

**COMPACT
DESIGN**



Benefits and features

- For drilling to semi-roughing
- High clamping force
- Easy handling
- Short overhang
- Modular design possibility

ETP HYDRO-GRIP®

Hydraulic high precision toolholder

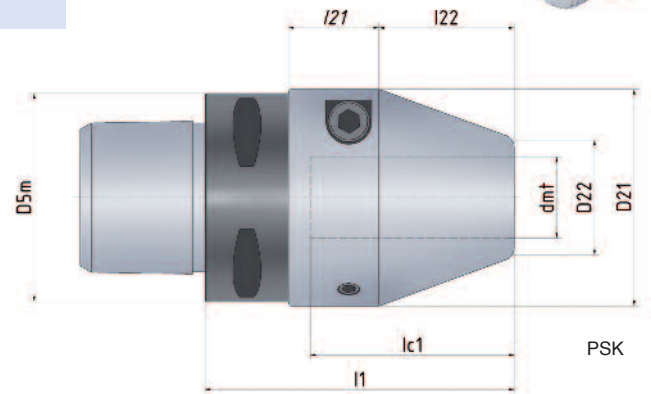
ETP HYDRO-GRIP® has a very compact and robust design. Tools changes are made quickly, easily and with a high level of precision. The high clamping force guarantees a secure clamping of

your milling, drilling and reaming tools. With a minimum tool runout a good surface finish is achieved along with an extended tool life. In addition to our extensive standard range,

ETP HYDRO-GRIP® can be made to your specific gauge line requirement, using our modular design possibility. *Also versions with radial length adjustment available.*

METRIC RANGE

- Runout accuracy < 0.004 mm at 2.5 x dm_t (max. 50 mm)
- Balancing grade: G 2.5 at 25 000 rpm for PSK C4 – C6, HSK 63 and ISO40
G 2.5 at 14 000 rpm for PSK C8, HSK 100 and ISO50
- Tool shank h6 or h7 can be used
- Can be used with reducing sleeve
- Center thread, M8, for axial length adjustment screw (screw not included)
Exception: PSK C4 - thread is M6!
- Coolant through on all holders
- Bore for data carrier – available on request



ETP HYDRO-GRIP®

Hydraulic high precision toolholder

Technical Specification PSK form

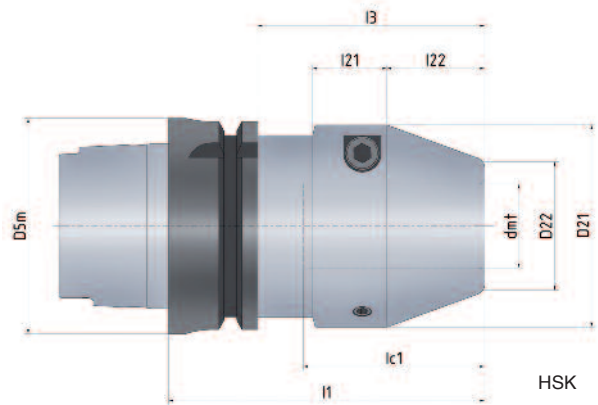
Coupling size	Part no.	Item description	Dimensions, mm							
			D_{5m}	dm_t	D_{21}	D_{22}	l_1	l_{21}	l_{22}	l_{c1}
● *) C3	701558	HG-12/C3 (no gripper)	32	12	43,5	22	50	25	18	40
● *) C4	703430	HG-12/C4 (no gripper)	40	12	43,5	22	50	25	18	40
● C4	685160	HG-12/C4	40	12	43,5	22	62	25	18	40
●	685170	HG-12x100/C4	40	12	43,5	22	100	25	18	40
○	685180	HG-16/C4	40	16	48	26	72	24	28	50
○	685190	HG-16x125/C4	40	16	48	26	125	24	28	50
●	685200	HG-20/C4	40	20	52	30	75	25	30	52
●	685210	HG-20x125/C4	40	20	52	30	125	25	30	52
● C5	685220	HG-12/C5	50	12	43,5	22	62	24	18	40
●	685230	HG-12x100/C5	50	12	43,5	22	100	62	18	40
○	685240	HG-16/C5	50	16	48	26	72	24	28	50
○	685250	HG-16x125/C5	50	16	48	26	125	77	28	50
●	685260	HG-20/C5	50	20	52	30	74	24	30	52
●	685270	HG-20x125/C5	50	20	52	30	125	24	30	52
●	685280	HG-25/C5	50	25	59	35	79	25	34	56
● C6	685290	HG-12/C6	63	12	43,5	22	64	24	18	40
●	685300	HG-12x100/C6	63	12	43,5	22	100	60	18	40
○	685310	HG-16/C6	63	16	48	26	74	24	28	50
○	685320	HG-16x125/C6	63	16	48	26	125	75	28	50
●	685330	HG-20/C6	63	20	52	30	76	24	30	52
●	685340	HG-20x150/C6	63	20	52	30	150	98	30	52
●	685350	HG-25/C6	63	25	59	35	80	24	34	56
●	685360	HG-25x150/C6	63	25	59	35	150	94	34	56
●	685370	HG-32/C6	63	32	69,5	42	84	24	38	60
○ C8	685380	HG-12/C8	80	12	43,5	22	67	19	18	40
○	685390	HG-12x100/C8	80	12	43,5	22	100	52	18	40
○	685400	HG-16/C8	80	16	48	26	77	19	28	50
○	685410	HG-16x125/C8	80	16	48	26	125	67	28	50
●	685420	HG-20/C8	80	20	52	30	79	19	30	52
●	685430	HG-20x150/C8	80	20	52	30	150	90	30	52
●	685440	HG-25/C8	80	25	59	35	83	19	34	56
●	685450	HG-25x150/C8	80	25	59	35	150	86	34	56
●	685460	HG-32/C8	80	32	69,5	42	87	19	38	60

● From stock

○ On request - PSK Inch equivalents add "-T" to metric part no.

l_1 = programming length

*) Short version with no gripper grooves.



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Hydraulic high precision toolholder

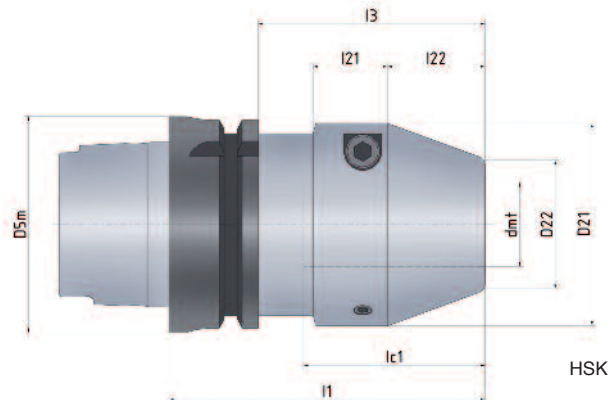
Technical Specification HSK form A/C

Dimensions, mm

HSK size	Part no.	Item description	D_{5m}	dm_1	D_{21}	D_{22}	l_1	l_3	l_{21}	l_{22}	l_{c1}	
●	63	685630	HG-12/HSK63	63	12	43,5	22	76	50	18	40	
●		685640	HG-12x100/HSK63	63	12	43,5	22	100	74	18	40	
○		685650	HG-16/HSK63	63	16	48	26	86	60	28	50	
○		685660	HG-16x125/HSK63	63	16	48	20	125	99	28	50	
●		685670	HG-20/HSK63	63	20	52	30	88	62	30	52	
●		685680	HG-20x150/HSK63	63	20	52	30	150	124	30	52	
●		685690	HG-25/HSK63	63	25	59	35	100	74	24	34	56
●		685700	HG-25x150/HSK63	63	25	59	35	150	124	74	34	56
●		685710	HG-32/HSK63	63	32	69,5	42	105	79	25	38	60
●	100	685720	HG-12/HSK100	100	12	43,5	22	79	50	18	40	
●		685730	HG-12x100/HSK100	100	12	43,5	22	100	71	18	40	
○		685740	HG-16/HSK100	100	16	48	26	89	60	28	50	
○		685750	HG-16x125/HSK100	100	16	48	26	125	96	28	50	
●		685760	HG-20/HSK100	100	20	52	30	91	62	30	52	
●		685770	HG-20x150/HSK100	100	20	52	30	150	121	30	52	
●		685780	HG-25/HSK100	100	25	59	35	95	66	34	56	
●		685790	HG-25x150/HSK100	100	25	59	35	150	121	34	56	
●		685800	HG-32/HSK100	100	32	69,5	42	99	70	38	60	

- From stock
- On request

l_1 = programming length



INCH RANGE

ETP HYDRO-GRIP®

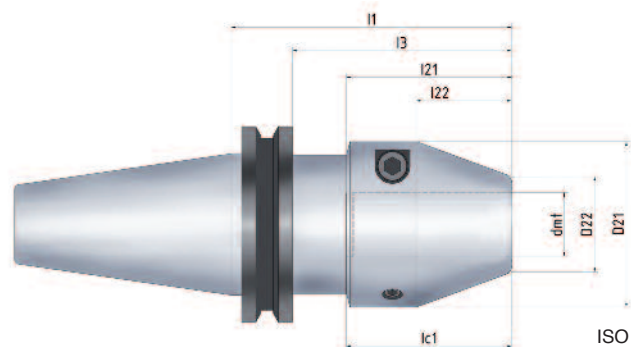
Hydraulic high precision toolholder

Technical Specification HSK form A/C

Dimensions, mm

HSK size	Part no.	Item description	D_{5m}	dm_1	D_{21}	D_{22}	l_1	l_3	l_{21}	l_{22}	l_{c1}	
●	63	685630-T	HG-1/2"/HSK63	63	0.500"	43,5	22	76	50	18	40	
○		685640-T	HG-1/2"x100/HSK63	63	0.500"	43,5	22	100	74	18	40	
●		685670-T	HG-3/4"/HSK63	63	0.750"	52	30	88	62	30	52	
○		685680-T	HG-3/4"x150/HSK63	63	0.750"	52	30	150	124	30	52	
●		685690-T	HG-1"/HSK63	63	1.000"	59	35	100	74	24	34	56
○		685700-T	HG-1"x150/HSK63	63	1.000"	59	35	150	124	74	34	56
●		685710-T	HG-1 1/4"/HSK63	63	1.250"	69,5	42	105	79	25	38	60
○	100	685720-T	HG-1/2"/HSK100	100	0.500"	43,5	22	79	50	18	40	
○		685730-T	HG-1/2"x100/HSK100	100	0.500"	43,5	22	100	71	18	40	
●		685760-T	HG-3/4"/HSK100	100	0.750"	52	30	91	62	30	52	
○		685770-T	HG-3/4"x150/HSK100	100	0.750"	52	30	150	121	30	52	
●		685780-T	HG-1"/HSK100	100	1.000"	59	35	95	66	34	56	
○		685790-T	HG-1"x150/HSK100	100	1.000"	59	35	150	121	34	56	
●		685800-T	HG-1 1/4"/HSK100	100	1.250"	69,5	42	99	70	38	60	

l_1 = programming length



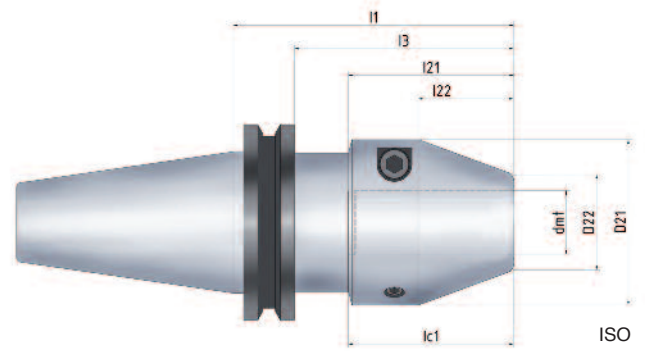
ETP HYDRO-GRIP®

Hydraulic high precision toolholder

Technical Specification ISO form AD (A/B coolant on all CAT40 and CAT50 holders)

				Dimensions, mm								
Spindle design	Taper	Part no.	Item description	dm_t	D_{21}	D_{22}	l_1	l_3	l_{21}	l_{22}	l_{c1}	
●	ISO 7388/1	ISO40	685810	HG-12/ISO40	12	43,5	22	56	36,9		18	40
●			685820	HG-12x100/ISO40	12	43,5	22	100	80,9		18	40
○			685830	HG-16/ISO40	16	48	26	73	53,9		28	50
○			685840	HG-16x125/ISO40	16	48	26	125	105,9		28	50
●			685850	HG-20/ISO40	20	52	30	88	68,9	22,9	30	52
●			685860	HG-20x125/ISO40	20	52	30	125	105,9	59,9	30	52
●			685870	HG-25/ISO40	25	59	35	93	73,9	23,9	34	56
○	ISO 7388/1	ISO50	685880	HG-12/ISO50	12	43,5	22	56	36,9		18	40
○			685890	HG-12x100/ISO50	12	43,5	22	100	80,9		18	40
○			685900	HG-16/ISO50	16	48	26	66	46,9		28	50
○			685910	HG-16x125/ISO50	16	48	26	125	105,9		28	50
●			685920	HG-20/ISO50	20	52	30	68	48,9		30	52
●			685930	HG-20x150/ISO50	20	52	30	150	130,9		30	52
●			685940	HG-25/ISO50	25	59	35	72	52,9		34	56
●			685950	HG-25x150/ISO50	25	59	35	150	130,9		34	56
●			685960	HG-32/ISO50	32	69,5	42	77	57,9		38	60
●	MAS-BT 403	ISO30	685970	HG-12/BT30	12	43,5	22	59	37		18	40
○			685980	HG-16/BT30	16	48	26	69	47		28	50
●			685990	HG-20/BT30	20	52	30	76	54		30	52
●	MAS-BT 403	ISO40	685000	HG-12/BT40	12	43,5	22	64	37		18	40
●			685010	HG-12x100/BT40	12	43,5	22	100	73		18	40
○			685020	HG-16/BT40	16	48	26	74	47		28	50
○			685030	HG-16x125/BT40	16	48	26	125	98		28	50
●			685040	HG-20/BT40	20	52	30	76	49		30	52
●			685050	HG-20x125/BT40	20	52	30	125	98		30	52
●			685060	HG-25/BT40	25	59	35	80	53		34	56
○	MAS-BT 403	ISO50	685070	HG-12/BT50	12	43,5	22	75	37		18	40
○			685080	HG-12x100/BT50	12	43,5	22	100	62		18	40
○			685090	HG-16/BT50	16	48	26	85	47		28	50
○			685100	HG-16x125/BT50	16	48	26	125	87		28	50
●			685110	HG-20/BT50	20	52	30	87	49		30	52
●			685120	HG-20x150/BT50	20	52	30	150	112		30	52
●			685130	HG-25/BT50	25	59	35	91	53		34	56
●			685140	HG-25x150/BT50	25	59	35	150	112		34	56
●			685150	HG-32/BT50	32	69,5	42	95	57		38	60
●	Cat V	40	685470	HG-12/CAT40	12	43,5	22	56	36,95		18	40
●			685480	HG-12x100/CAT40	12	43,5	22	100	80,95		18	40
○			685490	HG-16/CAT40	16	48	26	86	66,95	19,5	28	50
○			685500	HG-16x125/CAT40	16	48	26	125	105,95	58,5	28	50
●			685510	HG-20/CAT40	20	52	30	88	68,95	21,95	30	52
●			685520	HG-20x125/CAT40	20	52	30	125	105,95	58,95	30	52
●			685530	HG-25/CAT40	25	59	35	93	73,95	24,05	34	56
○	Cat V	50	685540	HG-12/CAT50	12	43,5	22	56	36,95		18	40
○			685550	HG-12x100/CAT50	12	43,5	22	100	80,95		18	40
○			685560	HG-16/CAT50	16	48	26	66	46,95		28	50
○			685570	HG-16x125/CAT50	16	48	26	125	105,95		28	50
●			685580	HG-20/CAT50	20	52	30	68	48,95		30	52
●			685590	HG-20x150/CAT50	20	52	30	150	130,95		30	52
●			685600	HG-25/CAT50	25	59	35	72	52,95		34	56
●			685610	HG-25x150/CAT50	25	59	35	150	130,95		34	56
●			685620	HG-32/CAT50	32	69,5	42	77	57,95		38	60

l_1 = programming length



ETP HYDRO-GRIP®

Hydraulic high precision toolholder

Technical Specification ISO form AD (A/B coolant on all CAT40 and CAT50 holders)

Dimensions, mm

Spindle design	Taper	Part no.	Item description	dm_1	D_{21}	D_{22}	l_1	l_3	l_{21}	l_{22}	l_{c1}
○ ISO 7388/1	ISO40	685810-T	HG-1/2"/ISO40	0.500"	43,5	22	56	36,9		18	40
○		685820-T	HG-1/2"x100/ISO40	0.500"	43,5	22	100	80,9		18	40
○		685850-T	HG-3/4"/ISO40	0.750"	52	30	88	68,9	22,9	30	52
○		685860-T	HG-3/4"x125/ISO40	0.750"	52	30	125	105,9	59,9	30	52
○		685870-T	HG-1"/ISO40	1.000"	59	35	93	73,9	23,9	34	56
○	ISO50	685920-T	HG-3/4"/ISO50	0.750"	52	30	68	48,9		30	52
○		685930-T	HG-3/4"x150/ISO50	0.750"	52	30	150	130,9		30	52
○		685940-T	HG-1"/ISO50	1.000"	59	35	72	52,9		34	56
○		685950-T	HG-1"x150/ISO50	1.000"	59	35	150	130,9		34	56
○		685960-T	HG-1 1/4"/ISO50	1.250"	69,5	42	77	57,9		38	60
● MAS-BT 403	ISO30	685970-T	HG-1/2"/BT30	0.500"	43,5	22	59	37		18	40
●		685990-T	HG-3/4"/BT30	0.750"	52	30	76	54		30	52
○ MAS-BT 403	ISO40	685000-T	HG-1/2"/BT40	0.500"	43,5	22	64	37		18	40
○		685010-T	HG-1/2"x100/BT40	0.500"	43,5	22	100	73		18	40
○		685040-T	HG-3/4"/BT40	0.750"	52	30	76	49		30	52
○		685050-T	HG-3/4"x125/BT40	0.750"	52	30	125	98		30	52
○		685060-T	HG-1"/BT40	1.000"	59	35	80	53		34	56
○	ISO50	685110-T	HG-3/4"/BT50	0.750"	52	30	87	49		30	52
○		685120-T	HG-3/4"x150/BT50	0.750"	52	30	150	112		30	52
○		685130-T	HG-1"/BT50	1.000"	59	35	91	53		34	56
○		685140-T	HG-1"x150/BT50	1.000"	59	35	150	112		34	56
○		685150-T	HG-1 1/4"/BT50	1.250"	69,5	42	95	57		38	60
● Cat V	40	685470-T	HG-1/2"/CAT40	0.500"	43,5	22	56	36,95		18	40
○		685480-T	HG-1/2"x100/CAT40	0.500"	43,5	22	100	80,95		18	40
●		685510-T	HG-3/4"/CAT40	0.750"	52	30	88	68,95	21,95	30	52
●		685520-T	HG-3/4"x125/CAT40	0.750"	52	30	125	105,95	58,95	30	52
●		685530-T	HG-1"/CAT40	1.000"	59	35	93	73,95	24,05	34	56
● Cat V	50	685580-T	HG-3/4"/CAT50	0.750"	52	30	68	48,95		30	52
○		685590-T	HG-3/4"x150/CAT50	0.750"	52	30	150	130,95		30	52
●		685600-T	HG-1"/CAT50	1.000"	59	35	72	52,95		34	56
○		685610-T	HG-1"x150/CAT50	1.000"	59	35	150	130,95		34	56
●		685620-T	HG-1 1/4"/CAT50	1.250"	69,5	42	77	57,95		38	60

l_1 = programming length

- From stock
- On request