

ISO 12164

HSK Držáči alatA

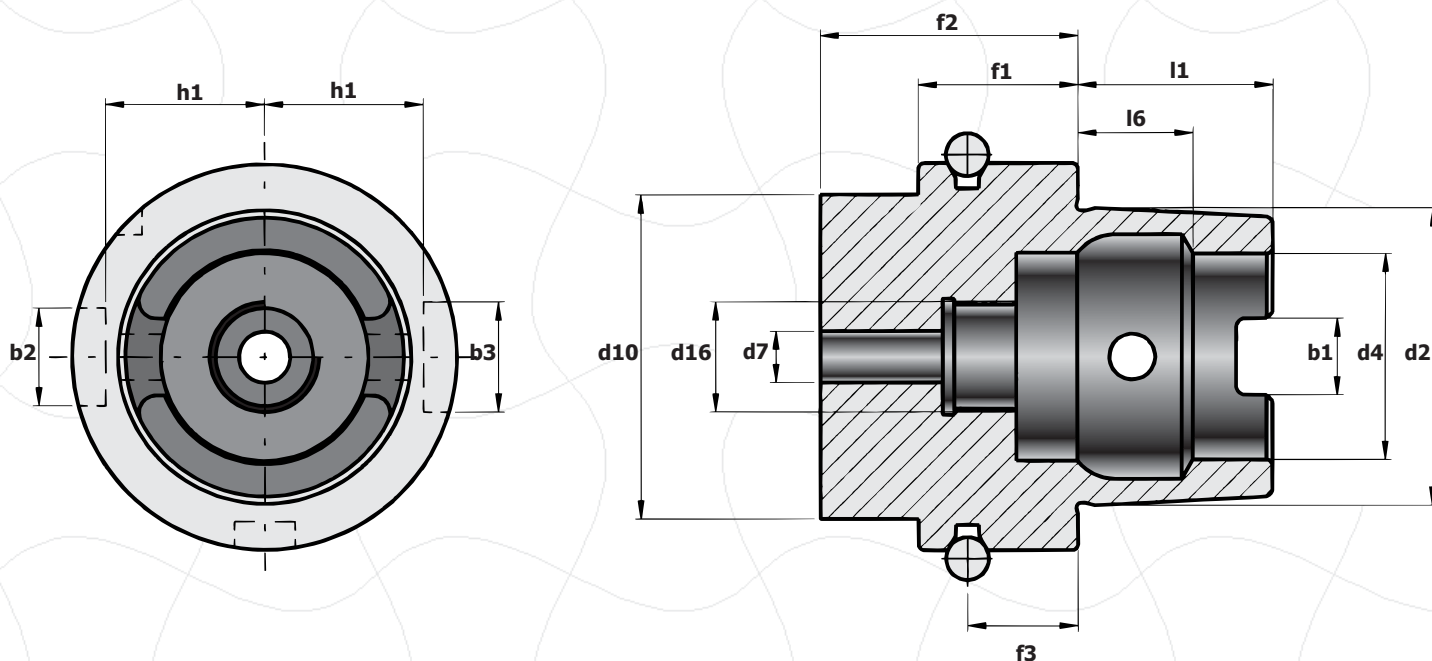
HSK Werkzeugaufnahmen

HSK Toolholders

HSK Outils



Technische information HSK Form A+C ISO 12164
Technical information HSK Form A+C ISO 12164
Information techniques HSK Form A+C ISO 12164



HSK - d1	d2	d4	d7 (max.)	d10 (max.)	d16	b1	b2	b3	f1	f2	f3	l1	l6	h1
32	24.007	17	4.2	26	M10*1	7.05	7	9	20	35	16	16	8,92	13
40	30.007	21	5	34	M12*1	8.05	9	11	20	35	16	20	11,42	17
50	38.009	26	6.8	42	M16*1	10.54	12	14	26	42	18	25	14,13	21
63	48.010	34	8.4	53	M18*1	12.54	16	18	26	42	18	32	18,13	26,5
80	60.012	42	10.2	68	M20*1.5	16.04	18	20	26	42	18	40	22,85	34
100	75.013	53	12	88	M24*1.5	20.02	20	22	29	45	20	50	28,56	44

Balans : Standardno G6.3-12000^{min-1}. Fino balansiranje na upit

Wuchtgüte : G6.3-12000^{min-1}. Feinwuchten auf anfrage.
Balancing grade : G6.3-12000^{min-1}. Fine balancing on request.
Equilibrage : G6.3-12000^{min-1}. Beau equilibrage sur demande.

Materijal : Legirani čelik, čvrstoće u jezgri najmanje 980 N/mm².

Material : Legierter Einsatzstahl mit min. 980N/mm² Zugfestigkeit im Kern.
Material : Case hardened steel with min. 980N/mm² tensile strength in core.
Materiau : Chasis d'allie en acier de cementation. Resistance mecanique de 980N/mm².

Izvedba : Cementirano 0,8-0,2 mm. Kaljeno na 58±2 HRc. Brunirano

Ausführung : Einsatzgehärtet 58±2 HRc. Hartetiefe 0,8-0,2 mm. Brüniert.
Execution : Case hardened 58±2 HRc. Depth of case 0,8-0,2 mm. Black oxided.
Execution : Cemente HRc 58±2. Eppaisseur de cementation 0,8-0,2 mm. Brunni.

Točnost : Radijalni udar između konusa i prihvatnog dijela alata < 5μ

Genauigkeit : Rundlaufsgenauigkeit HSK zu Werkzeugaufnahme < 5μ
Accuracy : Run out between taper and holding part < 5μ
Precision : Concentricite entre le cone at la reception de l'outil < 5μ

Zwischenhülsen für Zylinderschäfte - FORMGRIP

Adaptor sleeves for parallel shanks - FORMGRIP

Douilles intermediaires pour queues cylindriques - FORMGRIP

Isporuka : sa ugrađenim vijcima za stezanje

Lieferumfang : mit eingebauter Spannschraube

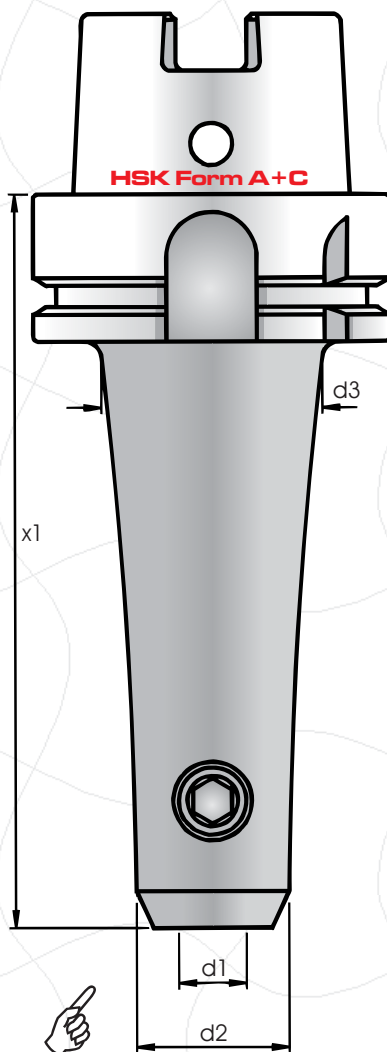
Delivery : adaptor with built in locking screw

Livraison : compris vis de serrage

HSK 63A+C

G2.5-15.000

d1	x1	d2	d3	ISO 12164 A+C	EUR
6	100	17	23	WE06.63A.100F	95.00
6	130	17	28	WE06.63A.130F	110.00
6	160	17	29	WE06.63A.160F	120.00
8	100	21	27	WE08.63A.100F	95.00
8	130	21	32	WE08.63A.130F	110.00
8	160	21	33	WE08.63A.160F	120.00
10	100	24	30	WE10.63A.100F	95.00
10	130	24	35	WE10.63A.130F	110.00
10	160	24	36	WE10.63A.160F	120.00
12	100	27	33	WE12.63A.100F	95.00
12	130	27	38	WE12.63A.130F	110.00
12	160	27	39	WE12.63A.160F	120.00
14	100	29	35	WE14.63A.100F	95.00
14	130	29	40	WE14.63A.130F	110.00
14	160	29	41	WE14.63A.160F	120.00
16	100	33	39	WE16.63A.100F	95.00
16	130	33	44	WE16.63A.130F	110.00
16	160	33	45	WE16.63A.160F	120.00
18	100	35	41	WE18.63A.100F	95.00
18	130	35	46	WE18.63A.130F	110.00
18	160	35	47	WE18.63A.160F	120.00
20	100	39	45	WE20.63A.100F	95.00
20	130	39	50	WE20.63A.130F	110.00
20	160	39	51	WE20.63A.160F	120.00
25	100	47	47	WE25.63A.100F	115.00
25	130	47	47	WE25.63A.130F	120.00
25	160	47	47	WE25.63A.160F	130.00
32	110	57	57	WE32.63A.110F	120.00
32	160	57	57	WE32.63A.160F	135.00



HSK 100A+C

G6.3-15.000

d1	x1	d2	d3	ISO 12164 A+C	EUR
6	130	17	26	WE06.100A.130F	130.00
6	160	17	27	WE06.100A.160F	145.00
6	200	17	37	WE06.100A.200F	160.00
8	130	21	30	WE08.100A.130F	130.00
8	160	21	32	WE08.100A.160F	145.00
8	200	21	41	WE10.100A.200F	160.00
10	130	24	33	WE10.100A.130F	130.00
10	160	24	35	WE10.100A.160F	145.00
10	200	24	44	WE10.100A.200F	160.00
12	130	27	37	WE12.100A.130F	130.00
12	160	27	38	WE12.100A.160F	145.00
12	200	27	47	WE12.100A.200F	160.00
14	130	29	39	WE14.100A.130F	130.00
14	160	29	40	WE14.100A.160F	145.00
14	200	29	49	WE14.100A.200F	160.00
16	130	33	43	WE16.100A.130F	130.00
16	160	33	44	WE16.100A.160F	145.00
16	200	33	53	WE16.100A.200F	160.00
18	130	35	45	WE18.100A.130F	130.00
18	160	35	46	WE18.100A.160F	145.00
18	200	35	55	WE18.100A.200F	160.00
20	130	39	49	WE20.100A.130F	130.00
20	160	39	50	WE20.100A.160F	145.00
20	200	39	59	WE20.100A.200F	160.00
25	130	47	57	WE25.100A.130F	130.00
25	160	47	58	WE25.100A.160F	145.00
25	200	47	67	WE25.100A.200F	160.00
32	130	57	67	WE32.100A.130F	130.00
32	160	57	68	WE32.100A.160F	145.00
32	200	57	70	WE32.100A.200F	160.00

Niklovano

Nickel beschichtet

Nickel coated

Couche de Nickel

Rezervni dijelovi/Ersatzteile/Spare parts/Accessoires

Weldon	M	code	EUR
6	M6 x 6	WE.06.F	2.00
8	M8 x 7.5	WE.08.F	2.00
10	M10 x 8	WE.10.F	2.00
12	M12 x 8	WE.12.F	2.00
14	M12 x 8.5	WE.14.F	2.00



Weldon	M	code	EUR
16	M14 x 8.5	WE.16.F	3.00
18	M14 x 8.5	WE.18.F	3.00
20	M16 x 10	WE.20.F	3.00
25	M18 x 2 x 11,5	WE.25.F	4.00
32	M20 x 2 x 13	WE.32.F	4.00

Zwischenhülsen für Zylinderschäfte
Adaptor sleeves for parallel shanks
Douilles intermediaires pour queues cylindriques

Isporuka : sa ugrađenim vijcima za stezanje

Lieferumfang : mit eingebauter Spannschraube

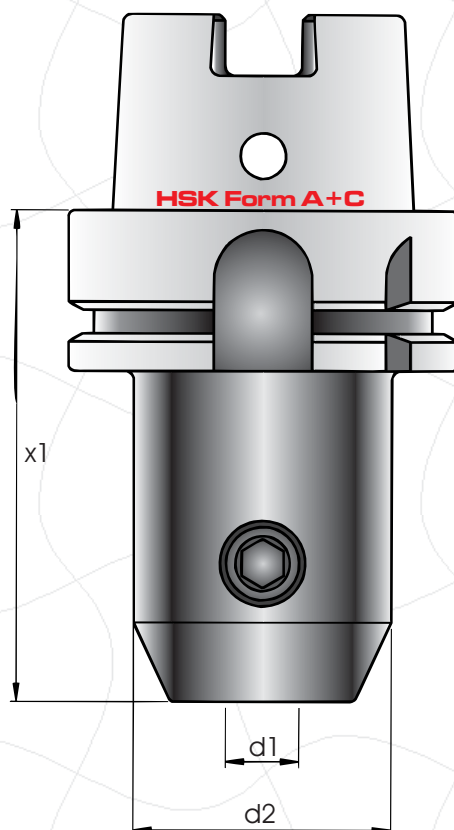
Delivery : adaptor with built in locking screw

Livraison : compris vis de serrage

HSK 50A+C

G2.5-15.000

d1	x1	d2	ISO 12164 A+C	EUR
6	65	25	WE06.50A.065	82.00
6	100	25	WE06.50A.100	90.00
6	160	25	WE06.50A.160	116.00
6	200	25	WE06.50A.200	130.00
8	65	28	WE08.50A.065	82.00
8	100	28	WE08.50A.100	90.00
8	160	28	WE08.50A.160	116.00
8	200	28	WE08.50A.200	130.00
10	65	35	WE10.50A.065	77.00
10	100	35	WE10.50A.100	90.00
10	160	35	WE10.50A.160	105.00
10	200	35	WE10.50A.200	121.00
12	80	42	WE12.50A.080	77.00
12	100	42	WE12.50A.100	90.00
12	160	42	WE12.50A.160	105.00
12	200	42	WE12.50A.200	121.00
14	80	44	WE14.50A.080	77.00
14	100	44	WE14.50A.100	90.00
14	160	44	WE14.50A.160	105.00
14	200	44	WE14.50A.200	121.00
16	80	48	WE16.50A.080	77.00
16	100	48	WE16.50A.100	90.00
16	160	48	WE16.50A.160	105.00
16	200	48	WE16.50A.200	121.00
18	80	50	WE18.50A.080	77.00
18	100	50	WE18.50A.100	90.00
18	160	50	WE18.50A.160	105.00
18	200	50	WE18.50A.200	121.00
20	80	52	WE20.50A.080	77.00
20	100	52	WE20.50A.100	90.00
20	160	52	WE20.50A.160	105.00
20	200	52	WE20.50A.200	121.00
25	105	46	WE25.50A.105	82.00
32	110	56	WE32.50A.110	92.00



HSK 63A+C

G2.5-15.000

d1	x1	d2	ISO 12164 A+C	EUR
6	65	25	WE06.63A.065	82.00
6	100	25	WE06.63A.100	92.00
6	160	25	WE06.63A.160	116.00
6	200	25	WE06.63A.200	133.00
8	65	28	WE08.63A.065	82.00
8	100	28	WE08.63A.100	92.00
8	160	28	WE08.63A.160	110.00
8	200	28	WE08.63A.200	133.00
10	65	35	WE10.63A.065	77.00
10	100	35	WE10.63A.100	90.00
10	160	35	WE10.63A.160	105.00
10	200	35	WE10.63A.200	121.00
12	80	42	WE12.63A.080	77.00
12	100	42	WE12.63A.100	90.00
12	160	42	WE12.63A.160	105.00
12	200	42	WE12.63A.200	121.00
14	80	44	WE14.63A.080	77.00
14	100	44	WE14.63A.100	90.00
14	160	44	WE14.63A.160	105.00
14	200	44	WE14.63A.200	121.00
16	80	48	WE16.63A.080	77.00
16	100	48	WE16.63A.100	90.00
16	160	48	WE16.63A.160	105.00
16	200	48	WE16.63A.200	121.00
18	80	50	WE18.63A.080	77.00
18	100	50	WE18.63A.100	90.00
18	160	50	WE18.63A.160	105.00
18	200	50	WE18.63A.200	121.00
20	80	52	WE20.63A.080	77.00
20	100	52	WE20.63A.100	90.00
20	160	52	WE20.63A.160	105.00
20	200	52	WE20.63A.200	121.00
25	110	65	WE25.63A.110	90.00
25	160	65	WE25.63A.160	108.00
25	200	65	WE25.63A.200	127.00
32	110	72	WE32.63A.110	92.00
32	160	72	WE32.63A.160	110.00
32	200	72	WE32.63A.200	133.00
40	120	72	WE40.63A.120	110.00

Rezervni dijelovi/Ersatzteile/Spare parts/Accessoires

Weldon	code	EUR
6	WE.06	1.00
8	WE.08	1.00
10	WE.10	1.00
12	WE.12	1.00
14	WE.14	1.00



Weldon	code	EUR
16	WE.16	2.00
18	WE.18	2.00
20	WE.20	2.00
25	WE.25	3.00
32	WE.32	3.00
40	WE.40	3.00

Zwischenhülsen für Zylinderschäfte
Adaptor sleeves for parallel shanks
Douilles intermediaires pour queues cylindriques

Isporučka : sa ugrađenim vijcima za stezanje

Lieferumfang : mit eingebauter Spannschraube

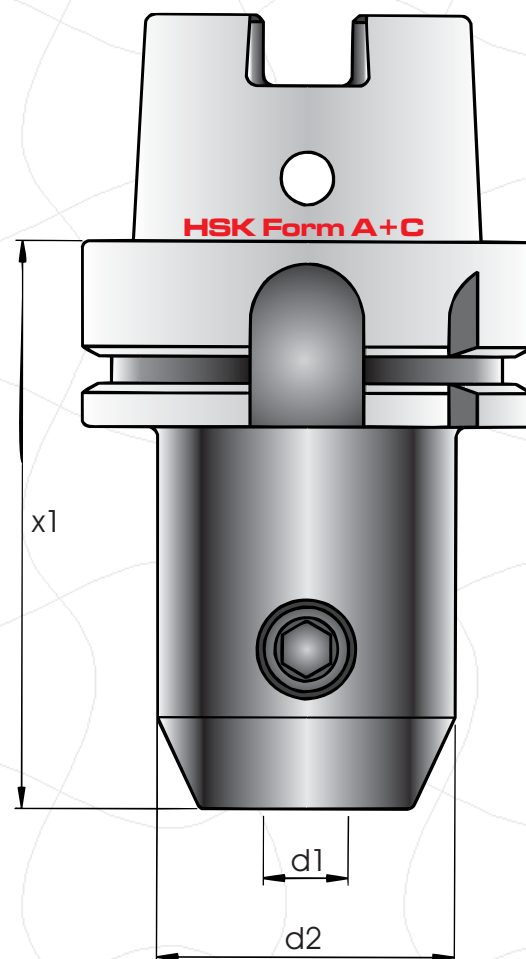
Delivery : adaptor with built in locking screw

Livraison : compris vis de serrage

HSK 100A+C

G6.3-15.000

d1	x1	d2	ISO 12164 A+C	EUR
6	80	25	WE06.100A.080	100.00
6	100	25	WE06.100A.100	108.00
6	160	25	WE06.100A.160	144.00
6	200	25	WE06.100A.200	166.00
8	80	28	WE08.100A.080	100.00
8	100	28	WE08.100A.100	108.00
8	160	28	WE08.100A.160	144.00
8	200	28	WE08.100A.200	166.00
10	80	35	WE10.100A.080	98.00
10	100	35	WE10.100A.100	102.00
10	160	35	WE10.100A.160	141.00
10	200	35	WE10.100A.200	166.00
12	80	42	WE12.100A.080	98.00
12	100	42	WE12.100A.100	102.00
12	160	42	WE12.100A.160	141.00
12	200	42	WE12.100A.200	166.00
14	80	44	WE14.100A.080	98.00
14	100	44	WE14.100A.100	102.00
14	160	44	WE14.100A.160	141.00
14	200	44	WE14.100A.200	166.00
16	100	48	WE16.100A.100	102.00
16	160	48	WE16.100A.160	141.00
16	200	48	WE16.100A.200	166.00
18	100	50	WE18.100A.100	102.00
18	160	50	WE18.100A.160	141.00
18	200	50	WE18.100A.200	166.00
20	100	52	WE20.100A.100	102.00
20	160	52	WE20.100A.160	141.00
20	200	52	WE20.100A.200	166.00
25	100	65	WE25.100A.100	103.00
25	160	65	WE25.100A.160	141.00
25	200	65	WE25.100A.200	171.00
32	100	72	WE32.100A.100	108.00
32	160	72	WE32.100A.160	144.00
32	200	72	WE32.100A.200	174.00
40	110	72	WE40.100A.110	118.00
40	160	72	WE40.100A.160	163.00
40	200	72	WE40.100A.200	182.00



Rezervni dijelovi/Ersatzteile/Spare parts/Accessoires

Weldon	code	EUR
6	WE.06	1.00
8	WE.08	1.00
10	WE.10	1.00
12	WE.12	1.00
14	WE.14	1.00



Weldon	code	EUR
16	WE.16	2.00
18	WE.18	2.00
20	WE.20	2.00
25	WE.25	3.00
32	WE.32	3.00
40	WE.40	3.00

Spannzangenfutter 8° für Spannzangen DIN6499

Collet chucks 8° for collets DIN6499

Mandrins porte-pinces 8° pour pinces de serrage DIN6499

Isporučka : sa ugrađenom maticom za stezanje i vijkom za uzdužno podešavanje

Lieferumfang : mit Spannmutter und Verstellerschraube

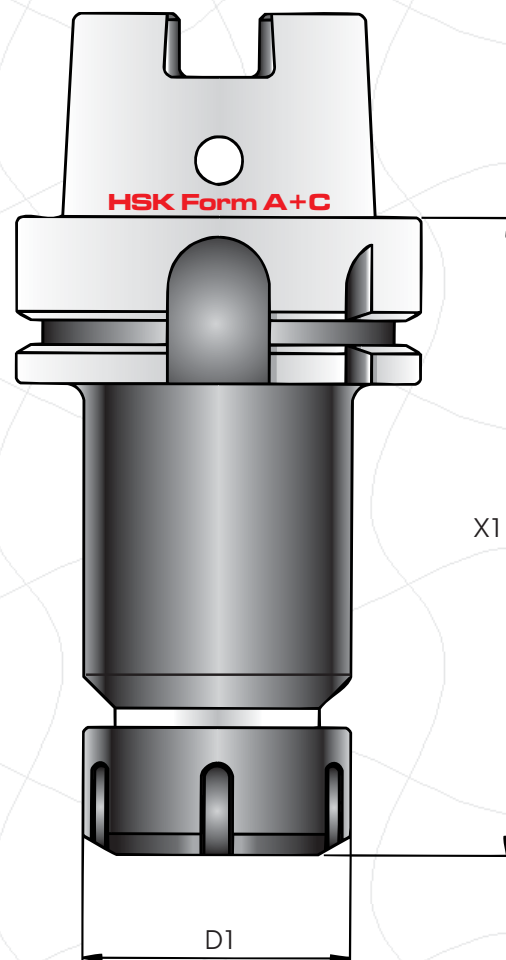
Delivery : with clamping nut and adjusting screw

Livraison : Ecrous de serrage et vis de réglage

HSK 50A+C

62.5-15.000

TIP	Prihvat mm		d1	ISO 12164 A+C	EUR
	Spannbereich mm	Clamping range mm			
ER16	0.5-10	100	28	ER16.50A.100	82.00
ER16	0.5-10	160	28	ER16.50A.160	113.00
ER16	0.5-10	200	28	ER16.50A.200	138.00
ER25	1-16	100	42	ER25.50A.100	82.00
ER25	1-16	160	42	ER25.50A.160	113.00
ER25	1-16	200	42	ER25.50A.200	138.00
ER32	2-20	100	50	ER32.50A.100	82.00
ER32	2-20	160	50	ER32.50A.160	113.00
ER32	2-20	200	50	ER32.50A.200	138.00
ER40	3-26	120	63	ER40.50A.120	85.00
ER40	3-26	160	63	ER40.50A.160	124.00
ER40	3-26	200	63	ER40.50A.200	146.00



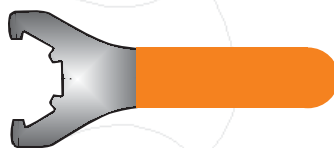
Elastične čahure ER : vidi stranu 6.03-6.04

Spannzangen ER : siehe Seite 6.03-.6.04

Collets ER : see page 6.03 - 6.04

Pinces de serrage ER : Voir page 6.03 -.6.04

Rezervni dijelovi/Ersatzteile/Spare parts/Accessoires



ER	code	EUR
16	D6499.ER16	12.00
25	D6499.ER25	14.00
32	D6499.ER32	14.00
40	D6499.ER40	16.00

ER	code	EUR
16	KLJ.ER16	10.00
25	KLJ.ER25	12.00
32	KLJ.ER32	14.00
40	KLJ.ER40	16.00

ER	code	EUR
16	VP.ER16	2.00
25	VP.ER25	3.00
32	VP.ER32	3.00
40	VP.ER40	3.00

Spannzangenfutter 8° für Spannzangen DIN6499

Collet chucks 8° for collets DIN6499

Mandrins porte-pinces 8° pour pinces de serrage DIN6499

Isporuka : sa ugrađenom maticom za stezanje i vijkom za uzdužno podešavanje

Lieferumfang : mit Spannmutter und Verstellerschraube

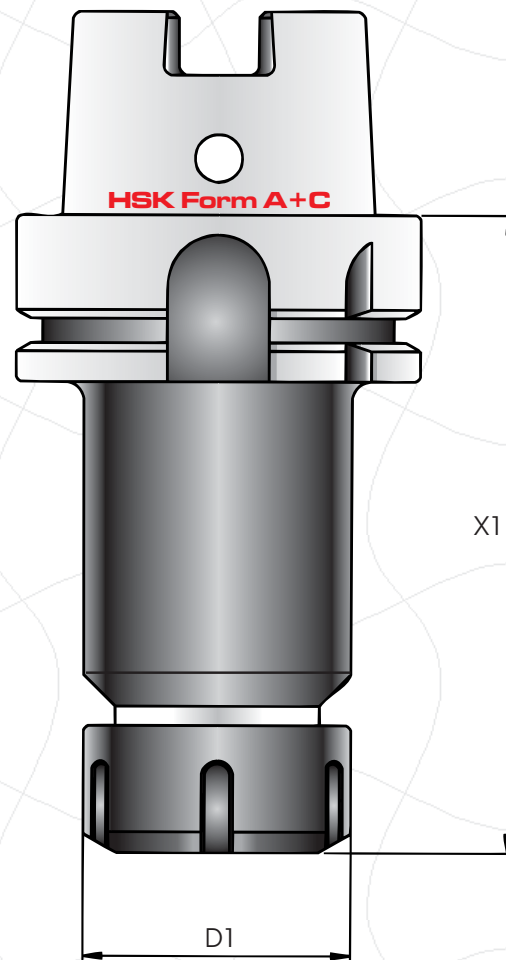
Delivery : with clamping nut and adjusting screw

Livraison : Ecrous de serrage et vis de réglage

HSK 63A+C

62.5-15.000

TIP	Prihvat mm Spannbereich mm Clamping range mm Capacité de serrage mm	x1	d1	ISO 12164 A+C	EUR
ER16	0.5-10	80	28	ER16.63A.080	81.00
ER16	0.5-10	100	28	ER16.63A.100	82.00
ER16	0.5-10	160	28	ER16.63A.160	113.00
ER16	0.5-10	200	28	ER16.63A.200	138.00
ER25	1-16	80	42	ER25.63A.080	81.00
ER25	1-16	100	42	ER25.63A.100	82.00
ER25	1-16	160	42	ER25.63A.160	113.00
ER25	1-16	200	42	ER25.63A.200	138.00
ER32	2-20	100	50	ER32.63A.100	82.00
ER32	2-20	160	50	ER32.63A.160	113.00
ER32	2-20	200	50	ER32.63A.200	138.00
ER40	3-26	120	63	ER40.63A.120	85.00
ER40	3-26	160	63	ER40.63A.160	124.00
ER40	3-26	200	63	ER40.63A.200	146.00



Elastične čahure ER : vidi stranu 6.03-6.04

Spannzangen ER : siehe Seite 6.03-.6.04

Collets ER : see page 6.03 - 6.04

Pinces de serrage ER : Voir page 6.03 -.6.04

Rezervni dijelovi/Ersatzteile/Spare parts/Accessoires



ER	code	EUR
16	D6499.ER16	12.00
25	D6499.ER25	14.00
32	D6499.ER32	14.00
40	D6499.ER40	16.00

ER	code	EUR
16	KLJ.ER16	10.00
25	KLJ.ER25	12.00
32	KLJ.ER32	14.00
40	KLJ.ER40	16.00

ER	code	EUR
16	VP.ER16	2.00
25	VP.ER25	3.00
32	VP.ER32	3.00
40	VP.ER40	3.00

Spannzangenfutter 8° für Spannzangen DIN6499

Collet chucks 8° for collets DIN6499

Mandrins porte-pinces 8° pour pinces de serrage DIN6499

Isporučka : sa ugrađenom maticom za stezanje i vijkom za uzdužno podešavanje

Lieferumfang : mit Spannmutter und Verstellerschraube

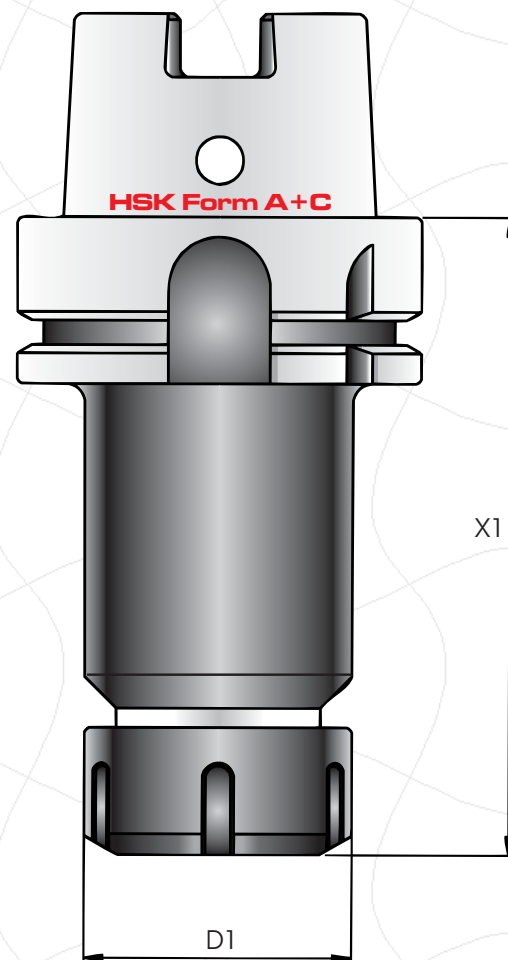
Delivery : with clamping nut and adjusting screw

Livraison : Ecrous de serrage et vis de réglage

HSK 100A+C

66.3-15.000

TIP	Prihvat mm		d1	ISO 12164 A+C	EUR
	Spannbereich mm	Clamping range mm			
ER16	0.5-10	100	28	ER16.100A.100	105.00
ER16	0.5-10	160	28	ER16.100A.160	157.00
ER16	0.5-10	200	28	ER16.100A.200	188.00
ER25	1-16	100	42	ER25.100A.100	105.00
ER25	1-16	160	42	ER25.100A.160	157.00
ER25	1-16	200	42	ER25.100A.200	188.00
ER32	2-20	100	50	ER32.100A.100	113.00
ER32	2-20	160	50	ER32.100A.160	157.00
ER32	2-20	200	50	ER32.100A.200	188.00
ER40	3-26	120	63	ER40.100A.120	118.00
ER40	3-26	160	63	ER40.100A.160	163.00
ER40	3-26	200	63	ER40.100A.200	196.00



Elastične čahure ER : vidi stranu 6.03-6.04

Spannzangen ER : siehe Seite 6.03.-6.04

Collets ER : see page 6.03 - 6.04

Pinces de serrage ER : Voir page 6.03 -6.04

Rezervni dijelovi/Ersatzteile/Spare parts/Accessoires



ER	code	EUR
16	D6499.ER16	12.00
25	D6499.ER25	14.00
32	D6499.ER32	14.00
40	D6499.ER40	16.00

ER	code	EUR
16	KLJ.ER16	10.00
25	KLJ.ER25	12.00
32	KLJ.ER32	14.00
40	KLJ.ER40	16.00

ER	code	EUR
16	VP.ER16	2.00
25	VP.ER25	3.00
32	VP.ER32	3.00
40	VP.ER40	3.00

Spannzangenfutter 1:10 für Spannzangen DIN6388

Collet chucks 1:10 for collets DIN6388

Mandrins porte-pinces 1:10 pour pinces de serrage DIN6388

Isporučka : sa ugrađenom maticom za stezanje i vijkom za uzdužno podešavanje

Lieferumfang : mit Spannmutter und Verstellerschraube

Delivery : with clamping nut and adjusting screw

Livraison : Ecrrous de serrage et vis de reglage

HSK 50A+C

G2.5-15.000

Prihvati mm

Spannbereich mm
Clamping range mm
Capacité de serrage mm

	x1	d1	ISO 12164 A+C	EUR
1.5-16.0	110	43	SP16.50A.110	105.00
2.0-25.0	120	60	SP25.50A.120	110.00

HSK 63A+C

G2.5-15.000

Prihvati mm

Spannbereich mm
Clamping range mm
Capacité de serrage mm

	x1	d1	ISO 12164 A+C	EUR
1.5-16.0	110	43	SP16.63A.110	105.00
2.0-25.0	120	60	SP25.63A.120	110.00
4.0-32.0	130	72	SP32.63A.130	121.00

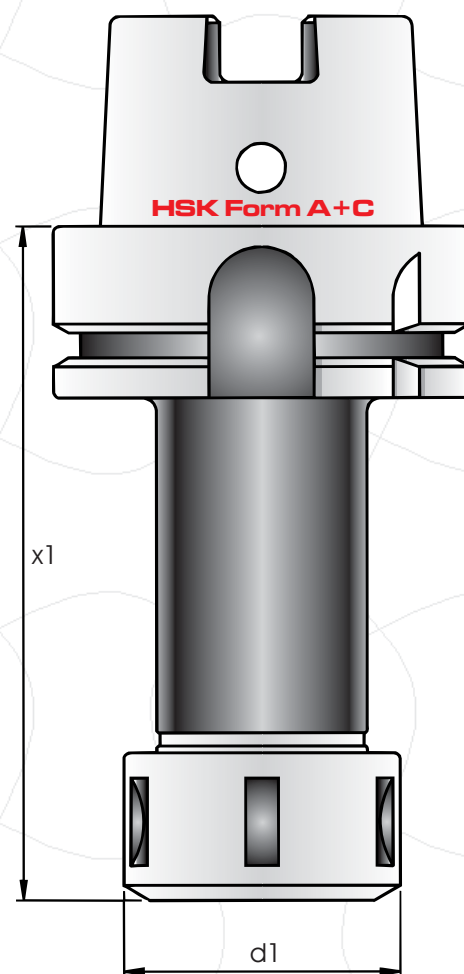
HSK 100A+C

G6.3-15.000

Prihvati mm

Spannbereich mm
Clamping range mm
Capacité de serrage mm

	x1	d1	ISO 12164 A+C	EUR
1.5-16.0	110	43	SP16.100A.110	126.00
2.0-25.0	120	60	SP25.100A.120	133.00
4.0-32.0	130	72	SP32.100A.130	141.00



Elastične čahure DIN6388 : vidi stranu 6.05-6.06

Spannzangen DIN6388 : siehe Seite 6.05-6.06

Collets DIN6388 : see page 6.05-6.06

Pinces de serrage DIN6388 : Voir page 6.05-6.06

Rezervni dijelovi/Ersatzteile/Spare parts/Accessoires



Prihvati mm

Spannbereich mm
Clamping range mm
Capacité de serrage mm

	code	EUR
1.5-16	D6388.116	22.00
2-25	D6388.225	24.00
4-32	D6388.320	29.00

Prihvati mm

Spannbereich mm
Clamping range mm
Capacité de serrage mm

	code	EUR
1.5-16	KLJ.SP116	7.00
2-25	KLJ.SP225	9.00
4-32	KLJ.SP432	9.00

Prihvati mm

Spannbereich mm
Clamping range mm
Capacité de serrage mm

	code	EUR
1.5-16	VP.116	3.00
2-25	VP.225	3.00
4-32	VP.432	3.00

Zwischenhülsen für Morsekegelschäfte mit Austreibblappen DIN228 B
Adaptor sleeves for Morse taper shanks
Douilles intermediaires pour outils a cone Morse

HSK 50A+C

G2.5-15.000

MK	x1	d1	ISO 12164 A+C	EUR
1	100	25	MK1B.50A.100	75.00
2	120	32	MK2B.50A.120	75.00
3	140	40	MK3B.50A.140	77.00

HSK 63A+C

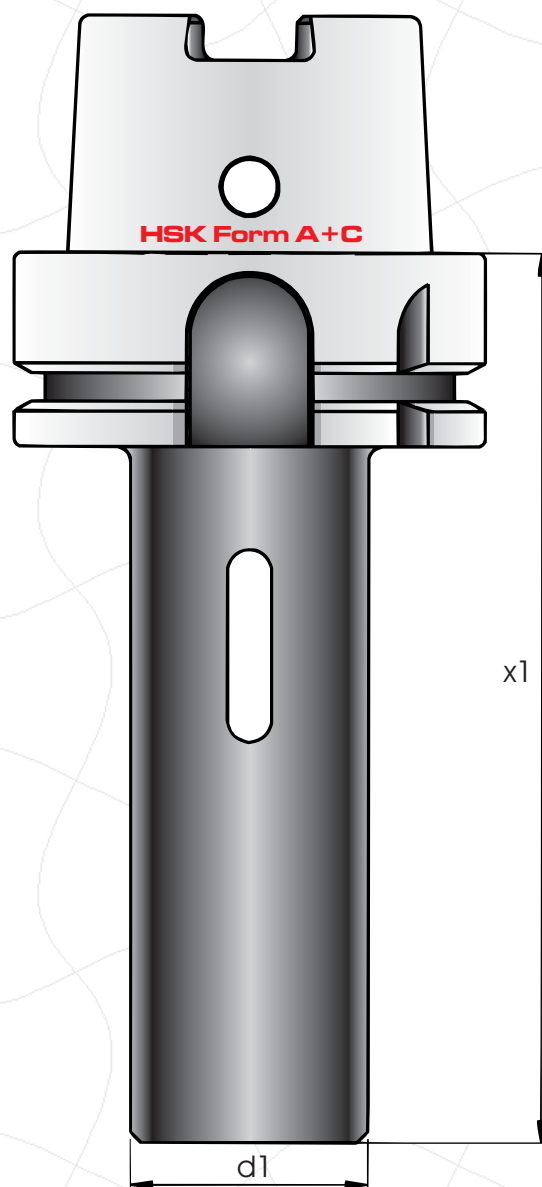
G2.5-15.000

MK	x1	d1	ISO 12164 A+C	EUR
1	100	25	MK1B.63A.100	77.00
2	120	32	MK2B.63A.120	78.00
3	140	40	MK3B.63A.140	80.00
4	160	48	MK4B.63A.160	88.00

HSK 100A+C

G6.3-15.000

MK	x1	d1	ISO 12164 A+C	EUR
1	110	25	MK1B.100A.110	100.00
2	120	32	MK2B.100A.120	100.00
3	150	40	MK3B.100A.150	105.00
4	170	48	MK4B.100A.170	119.00
5	200	63	MK5B.100A.200	130.00



Zwischenhülsen für Morsekegelschäfte mit Anzugsgewinde DIN228 A

Adaptor sleeves for Morse taper shanks and drawing thread

Douilles intermediaires pour outils a cone Morse a trou filete

Isporuka : sa ugrađenim imbus vijkom za stezanje

Lieferumfang : mit eingebauter Innensechskantschraube

Delivery : with built-in draw screw

Livraison : avec vis de incorporee

HSK 50A+C

G2.5-15.000

MK	x1	d1	ISO 12164 A+C	EUR
1	100	25	MK1A.50A.100	87.00
2	120	32	MK2A.50A.120	87.00
3	140	40	MK3A.50A.140	90.00

HSK 63A+C

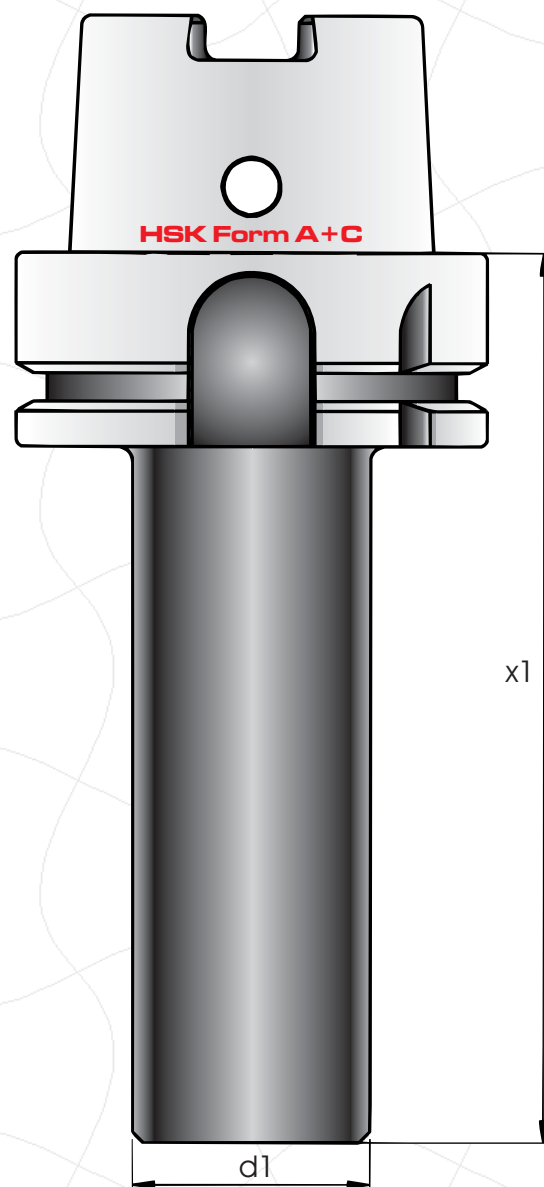
G2.5-15.000

MK	x1	d1	ISO 12164 A+C	EUR
1	100	25	MK1A.63A.100	90.00
2	120	32	MK2A.63A.120	90.00
3	140	40	MK3A.63A.140	93.00
4	165	48	MK4A.63A.165	102.00
4*	180	63	MK4A.63A.180A	139.00

HSK 100A+C

G6.3-15.000

MK	x1	d1	ISO 12164 A+C	EUR
1	100	25	MK1A.100A.100	113.00
2	120	32	MK2A.100A.120	113.00
3	150	40	MK3A.100A.150	127.00
4	170	48	MK4A.100A.170	127.00
4*	185	63	MK4A.100A.185A	166.00
5	200	64	MK5A.100A.200	144.00
5*	218	78	MK5A.100A.200A	184.00



****Napomena** : sa povlačnim utorima DIN 2201

****Hinweis** : mit Mitnehmeausfräsung DIN2201

****Note** : with drive flats DIN2201

****A la consideration** : Avec douille d'accouplement de fraisure DIN2201

Kombi-Aufsteckfräserdorne mit Längs- oder Quernut DIN6358

Combi shell mill holders for cutters with longitudinal or transverse drive

Mandrins porte-fraises pour fraises a entrainement par clavette ou tenon

Isporuka : sa ugrađenim klinom, povlačnim prstenom te križnim vijkom

Lieferumfang : mit Paßfeder, Mitnehmerring und Fräseranzugschraube

Delivery : with driving key, driving ring and cross screw

Livraison : avec entrainement par tenons ou clavette et vis serrage

HSK 50A+C

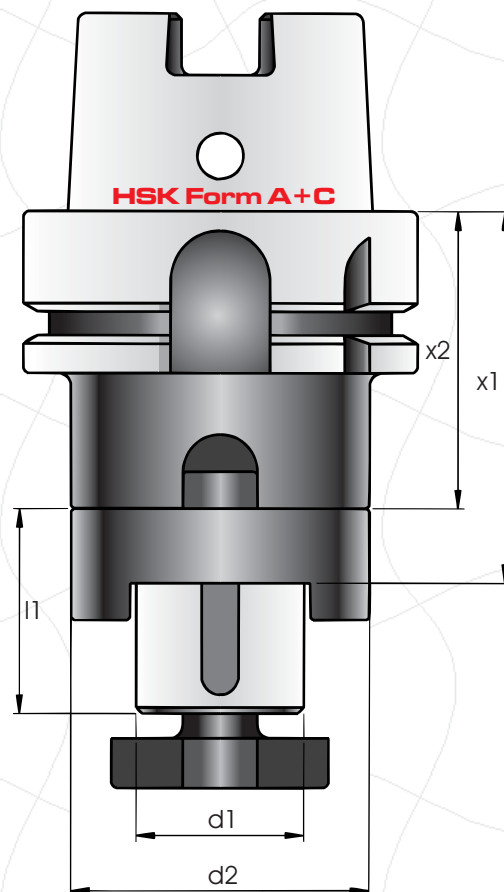
G2.5-15.000

d1	x1	x2	d2	l2	ISO 12164 A+C	EUR
16	50	45	32	27	KD16.50A.050	87.00
16	100	90	32	27	KD16.50A.100	95.00
16	160	150	32	27	KD16.50A.160	127.00
22	50	38	40	31	KD22.50A.050	87.00
22	100	88	40	31	KD22.50A.100	95.00
22	160	148	40	31	KD22.50A.160	127.00
27	55	43	48	33	KD27.50A.055	90.00
27	100	88	48	33	KD27.50A.100	95.00
27	160	148	48	33	KD27.50A.160	130.00
32	65	51	58	38	KD32.50A.065	98.00
32	100	86	58	38	KD32.50A.100	103.00
32	160	146	58	38	KD32.50A.160	130.00

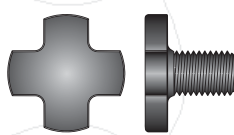
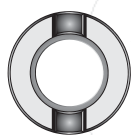
HSK 63A+C

G2.5-15.000

d1	x1	x2	d2	l2	ISO 12164 A+C	EUR
16	60	50	32	27	KD16.63A.060	87.00
16	100	90	32	27	KD16.63A.100	95.00
16	160	150	32	27	KD16.63A.160	127.00
22	60	48	40	31	KD22.63A.060	87.00
22	100	88	40	31	KD22.63A.100	95.00
22	160	148	40	31	KD22.63A.160	127.00
27	60	48	48	33	KD27.63A.060	90.00
27	100	88	48	33	KD27.63A.100	95.00
27	160	148	48	33	KD27.63A.160	130.00
32	60	46	58	38	KD32.63A.060	98.00
32	100	86	58	38	KD32.63A.100	103.00
32	160	146	58	38	KD32.63A.160	130.00
40	70	56	70	41	KD40.63A.070	105.00
40	100	86	70	41	KD40.63A.100	110.00
40	160	146	70	41	KD40.63A.160	136.00



Rezervni dijelovi/Ersatzteile/Spare parts/Accessoires



d1	code	EUR
16	D6366.16	7.00
22	D6366.22	8.00
27	D6366.27	9.00
32	D6366.32	12.00
40	D6366.40	16.00

d1	M	code	EUR
16	M08	D6367.M08	2.00
22	M10	D6367.M10	3.00
27	M12	D6367.M12	4.00
32	M16	D6367.M16	6.00
40	M20	D6367.M20	8.00

d1	code	EUR
16	UP.04420	1.00
22	UP.06622	1.00
27	UP.07725	1.00
32	UP.08730	2.00
40	UP.10832	3.00

Kombi-Aufsteckfräserdorne mit Längs- oder Quernut DIN6358

Combi shell mill holders for cutters with longitudinal or transverse drive

Mandrins porte-fraises pour fraises a entrainement par clavette ou tenon

Isporuka : sa ugrađenim klinom, povlačnim prstenom te križnim vijkom

Lieferumfang : mit Paßfeder, Mitnehmerring und Fräseranzugschraube

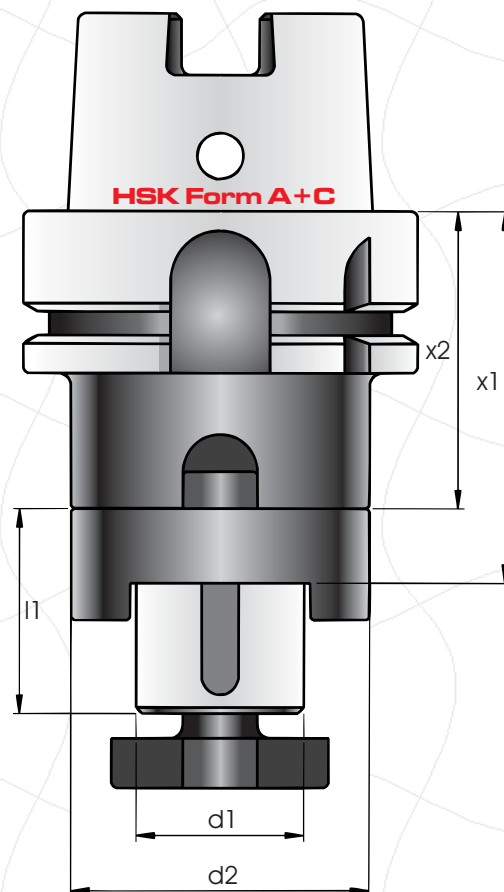
Delivery : with driving key, driving ring and cross screw

Livraison : avec entrainement par tenons ou clavette et vis serrage

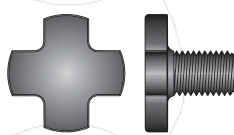
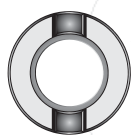
HSK 100A+C

G6.3-15.000

d1	x1	x2	d2	l2	ISO 12164 A+C	EUR
16	60	50	32	27	KD16.100A.060	113.00
16	100	90	32	27	KD16.100A.100	123.00
16	160	150	32	27	KD16.100A.160	152.00
22	60	48	40	31	KD22.100A.060	113.00
22	100	88	40	31	KD22.100A.100	123.00
22	160	148	40	31	KD22.100A.160	152.00
27	60	48	48	33	KD27.100A.060	116.00
27	100	88	48	33	KD27.100A.100	126.00
27	160	148	48	33	KD27.100A.160	155.00
32	60	46	58	38	KD32.100A.060	118.00
32	100	86	58	38	KD32.100A.100	126.00
32	160	146	58	38	KD32.100A.160	155.00
40	70	56	70	41	KD40.100A.070	121.00
40	100	86	70	41	KD40.100A.100	131.00
40	160	146	70	41	KD40.100A.160	166.00



Rezervni dijelovi/Ersatzteile/Spare parts/Accessoires



d1	code	EUR
16	D6366.16	7.00
22	D6366.22	8.00
27	D6366.27	9.00
32	D6366.32	12.00
40	D6366.40	16.00

d1	M	code	EUR
16	M08	D6367.M08	2.00
22	M10	D6367.M10	3.00
27	M12	D6367.M12	4.00
32	M16	D6367.M16	6.00
40	M20	D6367.M20	8.00

d1	code	EUR
16	UP.04420	1.00
22	UP.06622	1.00
27	UP.07725	1.00
32	UP.08730	2.00
40	UP.10832	3.00

Aufsteckfräserdorne mit Quernut DIN6357

Shell mill holders for cutters with driving slot

Mandrins porte-fraises pour porte-fraises a lames amovibles

Isporučka : sa ugrađenim klinovima i križnim vijkom

Lieferumfang : mit eingebauten Mitnehmersteine und Fräseranzugschraube

Delivery : with driving keys and cross screw

Livraison : avec entrainement par tenons et vis serrage

HSK 50A+C

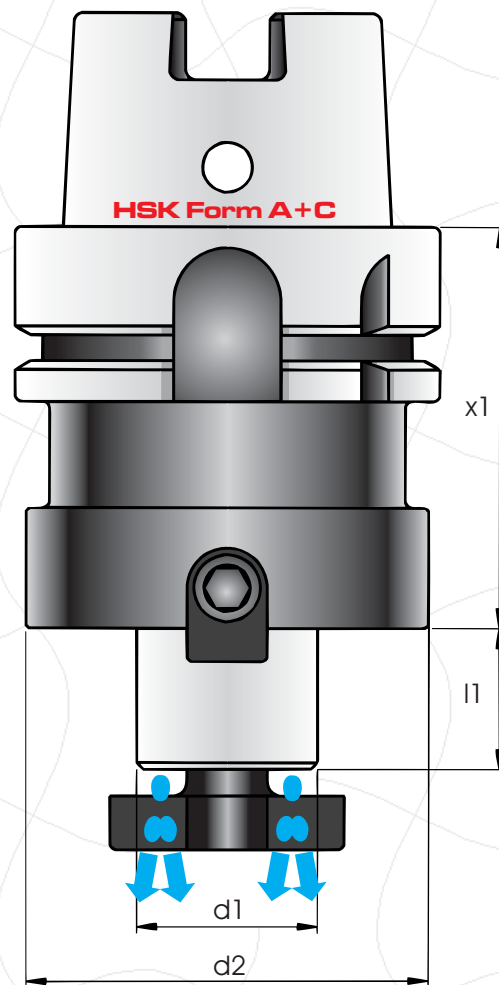
G2.5-15.000

d1	x1	l1	d2	ISO 12164 A+C	EUR
16	45	17	38	AD16.50A.045	100.00
16	100	17	38	AD16.50A.100	108.00
16	160	17	38	AD16.50A.160	135.00
22	60	19	50	AD22.50A.060	100.00
22	100	19	50	AD22.50A.100	108.00
22	160	19	50	AD22.50A.160	135.00
27	60	21	60	AD27.50A.060	103.00
27	100	21	60	AD27.50A.100	110.00
27	160	21	60	AD27.50A.160	138.00

HSK 63A+C

G2.5-15.000

d1	x1	l1	d2	ISO 12164 A+C	EUR
16	45	17	40	AD16.63A.045	100.00
16	100	17	40	AD16.63A.100	108.00
16	160	17	40	AD16.63A.160	135.00
22	50	19	50	AD22.63A.050	100.00
22	100	19	50	AD22.63A.100	108.00
22	160	19	50	AD22.63A.160	135.00
27	60	21	60	AD27.63A.060	103.00
27	100	21	60	AD27.63A.100	110.00
27	160	21	60	AD27.63A.160	138.00
32	60	24	78	AD32.63A.060	105.00
32	100	24	78	AD32.63A.100	118.00
32	160	24	78	AD32.63A.160	146.00
40	60	27	89	AD40.63A.060	121.00
40	100	27	89	AD40.63A.100	126.00
40	160	27	89	AD40.63A.160	157.00



Rezervni dijelovi/Ersatzteile/Spare parts/Accessoires



d1	M	code	EUR
16	M08	D6367.M08	2.00
22	M10	D6367.M10	3.00
27	M12	D6367.M12	4.00
32	M16	D6367.M16	6.00
40	M20	D6367.M20	8.00
50	M24	D6367.M24	12.00



d1	code	EUR
16	PK.16	5.00
22	PK.22	6.00
27	PK.27	7.00
32	PK.32	8.00
40	PK.40	9.00
50	PK.50	10.00

Aufsteckfräserdorne mit Quernut DIN6357

Shell mill holders for cutters with driving slot

Mandrins porte-fraises pour porte-fraises a lames amovibles

Isporuka : sa ugrađenim klinovima i križnim vijkom

Lieferumfang : mit eingebauten Mitnehmersteine und Fräseranzugschraube

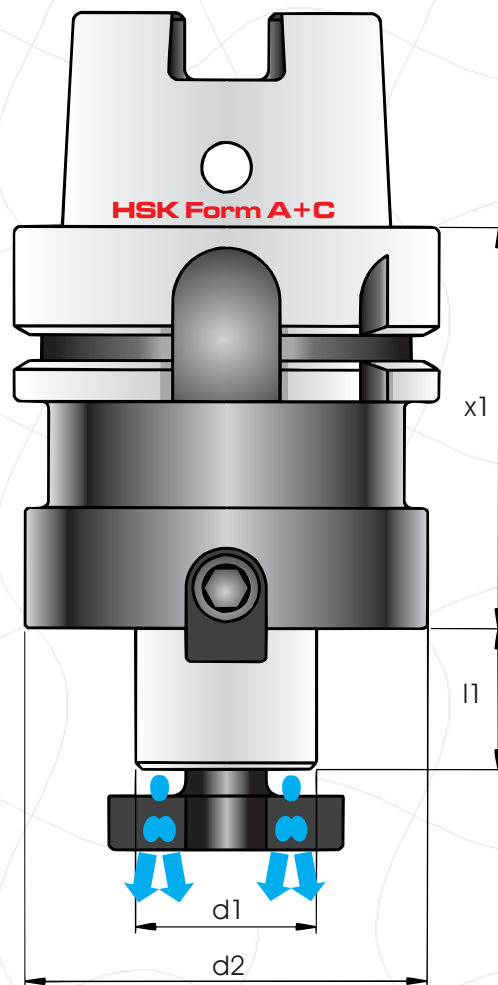
Delivery : with driving keys and cross screw

Livraison : avec entrainement par tenons et vis serrage

HSK 100A+C

G6.3-15.000

d1	x1	l1	d2	ISO 12164 A+C	EUR
16	45	17	40	AD16.100A.045	110.00
16	100	17	40	AD16.100A.100	133.00
16	160	17	40	AD16.100A.160	163.00
22	50	19	50	AD22.100A.050	113.00
22	100	19	50	AD22.100A.100	133.00
22	160	19	50	AD22.100A.160	163.00
27	50	21	60	AD27.100A.050	113.00
27	100	21	60	AD27.100A.100	133.00
27	160	21	60	AD27.100A.160	163.00
32	50	24	78	AD32.100A.050	128.00
32	100	24	78	AD32.100A.100	136.00
32	160	24	78	AD32.100A.160	166.00
40	60	27	89	AD40.100A.060	133.00
40	100	27	89	AD40.100A.100	144.00
40	160	27	89	AD40.100A.160	174.00
60	80	40	129	AD60.100A.080	169.00



Rezervni dijelovi/Ersatzteile/Spare parts/Accessoires



d1	M	code	EUR
16	M08	D6367.M08	2.00
22	M10	D6367.M10	3.00
27	M12	D6367.M12	4.00
32	M16	D6367.M16	6.00
40	M20	D6367.M20	8.00
50	M24	D6367.M24	12.00



d1	code	EUR
16	PK.16	5.00
22	PK.22	6.00
27	PK.27	7.00
32	PK.32	8.00
40	PK.40	9.00
50	PK.50	10.00

Bohrstangen - Rohlinge

Boring bar - blanks

Barres a l'etat brut

Namjena : za izradu specialnih alata

Verwendung : zur Herstellung von Sonderwerkzeugen

Application : for making special tools

Application : pour la fabrication d'outils speciaux

HSK 50A+C

pre-balanced

d1	x1	ISO 12164 A+C	EUR
63	160	RL63.50A.160	110.00
63	200	RL63.50A.200	115.00
63	250	RL63.50A.250	130.00

HSK 63A+C

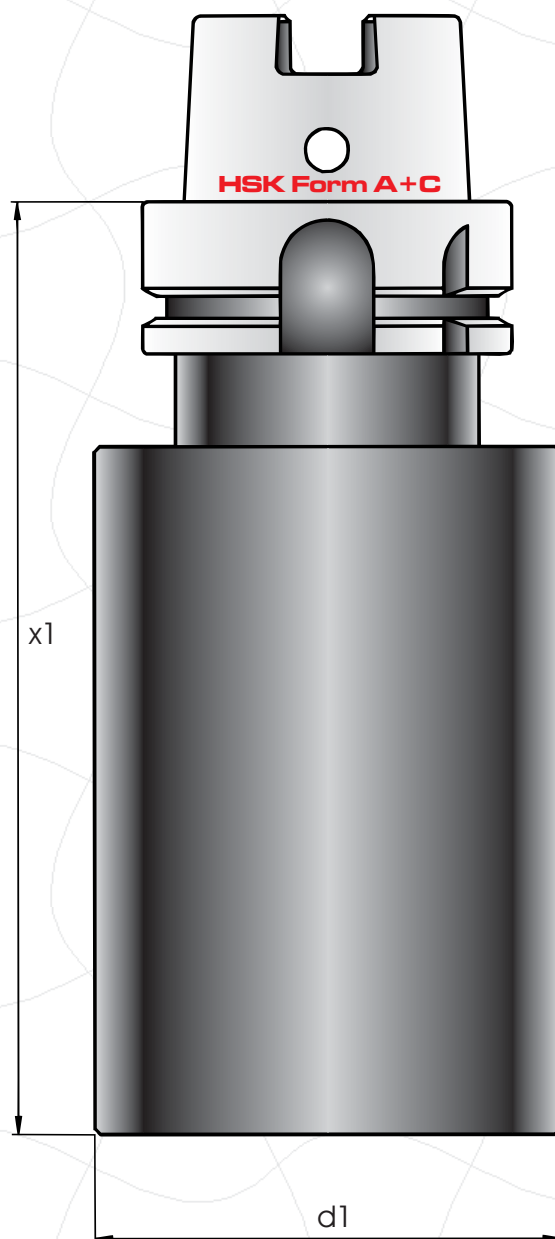
pre-balanced

d1	x1	ISO 12164 A+C	EUR
80	160	RL80.63A.160	110.00
80	200	RL80.63A.200	115.00
80	250	RL80.63A.250	124.00
80	315	RL80.63A.315	144.00

HSK 100A+C

pre-balanced

d1	x1	ISO 12164 A+C	EUR
95	160	RL95.100A.160	139.00
95	200	RL95.100A.200	156.00
95	250	RL95.100A.250	174.00



Zagrijavanje dijela držača u koji se umeće rezni alat, uzrokuje širenje prihvatnog provrta. Na taj se način omogućuje brzo i jednostavno umetanje cilindrične HSS ili TM drške alata u držač.
Služe za vrlo precizno stezanje cilindričnih drški. Drške prema DIN 1835, Form A+B. Tolerance drški h6 i Ra<0,3.

PREDNOSTI :

Optimalna sila stezanja
Prijenos sile trenjem
Najveća točnost radijalnog udara (<0,003 mm)
Odličan balans držača i alata
Produžuju vijek trajanja reznog alata
Brzo i jednostavno stezanje i otpuštanje alata
Cjelovito rješenje za HSC tehnologiju

UPOTREBA :

HSC obrada
Obrada drva
Izrada kalupa i formi
Teška (gruba) obrada
Bušenje/ Razvrtavanje

PAŽNJA !! Tijekom i nakon procesa zagrijavanja držača možete se opeći.
Temperatura u području zagrijavanja je oko 400°C.
Molimo da upotrebljavate ISO zaštitne rukavice tijekom izmjene alata.

Technische Information - SCHRUMPFUTTER

Durch Erwärmung mit geeigneten Schrumpfgeräten der Werkzeugaufnahmen, dehnt sich die Aufnahmenbohrung in wenigen Sekunden aus. Der Werkzeugschaft aus HSS-E oder HM kann bei induktiver Schrumpftechnik somit ein- und ausgeschumpft werden.
Für hochgenaues spannen von Werkzeugen mit Zylinderschaft, nach DIN 1835, Form A+B, Schafttoleranz h6 und Ra<0.3

VORTEILE :

Optimierte Spannkraft
Reibschlüssige Kraftübertragung
Hohe Rundlaufgenauigkeit (<0,003 mm)
Hohe Wuchtgüte
Höhere Werkzeugstandzeiten
Kurze Ein- und Ausschumpfzeiten
Hervorragend für de Einsatz in der HSC-Tech. geeignet

EINSATZGEBIETE :

HSC - Technik
Holzbearbeitung
Werkzeugbau und Formenbau
Schwerzerspannung
Bohren/ Reiben

ACHTUNG !! Bei und nach dem Schrumpfvorgang besteht Verbrennungsgefahr.
Die Temperatur im Schrumpfbereich beträgt bis zu 400°C.
Tragen Sie daher während des Schrumpfvorgangs immer ISO-Schutzhandschuhe.

Technical Information - SHRINK CHUCKS

Heating the tool holding with shrinking devices, causes the holding fixture bore to expand quickly, enabling the HSS or HM tool shaft to be inserted easily and without problems.
For high precision clamping of cylindrical shank tools. Shanks per DIN 1835, Form A+B. Shaft tolerance h6 i Ra<0,3.

ADVANTAGES :

Optimised stable tension
Frictional transfer of force
Maximum rotation precision (<0,003 mm)
High balance quality
Longer tool life
Short shrinking and un-shrinking time
Complete solution for HSC - technology

APPLICATIONS :

HSC - Technology
Wood processing
Cutting in tool and mould making
Heavy duty swart removal
Drilling/ reaming

ATTENTION !! During and after shrinking process you can be burned.
The temperature in shrinking area is approx. 400°C.
Please use ISO protective gloves during the shrinking process.

Information techniques - LES MANDRINS DE FRETAGE

Le rechauffement de la prise d'outil provoque la dilatation de l'ouverture de reception en si pend de temps qu'on puisse inserer la tige d'outil sans. Serrage de tres haute precision des outils de fraisage avec queue cylindrique.
Queues cylindriques d'outils selon norme DIN 1835 forme A et B avec une tolerance h6 et Ra<0,3.

ADVANCE :

Force de serrage indeformable
Transmission de force par frottement
Tres haute precision de rotation (<0,003 mm)
Presente un tres bon equilibre
Durabilite des outils prolongee
Temps de contraction et de dilatation tres courte
Un champ exceptionnel d'application en technologie HSC

APPLICATION :

Technologie HSC
Travail du bois
Fraisage dans le cadre de la fabrication d'outils et de formes
Usinage difficile avec enlevement de copeaux
Percage/ alesage par frottement

ATTENTION !! La technique de fretage fonctionne par adduction de chaleur, c'est pourquoi vous pouvez vous brûler avant.
La temperature a la zone du serrage atteint jusqu'a 400°C.
S'il vous plaît utiliser les gants de protection ISO lors de la cuisson .

Schrumpffutter zum spannen HM und HSS Zylinderschäften

Shrink chucks for clamping HM and HSS cylindrical shanks

Les Mandrins de frettage pour le serrage carbure et HSS queues cylindriques

Od d1=3 do d1=5, bez vijka za podešavanje dužine

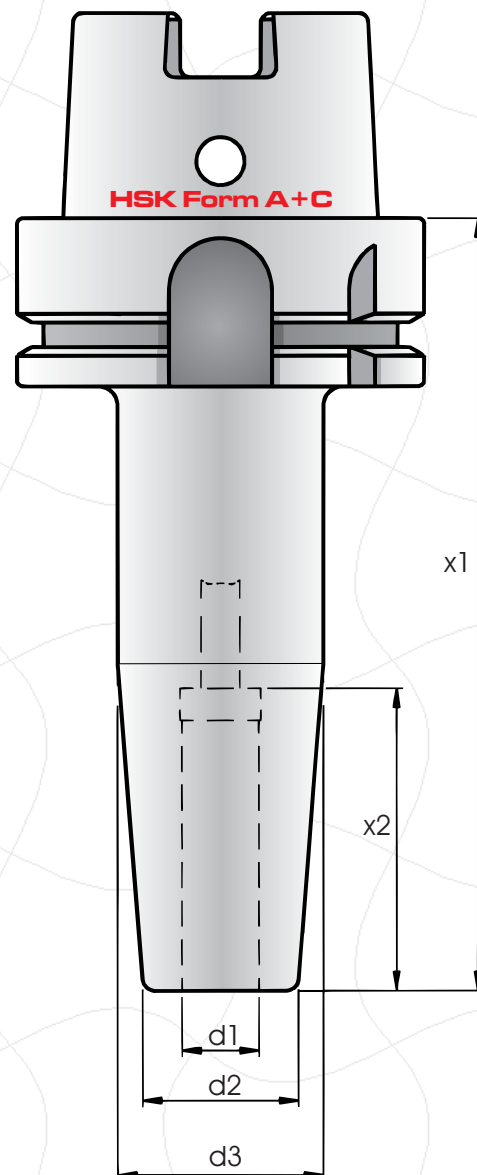
Von d1=3 bis d1=5, ohne Stellschraube

From d1=3 till d1=5, without adjusting screw

De d1=3 au d1=5, sans vis de fixation

HSK 50 A+C G2.5-15.000

d1	x1	x2	d2	d3	ISO 12164 A+C	EUR
3	60	15	15	20	SF03.50A.060	140.00
4	60	20	15	20	SF04.50A.060	140.00
5	60	25	15	20	SF05.50A.060	140.00
6	80	36	21	27	SF06.50A.080	105.00
6	130	36	21	27	SF06.50A.130	145.00
6	160	36	21	27	SF06.50A.160	160.00
8	80	36	21	27	SF08.50A.080	105.00
8	130	36	21	27	SF08.50A.130	145.00
8	160	36	21	27	SF08.50A.160	160.00
10	85	42	24	32	SF10.50A.085	105.00
10	130	42	24	32	SF10.50A.130	145.00
10	160	42	24	32	SF10.50A.160	160.00
12	90	47	24	32	SF12.50A.090	105.00
12	130	47	24	32	SF12.50A.130	145.00
12	160	47	24	32	SF12.50A.160	160.00
14	90	47	27	34	SF14.50A.090	105.00
14	130	47	27	34	SF14.50A.130	145.00
14	160	47	27	34	SF14.50A.160	160.00
16	95	50	27	34	SF16.50A.095	105.00
16	130	50	27	34	SF16.50A.130	145.00
16	160	50	27	34	SF16.50A.160	160.00

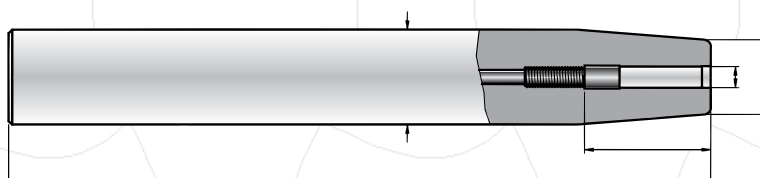


Cilindrični produžeci "THERMO"

Verlängerungen für Schrumpffutter

Extensions for shrink chucks

Prolongations pour les Mandrins de frettage



Vidi stranu 6.9

Siehe Seite 6.9

See page 6.9

Voir page 6.9

Schrumpffutter zum spannen HM und HSS Zylinderschäften

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Od d1=3 do d1=5, bez vijka za podešavanje dužine

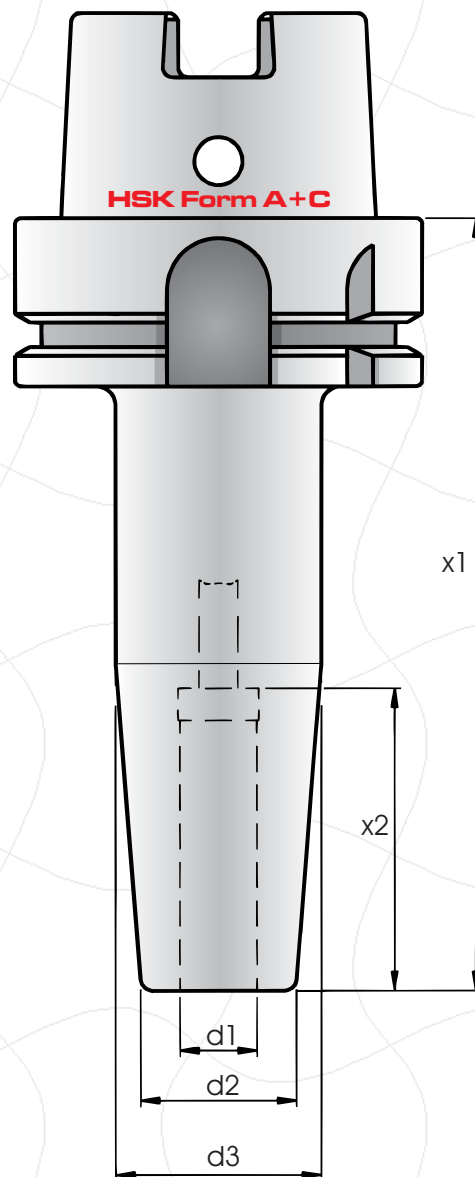
Von d1=3 bis d1=5, ohne Stellschraube

From d1=3 till d1=5, without adjusting screw

De d1=3 au d1=5, sans vis de fixation

HSK 63 A+C G2.5-15.000

d1	x1	x2	d2	d3	ISO 12164 A+C	EUR
3	80	15	15	20	SF03.63A.080	140.00
4	80	20	15	20	SF04.63A.080	140.00
5	80	25	15	20	SF05.63A.080	140.00
6	80	36	21	27	SF06.63A.080	105.00
6	120	36	21	27	SF06.63A.120	145.00
6	160	36	21	27	SF06.63A.160	160.00
6	200	36	21	27	SF06.63A.200	180.00
8	80	36	21	27	SF08.63A.080	105.00
8	120	36	21	27	SF08.63A.120	145.00
8	160	36	21	27	SF08.63A.160	160.00
8	200	36	21	27	SF08.63A.200	180.00
10	85	42	24	32	SF10.63A.085	105.00
10	120	42	24	32	SF10.63A.120	145.00
10	160	42	24	32	SF10.63A.160	160.00
10	200	42	24	32	SF10.63A.200	180.00
12	90	47	24	32	SF12.63A.090	105.00
12	120	47	24	32	SF12.63A.120	145.00
12	160	47	24	32	SF12.63A.160	160.00
12	200	47	24	32	SF12.63A.200	180.00
14	90	47	27	34	SF14.63A.090	105.00
14	120	47	27	34	SF14.63A.120	145.00
14	160	47	27	34	SF14.63A.160	160.00
14	200	47	27	34	SF14.63A.200	180.00
16	95	50	27	34	SF16.63A.095	105.00
16	120	50	27	34	SF16.63A.120	145.00
16	160	50	27	34	SF16.63A.160	160.00
16	200	50	27	34	SF16.63A.200	180.00
18	95	50	33	42	SF18.63A.095	105.00
18	120	50	33	42	SF18.63A.120	145.00
18	160	50	33	42	SF18.63A.160	160.00
18	200	50	33	42	SF18.63A.200	180.00
20	100	52	33	42	SF20.63A.100	105.00
20	130	52	33	42	SF20.63A.130	148.00
20	160	52	33	42	SF20.63A.160	160.00
20	200	52	33	42	SF20.63A.200	180.00
25	115	58	44	53	SF25.63A.115	115.00
25	160	58	44	53	SF25.63A.160	160.00
25	200	58	44	53	SF25.63A.200	180.00
32	120	58	44	53	SF32.63A.120	115.00
32	160	58	44	53	SF32.63A.160	165.00
32	200	58	44	53	SF32.63A.200	180.00

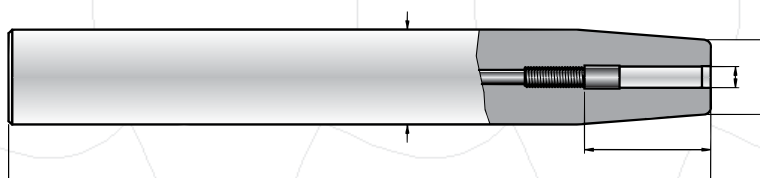


Cilindrični produžeci "THERMO"

Verlängerungen für Schrumpffutter

Extensions for shrink chucks

Prolongations pour les Mandrins de frettage



Vidi stranu 6.9

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See page 6.9

Voir page 6.9

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Od d1=3 do d1=5, bez vijka za podešavanje dužine

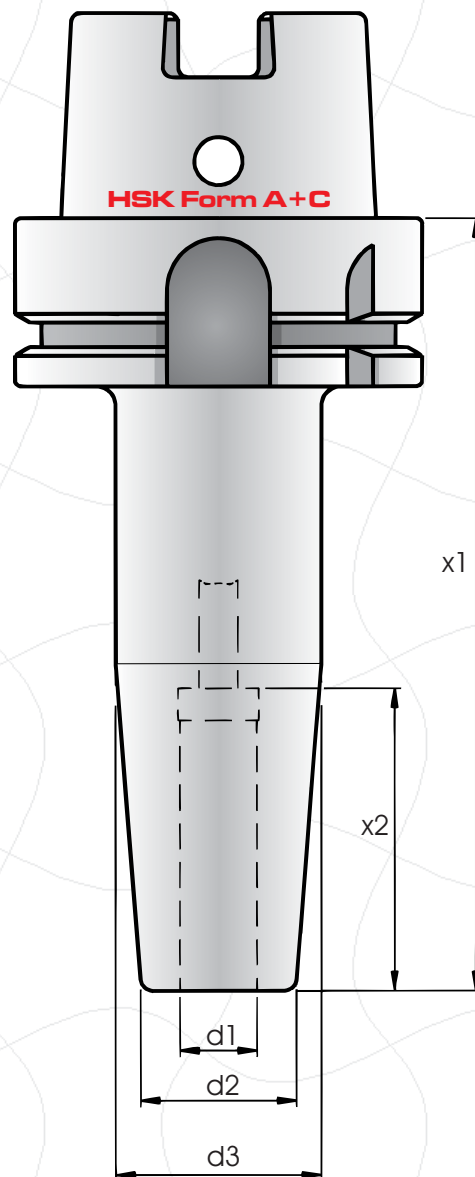
Von d1=3 bis d1=5, ohne Stellschraube

From d1=3 till d1=5, without adjusting screw

De d1=3 au d1=5, sans vis de fixation

HSK 100 A+C G2.5-15.000

d1	x1	x2	d2	d3	ISO 12164 A+C	EUR
6	85	36	21	27	SF06.100A.085	155.00
6	130	36	21	27	SF06.100A.130	195.00
6	160	36	21	27	SF06.100A.160	220.00
6	200	36	21	27	SF06.100A.200	240.00
8	85	36	21	27	SF08.100A.085	155.00
8	130	36	21	27	SF08.100A.130	195.00
8	160	36	21	27	SF08.100A.160	220.00
8	200	36	21	27	SF08.100A.200	240.00
10	90	42	24	32	SF10.100A.090	155.00
10	130	42	24	32	SF10.100A.130	195.00
10	160	42	24	32	SF10.100A.160	220.00
10	200	42	24	32	SF10.100A.200	240.00
12	95	47	24	32	SF12.100A.095	155.00
12	130	47	24	32	SF12.100A.130	195.00
12	160	47	24	32	SF12.100A.160	220.00
12	200	47	24	32	SF12.100A.200	240.00
14	95	47	27	34	SF14.100A.095	155.00
14	130	47	27	34	SF14.100A.130	195.00
14	160	47	27	34	SF14.100A.160	220.00
14	200	47	27	34	SF14.100A.200	240.00
16	100	50	27	34	SF16.100A.100	155.00
16	130	50	27	34	SF16.100A.130	195.00
16	160	50	27	34	SF16.100A.160	220.00
16	200	50	27	34	SF16.100A.200	240.00
18	100	50	33	42	SF18.100A.100	155.00
18	130	50	33	42	SF18.100A.130	195.00
18	160	50	33	42	SF18.100A.160	220.00
18	200	50	33	42	SF18.100A.200	240.00
20	105	52	33	42	SF20.100A.105	155.00
20	130	52	33	42	SF20.100A.130	195.00
20	160	52	33	42	SF20.100A.160	220.00
20	200	52	33	42	SF20.100A.200	240.00
25	115	58	44	53	SF25.100A.115	160.00
25	160	58	44	53	SF25.100A.160	220.00
25	200	58	44	53	SF25.100A.200	245.00
32	120	58	44	53	SF32.100A.120	165.00
32	160	58	44	53	SF32.100A.160	220.00
32	200	58	44	53	SF32.100A.200	245.00

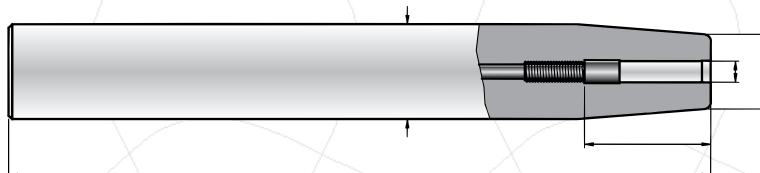


Cilindrični produžeci "THERMO"

Verlängerungen für Schrumpffutter

Extensions for shrink chucks

Prolongations pour les Mandrins de frettage



Vidi stranu 6.9

Siehe Seite 6.9

See page 6.9

Voir page 6.9

CNC Kurzbohrfutter für Links- und Rechtslauf, mit oder ohne IKZ

CNC drill chucks for CW and CCW rotation, with or without internal coolant supply

Mandrins de perçage CNC pour marche a droite et a gauche, avec ou sans arrosage central

HSK 50A+C

Prihvata od-do

Spannweite mm Holding capacity Capacité de serrage	x1	d1	ISO 12164 A+C	EUR
1,0-13	112	54	HX13.50A.112	295.00
3,0-16	115	57	HX16.50A.115	355.00
1,0-13**	112	54	HX13.50A.112.IK	305.00
3,0-16**	115	57	HX16.50A.115.IK	370.00

HSK 63A+C

Prihvata od-do

Spannweite mm Holding capacity Capacité de serrage	x1	d1	ISO 12164 A+C	EUR
1,0-13	98	54	HX13.63A.098	285.00
3,0-16	101	57	HX16.63A.101	345.00
1,0-13**	103	54	HX13.63A.103.IK	295.00
3,0-16**	106	57	HX16.63A.106.IK	360.00

HSK 100A+C

Prihvata od-do

Spannweite mm Holding capacity Capacité de serrage	x1	d1	ISO 12164 A+C	EUR
1,0-13	110	54	HX13.100A.110	375.00
3,0-16	113	57	HX16.100A.113	395.00
1,0-13**	98	54	HX13.100A.098.IK	395.00
3,0-16**	101	57	HX16.100A.101.IK	415.00

** unutarnje hlađenje/ IKZ/ internal coolant/ arrosage central

Precizna stezna glava sa integriranom drškom.

Stežanje imbus ključem.

Za upotrebu na CNC strojevima sa visokim brojem okretaja.

Bušenje, glodanje, razvrtavanje, urezivanje navoja.

Rad u lijevo i u desno (za strojeve s kočenjem motora).

Veliki moment stezanja >100Nm.

Maksimalan pritisak tekućine za hlađenje : 50 bara

Visoka točnost radijalnog udara <0.03 mm

Maksimalni broj okretaja, bez balansiranja = 8.000

Fino balansiranje G6.3-25.000 o/min, na upit

Präzision-Kurzbohrfutter

Anwendung in Hochgeschwindigkeits-CNC-Maschinen

Bohr-, Fräs-, Reib-, Gewindeschneidaufgaben

Spannen mit Sechskantschlüssel

Für Rechts- und Linkslauf

Anzugsmoment über 100 Nm

Maximale Rundlaufabweichung 0,03 mm

Maximaler Kühlmitteldruck: 50 bar

Maximale Drehzahl ungewuchtet 8000 U/min

Wuchtgute wahlweise bis 25.000 U/min G6.3

Precision drill chuck with integrated shank and hexagonal key lock

For use on high-speed CNC machines

Drilling, milling, reaming, tapping

Permits CW and CCW turning

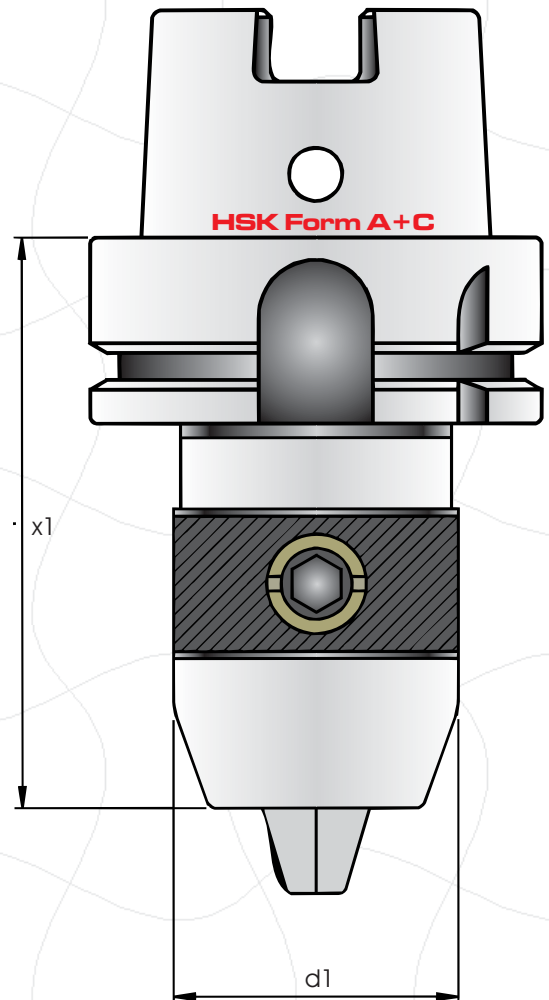
High gripping torque, exceeding 100 Nm

Maximum total integrated run-out of 0.03 mm.

Maximum coolant pressure 50 bar

Maximum rpm without balancing 8000 rpm

Optional balancing service up to G6.3-25.000 rpm



Stezna glava, sistem :

Kopfsystem :

Head system :

Systeme de tete :

LLAMBRICH

Mandrin de perçage de précision, monobloc

Pour les machinec CNC a grande vitesse

Perçage, fraisage, alesage et filetage

Serrage avec Cle Six Pans

Permetts la rotation a droite ou a gauche

Couple de serrage superieur a 100 Nm

Pression maxi pour liquide de refroidissement 50 bars

Excentricite maximum de 0.003

Vitesse maximale sans equilibration 8.000 rpm

Service optionell d`equilibrage jusqu`au 25.000 rpm

**Glave za rezanje navoja
sa kompenzacijom dužine na tlak i na vlak,
bez unutarnjeg hlađenja**

SAB

Gewindeschneid-Schnellwechselfutter mit elastischem Längenausgleich
auf Druck und Zug, ohne IKZ

Tapping head quick-change with length compensation in
compression and tension, without internal coolant supply

Mandrins de taraudage a changement rapide pour la taille des filets avec compensation
longitudinale de la pression et de la traction, sans arrosage central

HSK 50A+C

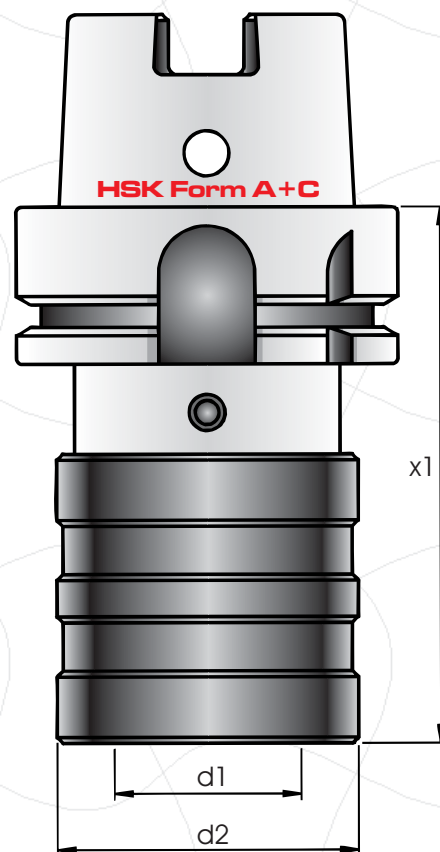
Ureznik od-do für Gewindebohrer for tapping drill pour tarauds	Kompenz. Längenausgleich Compensation Compensation	x1	d1	d2	ISO 12164 A+C	EUR
M3-M12	±7.5 mm	72	19	41	GN12.50A.072	317.00
M6-M20	±10.0 mm	110	31	60	GN20.50A.110	369.00

HSK 63A+C

Ureznik od-do für Gewindebohrer for tapping drill pour tarauds	Kompenz. Längenausgleich Compensation Compensation	x1	d1	d2	ISO 12164 A+C	EUR
M3-M12	±7.5 mm	72	19	41	GN12.63A.072	317.00
M6-M20	±10.0 mm	110	31	60	GN20.63A.110	369.00
M14-M33	±17.5 mm	141	48	86	GN33.63A.141	512.00

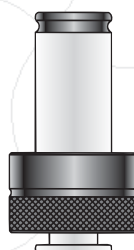
HSK 100A+C

Ureznik od-do für Gewindebohrer for tapping drill pour tarauds	Kompenz. Längenausgleich Compensation Compensation	x1	d1	d2	ISO 12164 A+C	EUR
M3-M12	±7.5 mm	72	19	41	GN12.100A.072	535.00
M6-M20	±10.0 mm	110	31	60	GN20.100A.110	536.00
M14-M33	±17.5 mm	141	48	86	GN33.100A.141	563.00



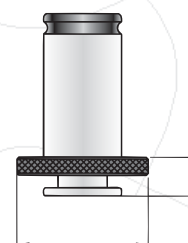
Držaći ureznika

Schnellwechsel - Einsätze
Quick change tapping inserts
Meches a serrage rapide



Vidi strane 6.7-6.8

Siehe Seiten 6.7 - 6.8
See pages 6.7 - 6.8
Voir page 6.7 - 6.8



**Glave za rezanje navoja
sa kompenzacijom dužine na tlak i na vlak,
sa unutarnjim hlađenjem**

SAB

Gewindeschneid-Schnellwechselfutter mit elastischem Längenausgleich
auf Druck und Zug, mit IKZ

Tapping head quick-change with length compensation in
compression and tension, with internal coolant supply

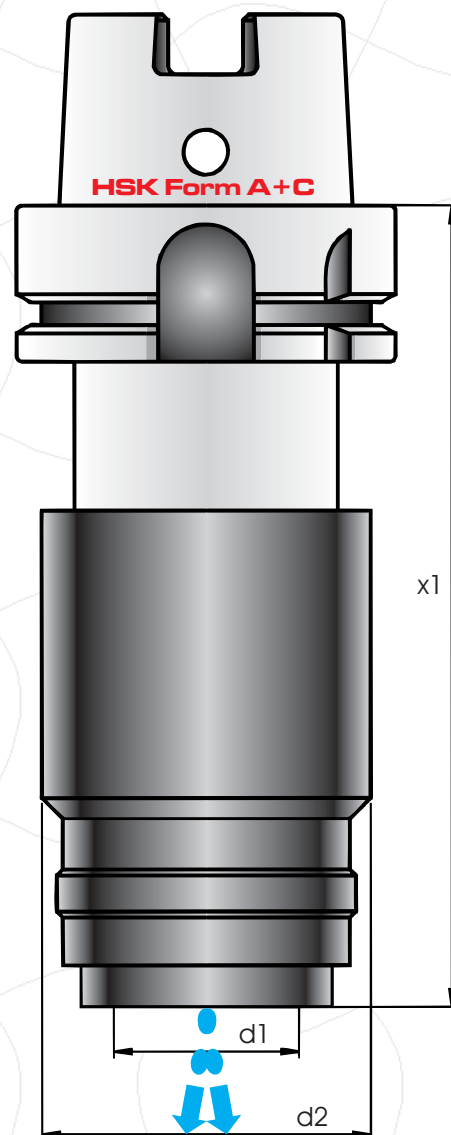
Mandrins de taraudage a changement rapide pour la taille des filets avec compensation
longitudinale de la pression et de la traction, avec arrosage central

HSK 50A+C

Ureznik od-do für Gewindebohrer for tapping drill pour tarauds	Kompenz. Längenausgleich Compensation Compensation	x1	d1	d2	ISO 12164 A+C	EUR
M3-M12	±7.5 mm	105	19	41	GN12.50A.105.IK	432.00
M6-M20	±10.0 mm	140	31	60	GN20.50A.140.IK	472.00

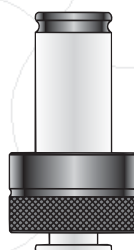
HSK 63A+C

Ureznik od-do für Gewindebohrer for tapping drill pour tarauds	Kompenz. Längenausgleich Compensation Compensation	x1	d1	d2	ISO 12164 A+C	EUR
M3-M12	±7.5 mm	105	19	41	GN12.63A.105.IK	432.00
M6-M20	±10.0 mm	140	31	60	GN20.63A.140.IK	472.00



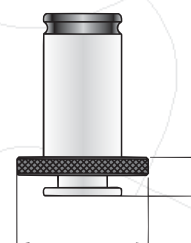
Držaći ureznika

**Schnellwechsel - Einsätze
Quick change tapping inserts
Meches a serrage rapide**



Vidi strane 6.7-6.8

Siehe Seiten 6.7 - 6.8
See pages 6.7 - 6.8
Voir page 6.7 - 6.8



Gweindebohrer - Schaftmaße

Screw taps - shaft size

Pour taraud - taille de la tige

Drška $\varnothing \times \square$

Shaft
Schaft
Queue

	DIN 352	DIN 5157	DIN 371	DIN 374	DIN 376
2.5 x 2.1	M 1	-	M 1	M 3	M 3.5
2.5 x 2.1	M 1.1	-	M 1.1	M 3.5	-
2.5 x 2.1	M 1.2	-	M 1.2	-	-
2.5 x 2.1	M 1.4	-	M 1.4	-	-
2.5 x 2.1	M 1.6	-	M 1.6	-	-
2.5 x 2.1	M 1.8	-	M 1.8	-	-
2.8 x 2.1	M 2	-	M 2	M 4	M 4
2.8 x 2.1	M 2.2	-	M 2.2	-	-
2.8 x 2.1	M 2.5	-	M 2.5	-	-
3.5 x 2.7	M 3	-	M 3	M 5	M 5
4.0 x 3.0	M 3.5	-	M 3.5	-	-
4.5 x 3.4	M 4	-	M 4	M 6	M 6
6.0 x 4.9	M 5	-	M 5	-	-
6.0 x 4.9	M 6	-	M 6	-	-
6.0 x 4.9	M 8	-	-	M 8	M 8
7.0 x 5.5	M 10	G 1/8"	-	M 10	M 10
8.0 x 6.2	-	-	M 8	-	-
9.0 x 7.0	M 12	-	-	M 12	M 12
10 x 8	-	-	-	-	-
11 x 9	M 14	G 1/4"	-	M 14	M 14
12 x 9	M 16	G 3/8"	-	M 16	M 16
14 x 11	M 18	-	-	M 18	M 18
16 x 12	M 20	G 1/2"	-	M 20	M 20
18 x 14.5	M 22	G 5/8"	-	M 22	M 22
18 x 14.5	M 24	-	-	M 24	M 24
20 x 16	M 27	G 3/4"	-	M 27	M 27
22 x 18	M 30	G 7/8"	-	M 30	M 30
25 x 20	M 33	G 1"	-	M 33	M 33
28 x 22	M 36	G 1 1/8"	-	M 36	M 36
32 x 24	M 39	G 1 1/4"	-	M 39	M 39
32 x 24	M 42	-	-	M 42	M 42
36 x 29	M 45	G 1 3/8"	-	M 45	M 45
36 x 29	M 48	G 1 1/2"	-	M 48	M 48
36 x 29	-	G 1 3/4"	-	-	-
36 x 29	-	G 2"	-	-	-