



Clarkson GmbH

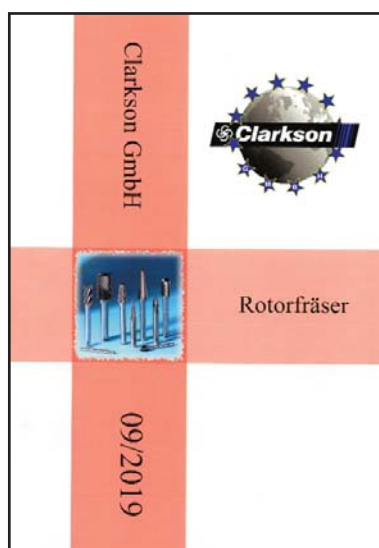
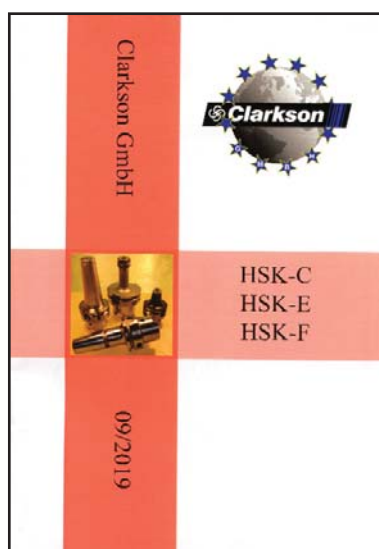
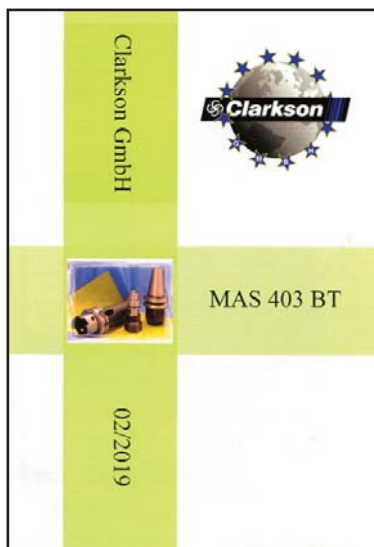
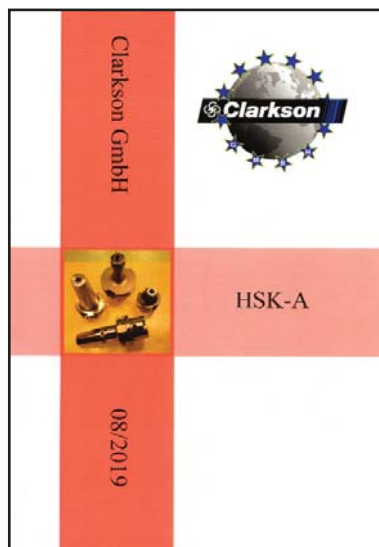


DIN69880
(VDI 3425)

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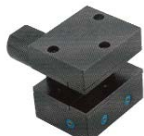
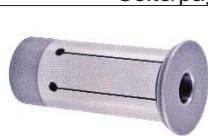


Kataloge

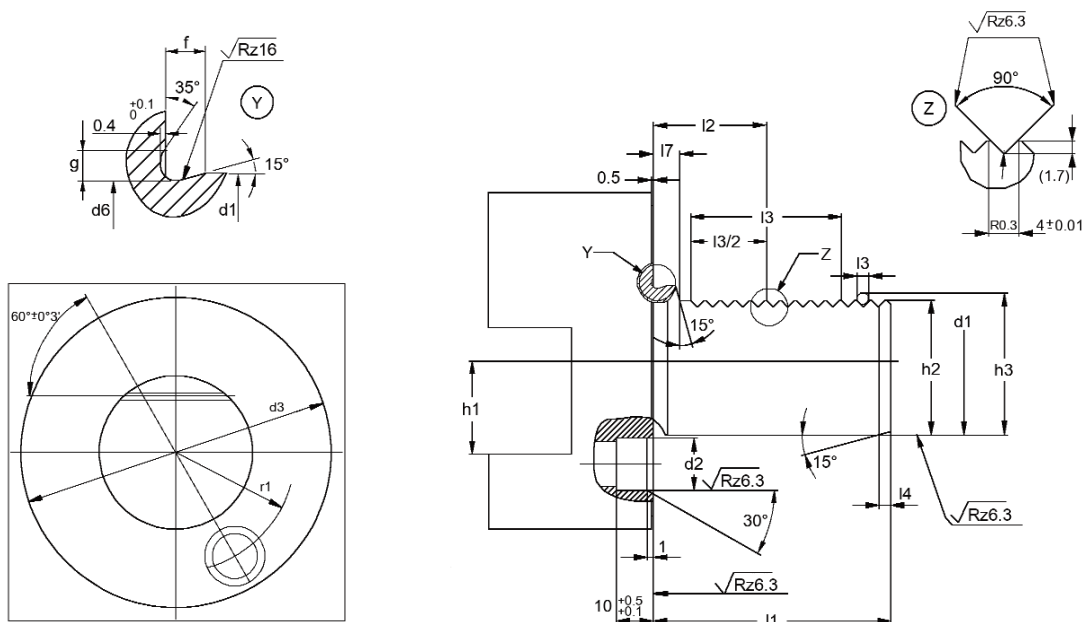




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Werkzeugaufnahme DIN 69880 (DIN ISO 10889-1) VDI
Toolholders DIN 69880 (DIN ISO 10889-1) VDI



d1 h6	l1 ±0,3	d2 mm	d3 mm	d6 -0,1	f mm	g mm	h1 max.	h2 ±0,1	h3 ±0,1	l2 ±0,05	l3 min.	l4 +1	r1 ±0.02
16	32	8H6	40	15,4	2	1,7	12	15	16,92	12,7	16	2	14,5
20	40	10H6	50	19,1	2,4	2	16	18	19,92	21,7	24	2	18
25	48	10H6	58	24,1	2,4	2	16	23,5	25,42	21,7	24	2	21
30	55	14H8	68	29,1	2,4	2	20	27	28,92	29,7	40	2	25
40	63	14H8	83	38,7	3,7	2,8	25	36	37,92	29,7	40	3	32
50	78	16H8	98	48,7	3,7	2,8	32	45	46,92	35,7	48	3	37

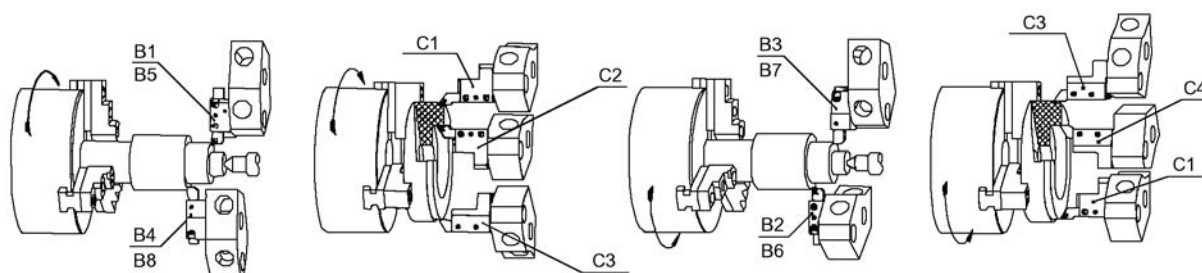
Werkstoff: Legierter Einsatzstahl mit einer Zugfestigkeit im Kern von min.1200 N/mm². Einsatzgehärtet HRC 60 ± 2 (HV 700 ± 50), Härtetiefe 0,8mm ± 0,2mm, brüniert und präzisionsgeschliffen.

Ausführung: Mit innerer Kühlmittelzufuhr bzw. mit Gewindeanschluss für externe Kühlmittelzufuhr.

Material: Alloyed case-hardened steel, tensile core strength of min. 1200 N/mm².
Case hardened HRC 60 ± 2 (HV 700 ± 50), hardening depth 0.8mm ± 0.2mm,
black finished and precisely grinded.

Version: With internal coolant resp. with threaded connection for external coolant.

Werkzeugzuordnung für Scheibenrevolver



Einsatz von Werkzeughaltern bei linker Spindeldrehrichtung.

Application of toolholders with anti-clockwise spindle rotation.

Einsatz von Werkzeughaltern bei rechter Spindeldrehrichtung.

Application of toolholders with clockwise spindle rotation.

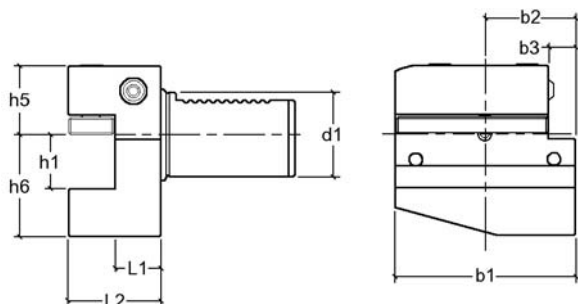


Radial-Werkzeughalter Form B1 rechts, kurz

DIN69880

Radial toolholders form B1 right, short

DIN69880



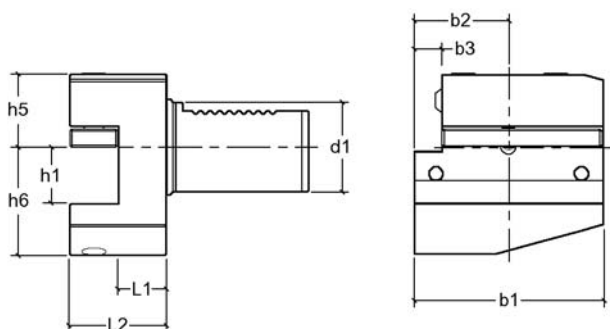
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520.016.012.042	16	12	24	13	42	23	5	20	22
520.020.016.055	20	16	30	16	55	30	7	25	30
520.025.016.055	25	16	30	16	55	30	7	25	30
520.030.020.070	30	20	40	22	70	35	10	28	38
520.040.025.085	40	25	44	22	85	42,5	12,5	32,5	48
520.050.032.100	50	32	55	30	100	50	16	35	60

Radial-Werkzeughalter Form B2 links, kurz

DIN69880

Radial toolholders form B2 left, short

DIN69880



Bestell Nr. Code No.	d1	h1	L2	L1	b1	b2	b3	h5	h6
521.016.012.042	16	12	24	13	42	23	5	20	22
521.020.016.055	20	16	30	16	55	30	7	25	30
521.025.016.055	25	16	30	16	55	30	7	25	30
521.030.020.070	30	20	40	22	70	35	10	28	38
521.040.025.085	40	25	44	22	85	42,5	12,5	32,5	48
521.050.032.100	50	32	55	30	100	50	16	35	60



A28



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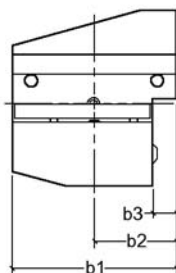
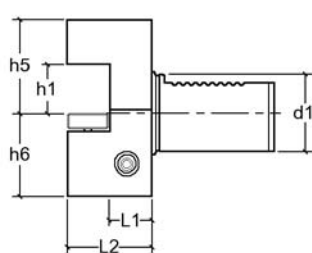


Radial-Werkzeughalter Form B3 Überkopf rechts, kurz

DIN69880

Radial toolholders form B3 overhead right, short

DIN69880



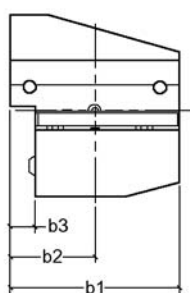
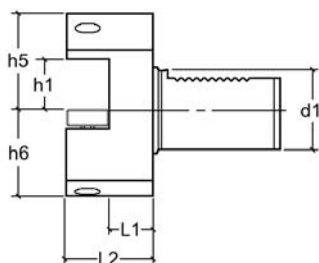
Bestell Nr. Code No.	d1	h1	L2	L1	b1	b2	b3	h5	h6
522.016.012.042	16	12	24	13	42	23	5	22	20
522.020.016.055	20	16	30	16	55	30	7	30	25
522.025.016.055	25	16	30	16	55	30	7	30	25
522.030.020.070	30	20	40	22	70	35	10	38	35
522.040.025.085	40	25	44	22	85	42,5	12,5	48	42,5
522.050.032.100	50	32	55	30	100	50	16	60	50

Radial-Werkzeughalter Form B4 Überkopf links, kurz

DIN69880

Radial toolholders form B4 overhead left, short

DIN69880



Bestell Nr. Code No.	d1	h1	L2	L1	b1	b2	b3	h5	h6
523.016.012.042	16	12	24	13	42	23	5	22	20
523.020.016.055	20	16	30	16	55	30	7	30	35
523.025.016.055	25	16	30	16	55	30	7	30	35
523.030.020.070	30	20	40	22	70	35	10	38	35
523.040.025.085	40	25	44	22	85	42,5	12,5	48	42,5
523.050.032.100	50	32	55	30	100	50	16	60	50



A28



A29

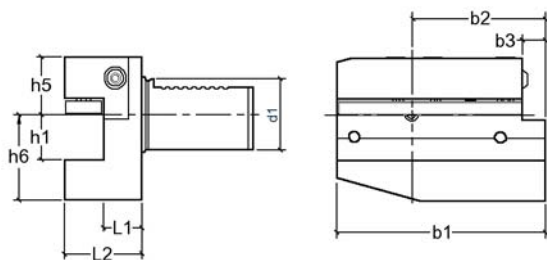


Radial-Werkzeughalter Form B5 rechts, lang

DIN69880

Radial toolholders form B5 right, long

DIN69880



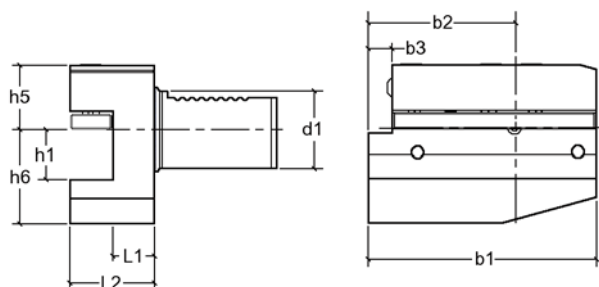
Bestell Nr. Code No.	d1	h1	L2	L1	b1	b2	b3	h5	h6
524.016.012.058	16	12	24	13	58	39	5	20	22
524.020.016.075	20	16	30	16	75	50	7	25	30
524.025.016.075	25	16	30	16	75	50	7	25	30
524.030.020.100	30	20	40	22	100	65	10	28	38
524.040.025.118	40	25	44	22	118	75,5	12,5	32,5	48
524.050.032.130	50	32	55	30	130	80	16	35	60

Radial-Werkzeughalter Form B6 links, lang

DIN69880

Radial toolholders form B6 left, long

DIN69880



Bestell Nr. Code No.	d1	h1	L2	L1	b1	b2	b3	h5	h6
525.016.012.058	16	12	24	13	58	39	5	20	22
525.020.016.075	20	16	30	16	75	50	7	25	30
525.025.016.075	25	16	30	16	75	50	7	25	30
525.030.020.100	30	20	40	22	100	65	10	28	38
525.040.025.118	40	25	44	22	118	75,5	12,5	32,5	48
525.050.032.130	50	32	55	30	130	80	16	35	60



A28



A29

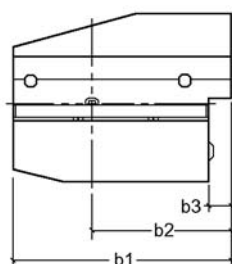
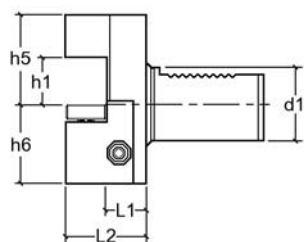


Radial-Werkzeughalter Form B7 Überkopf rechts, lang

DIN69880

Radial toolholders form B7 overhead right, long

DIN69880



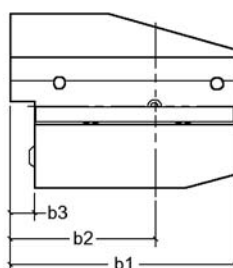
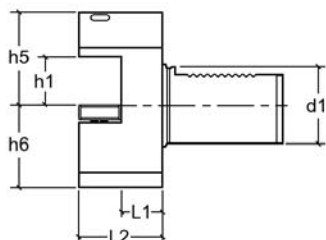
Bestell Nr. Code No.	d1	h1	L2	L1	b1	b2	b3	h5	h6
526.016.012.058	16	12	24	13	58	39	5	22	20
526.020.016.075	20	16	30	16	75	50	7	30	25
526.025.016.075	25	16	30	16	75	50	7	30	25
526.030.020.100	30	20	40	22	100	65	10	38	35
526.040.025.118	40	25	44	22	118	75,5	12,5	48	42,5
526.050.032.130	50	32	55	30	130	80	16	60	50

Radial-Werkzeughalter Form B8 Überkopf links, lang

DIN69880

Radial toolholders form B8 overhead left, long

DIN69880



Bestell Nr. Code No.	d1	h1	L2	L1	b1	b2	b3	h5	h6
527.016.012.058	16	12	24	13	58	39	5	22	20
527.020.016.075	20	16	30	16	75	50	7	30	25
527.025.016.075	25	16	30	16	75	50	7	30	25
527.030.020.100	30	20	40	22	100	65	10	38	35
527.040.025.118	40	25	44	22	118	75,5	12,5	48	42,5
527.050.032.130	50	32	55	30	130	80	16	60	50



A28



A29

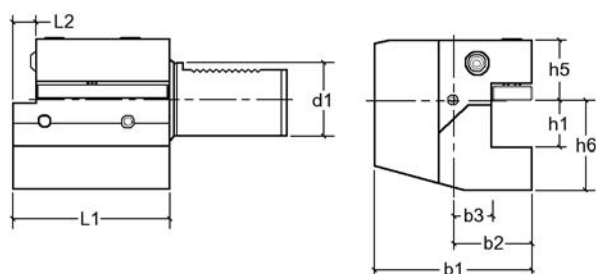


Axial-Werkzeughalter Form C1 rechts

DIN69880

Axial toolholders form C1 right

DIN69880



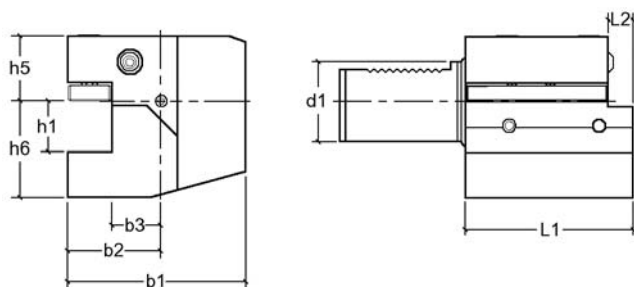
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530.016.012.043	16	12	43	24	13	44	5	20	22
530.020.016.052	20	16	52	27	13	50	7	25	30
530.025.016.058	25	16	58	33	19	55	7	25	30
530.030.020.070	30	20	70	35	17	70	10	28	38
530.040.025.085	40	25	85	42,5	21	85	12,5	32,5	48
530.050.032.100	50	32	100	50	26	100	16	35	60

Axial-Werkzeughalter Form C2 links

DIN69880

Axial toolholders form C2 left

DIN69880



Bestell Nr. Code No.	d1	h1	b1	b2	b3	L1	L2	h5	h6
531.016.012.043	16	12	43	24	13	44	5	20	22
531.020.016.065	20	16	65	40	26	50	7	25	30
531.025.016.058	25	16	58	33	19	55	7	25	30
531.030.020.076	30	20	76	41	23	70	10	28	38
531.040.025.090	40	25	90	47,5	25,5	85	12,5	32,5	48
531.050.032.105	50	32	105	55	30,5	100	16	35	60



A28



A29

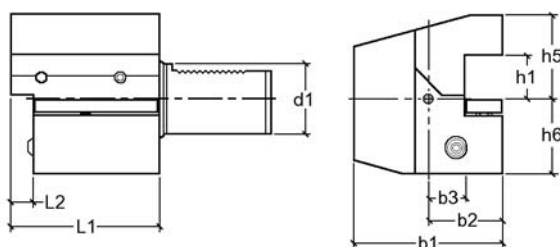


Axial-Werkzeughalter Form C3 Überkopf rechts

DIN69880

Axial toolholders form C3 overhead right

DIN69880



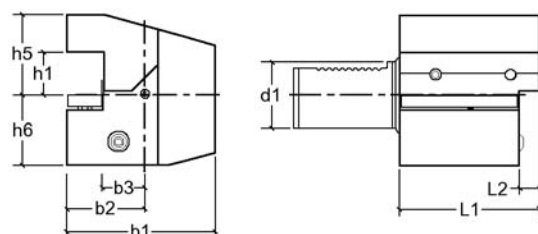
Bestell Nr. Code No.	d1	h1	b1	b2	b3	L1	L2	h5	h6
532.016.012.043	16	12	43	24	13	44	5	22	20
532.020.016.052	20	16	52	27	13	55	7	30	25
532.025.016.058	25	16	58	33	19	55	7	30	25
532.030.020.070	30	20	70	35	17	70	10	38	35
532.040.025.085	40	25	85	42,5	21	85	12,5	48	42,5
532.050.032.100	50	32	100	50	26	100	16	60	50

Axial-Werkzeughalter Form C4 Überkopf links

DIN69880

Axial toolholders form C4 overhead left

DIN69880



Bestell Nr. Code No.	d1	h1	b1	b2	b3	L1	L2	h5	h6
534.016.012.043	16	12	43	24	13	44	5	22	20
534.020.016.065	20	16	65	40	26	50	7	30	25
534.025.016.058	25	16	58	33	19	55	7	30	25
534.030.020.076	30	20	76	41	23	70	10	38	35
534.040.025.090	40	25	90	47,5	25,5	85	12,5	48	42,5
534.050.032.105	50	32	105	55	30,5	100	16	60	50



A28



A29

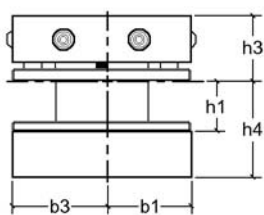
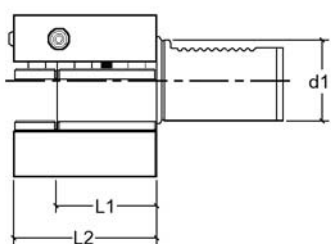


Vierkant-Aufnahme Form D1

Squaretool holder form D1

DIN69880

DIN69880



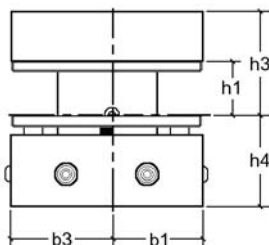
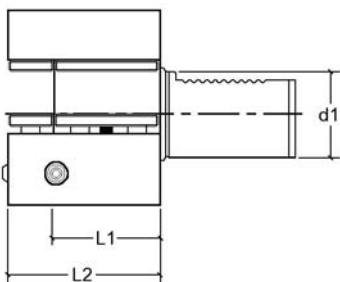
Bestell Nr. Code No.	d1	h1	b1	b3	L1	L2	h3	h4
535.025.016.066	25	16	33	33	34	48	25	30
535.030.020.076	30	20	35	41	42	60	28	38
535.040.025.090	40	25	42,5	47,5	50	72	32,5	48
535.050.032.105	50	32	50	55	60	85	35	60

Vierkant-Aufnahme Form D2 Überkopf

Squaretool holder form D2 inverted

DIN69880

DIN69880



Bestell Nr. Code No.	d1	h1	b1	b3	L1	L2	h3	h4
536.025.016.066	25	16	33	33	34	48	30	25
536.030.020.076	30	20	41	41	42	60	38	35
536.040.025.090	40	25	47,5	47,5	50	72	48	42,5
536.050.032.105	50	32	55	55	60	85	60	50



A28



A29

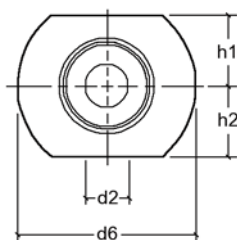
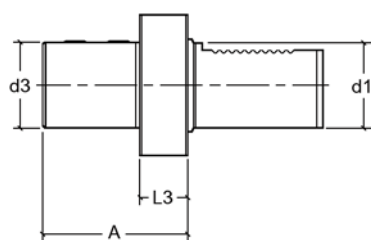


Bohrerhalter für Wendeplattenbohrer Form E1

DIN69880

Boring holder for drills with indexable inserts form E1

DIN69880



Bestell Nr. Code No.	d1	d2	d3	d6	h1	h2	A	L3
528.020.016.067	20	16	36	50	22	23	67	18
528.020.020.067	20	20	40	50	22	23	67	18
528.020.025.071	20	25	45	50	22	23	71	18
528.025.016.067	25	16	36	58	25	25	67	18
528.025.020.067	25	20	40	58	25	25	67	18
528.025.025.071	25	25	45	58	25	25	71	18
528.030.016.064	30	16	36	68	28	30	64	22
528.030.020.067	30	20	40	68	28	30	67	22
528.030.025.071	30	25	45	68	28	30	71	22
528.030.032.075	30	32	52	68	28	30	75	22
528.030.040.095	30	40	60	68	28	30	95	22
528.040.016.064	40	16	36	83	32,5	-	64	22
528.040.020.067	40	20	40	83	32,5	-	67	22
528.040.025.075	40	25	45	83	32,5	-	75	22
528.040.032.075	40	32	52	83	32,5	-	75	22
528.040.040.090	40	40	65	83	32,5	-	90	22
528.050.016.066	50	16	36	98	35	-	66	30
528.050.020.066	50	20	40	98	35	-	66	30
528.050.025.080	50	25	45	98	35	-	80	30
528.050.032.080	50	32	52	98	35	-	80	30
528.050.040.090	50	40	65	98	35	-	90	30
528.050.050.100	50	50	75	98	35	-	100	30



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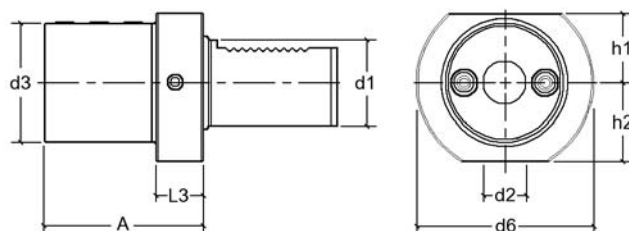


Bohrstangenhalter Form E2

Boring bar holders form E2

DIN69880

DIN69880



Bestell Nr. Code No.	d1	d2	d6	d3	h1	h2	L3	A
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529.016.006.044	16	6	40	32	18	18	13	44
529.016.008.044	16	8	40	32	18	18	13	44
529.016.010.044	16	10	40	32	18	18	13	44
529.016.012.044	16	12	40	40	18	18	-	44
529.016.016.044	16	16	40	40	18	18	-	44

529.020.008.050	20	8	50	40	-	23	18	50
529.020.010.050	20	10	50	40	-	23	18	50
529.020.012.050	20	12	50	40	-	23	18	50
529.020.016.050	20	16	50	40	-	23	18	50
529.020.020.050	20	20	50	50	-	23	-	50
529.020.025.050	20	25	50	50	-	23	-	50

529.025.008.050	25	8	58	40	25	25	18	50
529.025.010.050	25	10	58	40	25	25	18	50
529.025.012.050	25	12	58	40	25	25	18	50
529.025.016.050	25	16	58	40	25	25	18	50
529.025.020.050	25	20	58	58	25	25	-	50
529.025.025.050	25	25	58	58	25	25	-	50

529.030.008.060	30	8	68	55	28	30	22	60
529.030.010.060	30	10	68	55	28	30	22	60
529.030.012.060	30	12	68	55	28	30	22	60
529.030.016.060	30	16	68	55	28	30	22	60
529.030.020.060	30	20	68	55	28	30	22	60
529.030.025.060	30	25	68	55	28	30	22	60
529.030.032.075	30	32	68	68	28	30	22	75
529.030.040.090	30	40	68	68	28	30	22	90

Bestell Nr. Code No.	d1	d2	d6	d3	h1	h2	L3	A
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529.040.008.075	40	8	83	55	32,5	-	22	75
529.040.010.075	40	10	83	55	32,5	-	22	75
529.040.012.075	40	12	83	55	32,5	-	22	75
529.040.016.075	40	16	83	55	32,5	-	22	75
529.040.020.075	40	20	83	55	32,5	-	22	75
529.040.025.075	40	25	83	55	32,5	-	22	75
529.040.032.075	40	32	83	83	32,5	-	-	75
529.040.040.090	40	40	83	83	32,5	-	-	90

529.050.012.090	50	12	98	68	35	-	30	90
529.050.016.090	50	16	98	68	35	-	30	90
529.050.020.090	50	20	98	68	35	-	30	90
529.050.025.090	50	25	98	68	35	-	30	90
529.050.032.090	50	32	98	68	35	-	30	90
529.050.040.090	50	40	98	98	35	-	-	90
529.050.050.100	50	50	98	98	35	-	-	100



A27



A29

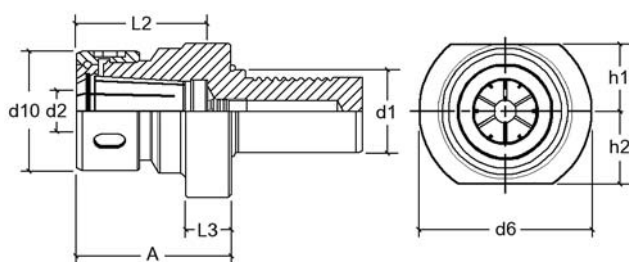


Spannfutter Form E3 DIN 6391 für Spannzangen DIN 6388

DIN69880

Collet chucks form E3 DIN 6391 for collets DIN 6388

DIN69880

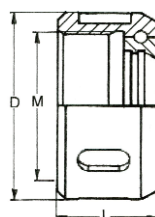


Bestell Nr. Code No.	d1	Zange Collet OZ	Spannbereich Capacity d2	d6	d10	h1	h2	L3	A
542.016.016.045	16	OZ16	2-16	40	43	18	18	13	45,5
542.016.016.057	16	OZ16	2-16	40	43	18	18	13	57
542.020.016.057	20	OZ16	2-16	50	43	25	23	18	57
542.025.016.057	25	OZ16	2-16	58	43	25	25	18	57
542.030.016.057	30	OZ16	2-16	68	43	28	30	22	57
542.030.025.075	30	OZ25	2-25	68	60	28	30	22	75
542.040.016.055	40	OZ16	2-16	83	43	32,5	-	22	55
542.040.025.075	40	OZ25	2-25	83	60	32,5	41,5	22	75
542.040.032.090	40	OZ32	4-32	83	72	32,5	41,5	22	90
542.050.025.075	50	OZ25	2-25	98	60	35	49	30	75
542.050.032.090	50	OZ32	4-32	98	72	35	49	30	90



Spannmutter Typ: OZ DIN 6388 D kugelgelagerte Ausführung

Clamping nuts type: OZ DIN 6388 D ball-bearing version



Bestell Nr. Code No.	Größe Size	D mm	L mm	SW mm	M
484.016.043.024	OZ16	43	24	~	M33x1,5
484.025.060.030	OZ25	60	30	~	M48x2
484.032.072.033	OZ32	72	33,5	~	M60x2,5

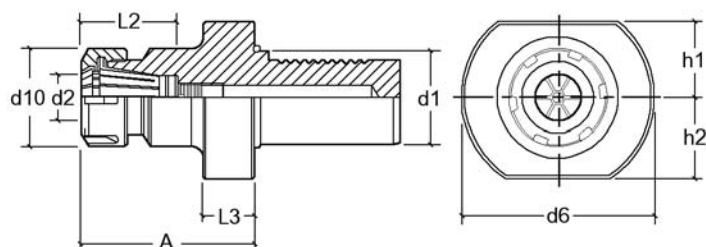


Spannfutter Form E4 für Spannzangen DIN 6499

Collet chucks form E4 for collets DIN 6499

DIN69880

DIN69880



Bestell Nr. Code No.	d1	Zange Collet ER	Spannbereich Capacity d2	d6	d10	h1	h2	L3	A
533.016.016.050	16	16	1-10	40	28	18	18	13	40
533.016.025.048	16	25	2-16	40	42	18	18	13	48
533.020.016.055	20	16	1-10	50	28	25	23	18	42
533.020.025.057	20	25	2-16	50	42	25	23	18	46
533.020.032.058	20	32	2-20	50	50	23	23	18	58
533.025.025.057	25	25	2-16	58	42	25	25	18	55
533.030.025.057	30	25	2-16	68	42	28	30	22	57
533.030.032.075	30	32	2-20	68	50	28	30	22	75
533.030.040.075	30	40	3-26	68	63	28	30	22	75
533.040.025.075	40	25	2-16	83	42	32,5	41,5	22	75
533.040.032.075	40	32	2-20	83	50	32,5	41,5	22	75
533.040.040.075	40	40	3-26	83	63	32,5	41,5	22	75
533.050.040.075	50	40	3-26	98	63	35	49	30	75



Spannmutter DIN 6499 (ISO 15488) System ER

Clamping nuts DIN 6499 (ISO 15488) ER system

Standardausführung mit Exenterring, gewuchtet
standard type with eccentric ring, balanced

gleitgelagerte Ausführung
sleeve-bearing version



Bestell Nr. Code No.	Größe Size	D mm	L mm	SW mm	M
456.016.032.018	ER16	32	18	~	M22x1,5
456.020.035.019	ER20	35	19	~	M25x1,5
456.025.042.020	ER25	42	20	~	M32x1,5
456.032.050.022	ER32	50	22	~	M40x1,5
456.040.063.025	ER40	63	25	~	M50x1,5

Bestell Nr. Code No.	Größe Size	D mm	L mm	SW mm	M
456.016.032.G18	ER16	32	18	~	M22x1,5
456.025.042.G20	ER25	42	20	~	M32x1,5
456.032.050.G22	ER32	50	22	~	M40x1,5
456.040.063.G25	ER40	63	25	~	M50x1,5

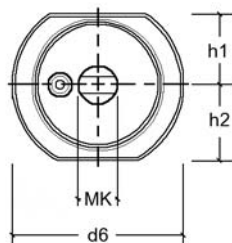
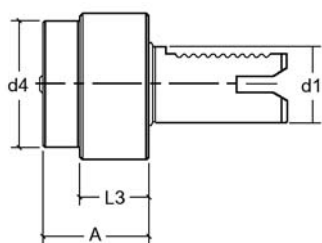


Zwischenhülsen für MK mit Austreibblappen Form F1

DIN69880

Adaptor sleeves for MT tapered form F1

DIN69880



Bestell Nr. Code No.	d1	Morse Kegel Morse Taper MK	d4	d6	A	L3	h1	h2
545.016.001.032	16	1	32	40	32	13	18	18
545.020.001.023	20	1	-	50	23	-	22	23
545.020.002.090	20	2	40	50	90	30	22	23
545.025.001.023	25	1	-	58	23	-	25	25
545.025.002.027	25	2	-	58	27	-	25	25
545.030.001.027	30	1	-	68	27	-	28	30
545.030.002.027	30	2	-	68	27	-	28	30
545.030.003.075	30	3	58	68	75	22	28	30
545.040.001.036	40	1	55	83	36	22	32,5	-
545.040.002.036	40	2	55	83	36	22	32,5	50,5
545.040.003.036	40	3	55	83	36	22	32,5	50,5
545.040.004.080	40	4	68	83	80	22	32,5	50,5
545.050.002.036	50	2	55	98	36	30	35	49
545.050.003.036	50	3	58	98	36	30	35	49
545.050.004.050	50	4	68	98	50	30	35	49
545.050.005.168	50	5	98	98	168	-	35	49



A29

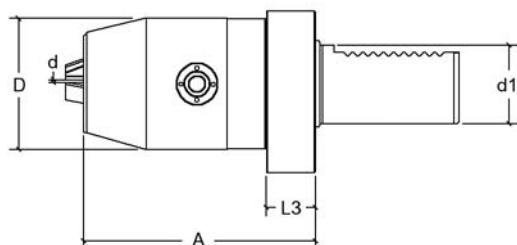


CNC-Bohrfutter mit zentraler Kühlmittelzufuhr

DIN69880

CNC-Drill chucks with central coolant

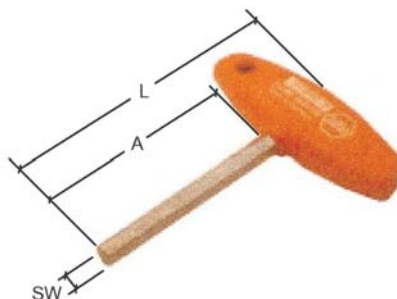
DIN69880



Bestell Nr. Code No.	d1	Spannbereich Capacity d	A	D	L3
551.020.008.068	20	0,5-8	68	36	18
551.020.013.088	20	1-13	88	50	17
551.020.013.090	20	1-13	90	50	18
551.025.013.089	25	1-13	89	50	18
551.030.008.069	30	0,5-8	69	36	19
551.030.013.090	30	1-13	90	50	19
551.030.013.093	30	1-13	93	50	22
551.030.016.095	30	3-16	95	57	19
551.030.016.098	30	3-16	98	50	22
551.040.013.090	40	1-13	90	50	20
551.040.013.093	40	1-13	93	50	22
551.040.016.095	40	3-16	95	57	20
551.040.016.098	40	3-16	98	50	22
551.050.013.101	50	1-13	101	50	30
551.050.016.106	50	3-16	106	50	30
551.A50.016.106	50	3-16	106	57	30

Inbusschlüssel

Wrench



Bestell Nr. Code No.	SW	A mm	L mm
920.000.SW4.100	4	70	100
920.000.SW5.100	5	90	100
920.000.SW6.100	6	90	100

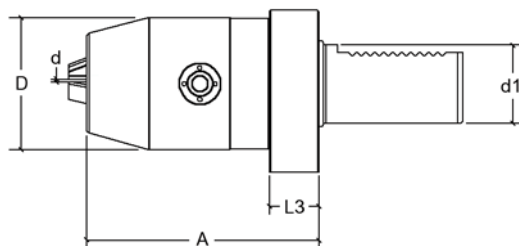


CNC-Bohrfutter mit Kühlmittelzufuhr über Kugelspritzdüsen

DIN69880

CNC-Drill chucks with coolant supply via spray nozzles

DIN69880



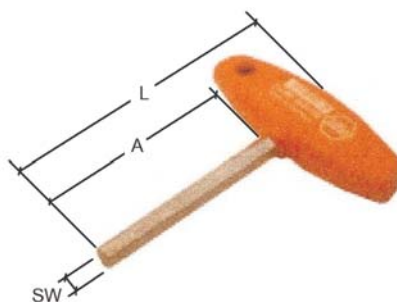
Bestell Nr. Code No.	d1	Spannbereich Capacity d	A	D	L3
552.016.010.046	16	0,3-10	46	40	10
552.020.010.041	20	0,3-10	41	50	10
552.025.013.087	25	1-13	87	50	12
552.030.013.087	30	1-13	87	50	22
552.030.013.090	30	1-13	90	57	20
552.030.016.093	30	3-16	93	55	22
552.030.016.095	30	3-16	95	57	20
552.040.013.088	40	1-13	88	50	22
552.040.013.090	40	1-13	90	57	20
552.040.016.093	40	3-16	93	55	22
552.040.016.095	40	3-16	95	57	20
552.050.016.102	50	3-16	102	55	30



A29

Inbusschlüssel

Wrench

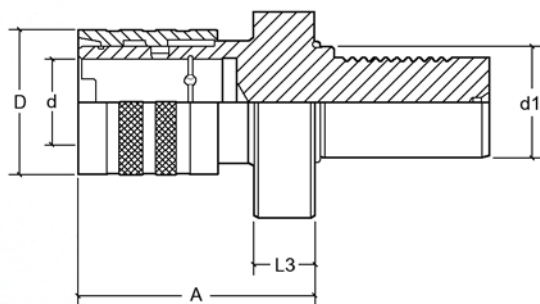


Bestell Nr. Code No.	SW	A mm	L mm
920.000.SW4.100	4	70	100
920.000.SW5.100	5	90	100
920.000.SW6.100	6	90	100



Gewindeschneid-Schnellwechselfutter ohne Längenausgleich auf Druck und Zug

Quick change tapping chucks without length compensation on compression and expansion



Bestell Nr. Code No.	d1	Spannbereich Capacity d	A	D	d	L3
538.020.019.058	20	M2-M14	58	38	19	16
538.025.019.058	25	M2-M14	58	38	19	18
538.030.019.055	30	M3-M14	55	36	19	22
538.030.019.062	30	M2-M14	62	38	19	22
538.030.031.077	30	M5-M22	77	53	31	22
538.030.031.085	30	M5-M24	85	52	31	22
538.040.019.055	40	M3-M14	55	36	19	22
538.040.019.062	40	M2-M14	62	38	19	22
538.040.031.077	40	M5-M22	77	53	31	22
538.040.031.085	40	M5-M24	85	52	31	22
538.050.019.072	50	M2-M14	72	38	19	30
538.050.031.093	50	M5-M24	93	52	31	30
538.050.048.116	50	M14-M36	116	78	48	30



A37

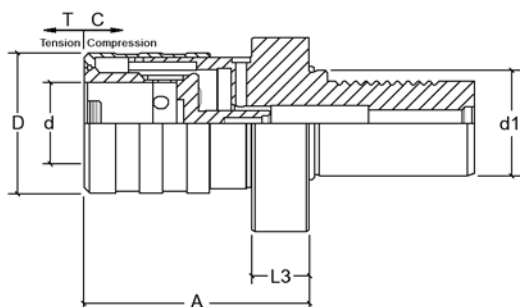


A38



Gewindeschneid-Schnellwechselfutter mit Längenausgleich auf Druck und Zug

Quick change tapping chucks with length compensation on compression and expansion



Bestell Nr. <i>Code No.</i>	d1	Spannbereich <i>Capacity</i> d	A	D	d	L3	C	T
539.020.019.057	20	M2-M14	57	38	19	16	7	7
539.020.019.067	20	M3-M14	67	38	19	16	7	7
539.025.019.058	25	M2-M14	58	38	19	18	7	7
539.030.019.058	30	M3-M14	58	36	19	22	7	7
539.030.019.062	30	M2-M14	62	38	19	22	7	7
539.030.031.081	30	M5-M22	81	53	31	22	12	12
539.030.031.084	30	M5-M24	84	54	31	22	12	12
539.040.019.058	40	M3-M14	58	36	19	22	7	7
539.040.019.062	40	M2-M14	62	38	19	22	7	7
539.040.031.081	40	M5-M22	81	53	31	22	12	12
539.040.031.084	40	M5-M24	84	54	31	22	12	12
539.050.019.056	50	M3-M14	56	36	19	30	7	7
539.050.019.070	50	M2-M14	70	38	19	30	7	7
539.050.031.080	50	M5-M22	80	53	31	30	12	12
539.050.031.092	50	M5-M24	92	54	31	30	12	12
539.050.048.108	50	M14-M36	108	78	48	30	17,5	17,5



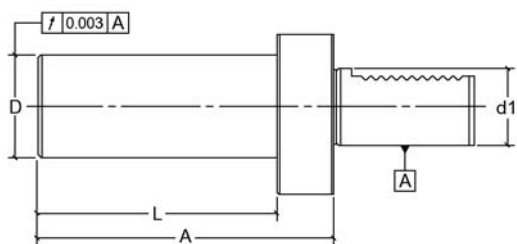


Kontrolldorne

Test arbors

DIN69880

DIN69880



Bestell Nr. Code No.	d1	D	A	L
555.016.030.120	16	30	120	105
555.020.040.150	20	40	150	130
555.025.040.150	25	40	150	135
555.030.040.230	30	40	230	185
555.040.040.200	40	40	200	185
555.050.040.200	50	40	200	185

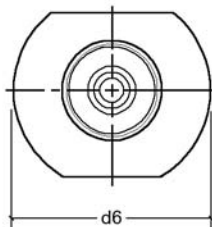
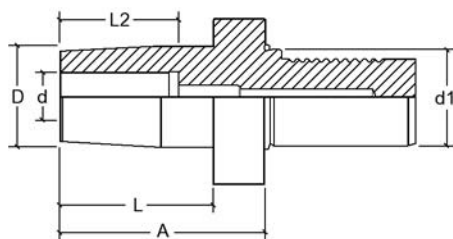


Hydro-Dehnspannfutter

Hydraulic expansion chucks

DIN69880

DIN69880



Bestell Nr. Code No.	d1	d	A	L	L2	D	d6
543.030.006.049	30	6	49	33	37	26	68
543.030.008.049	30	8	49	33	37	28	68
543.030.010.049	30	10	49	33	41	30	68
543.030.012.054	30	12	54	38	46	32	68
543.030.014.054	30	14	54	38	46	34	68
543.030.016.089	30	16	89	73	49	38	68
543.030.018.089	30	18	89	73	49	40	68
543.030.020.089	30	20	89	73	51	42	68
543.030.025.094	30	25	94	78	57	50	68
543.030.032.094	30	32	94	78	61	60	68
543.040.006.055	40	6	55	33	37	26	83
543.040.008.055	40	8	55	33	37	28	83
543.040.010.055	40	10	55	33	41	30	83
543.040.012.060	40	12	60	38	46	32	83
543.040.014.080	40	14	80	38	46	34	83
543.040.016.090	40	16	90	73	49	38	83
543.040.018.060	40	18	60	73	49	40	83
543.040.020.095	40	20	95	73	51	42	83
543.040.025.095	40	25	95	73	57	50	83
543.040.032.095	40	32	95	73	61	60	83
543.050.006.055	50	6	55	33	37	26	98
543.050.008.055	50	8	55	33	37	28	98
543.050.010.055	50	10	55	33	41	30	98
543.050.012.060	50	12	60	38	46	32	98
543.050.014.060	50	14	60	38	46	34	98
543.050.016.095	50	16	95	65	49	38	98
543.050.018.095	50	18	95	65	49	40	98
543.050.020.095	50	20	95	65	51	42	98
543.050.025.095	50	25	95	65	57	50	98
543.050.032.095	50	32	95	65	61	60	98



A36

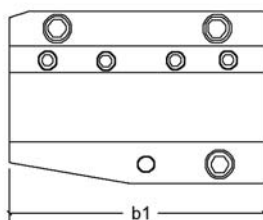
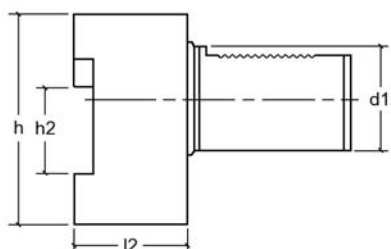


Abstechhalter rechts höhenverstellbar

DIN69880

Parting-off toolholders right height adjustable

DIN69880



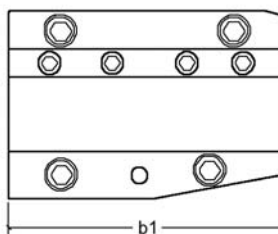
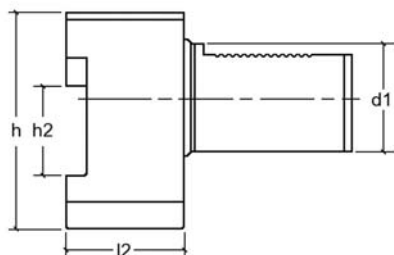
Bestell Nr. Code No.	d1	h2	b1	h	l2
553.030.026.070	30	26	70	70	50
553.040.032.085	40	32	85	80	50
553.050.032.100	50	32	100	80	50

Abstechhalter links höhenverstellbar

DIN69880

Parting-off toolholders left height adjustable

DIN69880



Bestell Nr. Code No.	d1	h2	b1	h	l2
554.030.026.070	30	26	70	70	50
554.040.032.085	40	32	85	80	50
554.050.032.100	50	32	100	80	50



A29

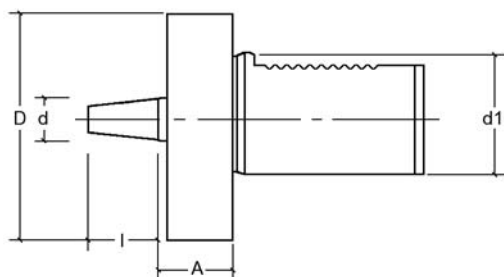


Bohrfutteraufnahmen DIN 238

DIN69880

Drill chuck adaptors DIN 238

DIN69880



Bestell Nr. <i>Code No.</i>	d1	d	A	D	I
550.030.016.027	30	B16	27	68	24
550.040.016.027	40	B16	27	83	24
550.050.016.035	50	B16	35	98	24

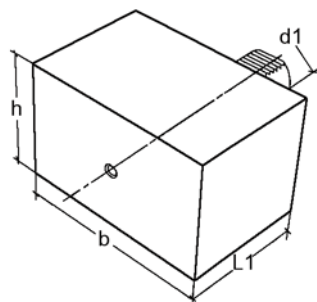


Werkzeughalter Rohling Form A1 rechteckig

DIN69880

Soft blank form A1 rectangular

DIN69880



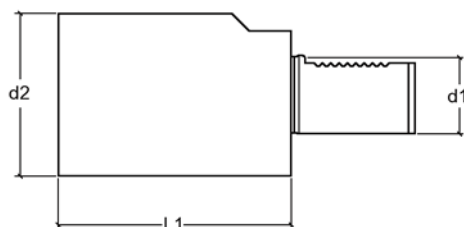
Bestell Nr. Code No.	d1	L1	h	b
518.016.044.078	16	44	44	78
518.020.060.100	20	65	60	100
518.025.060.100	25	75	60	100
518.030.076.130	30	85	76	130
518.040.096.151	40	100	96	151
518.050.120.160	50	125	120	160

Werkzeughalter Rohling Form A2 rund

DIN69880

Soft blank form A2 round

DIN69880



Bestell Nr. Code No.	d1	d2	L1
519.016.040.060	16	40	60
519.020.050.070	20	50	70
519.025.058.080	25	58	80
519.025.058.200	25	58	200
519.030.068.100	30	68	100
519.030.068.240	30	68	240
519.040.083.120	40	83	120
519.040.083.320	40	83	320
519.050.098.135	50	98	135
519.050.098.400	50	98	400

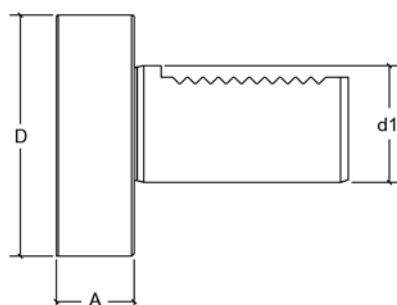


Schutzstopfen aus Kunststoff Form Z2

DIN69880

Protection plastic plugs form Z2

DIN69880



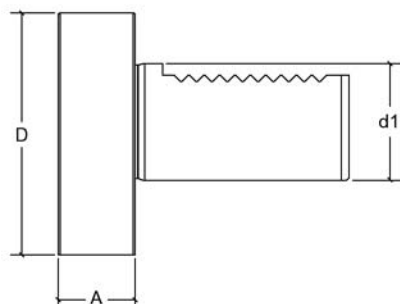
Bestell Nr. Code No.	d1	A	D
547.016.040.013	16	13	40
547.020.050.016	20	16	50
547.025.058.016	25	16	58
547.030.068.016	30	16	68
547.030.068.020	30	20	68
547.040.083.020	40	20	83
547.050.098.020	50	20	98

Schutzstopfen aus Stahl Form Z2

DIN69880

Protection steel plugs form Z2

DIN69880



Bestell Nr. Code No.	d1	A	D
548.016.040.013	16	13	40
548.020.050.016	20	16	50
548.025.058.016	25	16	58
548.030.068.016	30	16	68
548.030.068.020	30	20	68
548.040.083.020	40	20	83
548.050.098.020	50	20	98

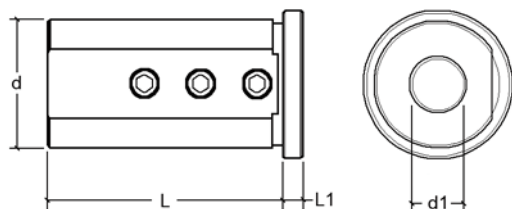


Reduzierbüchse für Bohrstangenhalter

Reduction sleeves for boring bar holders

DIN69880

DIN69880



Typ 1



Typ 2



Bestell Nr. Code No.	Type	d	d1	L	L1
537.025.006.046	1	25	6	46	4
537.025.008.046	1	25	8	46	4
537.025.010.046	1	25	10	46	4
537.025.012.046	1	25	12	46	4
537.025.014.046	1	25	14	46	4
537.A25.014.046	2	25	14	46	4
537.025.016.046	2	25	16	46	4
537.025.018.046	2	25	18	46	4
537.025.020.046	2	25	20	46	4
537.032.006.053	1	32	6	53	5
537.032.006.056	1	32	6	56	5
537.032.006.080	1	32	6	80	5
537.032.008.053	1	32	8	53	5
537.032.008.056	1	32	8	56	5
537.032.008.080	1	32	8	80	5
537.032.010.053	1	32	10	53	5
537.032.010.056	1	32	10	56	5
537.032.010.080	1	32	10	80	5
537.032.012.053	1	32	12	53	5
537.032.012.056	1	32	12	56	5
537.032.012.080	1	32	12	80	5
537.032.014.053	1	32	14	53	5
537.032.014.056	1	32	14	56	5
537.032.014.080	1	32	14	80	5
537.032.016.053	2	32	16	53	5
537.032.016.056	2	32	16	56	5
537.032.016.080	2	32	16	80	5
537.032.018.053	2	32	18	53	5
537.032.018.056	2	32	18	56	5
537.032.018.080	2	32	18	80	5
537.032.020.053	2	32	20	53	5
537.032.020.056	2	32	20	56	5
537.032.020.080	2	32	20	80	5
537.032.025.053	2	32	25	53	5
537.032.025.056	2	32	25	56	5
537.032.025.080	2	32	25	80	5

Bestell Nr. Code No.	Type	d	d1	L	L1
537.040.006.053	1	40	6	53	5
537.040.006.071	1	40	6	71	5
537.040.006.080	1	40	6	80	5
537.040.008.053	1	40	8	53	5
537.040.008.071	1	40	8	71	5
537.040.008.080	1	40	8	80	5
537.040.010.053	1	40	10	53	5
537.040.010.071	1	40	10	71	5
537.040.010.080	1	40	10	80	5
537.040.012.053	1	40	12	53	5
537.040.012.071	1	40	12	71	5
537.040.012.080	1	40	12	80	5
537.040.014.053	1	40	14	53	5
537.040.014.071	1	40	14	71	5
537.040.014.080	1	40	14	80	5
537.040.016.053	1	40	16	53	5
537.040.016.071	2	40	16	71	5
537.040.016.080	1	40	16	80	5
537.040.018.053	1	40	18	53	5
537.040.018.071	2	40	18	71	5
537.040.018.080	1	40	18	80	5
537.040.020.053	1	40	20	53	5
537.040.020.071	2	40	20	71	5
537.040.020.080	1	40	20	80	5
537.040.025.053	2	40	25	53	5
537.040.025.071	2	40	25	71	5
537.040.025.080	2	40	25	80	5
537.040.032.053	2	40	32	53	5
537.040.032.071	2	40	32	71	5
537.040.032.080	2	40	32	80	5

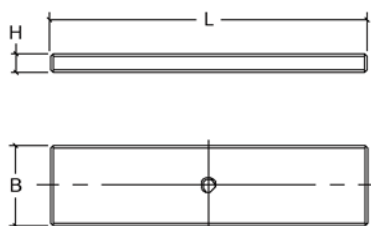


Unterlegplatten

DIN69880

Shims

DIN69880



Bestell Nr. Code No.	B	H	L
556.395.010.041	10	3,95	41
556.395.013.049	13	3,95	49
556.004.013.049	13,5	4	49
556.004.014.054	14	4	54
556.004.016.069	16	4	69
556.395.017.069	17	3,95	69
556.005.020.084	20	5	84
556.495.021.084	21	4,95	84
556.007.023.099	23	7	99
556.695.024.099	24	6,95	99

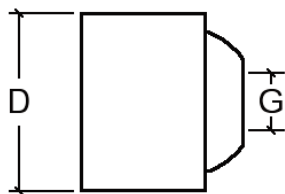


Kunststoff-Kugelspritzdüsen

DIN69880

Plastic ball sprayer nozzles

DIN69880



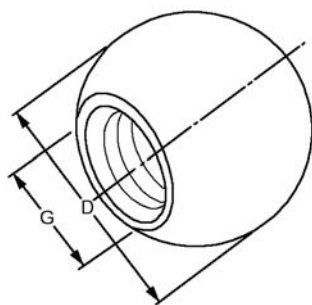
Bestell Nr. <i>Code No.</i>	D	G
557.008	8	M3
557.010	10	M4
557.012	12	M5
557.014	14	M6

Kugelspritzdüsen (Messing)

DIN69880

Ball sprayer nozzles (brass)

DIN69880

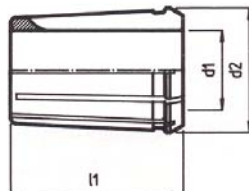


Bestell Nr. <i>Code No.</i>	D	G
558.008	8	M5
558.010	10	M6
558.012	12	M6
558.014	14	M8



Spannzangen DIN 6388 B (ISO 10897 B) System OZ

Collets DIN 6388 B (ISO 10897 B) OZ system



Bestell Nr. <i>Code No.</i>	Größe <i>Size</i>	d1 mm	d2 mm	l1 mm
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OZ 16				
435.016.002.000	OZ 16	2	25,5	40
435.016.003.000	OZ 16	3	25,5	40
435.016.004.000	OZ 16	4	25,5	40
435.016.005.000	OZ 16	5	25,5	40
435.016.006.000	OZ 16	6	25,5	40
435.016.007.000	OZ 16	7	25,5	40
435.016.008.000	OZ 16	8	25,5	40
435.016.009.000	OZ 16	9	25,5	40
435.016.010.000	OZ 16	10	25,5	40
435.016.011.000	OZ 16	11	25,5	40
435.016.012.000	OZ 16	12	25,5	40
435.016.013.000	OZ 16	13	25,5	40
435.016.014.000	OZ 16	14	25,5	40
435.016.015.000	OZ 16	15	25,5	40
435.016.016.000	OZ 16	16	25,5	40

OZ 25				
435.025.002.000	OZ 25	2	35,05	52
435.025.003.000	OZ 25	3	35,05	52
435.025.004.000	OZ 25	4	35,05	52
435.025.005.000	OZ 25	5	35,05	52
435.025.006.000	OZ 25	6	35,05	52
435.025.007.000	OZ 25	7	35,05	52
435.025.008.000	OZ 25	8	35,05	52
435.025.009.000	OZ 25	9	35,05	52
435.025.010.000	OZ 25	10	35,05	52
435.025.011.000	OZ 25	11	35,05	52
435.025.012.000	OZ 25	12	35,05	52
435.025.013.000	OZ 25	13	35,05	52
435.025.014.000	OZ 25	14	35,05	52
435.025.015.000	OZ 25	15	35,05	52
435.025.016.000	OZ 25	16	35,05	52
435.025.017.000	OZ 25	17	35,05	52
435.025.018.000	OZ 25	18	35,05	52
435.025.019.000	OZ 25	19	35,05	52
435.025.020.000	OZ 25	20	35,05	52
435.025.021.000	OZ 25	21	35,05	52
435.025.022.000	OZ 25	22	35,05	52
435.025.023.000	OZ 25	23	35,05	52
435.025.024.000	OZ 25	24	35,05	52
435.025.025.000	OZ 25	25	35,05	52

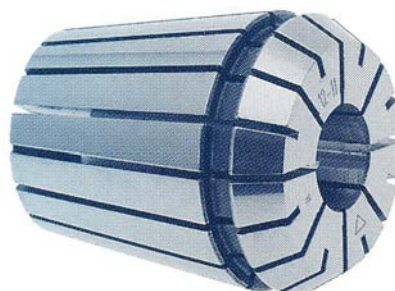
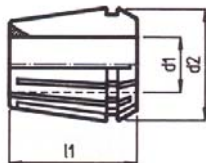
Bestell Nr. <i>Code No.</i>	Größe <i>Size</i>	d1 mm	d2 mm	l1 mm
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OZ 32				
435.032.003.000	OZ 32	3	43,7	60
435.032.004.000	OZ 32	4	43,7	60
435.032.005.000	OZ 32	5	43,7	60
435.032.006.000	OZ 32	6	43,7	60
435.032.007.000	OZ 32	7	43,7	60
435.032.008.000	OZ 32	8	43,7	60
435.032.009.000	OZ 32	9	43,7	60
435.032.010.000	OZ 32	10	43,7	60
435.032.011.000	OZ 32	11	43,7	60
435.032.012.000	OZ 32	12	43,7	60
435.032.013.000	OZ 32	13	43,7	60
435.032.014.000	OZ 32	14	43,7	60
435.032.015.000	OZ 32	15	43,7	60
435.032.016.000	OZ 32	16	43,7	60
435.032.017.000	OZ 32	17	43,7	60
435.032.018.000	OZ 32	18	43,7	60
435.032.019.000	OZ 32	19	43,7	60
435.032.020.000	OZ 32	20	43,7	60
435.032.021.000	OZ 32	21	43,7	60
435.032.022.000	OZ 32	22	43,7	60
435.032.023.000	OZ 32	23	43,7	60
435.032.024.000	OZ 32	24	43,7	60
435.032.025.000	OZ 32	25	43,7	60
435.032.026.000	OZ 32	26	43,7	60
435.032.027.000	OZ 32	27	43,7	60
435.032.028.000	OZ 32	28	43,7	60
435.032.029.000	OZ 32	29	43,7	60
435.032.030.000	OZ 32	30	43,7	60
435.032.031.000	OZ 32	31	43,7	60
435.032.032.000	OZ 32	32	43,7	60



Spannzangen DIN 6499 B (ISO 15488 B) System ER

Collets DIN 6499 B (ISO 15488 B) ER system



Bestell Nr. Code No.	Größe Size	d1 mm	d2 mm	l1 mm
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ER 8				
228.008.001.000	ER 8	1	8,5	13,6
228.008.001.500	ER 8	1,5	8,5	13,6
228.008.002.000	ER 8	2	8,5	13,6
228.008.002.500	ER 8	2,5	8,5	13,6
228.008.003.000	ER 8	3	8,5	13,6
228.008.003.500	ER 8	3,5	8,5	13,6
228.008.004.000	ER 8	4	8,5	13,6
228.008.004.500	ER 8	4,5	8,5	13,6
228.008.005.000	ER 8	5	8,5	13,6
ER 11				
228.011.001.000	ER 11	1	11,5	18
228.011.001.500	ER 11	1,5	11,5	18
228.011.002.000	ER 11	2	11,5	18
228.011.002.500	ER 11	2,5	11,5	18
228.011.003.000	ER 11	3	11,5	18
228.011.003.500	ER 11	3,5	11,5	18
228.011.004.000	ER 11	4	11,5	18
228.011.004.500	ER 11	4,5	11,5	18
228.011.005.000	ER 11	5	11,5	18
228.011.005.500	ER 11	5,5	11,5	18
228.011.006.000	ER 11	6	11,5	18
228.011.006.500	ER 11	6,5	11,5	18
228.011.007.000	ER 11	7	11,5	18
ER 16				
228.016.001.000	ER 16	1	17	27,5
228.016.001.500	ER 16	1,5	17	27,5
228.016.002.000	ER 16	2	17	27,5
228.016.002.500	ER 16	2,5	17	27,5
228.016.003.000	ER 16	3	17	27,5
228.016.003.500	ER 16	3,5	17	27,5
228.016.004.000	ER 16	4	17	27,5
228.016.004.500	ER 16	4,5	17	27,5
228.016.005.000	ER 16	5	17	27,5
228.016.005.500	ER 16	5,5	17	27,5
228.016.006.000	ER 16	6	17	27,5
228.016.006.500	ER 16	6,5	17	27,5
228.016.007.000	ER 16	7	17	27,5
228.016.007.500	ER 16	7,5	17	27,5
228.016.008.000	ER 16	8	17	27,5
228.016.008.500	ER 16	8,5	17	27,5
228.016.009.000	ER 16	9	17	27,5
228.016.009.500	ER 16	9,5	17	27,5
228.016.010.000	ER 16	10	17	27,5

Bestell Nr. Code No.	Größe Size	d1 mm	d2 mm	l1 mm
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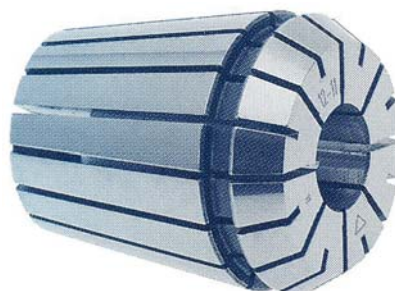
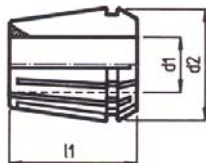
ER 20				
228.020.002.000	ER 20	2	21	31,5
228.020.002.500	ER 20	2,5	21	31,5
228.020.003.000	ER 20	3	21	31,5
228.020.003.500	ER 20	3,5	21	31,5
228.020.004.000	ER 20	4	21	31,5
228.020.004.500	ER 20	4,5	21	31,5
228.020.005.000	ER 20	5	21	31,5
228.020.005.500	ER 20	5,5	21	31,5
228.020.006.000	ER 20	6	21	31,5
228.020.006.500	ER 20	6,5	21	31,5
228.020.007.000	ER 20	7	21	31,5
228.020.007.500	ER 20	7,5	21	31,5
228.020.008.000	ER 20	8	21	31,5
228.020.008.500	ER 20	8,5	21	31,5
228.020.009.000	ER 20	9	21	31,5
228.020.009.500	ER 20	9,5	21	31,5
228.020.010.000	ER 20	10	21	31,5
228.020.010.500	ER 20	10,5	21	31,5
228.020.011.000	ER 20	11	21	31,5
228.020.011.500	ER 20	11,5	21	31,5
228.020.012.000	ER 20	12	21	31,5
228.020.012.500	ER 20	12,5	21	31,5
228.020.013.000	ER 20	13	21	31,5

Präzisionszangen ≤ 0,005
auf Anfrage lieferbar
Precision collets ≤ 0,005



Spannzangen DIN 6499 B (ISO 15488 B) System ER

Collets DIN 6499 B (ISO 15488 B) ER system



Bestell Nr. Code No.	Größe Size	d1 mm	d2 mm	l1 mm
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ER 25				
228.025.002.000	ER 25	2	26	34
228.025.002.500	ER 25	2,5	26	34
228.025.003.000	ER 25	3	26	34
228.025.003.500	ER 25	3,5	26	34
228.025.004.000	ER 25	4	26	34
228.025.004.500	ER 25	4,5	26	34
228.025.005.000	ER 25	5	26	34
228.025.005.500	ER 25	5,5	26	34
228.025.006.000	ER 25	6	26	34
228.025.006.500	ER 25	6,5	26	34
228.025.007.000	ER 25	7	26	34
228.025.007.500	ER 25	7,5	26	34
228.025.008.000	ER 25	8	26	34
228.025.008.500	ER 25	8,5	26	34
228.025.009.000	ER 25	9	26	34
228.025.009.500	ER 25	9,5	26	34
228.025.010.000	ER 25	10	26	34
228.025.010.500	ER 25	10,5	26	34
228.025.011.000	ER 25	11	26	34
228.025.011.500	ER 25	11,5	26	34
228.025.012.000	ER 25	12	26	34
228.025.012.500	ER 25	12,5	26	34
228.025.013.000	ER 25	13	26	34
228.025.013.500	ER 25	13,5	26	34
228.025.014.000	ER 25	14	26	34
228.025.014.500	ER 25	14,5	26	34
228.025.015.000	ER 25	15	26	34
228.025.015.500	ER 25	15,5	26	34
228.025.016.000	ER 25	16	26	34

Bestell Nr. Code No.	Größe Size	d1 mm	d2 mm	l1 mm
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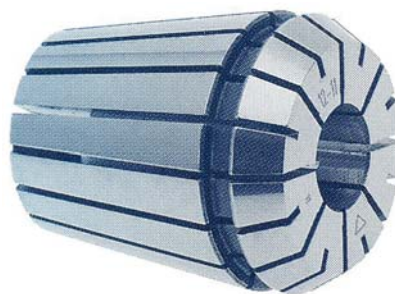
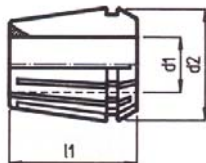
ER 32				
228.032.002.000	ER 32	2	33	40
228.032.002.500	ER 32	2,5	33	40
228.032.003.000	ER 32	3	33	40
228.032.003.500	ER 32	3,5	33	40
228.032.004.000	ER 32	4	33	40
228.032.004.500	ER 32	4,5	33	40
228.032.005.000	ER 32	5	33	40
228.032.005.500	ER 32	5,5	33	40
228.032.006.000	ER 32	6	33	40
228.032.006.500	ER 32	6,5	33	40
228.032.007.000	ER 32	7	33	40
228.032.007.500	ER 32	7,5	33	40
228.032.008.000	ER 32	8	33	40
228.032.008.500	ER 32	8,5	33	40
228.032.009.000	ER 32	9	33	40
228.032.009.500	ER 32	9,5	33	40
228.032.010.000	ER 32	10	33	40
228.032.010.500	ER 32	10,5	33	40
228.032.011.000	ER 32	11	33	40
228.032.011.500	ER 32	11,5	33	40
228.032.012.000	ER 32	12	33	40
228.032.012.500	ER 32	12,5	33	40
228.032.013.000	ER 32	13	33	40
228.032.013.500	ER 32	13,5	33	40
228.032.014.000	ER 32	14	33	40
228.032.014.500	ER 32	14,5	33	40
228.032.015.000	ER 32	15	33	40
228.032.015.500	ER 32	15,5	33	40
228.032.016.000	ER 32	16	33	40
228.032.016.500	ER 32	16,5	33	40
228.032.017.000	ER 32	17	33	40
228.032.017.500	ER 32	17,5	33	40
228.032.018.000	ER 32	18	33	40
228.032.018.500	ER 32	18,5	33	40
228.032.019.000	ER 32	19	33	40
228.032.019.500	ER 32	19,5	33	40
228.032.020.000	ER 32	20	33	40

Präzisionszangen ≤ 0,005
auf Anfrage lieferbar
Precision collets ≤ 0,005



Spannzangen DIN 6499 B (ISO 15488 B) System ER

Collets DIN 6499 B (ISO 15488 B) ER system



Bestell Nr. Code No.	Größe Size	d1 mm	d2 mm	l1 mm
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ER 40				
228.040.003.000	ER 40	3	41	46
228.040.004.000	ER 40	4	41	46
228.040.005.000	ER 40	5	41	46
228.040.006.000	ER 40	6	41	46
228.040.007.000	ER 40	7	41	46
228.040.008.000	ER 40	8	41	46
228.040.009.000	ER 40	9	41	46
228.040.010.000	ER 40	10	41	46
228.040.011.000	ER 40	11	41	46
228.040.012.000	ER 40	12	41	46
228.040.013.000	ER 40	13	41	46
228.040.014.000	ER 40	14	41	46

Bestell Nr. Code No.	Größe Size	d1 mm	d2 mm	l1 mm
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ER 40				
228.040.015.000	ER 40	15	41	46
228.040.016.000	ER 40	16	41	46
228.040.017.000	ER 40	17	41	46
228.040.018.000	ER 40	18	41	46
228.040.019.000	ER 40	19	41	46
228.040.020.000	ER 40	20	41	46
228.040.021.000	ER 40	21	41	46
228.040.022.000	ER 40	22	41	46
228.040.023.000	ER 40	23	41	46
228.040.024.000	ER 40	24	41	46
228.040.025.000	ER 40	25	41	46
228.040.026.000	ER 40	26	41	46

Spannzangensätze DIN 6499 B (ISO 15488 B) System ER

Collets sets DIN 6499 B (ISO 15488 B) ER system



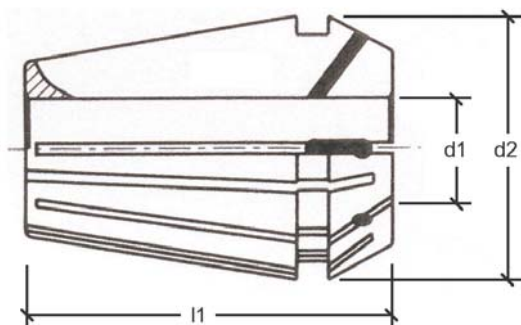
Bestell Nr. Code No.	Größe Size	Stück Qty	Abmessungen Size
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228.008.001.005	ER8	9	1-1,5-2-2,5-3-3,5-4-4,5-5
228.011.001.007	ER 11	13	1-1,5-2-2,5-3-3,5-4-4,5-5-5,5-6-6,5-7
228.016.001.010	ER 16	10	1-2-3-4-5-6-7-8-9-10
228.020.002.013	ER 20	12	2-3-4-5-6-7-8-9-10-11-12-13
228.025.002.016	ER 25	15	2-3-4-5-6-7-8-9-10-11-12-13-14-15-16
228.032.003.020	ER 32	18	3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20
228.040.004.026	ER 40	23	4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-26



Spannzangen mit Abdichtung für IK DIN 6499 B (ISO 15488 B) System ER

Collets sealed with seal for IC DIN 6499 B (ISO 15488 B) ER system



Bestell Nr. <i>Code No.</i>	Größe <i>Size</i>	d1 mm	d2 mm	l1 mm
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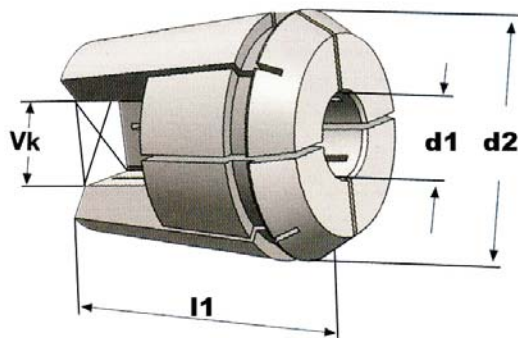
ER 16				
228.016.003.A00	ER 16	3	17	27,5
228.016.004.A00	ER 16	4	17	27,5
228.016.005.A00	ER 16	5	17	27,5
228.016.006.A00	ER 16	6	17	27,5
228.016.007.A00	ER 16	7	17	27,5
228.016.008.A00	ER 16	8	17	27,5
228.016.009.A00	ER 16	9	17	27,5
228.016.010.A00	ER 16	10	17	27,5
ER20				
228.020.003.A00	ER 20	3	21	31,5
228.020.004.A00	ER 20	4	21	31,5
228.020.005.A00	ER 20	5	21	31,5
228.020.006.A00	ER 20	6	21	31,5
228.020.007.A00	ER 20	7	21	31,5
228.020.008.A00	ER 20	8	21	31,5
228.020.009.A00	ER 20	9	21	31,5
228.020.010.A00	ER 20	10	21	31,5
228.020.011.A00	ER 20	11	21	31,5
228.020.012.A00	ER 20	12	21	31,5
228.020.013.A00	ER 20	13	21	31,5
ER 25				
228.025.003.A00	ER 25	3	26	34
228.025.004.A00	ER 25	4	26	34
228.025.005.A00	ER 25	5	26	34
228.025.006.A00	ER 25	6	26	34
228.025.007.A00	ER 25	7	26	34
228.025.008.A00	ER 25	8	26	34
228.025.009.A00	ER 25	9	26	34
228.025.010.A00	ER 25	10	26	34
228.025.011.A00	ER 25	11	26	34
228.025.012.A00	ER 25	12	26	34
228.025.013.A00	ER 25	13	26	34
228.025.014.A00	ER 25	14	26	34
228.025.015.A00	ER 25	15	26	34
228.025.016.A00	ER 25	16	26	34

Bestell Nr. <i>Code No.</i>	Größe <i>Size</i>	d1 mm	d2 mm	l1 mm
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ER 32				
228.032.003.A00	ER 32	3	33	40
228.032.004.A00	ER 32	4	33	40
228.032.005.A00	ER 32	5	33	40
228.032.006.A00	ER 32	6	33	40
228.032.007.A00	ER 32	7	33	40
228.032.008.A00	ER 32	8	33	40
228.032.009.A00	ER 32	9	33	40
228.032.010.A00	ER 32	10	33	40
228.032.011.A00	ER 32	11	33	40
228.032.012.A00	ER 32	12	33	40
228.032.013.A00	ER 32	13	33	40
228.032.014.A00	ER 32	14	33	40
228.032.015.A00	ER 32	15	33	40
228.032.016.A00	ER 32	16	33	40
228.032.017.A00	ER 32	17	33	40
228.032.018.A00	ER 32	18	33	40
228.032.019.A00	ER 32	19	33	40
228.032.020.A00	ER 32	20	33	40
ER 40				
228.040.003.A00	ER 40	3	41	46
228.040.004.A00	ER 40	4	41	46
228.040.005.A00	ER 40	5	41	46
228.040.006.A00	ER 40	6	41	46
228.040.007.A00	ER 40	7	41	46
228.040.008.A00	ER 40	8	41	46
228.040.009.A00	ER 40	9	41	46
228.040.010.A00	ER 40	10	41	46
228.040.011.A00	ER 40	11	41	46
228.040.012.A00	ER 40	12	41	46
228.040.013.A00	ER 40	13	41	46
228.040.014.A00	ER 40	14	41	46
228.040.015.A00	ER 40	15	41	46
228.040.016.A00	ER 40	16	41	46
228.040.017.A00	ER 40	17	41	46
228.040.018.A00	ER 40	18	41	46
228.040.019.A00	ER 40	19	41	46
228.040.020.A00	ER 40	20	41	46
228.040.021.A00	ER 40	21	41	46
228.040.022.A00	ER 40	22	41	46
228.040.023.A00	ER 40	23	41	46
228.040.024.A00	ER 40	24	41	46
228.040.025.A00	ER 40	25	41	46
228.040.026.A00	ER 40	26	41	46

Spannzangen mit Innenvierkant DIN 6499 A (ISO 15488 A) System ER für Gewindebohrer

Collets with square locking drive DIN 6499 A (ISO 15488 A) ER system for taps



Bestell Nr. Code No.	Größe Size	d1 mm	VK mm	d2 mm	l1 mm
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ER 16					
228.G16.035.027	ER 16	3,5	2,7	17	27,5
228.G16.040.030	ER 16	4	3	17	27,5
228.G16.045.034	ER 16	4,5	3,4	17	27,5
228.G16.050.040	ER 16	5	4	17	27,5
228.G16.055.043	ER 16	5,5	4,3	17	27,5
228.G16.060.049	ER 16	6	4,9	17	27,5
228.G16.070.055	ER 16	7	5,5	17	27,5
228.G16.090.070	ER 16	9	7	17	27,5
228.G16.100.080	ER 16	10	8	17	27,5

ER20					
228.G20.035.027	ER 20	3,5	2,7	21	31,5
228.G20.040.030	ER 20	4	3	21	31,5
228.G20.045.034	ER 20	4,5	3,4	21	31,5
228.G20.055.043	ER 20	5,5	4,3	21	31,5
228.G20.060.049	ER 20	6	4,9	21	31,5
228.G20.070.055	ER 20	7	5,5	21	31,5
228.G20.080.062	ER 20	8	6,2	21	31,5
228.G20.090.070	ER 20	9	7	21	31,5
228.G20.100.080	ER 20	11	8	21	31,5
228.G20.110.090	ER 20	11	9	21	31,5
228.G20.120.090	ER 20	12	9	21	31,5

ER 25					
228.G25.035.027	ER 25	3,5	2,7	26	34
228.G25.040.030	ER 25	4	3	26	34
228.G25.045.034	ER 25	4,5	3,4	26	34
228.G25.050.040	ER 25	5	4	26	34
228.G25.055.043	ER 25	5,5	4,3	26	34
228.G25.060.049	ER 25	6	4,9	26	34
228.G25.070.055	ER 25	7	5,5	26	34
228.G25.080.062	ER 25	8	6,2	26	34
228.G25.090.070	ER 25	9	7	26	34
228.G25.100.080	ER 25	10	8	26	34
228.G25.110.090	ER 25	11	9	26	34
228.G25.120.090	ER 25	12	9	26	34
228.G25.140.110	ER 25	14	11	26	34
228.G25.160.120	ER 25	16	12	26	34

Bestell Nr. Code No.	Größe Size	d1 mm	VK mm	d2 mm	l1 mm
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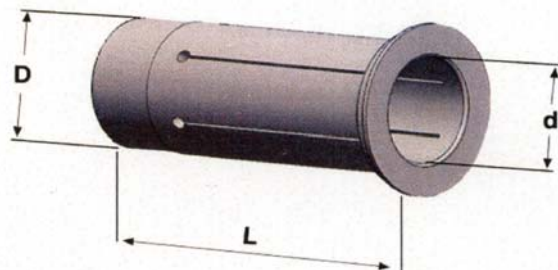
ER 32					
228.G32.040.030	ER 32	4	3	33	40
228.G32.045.034	ER 32	4,5	3,4	33	40
228.G32.050.040	ER 32	5	4	33	40
228.G32.055.043	ER 32	5,5	4,3	33	40
228.G32.060.049	ER 32	6	4,9	33	40
228.G32.070.055	ER 32	7	5,5	33	40
228.G32.080.062	ER 32	8	6,2	33	40
228.G32.090.070	ER 32	9	7	33	40
228.G32.100.080	ER 32	10	8	33	40
228.G32.110.090	ER 32	11	9	33	40
228.G32.120.090	ER 32	12	9	33	40
228.G32.140.110	ER 32	14	11	33	40
228.G32.160.125	ER 32	16	12	33	40
228.G32.180.145	ER 32	18	14,5	33	40
228.G32.200.160	ER 32	20	16	33	40

ER 40					
228.G40.060.049	ER 40	6	4,9	41	46
228.G40.070.055	ER 40	7	5,5	41	46
228.G40.080.062	ER 40	8	6,2	41	46
228.G40.090.070	ER 40	9	7	41	46
228.G40.100.080	ER 40	10	8	41	46
228.G40.110.090	ER 40	11	9	41	46
228.G40.120.090	ER 40	12	9	41	46
228.G40.140.110	ER 40	14	11	41	46
228.G40.160.125	ER 40	16	12	41	46
228.G40.180.145	ER 40	18	14,5	41	46
228.G40.200.160	ER 40	20	16	41	46
228.G40.220.180	ER 40	22	18	41	46
228.G40.250.200	ER 40	25	20	41	46



Reduzierbüchsen für Hydrodehnspannfutter

Reducing arbor for hydraulic chucks

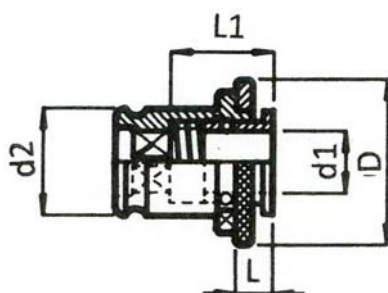


Bestell Nr. Code No.	D mm	d mm	L mm
231.012.003.046	12	3	46
231.012.004.046	12	4	46
231.012.005.046	12	5	46
231.012.006.046	12	6	46
231.012.008.046	12	8	46
231.020.003.052	20	3	52,5
231.020.004.052	20	4	52,5
231.020.005.052	20	5	52,5
231.020.006.052	20	6	52,5
231.020.008.052	20	8	52,5
231.020.010.052	20	10	52,5
231.020.012.052	20	12	52,5
231.020.014.052	20	14	52,5
231.020.016.052	20	16	52,5
231.032.006.063	32	6	63
231.032.008.063	32	8	63
231.032.010.063	32	10	63
231.032.012.063	32	12	63
231.032.014.063	32	14	63
231.032.016.063	32	16	63
231.032.020.063	32	20	63
231.032.025.063	32	25	63



Schnellwechsel-Einsätze ohne Überlastungskupplung

Quick change adaptors without safety clutch



Bestell Nr. Code No.	Größe Size	D mm	d2 mm	d1 mm	V mm	L mm	L1 mm
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331.019.028.021	1	30	19	2,8	2,1	7	17
331.019.035.027	1	30	19	3,5	2,7	7	17
331.019.040.030	1	30	19	4	3	7	17
331.019.045.034	1	30	19	4,5	3,4	7	17
331.019.060.049	1	30	19	6	4,9	7	17
331.019.050.040	1	30	19	5	4	7	17
331.019.070.055	1	30	19	7	5,5	7	17
331.019.080.062	1	30	19	8	6,2	7	17
331.019.090.070	1	30	19	9	7	7	17
331.019.100.080	1	30	19	10	8	7	17
331.019.110.090	1	30	19	11	9	7	17

331.031.060.049	2	48	31	6	4,9	11	30
331.031.070.055	2	48	31	7	5,5	11	30
331.031.080.062	2	48	31	8	6,2	11	30
331.031.090.070	2	48	31	9	7	11	30
331.031.100.080	2	48	31	10	8	11	30
331.031.110.090	2	48	31	11	9	11	30
331.031.120.090	2	48	31	12	9	11	30
331.031.140.110	2	48	31	14	11	11	30
331.031.160.120	2	48	31	16	12	11	30
331.031.180.145	2	48	31	18	14,5	11	30

331.048.110.090	3	70	48	11	9	14	44
331.048.120.090	3	70	48	12	9	14	44
331.048.140.110	3	70	48	14	11	14	44
331.048.160.120	3	70	48	16	12	14	44
331.048.180.145	3	70	48	18	14,5	14	44
331.048.200.160	3	70	48	20	16	14	44
331.048.220.180	3	70	48	22	18	14	44
331.048.250.200	3	70	48	25	20	14	44
331.048.280.220	3	70	48	28	22	14	44

für for				
DIN 371	DIN 376/374	DIN 353	DIN 2182	DIN 2183

M2-M2,5				
M3	M5		1/8"	
M3,5			5/32"	
M4	M6		7/32"	1/4"
M5-6	M8			
JIS-Norm				
	M10	R 1/8"	1/4"	3/8"
M8			5/16"	7/16"
	M12		3/8"	1/2"
M10				
	M14	R 1/4"		9/16"

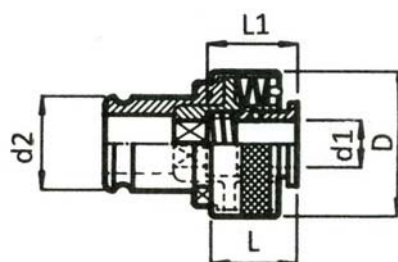
M5-6	M8			
	M10	R 1/8"		3/8"
M8				7/16"
	M12			1/2"
M10				
	M14	R 1/4"		9/16"
	M16	R 3/8"		5/8"
	M18			11/16"
	M20	R 1/2"		13/16"
M22-24	R 5/8"			7/8"-15/16"

	M14	R 1/4"		9/16"
	M16	R 3/8"		5/8"
	M18			11/16"
	M20	R 1/2"		13/16"
M22-24	R 5/8"			7/8"-15/16"
	M27	R 3/4"		1"
	M30	R 7/8"		1.1/8"
	M33	R 1"		1.1/4"
	M36	R 1.1/8"		1.3/8"



Schnellwechsel-Einsätze mit Überlastungskupplung

Quick change adaptors with safety clutch



Bestell Nr. Code No.	Größe Size	D mm	d2 mm	d1 mm	V mm	L mm	L1 mm
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334.019.028.021	1	32	19	2,8	2,1	25	17
334.019.035.027	1	32	19	3,5	2,7	25	17
334.019.040.030	1	32	19	4	3	25	17
334.019.045.034	1	32	19	4,5	3,4	25	17
334.A19.060.049	1	32	19	4,5	3,4	25	17
334.019.060.049	1	32	19	6	4,9	25	17
334.019.070.055	1	32	19	7	5,5	25	17
334.019.080.062	1	32	19	8	6,2	25	17
334.019.090.070	1	32	19	9	7	25	17
334.019.100.080	1	32	19	10	8	25	17
334.019.110.090	1	32	19	11	9	25	17

334.A31.060.049	2	50	31	6	4,9	34	30
334.031.060.049	2	50	31	6	4,9	34	30
334.031.070.055	2	50	31	7	5,5	34	30
334.031.080.062	2	50	31	8	6,2	34	30
334.031.090.070	2	50	31	9	7	34	30
334.031.100.080	2	50	31	10	8	34	30
334.031.110.090	2	50	31	11	9	34	30
334.031.120.090	2	50	31	12	9	34	30
334.031.140.110	2	50	31	14	11	34	30
334.031.160.120	2	50	31	16	12	34	30
334.031.180.145	2	50	31	18	14,5	34	30

334.048.110.090	3	72	48	11	9	44	44
334.048.120.090	3	72	48	12	9	44	44
334.048.140.110	3	72	48	14	11	44	44
334.048.160.120	3	72	48	16	12	44	44
334.048.180.145	3	72	48	18	14,5	44	44
334.A48.180.145	3	72	48	18	14,5	44	44
334.048.200.160	3	72	48	20	16	44	44
334.048.220.180	3	72	48	22	18	44	44
334.048.250.200	3	72	48	25	20	44	44
334.048.280.220	3	72	48	28	22	44	44

für for				
DIN 371	DIN 376/374	DIN 353	DIN 2182	DIN 2183

M2-M2,5				
M3	M5		1/8"	
M3,5			5/32"	
M4	M6		7/32"	1/4"
M5				
M6	M8			
	M10	R 1/8"	1/4"	3/8"
M8			5/16"	7/16"
	M12		3/8"	1/2"
M10				
	M14	R 1/4"		9/16"

M5				
M6	M8			
	M10	R 1/8"		3/8"
M8				7/16"
	M12			1/2"
M10				
	M14	R 1/4"		9/16"
	M16	R 3/8"		5/8"
	M18			11/16"
	M20	R 1/2"		13/16"
	M22-24	R 5/8"		7/8"-15/16"

	M14	R 1/4"		9/16"
	M16	R 3/8"		5/8"
	M18			11/16"
	M20	R 1/2"		13/16"
	M22	R 5/8"		7/8"-15/16"
	M24			
	M27	R 3/4"		1"
	M30	R 7/8"		1.1/8"
	M33	R 1"		1.1/4"
	M36	R 1.1/8"		1.3/8"

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