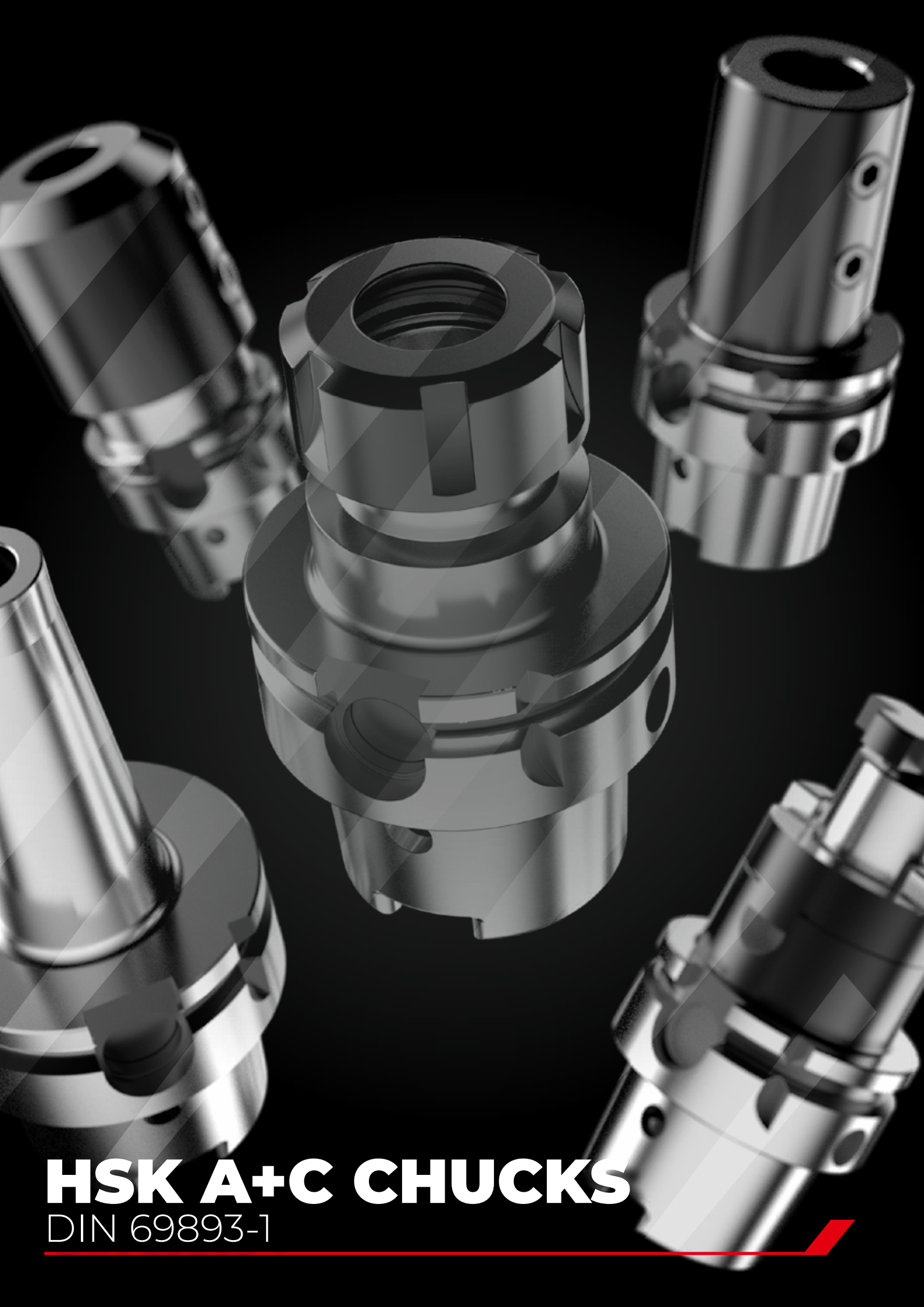




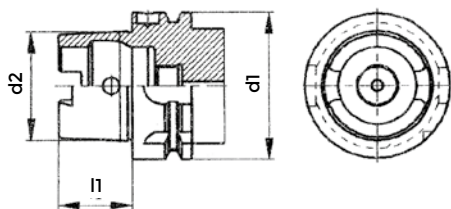
HSK A+C CHUCKS

DIN 69893-1

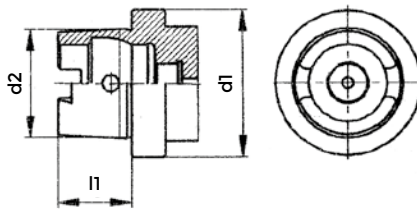


TABLE OF DIMENSIONS ACCORDING TO DIN 69893 STANDARD

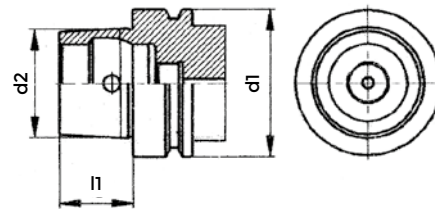
HSK A



HSK C



HSK E

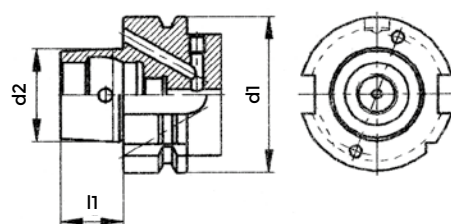


DIN 69893

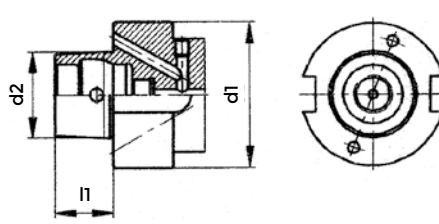
HSK A - C - E

NOMINAL DIA. d1	TAPER DIA. d2	TAPER LENGHT l1
32	24	16
40	30	20
50	38	25
63	48	32
100	75	50
125	95	63

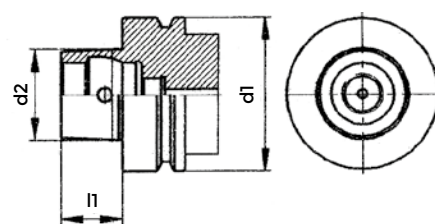
HSK B



HSK D



HSK F

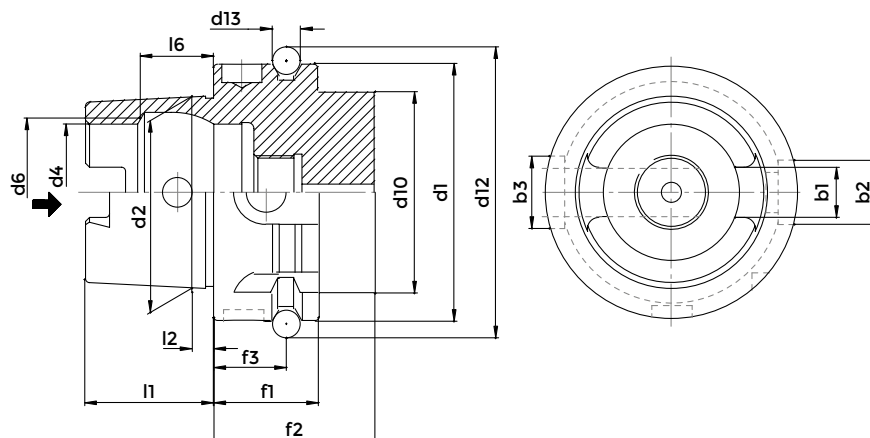


DIN 69893

HSK B - D - F

NOMINAL DIA. d1	TAPER DIA. d2	TAPER LENGHT l1
40	24	16
50	30	20
63	38	25
100	60	40

TAPER SHANKS DATA SHEET



DIN 69893 A+C

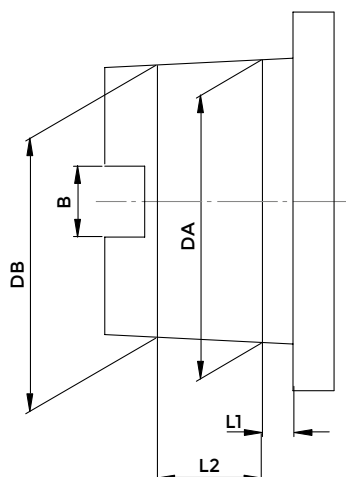
	HSK 32	HSK 40	HSK 50	HSK 63	HSK 100	HSK 125
b1	7,05	8,05	10,54	12,54	20,02	25,02
b2	7	9	12	16	20	25
b3	9	11	14	18	22	28
d1	32	40	50	63	100	125
d2	24	30	38	48	75	95
d4	17	21	26	34	53	67
d6	19	23	29	37	58	73
d10	26	34	42	53	88	111
d12	37	45	59,3	72,3	109,75	134,75
d13	4	4	7	7	7	7
f1	20	20	26	26	29	29
f2	35	35	42	42	45	45
f3	16	16	18	18	20	20
l1	16	20	25	32	50	63
l2	3,2	4	5	6,3	10	12,5
l6	8,92	11,42	14,13	18,13	28,56	36,27

FORM A

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

Hole for data carrier DIN 69893 in collar.

CONE TOLERANCE



DIN 69893 A+C

HSK	L1	L2	DA	DB	B (only type A+C)
32 A+C	3,2	7,3	24 +0.005 +0,007	23,27 +0.003 +0,005	7.05 +/- 0.04
40 A+C+E	4	9,5	30 +0.005 +0,007	29,05 +0.003 +0,005	8.05 +/- 0.04
40 B+D	3,2	7,3	24 +0.005 +0.007	23,27 +0.003 +0,005	-
50 A+C+E	5	11	38 +0.006 +0.009	36,9 +0.003 +0.006	10.54 +/- 0.04
50 B+D+F	4	9,5	30 +0.005 +0.007	29,05 +0.003 +0,005	-
63 A+C+E	6,3	14,7	48 +0.007 +0.011	46,53 +0.003 +0.007	12.54 +/- 0.04
63 B+D+F	5	11	38 +0.006 +0.009	36,9 +0.003 +0.006	-
100 A+C	10	24	75 +0.009 +0.015	72,6 +0.003 +0.009	20.02 +/- 0.04
100 B+D	8	19	60 +0.008 +0.013	58,1 +0.003 +0.008	-
125 A+C	12,5	30,5	95 +0.008 +0.013	91,9 +0.003 +0.008	25,02 +/- 0,04

TECHNICAL DATA KINTEK CHUCKS WITH ISO FITTING

All KINTEK toolholders are manufactured according to DIN norms. (these norms provide the same classes of tolerance for the attachment DIN69893 A+C, B+D, E, F)

COLLET CHUCK'S RUNOUT ACCURACY

The norm DIN 69882-6 permits a runout error of 0,005 mm. for DIN6499/ISO15488 collet chucks.

SHELL END MILL ADAPTOR'S RUNOUT ACCURACY

Our shell end mill adaptors meet the requirements of the norm DIN 69882-2, which prescribes for diameters Ø 16,22,27,32 a runout accuracy of 0,01

WELDON END MILL HOLDER'S RUNOUT ACCURACY

According to norm DIN 69882-4 Weldon end mill holders have to meet the following requirements:

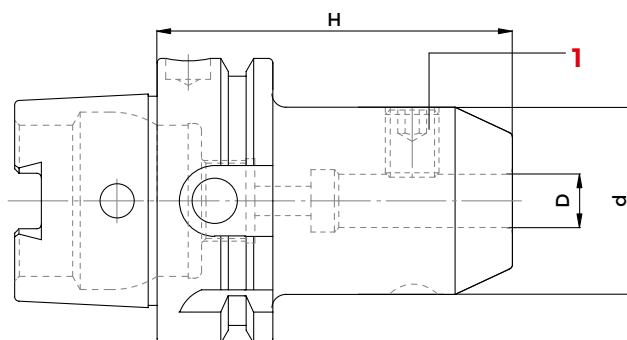
BORE: H5

RUNOUT ACCURACY: 0.005.

CONSTRUCTIVE FEATURES

- Manufactured with casehardening Steel
- Casehardened with depth 0,4 - 0,5 mm
- Hardened-Tempered
- Hardness HRC 58+-2, Strength 800-1000 N/mm²
- Black oxidized
- Internal and external grinding finish of the cone
- Grinding finish on the front side and on the thread of collet nuts
- Tested 100% with certified measuring instruments and supplied with balancing certificate on request

END MILL HOLDERS WELDON

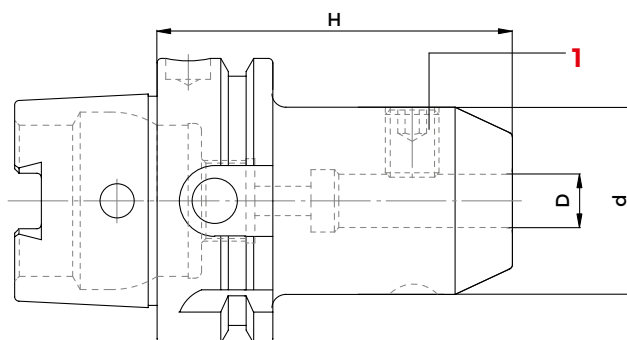


DIN 69893 A+C - DIN 1835/B

COD.	DESCRIPTION	HSK	H	D	d	G6.3 15000	1
							SCREW
							
213-11701	HSK40AH60WE06	40	60	6	25	•	811-106001
213-11702	HSK40AH60WE08	40	60	8	28	•	811-106002
213-11703	HSK40AH65WE10	40	65	10	35	•	811-106004
213-11704	HSK40AH70WE12	40	70	12	42	•	811-106005
213-11706	HSK40AH80WE16	40	80	16	48	•	811-106006
213-11736	HSK40AH80WE20	40	80	20	52	•	811-106007
213-11712	HSK50AH80WE16	50	80	16	48	•	811-106006
213-11714	HSK50AH80WE20	50	80	20	52	•	811-106007
213-11737	HSK50AH105WE25	50	105	25	65	•	811-106008
213-11715	HSK63AH65WE06	63	65	6	25	•	811-106001
213-81733	HSK63AH130WE06	63	130	6	18	•	811-106015
213-11716	HSK63AH65WE08	63	65	8	28	•	811-106002
213-81734	HSK63AH130WE08	63	130	8	22	•	811-106036
213-11717	HSK63AH65WE10	63	65	10	35	•	811-106004
213-81735	HSK63AH130WE10	63	130	10	30	•	811-106003
213-11718	HSK63AH80WE12	63	80	12	42	•	811-106005
213-81736	HSK63AH130WE12	63	130	12	34	•	811-106013
213-11719	HSK63AH80WE14	63	80	14	44	•	811-106005
213-11720	HSK63AH80WE16	63	80	16	48	•	811-106006
213-81737	HSK63AH130WE16	63	130	16	42	•	811-106027
213-11721	HSK63AH80WE18	63	80	18	50	•	811-106006
213-11722	HSK63AH80WE20	63	80	20	52	•	811-106007
213-81738	HSK63AH130WE20	63	130	20	45	•	811-106032
213-11723	HSK63AH110WE25	63	110	25	65	•	811-106008
213-81739	HSK63AH130WE25	63	130	25	65	•	811-106008
213-11724	HSK63AH110WE32	63	110	32	72	•	811-106009
263-11780	HSK63AH120WE40	63	120	40	80	•	811-106009

follows >>

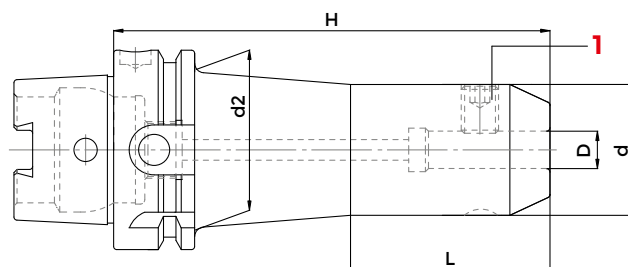
END MILL HOLDERS WELDON



DIN 69893 A+C - DIN 1835/B

COD.	DESCRIPTION	HSK	H	D	d	G6.3 15000	1
							SCREW
							
213-11738	HSK100AH90WE06	100	90	6	25	•	811-106001
213-11739	HSK100AH90WE08	100	90	8	28	•	811-106002
213-11740	HSK100AH90WE10	100	90	10	35	•	811-106004
213-11741	HSK100AH100WE12	100	100	12	42	•	811-106005
213-11742	HSK100AH100WE14	100	100	14	44	•	811-106005
213-11743	HSK100AH100WE16	100	100	16	48	•	811-106006
213-81740	HSK100AH200WE16	100	200	16	48	•	811-106006
213-11744	HSK100AH100WE18	100	100	18	50	•	811-106006
213-11745	HSK100AH110WE20	100	110	20	52	•	811-106007
213-11746	HSK100AH120WE25	100	120	25	65	•	811-106008
213-81741	HSK100AH200WE25	100	200	25	65	•	811-106008
213-11747	HSK100AH120WE32	100	120	32	72	•	811-106009
213-11748	HSK100AH120WE40	100	120	40	80	•	811-106009
263-11733	HSK100AH130WE50	100	130	50	100	•	811-106011

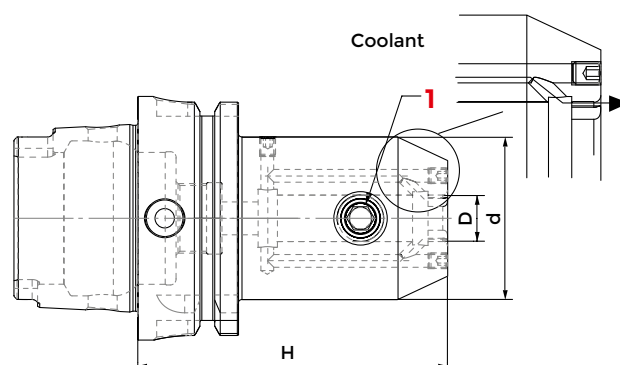
END MILL HOLDERS WELDON LONG



DIN 69893 A+C - DIN 1835/B

COD.	DESCRIPTION	HSK	H	D	d	L	d2	G6.3 15000	1
									SCREW
									
213-11708	HSK50AH65WE08	50	65	8	20	39	28	•	811-106002
213-11710	HSK50AH80WE12	50	80	12	30	54	42	•	811-106005
263-11732	HSK50AH120WE32	50	120	32	56	94	72	•	811-106009
263-11757	HSK63AH100WE06	63	100	6	18	50	26	•	811-106015
263-11758	HSK63AH100WE08	63	100	8	22	50	30	•	811-106036
263-11759	HSK63AH100WE10	63	100	10	30	-	-	•	811-106003
263-11760	HSK63AH100WE12	63	100	12	34	-	-	•	811-106013
263-11761	HSK63AH100WE14	63	100	14	24	74	36	•	811-106005
263-11762	HSK63AH100WE16	63	100	16	42	-	-	•	811-106027
263-11764	HSK63AH100WE20	63	100	20	45	-	-	•	811-106032
263-11765	HSK63AH160WE06	63	160	6	18	50	34	•	811-106015
263-11766	HSK63AH160WE08	63	160	8	22	50	38	•	811-106036
263-11767	HSK63AH160WE10	63	160	10	30	65	46	•	811-106003
263-11768	HSK63AH160WE12	63	160	12	34	70	50	•	811-106013
263-11770	HSK63AH160WE16	63	160	16	42	70	50	•	811-106027
263-11772	HSK63AH160WE20	63	160	20	45	70	53	•	811-106032
263-11778	HSK63AH160WE25	63	160	25	45	70	53	•	811-106014
263-11779	HSK63AH160WE32	63	160	32	64,5	80	52	•	811-106022
213-11781	HSK100AH160WE06	100	160	6	18	50	46	•	811-106015
213-11782	HSK100AH160WE08	100	160	8	22	50	50	•	811-106036
213-11783	HSK100AH160WE10	100	160	10	30	65	48	•	811-106003
213-11784	HSK100AH160WE12	100	160	12	34	70	51	•	811-106013
213-11785	HSK100AH160WE16	100	160	16	42	70	59	•	811-106027
213-11786	HSK100AH160WE20	100	160	20	45	70	55	•	811-106032
263-11775	HSK100AH160WE25	100	160	25	55	80	66	•	811-106042
213-11796	HSK100AH160WE32	100	160	32	71,5	-	-	•	811-106009

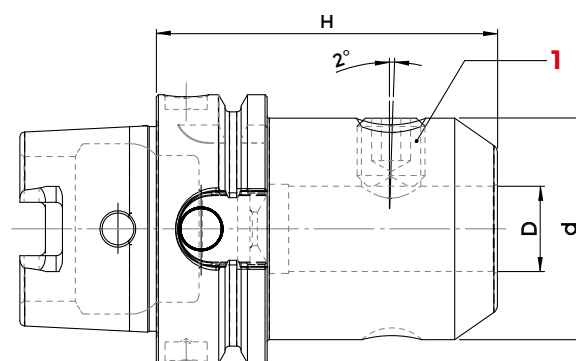
END MILL HOLDERS WELDON WITH COOLANT CHANNELS



DIN 69893 A+C - DIN 1835/B

COD.	DESCRIPTION	HSK	H	D	d	G6.3 15000	1 SCREW
							
213-61764	HSK63AH65WE06-IK	63	65	6	25	•	811-106001
213-61765	HSK63AH65WE08-IK	63	65	8	28	•	811-106002
213-61766	HSK63AH65WE10-IK	63	65	10	35	•	811-106004
213-61767	HSK63AH80WE12-IK	63	80	12	42	•	811-106005
213-61769	HSK63AH80WE16-IK	63	80	16	48	•	811-106006
213-61771	HSK63AH80WE20-IK	63	80	20	52	•	811-106007
213-61772	HSK63AH110WE25-IK	63	110	25	65	•	811-106008
213-61773	HSK63AH110WE32-IK	63	110	32	72	•	811-106009
213-61774	HSK63AH125WE40-IK	63	125	40	80	•	811-106009

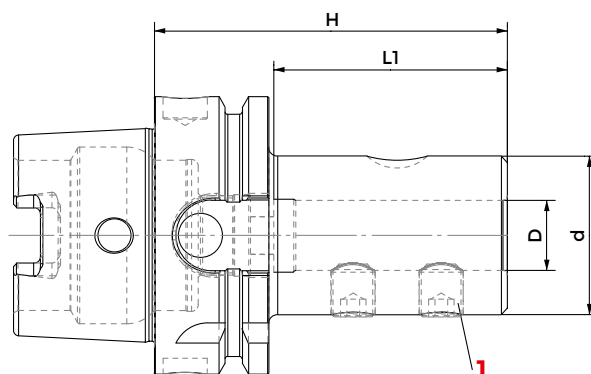
END MILL HOLDES FOR DIN 1835-E SHANKS



DIN 69893 A+C - DIN 1835/B

COD.	DESCRIPTION	HSK	H	d	D	G6.3 12000	1 SCREW
							
213-31722	HSK63AH100WN20	63	100	51,5	20	•	811-106007
213-31723	HSK63AH110WN25	63	110	64,5	25	•	811-106008
213-31724	HSK63AH115WN32	63	115	71,5	32	•	811-106009
213-31745	HSK100AH100WN16	100	100	47,5	16	•	811-106006
213-31747	HSK100AH110WN20	100	110	51,5	20	•	811-106007

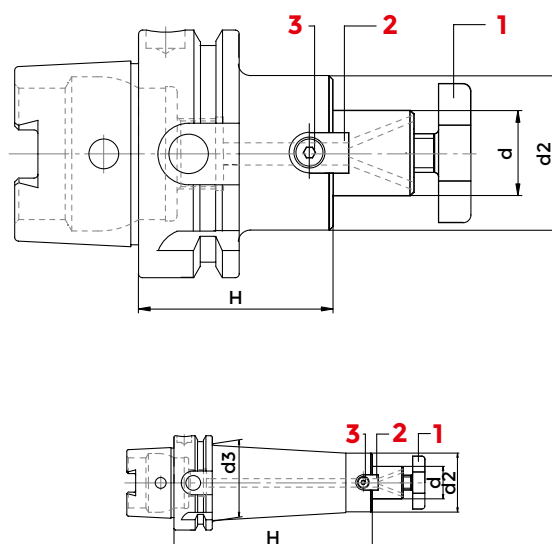
INDEXABLE DRILL HOLDERS



DIN 69893 A+C

COD.	DESCRIPTION	HSK	H	D	d	L1	G6.3 8000	¹ SCREW
								
267-91772	HSK63AH80D16-E1	63	80	16	36	54	•	811-402003
267-91773	HSK63AH80D20-E1	63	80	20	40	54	•	811-402003
267-91774	HSK63AH90D25-E1	63	90	25	45	59	•	811-402005
267-91775	HSK63AH90D32-E1	63	90	32	52	63	•	811-402005

FACE MILL HOLDERS-TENONS DRIVE



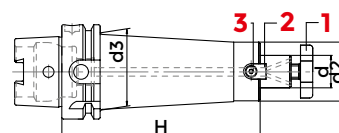
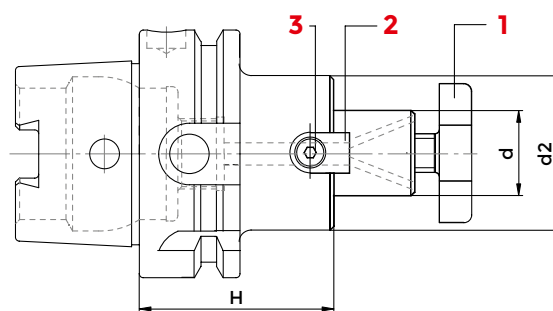
DIN 69893 A+C - ISO 3937

F VERSION ONLY A-D SHAPE

COD.	DESCRIPTION	HSK	H	d	d2	d3	G6.3 15000	1	1	2	3	WRENCH
								CROSS SCREW	CROSS SCREW ON ENQUIRY	DOWELS	SCREW	
216-71748	HSK32AH45D16F	32	45	16	38	-	•	811-107003	811-107013	814-202280	811-101004	816-130002
216-71749	HSK32AH50D22F	32	50	22	48	-	•	811-107004	811-107014	814-202250	811-101011	816-130003
216-71701	HSK40AH45D16F	40	45	16	38	-	•	811-107003	811-107013	814-202280	811-101004	816-130002
216-71702	HSK40AH50D22F	40	50	22	48	-	•	811-107004	811-107014	814-202250	811-101011	816-130003
216-71705	HSK50AH60D22F-L	50	60	22	48	-	•	811-107004	811-107014	814-202250	811-101011	816-130003
216-71708	HSK63AH45D16F-L	63	45	16	38	-	•	811-107003	811-107013	814-202280	811-101004	816-130002
216-71791	HSK63AH100D16F-L	63	100	16	38	40	•	811-107003	811-107013	814-202280	811-101004	816-130002
216-71717	HSK63AH160D16F-L	63	160	16	32	38	•	811-107003	811-107013	814-20214	811-101003	816-130002
216-91727	HSK63AH200D16F-L	63	200	16	38	-	•	811-107003	-	814-202280	811-101004	816-130002
216-71709	HSK63AH50D22F-L	63	50	22	48	-	•	811-107004	811-107014	814-202250	811-101011	816-130003
216-71792	HSK63AH100D22F-L	63	100	22	48	-	•	811-107004	811-107014	814-202250	811-101011	816-130003
216-71718	HSK63AH160D22F-L	63	160	22	40	48	•	811-107004	811-107014	814-202150	811-101010	816-130003
216-91728	HSK63AH200D22F-L	63	200	22	48	-	•	811-107004	-	814-202250	811-101011	816-130003
216-71710	HSK63AH55D27F-L	63	55	27	58	-	•	811-107005	811-107015	814-202250	811-101011	816-130004
216-71793	HSK63AH100D27F-L	63	100	27	58	-	•	811-107005	811-107015	814-202270	811-101018	816-130004
216-71719	HSK63AH160D27F-L	63	160	27	48	50	•	811-107005	811-107015	814-202160	811-101017	816-130004
216-71711	HSK63AH60D32F-L	63	60	32	78	-	•	811-107006	811-107016	814-202630	811-101029	816-130005
216-71794	HSK63AH100D32F-L	63	100	32	78	-	•	811-107006	811-107016	814-202630	811-101029	816-130005
216-71720	HSK63AH160D32F-L	63	160	32	58	-	•	811-107006	811-107016	814-202170	811-101027	816-130005
216-91726	HSK63AH60D40F-L	63	60	40	88	-	•	811-107007	-	814-202710	811-101029	816-130006
216-71750	HSK63AH65D40F-L	63	65	40	88	-	•	811-107007	811-107017	814-202710	811-101029	816-130006
216-91719	HSK63AH100D40F-L	63	100	40	88	-	•	811-107007	-	814-202710	811-101029	816-130006
216-91720	HSK63AH160D40F-L	63	160	40	88	-	•	811-107007	-	814-202710	811-101029	816-130006
216-91729	HSK100AH50D16F-L	100	50	16	38	-	•	811-107003	-	814-202280	811-101004	816-130002
216-71712	HSK100AH55D16F-L	100	55	16	38	-	•	811-107003	811-107013	814-202280	811-101004	816-130002
266-71730	HSK100H100D16F-L	100	100	16	38	-	•	811-107003	-	814-202280	811-101004	816-130002
216-71722	HSK100AH160D16F-L	100	160	16	32	42	•	811-107003	811-107013	814-20214	811-101003	816-130002
216-91730	HSK100AH50D22F-L	100	50	22	48	-	•	811-107004	-	814-202250	811-101011	816-130003

follows >>

FACE MILL HOLDERS-TENONS DRIVE



DIN 69893 A+C - ISO 3937

F VERSION ONLY A-D SHAPE

COD.	DESCRIPTION	HSK	H	d	d2	d3	G6.3 15000	1 CROSS SCREW	1 CROSS SCREW ON ENQUIRY	2 DOWELS	3 SCREW	WRENCH
216-71713	HSK100AH55D22F-L	100	55	22	48	-	•					
216-71797	HSK100AH100D22F-L	100	100	22	48	50	•	811-107004	811-107014	814-202250	811-101011	816-130003
216-71723	HSK100AH160D22F-L	100	160	22	40	50	•	811-107004	811-107014	814-202250	811-101011	816-130003
216-91733	HSK100AH200D22F-L	100	200	22	48	-	•	811-107004	-	814-202250	811-101011	816-130003
216-91731	HSK100AH50D27F-L	100	50	27	58	-	•	811-107005	-	814-202270	811-101018	816-130004
216-71714	HSK100AH55D27F-L	100	55	27	58	-	•	811-107005	811-107015	814-202270	811-101018	816-130004
216-71798	HSK100AH100D27F-L	100	100	27	58	60	•	811-107005	811-107015	814-202270	811-101018	816-130004
216-71724	HSK100AH160D27F-L	100	160	27	48	68	•	811-107005	811-107015	814-202270	811-101018	816-130004
216-91734	HSK100AH200D27F-L	100	200	27	58	-	•	811-107005	-	814-202270	811-101018	816-130004
216-91735	HSK100AH250D27F-L	100	250	27	58	-	•	811-107005	-	814-202270	811-101018	816-130004
216-91732	HSK100AH50D32F-L	100	50	32	66	-	•	811-107006	-	814-202630	811-101029	816-130005
216-71715	HSK100AH60D32F-L	100	60	32	66	-	•	811-107006	811-107016	814-202630	811-101029	816-130005
216-71799	HSK100AH100D32F-L	100	100	32	78	80	•	811-107006	811-107016	814-202630	811-101029	816-130005
216-71725	HSK100AH160D32F-L	100	160	32	58	76	•	811-107006	811-107016	814-202630	811-101029	816-130005
216-91725	HSK100AH200D32F-L	100	200	32	66	-	•	811-107006	-	814-202630	811-101029	816-130005
216-71716	HSK100AH60D40F-L	100	60	40	88	-	•	811-107007	811-107017	814-202710	811-101029	816-130006
216-71726	HSK100AH160D40F-L	100	160	40	70	84	•	811-107004	811-107014	814-202710	811-101029	816-130003

ACCESSORIES



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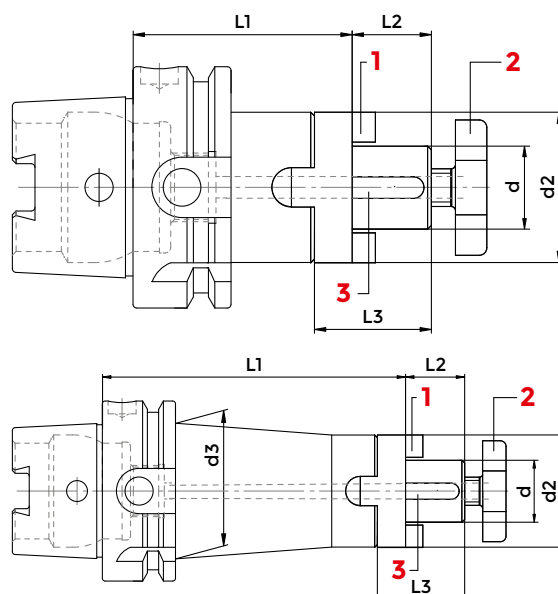
p. 676



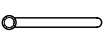
p. 675



COMBI-SHELL MILL ADAPTORS



DIN 69893 A+C - DIN 6358

COD.	DESCRIPTION	HSK	d	L1	L2	L3	d2	d3	G6.3 8000	1	2	3	
										RING	CROSS SCREW	KEY	WRENCH
													
216-11708	HSK63AH60D16C	63	16	60	17	27	32	-	•	814-30001	811-107003	814-201010	816-130002
216-11777	HSK63AH100D16C	63	16	100	17	27	32	40	•	814-30001	811-107003	814-201010	816-130002
216-11788	HSK63AH160D16C	63	16	160	17	27	32	-	•	814-30001	811-107003	814-201010	816-130002
216-11709	HSK63AH60D22C	63	22	60	19	31	40	-	•	814-30002	811-107004	814-201020	816-130003
216-11728	HSK63AH100D22C	63	22	100	19	31	40	-	•	814-30002	811-107004	814-201020	816-130003
216-11770	HSK63AH160D22C	63	22	160	19	31	40	50	•	814-30002	811-107004	814-201020	816-130003
216-11710	HSK63AH60D27C	63	27	60	21	33	48	-	•	814-30003	811-107005	814-201030	816-130004
216-11736	HSK63AH100D27C	63	27	100	21	33	48	-	•	814-30003	811-107005	814-201030	816-130004
216-11789	HSK63AH160D27C	63	27	160	21	33	48	-	•	814-30003	811-107005	814-201030	816-130004
216-11711	HSK63AH65D32C	63	32	65	24	38	58	-	•	814-30004	811-107006	814-201040	816-130005
216-11778	HSK63AH100D32C	63	32	100	24	38	58	-	•	814-30004	811-107006	814-201040	816-130005
216-11712	HSK63AH70D40C	63	40	70	27	41	70	-	•	814-30005	811-107007	814-201050	816-130006
216-11779	HSK63AH100D40C	63	40	100	27	41	70	-	•	814-30005	811-107007	814-201050	816-130006
216-11790	HSK63AH160D32C	100	32	160	24	38	58	-	•	814-30004	811-107006	814-201040	816-130005
216-11755	HSK100AH100D22C	100	22	100	19	31	40	46	•	814-30002	811-107004	814-201020	816-130003
216-11756	HSK100AH100D27C	100	27	100	21	33	48	54	•	814-30003	811-107005	814-201030	816-130004
216-11757	HSK100AH100D32C	100	32	100	24	38	58	64	•	814-30004	811-107006	814-201040	816-130005

ACCESSORIES

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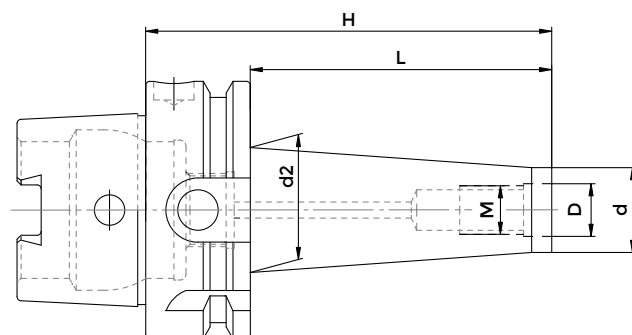
p. 674



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END MILL HOLDERS FOR MILLING CUTTERS WITH THREADED SHANKS

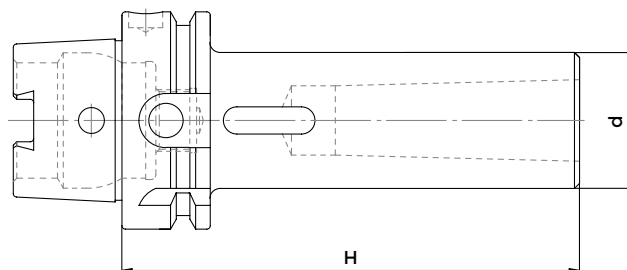


DIN 69893 A+C

HIGH SPEED LINE

COD.	DESCRIPTION	HSK	M	D	d	d2	H	L	G2.5 25000
267-81720	HSK63AH59M6	63	M6	6,5	10	10	59	33	•
267-81721	HSK63AH84M6	63	M6	6,5	10	20	84	58	•
267-81722	HSK63AH109M6	63	M6	6,5	10	23	109	83	•
267-81723	HSK63AH59M8	63	M8	8,5	13	15	59	33	•
217-81779	HSK63AH76M8	63	M8	8,5	13	23	76	50	•
217-81780	HSK63AH101M8	63	M8	8,5	13	23	101	75	•
217-81781	HSK63AH126M8	63	M8	8,5	13	26	126	100	•
267-81724	HSK63AH59M10	63	M10	10,5	18	19,5	59	33	•
217-81790	HSK63AH76M10	63	M10	10,5	18	23	76	50	•
217-81782	HSK63AH101M10	63	M10	10,5	18	28	101	75	•
217-81783	HSK63AH126M10	63	M10	10,5	18	28	126	100	•
267-81725	HSK63AH159M10	63	M10	10,5	18	34	159	133	•
267-81726	HSK63AH59M12	63	M12	12,5	21	24	59	33	•
217-81784	HSK63AH76M12	63	M12	12,5	21	24	76	50	•
217-81785	HSK63AH101M12	63	M12	12,5	21	31	101	75	•
217-81786	HSK63AH126M12	63	M12	12,5	21	31	126	100	•
267-81727	HSK63AH159M12	63	M12	12,5	21	31	159	133	•
267-81728	HSK63AH184M12	63	M12	12,5	21	39	184	158	•
267-81729	HSK63AH209M12	63	M12	12,5	21	42	209	183	•
267-81730	HSK63AH59M16	63	M16	17	29	34	59	33	•
217-81787	HSK63AH76M16	63	M16	17	29	34	76	50	•
217-81788	HSK63AH101M16	63	M16	17	29	34	101	75	•
217-81789	HSK63AH126M16	63	M16	17	29	36	126	100	•
267-81731	HSK63AH159M16	63	M16	17	29	39	159	133	•
267-81732	HSK63AH184M16	63	M16	17	29	39	184	158	•
267-81733	HSK63AH209M16	63	M16	17	29	42	209	183	•
267-81734	HSK100AH87M12	100	M12	12,5	21	24	87	58	•
267-81735	HSK100AH137M12	100	M12	12,5	21	47	137	108	•
267-81736	HSK100AH87M16	100	M16	17	29	32	87	58	•
267-81737	HSK100AH137M16	100	M16	17	29	42	137	108	•
267-81738	HSK100AH237M16	100	M16	17	29	55	237	208	•

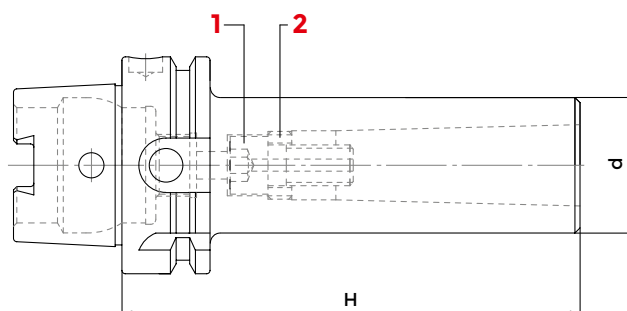
MORSE TAPER ADAPTORS FOR DRILLS



DIN 69893 A+C - DIN 228-2 FORM D

COD.	DESCRIPTION	HSK	MORSE	H	d	G6.3 8000
212-41706	HSK63AH100CM1P	63	1	100	25	•
212-41707	HSK63AH115CM2P	63	2	115	32	•
212-41708	HSK63AH135CM3P	63	3	135	40	•
212-41709	HSK63AH160CM4P	63	4	160	48	•
212-41716	HSK100AH120CM2P	100	2	120	32	•
212-41717	HSK100AH150CM3P	100	3	150	40	•
212-41718	HSK100AH170CM4P	100	4	170	48	•

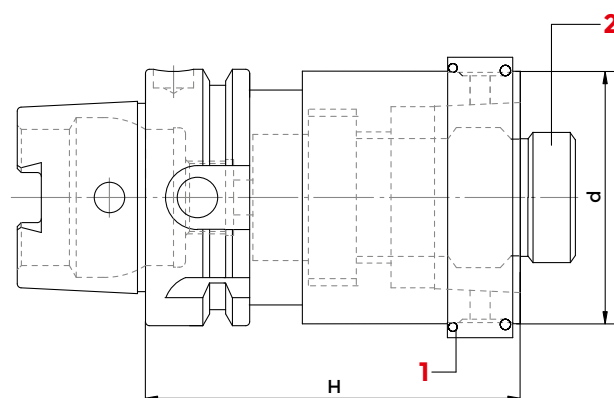
MORSE TAPER ADAPTORS FOR MILLING CUTTERS



DIN 69893 A+C - DIN 228-2 FORM C

COD.	DESCRIPTION	HSK	MORSE	H	d	G6.3 8000	1	2
							SCREW	RING
212-21708	HSK63AH100CM1F	63	1	100	25	•		
212-21709	HSK63AH115CM2F	63	2	115	32	•	811-401099	811-302031
212-21710	HSK63AH135CM3F	63	3	135	40	•	811-401078	811-302032
212-21711	HSK63AH160CM4F	63	4	160	48	•	811-401091	811-302036
212-21715	HSK100AH150CM3F	100	3	150	40	•	811-401098	811-302032
212-21716	HSK100AH170CM4F	100	4	170	48	•	811-401092	811-302036

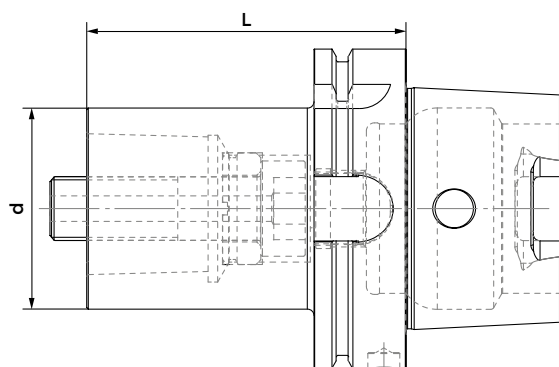
TOOL EXTENSIONS / REDUCERS HSK A+C / HSK



DIN 69893 A+C

COD.	DESCRIPTION	HSK	d	H	1 RING (complete)	2 LOCKING UNIT (complete)
212-91711	HSK63H80HSK50	63	50	80	HN50-AN	HN50C
212-91703	HSK63AH100HSK63	63	63	100	L0701460	HN63C
212-91713	HSK100AH100HSK63	100	63	100	L0701480	HN100C
212-91705	HSK100AH140HSK100	100	100	140	L0701480	HN100C

REDUCERS HSK A+C / POLYGONAL



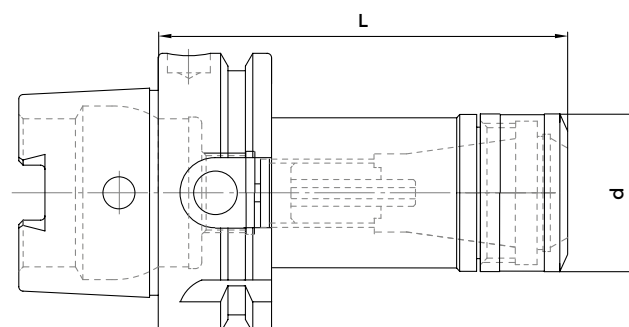
DIN 69893 A+C

COD.	DESCRIPTION	HSK	d	L
HSK63AH80C40	DIN69893 HSK63	63	40	80
HSK63AH90C50	DIN69893 HSK63	63	50	90
HSK63AH110C63	DIN69893 HSK63	63	63	110
HSK100AH90C40	DIN69893 HSK100	100	40	90
HSK100AH100C50	DIN69893 HSK100	100	50	100
HSK100AH90C63	DIN69893 HSK100	100	63	90
HSK100AH150C63	DIN69893 HSK100	100	63	150
HSK100AH120C80	DIN69893 HSK100	100	80	120

ER COLLET CHUCKS - HIGH PRECISION

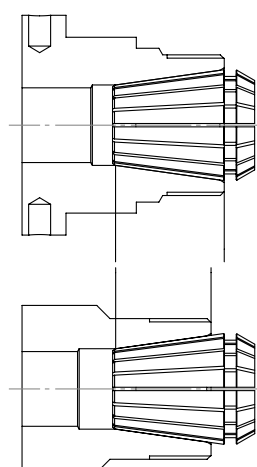


H= 0 > 100 mm - 5 µm
H= 100 > 200 mm - 10 µm



DIN 69893 HSKA - DIN 6499

COD.	DESCRIPTION	HSK	L	d	ER	G2.5 30000	NUT	WRENCH
214-91747	HSK63AH75ER16-HP	63	75	30	16	•	812-203085	816-203069
214-91748	HSK63AH75ER25-HP	63	75	40	25	•	812-203086	816-203070
214-91749	HSK63AH75ER32-HP	63	75	50	32	•	812-203087	816-203071
214-91738	HSK63AH100ER16-HP	63	100	30	16	•	812-203085	816-203069
214-91739	HSK63AH100ER25-HP	63	100	40	25	•	812-203086	816-203070
214-91740	HSK63AH100ER32-HP	63	100	50	32	•	812-203087	816-203071
214-91742	HSK63AH160ER16-HP	63	160	30	16	•	812-203085	816-203069
214-91743	HSK63AH160ER25-HP	63	160	40	25	•	812-203086	816-203070
214-91744	HSK63AH160ER32-HP	63	160	50	32	•	812-203087	816-203071



**HIGH
PRECISION LINE**

STANDARD



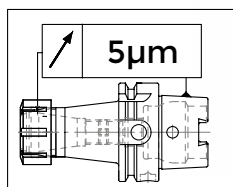
Kit Box:
• 1 Collet chuck
• 10 ER collets

ORDER CODE	COMPOSITION
KIT HSK63 ER16 HP	N°1 HSK63 AH75 ER16 HP + N°10 COLLETS ER16 HP
KIT HSK63 ER25 HP	N°1 HSK63 AH75 ER25 HP + N°10 COLLETS ER25 HP
KIT HSK63 ER32 HP	N°1 HSK63 AH75 ER32 HP + N°10 COLLETS ER32 HP

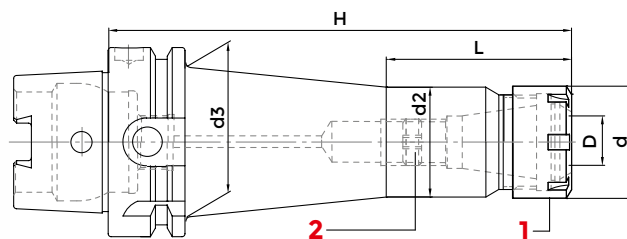
ACCESSORIES



ER MINI COLLET CHUCKS - HIGH SPEED LINE



H= 0 > 100 mm - 5 µm
 H= 100 > 200 mm - 10 µm



DIN 69893 A+C - DIN 6499/ISO 15488

HIGH SPEED LINE

COD.	DESCRIPTION	HSK	H	D	d	ER	L	d2	d3	C2.5 30000	1	2
											NUT	SCREW
												
214-31740	HSK32AH65ER16M	32	65	0,5÷10	22	16M	-	20	-	•	812-203013	811-303119
214-31741	HSK32AH70ER25M	32	70	1÷16	35	25M	-	30	-	•	812-203015	811-303121
214-31745	HSK40AH60ER16M	40	60	0,5÷10	22	16M	-	20	-	•	812-203013	811-303119
214-31722	HSK40AH70ER16M	40	70	0,5÷10	22	16M	-	20	-	•	812-203013	811-303119
214-31732	HSK40AH120ER16M	40	120	0,5÷10	22	16M	47	20	29	•	812-203013	811-303119
214-31723	HSK50AH80ER16M	50	80	0,5÷10	22	16M	-	20	-	•	812-203013	811-303119
214-31734	HSK50AH160ER16M	50	160	0,5÷10	22	16M	57	20	28	•	812-203013	811-303119
264-31764	HSK63AH70ER11M	63	70	1÷8	16	11M	-	15	-	•	812-203012	816-203008
264-31768	HSK63AH130ER11M	63	130	1÷8	16	11M	-	15	-	•	812-203012	816-203008
264-31765	HSK63AH70ER16M	63	70	0,5÷10	22	16M	-	21	-	•	812-203013	811-303119
214-31724	HSK63AH90ER16M	63	90	0,5÷10	22	16M	-	20	-	•	812-203013	811-303119
264-31769	HSK63AH130ER16M	63	130	0,5÷10	22	16M	-	22	-	•	812-203013	811-303119
214-31736	HSK63AH160ER16M	63	160	0,5÷10	22	16M	57	20	28	•	812-203013	811-303119
264-31762	HSK63AH200ER16M	63	200	0,5÷10	22	16 M	-	22	-	•	812-203013	811-303119
264-31766	HSK63AH70ER20M	63	70	1÷15	28	20M	-	27	-	•	812-203014	816-203010
264-31770	HSK63AH130ER20M	63	130	1÷15	29	20M	-	27	-	•	812-203014	816-203010
264-31772	HSK63AH200ER20M	63	200	1÷15	30	20M	-	27	-	•	812-203014	816-203010
264-31767	HSK63AH70ER25M	63	70	1÷16	35	25M	-	33	-	•	812-203015	811-303121
264-31771	HSK63AH130ER25M	63	130	1÷16	35	25M	-	34	-	•	812-203015	811-303121
214-31737	HSK63AH160ER25M	63	160	1÷16	35	25M	68	20	42	•	812-203015	811-303121
264-31773	HSK63AH200ER25M	63	200	1÷16	35	25M	-	33	-	•	812-203015	811-303121
214-31772	HSK100AH160ER16M	100	160	0,5÷10	22	16M	57	20	30	•	812-203013	811-303119
264-31774	HSK100AH100ER20M	100	100	1÷15	28	20M	-	27	-	•	812-203014	816-203010
264-31776	HSK100AH160ER20M	100	160	1÷15	28	20M	-	27	-	•	812-203014	816-203010
264-31777	HSK100AH200ER20M	100	200	1÷15	28	20M	-	27	-	•	812-203014	816-203010
264-31775	HSK100AH100ER25M	100	100	1÷16	35	25M	-	34	-	•	812-203015	811-303121
214-31773	HSK100AH160ER25M	100	160	1÷16	35	25M	68	20	46	•	812-203015	811-303121
264-31778	HSK100AH200ER25M	100	200	1÷16	35	25M	-	20	-	•	812-203015	811-303121

ACCESSORIES

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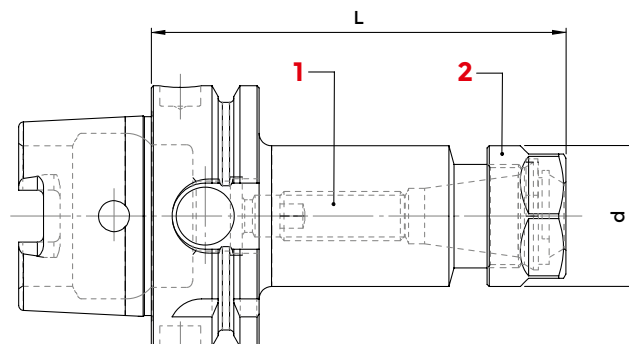
p. 615



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ER COLLET CHUCKS WITH HEXAGONAL NUT



DIN 69893 A+C

COD.	DESCRIPTION	HSK	ER	d	L	G6.3 15000	2	1	
							NUT	SCREW	WRENCH
									
274-31704EXA	HSK63A-ER16GE/H70	63	ER 16 1÷12	28	70	•	812-203009	811-303119	816-203012
274-31705EXA	HSK63A-ER16GE/H100	63	ER 16 1÷12	28	100	•	812-203009	811-303119	816-203012
274-31706EXA	HSK63A-ER16GE/H130	63	ER 16 1÷12	28	130	•	812-203009	811-303119	816-203012
274-31707EXA	HSK63A-ER16GE/H160	63	ER 16 1÷12	28	160	•	812-203009	811-303119	816-203012
274-31708EXA	HSK63A-ER16GE/H200	63	ER 16 1÷12	28	200	•	812-203009	811-303119	816-203012
274-31709EXA	HSK63A-ER20GE/H100	63	ER 20 1÷15	34	100	•	812-203010	811-303120	816-203013
274-31710EXA	HSK100A-ER16GE/H160	100	ER 16 1÷12	28	160	•	812-203009	811-303119	816-203012

ACCESSORIES



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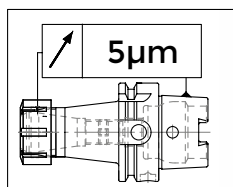
p. 615



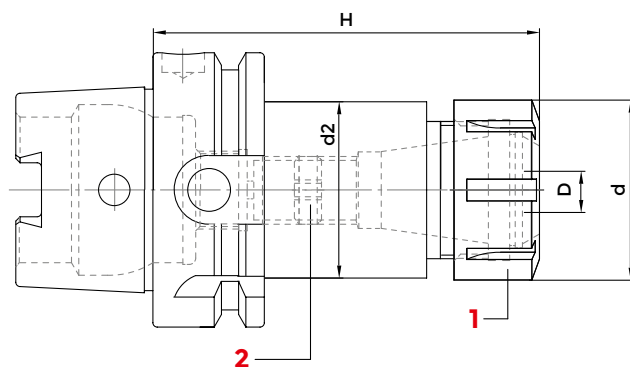
p. 636



ER COLLET CHUCKS



H= 0 > 100 mm - 5 µm
 H= 100 > 200 mm - 10 µm

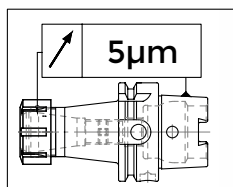


DIN 69893 A+C - DIN 6499/ISO 15488

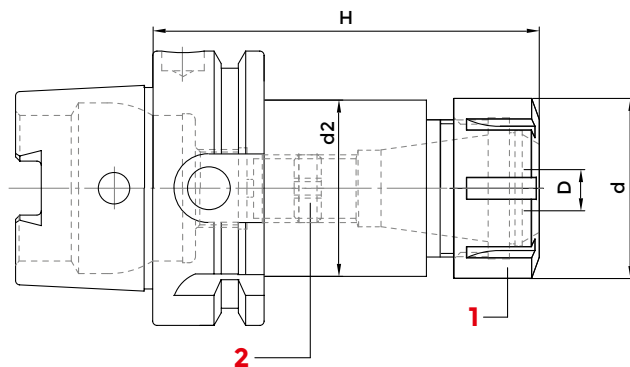
COD.	DESCRIPTION	HSK	H	D	d	ER	d2	G6.3 20000	1	2
									NUT	SCREW
										
214-31746	HSK40AH65ER25	40	65	1÷16	42	25	32	•	812-203001	811-303121
214-31702	HSK40AH80ER25	40	80	1÷16	42	25	32	•	812-203001	811-303121
214-31747	HSK40AH65ER32	40	65	2÷20	50	32	40	•	812-203002	811-303118
214-31703	HSK40AH100ER32	40	100	2÷20	50	32	40	•	812-203002	811-303118
264-31779	HSK50AH70ER25	50	70	1÷16	42	25	41	•	812-203001	811-303121
214-31705	HSK50AH95ER25	50	95	1÷16	42	25	32	•	812-203001	811-303121
264-31780	HSK50AH70ER32	50	70	2÷20	50	32	35	•	812-203002	811-303118
214-31706	HSK50AH100ER32	50	100	2÷20	50	32	40	•	812-203002	811-303118
264-31781	HSK50AH75ER40	50	75	3÷30	63	40	42	•	812-203003	811-303122
264-31736	HSK63AH75ER16	63	75	0,5÷10	32	16	22	•	812-203005	811-303119
264-31741	HSK63AH100ER16	63	100	0,5÷10	32	16	31,5	•	812-203005	811-303119
264-31790	HSK63AH130ER16	63	130	0,5÷10	32	16	28	•	812-203005	811-303119
264-31731	HSK63AH160ER16	63	160	0,5÷10	32	16	31,5	•	812-203005	811-303119
264-31794	HSK63AH200ER16	63	200	0,5÷10	32	16	28	•	812-203005	811-303119
264-31737	HSK63AH75ER20	63	75	1÷13	35	20	25	•	812-203006	811-303120
264-31742	HSK63AH100ER20	63	100	1÷13	35	20	34,5	•	812-203006	811-303120
264-31791	HSK63AH130ER20	63	130	1÷13	35	20	34	•	812-203006	811-303120
264-31732	HSK63AH160ER20	63	160	1÷13	35	20	34,5	•	812-203006	811-303120
264-31795	HSK63AH200ER20	63	200	1÷13	35	20	34	•	812-203006	811-303120
264-31738	HSK63AH75ER25	63	75	1÷16	42	25	32	•	812-203001	811-303121
214-31707	HSK63AH100ER25	63	100	1÷16	42	25	41,5	•	812-203001	811-303121
264-31792	HSK63AH130ER25	63	130	1÷16	42	25	41	•	812-203001	811-303121
264-31743	HSK63AH160ER25	63	160	1÷16	42	25	41,5	•	812-203001	811-303121
264-31796	HSK63AH200ER25	63	200	1÷16	42	25	41	•	812-203001	811-303121
264-31739	HSK63AH75ER32	63	75	2÷20	50	32	40	•	812-203002	811-303118
214-31708	HSK63AH100ER32	63	100	2÷20	50	32	49,5	•	812-203002	811-303118
264-31793	HSK63AH130ER32	63	130	2÷20	50	32	49	•	812-203002	811-303118
214-31720	HSK63AH160ER32	63	160	2÷20	50	32	49,5	•	812-203002	811-303118
264-31797	HSK63AH200ER32	63	200	2÷20	50	32	49	•	812-203002	811-303118

follows >>

ER COLLET CHUCKS



H= 0 > 100 mm - 5 µm
 H= 100 > 200 mm - 10 µm



DIN 69893 A+C - DIN 6499/ISO 15488

COD.	DESCRIPTION	HSK	H	D	d	ER	d2	G6.3 20000	1	2
									NUT	SCREW
										
264-31740	HSK63AH80ER40	63	80	3÷30	63	40	50	•	812-203003	811-303122
264-31782	HSK63AH100ER40	63	100	3÷30	63	40	50	•	812-203003	811-303122
214-31709	HSK63AH120ER40	63	120	3÷30	63	40	50	•	812-203003	811-303122
214-31721	HSK63AH160ER40	63	160	3÷30	63	40	50	•	812-203003	811-303122
264-31798	HSK63AH200ER40	63	200	3÷30	63	40	50	•	812-203003	811-303122
264-31783	HSK63AH105ER50	63	105	6÷36	78	50	53	•	812-203007	-
264-31784	HSK100AH100ER16	100	100	0,5÷10	32	16	28	•	812-203005	811-303119
264-31788	HSK100AH160ER16	100	160	0,5÷10	32	16	28	•	812-203005	811-303119
264-31785	HSK100AH100ER20	100	100	1÷13	35	20	34	•	812-203006	811-303120
264-31789	HSK100AH160ER20	100	160	1÷13	35	20	34	•	812-203006	811-303120
214-31752	HSK100AH160ER25	100	160	1÷16	42	25	41,5	•	812-203001	811-303121
264-31799	HSK100AH200ER20	100	200	1÷13	35	25	34	•	812-203006	811-303120
214-31777	HSK100AH100ER25	100	100	1÷16	42	25	41,5	•	812-203001	811-303121
274-31701	HSK100AH200ER25	100	200	1÷16	42	25	41	•	812-203001	811-303121
214-31725	HSK100AH100ER32	100	100	2÷20	50	32	49,5	•	812-203002	811-303118
264-31786	HSK100AH120ER32	100	120	2÷20	50	32	49	•	812-203002	811-303118
214-31738	HSK100AH160ER32	100	160	2÷20	50	32	49,5	•	812-203002	811-303118
274-31702	HSK100AH200ER32	100	200	2÷20	50	32	49	•	812-203002	811-303118
264-31787	HSK100AH100ER40	100	100	3÷30	63	40	50	•	812-203003	811-303122
214-31731	HSK100AH120ER40	100	120	3÷30	63	40	62,5	•	812-203003	811-303122
214-31739	HSK100AH160ER40	100	160	3÷30	63	40	62,5	•	812-203003	811-303122
274-31703	HSK100AH200ER40	100	200	3÷30	63	40	50	•	812-203003	811-303122
274-31712	HSK100AH120ER50	100	120	6-36	78	50	64,5	•	812-203038	-
264-31747	HSK125AH100ER25	125	100	1÷16	42	25	41,5	•	812-203001	811-303121
264-31748	HSK125AH100ER32	125	100	2÷20	50	32	49,5	•	812-203002	811-303118
264-31749	HSK125AH120ER40	125	120	3÷30	63	40	62,5	•	812-203003	811-303122

ACCESSORIES

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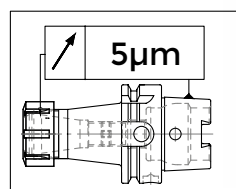
p. 615



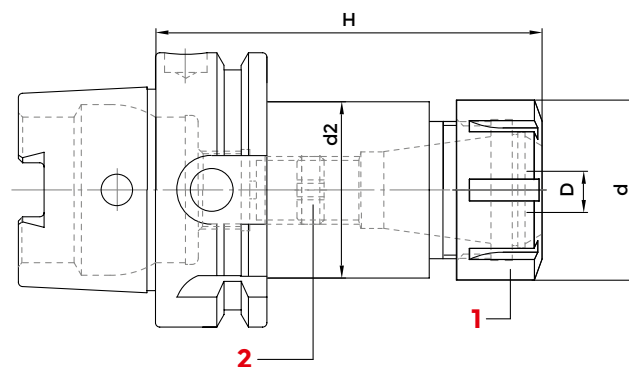
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ER COLLET CHUCKS - HIGH SPEED LINE



H= 0 > 100 mm - 5 µm
 H= 100 > 200 mm - 10 µm



DIN 69893 A+C - DIN 6499/ISO 15488

HIGH SPEED LINE

COD.	DESCRIPTION	HSK	H	D	d	ER	d2	G2.5 30000	1	2
									NUT	SCREW
										
214-91731	HSK63AH75ER16	63	75	0,5÷10	32	16	22	•	812-203080	811-303119
214-91734	HSK63AH75ER25	63	75	1÷16	42	25	32	•	812-203082	811-303121
214-91737	HSK63AH75ER32	63	75	2÷20	50	32	40	•	812-203083	811-303118
214-91735	HSK63AH80ER40	63	80	3÷30	63	40	50	•	812-203084	811-303122
214-91732	HSK63AH100ER16	63	100	0,5÷10	32	16	31,5	•	812-203080	811-303119
214-91733	HSK63AH75ER20	63	75	-	34,5	20	-	•	812-203081	811-303120
214-91702	HSK63AH100ER25	63	100	1÷16	42	25	41,5	•	812-203082	811-303121
214-91703	HSK63AH100ER32	63	100	2÷20	50	32	49,5	•	812-203083	811-303118
214-91704	HSK63AH120ER40	63	120	3÷30	63	40	50	•	812-203084	811-303122
214-91710	HSK63AH160ER32	63	160	2÷20	50	32	49,5	•	812-203083	811-303118

ACCESSORIES

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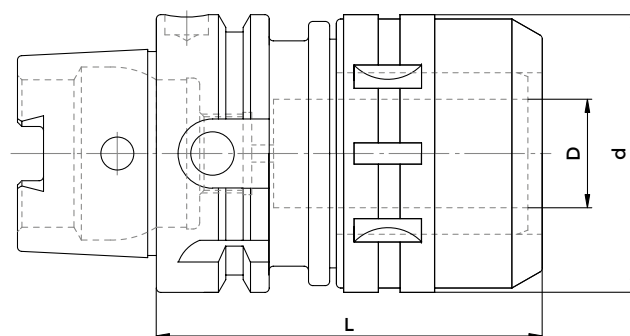
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MILLING CHUCK

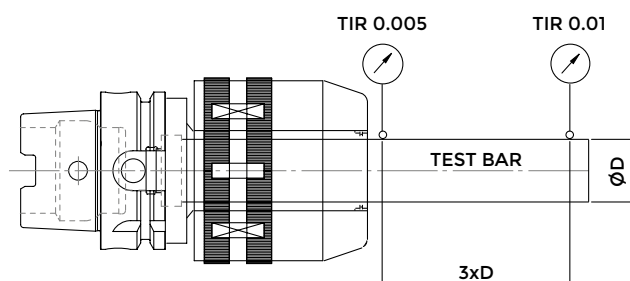


DIN 69893 A+C

COD.	DESCRIPTION	HSK	D	d	L	G6.3 12000
214-01701	HSK63AH105C20	63	20	54	105	•
214-01715	HSK63AH110C32	63	32	63	110	•
214-01702	HSK63AH130C32	63	32	72	130	•
214-01705	HSK100AH110C20	100	20	54	110	•
214-01706	HSK100AH123C32	100	32	72	123	•

Supplied with wrench

MILLING CHUCK (diameter)	SPECIFICATION (DIN)	RUN-OUT (3xD)	CLAMPING TORQUE
C20	DIN 69893 A	0~0,01	980M.m (100 Kgf.m)
C32	DIN 69893 A	0~0,01	3430M.m (350 Kgf.m)



ORDER CODE	COMPOSITION
KIT HSK63A C20	N° HSK63AH105C20 + 5 collets K20: Ø6,8,10,12,16 + wrench
KIT HSK63A C32	N° HSK63AH130C32 + 7 collets K32: Ø6,8,10,12,16,20,25 + wrench



Kit box:

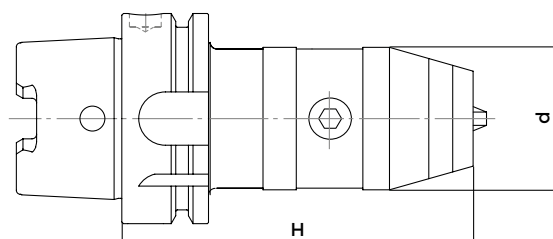
- 1 milling chuck
- 1 collets kit
- 1 wrench

ACCESSORIES



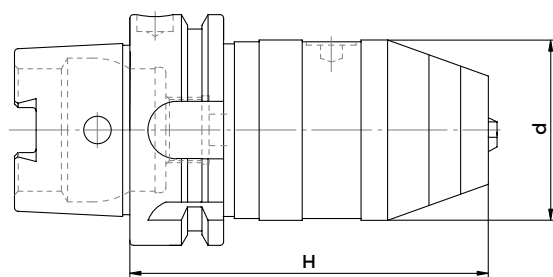
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NC-DRILL CHUCKS FOR LEFT AND RIGHT ROTATION



DIN 69893 A+C

COD.	DESCRIPTION	HSK	H	d	CLAMPING CAPACITY
252-11751	HSK63AH130R0,5-13X	63	130	50	0,5-13
252-11752	HSK63AH140R2,5-16X	63	140	57	2,5-16
252-11753	HSK100AH111R0,5-13X	100	111	50	0,5-13
252-11754	HSK100AH116R2,5-16X	100	116	57	2,5-16

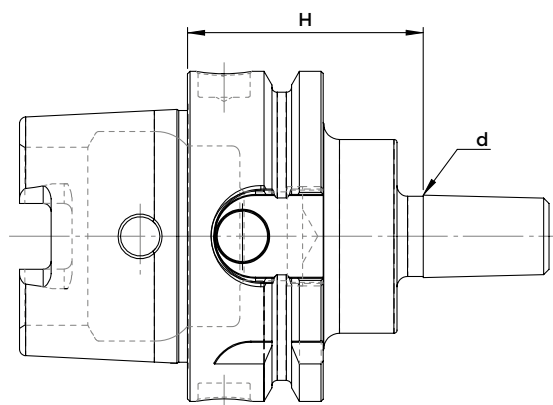


DIN 69893 A+C

COD.	DESCRIPTION	HSK	H	d	CLAMPING CAPACITY
252-11733	HSK63AH105R1-13X	63 *	105	50	1-13
252-11734	HSK63AH110R3-16X	63 *	110	57	3-16

*with internal coolant

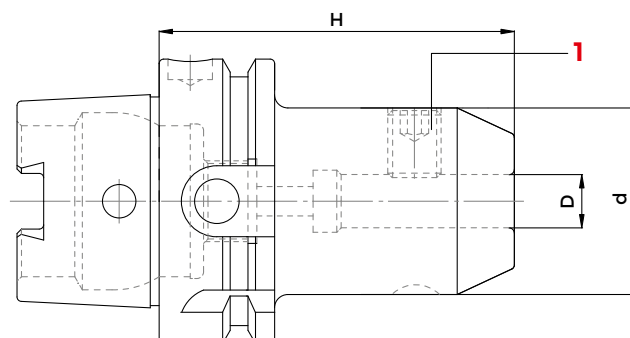
SHANKS FOR DRILL CHUCKS



DIN 69893 A+C

COD.	DESCRIPTION	HSK	d	H
216-31702	HSK 63 A- B 12	63	12,065	45
216-31703	HSK 63 A- B 16	63	15,733	45
216-31704	HSK 63 A- B 18	63	17,78	45

END MILL HOLDERS WELDON - HIGH SPEED LINE

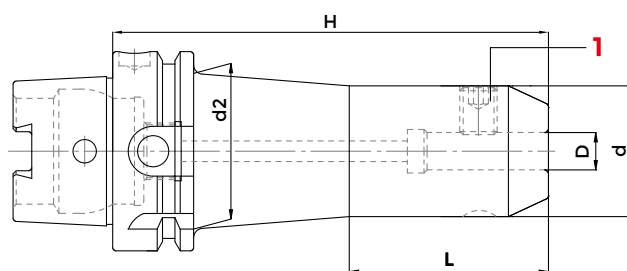


DIN 69893 E - DIN 1835/B

HIGH SPEED LINE

COD.	DESCRIPTION	H	D	d	G2.5 25000	1
						SCREW
						
213-91701	HSK63AH65WE06	65	6	25	•	811-106001
213-91702	HSK63AH65WE08	65	8	28	•	811-106002
213-91703	HSK63AH65WE10	65	10	35	•	811-106004
213-91704	HSK63AH80WE12	80	12	42	•	811-106005
213-91705	HSK63AH80WE14	80	14	44	•	811-106005
213-91706	HSK63AH80WE16	80	16	48	•	811-106006
213-91707	HSK63AH80WE18	80	18	50	•	811-106006
213-91708	HSK63AH80WE20	80	20	52	•	811-106007
213-91709	HSK63AH110WE25	110	25	65	•	811-106008
213-91710	HSK63AH110WE32	110	32	72	•	811-106009

END MILL HOLDERS WELDON LONG - HIGH SPEED LINE

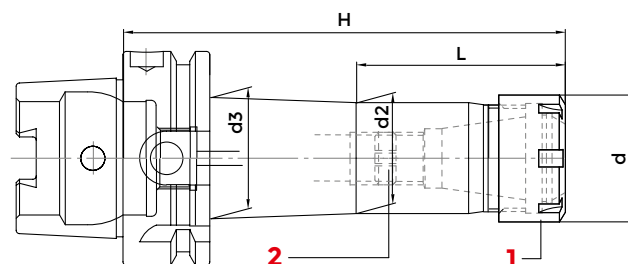


DIN 69893 A+C

HIGH SPEED LINE

COD.	DESCRIPTION	H	D	d	d2	L	G2.5 25000	1
								SCREW
								
213-91722	HSK63AH100WE06	100	6	18	26	50	•	811-106015
213-91723	HSK63AH100WE08	100	8	22	30	50	•	811-106036
213-91724	HSK63AH100WE10	100	10	30	-	-	•	811-106003
213-91725	HSK63AH100WE12	100	12	34	-	-	•	811-106013
213-91727	HSK63AH100WE16	100	16	42	-	-	•	811-106027
213-91729	HSK63AH100WE20	100	20	45	-	-	•	811-106032

ER MINI COLLET CHUCKS EXTRA THIN - HIGH SPEED LINE



DIN 69893 A+C - DIN 6499/ISO 15488

HIGH SPEED LINE

COD.	DESCRIPTION	HSK	ER	d	H	L	d2	d3	G2.5 30000	1	2
										NUT	SCREW
											
214-91723	HSK40AH70ER11M	40	11M	16	70	20	14	16	•	812-203012	811-303081
214-91724	HSK40AH100ER11M	40	11M	16	100	40	14	20	•	812-203012	811-303081
214-91715	HSK63AH100ER11M	63	11M	16	100	40	14	20	•	812-203012	811-303081
214-91720	HSK63AH100ER16M	63	16M	22	100	42	20	25	•	812-203013	811-303119
214-91721	HSK63AH160ER16M	63	16M	22	160	90	20	26	•	812-203013	811-303119
214-91726	HSK63AH100ER20M	63	20M	28	100	48	26	30	•	812-203014	811-303120
214-91717	HSK63AH100ER25M	63	25M	35	100	-	33	-	•	812-203015	811-303121
214-91716	HSK63AH160ER11M	63	11M	16	160	50	14	23	•	812-203012	811-303081
214-91727	HSK63AH160ER20M	63	20M	28	160	98	26	31	•	812-203014	811-303120
214-91722	HSK63AH160ER25M	63	25M	35	160	95	33	35	•	812-203015	811-303121
214-91718	HSK100AH100ER16M	100	16M	22	100	47	22	26	•	812-203013	811-303119

ACCESSORIES

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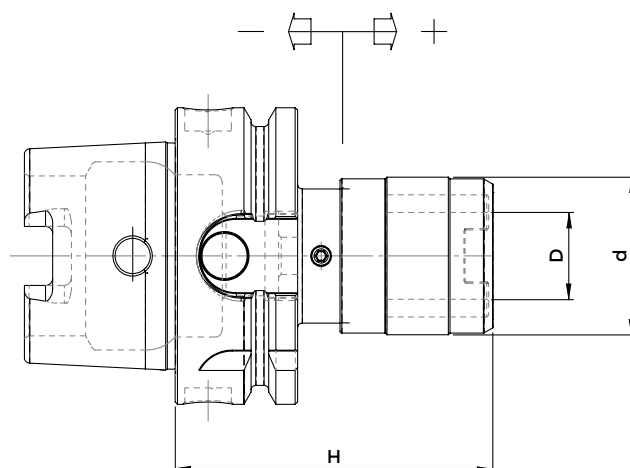
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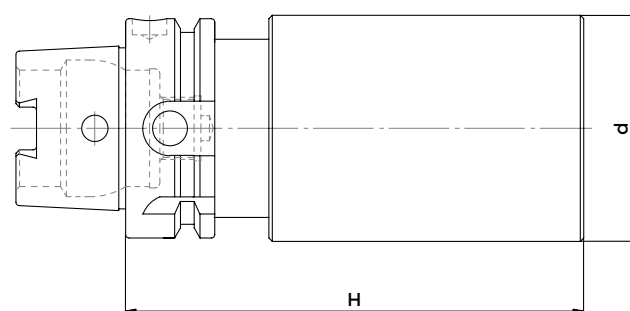
TENSION AND COMPRESSION TAPPING HEADS



DIN 69893 A+C

COD.	DESCRIPTION	HSK	SIZE	TAP SIZE RANGE	RANGE	D	d	H
M801063	HSK63AH72GR1	63	1	M3-M12	- 7,5 + 7,5	19	48	72
M802063	HSK63AH110GR2	63	2	M6-M20	- 10 + 10	31	60	110
M801100	HSK100AH100GR2	100	1	M3÷M12	- 7,5 + 7,5	19	48	80
M802100	HSK100AH100GR2	100	2	M6÷M20	- 10 + 10	31	60	100
M803100	HSK100AH144GR3	100	3	M14÷M33	- 17,5 + 17,5	48	79	144

BLANK TOOLHOLDERS WITH SOFT SHANK



DIN 69893 A+C

COD.	DESCRIPTION	HSK	H	d
217-11712	HSK32AH150D35SM	32	150	35
217-11701	HSK40AH150D40SM	40	150	40
217-11702	HSK40AH200D52SM	40	200	52
217-11703	HSK50AH200D52SM	50	200	52
217-11704	HSK50AH200D63SM	50	200	63
217-11783	HSK63AH160D63SM	63	160	63
217-11705	HSK63AH250D63SM	63	250	63
217-11784	HSK63AH160D80SM	63	160	80
217-11706	HSK63AH250D80SM	63	250	80
217-11709	HSK100AH200D63SM	100	200	63
217-11710	HSK100AH250D80SM	100	250	80
217-11711	HSK100AH300D90SM	100	300	90