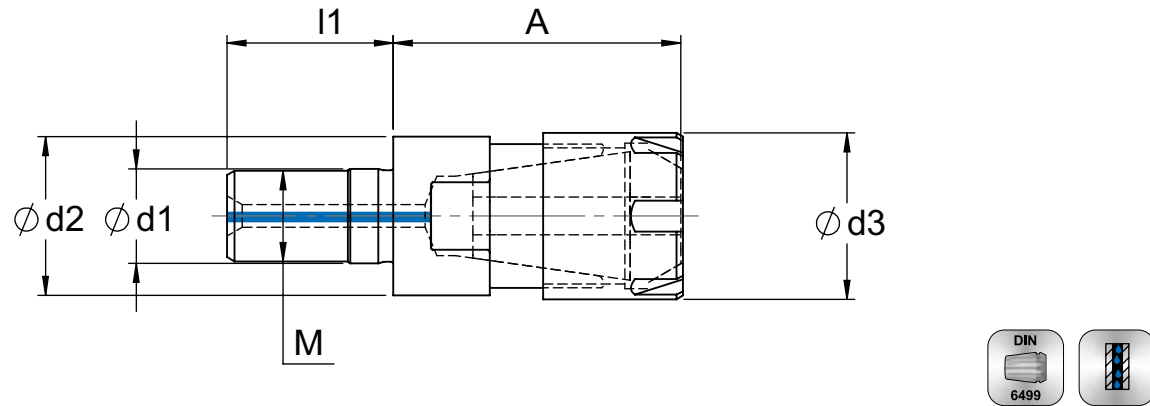




## Einschraubadapter für ER-Spannzangen

modular screw on adapter for ER-collets



Bestell-Nr. order number	ER	M	d1	d2	d3	A	l1		
919-M1038ERM	16	10	10,5	18	22	38	18	953-ER16-03	954-ERM16
919-M1238ERM	16	12	12,5	21	22	38	21	953-ER16-03	954-ERM16
910-M1640ER	16	16	17	29	28	40	23	953-ER16-01	954-ER16
911-M1645ER	20	16	17	29	34	45	23	953-ER20-01	954-ER20

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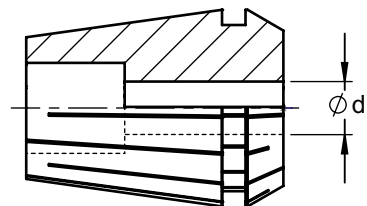
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Andere Ausführungen und Längen auf Anfrage lieferbar.  
Specials on request.

## ER 11 - 25 Spannzangen / Standard nach DIN 6499 Form B

collets type ER 11 - 25 DIN 6499 form B

Ausführung:  
Rundlauf 0,010 mm  
Execution:  
Admissable concentricity 0,010 mm



Spannzangen ER11 Spannbereich d max / min	Bestell-Nr. order number
1,0 - 0,5	950 - 1101
1,5 - 1,0	950 - 11015
2,0 - 1,5	950 - 1102
2,5 - 2,0	950 - 11025
3,0 - 2,5	950 - 1103
3,5 - 3,0	950 - 11035
4,0 - 3,5	950 - 1104
4,5 - 4,0	950 - 11045
5,0 - 4,5	950 - 1105
5,5 - 5,0	950 - 11055
6,0 - 5,5	950 - 1106
6,5 - 6,0	950 - 11065
7,0 - 6,5	950 - 1107

Holzsockel für ER11  
Standard Satz = 13 Stk. d = 1,0... 7,0

Spannzangen ER16 Spannbereich d max / min	Bestell-Nr. order number
1,0 - 0,5	950 - 1601
2,0 - 1,0	950 - 1602
3,0 - 2,0	950 - 1603
4,0 - 3,0	950 - 1604
5,0 - 4,0	950 - 1605
6,0 - 5,0	950 - 1606
7,0 - 6,0	950 - 1607
8,0 - 7,0	950 - 1608
9,0 - 8,0	950 - 1609
10,0 - 9,0	950 - 1610

Holzsockel für ER16  
Standard Satz = 10 Stk. d = 1,0... 10,0

Spannzangen ER20 Spannbereich d max / min	Bestell-Nr. order number
1,0 - 0,5	950 - 2001
2,0 - 1,0	950 - 2002
3,0 - 2,0	950 - 2003
4,0 - 3,0	950 - 2004
5,0 - 4,0	950 - 2005
6,0 - 5,0	950 - 2006
7,0 - 6,0	950 - 2007
8,0 - 7,0	950 - 2008
9,0 - 8,0	950 - 2009
10,0 - 9,0	950 - 2010
11,0 - 10,0	950 - 2011
12,0 - 11,0	950 - 2012
13,0 - 12,0	950 - 2013

Holzsockel für ER20  
Standard Satz = 12 Stk. d = 2,0... 13,0

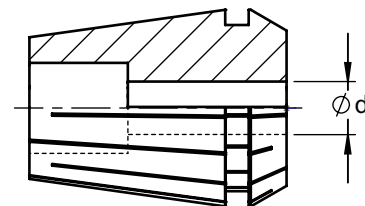
Spannzangen ER25 Spannbereich d max / min	Bestell-Nr. order number
1,0 - 0,5	950 - 2501
2,0 - 1,0	950 - 2502
3,0 - 2,0	950 - 2503
4,0 - 3,0	950 - 2504
5,0 - 4,0	950 - 2505
6,0 - 5,0	950 - 2506
7,0 - 6,0	950 - 2507
8,0 - 7,0	950 - 2508
9,0 - 8,0	950 - 2509
10,0 - 9,0	950 - 2510
11,0 - 10,0	950 - 2511
12,0 - 11,0	950 - 2512
13,0 - 12,0	950 - 2513
14,0 - 13,0	950 - 2514
15,0 - 14,0	950 - 2515
16,0 - 15,0	950 - 2516

Holzsockel für ER25  
Standard Satz = 15 Stk. d = 2,0... 16,0

## ER 32, 40 Spannzangen / Standard nach DIN 6499 Form B

collets type ER 32, 40 DIN 6499 form B

Ausführung:  
Rundlauf 0,010 mm  
Execution:  
Admissable concentricity 0,010 mm



Spannzangen ER32 Spannbereich d max / min	Bestell-Nr. order number
2,0 - 1,0	950 - 3202
3,0 - 2,0	950 - 3203
4,0 - 3,0	950 - 3204
5,0 - 4,0	950 - 3205
6,0 - 5,0	950 - 3206
7,0 - 6,0	950 - 3207
8,0 - 7,0	950 - 3208
9,0 - 8,0	950 - 3209
10,0 - 9,0	950 - 3210
11,0 - 10,0	950 - 3211
12,0 - 11,0	950 - 3212
13,0 - 12,0	950 - 3213
14,0 - 13,0	950 - 3214
15,0 - 14,0	950 - 3215
16,0 - 15,0	950 - 3216
17,0 - 16,0	950 - 3217
18,0 - 17,0	950 - 3218
19,0 - 18,0	950 - 3219
20,0 - 19,0	950 - 3220

Holzsockel für ER32  
Standard Satz = 18 Stk. d = 3,0... 20,0

Spannzangen ER40 Spannbereich d max / min	Bestell-Nr. order number
3,0 - 2,0	950 - 4003
4,0 - 3,0	950 - 4004
5,0 - 4,0	950 - 4005
6,0 - 5,0	950 - 4006
7,0 - 6,0	950 - 4007
8,0 - 7,0	950 - 4008
9,0 - 8,0	950 - 4009
10,0 - 9,0	950 - 4010
11,0 - 10,0	950 - 4011
12,0 - 11,0	950 - 4012
13,0 - 12,0	950 - 4013
14,0 - 13,0	950 - 4014
15,0 - 14,0	950 - 4015
16,0 - 15,0	950 - 4016
17,0 - 16,0	950 - 4017
18,0 - 17,0	950 - 4018
19,0 - 18,0	950 - 4019
20,0 - 19,0	950 - 4020
21,0 - 20,0	950 - 4021
22,0 - 21,0	950 - 4022
23,0 - 22,0	950 - 4023
24,0 - 23,0	950 - 4024
25,0 - 24,0	950 - 4025
26,0 - 25,0	950 - 4026
27,0 - 26,0	950 - 4027
28,0 - 27,0	950 - 4028
29,0 - 28,0	950 - 4029
30,0 - 29,0	950 - 4030

Holzsockel für ER40  
Standard Satz = 23 Stk. d = 4,0... 26,0

Alle unter Standard-Ausführung aufgeführten Spannzangen sind auch als Ultrapräzisions-Ausführung erhältlich.  
Bei der Bestellung bitte vor die Bestell-Nr. ein „U“ setzen.  
All above collets also available in high precision. Put a "U" in front of the order number.  
Order example: U 950-3220

## Montageblock und Wechseleinsatz

tightening fixtures and flange for tightening fixture

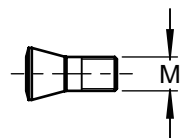


Montageblock Bestell-Nr. order number	Typ	B	L	H	Wechseleinsatz Bestell-Nr. order number
991 - BT30	BT - 30	130	260	160	991 - BT30 W
991 - BT40	BT - 40	130	260	160	991 - BT40 W
991 - BT50	BT - 50	130	260	160	991 - BT50 W
991 - SK30	SK - 30	130	260	160	991 - SK30 W
991 - SK40	SK - 40	130	260	160	991 - SK40 W
991 - SK50	SK - 50	130	260	160	991 - SK50 W
991 - HSK32	HSK - A32	130	260	160	991 - HSK32 W
991 - HSK40	HSK - A40	130	260	160	991 - HSK40 W
991 - HSK50	HSK - A50	130	260	160	991 - HSK50 W
991 - HSK63	HSK - A63	130	260	160	991 - HSK63 W
991 - HSK80	HSK - A80	130	260	160	991 - HSK80 W
991 - HSK100	HSK - A100	130	260	160	991 - HSK100 W
991 - HSK32E	HSK - E/F32	130	260	160	991 - HSK32E W
991 - HSK40E	HSK - E/F40	130	260	160	991 - HSK40E W
991 - HSK50E	HSK - E/F50	130	260	160	991 - HSK50E W
991 - HSK63E	HSK - E/F63	130	260	160	991 - HSK63E W

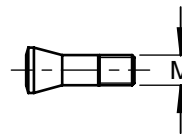
## Zubehör

accessories

Torxschrauben clamping screws	Bestell-Nr. order number	Größe ( Gewinde) size
	993 00	M 1,8
	993 01	M 2
	993 02	M 2,5
	993 02K	M 2,5
	993 12	M 2,5
	993 03	M 3
	993 04	M 3,5
	993 15	M 4
	993 06	M 4,5
	993 07	M 5
	993 31	M 2
	993 32	M 2,5
	993 35	M 4



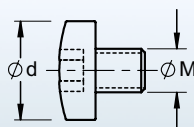
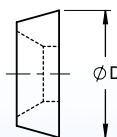
Passschrauben clamping screws	Bestell-Nr. order number	Größe ( Gewinde) size
	993 22	M 2,5 x 0,35
	993 23	M 3 x 0,35
	993 24	M 3,5
	993 25	M 4
	993 27	M 5



Torxschlüssel torx wrenches	Bestell-Nr. order number	Größe ( Gewinde) size
	994 06	T 6
	994 07	T 7
	994 08	T 8
	994 10	T 10
	994 15	T 15
	994 20	T 20
	994 06IP	T 6IP
	994 07IP	T 7IP
	994 15IP	T 15IP

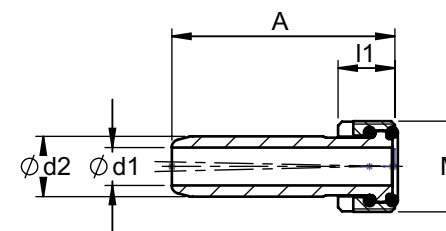


Klemmscheiben, -schrauben clamp washer	Bestell-Nr. order number	Größe size	M	Torxschlüssel torx wrenches	Bezeichnung name
	995 01	Ø12			Klemmscheibe
	995 05	Ø 8	3,5	994 15	Klemmschraube für WSP Ø 12



## Kühlmittelübergaberohre für HSK- Aufnahmen

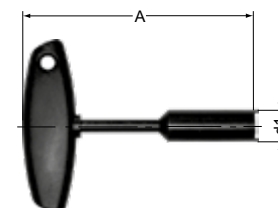
coolant tubes



Bestell-Nr. order number	HSK	d1	d2	M	l1	A
951 - A32	A - 32	3,5	6	M 10x 1,0	5,5	25,7
951 - A40	A - 40	5	8	M 12x 1,0	7,5	29,2
951 - A50	A - 50	6,4	10	M 16x 1,0	9,5	32,7
951 - A63	A - 63	8	12	M 18x 1,0	11,5	36,2
951 - A80	A - 80	10	14	M 20x 1,5	13,5	39,7
951 - A100	A - 100	12	16	M 24x 1,5	15,5	43,6

## Schlüssel für Kühlmittelübergaberohre

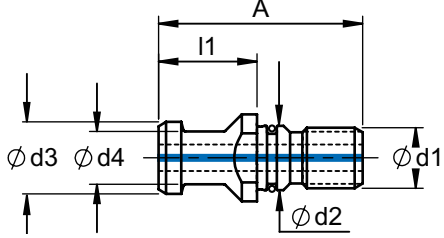
wrench for coolant pipe

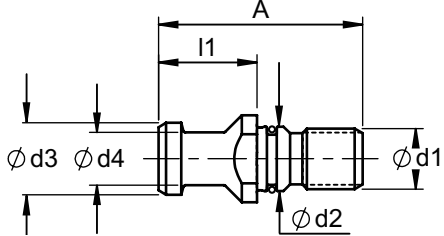


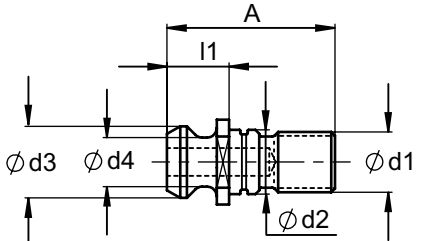
Bestell-Nr. order number	HSK	d1	L		
952 - A32	A - 32	8,8	110		
952 - A40	A - 40	10,8	110		
952 - A50	A - 50	14,5	120		
952 - A63	A - 63	16,5	130		
952 - A80	A - 80	18	140		
952 - A100	A - 100	22	140		

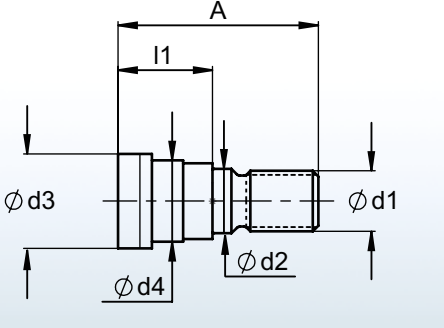
## Anzugsbolzen

pull studs

DIN 69 872 A	Bestell-Nr. order number	SK	d1	d2	d3	d4	l1	A
	980 - A40	40	M16	17	19	14	26	54
	980 - A50	50	M24	25	28	21	34	74

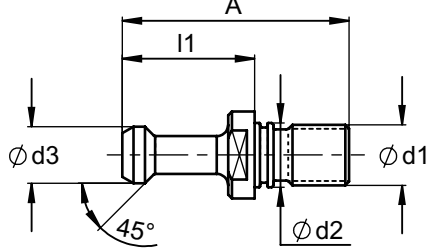
DIN 69 872 B	Bestell-Nr. order number	SK	d1	d2	d3	d4	l1	A
	980 - B40	M16	17	19	14	26	54	54
	980 - B50	M24	25	28	21	34	34	74

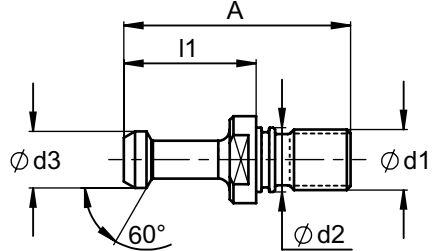
ISO 7388	Bestell-Nr. order number	SK	d1	d2	d3	d4	l1	A
	981 - 40	40	M16	17	18,95	12,95	16,4	44,5
	981 - 50	50	M24	25	29,1	19,6	25,55	65,5

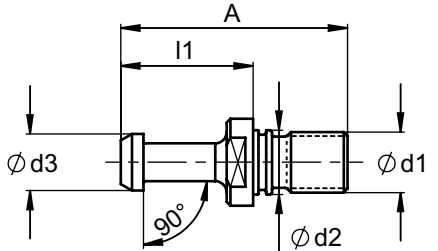
DIN 20 80	Bestell-Nr. order number	SK	d1	d2	d3	d4	l1	A
	982 - 40	40	M16	17	25	21,1	25	53
	982 - 50	50	M24	25	39,3	32	35,8	64,8

## Anzugsbolzen

pull studs

MAS BT - Typ 1	Bestell-Nr. order number	BT	d1	d2	d3	45°	l1	A
	983 - 40	40	M16	17	15	45°	35	60
	983 - 50	50	M24	25	23	45°	45	85

MAS BT - Typ 2	Bestell-Nr. order number	BT	d1	d2	d3	60°	l1	A
	984 - 40	40	M16	17	15	60°	35	60
	984 - 50	50	M24	25	23	60°	45	85

MAS BT - Typ 3	Bestell-Nr. order number	BT	d1	d2	d3	90°	l1	A
	985 - 40	40	M16	17	15	90°	35	60
	985 - 50	50	M24	25	23	90°	45	85