



DIN 69880 (VDI 3425)

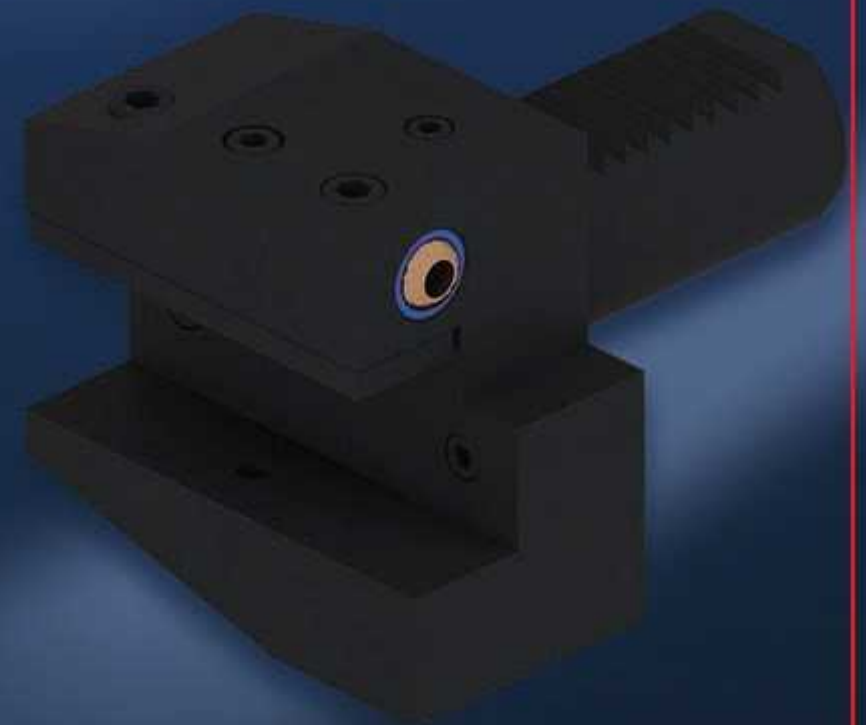
Werkzeugaufnahmen

Toolholders

Porte-outils

Takım Tutucular

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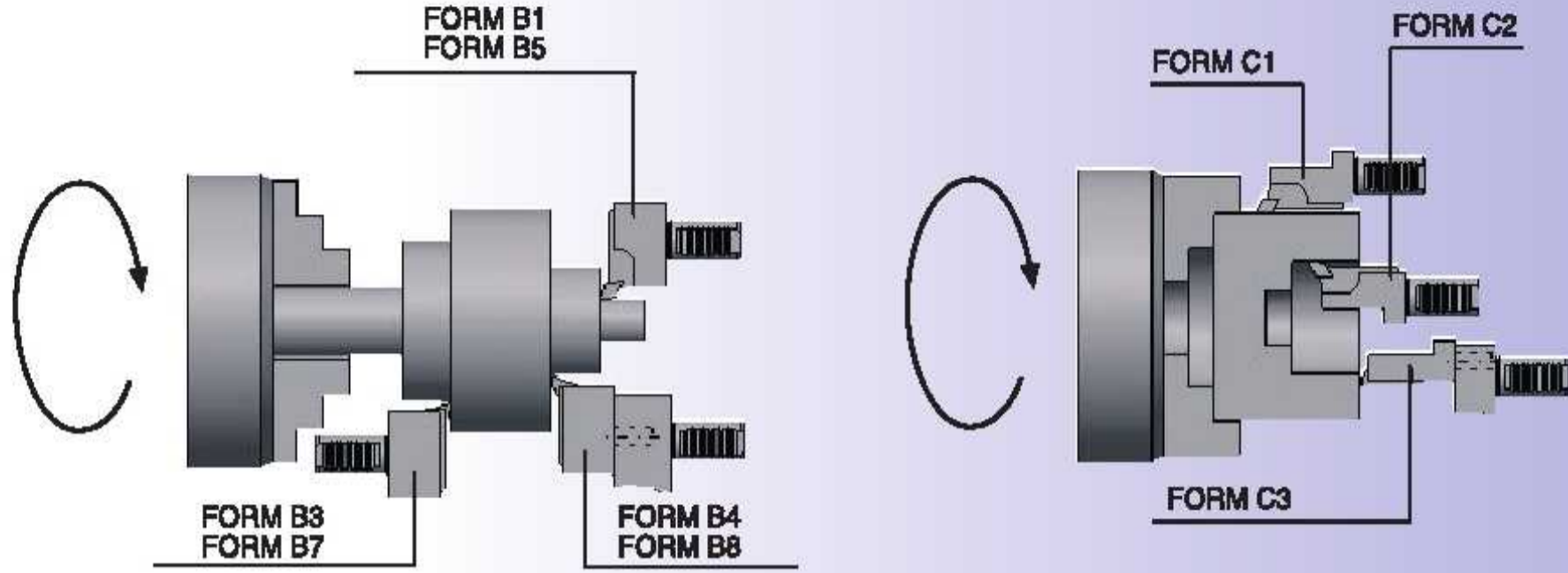


Einsatz von Radial-Werkzeughaltern bei linker Spindeldrehrichtung

Insert for Radial Toolholders left Spindle Movement

Emploi de porte-outils radiaux, rotation de broche antihoraire

Fener milinin sol dönuş yönü için radyal tutucu

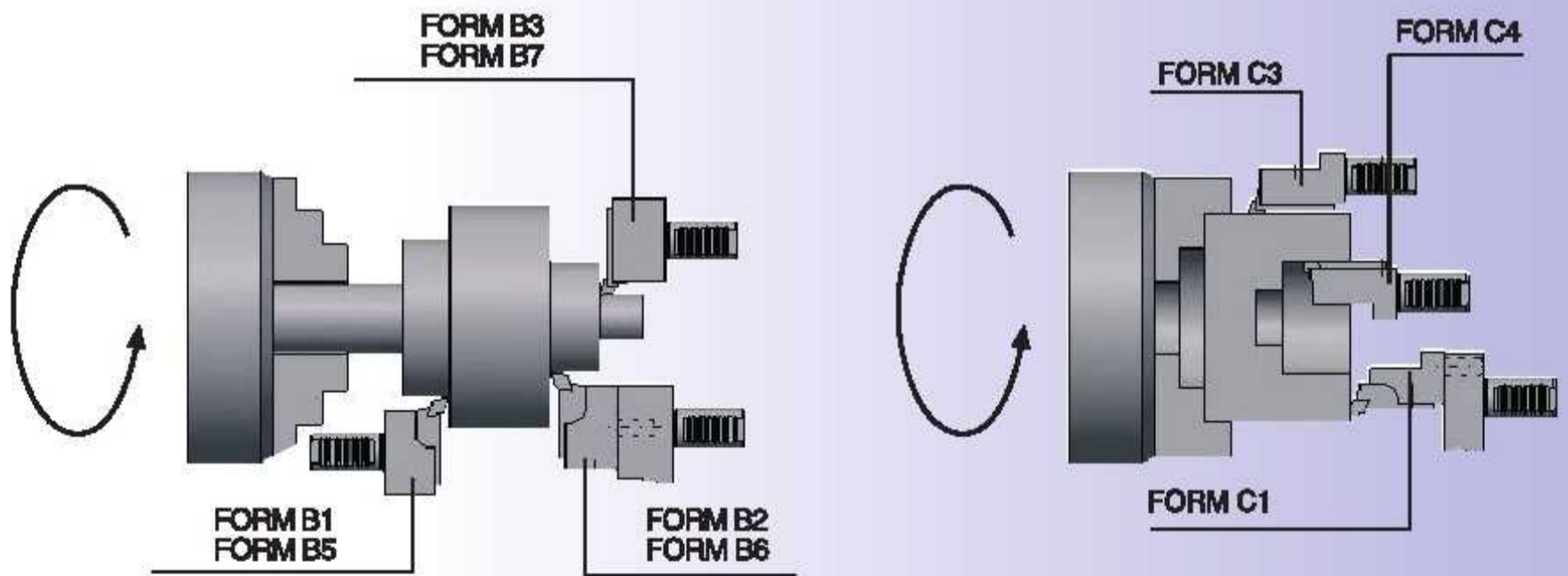


Einsatz von Radial-Werkzeughaltern bei rechter Spindeldrehrichtung

Insert for Radial Toolholders right Spindle Movement

Emploi de porte-outils radiaux, rotation de broche horaire

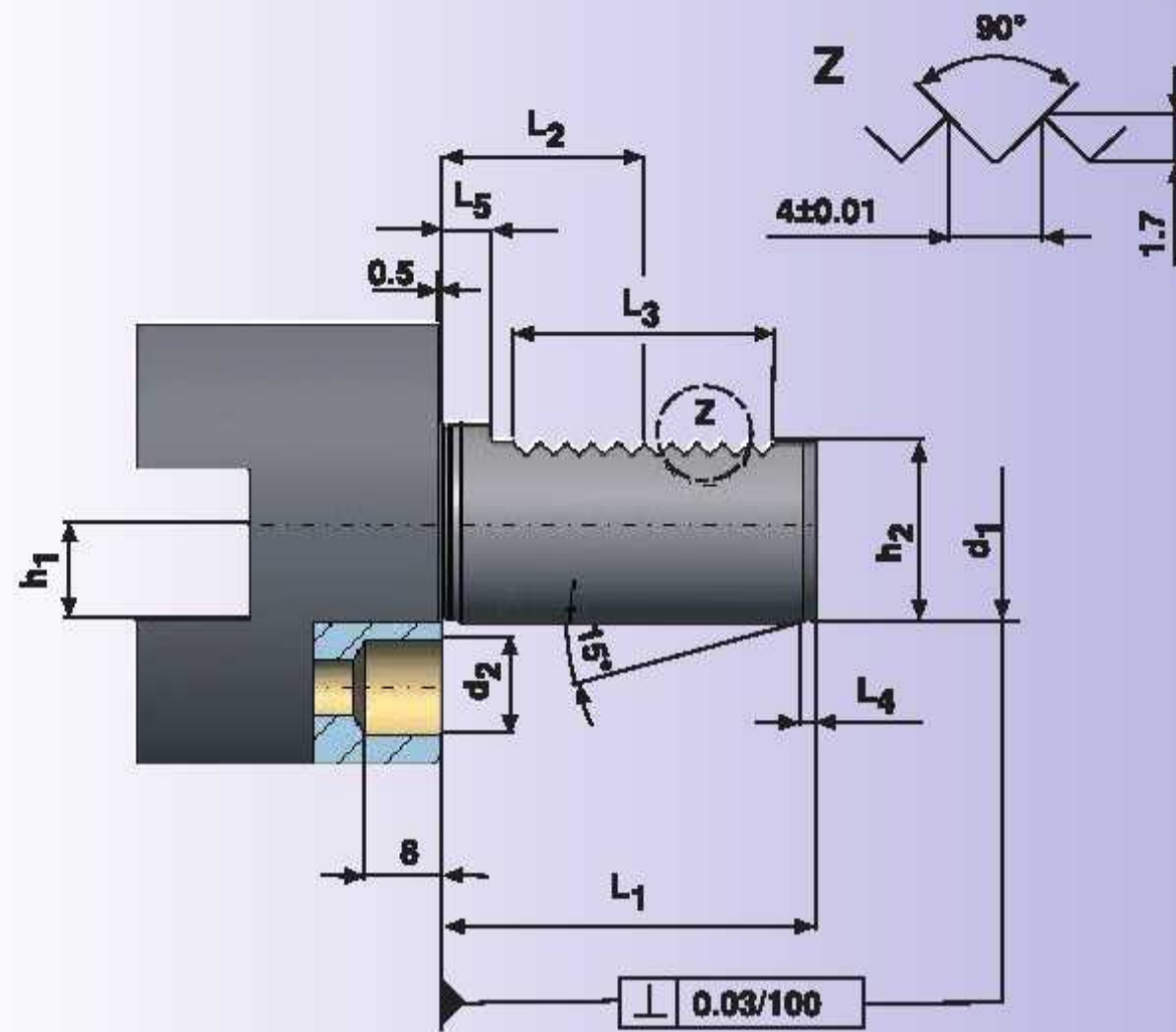
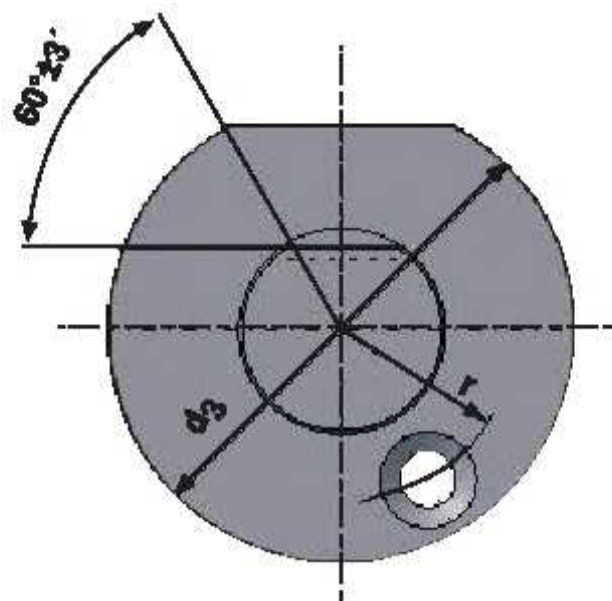
Fener milinin sağ dönuş yönü için radyal tutucu



Toolholders

Porte-outils

Şaft ölçüleri



d1 h6	h1 max	d2	d3	h2 ± 0,1	r ± 0,02	L1 max.	L2 ± 0,05	L3 min.	L4 +1	L5
16	12	8	40	15,0	14,5	32	12,7	16	2	3,5
20	16	10	50	18,0	18,0	40	21,7	24	2	7,0
25	16	10	58	23,5	21,0	48	21,7	24	2	7,0
30	20	14	68	27,0	25,0	55	29,7	40	2	7,0
40	25	14	83	36,0	32,0	63	29,7	40	3	7,0
50	32	16	98	45,0	37,0	78	35,7	48	3	8,0

Ausführung:

Die Werkzeughalter sind aus legiertem Einsatzstahl HRC 58 ± 2 komplett brüniert und präzisionsgeschliffen.

Sämtliche Werkzeughalter haben eine große verstellbare Kugelspritzdüse und Gewindeanschluß für Rohrverschraubung, bzw. innerer Kühlmittelzufuhr.

Description:

The tools are manufactured of hardened steel with a hardness of HRC 58 ± 2. The shaft teeth surface and the holder are grinded.

All tool holders have a big movable coolant nozzle and a thread for external coolant.

Exécution:

Les porte-outils sont fabriqués en trempés à HRC 58 ± 2 et entièrement brunis.

La queue de fixation, la denture, la face d'appui et le logement de l'outil sont rectifiés. Tous les porte-outils ont une balle d'arrosage avec un grand angle d'orientation et un trou taraudé pour un arrosage par le centre.

Teknik özelliği:

Takım tutucular alaşımli çelikten yapılmaktadır. HRC 58 ± 2

Tamamen siyahlaştırılmıştır ve hassas taşlanmıştır.

Bütün takımlarda ayarlanabilir soğutucu gözler mevcuttur.

Aynı zamanda dıştan soğutma borularının bağlantı dişleri mevcuttur.



Werkzeughalter - Rohling, rechteckig

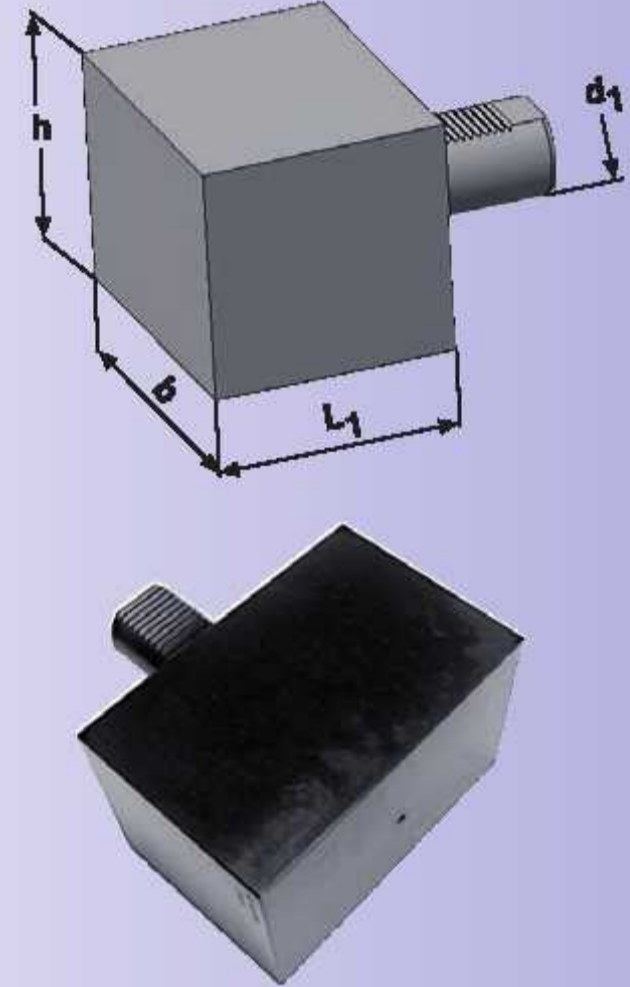
DIN 69880 A1

Rectangular soft blank

Rectangle mou blanc (vide)

Kater tutucu özel takım yapma amaçlı

Bestell-Nr. Order Nr. Référence Sipariş Nr.	Abmessung Size / Dimension Size / Class d1 x L1	L1	h	b	Euro
169.54.78	A1 - 16 x 44	44	44	78	
209.54.100	A1 - 20 x 65	65	60	100	
259.54.100	A1 - 25 x 75	75	60	100	
309.54.130	A1 - 30 x 85	85	76	130	
409.54.151	A1 - 40 x 100	100	96	151	
509.54.160	A1 - 50 x 125	125	120	160	



Werkzeughalter - Rohling, rund

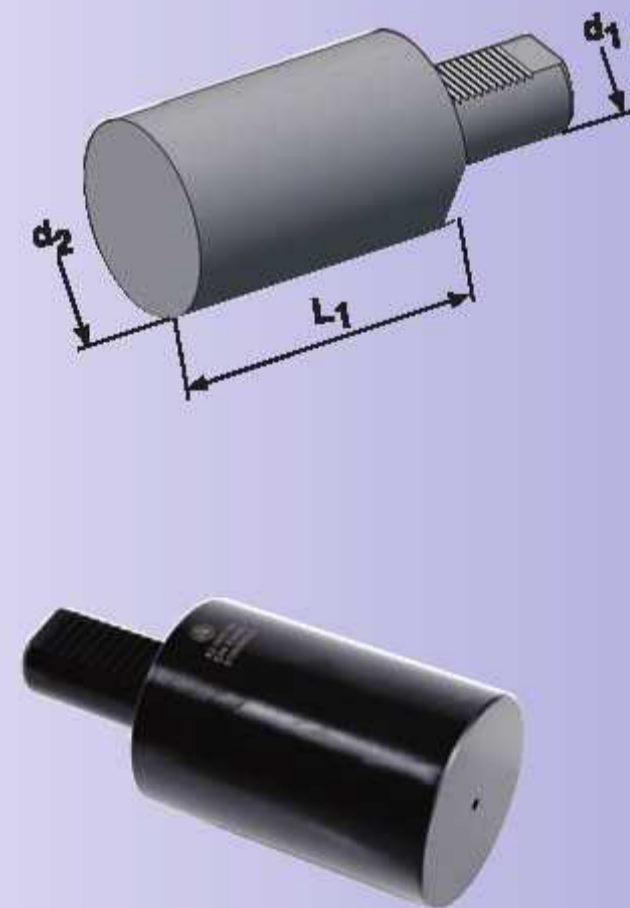
DIN 69880 A2

Round soft blank

Ronde mou blanc (vide)

Kater tutucu özel takım yapma amaçlı

Bestell-Nr. Order Nr. Référence Sipariş Nr.	Abmessung Size / Dimension Size / Class d1 x L1	d2	L1	Euro
169.17.40-60	A2 - 16 x 60	40	60	
209.17.50-70	A2 - 20 x 70	50	70	
259.17.58-80	A2 - 25 x 80	58	80	
259.17.58-200	A2 - 25 x 200	58	200	
309.17.68-100	A2 - 30 x 100	68	100	
309.17.68-240	A2 - 30 x 240	68	240	
409.17.83-120	A2 - 40 x 120	83	120	
409.17.83-320	A2 - 40 x 320	83	320	
509.17.98-135	A2 - 50 x 135	98	135	
509.17.98-400	A2 - 50 x 400	98	400	



Radial - Werkzeughalter Form B1 rechts, kurz

DIN 69880 B1

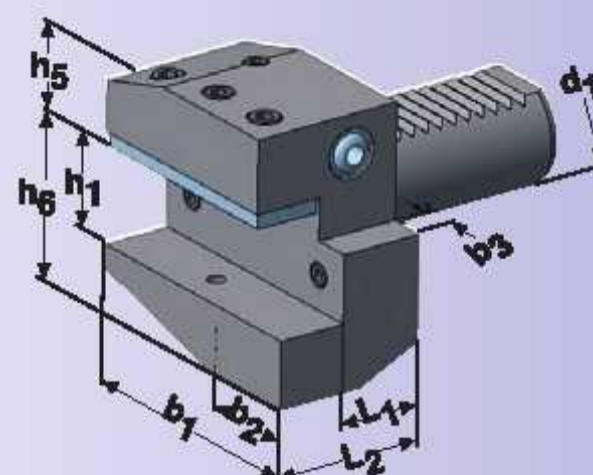


Radial-Toolholder Form B1 right, short

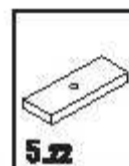
Porte-outil radial Forme B1 droite, court

Radial kater tutucu B1 Formu sağ, kısa

Bestell-Nr. Order Nr. Référence Sipariş Nr.	Abmessung Size / Dimension Size / Cinsel	d1	h1	L2	L1	b1	b2	b3	h6	h6	Euro
169.31.12	B1 - 16 x 12 x 24	13	42	23	5	20	22				
209.31.16	B1 - 20 x 16 x 30	16	55	30	7	25	30				
259.31.16	B1 - 25 x 16 x 30	16	55	30	7	25	30				
309.31.20	B1 - 30 x 20 x 40	22	70	35	10	28	38				
409.31.25	B1 - 40 x 25 x 44	22	85	42,5	12,5	32,5	48				
509.31.32	B1 - 50 x 32 x 55	30	100	50	16	35	60				



Zubehör / Accessories / Accessoires / Yedekler



Unterlegplatte
Shim
Plaque entretoise
Kater laması



Kunststoff - Kugelspritzdüse
Plastic ball sprayer nozzle
Buse d'injection spherique en plastique
Su verme miketli

Radial - Werkzeughalter Form B2 links, kurz

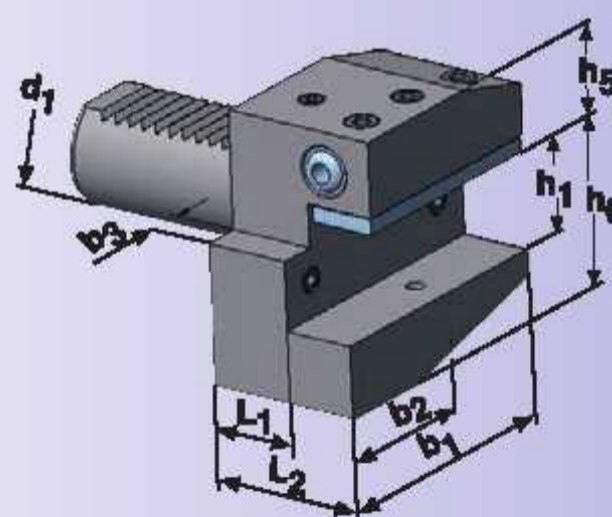
DIN 69880 B2

Radial-Toolholder Form B2 left, short

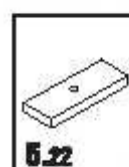
Porte-outil radial Forme B2 gauche, court

Radial kater tutucu B2 Formu sol, kısa

Bestell-Nr. Order Nr. Référence Sipariş Nr.	Abmessung Size / Dimension Size / Cinsel	d1	h1	L2	L1	b1	b2	b3	h6	h6	Euro
169.32.12	B2 - 16 x 12 x 24	13	42	23	5	20	22				
209.32.16	B2 - 20 x 16 x 30	16	55	30	7	25	30				
259.32.16	B2 - 25 x 16 x 30	16	55	30	7	25	30				
309.32.20	B2 - 30 x 20 x 40	22	70	35	10	28	38				
409.32.25	B2 - 40 x 25 x 44	22	85	42,5	12,5	32,5	48				
509.32.32	B2 - 50 x 32 x 55	30	100	50	16	35	60				



Zubehör / Accessories / Accessoires / Yedekler



Unterlegplatte
Shim
Plaque entretoise
Kater laması



Kunststoff - Kugelspritzdüse
Plastic ball sprayer nozzle
Buse d'injection spherique en plastique
Su verme miketli



Radial - Werkzeughalter Form B3 Überkopf rechts, kurz

DIN 69880 B3

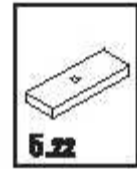
Radial-Toolholder Form B3 Overhead right, short

Porte-outil radial Forme B3 inversé droite, court

Radial kater tutucu B3 Formu ters sağ, kısa

Bestell-Nr. Order Nr. Référence Sipariş Nr.	Abmessung Size / Dimension Size / Cinsi	d1 x h1 x L2	L1	b1	b2	b3	h5	h6	Euro
169.33.12	B3 - 16 x 12 x 24	13	42	23	5	22	20		
209.33.16	B3 - 20 x 16 x 30	16	55	30	7	30	25		
259.33.16	B3 - 25 x 16 x 30	16	55	30	7	30	25		
309.33.20	B3 - 30 x 20 x 40	22	70	35	10	38	35		
409.33.25	B3 - 40 x 25 x 44	22	85	42,5	12,5	48	42,5		
509.33.32	B3 - 50 x 32 x 55	30	100	50	16	60	50		

Zubehör / Accessoires / Accessoires / Yedekler



Unterlegplatte
Shim
Plaque entretoise
Kater laması



Kunststoff - Kugelspritzdüse
Plastic ball sprayer nozzle
Buse d'injection sphérique en plastique
Su verme misketi

Radial - Werkzeughalter Form B4 Überkopf links, kurz

DIN 69880 B4

Radial-Toolholder Form B4 Overhead left, short

Porte-outil radial Forme B4 inversé gauche, court

Radial kater tutucu B4 Formu ters sol, kısa

Bestell-Nr. Order Nr. Référence Sipariş Nr.	Abmessung Size / Dimension Size / Cinsi	d1 x h1 x L2	L1	b1	b2	b3	h5	h6	Euro
169.34.12	B4 - 16 x 12 x 24	13	42	23	5	22	20		
209.34.16	B4 - 20 x 16 x 30	16	55	30	7	30	35		
259.34.16	B4 - 25 x 16 x 30	16	55	30	7	30	35		
309.34.20	B4 - 30 x 20 x 40	22	70	35	10	38	35		
409.34.25	B4 - 40 x 25 x 44	22	85	42,5	12,5	48	42,5		
509.34.32	B4 - 50 x 32 x 55	30	100	50	16	60	50		

Zubehör / Accessoires / Accessoires / Yedekler

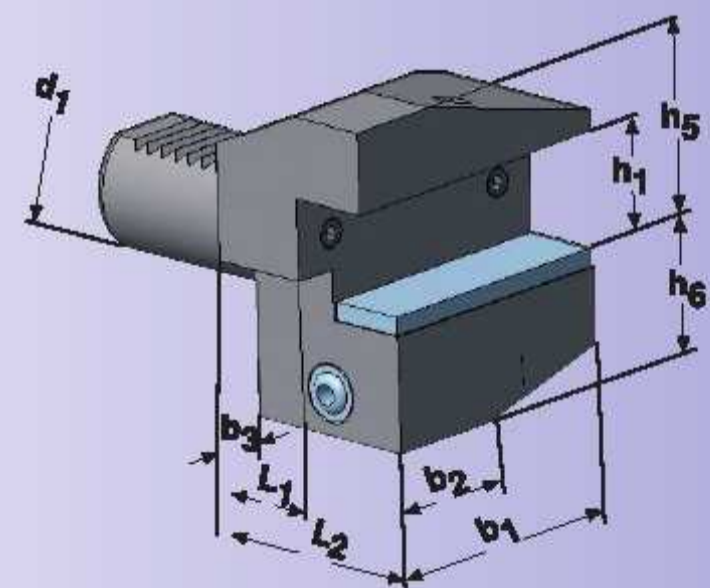
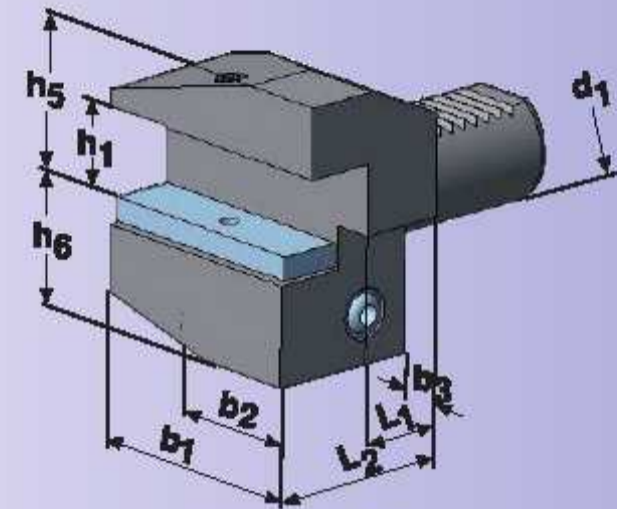


Unterlegplatte
Shim
Plaque entretoise
Kater laması



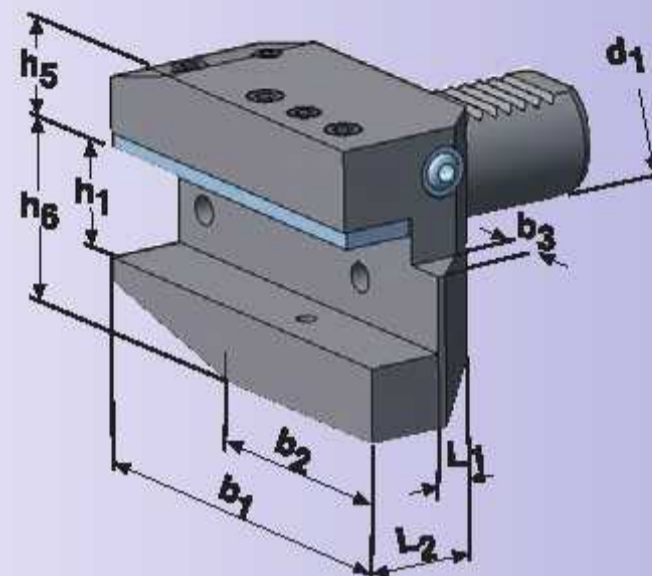
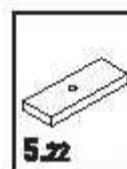
Kunststoff - Kugelspritzdüse
Plastic ball sprayer nozzle
Buse d'injection sphérique en plastique
Su verme misketi

5.04



Radial - Werkzeughalter Form B5 rechts, lang**DIN 69880 B5****Radial-Toolholder Form B5 right - hand, long****Porte-outil radial Forme B5 inversé droite, long****Radial kater tutucu B5 Formu sağ uzun**

Bestell-Nr. Order Nr. Référence Sipariş Nr.	Abmessung Size / Dimension Size / Cinsal	d1	L2	L1	b1	b2	b3	h5	h6	Euro
169.35.12	B5 - 16 x 12 x 24	13	58	39	5	20	22			
209.35.16	B5 - 20 x 16 x 30	16	75	50	7	25	30			
259.35.16	B5 - 25 x 16 x 30	16	75	50	7	25	30			
309.35.20	B5 - 30 x 20 x 40	22	100	65	10	28	38			
409.35.25	B5 - 40 x 25 x 44	22	118	75,5	12,5	32,5	48			
509.35.32	B5 - 50 x 32 x 55	30	130	80	16	35	60			

**Zubehör / Accessories / Accessoires / Yedekler**

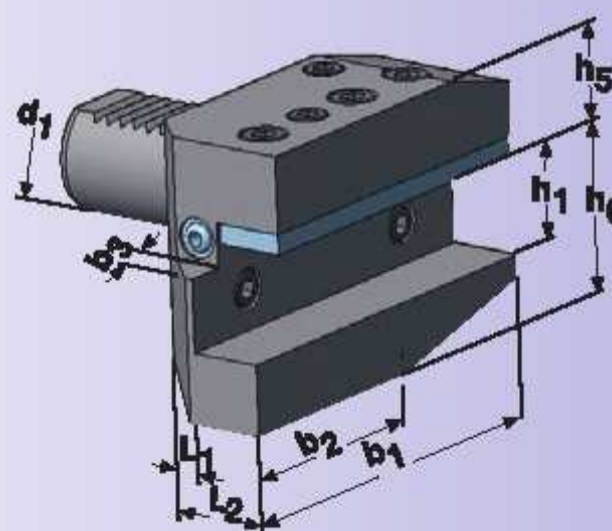
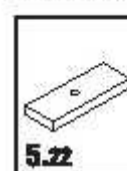
Unterlegplatte
Shim
Plaque entretoise
Kater laması



Kunststoff - Kugelspritzdüse
Plastic ball sprayer nozzle
Buse d'injection spherique en plastique
Su verme msketi

Radial - Werkzeughalter Form B6 links, lang**DIN 69880 B6****Radial-Toolholder Form B6 left - hand, long****Porte-outil radial Forme B6 inversé gauche, long****Radial kater tutucu B6 Formu sol, uzun**

Bestell-Nr. Order Nr. Référence Sipariş Nr.	Abmessung Size / Dimension Size / Cinsal	d1	L2	L1	b1	b2	b3	h5	h6	Euro
169.36.12	B6 - 16 x 12 x 24	13	58	39	5	20	22			
209.36.16	B6 - 20 x 16 x 30	16	75	50	7	25	30			
259.36.16	B6 - 25 x 16 x 30	16	75	50	7	25	30			
309.36.20	B6 - 30 x 20 x 40	22	100	65	10	28	38			
409.36.25	B6 - 40 x 25 x 44	22	118	75,5	12,5	32,5	48			
509.36.32	B6 - 50 x 32 x 55	30	130	80	16	35	60			

**Zubehör / Accessories / Accessoires / Yedekler**

Unterlegplatte
Shim
Plaque entretoise
Kater laması



Kunststoff - Kugelspritzdüse
Plastic ball sprayer nozzle
Buse d'injection spherique en plastique
Su verme msketi



Radial - Werkzeughalter Form B7 Überkopf rechts, lang

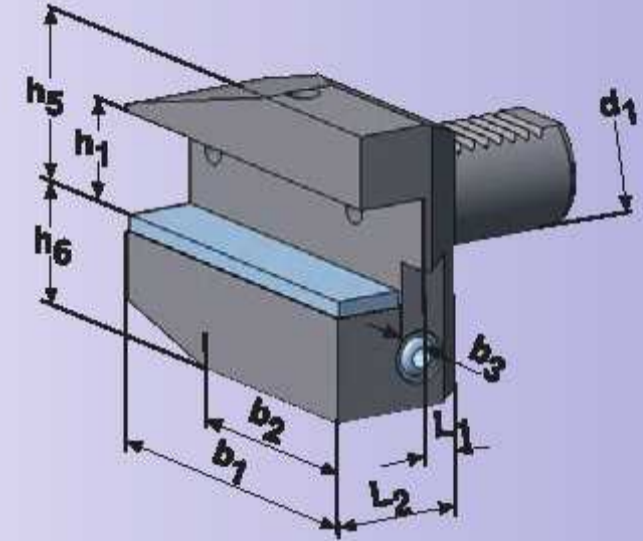
DIN 69880 B7

Radial-Toolholder Form B7 Overhead right - hand long

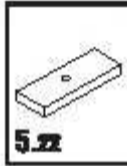
Porte-outil radial Forme B7 inversé droite, long

Radial kater tutucu B7 Formu kafaüstü sağ, uzun

Bestell-Nr. Order Nr. Référence Sipariş Nr.	Abmessung Size / Dimension Size / Cinsi	d1	h1	L2	L1	b1	b2	b3	h5	h8	Euro
169.37.12	B7 - 16 x 12 x 24	13	58	39	5	22	20				
209.37.16	B7 - 20 x 16 x 30	16	75	50	7	30	25				
259.37.16	B7 - 25 x 16 x 30	16	75	50	7	30	25				
309.37.20	B7 - 30 x 20 x 40	22	100	65	10	38	35				
409.37.25	B7 - 40 x 25 x 44	22	118	75,5	12,5	48	42,5				
509.37.32	B7 - 50 x 32 x 55	30	130	80	16	60	50				



Zubehör / Accessories / Accessoires / Yedekler



Unterlegplatte
Shim
Plaque entretoise
Kater laması



Kunststoff - Kugelspritzdüse
Plastic ball sprayer nozzle
Buse d'injection spherique en plastique
Su verme misketi

Radial - Werkzeughalter Form B8 Überkopf links, lang

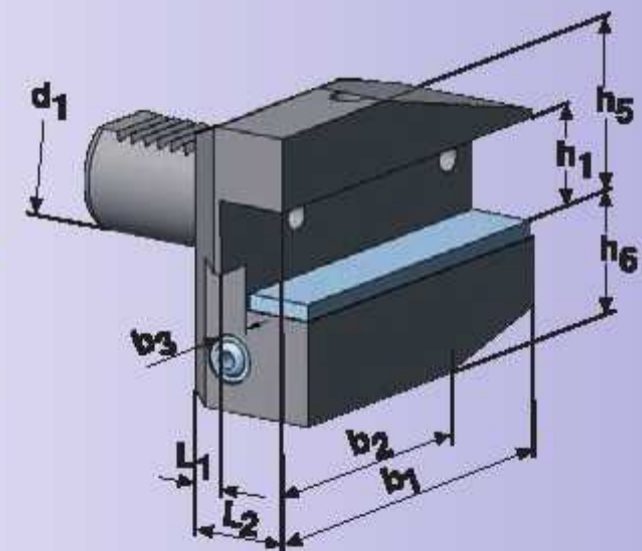
DIN 69880 B8

Radial-Toolholder Form B8 Overhead left - hand long

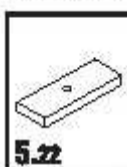
Porte-outil radial Forme B8 inversé gauche, long

Radial kater tutucu B8 Formu kafaüstü sol, uzun

Bestell-Nr. Order Nr. Référence Sipariş Nr.	Abmessung Size / Dimension Size / Cinsi	d1	h1	L2	L1	b1	b2	b3	h5	h8	Euro
169.38.12	B8 - 16 x 12 x 24	13	58	39	5	22	20				
209.38.16	B8 - 20 x 16 x 30	16	75	50	7	30	25				
259.38.16	B8 - 25 x 16 x 30	16	75	50	7	30	25				
309.38.20	B8 - 30 x 20 x 40	22	100	65	10	38	35				
409.38.25	B8 - 40 x 25 x 44	22	118	75,5	12,5	48	42,5				
509.38.32	B8 - 50 x 32 x 55	30	130	80	16	60	50				



Zubehör / Accessories / Accessoires / Yedekler



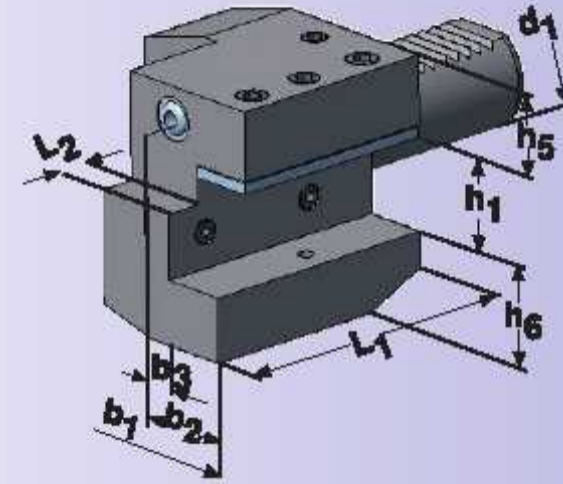
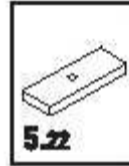
Unterlegplatte
Shim
Plaque entretoise
Kater laması



Kunststoff - Kugelspritzdüse
Plastic ball sprayer nozzle
Buse d'injection spherique en plastique
Su verme misketi

Axial - Werkzeughalter Form C1 rechts**DIN 69880 C1****Axial-Toolholder Form C1 right****Porte-outil Axial Forme C1 droite****Axial kater tutucu C1 Formu sağ**

Bestell-Nr. Order Nr. Référence Sipariş Nr.	Abmessung Size / Dimension Size / Class	d1 x h1	b1	b2	b3	L1	L2	h5	h6	Euro
169.41.12	C1 - 16 x 12		43	24	13	44	5	20	22	
209.41.16	C1 - 20 x 16		52	27	13	50	7	25	30	
259.41.16	C1 - 25 x 16		58	33	19	55	7	25	30	
309.41.20	C1 - 30 x 20		70	35	17	70	10	28	38	
409.41.25	C1 - 40 x 25		85	42,5	21	85	12,5	32,5	48	
509.41.32	C1 - 50 x 32		100	50	26	100	16	35	60	

**Zubehör / Accessoires / Accessoires / Yedekler**

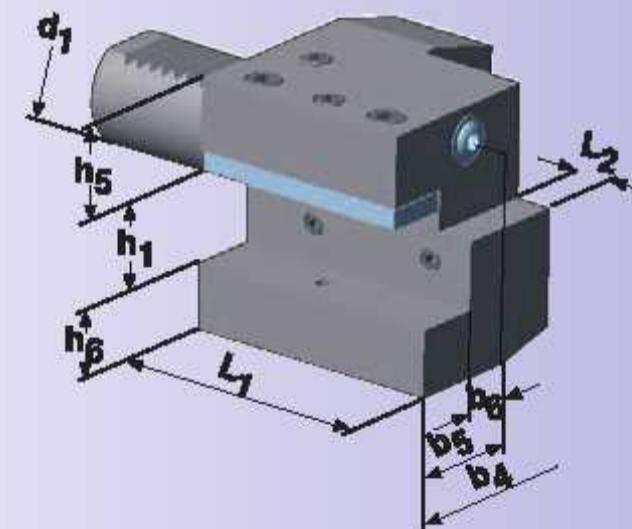
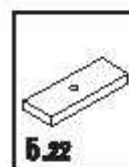
Unterlegplatte
Shim
Plaque entretoise
Kater laması



Kunststoff - Kugelspritzdüse
Plastic ball sprayer nozzle
Buse d'injection sphérique en plastique
Su verme misketi

Axial - Werkzeughalter Form C2 links**DIN 69880 C2****Axial-Toolholder Form C2 left****Porte-outil Axial Forme C2 gauche****Axial kater tutucu C2 Formu sol**

Bestell-Nr. Order Nr. Référence Sipariş Nr.	Abmessung Size / Dimension Size / Class	d1 x h1	b4	b5	b6	L1	L2	h5	h6	Euro
169.42.12	C2 - 16 x 12		43	24	13	44	5	20	22	
209.42.16	C2 - 20 x 16		65	40	26	50	7	25	30	
259.42.16	C2 - 25 x 16		58	33	19	55	7	25	30	
309.42.20	C2 - 30 x 20		76	41	23	70	10	28	38	
409.42.25	C2 - 40 x 25		90	47,5	25,5	85	12,5	32,5	48	
509.42.32	C2 - 50 x 32		105	55	30,5	100	16	35	60	

**Zubehör / Accessoires / Accessoires / Yedekler**

Unterlegplatte
Shim
Plaque entretoise
Kater laması



Kunststoff - Kugelspritzdüse
Plastic ball sprayer nozzle
Buse d'injection sphérique en plastique
Su verme misketi



Axial - Werkzeughalter Form C3 Überkopf rechts, kurz

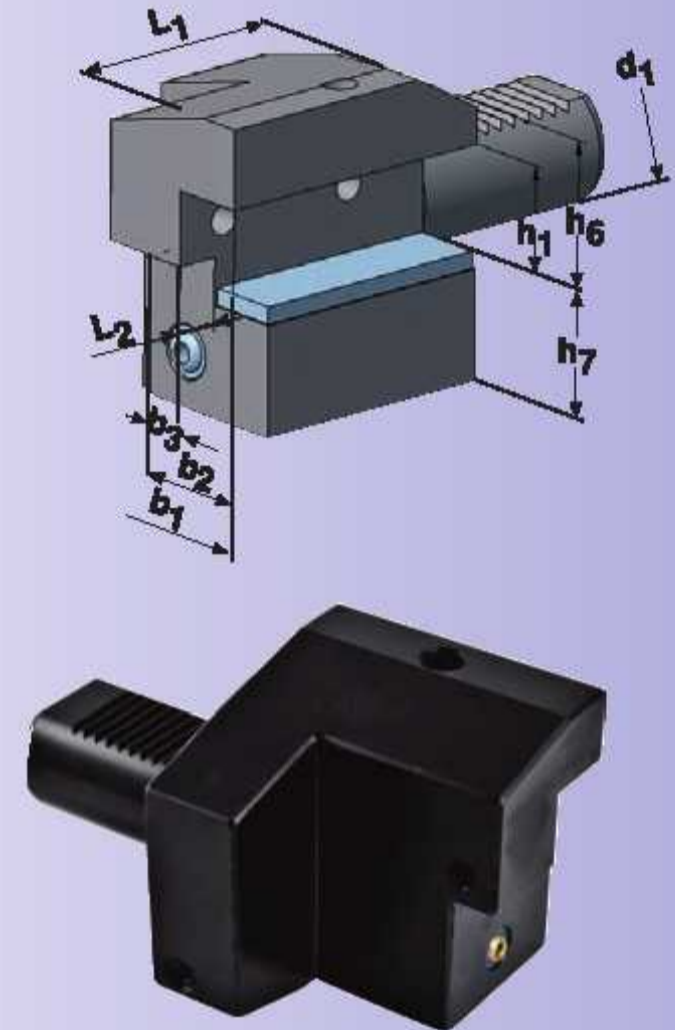
DIN 69880 C3

Axial-Toolholder Form C3 Overhead right, short

Porte-outil Axial Forme C3 Inversé droite, court

Axial kater tutucu C3 Formu kafaüstü sağ, kısa

Bestell-Nr. Order Nr. Référence Sipariş Nr.	Abmessung Size / Dimension Size / Cinsi	d1 x h1	b1	b2	b3	L1	L2	h6	h7	Euro
169.43.12	C3 - 16 x 12		43	24	13	44	5	22	20	
209.43.16	C3 - 20 x 16		52	27	13	50	7	30	25	
259.43.16	C3 - 25 x 16		58	33	19	55	7	30	25	
309.43.20	C3 - 30 x 20		70	35	17	70	10	38	35	
409.43.25	C3 - 40 x 25		85	42,5	21	85	12,5	48	42,5	
509.43.32	C3 - 50 x 32		100	50	26	100	16	60	50	



Zubehör / Accessories / Accessoires / Yedekler



Unterlegplatte
Shim
Plaque entretoise
Kater laması



Kunststoff - Kugelspritzdüse
Plastic ball sprayer nozzle
Buse d'injection spherique en plastique
Su verme misketi

Axial - Werkzeughalter Form C4 Überkopf links, kurz

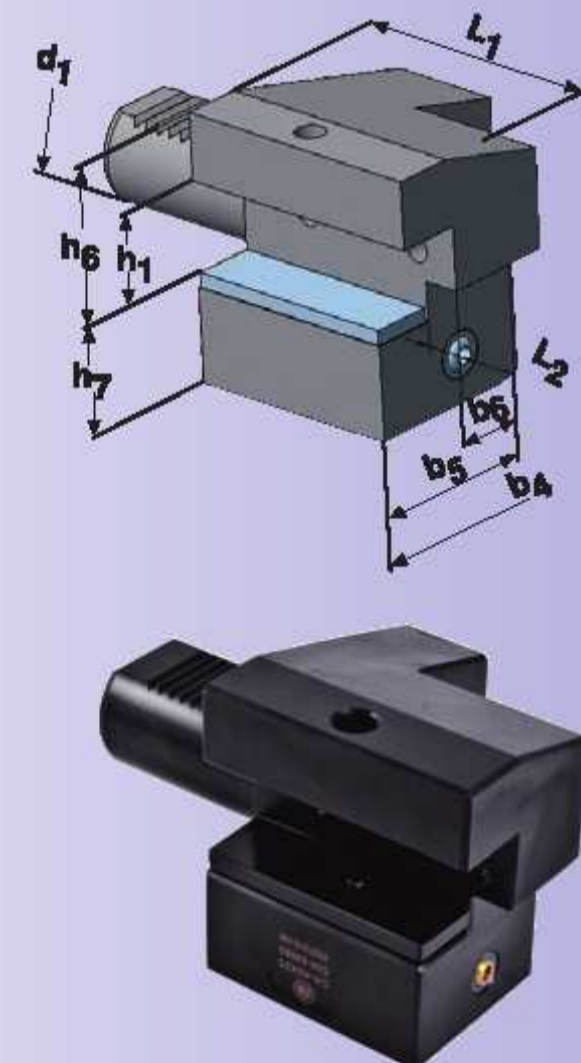
DIN 69880 C4

Axial-Toolholder Form C4 Overhead left, short

Porte-outil Axial Forme C4 inversé gauche, court

Axial kater tutucu C4 Formu kafaüstü sol, kısa

Bestell-Nr. Order Nr. Référence Sipariş Nr.	Abmessung Size / Dimension Size / Cinsi	d1 x h1	b4	b5	b6	L1	L2	h6	h7	Euro
169.44.12	C4 - 16 x 12		43	24	13	44	5	22	20	
209.44.16	C4 - 20 x 16		65	40	26	50	7	30	25	
259.44.16	C4 - 25 x 16		58	33	19	55	7	30	25	
309.44.20	C4 - 30 x 20		76	41	23	70	10	38	35	
409.44.25	C4 - 40 x 25		90	47,5	25,5	85	12,5	48	42,5	
509.44.32	C4 - 50 x 32		105	50	30,5	100	16	60	50	



Zubehör / Accessories / Accessoires / Yedekler



Unterlegplatte
Shim
Plaque entretoise
Kater laması



Kunststoff - Kugelspritzdüse
Plastic ball sprayer nozzle
Buse d'injection spherique en plastique
Su verme misketi

5.08

Vierkant - Aufnahme

DIN 69880 D1

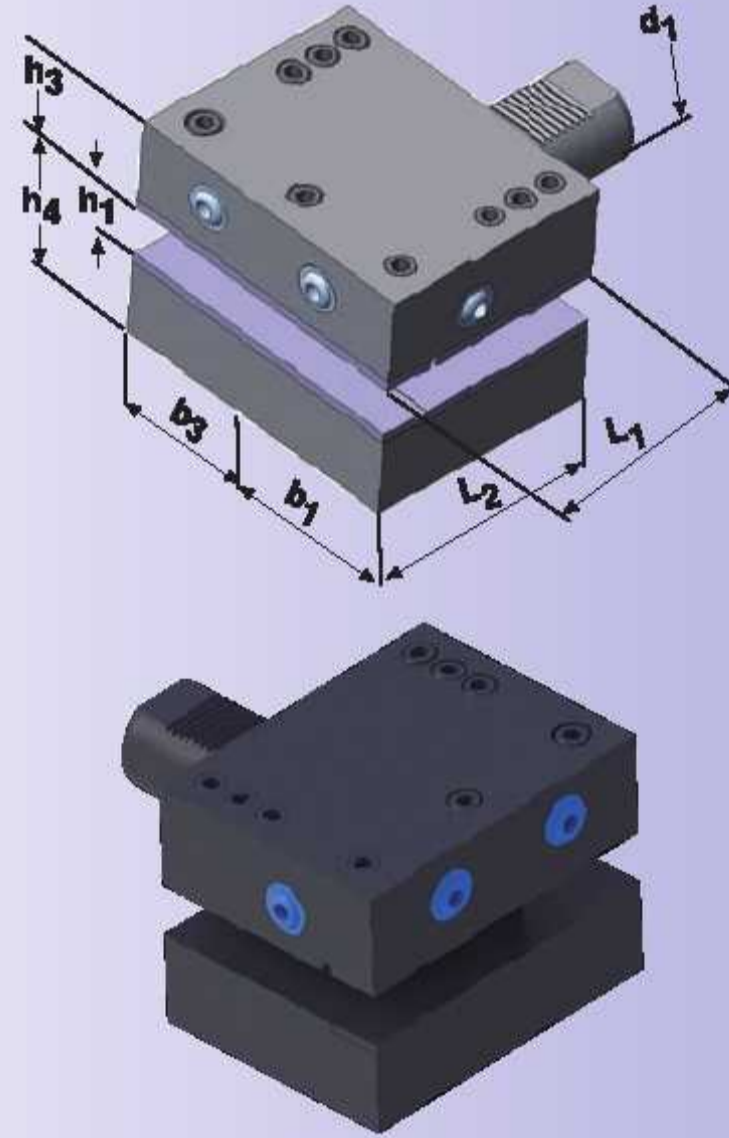


Square tool holder

Tige carre

Çok yönlü kater tutucu

Bestell-Nr. Order Nr. Référence Sipariş Nr.	Abmessung Size / Dimension Size / Cinsel d1 x h1	b1	b3	L1	L2	h3	h4	Euro
259.55.16	D1 - 25 x 16	33	33	34	48	25	30	
309.55.20	D1 - 30 x 20	35	41	42	60	28	38	
409.55.25	D1 - 40 x 25	42,5	47,5	50	72	32,5	48	
509.55.32	D1 - 50 x 32	50	55	60	85	35	60	



Vierkant - Aufnahme, Überkopf

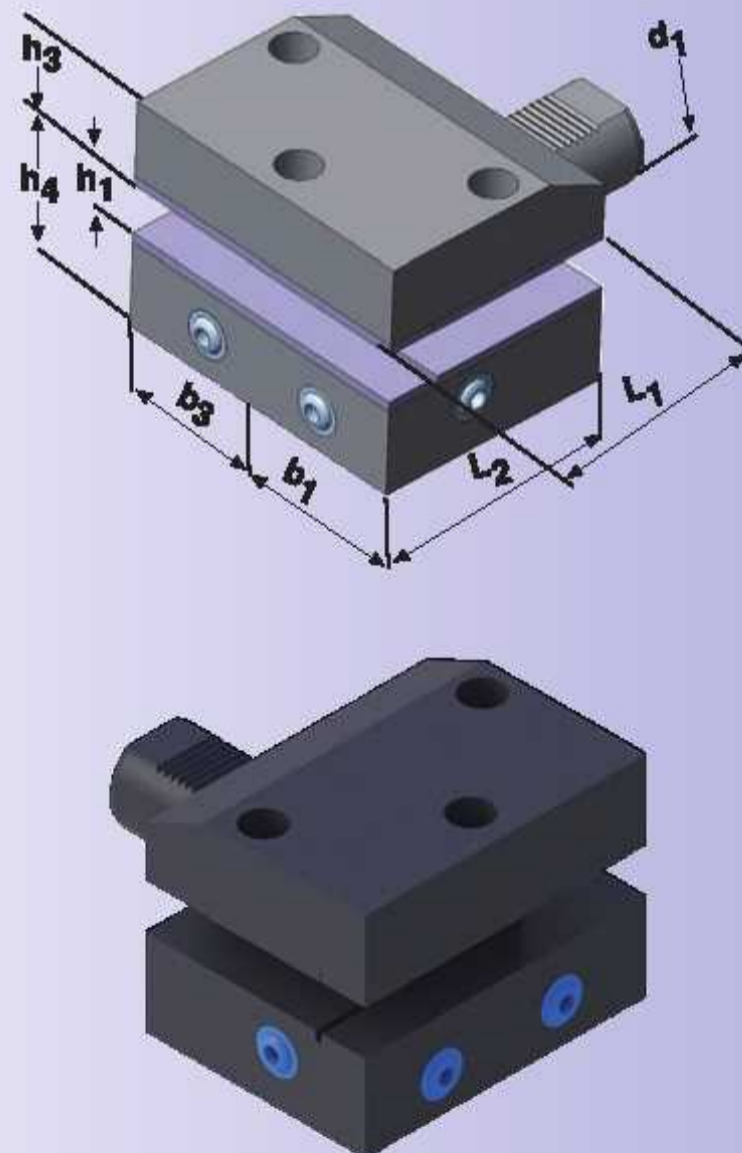
DIN 69880 D2

Square tool holder, inverted

Tige carre, a l'envers

Çok yönlü kater tutucu

Bestell-Nr. Order Nr. Référence Sipariş Nr.	Abmessung Size / Dimension Size / Cinsel d1 x h1	b1	b3	L1	L2	h3	h4	Euro
259.56.16	D2 - 25 x 16	33	33	34	48	30	25	
309.56.20	D2 - 30 x 20	35	41	42	60	38	35	
409.56.25	D2 - 40 x 25	42,5	47,5	50	72	48	42,5	
509.56.32	D2 - 50 x 32	50	55	60	85	60	50	



DIN 69880 VDI



Bohrerhalter für Wendepplattenbohrer Form E1

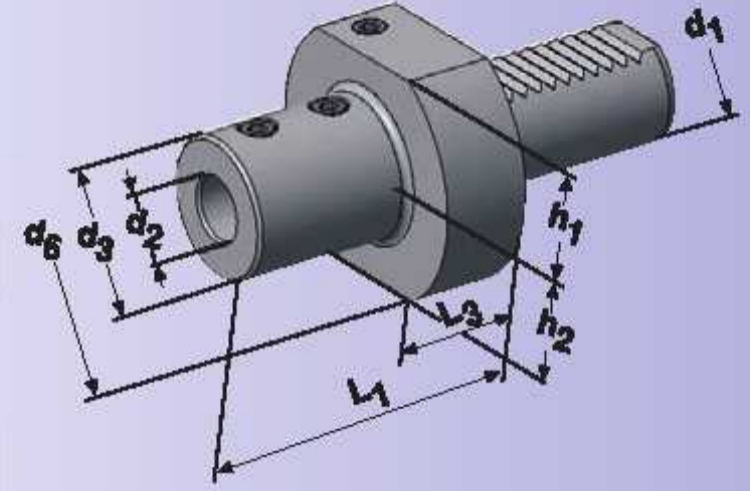
DIN 69880 E1

Boring holder for drill with indexable inserts form E1

Porte foret pour foret à plaquettes réversibles forme E1

Takma uçlu U-dril Tutucu Form E1

Bestell-Nr. Order Nr. Référence Sipariş Nr.	Abmessung Size / Dimension Size / Cinsi d1 x d2	d3	d6	h1	h2	L1	L3	Euro
209.51.16	E1 - 20 x 16	36	50	22	23	67	18	
209.51.20	E1 - 20 x 20	40	50	22	23	67	18	
209.51.25	E1 - 20 x 25	45	50	22	23	71	18	
259.51.16	E1 - 25 x 16	36	58	25	25	67	18	
259.51.20	E1 - 25 x 20	40	58	25	25	67	18	
259.51.25	E1 - 25 x 25	45	58	25	25	71	18	
309.51.16	E1 - 30 x 16	36	68	28	30	64	22	
309.51.20	E1 - 30 x 20	40	68	28	30	67	22	
309.51.25	E1 - 30 x 25	45	68	28	30	71	22	
309.51.32	E1 - 30 x 32	52	68	28	30	75	22	
309.51.40	E1 - 30 x 40	60	68	28	30	95	22	
409.51.16	E1 - 40 x 16	36	83	32,5	-	64	22	
409.51.20	E1 - 40 x 20	40	83	32,5	-	67	22	
409.51.25	E1 - 40 x 25	45	83	32,5	-	75	22	
409.51.32	E1 - 40 x 32	52	83	32,5	-	75	22	
409.51.40	E1 - 40 x 40	65	83	32,5	-	90	22	
509.51.16	E1 - 50 x 16	36	98	35	-	66	30	
509.51.20	E1 - 50 x 20	40	98	35	-	66	30	
509.51.25	E1 - 50 x 25	45	98	35	-	80	30	
509.51.32	E1 - 50 x 32	52	98	35	-	80	30	
509.51.40	E1 - 50 x 40	65	98	35	-	90	30	
509.51.50	E1 - 50 x 50	75	98	35	-	100	30	



Zubehör / Accessories / Accessoires / Yedekler



Spannschrauben
Clamping screw
Vis de serrage
Sikma chatasi

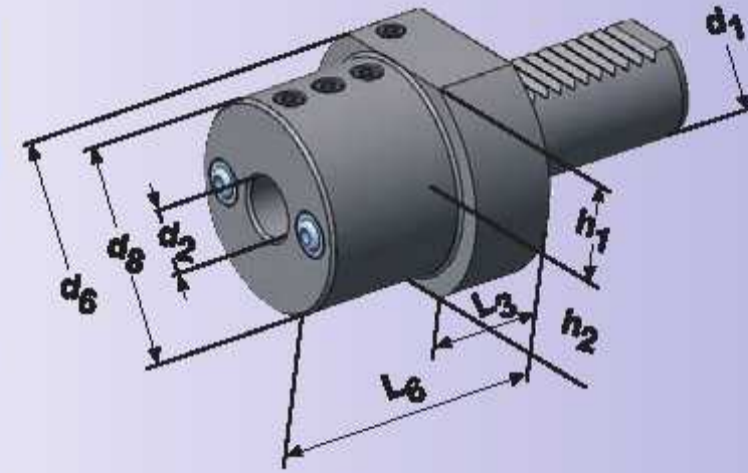


Boring bar holder Form E2

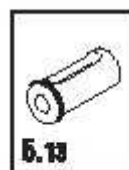
Porte-outil pour barre d'alésage Forme E2

Delik kater tutucu Form E2

Bestell-Nr. Order Nr. Référence Sipariş Nr.	Abmessung Size / Dimension Size / Cinsi d1 x d2	d6	d8	h1	h2	L3	L6	Euro
169.52.06	E2 - 16 x 06	40	32	18	18	13	44	
169.52.08	E2 - 16 x 08	40	32	18	18	13	44	
169.52.10	E2 - 16 x 10	40	32	18	18	13	44	
169.52.12	E2 - 16 x 12	40	40	18	18	13	44	
169.52.16	E2 - 16 x 16	40	40	18	18	13	44	
209.52.08	E2 - 20 x 08	50	40	-	23	18	50	
209.52.10	E2 - 20 x 10	50	40	-	23	18	50	
209.52.12	E2 - 20 x 12	50	40	-	23	18	50	
209.52.16	E2 - 20 x 16	50	40	-	23	18	50	
209.52.20	E2 - 20 x 20	50	50	-	23	18	50	
209.52.25	E2 - 20 x 25	50	50	-	23	18	60	
259.52.08	E2 - 25 x 08	58	40	25	25	18	50	
259.52.10	E2 - 25 x 10	58	40	25	25	18	50	
259.52.12	E2 - 25 x 12	58	40	25	25	18	50	
259.52.16	E2 - 25 x 16	58	40	25	25	18	50	
259.52.20	E2 - 25 x 20	58	58	25	25	18	50	
259.52.25	E2 - 25 x 25	58	58	25	25	18	60	



Zubehör / Accessories / Accessoires / Yedekler



Reduzierbuchsen
Reducing sleeve
Douilles de reduction
Redüksiyon



Spannschrauben
Clamping screw
Vis de serrage
Sıkma civatası



Kunststoff - Kugelspritzdüse
Plastic ball sprayer nozzle
Buse d'injection spherique en plastique
Su verme mlekotü



Bohrerhalter Form E2

DIN 69880 E2

Boring bar holder Form E2

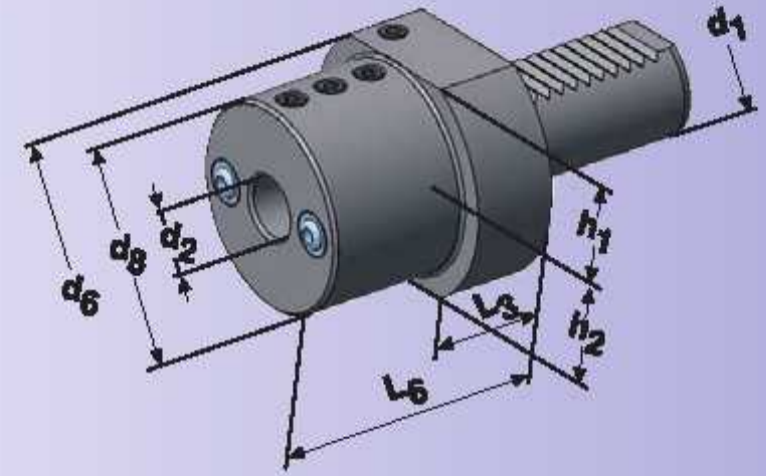
Porte-outil pour barre d'alésage Forme E2

Delik kater tutucu Form E2

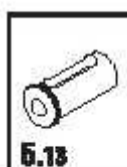
Bestell-Nr. Order Nr. Référence Sipariş Nr.	Abmessung Size / Dimension Size / Cinsi d1 x d2	d6	d8	h1	h2	L3	L6	Euro
309.52.08	E2 - 30 x 08	68	55	28	30	22	60	
309.52.10	E2 - 30 x 10	68	55	28	30	22	60	
309.52.12	E2 - 30 x 12	68	55	28	30	22	60	
309.52.16	E2 - 30 x 16	68	55	28	30	22	60	
309.52.20	E2 - 30 x 20	68	55	28	30	22	60	
309.52.25	E2 - 30 x 25	68	55	28	30	22	60	
309.52.32	E2 - 30 x 32	68	68	28	30	22	75	
309.52.40	E2 - 30 x 40	68	68	28	30	22	90	

409.52.08	E2 - 40 x 08	83	55	32,5	-	22	75	
409.52.10	E2 - 40 x 10	83	55	32,5	-	22	75	
409.52.12	E2 - 40 x 12	83	55	32,5	-	22	75	
409.52.16	E2 - 40 x 16	83	55	32,5	-	22	75	
409.52.20	E2 - 40 x 20	83	55	32,5	-	22	75	
409.52.25	E2 - 40 x 25	83	55	32,5	-	22	75	
409.52.32	E2 - 40 x 32	83	83	32,5	-	22	75	
409.52.40	E2 - 40 x 40	83	83	32,5	-	22	90	

509.52.12	E2 - 50 x 12	98	68	35	-	30	90	
509.52.16	E2 - 50 x 16	98	68	35	-	30	90	
509.52.20	E2 - 50 x 20	98	68	35	-	30	90	
509.52.25	E2 - 50 x 25	98	68	35	-	30	90	
509.52.32	E2 - 50 x 32	98	68	35	-	30	90	
509.52.40	E2 - 50 x 40	98	98	35	-	30	90	
509.52.50	E2 - 50 x 50	98	98	35	-	30	100	



Zubehör / Accessories / Accessoires / Yedekler



Reduzierbuchsen
Reducing sleeve
Douilles de reduction
Redüksiyon



Spannschrauben
Clamping screw
Vis de serrage
Sıkma çivisi



Kunststoff - Kugelspritzdüse
Plastic ball sprayer nozzle
Buse d'injection spherique en plastique
Su verme misketi



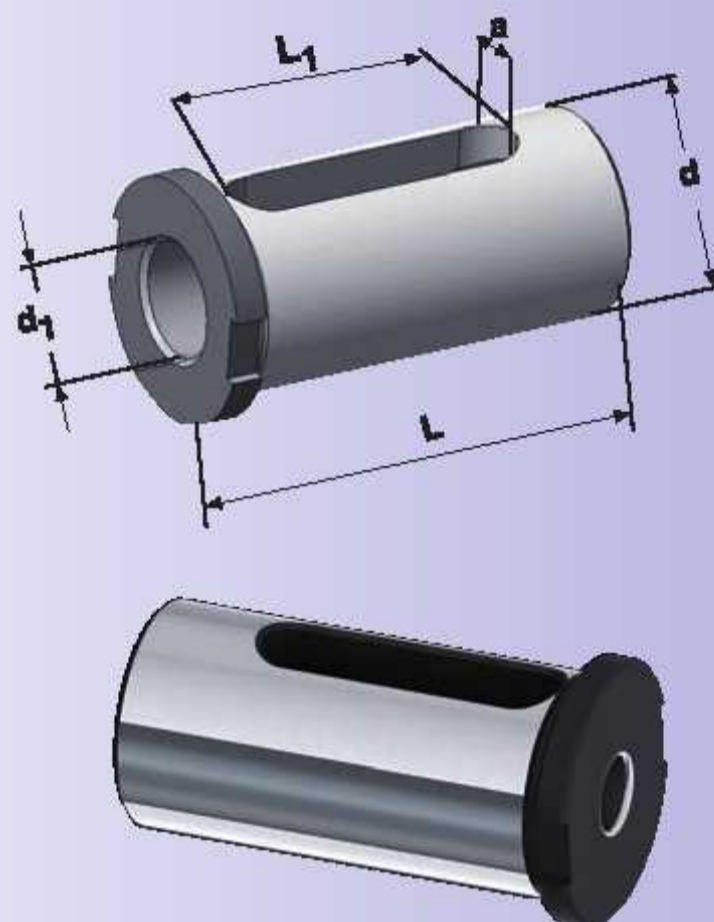
Reduzierbuchse für Bohrstangenhalter

Reduction bushes for boring bar holder

Douille de réduction pour barre d'alésage

Delik kateri redüksiyonu

Bestell-Nr. Order Nr. Référence Şifariş Nr.	d	d1	L	s	L1	Euro
709.25.06	25	6	50	10,5	35	
709.25.08	25	8	50	10,5	35	
709.25.10	25	10	50	10,5	35	
709.25.12	25	12	50	10,5	35	
709.25.14	25	14	50	10,5	35	
709.25.16	25	16	50	10,5	35	
709.25.20	25	20	50	10,5	35	
709.32.06	32	6	70	10,5	45	
709.32.08	32	8	70	10,5	45	
709.32.10	32	10	70	10,5	45	
709.32.12	32	12	70	10,5	45	
709.32.14	32	14	70	10,5	45	
709.32.16	32	16	70	10,5	45	
709.32.20	32	20	70	10,5	45	
709.32.25	32	25	70	10,5	45	
709.40.06	40	6	80	12,5	52	
709.40.08	40	8	80	12,5	52	
709.40.10	40	10	80	12,5	52	
709.40.12	40	12	80	12,5	52	
709.40.14	40	14	80	12,5	52	
709.40.16	40	16	80	12,5	52	
709.40.20	40	20	80	12,5	54	
709.40.25	40	25	80	12,5	54	
709.40.32	40	32	80	12,5	54	



DIN 69880 VDI



Spannzangenhalter Form E3 für Spannzangen DIN 6388

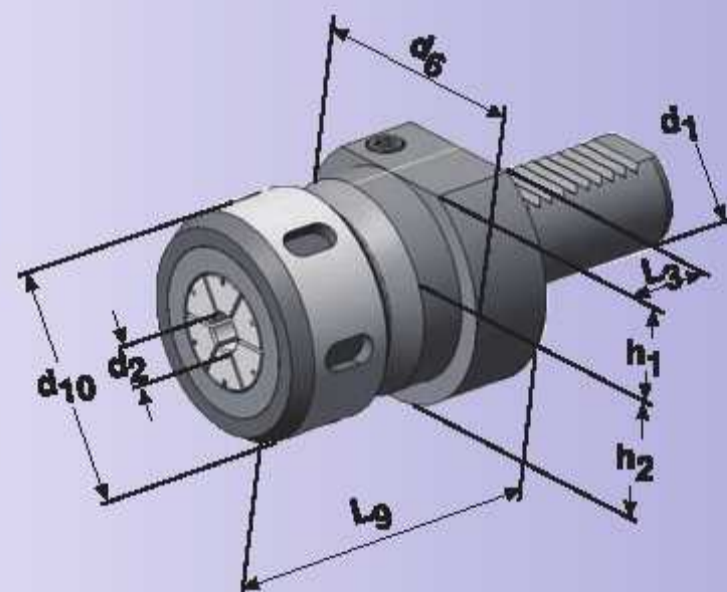
DIN 69880 E3

Collet holder Form E3 for collets DIN 6388

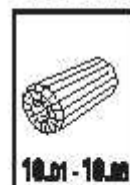
Porte-outil Forme E3 pour pinces de serrage DIN 6388

Pens başlığı E3 Formu Pens DIN 6388

Bestell-Nr. Order Nr. Référence Sipariş Nr.	Abmessung Size / Dimension Size / Cinsi d1 x d2	d6	d11	h1	h2	l3	l9	Euro
169.01.16	E3 - 16 x 2 - 16	40	43	18	18	13	57	
209.01.16	E3 - 20 x 2 - 16	50	43	23	23	18	57	
259.01.16	E3 - 25 x 2 - 16	58	43	25	25	18	57	
309.01.16	E3 - 30 x 2 - 16	68	43	28	30	22	57	
309.01.25	E3 - 30 x 2 - 25	68	60	28	30	22	75	
409.01.16	E3 - 40 x 2 - 16	83	43	32,5	-	22	55	
409.01.25	E3 - 40 x 2 - 25	83	60	32,5	-	22	75	
409.01.32	E3 - 40 x 3 - 32	83	72	32,5	-	22	90	
509.01.25	E3 - 50 x 2 - 25	98	60	35	-	30	75	
509.01.32	E3 - 50 x 3 - 32	98	72	35	-	30	90	



Zubehör / Accessories / Accessoires / Yedekler



Spannzangen DIN 6388 B
Collets DIN 6388 Form B
Pinces de serrage DIN 6388, forme B
Pens DIN 6388 B Formu



Hakenschlüssel DIN 1810 A
Wrench DIN 1810 A
Clé à ergot DIN 1810 A
E tipli ay aracılar DIN 1810 A



Spannmutter OZ DIN 6388
Clamping nuts OZ DIN 6388
Écrou de serrage OZ DIN 6388
Pens kapağı OZ DIN 6388

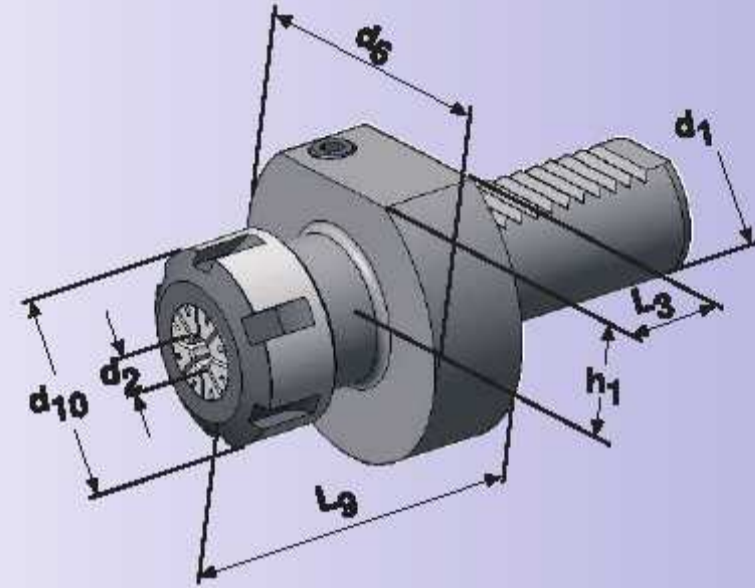


Collet holder Form E4 for collets DIN 6499 Type ER

Porte-outils Forme E4 pour pinces de serrage DIN 6499 Type ER

Pens başlığı E4 Formu Pens DIN 6499 ER tipli

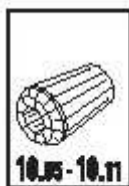
Bestell-Nr. Order Nr. Référence Sipariş Nr.	Abmessung Size / Dimension Size / Cinsi d1 x d2	d5	d10	h1	L3	L8	Euro
169.02.10	E4 - 16 x ER16 1 - 10	40	32	18	13	50	
169.02.16	E4 - 16 x ER25 2 - 16	40	42	18	13	48	
209.02.10	E4 - 20 x ER16 1 - 10	50	32	23	18	55	
209.02.16	E4 - 20 x ER25 2 - 16	50	42	23	18	57	
209.02.20	E4 - 20 x ER32 2 - 20	50	50	23	18	58	
259.02.16	E4 - 25 x ER25 2 - 16	58	42	25	18	57	
309.02.16	E4 - 30 x ER25 2 - 16	68	42	28	22	57	
309.02.20	E4 - 30 x ER32 2 - 20	68	50	28	22	75	
309.02.26	E4 - 30 x ER40 3 - 26	68	63	28	22	75	
409.02.16	E4 - 40 x ER25 2 - 16	83	42	32,5	22	75	
409.02.20	E4 - 40 x ER32 2 - 20	83	50	32,5	22	75	
409.02.26	E4 - 40 x ER40 3 - 26	83	63	32,5	22	75	
509.02.26	E4 - 50 x ER40 3 - 26	98	63	35	30	75	



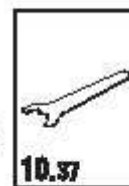
INFO

Technische Daten	11.01
Technical Data	11.01
Données Techniques	11.01
Teknik Bilgi	11.01

Zubehör / Accessories / Accessoires / Yedekler



Spannzangen System ER DIN 6499
Collets System ER DIN 6499
Pincas de serrage System ER DIN 6499
Pens ER tipli DIN 6499



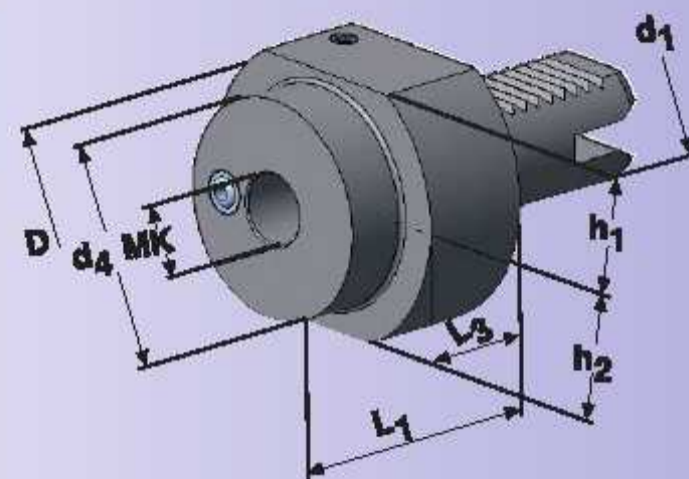
Spannschlüssel für ER
Wrench ER
Clé de serrage ER
ER tipli anahtar



Spannmutter ER DIN 6499
Clamping nuts ER DIN 6499
Écrou de serrage ER DIN 6499
Pens kapağı ER DIN 6499

**Bohrerhalter für MK - Werkzeuge Form F1****DIN 69880 Form F1****Holder for morse taper Shanks Form F1****Porte-foret pour outil à cône Morse Forme F1****Mors Konik Tutucu Form F1**

Bestell-Nr. Order Nr. Référence Şipariş Nr.	Abmessung Size / Dimension Size / Cinsi d1 x MK	d4	D	L1	L3	h1	h2	Euro
169.07.01	F1 16 x MK1	32	40	32	13	18	18	
209.07.01	F1 20 x MK1	-	50	23	-	23	23	
209.07.02	F1 20 x MK2	40	50	90	30	23	23	
259.07.01	F1 25 x MK1	-	58	23	-	25	25	
259.07.02	F1 25 x MK2	-	58	27	-	25	25	
309.07.01	F1 30 x MK1	-	68	27	-	28	30	
309.07.02	F1 30 x MK2	-	68	27	-	28	30	
309.07.03	F1 30 x MK3	58	68	66	22	28	30	
409.07.01	F1 40 x MK1	55	83	36	22	32,5	-	
409.07.02	F1 40 x MK2	55	83	36	22	32,5	-	
409.07.03	F1 40 x MK3	55	83	36	22	32,5	-	
409.07.04	F1 40 x MK4	68	83	80	22	32,5	-	
509.07.02	F1 50 x MK2	55	98	36	30	35	-	
509.07.03	F1 50 x MK3	58	98	36	30	35	-	
509.07.04	F1 50 x MK4	68	98	50	30	35	-	

**Zubehör / Accessories / Accessoires / Yedekler**

Kunststoff - Kugelspritzdüse
Plastic ball sprayer nozzle
Buse d'injection sphérique en plastique
Su varma misketi

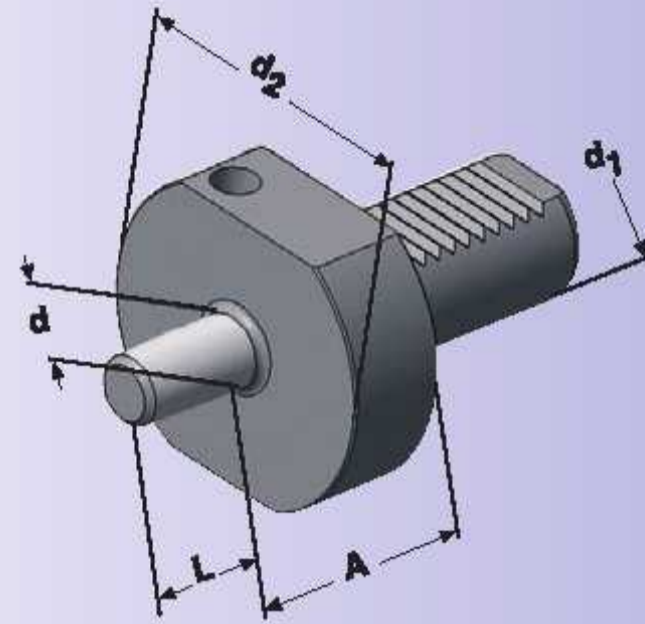


Drill chuck adaptor DIN 238

Arbre pour mandrin de perçage DIN 238

Mandren malafası DIN 238

Bestell-Nr. Order Nr. Référence Sipariş Nr.	Abmessung Size / Dimension Size / Cinsel d1 x d	d2	A	L	Euro
309.14.16	30 x B16	68	27	24	
409.14.16	40 x B16	83	27	24	
509.14.16	50 x B16	98	35	24	



Zubehör / Accessories / Accessoires / Yedekler



Bohrfutter
Drill chuck
Mandrin de perçage à serrage rapide
Mandren

10.43



NC - Bohrfutter mit Kühlmittelzuführung zentral

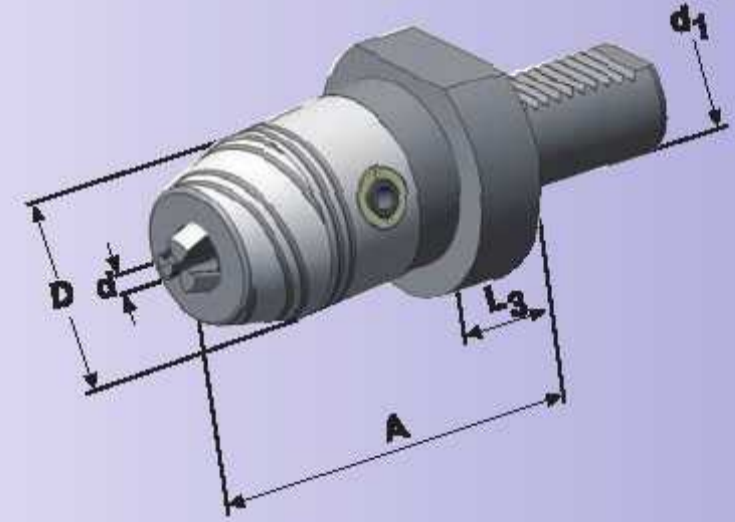
DIN 69880

NC - Drill chucks with center coolant

Mandrin de perçage CNC avec arrosage par to centre

NC tipl Mandren malafası, merkezden su vermeli

Bestell-Nr. Order Nr. Référance Sipariş Nr.	d1	d	Spannbereich Capacity Capacité Kapasite	A	D	L3	Euro
new 209.15.08	20		0,5 - 8	67	36	18	
new 209.15.13	20		1 - 13	90	50	18	
new 259.15.13	25		1 - 13	88	50	18	
new 309.15.08	30		0,5 - 8	69	36	20	
new 309.15.13	30		1 - 13	90	50	20	
new 309.15.16	30		3 - 16	95	57	20	
new 409.15.13	40		1 - 13	90	50	20	
new 409.15.16	40		3 - 16	95	57	20	
new 509.15.13	50		1 - 13	100	50	30	
new 509.15.16	50		3 - 16	105	57	30	



Lieferumfang : Inkl. Spanschlüssel
Included : Wrench
Inclus : Clé de serrage
Teslim Şekli : Anahtar ile birlikte

INFO

Technische Daten 11.04
Technical Data 11.04
Données Techniques 11.04
Teknik Bilgi 11.04

Zubehör / Accessories / Accessoires / Yedekler



Spanschlüssel
Wrench
Clé de serrage
Sikma anahtarı



Ersatzteile
Spare Parts
Pièce de rechange
Yedek parçalar

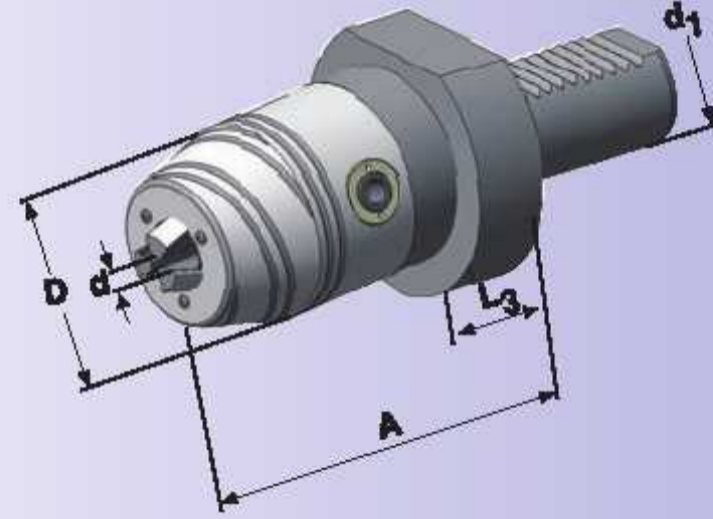


NC - Drill chucks with coolant supply via ball coolant nozzle

Mandrin de perçage CNC avec arrosage par buses de picot

NC tipli Mandren malafası, alından soğutma suyu püskürtmeli

Bestell-Nr. Order Nr. Référence Sipariş Nr.	d1	Spannberreich Capacity Capacité Kapasite	A	D	L3	Euro
new 309.15.13.K	30	1 - 13	90	57	20	
new 309.15.16.K	30	3 - 16	95	57	20	
new 409.15.13.K	40	1 - 13	90	57	20	
new 409.15.16.K	40	3 - 16	95	57	20	



Lieferumfang : Inkl. Spanschlüssel
Included : Wrench
Inclus : Clé de serrage
Teslim Şekli : Anahtar ile birlikte

INFO

Technische Daten	11.04
Technical Data	11.04
Données Techniques	11.04
Teknik Bilgi	11.04

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Spanschlüssel
Wrench
Clé de serrage
Sikma anahtar



Ersatzteile
Spare Parts
Pièce de rechange
Yedek parçalar



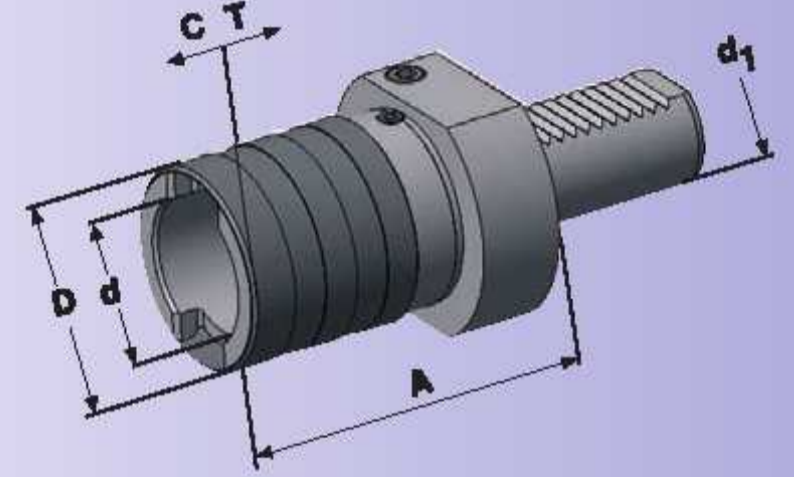
Gewindeschneid-Schnellwechselfutter mit Längenausgleich auf Druck und Zug DIN 69880

Quick-change tapping chucks with length compensation

Appareil à tarauder avec compensation longitudinale

Kılavuz çekme başlığı Giriş ve çıkış kompanzeli

Bestell-Nr. Order Nr. Référence Sipariş Nr.	d1	Spannbereich Capacity Capacité Kapasite	A	D	d	C	T	Euro
209.16.12	20	M3 / M14	57	38	19	7	7	
259.16.12	25	M3 / M14	58	38	19	7	7	
309.16.12	30	M3 / M14	62	38	19	7	7	
309.16.20	30	M5 / M22	84	54	31	12	12	
409.16.12	40	M3 / M14	62	38	19	7	7	
409.16.20	40	M5 / M22	84	54	31	12	12	
509.16.12	50	M3 / M14	70	38	19	7	7	
509.16.20	50	M5 / M22	92	54	31	12	12	
509.16.36	50	M14 / M36	108	78	48	17,5	17,5	



Ausführung : Mit Kugelführungsbuchse

Version : With ball retainer

Version : Comprenant douille de glissière à bille

Teknik özelliği : Bilya Kafesli

Zubehör / Accessories / Accessoires / Yedekler



Schnellwechseleinsätze
Tapping collets
Douilles de taraudage
Kılavuz tutucu

Gewindeschneid-Schnellwechselfutter ohne Längenausgleich auf Druck und Zug DIN 69880

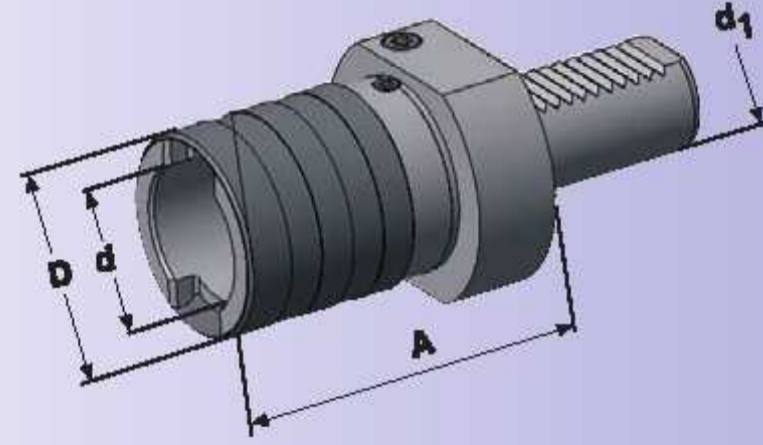


Quick-change tapping chucks without length compensation

Appareil à tarauder sans compensation longitudinale

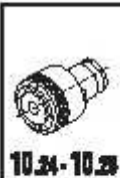
Kılavuz çekme başlığı sabit

Bestell-Nr. Order Nr. Référence Sipariş Nr.	d1	Spannberreich Capacity Capacité Kapasite	A	D	d	Euro
209.16.12.1	20	M3 / M14	55	38	19	
259.16.12.1	25	M3 / M14	55	38	19	
309.16.12.1	30	M3 / M14	55	38	19	
309.16.20.1	30	M5 / M22	77	54	31	
409.16.12.1	40	M3 / M14	55	38	19	
409.16.20.1	40	M5 / M22	77	54	31	
509.16.12.1	50	M3 / M14	55	38	19	
509.16.20.1	50	M5 / M22	77	54	31	
509.16.36.1	50	M14 / M36	108	78	48	



DIN 69880 VDI

Zubehör / Accessories / Accessoires / Yedekler



Schnellwechseleinsätze
Tapping collets
Douilles de taraudage
Kılavuz tutucu



Kontrolldorne

DIN 69880

Test arbors

Mandrins de contrôle

Kontrol mastarı

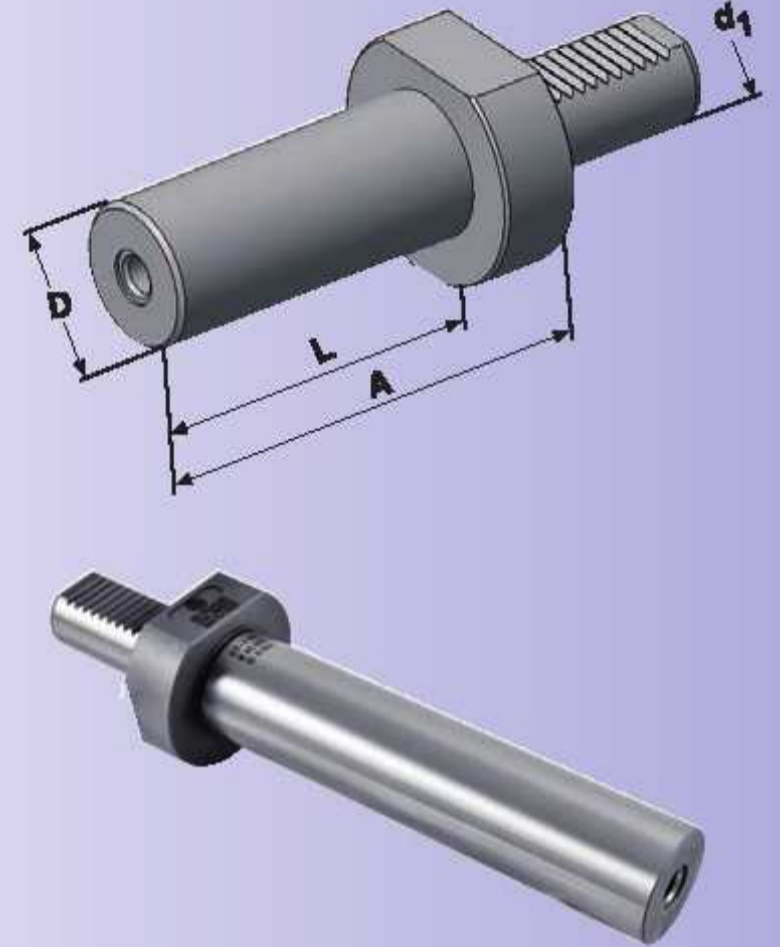
Bestell-Nr. Order Nr. Référence Sipariş Nr.	d1	D	A	L	Euro
169.18.30	16	30	120	107	
209.18.40	20	40	150	132	
259.18.40	25	40	150	132	
309.18.40	30	40	200	178	
409.18.40	40	40	200	178	
509.18.40	50	40	200	170	

Lieferung : Im Holzkasten mit Prüfprotokoll

Included : Wooden Box with certificate

Inclus : Coffret en bois avec certificat

Teslim Şekli : Sandığı ve Kontrol Sertifikasıyla birlikte



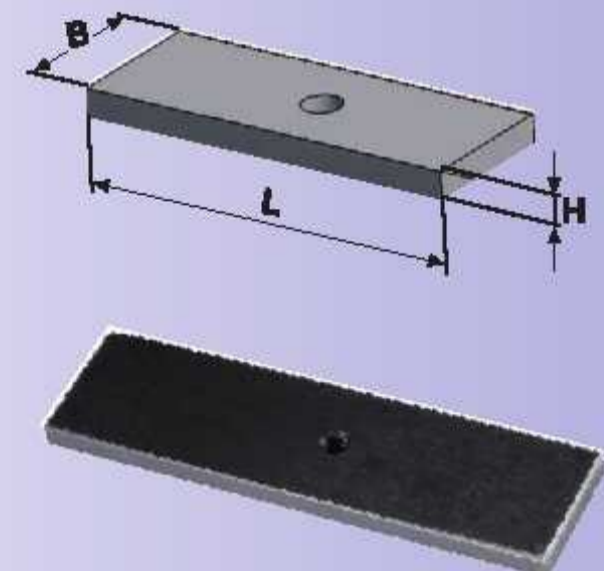
Unterlegplatte

Shim

Plaque entretoise

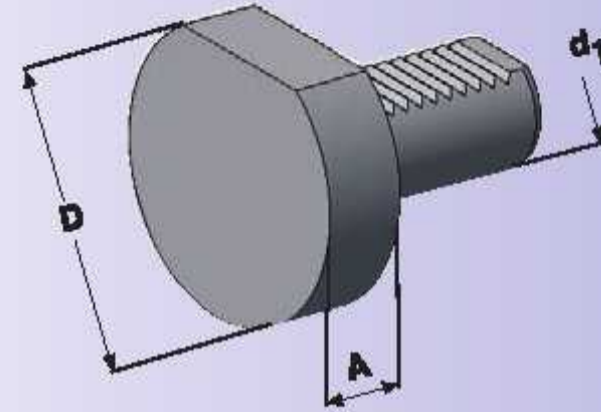
Kater Laması

Bestell-Nr. Order Nr. Référence Sipariş Nr.	B x H x L	Euro
169.12.01	11 x 4 x 41	
209.16.01	14 x 4 x 54	
309.20.01	18 x 4 x 69	
409.25.01	22 x 5 x 84	
509.32.01	25 x 7 x 99	

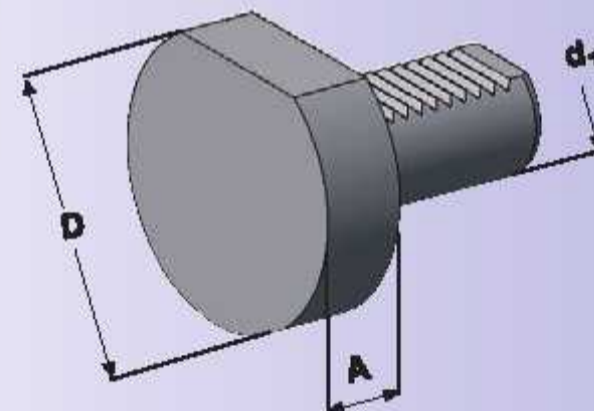


Schutzstopfen Z2 Kunststoff**DIN 69880 Z2****Protective plug Z2, plastic****Bouchon de protection, plastique****Plastik kör tapa**

Bestell-Nr. Order Nr. Référence Şipariş Nr.	d1	A	D	Euro
169.28.13	16 x 13	13	40	
209.28.16	20 x 16	16	50	
259.28.16	25 x 16	16	58	
309.28.20	30 x 20	20	68	
409.28.20	40 x 20	20	83	
509.28.20	50 x 20	20	98	

**Schutzstopfen Z2 Stahl****DIN 69880 Z2****Protective plug Z2, steel****Bouchon de protection, acier****Metal kör tapa**

Bestell-Nr. Order Nr. Référence Şipariş Nr.	d1	A	D	Euro
169.29.13	16 x 13	13	40	
209.29.16	20 x 16	16	50	
259.29.16	25 x 16	16	58	
309.29.20	30 x 20	20	68	
409.29.20	40 x 20	20	83	
509.29.20	50 x 20	20	98	



DIN 69880 VDI