

SUMMARY

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HSK DIN 69893 F

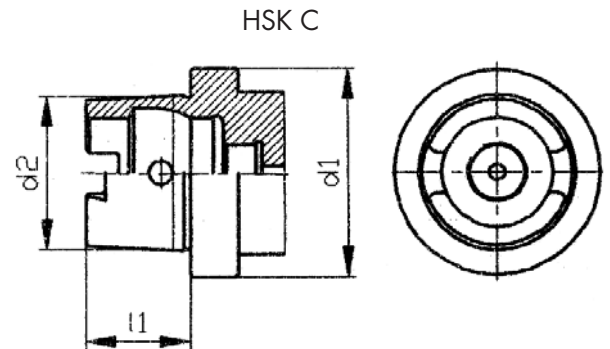
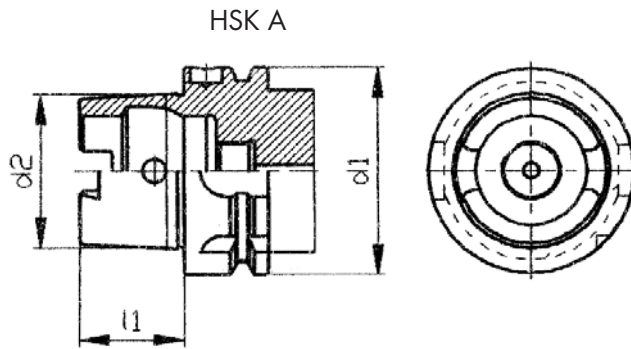
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HSK ACCESSORIES

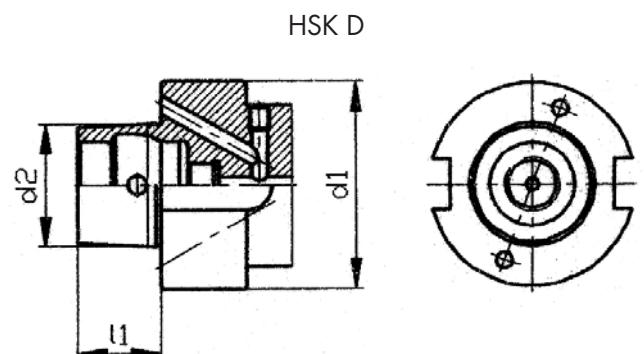
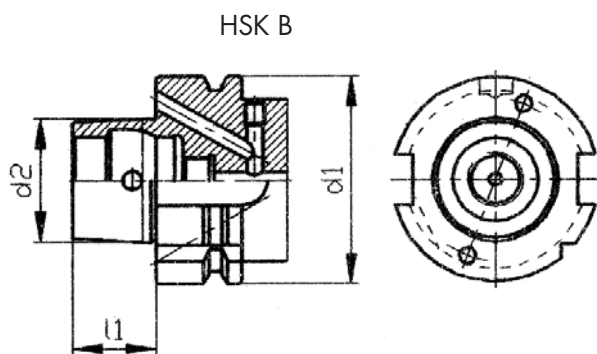
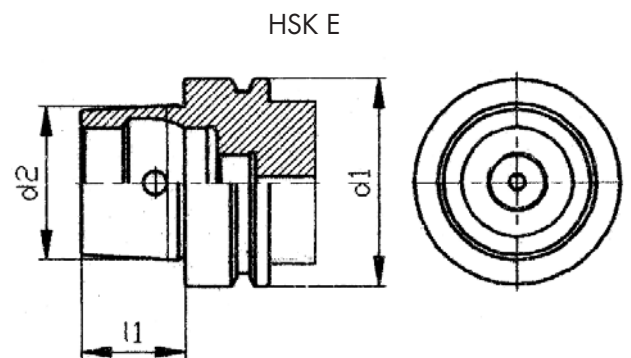
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TABELLE DER ABMESSUNGEN UND DER FORMEN NACH DIN 69893
TABLE OF DIMENSIONS ACCORDING TO DIN 69893 STANDARD
TABLE DE DIMENSIONS SUIVANT DIN 69893
TAVOLA RIASSUNTIVA DELLE GRANDEZZE E DELLE FORME SECONDO DIN 69893



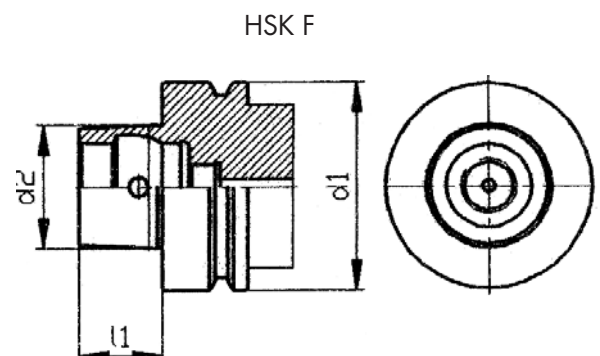
HSK A/ C / E

d1 Nominal dia.	d2 Taper dia.	l1 Taper length
32	24	16
40	30	20
50	38	25
63	48	32
100	75	50



HSK B/ D / F

d1 Nominal dia.	d2 Taper dia.	l1 Taper length
40	24	16
50	30	20
63	38	25
100	60	40



KINTEK



ADDUZIONE REFRIGERANTE

Il set di adduzione refrigerante deve essere ordinato separatamente.

EQUILIBRATURA

Tutti i portautensili sono equilibrati a G. 6.3 a 10.000 giri/min



REMARQUE SUR LA LUBRIFICATION

Le dispositif de transfert pour lubrification et le joint torique correspondant à l'attachement d'outils doivent être commandés spécialement.

EQUILIBRAGE

Tous les porte outils sont équilibrés en classe G. 6,3 à 10.000 T/min



SUPPLY

The coolant supply respectively O-ring must be ordered separately for tools adaptors.

BALANCING NOT:

All the toolholders are balanced in class G. 6,3 for 10.000 r.p.m.



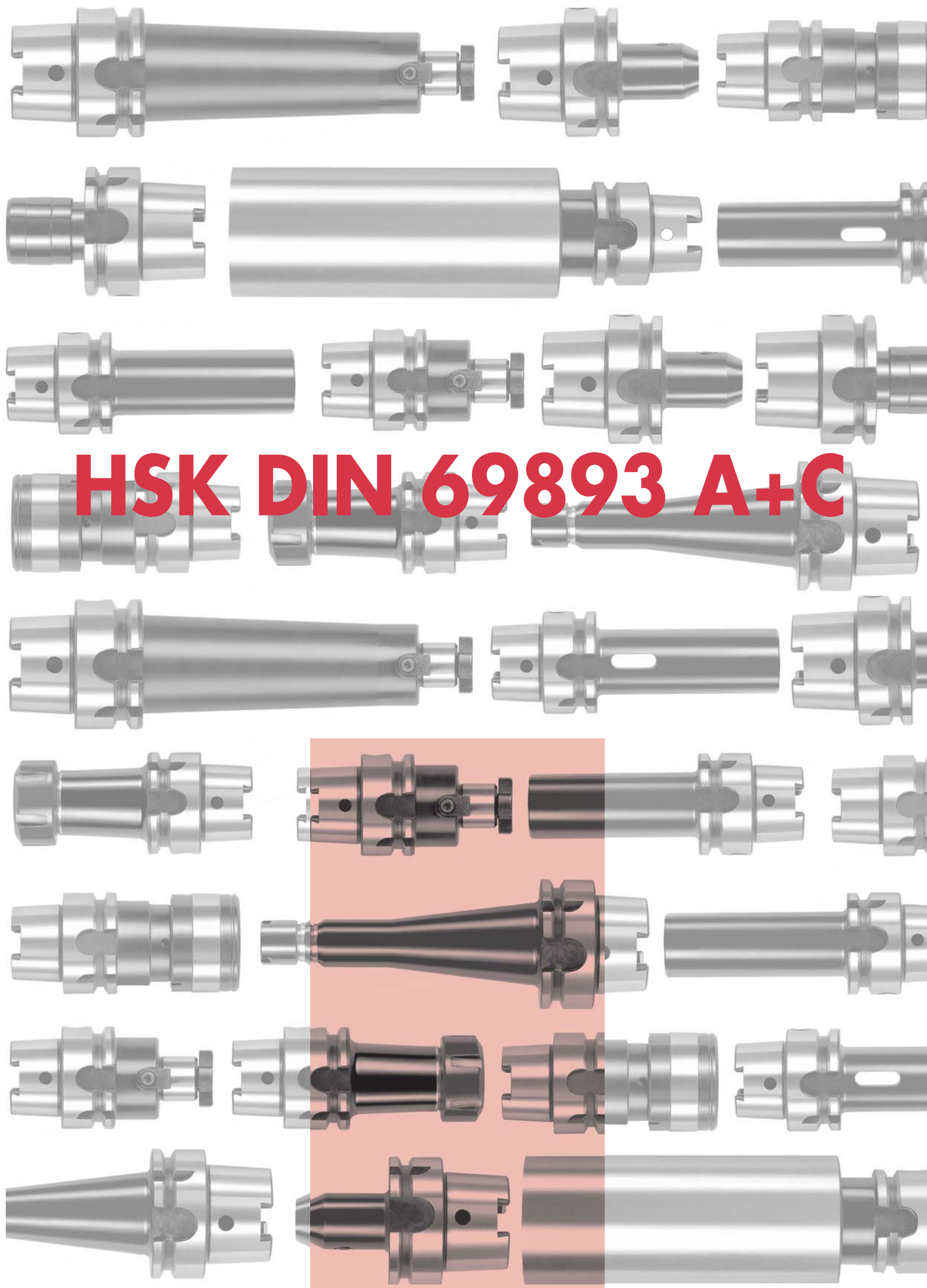
LIEFERHINWEIS

Zu den Werkzeugaufnahmen muss der Kühlmittelübergabesatz bzw. Der O-ring extra bestellt werden.

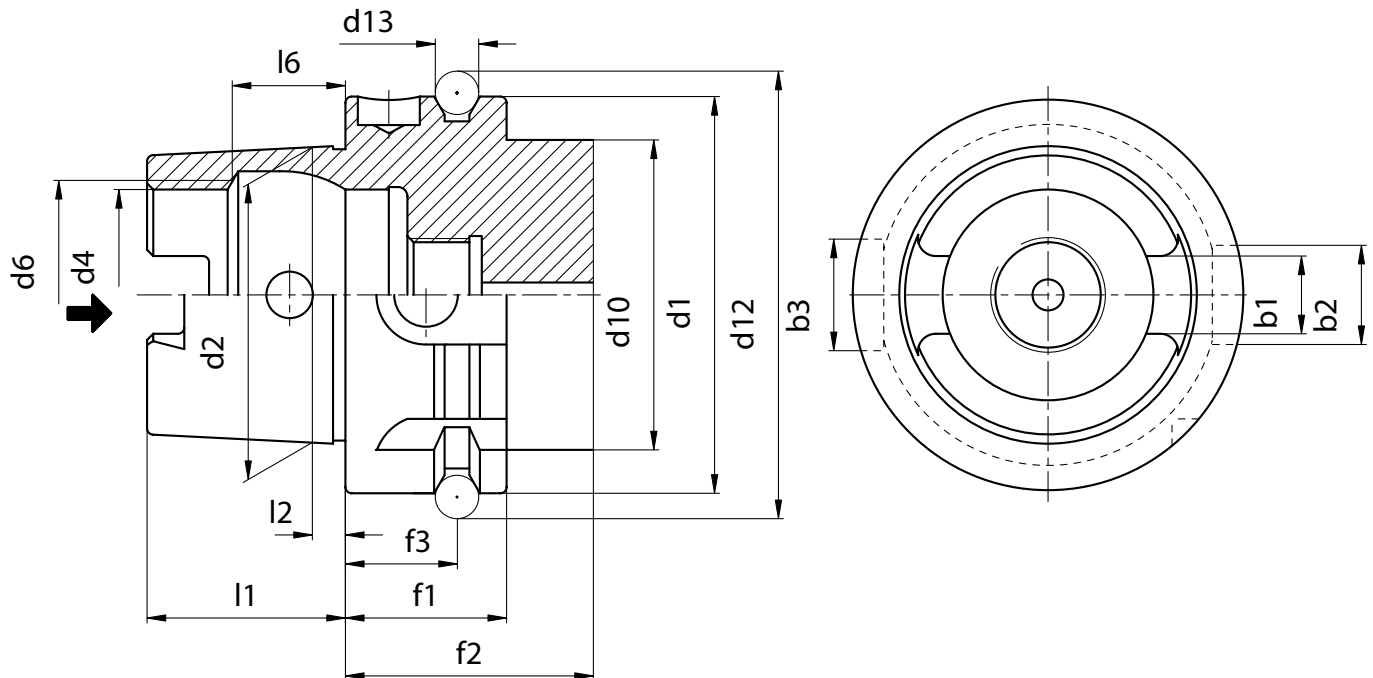
WUCHTEN

Alle Werkzeugen sind 10.000 U/min G. 6,3 vorgewuchtet.

HSK DIN 69893 A+C



**TECHNISCHE DATEN DER STEILKEGELWERKZEUGE
TAPER SHANKS DATA SHEET
DONNES TECHNIQUES QUEUE D'OUTILS
DATI TECNICI CONI D'ATTACCO**



	HSK 32	HSK 40	HSK 50	HSK 63	HSK 100
b1	7,05	8,05	10,54	12,54	20,02
b2	7	9	12	16	20
b3	9	11	14	18	22
d1	32	40	50	63	100
d2	24	30	38	48	75
d4	17	21	26	34	53
d6	19	23	29	37	58
d10	26	34	42	53	88
d12	37	45	59,3	72,3	109,75
d13	4	4	7	7	7
f1	20	20	26	26	29
f2	35	35	42	42	45
f3	16	16	18	18	20
l1	16	20	25	32	50
l2	3,2	4	5	6,3	10
l6	8,92	11,42	14,13	18,13	28,56



Forma A

- Usato su centri di lavoro, fresatrici e macchine speciali con cambio utensili automatico.
- Adduzione refrigerante centrale.
- Coppia trasmessa con due chiavette al fondo della sede conica.
- Tacche di riferimento sulla flangia per riferimento posizione tagliente.
- Foro di predisposizione al sistema di riconoscimento a norme DIN 69873 sull'esterno flangia.



Form A

- Anwendung für Bearbeitungszentren, Fräsmaschinen, Drehmaschinen, Sondermaschinen mit automatischem Werkzeugwechsel.
- Zentrale, axiale Kühlmittelzufuhr über Kühlmittelrohr.
- Drehmomentübertragung über zwei Mitnehmernuten am Kegelumlauf.
- Zwei Bundnuten für Werkzeugmagazin, Positionskerbe. Bohrung für Datenträger DIN 69873 im Bund.



Forma A

- Used on machining centres, milling machines, turning machines, special machines with automatic tool change.
- Central, axial coolant supply through coolant tube.
- Torque transmission via two key slots at end of taper.
- Two slots on collar for tool magazine, location edge.
- Hole for data carrier DIN 69873 in collar.

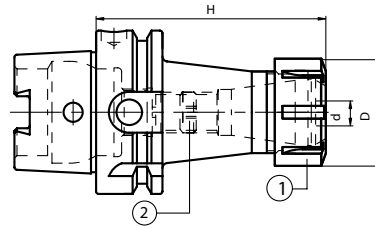


Forme A

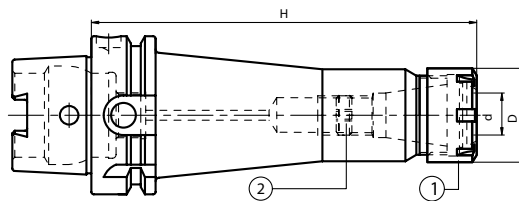
- Utilisation sur les centres d'usinage, les fraiseuses, les machines spéciales à changement d'outils automatique.
- Alimentation centrale, axiale du liquide de lubrification par tube d'arrosage.
- Transmission du couple par deux gorges d'entraînement à l'extrémité du cône.
- Deux gorges magasin à outils, entaille de positionnement, perçage pour support de données DIN 69873 dans l'épaulement.

**SPANNZANGENFUTTER ER TYP
ER COLLET CHUCK
MANDRINS A PINCES TYPE ER
MANDRINI PORTAPINZA TIPO ER**

DIN 6499





STANDARD	HSK	Code N.	Description	H	d	D	ER
	32	214-31740	HSK32AH65ER16M	65	0,5÷10	22	16M
	32	214-31741	HSK32AH70ER25M	70	1÷16	35	25M
	40	214-31745	HSK40AH60ER16M	60	0,5÷10	22	16M
	40	214-31722	HSK40AH70ER16M	70	0,5÷10	22	16M
	40	214-31746	HSK40AH65ER25	65	1÷16	42	25
	40	214-31702	HSK40AH80ER25	80	1÷16	42	25
	40	214-31747	HSK40AH65ER32	65	1÷20	50	32
	40	214-31703	HSK40AH100ER32	100	1÷20	50	32
	50	214-31723	HSK50AH80ER16M	80	0,5÷10	22	16M
50	214-31705	HSK50AH95ER25	95	1÷16	42	25	
50	214-31706	HSK50AH100ER32	100	2÷20	50	32	
63	214-31724	HSK63AH90ER16M	90	0,5÷10	22	16M	
63	214-31707	HSK63AH90ER25	90	1÷16	42	25	
63	214-31708	HSK63AH100ER32	100	2÷20	50	32	
63	214-31709	HSK63AH120ER40	120	3÷30	63	40	
100	214-31777	HSK100AH100ER25	100	1÷16	42	25	
100	214-31725	HSK100AH100ER32	100	2÷20	50	32	
100	214-31731	HSK100AH120ER40	120	3÷30	63	40	



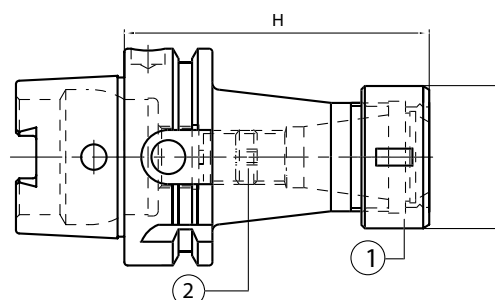
EXTENDED	HSK	Code N.	Description	H	d	D	ER
	32	214-31742	HSK32AH90ER16M	90	0,5÷10	22	16M
	40	214-31732	HSK40AH120ER16M	120	0,5÷10	22	16M
	40	214-31733	HSK40AH120ER25M	120	1÷16	35	25M
	50	214-31734	HSK50AH150ER16M	150	0,5÷10	22	16M
	50	214-31735	HSK50AH150ER25M	150	1÷16	35	25M
	50	214-31718	HSK50AH160ER32	160	2÷20	50	32
	63	214-31736	HSK63AH160ER16M	160	0,5÷10	22	16M
	63	214-31737	HSK63AH160ER25M	160	1÷16	35	25M
	63	214-31720	HSK63AH160ER32	160	2÷20	50	32
63	214-31721	HSK63AH160ER40	160	3÷30	63	40	
100	214-31752	HSK100AH160ER25	160	1÷16	42	25	
100	214-31738	HSK100AH160ER32	160	2÷20	50	32	
100	214-31739	HSK100AH160ER40	160	3÷30	63	40	

Ersatzteile / Spare parts / Pieces detachees / Componenti

ER	Nut	Stop screw
		
	1	2
16M	812-203043	811-303119
25M	812-203045	811-303121
25	812-203016	811-303121
32	812-203017	811-303118
40	812-203018	811-303122



**SPANNZANGENFUTTER EOC TYP
EOC COLLET CHUCK
MANDRINS A PINCES TYPE EOC
MANDRINI PORTAPINZA TIPO EOC**

DIN 6388

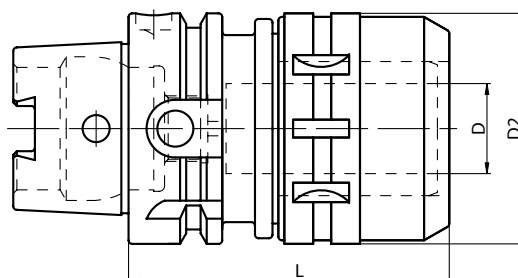


HSK	Code N.	Description	H	d	D	EOC
50	214-11707	HSK50AH100EOC16	100	2÷16	43	16
50	214-11708	HSK50AH100EOC25	100	2÷25	60	25
63	214-11709	HSK63AH100EOC16	100	2÷16	43	16
63	214-11710	HSK63AH100EOC25	100	2÷25	60	25
63	214-11711	HSK63AH120EOC32	120	3÷32	72	32
100	214-11712	HSK100AH110EOC16	110	2÷16	43	16
100	214-11713	HSK100AH120EOC25	120	2÷25	60	25
100	214-11714	HSK100AH130EOC32	130	3÷32	72	32

Ersatzteile / Spare parts / Pieces detachees / Componenti

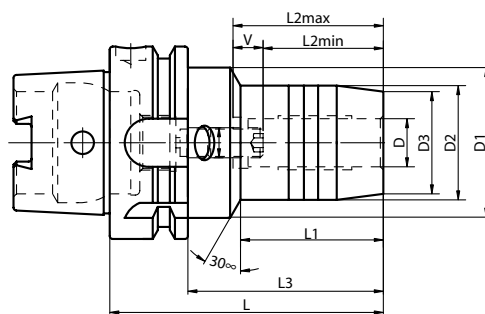
ESK/EOC	Nut	Stop screw
		
	1	2
/16	812-202050	811-303121
50;63/25	812-202070	-
100/25	812-202070	811-303123
/32	812-202080	811-303123

**KRAFTSPANNFUTTER
MILLING CHUCK
MANDRINS A FORT SERRAGE
MANDRINI A FORTE SERRAGGIO**



HSK	Code N.	Description	D	D2	L
40	214-01703	HSK40AH100C20	20	54	100
50	214-01704	HSK50AH107C20	20	54	107
63	214-01701	HSK63AH107C20	20	54	107
63	214-01702	HSK63AH120C32	32	72	120
100	214-01705	HSK100AH110C20	20	54	110
100	214-01706	HSK100AH123C32	32	72	123

**HYDRO-DEHNSPANNFUTTER FÜR WERKZEUGE MIT ZYLINDERSCHAFT
HYDRO-EXPANSION CHUCKS FOR TOOLS WITH CYLINDRICAL SHANK
MANDRINS HYDRO-EXPANSIBLES POUR OUTIL A QUEUE CYLINDRIQUE
MANDRINI IDRAULICI PER UTENSILI ATTACCO CILINDRICO**



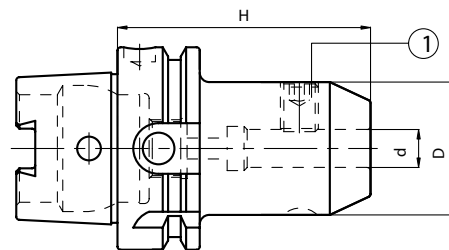
HSK	Code N.	Description	D	D1	D2	D3	L	L1	L2 min	L2 max	V	L3	M
40	252-11703	HSK40AH70G06-WO	6	33.5	26	22	70	36	27	37	10	50	M5
40	252-11707	HSK40AH70G08-WO	8	33.5	28	24	70	36	27	37	10	50	M6
40	252-11711	HSK40AH75G10-WO	10	33.5	30	26	75	42	31	41	10	55	M6
40	252-11715	HSK40AH80G12-WO	12	33.5	32	28	80	48	36	46	10	60	M6
50	252-11704	HSK50AH70G06-WO	6	40	26	22	70	28	27	37	10	44	M5
50	252-11708	HSK50AH70G08-WO	8	40	28	24	70	28	27	37	10	44	M6
50	252-11712	HSK50AH75G10-WO	10	40	30	26	75	34	31	41	10	49	M8x1
50	252-11716	HSK50AH85G12-WO	12	40	32	28	85	44	36	46	10	59	M10x1
50	252-11718	HSK50AH85G14-WO	14	40	34	30	85	44	36	46	10	59	M10x1
50	252-11721	HSK50AH90G16-WO	16	53	38	34	90	30	39	49	10	64	M10x1
50	252-11724	HSK50AH90G18-WO	18	57	40	36	90	30	39	49	10	64	M10x1
50	252-11727	HSK50AH90G20-WO	20	60	42	38	90	29	41	51	10	64	M10x1
63	252-11705	HSK63AH70G06-WO	6	50	26	22	70	24	27	37	10	44	M5
63	252-11709	HSK63AH70G08-WO	8	50	28	24	70	24	27	37	10	44	M6
63	252-11713	HSK63AH80G10-WO	10	50	30	26	80	35	31	41	10	54	M8x1
63	252-11701	HSK63AH85G12-WO	12	50	32	28	85	40	36	46	10	59	M10x1
63	252-11719	HSK63AH85G14-WO	14	50	34	30	85	40	36	46	10	59	M10x1
63	252-11722	HSK63AH90G16-WO	16	50	38	34	90	46	39	49	10	64	M10x1
63	252-11725	HSK63AH90G18-WO	18	50	40	36	90	47	39	49	10	64	M10x1
63	252-11702	HSK63AH90G20-WO	20	50	42	38	90	48	41	51	10	64	M10x1
63	252-11729	HSK63AH120G25-WO	25	63	57	53	120	59	47	57	10	94	M16x1
63	252-11731	HSK63AH125G32-WO	32	75	64	60	125	63	51	61	10	99	M16x1
100	252-11706	HSK100AH75G06-WO	6	50	26	22	75	26	27	37	10	46	M5
100	252-11710	HSK100AH75G08-WO	8	50	28	24	75	26	27	37	10	46	M6
100	252-11714	HSK100AH90G10-WO	10	50	30	26	90	42	31	41	10	61	M8x1
100	252-11717	HSK100AH95G12-WO	12	50	32	28	95	47	36	46	10	66	M10x1
100	252-11720	HSK100AH95G14-WO	14	50	34	30	95	47	36	46	10	66	M10x1
100	252-11723	HSK100AH100G16-WO	16	50	38	34	100	53	39	49	10	71	M10x1
100	252-11726	HSK100AH100G18-WO	18	50	40	36	100	53	39	49	10	71	M10x1
100	252-11728	HSK100AH105G20-WO	20	50	42	38	105	59	41	51	10	76	M10x1
100	252-11730	HSK100AH110G25-WO	25	63	57	53	110	62	47	57	10	81	M16x1
100	252-11732	HSK100AH110G32-WO	32	75	64	60	110	62	51	61	10	81	M16x1

Suitable only for clamping the tools with straight shank DIN 1835A.
Do not clamp end mills with shank whistle-notch (DIN 1835E).
Do not carry out clamping action without the tool.

Adatti solo per utensili con gambo cilindrico DIN 1835A.
Non bloccare le frese con attacco whistle-notch (DIN 1835E).
Evitare la chiusura del mandrino, senza l'utensile nel foro.

ZYLINDERSCHAFTAUFNAHME WELDON
 END MILL HOLDERS WELDON
 MANDRINS POUR OUTIL TYPE WELDON
 MANDRINI PORTAFRESE TIPO WELDON

DIN 1835/B



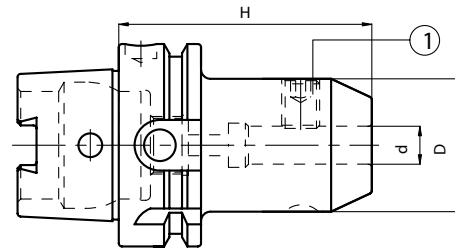
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32	213-11787	HSK32AH60WE06	60	6	25
32	213-11788	HSK32AH60WE08	60	8	28
32	213-11789	HSK32AH65WE10	65	10	35
32	213-11790	HSK32AH75WE12	75	12	42
32	213-11791	HSK32AH75WE14	75	14	44
32	213-11792	HSK32AH75WE16	75	16	48
40	213-11701	HSK40AH60WE06	60	6	25
40	213-11702	HSK40AH60WE08	60	8	28
40	213-11703	HSK40AH65WE10	65	10	35
40	213-11704	HSK40AH70WE12	70	12	42
40	213-11705	HSK40AH70WE14	70	14	44
40	213-11706	HSK40AH80WE16	80	16	48
40	213-11735	HSK40AH80WE18	80	18	50
40	213-11736	HSK40AH80WE20	80	20	52
50	213-11707	HSK50AH65WE06	65	6	25
50	213-11708	HSK50AH65WE08	65	8	28
50	213-11709	HSK50AH65WE10	65	10	35
50	213-11710	HSK50AH80WE12	80	12	42
50	213-11711	HSK50AH80WE14	80	14	44
50	213-11712	HSK50AH80WE16	80	16	48
50	213-11713	HSK50AH80WE18	80	18	50
50	213-11714	HSK50AH80WE20	80	20	52
50	213-11737	HSK50AH105WE25	105	25	65
50	263-11732	HSK50AH120WE32	120	32	72

Ersatzteile / Spare parts / Pieces detachees / Componenti

D	Locking screw	Quantity
6	811-106001	1
8	811-106002	1
10	811-106004	1
12;14	811-106005	1
16;18	811-106006	1
20	811-106007	1
25	811-106008	2
32;40	811-106009	2
50	811-106011	2

ZYLINDERSCHAFTAUFNAHME WELDON
 END MILL HOLDERS WELDON
 MANDRINS POUR OUTIL TYPE WELDON
 MANDRINI PORTAFRESE TIPO WELDON

DIN 1835/B



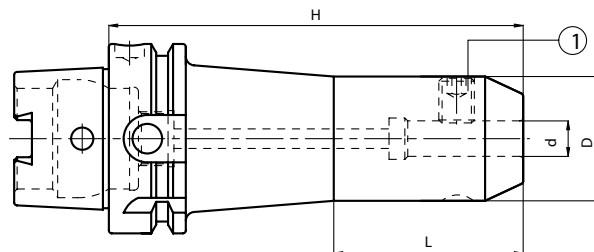
HSK	Code N.	Description	H	d	D
63	213-11715	HSK63AH65WE06	65	6	25
63	213-11716	HSK63AH65WE08	65	8	28
63	213-11717	HSK63AH65WE10	65	10	35
63	213-11718	HSK63AH80WE12	80	12	42
63	213-11719	HSK63AH80WE14	80	14	44
63	213-11720	HSK63AH80WE16	80	16	48
63	213-11721	HSK63AH80WE18	80	18	50
63	213-11722	HSK63AH80WE20	80	20	52
63	213-11723	HSK63AH110WE25	110	25	65
63	213-11724	HSK63AH110WE32	110	32	72
100	213-11738	HSK100AH90WE06	90	6	25
100	213-11739	HSK100AH90WE08	90	8	28
100	213-11740	HSK100AH90WE10	90	10	35
100	213-11741	HSK100AH100WE12	100	12	42
100	213-11742	HSK100AH100WE14	100	14	44
100	213-11743	HSK100AH100WE16	100	16	48
100	213-11744	HSK100AH100WE18	100	18	50
100	213-11745	HSK100AH110WE20	110	20	52
100	213-11746	HSK100AH120WE25	120	25	65
100	213-11747	HSK100AH120WE32	120	32	72
100	213-11748	HSK100AH120WE40	120	40	80
100	263-11733	HSK100AH130WE50	130	50	100

Ersatzteile / Spare parts / Pieces detachees / Componenti

D	Locking screw	Quantity
		
6	811-106001	1
8	811-106002	1
10	811-106004	1
12;14	811-106005	1
16;18	811-106006	1
20	811-106007	1
25	811-106008	2
32;40	811-106009	2
50	811-106011	2

ZYLINDERSCHAFTAUFNAHME WELDON LANG
END MILL HOLDERS WELDON LONG
MANDRINS POUR OUTIL TYPE WELDON, SERIE LONGUE
MANDRINI PORTAFRESE TIPO WELDON, PROLUNGATI

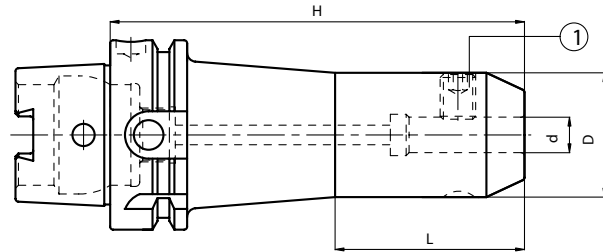
DIN 1835/B



HSK	Code N.	Description	H	d	D	L
32	263-11734	HSK32AH100WE06	100	6	18	50
32	263-11735	HSK32AH100WE08	100	8	22	50
32	263-11736	HSK32AH100WE10	100	10	30	-
40	263-11737	HSK40AH100WE06	100	6	18	50
40	263-11738	HSK40AH100WE08	100	8	22	50
40	263-11739	HSK40AH100WE10	100	10	30	-
40	263-11740	HSK40AH100WE12	100	12	34	-
40	263-11741	HSK40AH160WE06	160	6	18	50
40	263-11742	HSK40AH160WE08	160	8	22	50
40	263-11743	HSK40AH160WE10	160	10	30	65
40	263-11744	HSK40AH160WE12	160	12	34	-
50	263-11745	HSK50AH100WE06	100	6	18	50
50	263-11746	HSK50AH100WE08	100	8	22	50
50	263-11747	HSK50AH100WE10	100	10	30	-
50	263-11748	HSK50AH100WE12	100	12	34	-
50	263-11749	HSK50AH100WE14	100	14	36	-
50	263-11750	HSK50AH100WE16	100	16	42	-
50	263-11751	HSK50AH160WE06	160	6	18	50
50	263-11752	HSK50AH160WE08	160	8	22	50
50	263-11753	HSK50AH160WE10	160	10	30	65
50	263-11754	HSK50AH160WE12	160	12	34	70
50	263-11755	HSK50AH160WE14	160	14	36	70
50	263-11756	HSK50AH160WE16	160	16	42	-
63	263-11757	HSK63AH100WE06	100	6	18	50
63	263-11758	HSK63AH100WE08	100	8	22	50
63	263-11759	HSK63AH100WE10	100	10	30	-
63	263-11760	HSK63AH100WE12	100	12	34	-
63	263-11761	HSK63AH100WE14	100	14	36	-
63	263-11762	HSK63AH100WE16	100	16	42	-
63	263-11763	HSK63AH100WE18	100	18	44	-
63	263-11764	HSK63AH100WE20	100	20	45	-

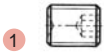
ZYLINDERSCHAFTAUFNAHME WELDON LANG
 END MILL HOLDERS WELDON LONG
 MANDRINS POUR OUTIL TYPE WELDON, SERIE LONGUE
 MANDRINI PORTAFRESE TIPO WELDON, PROLUNGATI

DIN 1835/B

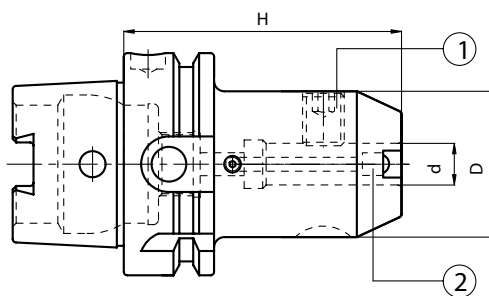
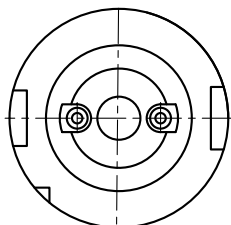


HSK	Code N.	Description	H	d	D	L
63	263-11765	HSK63AH160WE06	160	6	18	50
63	263-11766	HSK63AH160WE08	160	8	22	50
63	263-11767	HSK63AH160WE10	160	10	30	65
63	263-11768	HSK63AH160WE12	160	12	34	70
63	263-11769	HSK63AH160WE14	160	14	36	70
63	263-11770	HSK63AH160WE16	160	16	42	70
63	263-11771	HSK63AH160WE18	160	18	44	70
63	263-11772	HSK63AH160WE20	160	20	45	70
100	213-11781	HSK100AH160WE06	160	6	18	50
100	213-11782	HSK100AH160WE08	160	8	22	50
100	213-11783	HSK100AH160WE10	160	10	30	65
100	213-11784	HSK100AH160WE12	160	12	34	70
100	263-11773	HSK100AH160WE14	160	14	36	70
100	213-11785	HSK100AH160WE16	160	16	42	70
100	263-11774	HSK100AH160WE18	160	18	44	70
100	213-11786	HSK100AH160WE20	160	20	45	70
100	263-11775	HSK100AH160WE25	160	25	55	80

Ersatzteile / Spare parts / Pieces detachees / Componenti

d	Locking screw	Quantity
		
6	811-106015	1
8	811-106036	1
10	811-106003	1
12;14	811-106013	1
16;18	811-106027	1
20	811-106032	1
25	811-106042	2

ZYLINDERSCHAFTAUFNAHME WELDON MIT SPRITZDÜSE
END MILL HOLDERS WELDON WITH COOLANT NOOSE FRONT FACE
MANDRINS POUR OUTIL TYPE WELDON AVEC BUSE D'ARROSAGE
MANDRINI PORTAFRESE TIPO WELDON CON SFERE DI LUBRIFICAZIONE DIN 1835/B



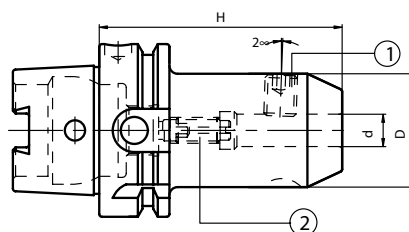
HSK	Code N.	Description	H	d	D
63	263-11721	HSK63AH65WE06-CNFF	65	6	25
63	263-11722	HSK63AH65WE08-CNFF	65	8	28
63	263-11723	HSK63AH65WE10-CNFF	65	10	35
63	263-11724	HSK63AH80WE12-CNFF	80	12	42
63	263-11725	HSK63AH80WE14-CNFF	80	14	44
63	263-11726	HSK63AH80WE16-CNFF	80	16	48
63	263-11727	HSK63AH80WE18-CNFF	80	18	50
63	263-11728	HSK63AH80WE20-CNFF	80	20	52
63	263-11729	HSK63AH110WE25-CNFF	110	25	65
63	263-11730	HSK63AH110WE32-CNFF	110	32	72
100	213-61725	HSK100AH90WE06-CNFF	90	6	25
100	213-61726	HSK100AH90WE08-CNFF	90	8	28
100	213-61727	HSK100AH90WE10-CNFF	90	10	35
100	213-61728	HSK100AH100WE12-CNFF	100	12	42
100	213-61729	HSK100AH100WE14-CNFF	100	14	44
100	213-61730	HSK100AH100WE16-CNFF	100	16	48
100	213-61731	HSK100AH100WE18-CNFF	100	18	50
100	213-61732	HSK100AH110WE20-CNFF	110	20	52
100	213-61733	HSK100AH120WE25-CNFF	120	25	65
100	213-61734	HSK100AH120WE32-CNFF	120	32	72
100	213-61735	HSK100AH120WE40-CNFF	120	40	80
100	213-61736	HSK100AH130WE50-CNFF	130	50	100

Ersatzteile / Spare parts / Pieces detachees / Componenti

d	Locking screw	Quantity	Coolant noose
			
6	811-106001	1	PWZ1005D6x4.5
8	811-106002	1	PWZ1005D6x4.5
10	811-106004	1	PWZ1005D6x4.5
12;14	811-106005	1	PWZ1005D6x4.5
16;18	811-106006	1	PWZ1008D10x7
20	811-106007	1	PWZ1008D10x7
25	811-106008	2	PWZ1012D12x8
32;40	811-106009	2	PWZ1012D12x8
50	811-106011	2	PWZ1012D12x8


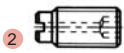

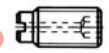
ZYLINDERSCHAFTAUFNAHME WHISTLE-NOTCH
END MILL HOLDERS WHISTLE-NOTCH
MANDRINS POUR OUTIL TYPE WHISTLE-NOTCH
MANDRINI PORTAFRESE TIPO WHISTLE-NOTCH

DIN 1835/E



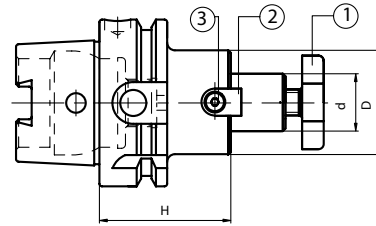
HSK	Code N.	Description	H	d	D
40	213-31701	HSK40AH80WN06	80	6	25
40	213-31702	HSK40AH80WN08	80	8	28
40	213-31703	HSK40AH80WN10	80	10	35
40	213-31704	HSK40AH90WN12	90	12	42
40	213-31705	HSK40AH90WN14	90	14	44
40	213-31706	HSK40AH100WN16	100	16	48
40	213-31736	HSK40AH100WN18	100	18	50
40	213-31737	HSK40AH100WN20	100	20	52
50	213-31707	HSK50AH80WN06	80	6	25
50	213-31708	HSK50AH80WN08	80	8	28
50	213-31709	HSK50AH80WN10	80	10	35
50	213-31710	HSK50AH90WN12	90	12	42
50	213-31711	HSK50AH90WN14	90	14	44
50	213-31712	HSK50AH100WN16	100	16	48
50	213-31713	HSK50AH100WN18	100	18	50
50	213-31714	HSK50AH100WN20	100	20	52
50	213-31738	HSK50AH110WN25	110	25	65
50	213-31739	HSK50AH120WN32	120	32	72
63	213-31715	HSK63AH80WN06	80	6	25
63	213-31716	HSK63AH80WN08	80	8	28
63	213-31717	HSK63AH80WN10	80	10	35
63	213-31718	HSK63AH90WN12	90	12	42
63	213-31719	HSK63AH90WN14	90	14	44
63	213-31720	HSK63AH100WN16	100	16	48
63	213-31721	HSK63AH100WN18	100	18	50
63	213-31722	HSK63AH100WN20	100	20	52
63	213-31723	HSK63AH110W25	110	25	65
63	213-31724	HSK63AH115WN32	115	32	72
100	213-31740	HSK100AH90WN06	90	6	25
100	213-31741	HSK100AH90WN08	90	8	28
100	213-31742	HSK100AH90WN10	90	10	35
100	213-31743	HSK100AH100WN12	100	12	42
100	213-31744	HSK100AH100WN14	100	14	44
100	213-31745	HSK100AH100WN16	100	16	48
100	213-31746	HSK100AH100WN18	100	18	50
100	213-31747	HSK100AH110WN20	110	20	52
100	213-31748	HSK100AH120WN25	120	25	65
100	213-31749	HSK100AH120WN32	120	32	72
100	213-31750	HSK100AH130WN40	130	40	80

Ersatzteile / Spare parts / Pieces detachees / Componenti

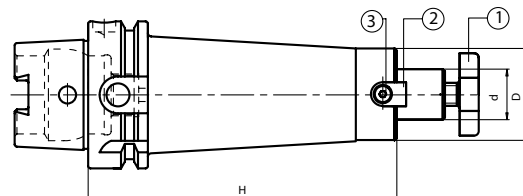
d	Locking screw	Quantity	Stop screw	d	Locking screw	Quantity	Stop screw
							
6	811-106001	1	811-303043	A100/14	811-106005	1	811-303094
8	811-106002	1	811-303081	16	811-106006	1	811-303091
10	811-106004	1	811-303089	18	811-106006	1	811-303091
A100/10	811-106004	1	811-303093	20	811-106007	1	811-303091
12	811-106005	1	811-303090	25	811-106008	2	811-303092
A100/12	811-106005	1	811-303094	32	811-106009	2	811-303092
14	811-106005	1	811-303090	40	811-106009	2	811-303092

**AUFSTECKFRÄSDORNE FÜR FRÄSER MIT QUERNUT
FACE MILL HOLDERS-TENONS DRIVE
MANDRINS PORTE-FRAISE-ENTRAÎNEMENT PAR TENONS
MANDRINI PORTAFRESE A TRASCINAMENTO FISSO**

ISO 3937



STANDARD	HSK	Code N.	Description	H	d	D
	32	216-71748	HSK32AH45D16F	45	16	38
	32	216-71749	HSK32AH50D22F	50	22	48
	40	216-71701	HSK40AH45D16F	45	16	38
	40	216-71702	HSK40AH50D22F	50	22	48
	40	216-71703	HSK40AH55D27F	55	27	58
	50	216-71704	HSK50AH45D16F	45	16	38
	50	216-71705	HSK50AH55D22F	55	22	48
	50	216-71706	HSK50AH55D27F	55	27	58
	50	216-71707	HSK50AH60D32F	60	32	78
	63	216-71708	HSK63AH45D16F	45	16	38
	63	216-71709	HSK63AH50D22F	50	22	48
	63	216-71710	HSK63AH55D27F	55	27	58
	63	216-71711	HSK63AH60D32F	60	32	78
	63	216-71750	HSK63AH65D40F	65	40	88
	100	216-71712	HSK100AH55D16F	55	16	38
100	216-71713	HSK100AH55D22F	55	22	48	
100	216-71714	HSK100AH55D27F	55	27	58	
100	216-71715	HSK100AH60D32F	60	32	78	
100	216-71716	HSK100AH65D40F	65	40	88	



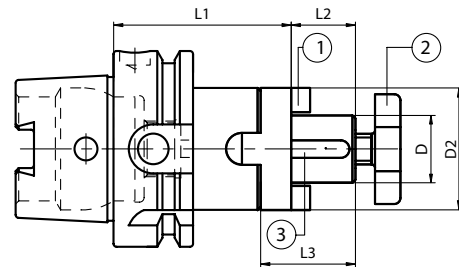
EXTENDED	HSK	Code N.	Description	H	d	D
	63	216-71717	HSK63AH145D16F	145	16	32
	63	216-71718	HSK63AH150D22F	150	22	40
	63	216-71719	HSK63AH155D27F	155	27	48
	63	216-71720	HSK63AH155D32F	155	32	58
	63	216-71721	HSK63AH160D40F	160	40	70
	100	216-71722	HSK100AH155D16F	155	16	32
	100	216-71723	HSK100AH155D22F	155	22	40
	100	216-71724	HSK100AH155D27F	155	27	48
	100	216-71725	HSK100AH155D32F	155	32	58
	100	216-71726	HSK100AH160D40F	160	40	70

Ersatzteile / Spare parts / Pieces detachees / Componenti

STANDARD	d	Cross screw	Dog	Screw	EXTENDED	d	Cross screw	Dog	Screw
	16	811-107003	814-20228	811-101004		16	811-107003	814-20214	811-101003
	22	811-107004	814-20225	811-101011		22	811-107004	814-20215	811-101010
	27	811-107005	814-20227	811-101018		27	811-107005	814-20216	811-101017
	32	811-107006	814-20263	811-101029		32	811-107006	814-20217	811-101027
	40	811-107007	814-20271	811-101029		40	811-107007	814-20218	811-101028


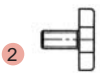

**KOMBI AUFSTECKFRÄSDORNE
COMBI-SHELL MILL ADAPTORS
MANDRINS PORTE-FRAISES A DOUBLE USAGE
MANDRINI PORTAFRESE COMBINATI**

DIN 6538



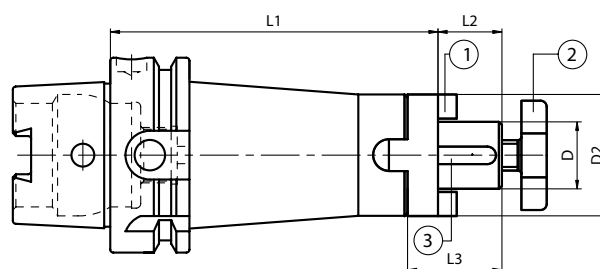
HSK	Code N.	Description	D	L1	L2	L3	D2
40	216-11701	HSK40AH45D16C	16	45	17	27	32
40	216-11702	HSK40AH55D22C	22	55	19	31	40
40	216-11776	HSK40AH65D27C	27	65	21	33	48
50	216-11704	HSK50AH50D16C	16	50	17	27	32
50	216-11705	HSK50AH55D22C	22	55	19	31	40
50	216-11706	HSK50AH65D27C	27	65	21	33	48
50	216-11707	HSK50AH65D32C	32	65	24	38	58
63	216-11708	HSK63AH60D16C	16	60	17	27	32
63	216-11709	HSK63AH60D22C	22	60	19	31	40
63	216-11710	HSK63AH60D27C	27	60	21	33	48
63	216-11711	HSK63AH65D32C	32	65	24	38	58
63	216-11712	HSK63AH70D40C	40	70	27	41	70
100	216-11719	HSK100AH65D16C	16	65	17	27	32
100	216-11720	HSK100AH65D22C	22	65	19	31	40
100	216-11721	HSK100AH65D27C	27	65	21	33	48
100	216-11722	HSK100AH70D32C	32	70	24	38	58
100	216-11723	HSK100AH70D40C	40	70	27	41	70

Ersatzteile / Spare parts / Pieces detachees / Componenti

D	Ring	Screw	Key
			
16	814-30001	811-107003	814-201010
22	814-30002	811-107004	814-201020
27	814-30003	811-107005	814-201030
32	814-30004	811-107006	814-201040
40	814-30005	811-107007	814-201050


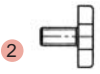

KOMBI AUFSTECKFRÄSDORNE LANG
COMBI-SHELL MILL ADAPTORS LONG
MANDRINS PORTE-FRAISES A DOUBLE USAGE, SERIE LONGUE
MANDRINI PORTAFRESE COMBINATI, SERIE LUNGA

DIN 6358

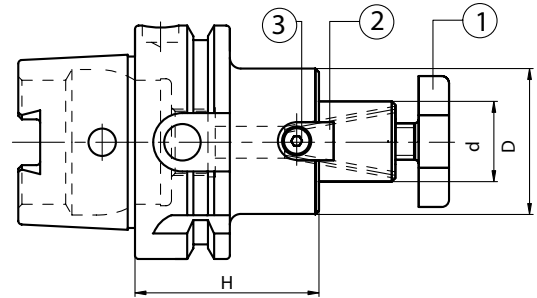


HSK	Code N.	Description	D	L1	L2	L3	D2
63	216-11777	HSK63AH100D16C	16	100	17	27	32
63	216-11728	HSK63AH100D22C	22	100	19	31	40
63	216-11736	HSK63AH100D27C	27	100	21	33	48
63	216-11778	HSK63AH100D32C	32	100	24	38	58
63	216-11779	HSK63AH100D40C	40	100	27	41	70
63	216-11769	HSK63AH160D16C	16	160	17	27	32
63	216-11770	HSK63AH160D22C	22	160	19	31	40
63	216-11771	HSK63AH160D27C	27	160	21	33	48
63	216-11772	HSK63AH160D32C	32	160	24	38	58
63	216-11735	HSK63AH160D40C	40	160	27	41	70
100	216-11754	HSK100AH100D16C	16	100	17	27	32
100	216-11755	HSK100AH100D22C	22	100	19	31	40
100	216-11756	HSK100AH100D27C	27	100	21	33	48
100	216-11757	HSK100AH100D32C	32	100	24	38	58
100	216-11758	HSK100AH100D40C	40	100	27	41	70
100	216-11738	HSK100AH160D16C	16	160	17	27	32
100	216-11739	HSK100AH160D22C	22	160	19	31	40
100	216-11740	HSK100AH160D27C	27	160	21	33	48
100	216-11741	HSK100AH160D32C	32	160	24	38	58
100	216-11742	HSK100AH160D40C	40	160	27	41	70

Ersatzteile / Spare parts / Pieces detachees / Componenti

D	Ring	Screw	Key
			
16	814-30001	811-107003	814-201010
22	814-30002	811-107004	814-201020
27	814-30003	811-107005	814-201030
32	814-30004	811-107006	814-201040
40	814-30005	811-107007	814-201050

AUFSTECKFRÄSDORNE FÜR FRÄSER MIT QUERNUT MIT KÜHLMITTELZUFUHR
FACE MILL HOLDERS-TENONS DRIVE WITH INTERNAL COOLANT SUPPLY
MANDRINS PORTE-FRAISE-ENTRAÎNEMENT PAR TENONS AVEC ARROSAGE INTERNE
MANDRINI PORTAFRESE A TRASCINAMENTO FISSO CON PASSAGGIO REFRIGERANTE **ISO 3937**

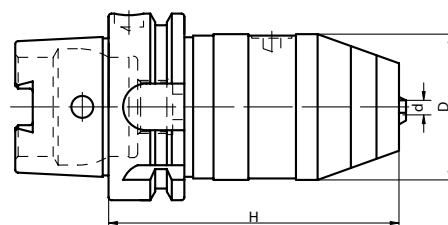


HSK	Code N.	Description	H	d	D
40	216-71732	HSK40AH45D16F-L	45	16	38
40	216-71733	HSK40AH50D22F-L	50	22	48
40	216-71734	HSK40AH55D27F-L	55	27	58
50	216-71735	HSK50AH45D16F-L	45	16	38
50	216-71736	HSK50AH55D22F-L	55	22	48
50	216-71737	HSK50AH55D27F-L	55	27	58
50	216-71738	HSK50AH60D32F-L	60	32	78
63	216-71739	HSK63AH45D16F-L	45	16	38
63	216-71740	HSK63AH50D22F-L	50	22	48
63	216-71741	HSK63AH55D27F-L	55	27	58
63	216-71742	HSK63AH60D32F-L	60	32	78
63	216-71770	HSK63AH65D40F-L	65	40	88
100	216-71743	HSK100AH55D16F-L	55	16	38
100	216-71744	HSK100AH55D22F-L	55	22	48
100	216-71745	HSK100AH55D27F-L	55	27	58
100	216-71746	HSK100AH60D32F-L	60	32	78
100	216-71747	HSK100AH65D40F-L	65	40	88

Ersatzteile / Spare parts / Pieces detachees / Componenti

D	Cross screw	Dog	Screw
16	811-107003	814-20228	811-101004
22	811-107004	814-20225	811-101011
27	811-107005	814-20227	811-101018
32	811-107006	814-20263	811-101029
40	811-107007	814-20271	811-101029

**NC-BOHRFUTTER FÜR RECHTS- UND LINKSLAUF
NC-DRILL CHUCKS FOR LEFT AND RIGHT ROTATION
MANDRIN DE PERCAGE CNC POUR ROTATION GAUCHE-DROITE
MANDRINI PORTAPUNTE INTEGRALI PER ROTAZIONE DESTRA E SINISTRA**



HSK	Code N.	Description	H	D	Clamping capacity	Wrench
63	252-11733	HSK63AH100R1-13X	100	50	1-13	816-111024
63	252-11734	HSK63AH105R3-16X	105	57	3-16	816-111025
100	252-11735	HSK100AH108R1-13X	108	50	1-13	816-111024
100	252-11736	HSK100AH113R3-16X	113	57	3-16	816-111025

RUNOUT ACCURACY 0.03 MM T.I.R.

Suitable for right and left rotation up to 7000 rpm.

With fine balancing and extra price, they can run up to 15000rpm.

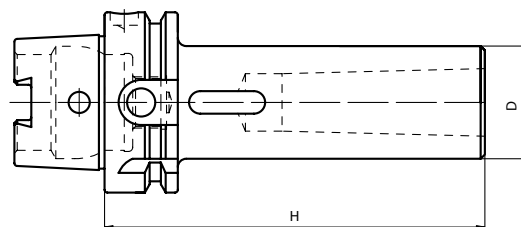
PRECISIONE DI ROTAZIONE 0.03 MM.

Adatti per rotazione sia destra che sinistra, con velocità max di 7000 g/min.

Velocità fino a 15000 g/min. sono ottenibili previa bilanciatura fine e con aumento di prezzo.

**ZWISCHENHÜLSEN FÜR MORSEKEGEL MIT AUSTREIBBLAPPEN
MORSE TAPER ADAPTORS FOR DRILLS
DOUILLES POUR CONE MORSE A TENON
MANDRINI PORTAPUNTE ATTACCO CONO MORSE**

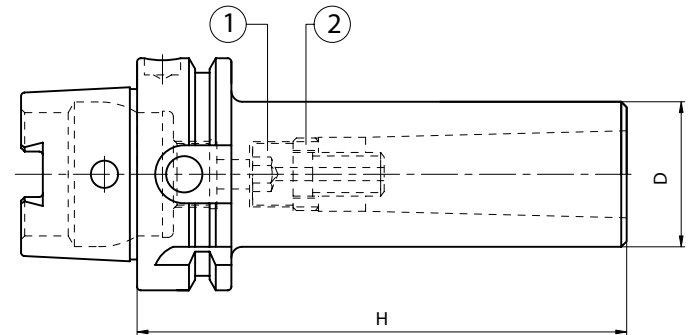
DIN 228-2 FORM D



HSK	Code N.	Description	Morse	H	D
40	212-41701	HSK40AH95CM1P	1	95	25
40	212-41702	HSK40AH110CM2P	2	110	32
40	212-41715	HSK40AH135CM3P	3	135	38
50	212-41703	HSK50AH100CM1P	1	100	25
50	212-41704	HSK50AH115CM2P	2	115	32
50	212-41705	HSK50AH135CM3P	3	135	40
63	212-41706	HSK63AH100CM1P	1	100	25
63	212-41707	HSK63AH115CM2P	2	115	32
63	212-41708	HSK63AH135CM3P	3	135	40
63	212-41709	HSK63AH160CM4P	4	160	48
100	212-41716	HSK100AH120CM2P	2	120	32
100	212-41717	HSK100AH150CM3P	3	150	40
100	212-41718	HSK100AH170CM4P	4	170	48
100	212-41719	HSK100AH205CM5P	5	205	63



ZWISCHENHÜLSEN FÜR MORSEKEGEL MIT ANZUGSGEWINDE
 MORSE TAPER MILL ADAPTERS
 DOUILLES POUR CONE MORSE AVEC TARAUDAGE
 MANDRINI PORTAFRESE CON ATTACCO CONO MORSE

DIN 228-2 FORM C

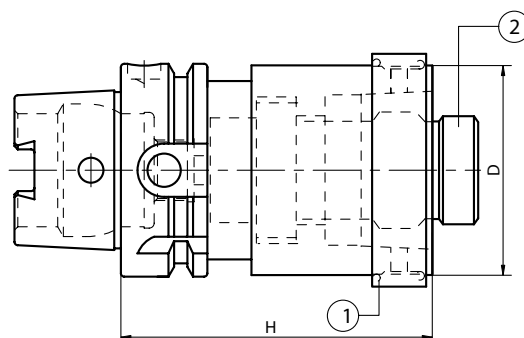


HSK	Code N.	Description	Morse	H	D
40	212-21701	HSK40AH95CM1F	1	95	25
40	212-21702	HSK40AH110CM2F	2	110	32
40	212-21703	HSK40AH135CM3F	3	135	38
50	212-21704	HSK50AH100CM1F	1	100	25
50	212-21705	HSK50AH115CM2F	2	115	32
50	212-21706	HSK50AH135CM3F	3	135	40
63	212-21708	HSK63AH100CM1F	1	100	25
63	212-21709	HSK63AH115CM2F	2	115	32
63	212-21710	HSK63AH135CM3F	3	135	40
63	212-21711	HSK63AH160CM4F	4	160	48
100	212-21714	HSK100AH120CM2F	2	120	32
100	212-21715	HSK100AH150CM3F	3	150	40
100	212-21716	HSK100AH170CM4F	4	170	48
100	212-21727	HSK100AH200CM5F	5	200	63

Ersatzteile / Spare parts / Pieces detachees / Componenti

HSK/MORSE	Screw	Ring
		
40/1	811-401100	811-302037
40/2	811-401079	811-302031
40/3	811-401089	811-302032
50/1	811-401100	811-302037
50/2	811-401066	811-302031
50/3	811-401067	811-302032
63/1	811-401100	811-302037
63/2	811-401099	811-302031
63/3	811-401078	811-302032
63/4	811-401091	811-302036
100/2	811-401099	811-302031
100/3	811-401098	811-302032
100/4	811-401092	811-302036
100/5	811-401136	811-302034

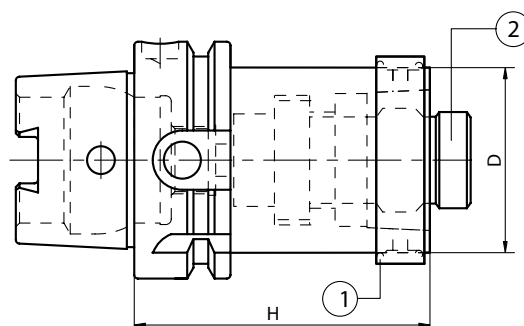
VERLÄNGERUNGEN HSK A+C
TOOL EXTENSION HSK A+C
RALLONGES D'OUTILS HSK A+C HSK
PROLUNGHE HSK A+C



HSK	Code N.	Description	D	H
50	212-91701	HSK50AH80HSK50	50	80
50	212-91702	HSK50AH100HSK50	50	100
63	212-91703	HSK63AH100HSK63	63	100
63	212-91704	HSK63AH140HSK63	63	140
100	212-91705	HSK100AH140HSK100	100	140
100	212-91706	HSK100AH200HSK100	100	200

¹ Ring (complete)	² Locking unit (complete)
H50A-AN	H50A-UBL
H63A-AN	H63A-UBL
H100A-AN	H100A-UBL

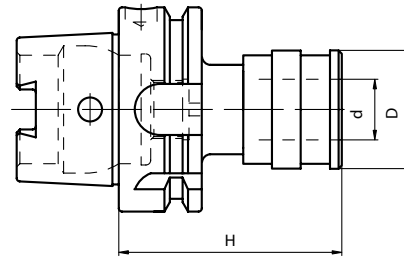
REDUZIERUNGEN HSK A+C
REDUCERS HSK A+C
PIECES DE REDUCTION HSK A+C
RIDUZIONI HSK A+C



HSK	Code N.	Description	D	H
50	212-91707	HSK50AH60HSK32	32	60
50	212-91708	HSK50AH70HSK40	40	70
63	212-91709	HSK63AH70HSK32	32	70
63	212-91710	HSK63AH70HSK40	40	70
63	212-91711	HSK63AH80HSK50	50	80
100	212-91712	HSK100AH90HSK50	50	90
100	212-91713	HSK100AH100HSK63	63	100

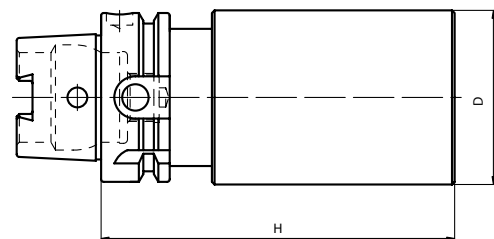
¹ Ring (complete)	² Locking unit (complete)
H32A-AN	H32A-UBL
H40A-AN	H40A-UBL
H50A-AN	H50A-UBL
H63A-AN	H63A-UBL

**GEWINDESCHNEID-SCHNELLWECHSELFUTTER MIT LÄNGENAUSGLEICH
TENSION AND COMPRESSION TAPPING HEAD
MANDRINS DE TARAUDAGE A CHANGEMENT RAPIDE A DOUBLE USAGE
MASCHIATORI A DOPPIA COMPENSAZIONE**



HSK	Code N.	Description	SIZE	Top range	PRESS.	EXT.	d	D	H
40	M801040	HSK40AH80GR1	1	M3÷M12	7.5	7.5	19	41	80
40	M802040	HSK40AH103GR2	2	M6÷M20	10	10	31	60	103
50	M801050	HSK50AH72GR1	1	M3-M12	7.5	7.5	19	48	72
50	M802050	HSK50AH110GR2	2	M6-M20	12.5	12.5	31	60	110
63	M801063	HSK63AH72GR1	1	M3-M12	7.5	7.5	19	48	72
63	M802063	HSK63AH110GR2	2	M6-M20	10	10	31	60	110
100	M801100	HSK100AH80GR1	1	M3÷M12	7.5	7.5	19	48	80
100	M802100	HSK100AH100GR2	2	M6÷M20	10	10	31	60	100
100	M803100	HSK100AH144GR3	3	M14÷M33	17.5	17.5	48	79	144

**ROHLINGE
BLANK TOOLHOLDERS
EBAUCHE
MANDRINI SEMILAVORATI A STELO TENERO**



HSK	Code N.	Description	H	D
32	217-11712	HSK32AH150D35SM	150	35
40	217-11701	HSK40AH150D40SM	150	40
40	217-11702	HSK40AH200D52SM	200	52
50	217-11703	HSK50AH200D52SM	200	52
50	217-11704	HSK50AH200D63SM	200	63
63	217-11705	HSK63AH250D63SM	250	63
63	217-11706	HSK63AH250D80SM	250	80
100	217-11709	HSK100AH200D63SM	200	63
100	217-11710	HSK100AH250D80SM	250	80
100	217-11711	HSK100AH300D90SM	300	90

