfutter, Spannzangensatz, Aluminiumkoffer und Schlüssel
- scope of delivery: collet chuck, collet set, aluminium case and spanner
- 1 mm steigend
- 1 mm stepped

DIN	Schaft / Shank	SZ-Satz / Collet set	Art.-Nr. / Order no.
DIN 228	MK / MT 2	ER 25 (Ø 2-16)	● SZ-MK2-ER25
DIN 228	MK / MT 2	ER 32 (Ø 3-20)	● SZ-MK2-ER32
DIN 228	MK / MT 3	ER 32 (Ø 3-20)	● SZ-MK3-ER32
DIN 228	MK / MT 4	ER 32 (Ø 3-20)	● SZ-MK4-ER32
DIN 228	MK / MT 4	ER 40 (Ø 4-26)	● SZ-MK4-ER40
DIN 69871	SK 40	ER 25 (Ø 2-16)	● SZ-SK40-ER25
DIN 69871	SK 40	ER 32 (Ø 3-20)	● SZ-SK40-ER32
DIN 69871	SK 40	ER 40 (Ø 4-26)	● SZ-SK40-ER40
DIN 2080	SK 40	ER 25 (Ø 2-16)	● SZ-ISO40-ER25
DIN 2080	SK 40	ER 32 (Ø 3-20)	● SZ-ISO40-ER32
DIN 2080	SK 40	ER 40 (Ø 4-26)	● SZ-ISO40-ER40
MAS BT	SK 40	ER 25 (Ø 2-16)	● SZ-BT40-ER25
MAS BT	SK 40	ER 32 (Ø 3-20)	● SZ-BT40-ER32
MAS BT	SK 40	ER 40 (Ø 4-26)	● SZ-BT40-ER40
DIN 69893-A	HSK 63	ER 25 (Ø 2-16)	● SZ-HSK63A-ER25
DIN 69893-A	HSK 63	ER 32 (Ø 3-20)	● SZ-HSK63A-ER32
DIN 69893-A	HSK 63	ER 40 (Ø 4-26)	● SZ-HSK63A-ER40
Zyl. / Cyl.	Ø 16 x 130	ER 11 (Ø 1-7) *	● 13-7600-16-ER11M-130
Zyl. / Cyl.	Ø 20 x 130	ER 16 (Ø 1-10)	● 13-7600-20-ER16M-130
Zyl. / Cyl.	Ø 20 x 160	ER 16 (Ø 1-10)	● 13-7600-20-ER16M-160
Zyl. / Cyl.	Ø 20 x 130	ER 20 (Ø 2 - 13)	● 13-7600-20-ER20M-130
Zyl. / Cyl.	Ø 20 x 200	ER 20 (Ø 2 - 13)	● 13-7600-20-ER20M-200

* 0,5mm steigend / 0,5mm stepped

Spannzangen-Sätze OZ mit Futter im Aluminium-Koffer

Collet sets OZ with chucks in aluminium case

DIN	Schaft / Shank	SZ-Satz / Collet set	Art.-Nr. / Order no.
DIN 228	MK / MT 3	462E (Ø 3-13,16,18,20,25)	● SZ-SATZ-462E-MK3
DIN 2080	SK 40	462E (Ø 3-13,16,18,20,25)	● SZ-SATZ-462E-SK40

Weitere Spannzangen-Sätze mit Futter bis Größe SK 45 auf Anfrage
Further collet sets with collet chuck up to size SK 45 upon request



Aluminiumkoffer

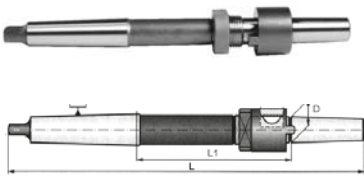
Aluminium case

- für Spannzangen-Sätze und Spannzangenfutter SK 30 und SK 40
- for collet sets and collet chucks SK 30 and SK 40

Passend für / Suitable for	Anzahl d. Bohrungen / Number of seats	Art.-Nr. / Order no.
ER 25	16	● 09-ALK-ER25
ER 32	20	● 09-ALK-ER32
ER 40	24	● 09-ALK-ER40

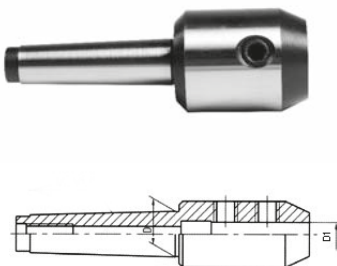


Aufsteckhalter mit Morsekegel für Reibahlen DIN 219
Arbors with morse taper for reamers DIN 219



MK / MT	D mm	L mm	L1 mm	Art.-Nr. / Order no.
2	10	220	105,8	● 13-5310-2-10
3	13	250	111,9	● 13-5310-3-13
3	16	261	117,9	● 13-5310-3-16
3	19	270	121,1	● 13-5310-3-19
3	22	278	122,1	● 13-5310-3-22
4	19	298	125,6	● 13-5310-4-19
4	22	312	132,6	● 13-5310-4-22
4	27	325	137,6	● 13-5310-4-27
4	32	345	148,9	● 13-5310-4-32
5	27	359	139,6	● 13-5310-5-27
5	32	376	147,9	● 13-5310-5-32
5	40	396	157,9	● 13-5310-5-40
5	50	416	167,9	✱ 13-5310-5-50

Flächenspannfutter WELDON mit Morsekegel
End mill adaptors WELDON with morse taper

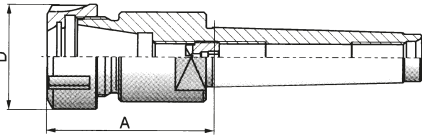


MK / MT	D1 mm	Art.-Nr. / Order no.
2	4	● 13-7721-2-4
2	6	● 13-7721-2-6
2	8	● 13-7721-2-8
2	10	● 13-7721-2-10
2	12	● 13-7721-2-12
2	14	● 13-7721-2-14
2	16	● 13-7721-2-16
2	18	● 13-7721-2-18
2	20	● 13-7721-2-20
3	4	● 13-7721-3-4
3	6	● 13-7721-3-6
3	8	● 13-7721-3-8
3	10	● 13-7721-3-10
3	12	● 13-7721-3-12
3	14	● 13-7721-3-14
3	16	● 13-7721-3-16
3	18	● 13-7721-3-18
3	20	● 13-7721-3-20
3	25	● 13-7721-3-25
4	6	● 13-7721-4-6
4	8	● 13-7721-4-8
4	10	● 13-7721-4-10
4	12	● 13-7721-4-12
4	14	● 13-7721-4-14
4	16	● 13-7721-4-16
4	18	● 13-7721-4-18
4	20	● 13-7721-4-20
4	25	● 13-7721-4-25
4	32	● 13-7721-4-32
4	40	● 13-7721-4-40

Einschraubbare Austreiblappen siehe Seite 264
Removable tangs see page 264



Morsekegelaufnahmen Morse taper tooling



Spannzangenfutter ER mit Morsekegel Collet chucks ER with morse taper

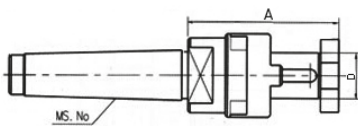
Größe / Size	Spannzange / Collet	A mm	D mm	Spannbe- reich / Clamping range	Art.-Nr. / Order no.
MK 2	ER 16	50	32	2-10	13-7711-2-16
MK 2	ER 20	50	35	2-13	13-7711-2-20
MK 2	ER 25	60	42	2-16	13-7711-2-25
MK 2	ER 32	60	50	2-20	13-7711-2-32
MK 2	ER 40	80	63	2-26	13-7711-2-40
MK 3	ER 16	50	32	2-10	13-7711-3-16
MK 3	ER 20	50	35	2-13	13-7711-3-20
MK 3	ER 25	56	42	2-16	13-7711-3-25
MK 3	ER 32	60	50	2-20	13-7711-3-32
MK 3	ER 40	80	63	2-26	13-7711-3-40
MK 4	ER 25	60	42	2-16	13-7711-4-25
MK 4	ER 32	60	50	2-20	13-7711-4-32
MK 4	ER 40	80	63	2-26	13-7711-4-40
MK 5	ER 32	80	50	2-20	13-7711-5-32
MK 5	ER 40	80	63	2-26	13-7711-5-40

Spannzangenfutter OZ mit Morsekegel Collet chucks OZ with morse taper



Größe / Size	Spannzange / Collet	A mm	Spannbereich / Clamping range	Art.-Nr. / Order no.
MK 2	OZ16 (415E)	62	2-16	09-6310216057
MK 2	OZ25 (462E)	85	2-25	09-6310225076
MK 3	OZ25 (462E)	70	2-25	09-6310325090
MK 4	OZ25 (462E)	70	2-25	09-6310425090
MK 5	OZ25 (462E)	75	2-25	09-6310525090

Kombi-Fräseraufsteckdorne mit Morsekegel Combination shell mill adaptors with morse taper

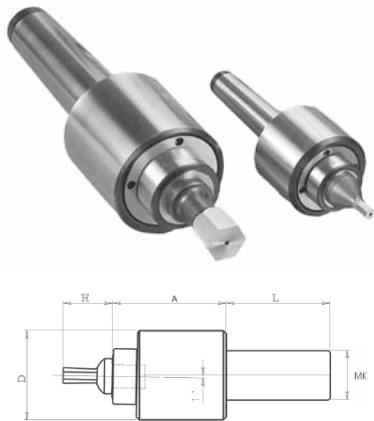


Größe / Size	D mm	A mm	Art.-Nr. / Order no.
MK 2	13	58	13-7430-2-13
MK 2	16	48	13-7430-2-16
MK 2	22	48	13-7430-2-22
MK 2	27	55	13-7430-2-27
MK 3	16	48	13-7430-3-16
MK 3	22	48	13-7430-3-22
MK 3	27	55	13-7430-3-27
MK 3	32	55	13-7430-3-32
MK 4	16	55	13-7430-4-16
MK 4	22	55	13-7430-4-22
MK 4	27	55	13-7430-4-27
MK 4	32	55	13-7430-4-32
MK 4	40	55	13-7430-4-40

Einschraubbare Austreiblappen siehe Seite 264
Removable tangs see page 264



Morsekegelaufnahmen Morse taper tooling

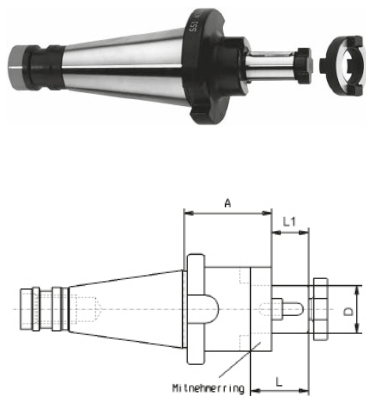


Räumwerkzeughalter mit Morsekegel Broach tool holders with morse taper

Größe / Size	D mm	L mm	A mm	H mm	Aufnahme / Mounting	Art.-Nr. / Order no.
MK 2	44	69	46	25	Ø 12	47-RHV-MK2-12
MK 3	58	85	76	40	Ø 16	47-RHV-MK3-16

Passende Räumstempel siehe Seiten 175 - 177
Suitable cutters see pages 175 - 177

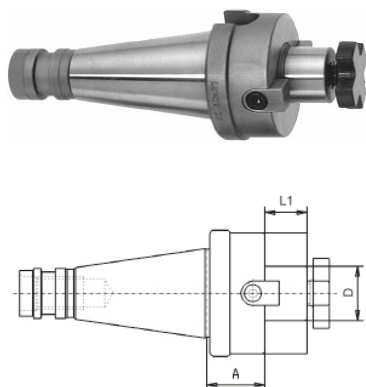
DIN 2080



Kombi-Fräseraufsteckdorne DIN 2080 Combination shell mill adaptors DIN 2080

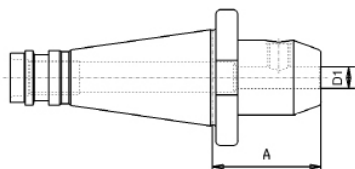
Größe / Size	D mm	A mm	L mm	L1 mm	Art.-Nr. / Order no.
SK 30	13	35	22	12	* 13-7332-30-13
SK 30	16	35	27	17	● 13-7332-30-16
SK 30	22	35	31	19	● 13-7332-30-22
SK 30	27	35	33	21	● 13-7332-30-27
SK 40	13	52	22	12	● 13-7332-40-13
SK 40	16	52	27	17	● 13-7332-40-16
SK 40	22	52	32	19	● 13-7332-40-22
SK 40	27	52	33	21	● 13-7332-40-27
SK 40	32	52	38	24	● 13-7332-40-32
SK 40	40	52	41	27	● 13-7332-40-40
SK 50	16	55	27	17	● 13-7332-50-16
SK 50	22	55	31	19	● 13-7332-50-22
SK 50	27	55	33	21	● 13-7332-50-27
SK 50	32	55	38	24	● 13-7332-50-32
SK 50	40	55	41	27	● 13-7332-50-40
SK 50	50	55	46	30	* 13-7332-50-50

Messerkopf-Aufnahmen DIN 2080 Face mill holders DIN 2080



Größe / Size	D mm	A mm	L1 mm	Art.-Nr. / Order no.
SK 40	16	30	17	● 13-7311-40-16
SK 40	22	30	19	● 13-7311-40-22
SK 40	27	30	21	● 13-7311-40-27
SK 40	32	30	24	● 13-7311-40-32
SK 40	40	30	27	● 13-7311-40-40
SK 50	22	35	19	● 13-7311-50-22
SK 50	27	35	21	● 13-7311-50-27
SK 50	32	40	24	● 13-7311-50-32
SK 50	40	40	27	● 13-7311-50-40

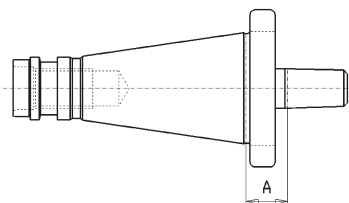




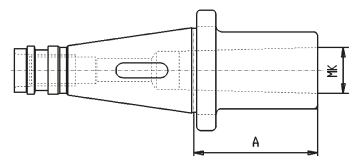
Flächenspannfutter WELDON DIN 2080
End mill adaptors WELDON DIN 2080

Größe / Size	D1 mm	A mm	Art.-Nr. / Order no.
SK 40	6	50	● 13-7620-40-6-50
SK 40	8	50	● 13-7620-40-8-50
SK 40	10	50	● 13-7620-40-10-50
SK 40	12	50	● 13-7620-40-12-50
SK 40	14	50	● 13-7620-40-14-50
SK 40	16	63	● 13-7620-40-16-63
SK 40	20	63	● 13-7620-40-20-63
SK 40	25	80	● 13-7620-40-25-80
SK 40	32	80	● 13-7620-40-32-80
SK 50	6	63	● 13-7620-50-6-63
SK 50	8	63	● 13-7620-50-8-63
SK 50	10	63	● 13-7620-50-10-63
SK 50	12	63	● 13-7620-50-12-63
SK 50	14	63	● 13-7620-50-14-63
SK 50	16	63	● 13-7620-50-16-63
SK 50	18	63	● 13-7620-50-18-63
SK 50	20	63	● 13-7620-50-20-63
SK 50	25	80	● 13-7620-50-25-80
SK 50	32	80	● 13-7620-50-32-80
SK 50	40	90	● 13-7620-50-40-90

Bohrfutteraufnahmen DIN 2080
Drill chuck adaptors DIN 2080



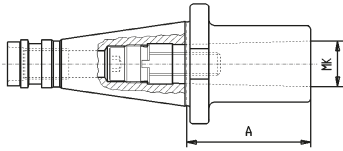
Größe / Size	Kegel / Taper	A mm	Art.-Nr. / Order no.
SK 30	B16	17	● 13-5370-30-B16
SK 40	B12	18	● 13-5370-40-B12
SK 40	B16	18	● 13-5370-40-B16
SK 40	B18	18	● 13-5370-40-B18
SK 50	B16	20	● 13-5370-50-B16
SK 50	B18	20	● 13-5370-50-B18



**Zwischenhülsen DIN 2080 für MK-Werkzeuge
mit Austreiblappen**
Reducing adaptors DIN 2080 for MT tools with tang

Größe / Size	MK / MT	A mm	Art.-Nr. / Order no.
SK 40	1	50	● 13-1679-40/1
SK 40	2	50	● 13-1679-40/2
SK 40	3	65	● 13-1679-40/3
SK 40	4	95	● 13-1679-40/4
SK 50	1	45	● 13-1679-50/1
SK 50	2	50	● 13-1679-50/2
SK 50	3	65	● 13-1679-50/3
SK 50	4	70	● 13-1679-50/4
SK 50	5	105	● 13-1679-50/5





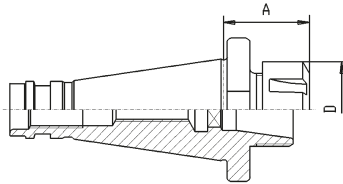
Zwischenhülsen DIN 2080 für MK-Werkzeuge mit Anzugsgewinde
Reducing adaptors DIN 2080 for MT tools with thread

- mit Anzugsgewinde DIN 6364

- with thread DIN 6364

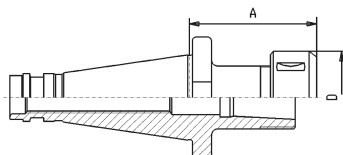
Größe / Size	MK / MT	A mm	Art.-Nr. / Order no.
SK 40	1	50	● 13-1676-40/1
SK 40	2	50	● 13-1676-40/2
SK 40	3	65	● 13-1676-40/3
SK 40	4	95	● 13-1676-40/4
SK 50	1	60	● 13-1676-50/1
SK 50	2	60	● 13-1676-50/2
SK 50	3	65	● 13-1676-50/3
SK 50	4	65	● 13-1676-50/4
SK 50	5	120	● 13-1676-50/5

Spannzangenfutter ER DIN 2080
Collet chucks ER DIN 2080



Größe / Size	Spannzange / Collet	A mm	D mm	Art.-Nr. / Order no.
SK 30	ER 16	50	28	● 13-7616-30-16
SK 30	ER 32	50	42	● 13-7616-30-32
SK 40	ER 16	50	28	● 13-7616-40-16
SK 40	ER 25	50	42	● 13-7616-40-25
SK 40	ER 32	60	50	● 13-7616-40-32
SK 40	ER 40	60	63	● 13-7616-40-40
SK 50	ER 32	70	50	● 13-7616-50-32
SK 50	ER 40	70	63	● 13-7616-50-40

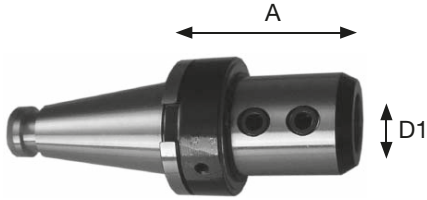
Spannzangenfutter OZ DIN 2080
Collet chucks OZ DIN 2080



Größe / Size	Spannzange / Collet	A mm	D mm	Art.-Nr. / Order no.
SK 40	OZ16 (415E)	70	43	● 13-7605-40-16
SK 40	OZ25 (462E)	70	60	● 13-7605-40-25
SK 40	OZ32 (467E)	80	72	● 13-7605-40-32
SK 50	OZ32 (467E)	80	72	● 13-7605-50-32

Fräseraufnahme DIN 2080 mit Kühlmittelring für IKZ
Weldon chuck DIN 2080 with cooling agent ring

- mit Kühlmittelring für innere Kühlmittelzufuhr
- Aufnahmebohrung nach DIN 1835B (Weldon)
- with cooling agent ring for internal-coolant supply
- according to DIN 1835B (Weldon)

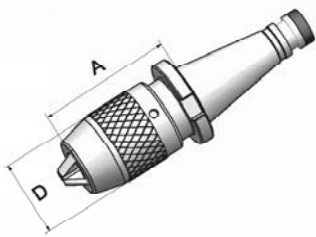


Größe / Size	D1 mm	A mm	Art.-Nr. / Order no.
SK 40	20	70	09-FSKR-ISO-40-20
SK 40	25	100	09-FSKR-ISO-40-25
SK 40	32	110	09-FSKR-ISO-40-32
SK 40	40	120	09-FSKR-ISO-40-40
SK 50	20	70	09-FSKR-ISO-50-20
SK 50	25	100	09-FSKR-ISO-50-25
SK 50	32	110	09-FSKR-ISO-50-32
SK 50	40	120	09-FSKR-ISO-50-40

Passende Reduzierhülsen siehe Seite 238
Suitable reduction sleeves see page 238

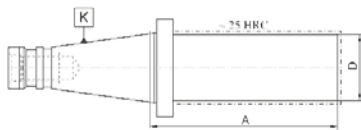
Bohrfutter DIN 2080
Drill chucks DIN 2080

- inkl. Hakenschlüssel
- incl. hook wrench



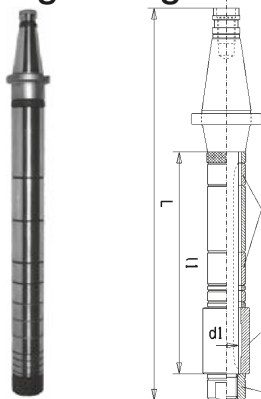
Größe / Size	Spannweite / Capacity mm	D mm	A mm	Rundlaufgenauigkeit / Runout mm	Art.-Nr. / Order no.
SK 40	1-13	50	95	0,05	13-7657-40-13
SK 40	3-16	57	100	0,05	13-7657-40-16
SK 50	3-16	55	115	0,05	13-7657-50-16

Rohlinge DIN 2080
Blanks DIN 2080



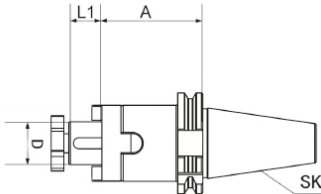
Größe / Size	D mm	A mm	Art.-Nr. / Order no.
SK 40	40	280	13-2190-40-40-280
SK 40	63	280	13-2190-40-63-280
SK 50	50	330	13-2190-50-50-330
SK 50	80	330	13-2190-50-80-330

Lange Fräserdorne nach DIN 6355
Long milling arbors DIN 6355



	Art.-Nr. / Order no.
Fräserdorn mit Mutter, Endring und Passfeder / Arbor with nut, end ring and fitted key Form A: 40x13x315 - 50x60x800	13-7175-?
Fräserdorn mit Mutter, Ringsatz und Passfeder / Arbor with nut, spacing collars, end ring and fitted key Form B: 40x13x315 - 50x60x800	13-7178-?
Fräserdorn mit Mutter, 1 Laufbuchse, Ringsatz und Passfeder / Arbor with nut, spacing collars, 1 sleeve, end ring and fitted key Form C: 40x13x315 - 50x60x800	13-7181-?
Fräserdorn mit Mutter, 2 Laufbuchsen, Ringsatz und Passfeder / Arbor with nut, spacing collars, 2 sleeves, end ring and fitted key Form D: 40x13x315 - 50x60x800	13-7184-?



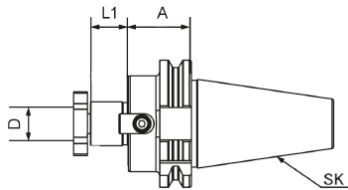


Gewuchtet G = 6,3 15.000 U/min.
Balanced G = 6,3 15.000 U/min.

Kombi-Fräseraufsteckdorne DIN 69871 Combination shell mill adaptors DIN 69871

Größe / Size	D mm	A mm	L mm	L1 mm	Art.-Nr. / Order no.
SK 40	13	55	22	12	● 13-7301-40-13
SK 40	16	55	27	17	● 13-7301-40-16
SK 40	22	55	32	19	● 13-7301-40-22
SK 40	27	55	33	21	● 13-7301-40-27
SK 40	32	60	38	24	● 13-7301-40-32
SK 40	40	60	41	27	● 13-7301-40-40
SK 50	16	55	27	17	● 13-7301-50-16
SK 50	22	55	31	19	● 13-7301-50-22
SK 50	27	55	33	21	● 13-7301-50-27
SK 50	32	55	38	24	● 13-7301-50-32
SK 50	40	55	41	27	● 13-7301-50-40

Messerkopf-Aufnahmen DIN 69871 Face mill holders DIN 69871

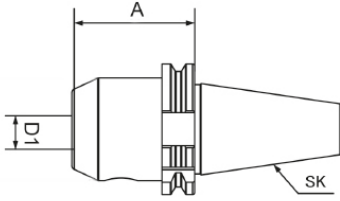


Gewuchtet G = 6,3 15.000 U/min.
Balanced G = 6,3 15.000 U/min.

Größe / Size	D mm	A mm	L1 mm	Art.-Nr. / Order no.
SK 40	16	35	17	● 13-7369-40-16
SK 40	16	100	17	● 13-7369-40-16-100
SK 40	22	35	19	● 13-7369-40-22
SK 40	22	100	19	● 13-7369-40-22-100
SK 40	22	160	19	▶ 13-7369-40-22-160
SK 40	27	40	21	● 13-7369-40-27
SK 40	27	100	21	● 13-7369-40-27-100
SK 40	27	160	21	▶ 13-7369-40-27-160
SK 40	32	50	24	● 13-7369-40-32
SK 40	32	100	24	● 13-7369-40-32-100
SK 40	32	160	24	▶ 13-7369-40-32-160
SK 40	40	50	27	● 13-7369-40-40
SK 40	40	100	27	▶ 13-7369-40-40-100
SK 40	40	160	27	▶ 13-7369-40-40-160
SK 50	22	35	19	● 13-7369-50-22
SK 50	22	100	19	● 13-7369-50-22-100
SK 50	22	160	19	▶ 13-7369-50-22-160
SK 50	27	40	21	● 13-7369-50-27
SK 50	27	100	21	● 13-7369-50-27-100
SK 50	27	160	21	▶ 13-7369-50-27-160
SK 50	32	50	24	● 13-7369-50-32
SK 50	32	100	24	● 13-7369-50-32-100
SK 50	32	160	24	▶ 13-7369-50-32-160
SK 50	40	50	27	● 13-7369-50-40
SK 50	40	100	27	● 13-7369-50-40-100
SK 50	40	160	27	✱ 13-7369-50-40-160
SK 50	50	60	30	✱ 13-7369-50-50*

* Gewuchtet G = 6,3 12.000 U/min.
* Balanced G = 6,3 12.000 U/min.

Flächenspannfutter WELDON DIN 69871
End mill adaptors WELDON DIN 69871

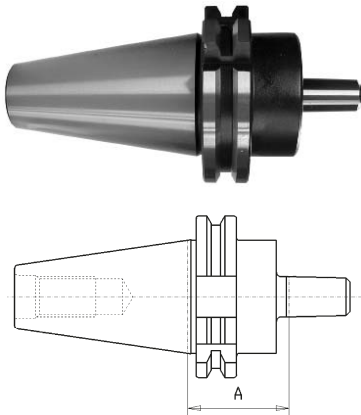


Gewuchtet G = 6,3 15.000 U/min.
Balanced G = 6,3 15.000 U/min.

Größe / Size	D1 mm	A mm	Art.-Nr. / Order no.
SK 40	6	50	● 13-7625-40-6-50
SK 40	6	100	● 13-7625-40-6-100
SK 40	6	160	● 13-7625-40-6-160
SK 40	8	50	● 13-7625-40-8-50
SK 40	8	100	● 13-7625-40-8-100
SK 40	8	160	● 13-7625-40-8-160
SK 40	10	50	● 13-7625-40-10-50
SK 40	10	100	● 13-7625-40-10-100
SK 40	10	160	● 13-7625-40-10-160
SK 40	12	50	● 13-7625-40-12-50
SK 40	12	100	● 13-7625-40-12-100
SK 40	12	160	● 13-7625-40-12-160
SK 40	14	50	● 13-7625-40-14-50
SK 40	14	100	● 13-7625-40-14-100
SK 40	14	160	● 13-7625-40-14-160
SK 40	16	63	● 13-7625-40-16-63
SK 40	16	100	● 13-7625-40-16-100
SK 40	16	160	● 13-7625-40-16-160
SK 40	18	63	● 13-7625-40-18-63
SK 40	18	100	● 13-7625-40-18-100
SK 40	18	160	▶ 13-7625-40-18-160
SK 40	20	63	● 13-7625-40-20-63
SK 40	20	100	● 13-7625-40-20-100
SK 40	20	160	● 13-7625-40-20-160
SK 40	22	63	● 13-7625-40-22-63
SK 40	25	100	● 13-7625-40-25-100
SK 40	25	160	● 13-7625-40-25-160
SK 40	32	100	● 13-7625-40-32-100
SK 40	32	160	● 13-7625-40-32-160
SK 40	40	120	● 13-7625-40-40-115
SK 50	6	63	● 13-7625-50-6-63
SK 50	6	100	● 13-7625-50-6-100
SK 50	6	160	● 13-7625-50-6-160
SK 50	8	63	● 13-7625-50-8-63
SK 50	8	100	● 13-7625-50-8-100
SK 50	8	160	● 13-7625-50-8-160
SK 50	10	63	● 13-7625-50-10-63
SK 50	10	100	● 13-7625-50-10-100
SK 50	10	160	● 13-7625-50-10-160
SK 50	12	63	● 13-7625-50-12-63
SK 50	12	100	● 13-7625-50-12-100
SK 50	12	160	● 13-7625-50-12-160
SK 50	14	63	● 13-7625-50-14-63
SK 50	14	100	● 13-7625-50-14-100
SK 50	16	63	● 13-7625-50-16-63
SK 50	16	100	● 13-7625-50-16-100
SK 50	16	160	● 13-7625-50-16-160
SK 50	18	63	● 13-7625-50-18-63
SK 50	18	100	● 13-7625-50-18-100
SK 50	20	63	● 13-7625-50-20-63
SK 50	20	100	● 13-7625-50-20-100
SK 50	20	160	● 13-7625-50-20-160
SK 50	25	80	● 13-7625-50-25-80
SK 50	25	100	● 13-7625-50-25-100
SK 50	32	100	● 13-7625-50-32-100
SK 50	32	160	● 13-7625-50-32-160
SK 50	40	120	● 13-7625-50-40-120

Weitere Größen siehe nächste Seite
Further sizes see next page



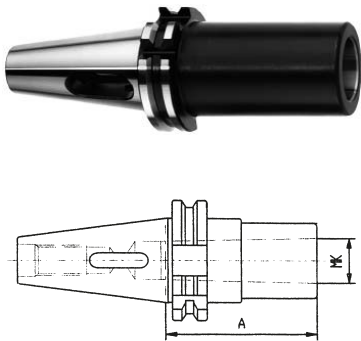


Gewuchtet G = 6,3 15.000 U/min.
Balanced G = 6,3 15.000 U/min.

Bohrfutteraufnahmen DIN 69871
Drill chuck adaptors DIN 69871

Größe / Size	Kegel / Taper	A mm	Art.-Nr. / Order no.
SK 40	B12	25	13-5374-40-B12
SK 40	B16	25	13-5374-40-B16
SK 40	B18	35	13-5374-40-B18
SK 50	B16	25	13-5374-50-B16
SK 50	B18	25	13-5374-50-B18

**Zwischenhülsen DIN 69871 für MK-Werkzeuge
mit Austreibblappen**
Reducing adaptors DIN 69871 for MT tools with tang

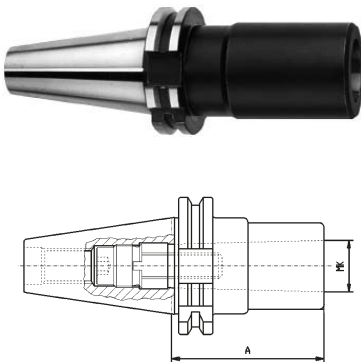


Gewuchtet G = 6,3 15.000 U/min.
Balanced G = 6,3 15.000 U/min.

Größe / Size	MK / MT	A mm	Art.-Nr. / Order no.
SK 40	1	50	13-1681-40/1
SK 40	2	50	13-1681-40/2
SK 40	3	70	13-1681-40/3
SK 40	4	95	13-1681-40/4
SK 50	1	45	13-1681-50/1
SK 50	2	60	13-1681-50/2
SK 50	3	65	13-1681-50/3
SK 50	4	95	13-1681-50/4
SK 50	5	120	13-1681-50/5

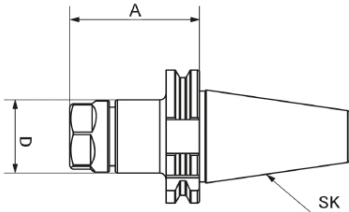
**Zwischenhülsen DIN 69871 für MK-Werkzeuge
mit Anzugsgewinde**
Reducing adaptors DIN 69871 for MT tools with thread

- mit Anzugsgewinde DIN 6364 - with thread DIN 6364



Gewuchtet G = 6,3 15.000 U/min.
Balanced G = 6,3 15.000 U/min.

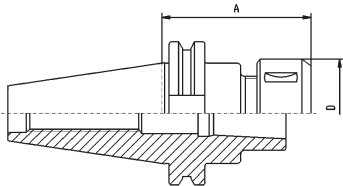
Größe / Size	MK / MT	A mm	Art.-Nr. / Order no.
SK 40	1	50	13-1695-40/1
SK 40	2	50	13-1695-40/2
SK 40	3	70	13-1695-40/3
SK 40	4	95	13-1695-40/4
SK 50	1	45	13-1695-50/1
SK 50	2	60	13-1695-50/2
SK 50	3	65	13-1695-50/3
SK 50	4	70	13-1695-50/4
SK 50	5	100	13-1695-50/5



Gewuchtet G = 6,3 15.000 U/min.
Balanced G = 6,3 15.000 U/min.

Spannzangenfutter DIN 69871 ER
Collet chucks DIN 69871 ER

Größe / Size	Spannzange / Collet	A mm	D mm	Art.-Nr. / Order no.
SK 40	ER 16	63	28	● 13-7617-40-16
SK 40	ER 16	100	28	● 13-7617-40-16-100
SK 40	ER 16	160	28	● 13-7617-40-16-160
SK 40	ER 25	60	42	● 13-7617-40-25
SK 40	ER 25	100	42	● 13-7617-40-25-100
SK 40	ER 25	160	42	● 13-7617-40-25-160
SK 40	ER 32	70	50	● 13-7617-40-32
SK 40	ER 32	100	50	● 13-7617-40-32-100
SK 40	ER 32	160	50	▶ 13-7617-40-32-160
SK 40	ER 40	80	63	● 13-7617-40-40
SK 40	ER 40	100	63	● 13-7617-40-40-100
SK 40	ER 40	160	63	● 13-7617-40-40-160
SK 50	ER 32	70	50	● 13-7617-50-32
SK 50	ER 32	100	50	● 13-7617-50-32-100
SK 50	ER 32	160	50	▶ 13-7617-50-32-160
SK 50	ER 40	70	63	● 13-7617-50-40
SK 50	ER 40	100	63	● 13-7617-50-40-100
SK 50	ER 40	160	63	▶ 13-7617-50-40-160



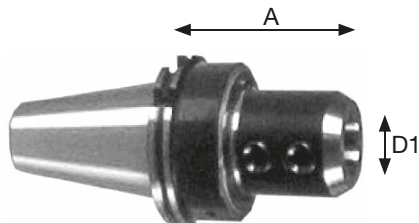
Gewuchtet G = 6,3 15.000 U/min.
Balanced G = 6,3 15.000 U/min.

Spannzangenfutter DIN 69871 OZ
Collet chucks DIN 69871 OZ

Größe / Size	Spannzange / Collet	A mm	D mm	Art.-Nr. / Order no.
SK 40	OZ16 (415E)	70	43	● 13-7645-40-16
SK 40	OZ25 (462E)	70	60	● 13-7645-40-25
SK 40	OZ32 (467E)	90	72	● 13-7645-40-32
SK 50	OZ25 (462E)	70	60	● 13-7645-50-25
SK 50	OZ32 (467E)	80	72	● 13-7645-50-32

Fräseraufnahme DIN 69871 mit Kühlmittelring für IKZ
Weldon chuck DIN 69871 with cooling agent ring

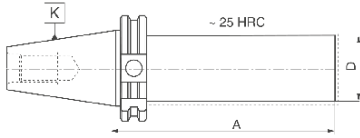
- mit Kühlmittelring für innere Kühlmittelzufuhr
- Aufnahmebohrung nach DIN 1835B (Weldon)
- with cooling agent ring for internal coolant supply
- according to DIN 1835B (Weldon)



Größe / Size	D1 mm	A mm	Art.-Nr. / Order no.
SK 40	20	70	○ 09-FSKR-DIN-40-20
SK 40	25	100	○ 09-FSKR-DIN-40-25
SK 40	32	110	○ 09-FSKR-DIN-40-32
SK 40	40	120	○ 09-FSKR-DIN-40-40
SK 50	20	70	○ 09-FSKR-DIN-50-20
SK 50	25	100	○ 09-FSKR-DIN-50-25
SK 50	32	110	○ 09-FSKR-DIN-50-32
SK 50	40	120	○ 09-FSKR-DIN-50-40

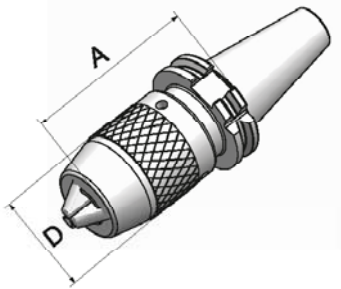
Passende Reduzierhülsen siehe Seite 238
Suitable reduction sleeves see page 238





Rohlinge DIN 69871
Blanks DIN 69871

Größe / Size	D mm	A mm	Art.-Nr. / Order no.
40	40	280	13-2191-40-40-280
40	63	160	13-2191-40-63-160
40	63	250	13-2191-40-63-250
50	50	330	13-2191-50-50-330
50	97	315	13-2191-50-97-315

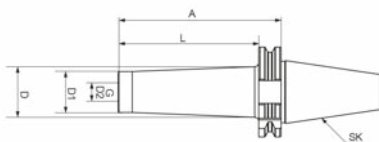


Bohrfutter DIN 69871
Drill chucks DIN 69871

- inkl. Hakenschlüssel

- incl. hook wrench

Größe / Size	Spannweite / Capacity mm	D mm	A mm	Rundlaufgenauigkeit / Runout mm	Art.-Nr. / Order no.
SK 40	1-13	50	95	0,05	13-7655-40-13
SK 40	3-16	57	100	0,05	13-7655-40-16
SK 50	3-16	55	115	0,05	13-7655-50-16



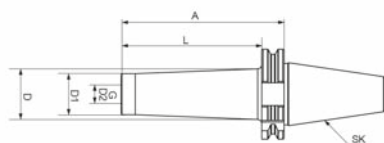
Gewuchtet G = 6,3 15.000 U/min.
Balanced G = 6,3 15.000 U/min.

Fräseraufnahme DIN 69871 für Einschraubfräser
Screw-in type milling arbors DIN 69871

Größe / Size	G	D2 mm	D1 mm	D mm	A mm	L mm	Art.-Nr. / Order no.
SK 40	M8	8,5	13	15	44	25	13-FASK40-M8-25
SK 40	M8	8,5	13	23	69	50	13-FASK40-M8-50
SK 40	M8	8,5	13	23	94	75	13-FASK40-M8-75
SK 40	M10	10,5	18	20	44	25	13-FASK40-M10-25
SK 40	M10	10,5	18	23	69	50	13-FASK40-M10-50
SK 40	M10	10,5	18	28	94	75	13-FASK40-M10-75
SK 40	M12	12,5	21	24	44	25	13-FASK40-M12-25
SK 40	M12	12,5	21	24	69	50	13-FASK40-M12-50
SK 40	M12	12,5	21	31	94	75	13-FASK40-M12-75
SK 40	M12	12,5	21	33	119	100	13-FASK40-M12-100
SK 40	M16	17	29	29	44	25	13-FASK40-M16-25
SK 40	M16	17	29	34	69	50	13-FASK40-M16-50
SK 40	M16	17	29	34	94	75	13-FASK40-M16-75
SK 40	M16	17	29	36	119	100	13-FASK40-M16-100
SK 40	M16	17	29	40	144	125	13-FASK40-M16-125

Weitere Größen siehe nächste Seite
Further sizes see next page



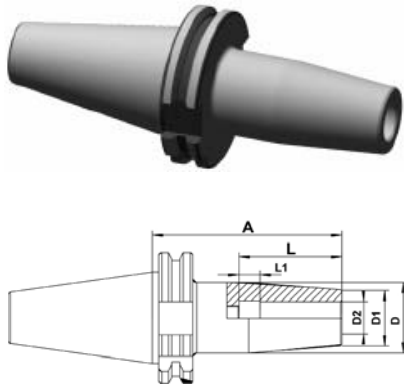


Größe / Size	G	D2 mm	D1 mm	D mm	A mm	L mm	Art.-Nr. / Order no.
SK 50	M8	8,5	13	23	69	50	13-FASK50-M8-50
SK 50	M8	8,5	13	25	119	100	13-FASK50-M8-100
SK 50	M10	10,5	18	23	69	50	13-FASK50-M10-50
SK 50	M10	10,5	18	32	119	100	13-FASK50-M10-100
SK 50	M12	12,5	21	24	69	50	13-FASK50-M12-50
SK 50	M12	12,5	21	33	119	100	13-FASK50-M12-100
SK 50	M12	12,5	21	40	169	150	13-FASK50-M12-150
SK 50	M16	17	29	34	69	50	13-FASK50-M16-50
SK 50	M16	17	29	36	119	100	13-FASK50-M16-100
SK 50	M16	17	29	43	169	150	13-FASK50-M16-150

Gewuchtet G = 6,3 15.000 U/min.
Balanced G = 6,3 15.000 U/min.

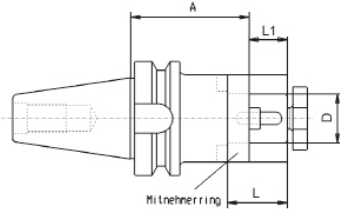


Schrumpffutter DIN 69871 AD/B
Shrink chuck DIN 69871 AD/B



Gewuchtet G = 2,5 25.000 U/min.
Balanced G = 2,5 25.000 U/min.

Größe / Size	D2 mm	D1 mm	D mm	L mm	L1 mm	A mm	Art.-Nr. / Order no.
SK 40	3	10	20	15	-	80	▶ 13-SHFSK40-3-80
SK 40	3	10	20	15	-	120	▶ 13-SHFSK40-3-120
SK 40	3	10	20	15	-	160	▶ 13-SHFSK40-3-160
SK 40	4	15	22	15	-	80	▶ 13-SHFSK40-4-80
SK 40	4	15	22	15	-	120	▶ 13-SHFSK40-4-120
SK 40	4	15	22	15	-	160	▶ 13-SHFSK40-4-160
SK 40	5	15	22	20	-	80	▶ 13-SHFSK40-5-80
SK 40	5	15	22	20	-	120	▶ 13-SHFSK40-5-120
SK 40	5	15	22	20	-	160	▶ 13-SHFSK40-5-160
SK 40	6	20	27	36	10	80	▶ 13-SHFSK40-6-80
SK 40	6	20	27	36	10	120	▶ 13-SHFSK40-6-120
SK 40	6	20	27	36	10	160	▶ 13-SHFSK40-6-160
SK 40	8	20	27	36	10	80	▶ 13-SHFSK40-8-80
SK 40	8	20	27	36	10	120	▶ 13-SHFSK40-8-120
SK 40	8	20	27	36	10	160	▶ 13-SHFSK40-8-160
SK 40	10	24	31	41	10	80	▶ 13-SHFSK40-10-80
SK 40	10	24	31	41	10	120	▶ 13-SHFSK40-10-120
SK 40	10	24	31	41	10	160	▶ 13-SHFSK40-10-160
SK 40	12	24	31	47	10	80	▶ 13-SHFSK40-12-80
SK 40	12	24	31	47	10	120	▶ 13-SHFSK40-12-120
SK 40	12	24	31	47	10	160	▶ 13-SHFSK40-12-160
SK 40	14	27	34	47	10	80	▶ 13-SHFSK40-14-80
SK 40	14	27	34	47	10	120	▶ 13-SHFSK40-14-120
SK 40	14	27	34	47	10	160	▶ 13-SHFSK40-14-160
SK 40	16	27	34	50	10	80	▶ 13-SHFSK40-16-80
SK 40	16	27	34	50	10	120	▶ 13-SHFSK40-16-120
SK 40	16	27	34	50	10	160	▶ 13-SHFSK40-16-160
SK 40	18	33	40	50	10	80	▶ 13-SHFSK40-18-80
SK 40	18	33	40	50	10	120	▶ 13-SHFSK40-18-120
SK 40	18	33	40	50	10	160	▶ 13-SHFSK40-18-160
SK 40	20	33	40	52	10	80	▶ 13-SHFSK40-20-80
SK 40	20	33	40	52	10	120	▶ 13-SHFSK40-20-120
SK 40	20	33	40	52	10	160	▶ 13-SHFSK40-20-160
SK 40	25	44	53	58	10	100	▶ 13-SHFSK40-25-100
SK 40	25	44	53	58	10	120	▶ 13-SHFSK40-25-120
SK 40	25	44	53	58	10	160	▶ 13-SHFSK40-25-160
SK 40	32	44	53	62	10	100	▶ 13-SHFSK40-32-100
SK 40	32	44	53	62	10	120	▶ 13-SHFSK40-32-120
SK 40	32	44	53	62	10	160	▶ 13-SHFSK40-32-160



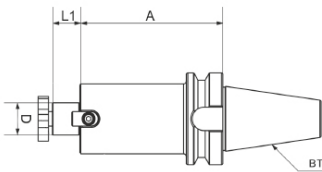
Gewuchtet G = 6,3 15.000 U/min.
Balanced G = 6,3 15.000 U/min.

Kombi-Fräseraufsteckdorne MAS BT
Combination shell mill adaptors MAS BT

Größe / Size	D mm	A mm	L mm	L1 mm	Art.-Nr. / Order no.
BT 40	16	55	27	17	● 13-7361-40-16
BT 40	22	55	32	19	● 13-7361-40-22
BT 40	27	55	33	21	● 13-7361-40-27
BT 40	32	60	38	24	● 13-7361-40-32
BT 40	40	60	41	27	● 13-7361-40-40
BT 50	16	70	27	17	● 13-7361-50-16
BT 50	22	70	31	19	● 13-7361-50-22
BT 50	27	70	33	21	● 13-7361-50-27
BT 50	32	70	38	24	● 13-7361-50-32
BT 50	40	70	41	27	● 13-7361-50-40
BT 50	50	70	45	30	● 13-7361-50-50*

* Ungewuchtet
* Unbalanced

Messerkopf-Aufnahmen MAS BT
Face mill holders MAS BT

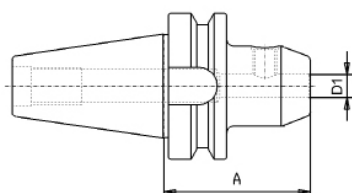


Gewuchtet G = 6,3 15.000 U/min.
Balanced G = 6,3 15.000 U/min.

Größe / Size	D mm	A mm	L1 mm	Art.-Nr. / Order no.
BT 40	16	40	17	● 13-7388-40-16
BT 40	16	100	17	▶ 13-7388-40-16-100
BT 40	22	45	19	● 13-7388-40-22
BT 40	22	100	19	▶ 13-7388-40-22-100
BT 40	27	40	21	● 13-7388-40-27
BT 40	27	100	21	▶ 13-7388-40-27-100
BT 40	32	50	24	● 13-7388-40-32
BT 40	32	100	24	▶ 13-7388-40-32-100
BT 40	40	50	27	● 13-7388-40-40
BT 40	40	100	27	▶ 13-7388-40-40-100
BT 50	22	40	19	● 13-7388-50-22
BT 50	22	100	19	▶ 13-7388-50-22-100
BT 50	27	40	21	● 13-7388-50-27
BT 50	27	100	21	▶ 13-7388-50-27-100
BT 50	32	50	24	● 13-7388-50-32
BT 50	32	100	24	▶ 13-7388-50-32-100
BT 50	40	50	27	● 13-7388-50-40
BT 50	40	100	27	▶ 13-7388-50-40-100
BT 50	50	78	30	● 13-7388-50-50*

* Ungewuchtet
* Unbalanced



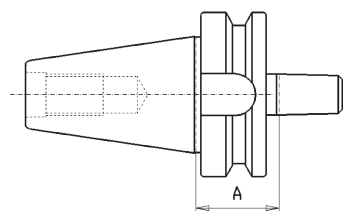


Gewuchtet G = 6,3 15.000 U/min.
Balanced G = 6,3 15.000 U/min.

Flächenspannfutter WELDON MAS BT End mill adaptors WELDON MAS BT

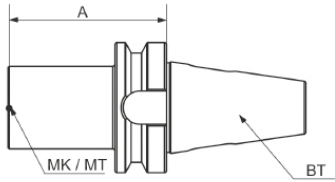
Größe / Size	D1 mm	A mm	Art.-Nr. / Order no.
BT 40	6	50	● 13-7624-40-6-50
BT 40	6	100	● 13-7624-40-6-100
BT 40	8	50	● 13-7624-40-8-50
BT 40	8	100	● 13-7624-40-8-100
BT 40	10	63	● 13-7624-40-10-63
BT 40	10	100	● 13-7624-40-10-100
BT 40	12	63	● 13-7624-40-12-63
BT 40	12	100	● 13-7624-40-12-100
BT 40	14	63	● 13-7624-40-14-63
BT 40	16	63	● 13-7624-40-16-63
BT 40	16	100	● 13-7624-40-16-100
BT 40	18	63	● 13-7624-40-18-63
BT 40	20	63	● 13-7624-40-20-63
BT 40	20	100	● 13-7624-40-20-100
BT 40	25	90	● 13-7624-40-25-90
BT 40	32	100	● 13-7624-40-32-100
BT 40	40	120	● 13-7624-40-40-105
BT 50	6	63	● 13-7624-50-6-63
BT 50	8	63	● 13-7624-50-8-63
BT 50	10	63	● 13-7624-50-10-63
BT 50	12	80	● 13-7624-50-12-80
BT 50	14	80	● 13-7624-50-14-80
BT 50	16	80	● 13-7624-50-16-80
BT 50	20	80	● 13-7624-50-20-80
BT 50	25	100	● 13-7624-50-25-100
BT 50	32	105	● 13-7624-50-32-105
BT 50	40	110	▶ 13-7624-50-40-115

Bohrfutteraufnahmen MAS BT Drill chuck adaptors MAS BT



Gewuchtet G = 6,3 15.000 U/min.
Balanced G = 6,3 15.000 U/min.

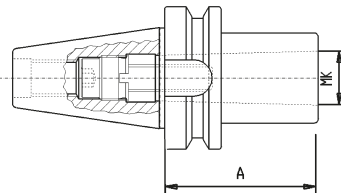
Größe / Size	Kegel / Taper	A mm	Art.-Nr. / Order no.
BT 40	B12	32	● 13-5373-40-B12
BT 40	B16	32	● 13-5373-40-B16
BT 50	B16	45	● 13-5373-50-B16
BT 50	B18	45	● 13-5373-50-B18



Gewuchtet G = 6,3 15.000 U/min.
Balanced G = 6,3 15.000 U/min.

Zwischenhülsen MAS BT für MK-Werkzeuge mit Austreiblappen
Reducing adaptors MAS BT for MT tools with tang

Größe / Size	MK / MT	A mm	Art.-Nr. / Order no.
BT 40	1	50	● 13-1661-40/1
BT 40	2	50	● 13-1661-40/2
BT 40	3	70	● 13-1661-40/3
BT 40	4	95	● 13-1661-40/4
BT 50	1	45	● 13-1661-50/1
BT 50	2	60	● 13-1661-50/2
BT 50	3	65	● 13-1661-50/3
BT 50	4	95	● 13-1661-50/4
BT 50	5	120	● 13-1661-50/5

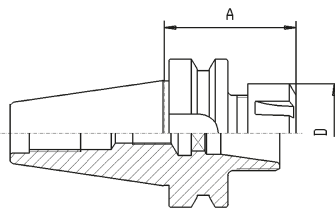


Gewuchtet G = 6,3 15.000 U/min.
Balanced G = 6,3 15.000 U/min.

Zwischenhülsen MAS BT für MK-Werkzeuge mit Anzugsgewinde
Reducing adaptors MAS BT for MT tools with thread

- mit Anzugsgewinde DIN 6364 - with thread DIN 6364

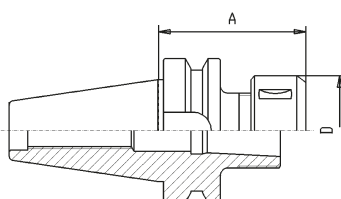
Größe / Size	MK / MT	A mm	Art.-Nr. / Order no.
BT 40	1	50	● 13-1694-40/1
BT 40	2	50	● 13-1694-40/2
BT 40	3	70	● 13-1694-40/3
BT 40	4	95	● 13-1694-40/4
BT 50	1	45	* 13-1694-50/1
BT 50	2	60	● 13-1694-50/2
BT 50	3	65	● 13-1694-50/3
BT 50	4	70	● 13-1694-50/4
BT 50	5	120	● 13-1694-50/5



Gewuchtet G = 6,3 15.000 U/min.
Balanced G = 6,3 15.000 U/min.

Spannzangenfutter MAS BT ER
Collet chucks MAS BT ER

Größe / Size	Spannzange / Collet	A mm	D mm	Art.-Nr. / Order no.
BT 40	ER 16	63	32	● 13-7626-40-16
BT 40	ER 25	70	42	● 13-7626-40-25
BT 40	ER 32	70	50	● 13-7626-40-32
BT 40	ER 40	80	63	● 13-7626-40-40
BT 50	ER 32	70	50	● 13-7626-50-32
BT 50	ER 40	80	63	● 13-7626-50-40

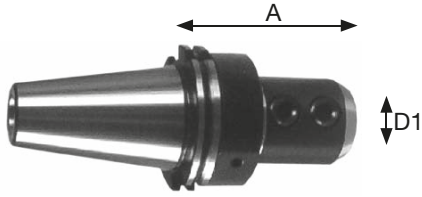


Gewuchtet G = 6,3 15.000 U/min.
Balanced G = 6,3 15.000 U/min.

Spannzangenfutter MAS BT OZ
Collet chucks MAS BT OZ

Größe / Size	Spannzange / Collet	A mm	D mm	Art.-Nr. / Order no.
BT 40	OZ16 (415E)	70	43	▶ 13-7606-40-16
BT 40	OZ25 (462E)	70	60	● 13-7606-40-25
BT 40	OZ32 (467E)	90	72	● 13-7606-40-32
BT 50	OZ25 (462E)	85	60	▶ 13-7606-50-25
BT 50	OZ32 (467E)	90	72	▶ 13-7606-50-32





Fräseraufnahme MAS BT mit Kühlmittelring für IKZ
Weldon chuck MAS BT with cooling agent ring

- mit Kühlmittelring für innere Kühlmittelzufuhr
- Aufnahmebohrung nach Weldon DIN 1835B
- with cooling agent ring for internal coolant supply
- according to DIN 1835B

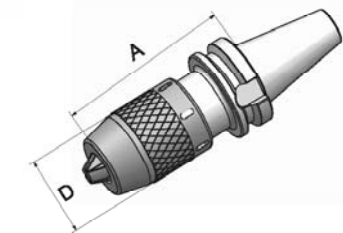
Größe / Size	D1 mm	A mm	Art.-Nr. / Order no.
BT 40	20	70	09-FSKR-BT-40-20
BT 40	25	100	09-FSKR-BT-40-25
BT 40	32	110	09-FSKR-BT-40-32
BT 40	40	120	09-FSKR-BT-40-40
BT 50	20	70	09-FSKR-BT-50-20
BT 50	25	100	09-FSKR-BT-50-25
BT 50	32	110	09-FSKR-BT-50-32
BT 50	40	120	09-FSKR-BT-50-40

Passende Reduzierhülsen siehe Seite 238
Suitable reduction sleeves see page 238



Bohrfutter MAS BT
Drill chucks MAS BT

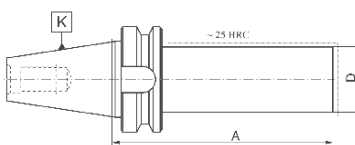
- inkl. Hakenschlüssel
- incl. hook wrench



Größe / Size	Spannweite / Capacity mm	D mm	A mm	Rundlaufgenauigkeit / Runout mm	Art.-Nr. / Order no.
BT 40	1-13	50	95	0,05	13-7656-40-13
BT 40	3-16	57	100	0,05	13-7656-40-16

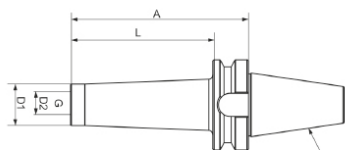


Rohlinge MAS BT
Blanks MAS BT



Größe / Size	D mm	A mm	Art.-Nr. / Order no.
BT 40	40	280	13-2192-40-40-280
BT 40	63	250	13-2192-40-63-250
BT 50	50	330	13-2192-50-50-330
BT 50	97	315	13-2192-50-97-315



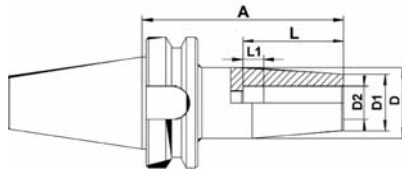


Gewuchtet G = 6,3 15.000 U/min.
Balanced G = 6,3 15.000 U/min.

Fräseraufnahme MAS BT für Einschraubfräser
Screw-in type milling arbors MAS BT

Größe / Size	G	D2 mm	D1 mm	D mm	A mm	L mm	Art.-Nr. / Order no.
BT 40	M8	8,5	13	23	77	50	● 13-FABT40-M8-50
BT 40	M8	8,5	13	25	120	100	● 13-FABT40-M8-100
BT 40	M10	10,5	18	20	52	25	● 13-FABT40-M10-25
BT 40	M10	10,5	18	23	77	50	● 13-FABT40-M10-50
BT 40	M10	10,5	18	28	102	75	● 13-FABT40-M10-75
BT 40	M10	10,5	18	32	127	100	● 13-FABT40-M10-100
BT 40	M12	12,5	21	24	52	25	● 13-FABT40-M12-25
BT 40	M12	12,5	21	28	77	50	● 13-FABT40-M12-50
BT 40	M12	12,5	21	31	102	75	● 13-FABT40-M12-75
BT 40	M12	12,5	21	31	138	100	● 13-FABT40-M12-100
BT 40	M16	17	29	29	52	25	● 13-FABT40-M16-25
BT 40	M16	17	29	34	77	50	● 13-FABT40-M16-50
BT 40	M16	17	29	34	102	75	● 13-FABT40-M16-75
BT 40	M16	17	29	41	138	100	● 13-FABT40-M16-100
BT 40	M16	17	29	44	152	125	● 13-FABT40-M16-125
BT 40	M16	17	29	50	188	150	● 13-FABT40-M16-150
BT 50	M8	8,5	13	23	88	50	● 13-FABT50-M8-50
BT 50	M8	8,5	13	25	138	100	● 13-FABT50-M8-100
BT 50	M8	8,5	13	30	188	150	● 13-FABT50-M8-150
BT 50	M10	10,5	18	23	88	50	● 13-FABT50-M10-50
BT 50	M10	10,5	18	32	138	100	● 13-FABT50-M10-100
BT 50	M10	10,5	18	37	188	150	● 13-FABT50-M10-150
BT 50	M12	12,5	21	24	88	50	● 13-FABT50-M12-50
BT 50	M12	12,5	21	33	138	100	● 13-FABT50-M12-100
BT 50	M12	12,5	21	40	188	150	● 13-FABT50-M12-150
BT 50	M16	17	29	34	88	50	● 13-FABT50-M16-50
BT 50	M16	17	29	36	138	100	● 13-FABT50-M16-100
BT 50	M16	17	29	43	188	150	● 13-FABT50-M16-150

Schrumpffutter MAS BT
Shrink chuck MAS BT



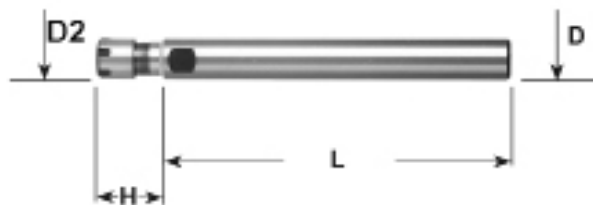
Gewuchtet G = 2,5 25.000 U/min.
Balanced G = 2,5 25.000 U/min.

Größe / Size	D2 mm	D1 mm	D mm	L mm	L1 mm	A mm	Art.-Nr. / Order no.
BT 40	3	10	20	15	-	90	▶ 13-SHFBT40-3-90
BT 40	3	10	20	15	-	120	▶ 13-SHFBT40-3-120
BT 40	3	10	20	15	-	160	▶ 13-SHFBT40-3-160
BT 40	4	15	22	15	-	90	▶ 13-SHFBT40-4-90
BT 40	4	15	22	15	-	120	▶ 13-SHFBT40-4-120
BT 40	4	15	22	15	-	160	▶ 13-SHFBT40-4-160
BT 40	5	15	22	20	-	90	▶ 13-SHFBT40-5-90
BT 40	5	15	22	20	-	120	▶ 13-SHFBT40-5-120
BT 40	5	15	22	20	-	160	▶ 13-SHFBT40-5-160
BT 40	6	20	27	36	10	90	▶ 13-SHFBT40-6-90
BT 40	6	20	27	36	10	120	▶ 13-SHFBT40-6-120
BT 40	6	20	27	36	10	160	▶ 13-SHFBT40-6-160
BT 40	8	20	27	36	10	90	▶ 13-SHFBT40-8-90
BT 40	8	20	27	36	10	120	▶ 13-SHFBT40-8-120
BT 40	8	20	27	36	10	160	▶ 13-SHFBT40-8-160
BT 40	10	24	31	41	10	90	▶ 13-SHFBT40-10-90
BT 40	10	24	31	41	10	120	▶ 13-SHFBT40-10-120
BT 40	10	24	31	41	10	160	▶ 13-SHFBT40-10-160
BT 40	12	24	31	47	10	90	▶ 13-SHFBT40-12-90
BT 40	12	24	31	47	10	120	▶ 13-SHFBT40-12-120
BT 40	12	24	31	47	10	160	▶ 13-SHFBT40-12-160
BT 40	14	27	34	47	10	90	▶ 13-SHFBT40-14-90
BT 40	14	27	34	47	10	120	▶ 13-SHFBT40-14-120
BT 40	14	27	34	47	10	160	▶ 13-SHFBT40-14-160
BT 40	16	27	34	50	10	90	▶ 13-SHFBT40-16-90
BT 40	16	27	34	50	10	120	▶ 13-SHFBT40-16-120
BT 40	16	27	34	50	10	160	▶ 13-SHFBT40-16-160
BT 40	18	33	40	50	10	90	▶ 13-SHFBT40-18-90
BT 40	18	33	40	50	10	120	▶ 13-SHFBT40-18-120
BT 40	18	33	40	50	10	160	▶ 13-SHFBT40-18-160
BT 40	20	33	40	52	10	90	▶ 13-SHFBT40-20-90
BT 40	20	33	40	52	10	120	▶ 13-SHFBT40-20-120
BT 40	20	33	40	52	10	160	▶ 13-SHFBT40-20-160
BT 40	25	44	53	58	10	100	▶ 13-SHFBT40-25-100
BT 40	25	44	53	58	10	120	▶ 13-SHFBT40-25-120
BT 40	25	44	53	58	10	160	▶ 13-SHFBT40-25-160
BT 40	32	44	53	62	10	100	▶ 13-SHFBT40-32-100
BT 40	32	44	53	62	10	120	▶ 13-SHFBT40-32-120
BT 40	32	44	53	62	10	160	▶ 13-SHFBT40-32-160

Aufnahmen mit Zylinderschaft Straight shank tooling

11
11.6

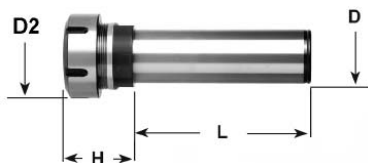
Spannzangenfutter ER mit Zylinderschaft und Minimutter Collet chucks ER with cylindrical shank and mini nut



D mm	Spannzange / Collet	L mm	D2 mm	H mm	Art.-Nr. / Order no.
12	ER 8	100	12	23	● 13-7812-12-8M-100
12	ER 11	100	16	26	● 13-7812-12-11M-100
12	ER 11	140	16	28	● 13-7812-12-11M-140
12	ER 16	80	22	35	● 13-7812-12-16M-80
16	ER 11	100	16	19	● 13-7812-16-11M-100
16	ER 11	130	16	19	● 13-7812-16-11M-130
16	ER 11	160	16	18	● 13-7812-16-11M-160
16	ER 16	100	22	35	● 13-7812-16-16M-100
16	ER 16	130	22	35	● 13-7812-16-16M-130
16	ER 16	160	22	33	● 13-7812-16-16M-160
20	ER 11	100	16	19	● 13-7812-20-11M-100
20	ER 11	130	16	19	● 13-7812-20-11M-130
20	ER 16	100	22	31	● 13-7812-20-16M-100
20	ER 16	130	22	31	● 13-7812-20-16M-130
20	ER 16	165	22	22	● 13-7812-20-16M-160
20	ER 20	130	28	45	● 13-7812-20-20M-130
20	ER 20	160	28	45	● 13-7812-20-20M-160
20	ER 20	200	28	45	● 13-7812-20-20M-200
25	ER 11	160	16	28	● 13-7812-25-11M-160
25	ER 16	100	22	25	● 13-7812-25-16M-100
25	ER 16	130	22	25	● 13-7812-25-16M-130
25	ER 16	163	22	22	● 13-7812-25-16M-160
25	ER 20	130	28	40	● 13-7812-25-20M-130
25	ER 20	160	28	40	● 13-7812-25-20M-160

Aufnahmen mit Zylinderschaft Straight shank tooling

Spannzangenfutter ER mit Zylinderschaft u. Standardmutter Collet chucks ER with cylindrical shank and standard nut



D mm	Spannzange / Collet	L mm	D2 mm	H mm	Art.-Nr. / Order no.
20	ER 25	50	42	42	13-7812-20-25-50
20	ER 25	100	42	42	13-7812-20-25-100
20	ER 25	130	42	40	13-7812-20-25-130
20	ER 25	160	42	46	13-7812-20-25-160
20	ER 32	100	50	47	13-7812-20-32-100
20	ER 32	130	50	53	13-7812-20-32-130
20	ER 32	160	50	53	13-7812-20-32-160
25	ER 20	160	28	45	13-7812-25-20-160
25	ER 25	50	42	48	13-7812-25-25-50
25	ER 25	100	42	45	13-7812-25-25-100
25	ER 25	160	42	45	13-7812-25-25-160
25	ER 32	50	50	50	13-7812-25-32-50
25	ER 32	100	50	50	13-7812-25-32-100
25	ER 32	130	50	53	13-7812-25-32-130
25	ER 32	160	50	48	13-7812-25-32-160
25	ER 40	60	63	55	13-7812-25-40-60
32	ER 25	100	42	27	13-7812-32-25-100
32	ER 25	160	42	48	* 13-7812-32-25-160
32	ER 32	50	50	50	13-7812-32-32-50
32	ER 32	100	50	50	13-7812-32-32-100
32	ER 32	130	50	42	13-7812-32-32-130
32	ER 32	160	50	48	13-7812-32-32-160
32	ER 40	70	63	35	13-7812-32-40-70
32	ER 40	130	63	60	13-7812-32-40-130
40	ER 32	80	50	45	13-7812-40-32-80
40	ER 32	135	50	50	13-7812-40-32-130
40	ER 32	160	50	50	13-7812-40-32-160
40	ER 40	130	63	50	13-7812-40-40-130
40	ER 40	160	63	50	13-7812-40-40-160
50	ER 40	120	63	35	13-7812-50-40-120
50	ER 40	160	63	35	13-7812-50-40-160

Spannzangenfutter Typ Erickson mit Zylinderschaft Collet chucks type Erickson with cylindrical shank



D mm	Spannzange / Collet	L mm	H mm	D2 mm	Art.-Nr. / Order no.
8	412E (DK-S)	100	32	10	▶ 13-6612-8-S-100
12	416E (DK30)	76	36	14	▶ 13-6612-12-30-76
12	416E (DK30)	140	36	14	▶ 13-6612-12-30-140
20	417E (DK20)	76	44	21	▶ 13-6612-20-20-76
20	417E (DK20)	140	44	21	▶ 13-6612-20-20-140
25	418E (DK10)	76	49,4	27	▶ 13-6612-25-10-76
25	418E (DK10)	140	49,4	27	▶ 13-6612-25-10-140

Passende Spannzangen siehe Seite 197
Suitable collets see page 197

Aufnahmen mit Zylinderschaft

Straight shank tooling

11

11.6

Aufnahmen mit Zylinderschaft / Straight shank tooling



Reduzierhülsen für Fräseraufnahmen mit IKZ

Reduction sleeves f. Weldon chucks with coolant agent ring

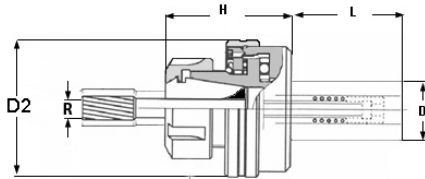
D mm	D1 mm	Art.-Nr. / Order no.
25	16	09-RZ-25-16
25	20	09-RZ-25-20
32	20	09-RZ-32-20
32	25	09-RZ-32-25
40	20	09-RZ-40-20
40	25	09-RZ-40-25
40	32	09-RZ-40-32

Pendelhalter mit Zylinderschaft

Floating chucks with cylindrical shank



- mit einstellbarem Radialspiel
- Einstellbereiche: Freipendeln und Parallelpendeln
- Federkraft, Zentrierkraft und Freipendeln einstellbar
- with adjustable radial floating movement
- application: Free and parallel floating
- spring force, centering force and floating movement adjustable



Spannzange / Collet	D mm	H mm	D2 mm	L mm	R mm	Art.-Nr. / Order no.
ER 11	16	40	42	46	1	09-PHZ-11-16
ER 11	20	40	42	46	1	09-PHZ-11-20
ER 16	16	44	42	46	1	09-PHZ-16-16
ER 16	25	44	42	46	1	09-PHZ-16-25
ER 20	16	50	50	46	1	09-PHZ-20-16
ER 20	20	50	50	46	1	09-PHZ-20-20
ER 20	25	50	50	46	1	09-PHZ-20-25
ER 25	20	53	57	46	1	09-PHZ-25-20
ER 25	25	53	57	46	1	09-PHZ-25-25
ER 32	25	58	69	50	1,5	09-PHZ-32-25
ER 32	32	58	69	50	1,5	09-PHZ-32-32
ER 40	25	64	79	50	1,5	09-PHZ-40-25
ER 40	32	64	79	50	1,5	09-PHZ-40-32

Sägeblattaufnahmen

Saw-blade holders

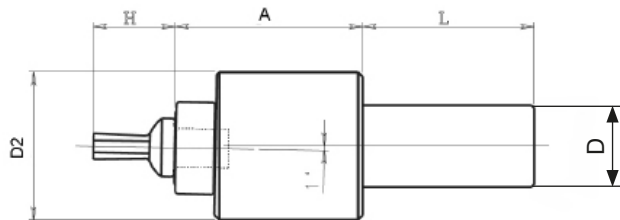


- zur präzisen Aufnahme von Sägeblättern in Flächenspannfuttern
- Lieferumfang: Aufnahme, Zwischenscheibe und Spannschraube
- for precision use of saw blades in Weldon chucks
- scope of supply: saw blade holder, intermediate disc, clamping screw

Sägeblatt-Ø / Saw-blade-Ø mm	L mm	D mm	Aufnahme-Ø / Mounting-Ø mm	Art.-Nr. / Order no.
20	94	20	5	15-00S2020
25	104	20	8	15-00S2025
32	110	20	8	15-00S2032
40	114	20	10	15-00S2040
50	141	25	13	15-00S2550
63	141	25	16	15-00S2563
80	160	25	22	15-00S2580
100	160	25	22	15-00S25100

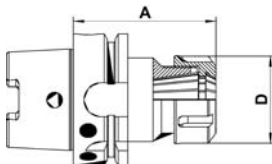


Räumwerkzeughalter mit Zylinderschaft
Broach tool holders with cylindrical shank



D mm	D2 mm	L mm	A mm	H mm	Aufnahme / Mounting	Art.-Nr. / Order no.
16	44	50	46	25	Ø 12	▶ 47-RHV-D16-12
20	58	50	76	40	Ø 16	▶ 47-RHV-D20-16

Passende Räumstempel siehe Seiten 175 - 177
Suitable cutters see pages 175 - 177

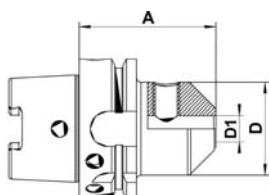


Gewuchtet G = 6,3 25.000 U/min.
Balanced G = 6,3 2.000 U/min.

Spannzangenfutter ER - Form A Collet chucks ER - form A

Größe / Size	Für Spannzange / For collet	D mm	A mm	Art.-Nr. / Order no.
HSK-A 63	ER16 (1-10)	28	100	● 17-SF63A-ER16-100
HSK-A 63	ER16 (1-10)	28	160	▶ 17-SF63A-ER16-160
HSK-A 63	ER25 (2-16)	42	100	● 17-SF63A-ER25-100
HSK-A 63	ER25 (2-16)	42	160	▶ 17-SF63A-ER25-160
HSK-A 63	ER32 (2-20)	50	100	● 17-SF63A-ER32-100
HSK-A 63	ER32 (2-20)	50	160	▶ 17-SF63A-ER32-160
HSK-A 63	ER40 (3-26)	63	120	● 17-SF63A-ER40-120
HSK-A 63	ER40 (3-26)	63	160	▶ 17-SF63A-ER40-160

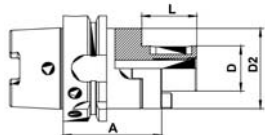
Flächenspannfutter WELDON - Form A End mill adaptors WELDON - form A



Gewuchtet G = 6,3 15.000 U/min.
Balanced G = 6,3 15.000 U/min.

Größe / Size	D1 mm	D mm	A mm	Art.-Nr. / Order no.
HSK-A 63	6	25	65	● 17-WE63A-6-65
HSK-A 63	6	25	100	▶ 17-WE63A-6-100
HSK-A 63	8	28	65	● 17-WE63A-8-65
HSK-A 63	8	28	100	▶ 17-WE63A-8-100
HSK-A 63	10	35	65	● 17-WE63A-10-65
HSK-A 63	10	35	100	▶ 17-WE63A-10-100
HSK-A 63	12	42	80	● 17-WE63A-12-80
HSK-A 63	12	42	100	▶ 17-WE63A-12-100
HSK-A 63	16	48	80	● 17-WE63A-16-80
HSK-A 63	16	48	100	▶ 17-WE63A-16-100
HSK-A 63	18	50	80	● 17-WE63A-18-80
HSK-A 63	20	52	80	● 17-WE63A-20-80
HSK-A 63	20	52	100	▶ 17-WE63A-20-100
HSK-A 63	25	65	110	● 17-WE63A-25-110
HSK-A 63	32	72	110	● 17-WE63A-32-110
HSK-A 63	40	80	125	● 17-WE63A-40-125

Kombi-Fräseraufsteckdorne DIN 6358 - Form A Combination shell mill adaptors DIN 6358 - form A



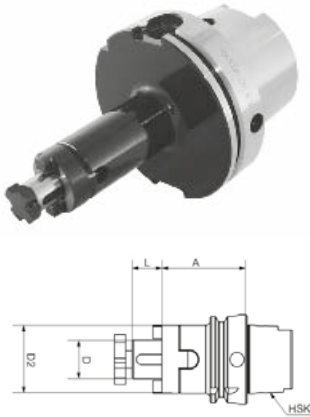
Gewuchtet G = 6,3 15.000 U/min.
Balanced G = 6,3 15.000 U/min.

Größe / Size	D mm	D2 mm	A mm	L mm	Art.-Nr. / Order no.
HSK-A 63	16	32	60	27	● 17-KD63A-16-60
HSK-A 63	16	32	100	27	● 17-KD63A-16-100
HSK-A 63	22	40	60	31	● 17-KD63A-22-60
HSK-A 63	22	40	100	31	● 17-KD63A-22-100
HSK-A 63	27	48	60	33	● 17-KD63A-27-60
HSK-A 63	27	48	100	33	● 17-KD63A-27-100
HSK-A 63	32	58	60	38	● 17-KD63A-32-65
HSK-A 63	32	58	100	38	● 17-KD63A-32-100
HSK-A 63	40	70	70	41	● 17-KD63A-40-70

Werkzeugaufnahmen mit HSK auch in Form C, E und F lieferbar
HSK tool holders are also available in form C, E and F

Messerkopf-Aufnahmen DIN 6357 - Form A
Shell mill holders DIN 6357 - form A

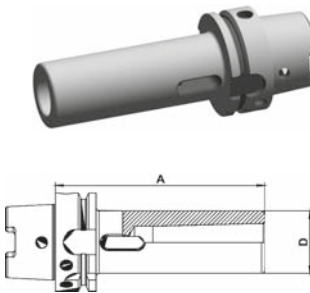
- mit vergrößertem Bunddurchmesser - with enlarged collar diameter



Gewuchtet G = 6,3 15.000 U/min.
Balanced G = 6,3 15.000 U/min.

Größe / Size	D mm	D2 mm	L mm	A mm	Art.-Nr. / Order no.
HSK-A 63	16	38	17	50	17-MS63A-16-50
HSK-A 63	16	38	17	100	17-MS63A-16-100
HSK-A 63	22	48	19	50	17-MS63A-22-50
HSK-A 63	22	48	19	100	17-MS63A-22-100
HSK-A 63	27	58	21	55	17-MS63A-27-55
HSK-A 63	27	58	21	100	17-MS63A-27-100
HSK-A 63	32	78	24	60	17-MS63A-32-60
HSK-A 63	32	78	24	100	17-MS63A-32-100
HSK-A 63	40	88	27	60	17-MS63A-40-60
HSK-A 63	40	88	27	100	17-MS63A-40-100

Einsatzhülsen für MK-Werkzeuge mit Austreibblappen - Form A
Adaptors for morse taper tools with tang - form A

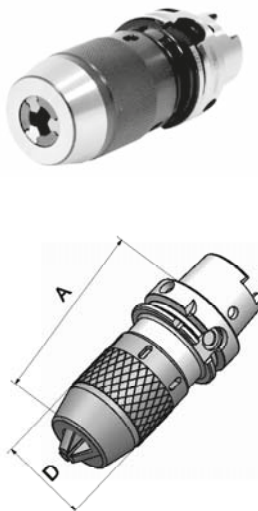


Gewuchtet G = 6,3 15.000 U/min.
Balanced G = 6,3 15.000 U/min.

Größe / Size	MK / MT	D mm	A mm	Art.-Nr. / Order no.
HSK-A 63	1	25	100	17-EH63A-MK1
HSK-A 63	2	32	120	17-EH63A-MK2
HSK-A 63	3	40	140	17-EH63A-MK3
HSK-A 63	4	48	160	17-EH63A-MK4

Bohrfutter - Form A
Drill chucks - form A

- inkl. Hakenschlüssel - incl. hook wrench



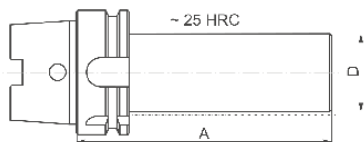
Größe / Size	Spannweite / Capacity mm	D mm	A mm	Rundlaufgenauigkeit / Runout mm	Art.-Nr. / Order no.
HSK-A 63	1-13	48	150	0,08	13-7658-63-13
HSK-A 63	3-16	53	155	0,08	13-7658-63-16

Werkzeugaufnahmen mit HSK auch in Form C, E und F lieferbar
HSK tool holders are also available in form C, E and F



DIN 69893 HSK - A DIN 69893 HSK - A

11
11.7



Bohrstangenrohling - Form A Blank adaptor - form A

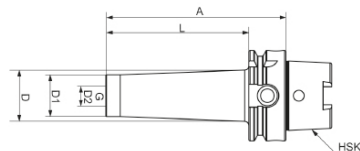
Größe / Size	D mm	A mm	Art.-Nr. / Order no.
HSK-A 63	63	150	● 17-BR63A-63-150
HSK-A 63	65	68	* 17-BR63A-65-68

Prüfdorn - Form A Test arbor - form A



Größe / Size	D mm	A mm	Art.-Nr. / Order no.
HSK-A 63	40	300	● 17-PD63A-40-300

Fräseraufnahme Form A für Einschraubfräser Screw-in type milling arbors form A



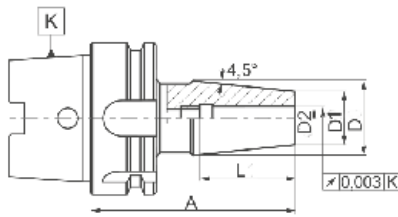
Größe / Size	G	D2 mm	D1 mm	D mm	A mm	L mm	Art.-Nr. / Order no.
HSK-A 63	M10	10,5	18	23	76	50	● 17-FA63A-M10-50
HSK-A 63	M10	10,5	18	32	126	100	● 17-FA63A-M10-100
HSK-A 63	M12	12,5	21	24	51	25	● 17-FA63A-M12-25
HSK-A 63	M12	12,5	21	24	76	50	● 17-FA63A-M12-50
HSK-A 63	M12	12,5	21	31	101	75	● 17-FA63A-M12-75
HSK-A 63	M12	12,5	21	33	126	100	● 17-FA63A-M12-100
HSK-A 63	M16	17	29	29	51	25	● 17-FA63A-M16-25
HSK-A 63	M16	17	29	34	76	50	● 17-FA63A-M16-50
HSK-A 63	M16	17	29	34	101	75	● 17-FA63A-M16-75
HSK-A 63	M16	17	29	36	126	100	● 17-FA63A-M16-100

Gewuchtet G = 6,3 15.000 U/min.
Balanced G = 6,3 15.000 U/min.

Werkzeugaufnahmen mit HSK auch in Form C, E und F lieferbar
HSK tool holders are also available in form C, E and F



Schrumpffutter - Form A
Shrink chuck - form A



Gewuchtet G = 6,3 15.000 U/min.
Balanced G = 6,3 15.000 U/min.

Größe / Size	D2 mm	D1 mm	D mm	L mm	A mm	Art.-Nr. / Order no.
HSK-A 63	3	10	18	36	80	17-SHF63A-3-80
HSK-A 63	3	10	18	36	120	17-SHF63A-3-120
HSK-A 63	3	10	18	36	160	17-SHF63A-3-160
HSK-A 63	4	10	18	36	80	17-SHF63A-4-80
HSK-A 63	4	10	18	36	120	17-SHF63A-4-120
HSK-A 63	4	10	18	36	160	17-SHF63A-4-160
HSK-A 63	5	16	22	36	80	17-SHF63A-5-80
HSK-A 63	5	16	22	36	120	17-SHF63A-5-120
HSK-A 63	5	16	22	36	160	17-SHF63A-5-160
HSK-A 63	6	21	27	36	80	17-SHF63A-6-80
HSK-A 63	6	21	27	36	120	17-SHF63A-6-120
HSK-A 63	6	21	27	36	160	17-SHF63A-6-160
HSK-A 63	8	21	27	36	80	17-SHF63A-8-80
HSK-A 63	8	21	27	36	120	17-SHF63A-8-120
HSK-A 63	8	21	27	36	160	17-SHF63A-8-160
HSK-A 63	10	24	32	42	85	17-SHF63A-10-85
HSK-A 63	10	24	32	42	120	17-SHF63A-10-120
HSK-A 63	10	24	32	42	160	17-SHF63A-10-160
HSK-A 63	12	24	32	47	90	17-SHF63A-12-90
HSK-A 63	12	24	32	47	120	17-SHF63A-12-120
HSK-A 63	12	24	32	47	160	17-SHF63A-12-160
HSK-A 63	14	27	34	47	90	17-SHF63A-14-90
HSK-A 63	14	27	34	47	120	17-SHF63A-14-120
HSK-A 63	14	27	34	47	160	17-SHF63A-14-160
HSK-A 63	16	27	34	50	95	17-SHF63A-16-95
HSK-A 63	16	27	34	50	120	17-SHF63A-16-120
HSK-A 63	16	27	34	50	160	17-SHF63A-16-160
HSK-A 63	18	33	42	50	95	17-SHF63A-18-95
HSK-A 63	18	33	42	50	120	17-SHF63A-18-120
HSK-A 63	18	33	42	50	160	17-SHF63A-18-160
HSK-A 63	20	33	42	52	100	17-SHF63A-20-100
HSK-A 63	20	33	42	52	120	17-SHF63A-20-120
HSK-A 63	20	33	42	52	160	17-SHF63A-20-160
HSK-A 63	25	44	53	58	120	17-SHF63A-25-120
HSK-A 63	25	44	53	58	160	17-SHF63A-25-160

Werkzeugaufnahmen mit HSK auch in Form C, E und F lieferbar
HSK tool holders are also available in form C, E and F



Kühlmittelröhrchen Coolant tubes

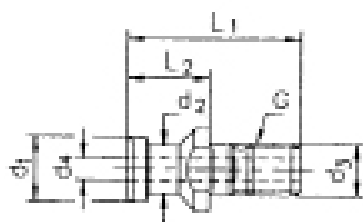
Für / For	D mm	Gewinde / Thread	Art.-Nr. / Order no.
HSK 32	6	M10x1	17-KMR32
HSK 40	8	M12x1	17-KMR40
HSK 50	10	M16x1	17-KMR50
HSK 63	12	M18x1	17-KMR63
HSK 80	14	M20x1,5	17-KMR80
HSK 100	16	M24x1,5	17-KMR100

Schlüssel für Kühlmittelröhrchen Wrench for coolant tubes



Für / For	Art.-Nr. / Order no.
HSK 63	17-SCH-KMR63
HSK 100	17-SCH-KMR100

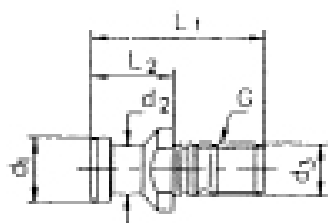
Werkzeugaufnahmen mit HSK auch in Form B, C, E und F lieferbar
HSK tool holders are also available in form B, C, E and F



DIN 69872 A, mit Bohrung
DIN 69872 A, with bore

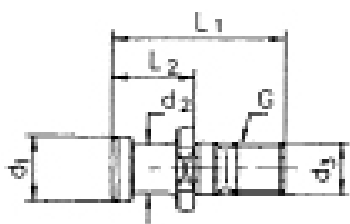
Größe / Size	G	D1 mm	D2 mm	D3 mm	D4 mm	L1 mm	L2 mm	Art.-Nr. / Order no.
SK 30	M 12	13	9	13	--	44	24	13-9884A-30-44
SK 40	M 16	19	14	17	7	54	26	13-9884A-40-54
SK 50	M 24	28	21	25	11,5	74	36	13-9884A-50-74

DIN 69872 B, ohne Bohrung
DIN 69872 B, without bore



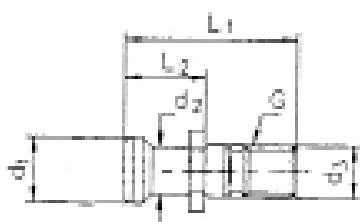
Größe / Size	G	D1 mm	D2 mm	D3 mm	L1 mm	L2 mm	Art.-Nr. / Order no.
SK 30	M 12	13	9	13	44	24	13-9884B-30-44
SK 40	M 16	19	14	17	54	26	13-9884B-40-54
SK 50	M 24	28	21	25	74	36	13-9884B-50-74

ISO 7388 II A, mit Bohrung
ISO 7388 II A, with bore



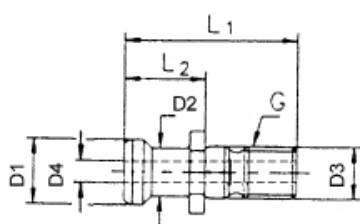
Größe / Size	G	D1 mm	D2 mm	D3 mm	D4 mm	L1 mm	L2 mm	Art.-Nr. / Order no.
SK 40	M 16	19	14	17	7	54	26	13-9885A-40-54
SK 50	M 24	28	21	25	11,5	74	36	13-9885A-50-74

ISO 7388 II B-OB, ohne Bohrung
ISO 7388 II B-OB, without bore



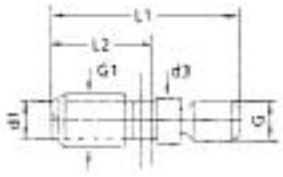
Größe / Size	G	D1 mm	D2 mm	D3 mm	L1 mm	L2 mm	Art.-Nr. / Order no.
SK 40	M 16	18,95	12,95	17	44,5	16,40	13-9885BOB-40-45
SK 50	M 24	29,10	19,80	25	65,5	25,56	13-9885BOB-50-66

ISO 7388 II B-MB, mit Bohrung
ISO 7388 II B-MB, with bore



Größe / Size	G	D1 mm	D2 mm	D3 mm	D4 mm	L1 mm	L2 mm	Art.-Nr. / Order no.
SK 40	M 16	18,95	12,95	17	7	44,5	16,40	13-9885BMB-40-45
SK 50	M 24	29,10	19,80	25	11,5	65,5	25,56	13-9885BMB-50-66

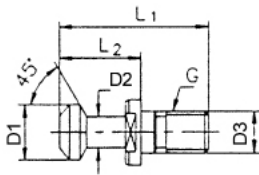




S 20x2, mit Sägewinde S 20x2, with saw thread

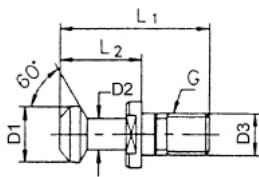
Größe / Size	G	G1	D1 mm	D3 mm	L1 mm	Art.-Nr. / Order no.
SK 40	M 16	S 20x2	16,6	17	58	● 13-9886B-40-58

MAS BT, 45° MAS BT, 45°



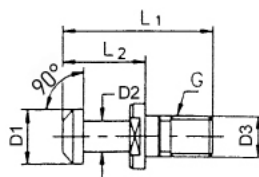
Größe / Size	G	D1 mm	D2 mm	D3 mm	L1 mm	L2 mm	Art.-Nr. / Order no.
SK 30	M 12	11	7	13	43	24	● 13-9882B-30-45
SK 40	M 16	15	10	17	60	35	● 13-9882B-40-45
SK 50	M 24	23	17	25	85	45	● 13-9882B-50-45

MAS BT, 60° MAS BT, 60°



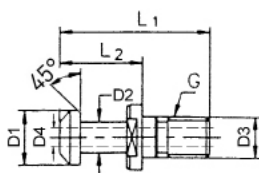
Größe / Size	G	D1 mm	D2 mm	D3 mm	L1 mm	L2 mm	Art.-Nr. / Order no.
SK 30	M 12	11	7	13	43	24	● 13-9882B-30-60
SK 40	M 16	15	10	17	60	35	● 13-9882B-40-60
SK 50	M 24	23	17	25	85	45	● 13-9882B-50-60

MAS BT, 90° MAS BT, 90°



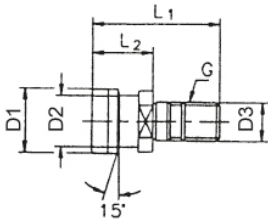
Größe / Size	G	D1 mm	D2 mm	D3 mm	L1 mm	L2 mm	Art.-Nr. / Order no.
SK 40	M 16	15	10	17	60	35	● 13-9882B-40-90
SK 50	M 24	23	17	25	85	45	● 13-9882B-50-90

MAS BT, 45°, mit Bohrung MAS BT, 45°, with bore



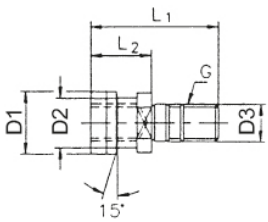
Größe / Size	G	D1 mm	D2 mm	D3 mm	D4 mm	L1 mm	L2 mm	Art.-Nr. / Order no.
SK 40	M 16	15	10	17	7	60	35	● 13-9882A-40-45
SK 50	M 24	23	17	25	11,5	85	45	● 13-9882A-50-45

OTT, ohne Bohrung
OTT, without internal bore



Größe / Size	G	D1 mm	D2 mm	D3 mm	L1 mm	L2 mm	Art.-Nr. / Order no.
SK 40	M 16	25,0	21,1	17	53	25	● 13-9883-40
SK 50	M 24	39,5	32,0	25	65	25	● 13-9883-50

OTT, mit Innengewinde
OTT, with internal thread



Größe / Size	G	D1 mm	D2 mm	D3 mm	L1 mm	L2 mm	Art.-Nr. / Order no.
SK 40	M 16	25,0	21,1	17	53	25	● 13-9883I-40
SK 50	M 24	39,5	32,0	25	65	25	● 13-9883I-50

Spezielle Anzugsbolzen für sämtliche
Maschinen auf Anfrage

*Special pull studs for all machines upon
request*

Steckschlüssel für Anzugsbolzen
Socket wrenches for pull studs



Sicherheits-Steckschlüssel SK und MAS BT
Security socket wrenches SK and MAS BT

Größe / Size	DIN	Art.-Nr. / Order no.
SK 40	DIN 69872	● 13-SCHA-SK40
SK 50	DIN 69872	● 13-SCHA-SK50
BT 40	MAS BT	● 13-SCHA-BT40
BT 50	MAS BT	● 13-SCHA-BT50



