



# HPH - HIGH PERFORMANCE HOLDER

## Shank form SK as per ISO 7388-1

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SK 30	90
SK 40	91-95
SK 50	96

## Shank form HSK

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HSK-A 40	97
HSK-A 63	98-102
HSK-A 100	103-105
HSK-E 40	106
HSK-A 50	107

## Shank form BT / BT-FC as per ISO 7388-2

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BT / BT-FC 30	108-109
BT / BT-FC 40	110-115
BT / BT-FC 50	116-117

## Shank form PSC as per ISO 26623-1

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PSC 63	118
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## Chucks with INCH dimensions

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CAT 40/50	119-120
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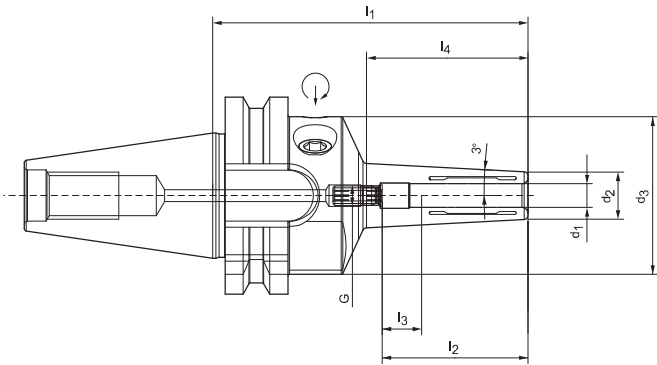
## Spare parts & accessories

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# HPH - High Performance Holder

## HPH 3° MULTI, ISO 7388-1, Form AD/AF

(prev. DIN 69871-AD/B), narrow design, 3°

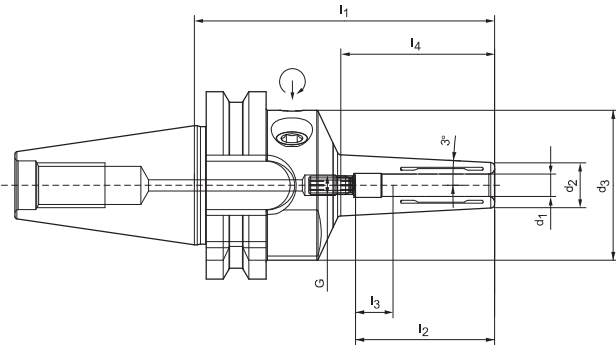


Nominal size SK/ISO	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$d_3$	$l_1$	$l_2$	$l_3$	$l_4$					
30	3	9	40	80	28	16	40	M2,5	1,3	0,6	15.404.30.03.Z/80	30816303
30	4	10	40	80	28	12	40	M2,5	1,3	0,6	15.404.30.04.Z/80	30816304
30	5	11	40	80	28	8	41	M2,5	1,3	0,6	15.404.30.05.Z/80	30816305
30	6	12	40	80	37	10	41	M5	2,5	0,6	15.404.30.06.Z/80	30816307
30	8	14	40	80	37	10	41	M6	3	0,6	15.404.30.08.Z/80	30816308
30	10	16	40	80	41	10	42	M8x1	3	0,6	15.404.30.10.Z/80	30816311
30	12	18	40	80	46	10	42	M8x1	3	0,6	15.404.30.12.Z/80	30816312

# HPH - High Performance Holder

## HPH 3° MULTI, ISO 7388-1, Form AD/AF

(prev. DIN 69871-AD/B), narrow design, 3°

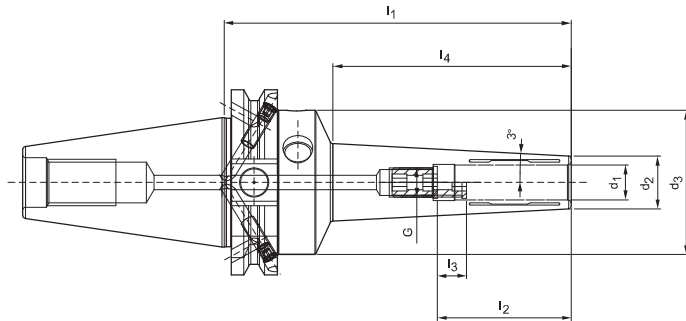


Nominal size SK/ISO	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>					
40	3	9	49,5	80	28	16	40	M2,5	1,3	1,1	15.404.40.03.Z/80	30962184
40	4	10	49,5	80	28	12	40	M2,5	1,3	1,1	15.404.40.04.Z/80	30962185
40	5	11	49,5	80	28	8	40	M2,5	1,3	1,1	15.404.40.05.Z/80	30962188
40	6	12	49,5	80	37	10	40	M5	2,5	1,1	15.404.40.06.Z/80	30962213
40	8	14	49,5	80	37	10	40	M6	3	1,1	15.404.40.08.Z/80	30962214
40	10	16	49,5	80	41	10	41	M8x1	3	1,1	15.404.40.10.Z/80	30962216
40	12	18	49,5	80	46	10	42	M10x1	5	1,1	15.404.40.12.Z/80	30962217
40	14	22	49,5	80	46	10	42	M10x1	5	1,1	15.404.40.14.Z/80	30962243
40	16	24	49,5	80	49	10	40	M12x1	5	1,1	15.404.40.16.Z/80	30962244
40	18	26	49,5	80	49	10	40	M12x1	5	1,1	15.404.40.18.Z/80	30962245
40	20	28	49,5	85	51	10	45	M16x1	5	1,2	15.404.40.20.Z/85	30962246

# HPH - High Performance Holder

## HPH 3° MULTI, ISO 7388-1, Form AD/AF

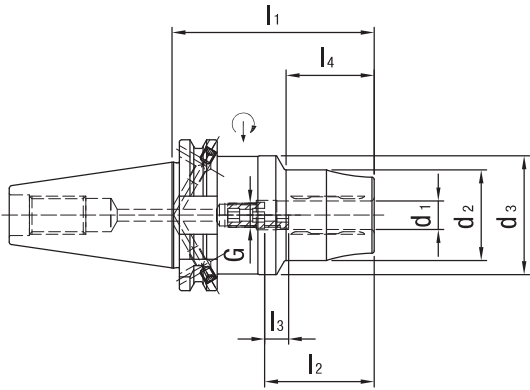
(prev. DIN 69871-AD/B), narrow design, 3°



Nominal size SK/ISO	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>					
40	3	9	49,5	120	28	16	80	M2,5	1,3	1,1	15.404.40.03.Z/120	30777071
40	3	13	49,5	160	28	16	117	M2,5	1,3	1,5	15.404.40.03.Z/160	30857255
40	3	13	49,5	200	28	16	158	M2,5	1,3	1,8	15.404.40.03.Z/200	30857353
40	4	10	49,5	120	28	12	80	M2,5	1,3	1,2	15.404.40.04.Z/120	30777072
40	4	14	49,5	160	28	12	117	M2,5	1,3	1,6	15.404.40.04.Z/160	30857256
40	4	14	49,5	200	28	12	158	M2,5	1,3	1,9	15.404.40.04.Z/200	30857355
40	5	11	49,5	120	28	8	80	M2,5	1,3	1,2	15.404.40.05.Z/120	30777073
40	5	15	49,5	160	28	8	117	M2,5	1,3	1,6	15.404.40.05.Z/160	30857257
40	5	15	49,5	200	28	8	158	M2,5	1,3	1,9	15.404.40.05.Z/200	30857358
40	6	12	49,5	120	37	10	80	M5	2,5	1,2	15.404.40.06.Z/120	30655468
40	6	16	49,5	160	37	10	119	M5	2,5	1,6	15.404.40.06.Z/160	30816618
40	6	16	49,5	200	37	10	160	M5	2,5	1,9	15.404.40.06.Z/200	30816625
40	8	14	49,5	120	37	10	80	M6	3	1,2	15.404.40.08.Z/120	30655469
40	8	18	49,5	160	37	10	119	M6	3	1,6	15.404.40.08.Z/160	30816619
40	8	18	49,5	200	37	10	160	M6	3	2,0	15.404.40.08.Z/200	30816626
40	10	16	49,5	120	41	10	81	M8x1	3	1,2	15.404.40.10.Z/120	30655470
40	10	20	49,5	160	41	10	121	M8x1	3	1,7	15.404.40.10.Z/160	30816621
40	10	20	49,5	200	41	10	162	M8x1	3	2,0	15.404.40.10.Z/200	30816628
40	12	18	49,5	120	46	10	82	M10x1	5	1,2	15.404.40.12.Z/120	30655471
40	12	22	49,5	160	46	10	122	M10x1	5	1,8	15.404.40.12.Z/160	30816624
40	12	22	49,5	200	46	10	163	M10x1	5	2,2	15.404.40.12.Z/200	30816629
40	14	22	49,5	120	46	10	79	M10x1	5	1,3	15.404.40.14.Z/120	30782464
40	14	26	49,5	160	46	10	121	M10x1	5	2	15.404.40.14.Z/160	30857258
40	14	26	49,5	200	46	10	162	M10x1	5	2,5	15.404.40.14.Z/200	30857360
40	16	24	49,5	120	49	10	79	M12x1	5	1,3	15.404.40.16.Z/120	30782465
40	16	28	49,5	160	49	10	121	M12x1	5	2,1	15.404.40.16.Z/160	30857260
40	16	28	49,5	200	49	10	162	M12x1	5	2,5	15.404.40.16.Z/200	30857362
40	18	26	49,5	120	49	10	80	M12x1	5	1,4	15.404.40.18.Z/120	30782467
40	18	30	49,5	160	49	10	122	M12x1	5	2,1	15.404.40.18.Z/160	30857261
40	18	30	49,5	200	49	10	163	M12x1	5	2,6	15.404.40.18.Z/200	30857365
40	20	28	49,5	120	51	10	80	M16x1	5	1,4	15.404.40.20.Z/120	30782468
40	20	32	49,5	160	51	10	122	M16x1	5	2,2	15.404.40.20.Z/160	30857263
40	20	32	49,5	200	51	10	163	M16x1	5	2,6	15.404.40.20.Z/200	30857366

# HPH - High Performance Holder ISO 7388-1, Form AD/AF

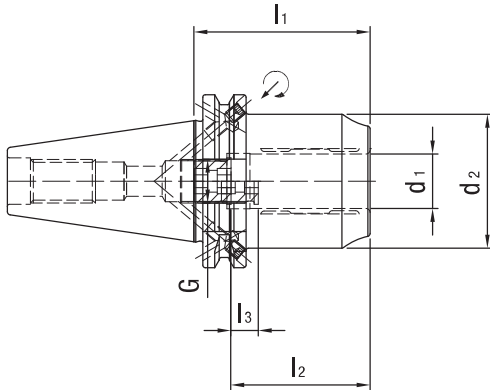
(prev. DIN 69871-AD/B), short narrow design



Nominal size SK/ISO	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>					
40	6	32	50	75	37	10	26	M5x15	2,5	1,4	15.407.40.06.Z	30339747
40	8	34	50	75	37	10	27	M6x15	3	1,4	15.407.40.08.Z	30339749
40	10	36	50	80	41	10	32	M8x1x15,5	3	1,4	15.407.40.10.Z	30339750
40	12	38	50	85	46	10	37	M10x1x9,8	5	1,5	15.407.40.12.Z	30339751
40	14	40	50	85	46	10	37	M10x1x13	5	1,6	15.407.40.14.Z	30339752
40	16	42	50	90	49	10	42	M12x1x15	5	1,6	15.407.40.16.Z	30339753
40	18	44	50	90	49	10	42	M12x1x17	5	1,7	15.407.40.18.Z	30339754
40	20	48	50	95	51	10	45	M16x1x15,8	5	1,7	15.407.40.20.Z	30339755
40	25	57	50	110	57	10	60	M16x1x19,8	5	2,2	15.407.40.25.Z	30339756
40	32	63	50	120	61	10	65	M16x1x25,8	5	2,5	15.407.40.32.Z	30339758

# HPH - High Performance Holder ISO 7388-1, Form AD/AF

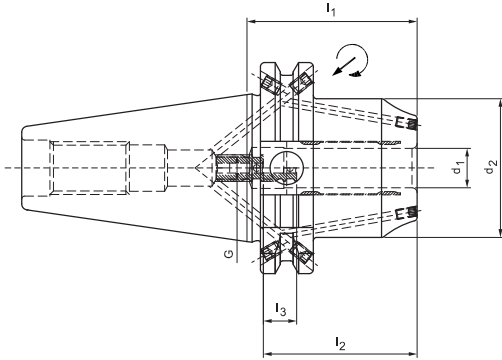
(prev. DIN 69871-AD/B), short heavy duty design



Nominal size SK/ISO	Dimensions					G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$l_1$	$l_2$	$l_3$					
40	12	42	50	46	10	M8x1x13,5	3	1	15.408.40.12.Z	30494111
40	20	49	64,5	51	10	M16x1x13,5	8	1,4	15.408.40.20.Z	30372360

# HPH - High Performance Holder ISO 7388-1, Form AD/AF

(prev. DIN 69871-AD/B), short heavy duty design, with resealable coolant duct holes

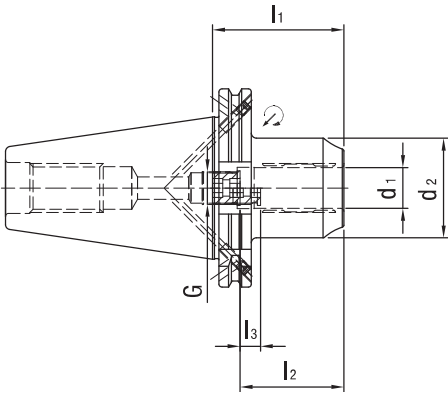


Nominal size SK/ISO	Dimensions					G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$l_1$	$l_2$	$l_3$					
40	12	42	50	46	10	M8x1	3	1	15.408.40.12.KKB	30565346
40	16	46	64,5	49	10	M12x1	5	1,3	15.408.40.16.KKB	30565347
40	20	49	64,5	51	10	M16x1	8	1,4	15.408.40.20.KKB	30565348

HPH - High Performance Holder

# HPH - High Performance Holder ISO 7388-1, Form AD/AF

(prev. DIN 69871-AD/B), short heavy duty design

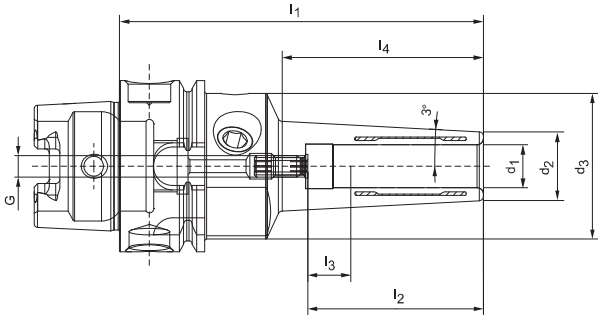


Nominal size SK/ISO	Dimensions					G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$l_1$	$l_2$	$l_3$					
50	12	42	50	46	10	M8x1x13,5	3	2,8	15.408.50.12.Z	30515413
50	20	49	64,5	51	10	M16x1x13,5	8	3,1	15.408.50.20.Z	30435618
50	32	72	81	61	10	M16x1x13,5	8	4,1	15.408.50.32.Z	30471202

# HPH - High Performance Holder

## HPH 3° MULTI, DIN 69893-A

Narrow design, 3°

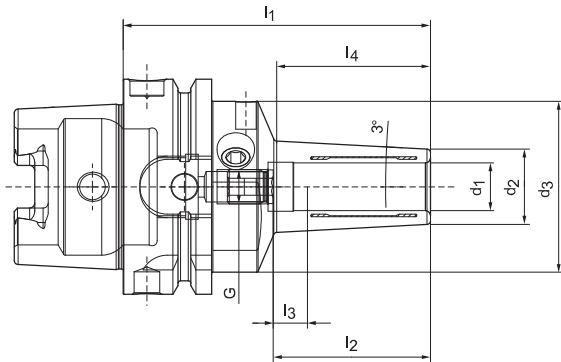


Nominal size HSK-A	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$d_3$	$l_1$	$l_2$	$l_3$	$l_4$					
40	3	9	33,5	85	28,0	16	45	M2,5	1,3	0,3	16.404.40.03.Z/85	30817224
40	4	10	33,5	85	28,0	12	45	M2,5	1,3	0,3	16.404.40.04.Z/85	30817227
40	5	11	33,5	85	28,0	8	45	M2,5	1,3	0,3	16.404.40.05.Z/85	30817230
40	6	12	33,5	85	37,0	10	46	M5,0	2,5	0,3	16.404.40.06.Z/85	30817232
40	8	14	33,5	85	37,0	10	46	M6,0	3	0,4	16.404.40.08.Z/85	30817236
40	10	16	33,5	85	41,0	10	47	M5,0	2,5	0,4	16.404.40.10.Z/85	30817238
40	12	18	33,5	85	46,0	10	47	M5,0	2,5	0,4	16.404.40.12.Z/85	30817242

# HPH - High Performance Holder

## HPH 3° MULTI, DIN 69893-A

Narrow design, 3°

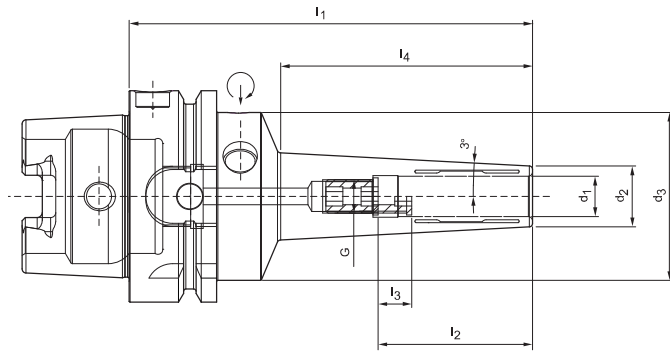


Nominal size HSK-A	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>					
63	3	9	50	80	28	16	33	M2,5	1,3	0,9	16.404.63.03.Z/80	30962065
63	4	10	50	80	28	12	33	M2,5	1,3	0,9	16.404.63.04.Z/80	30962067
63	5	11	50	80	28	8	33	M2,5	1,3	0,9	16.404.63.05.Z/80	30962068
63	6	12	50	80	37	10	34	M5	2,5	0,9	16.404.63.06.Z/80	30962069
63	8	14	50	80	37	10	34	M6	3	0,9	16.404.63.08.Z/80	30962072
63	10	16	50	85	41	10	39	M8x1	3	0,9	16.404.63.10.Z/85	30962074
63	12	18	50	90	46	10	45	M10x1	5	0,9	16.404.63.12.Z/90	30962077
63	14	22	50	90	46	10	45	M10x1	5	1,0	16.404.63.14.Z/90	30962078
63	16	24	50	95	49	10	47	M12x1	5	1,0	16.404.63.16.Z/95	30962080
63	18	26	50	95	49	10	47	M12x1	5	1,0	16.404.63.18.Z/95	30962083
63	20	28	50	100	51	10	52	M16x1	5	1,1	16.404.63.20.Z/100	30962087

# HPH - High Performance Holder

## HPH 3° MULTI, DIN 69893-A

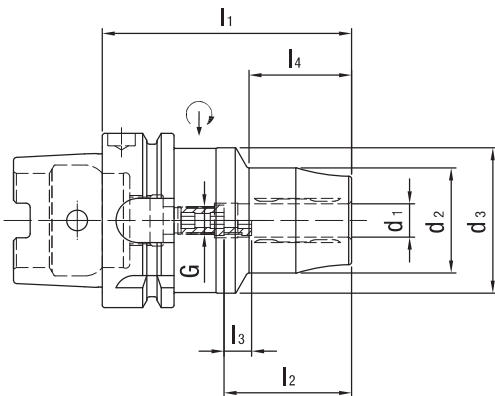
Narrow design, 3°



Nominal size HSK-A	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>					
63	3	9	50	120	28	16	73	M2,5	1,3	1	16.404.63.03.Z/120	30727351
63	3	13	50	160	28	16	110	M2,5	1,3	1,3	16.404.63.03.Z/160	30857133
63	3	13	50	200	28	16	151	M2,5	1,3	1,6	16.404.63.03.Z/200	30857148
63	4	10	50	120	28	12	73	M2,5	1,3	1	16.404.63.04.Z/120	30727356
63	4	14	50	160	28	12	110	M2,5	1,3	1,3	16.404.63.04.Z/160	30857138
63	4	14	50	200	28	12	151	M2,5	1,3	1,6	16.404.63.04.Z/200	30857151
63	5	11	50	120	28	8	73	M2,5	1,3	1	16.404.63.05.Z/120	30727359
63	5	15	50	160	28	8	110	M2,5	1,3	1,4	16.404.63.05.Z/160	30857140
63	5	15	50	200	28	8	151	M2,5	1,3	1,7	16.404.63.05.Z/200	30857152
63	6	12	50	120	37	10	74	M5	2,5	1	16.404.63.06.Z/120	30655463
63	6	16	50	160	37	10	111	M5	2,5	1,4	16.404.63.06.Z/160	30727381
63	6	16	50	200	37	10	152	M5	2,5	1,7	16.404.63.06.Z/200	30720821
63	7	13	50	120	37	10	74	M5	2,5	1,0	16.404.63.07.Z/120	30856764
63	8	14	50	120	37	10	74	M6	3	1	16.404.63.08.Z/120	30655465
63	8	18	50	160	37	10	111	M6	3	1,4	16.404.63.08.Z/160	30727383
63	8	18	50	200	37	10	152	M6	3	1,8	16.404.63.08.Z/200	30720823
63	9	15	50	120	37	10	74	M6	3	1,0	16.404.63.09.Z/120	30856766
63	10	16	50	120	41	10	74	M8x1	3	1	16.404.63.10.Z/120	30655466
63	10	20	50	160	41	10	113	M8x1	3	1,5	16.404.63.10.Z/160	30727385
63	10	20	50	200	41	10	154	M8x1	3	1,8	16.404.63.10.Z/200	30720824
63	11	17	50	120	41	10	74	M8x1	3	1,0	16.404.63.11.Z/120	30856768
63	12	18	50	120	46	10	75	M10x1	5	1	16.404.63.12.Z/120	30655467
63	12	22	50	160	46	10	113	M10x1	5	1,5	16.404.63.12.Z/160	30727390
63	12	22	50	200	46	10	154	M10x1	5	1,9	16.404.63.12.Z/200	30720825
63	13	20	50	120	46	10	75	M10x1	5	1,1	16.404.63.13.Z/120	30856770
63	14	22	50	120	46	10	71	M10x1	5	1,1	16.404.63.14.Z/120	30782387
63	14	26	50	160	46	10	113	M10x1	5	1,7	16.404.63.14.Z/160	30857142
63	14	26	50	200	46	10	154	M10x1	5	2,2	16.404.63.14.Z/200	30857153
63	16	24	50	120	49	10	71	M12x1	5	1,2	16.404.63.16.Z/120	30696274
63	16	28	50	160	49	10	113	M12x1	5	1,8	16.404.63.16.Z/160	30857145
63	16	28	50	200	49	10	154	M12x1	5	2,3	16.404.63.16.Z/200	30857156
63	18	26	50	120	49	10	72	M12x1	5	1,2	16.404.63.18.Z/120	30696276
63	18	30	50	160	49	10	115	M12x1	5	1,8	16.404.63.18.Z/160	30857146
63	18	30	50	200	49	10	156	M12x1	5	2,4	16.404.63.18.Z/200	30857157
63	20	28	50	120	51	10	72	M16x1	5	1,2	16.404.63.20.Z/120	30696278
63	20	32	50	160	51	10	115	M16x1	5	1,9	16.404.63.20.Z/160	30857147
63	20	32	50	200	51	10	156	M16x1	5	2,4	16.404.63.20.Z/200	30857159

# HPH - High Performance Holder DIN 69893-A

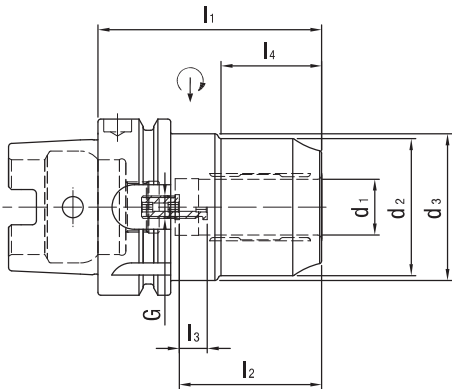
Short narrow design



Nominal size HSK-A	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$d_3$	$l_1$	$l_2$	$l_3$	$l_4$					
63	6	32	50	80	37	10	26	M5x15	2,5	1,1	16.407.63.06.Z	30339759
63	8	34	50	80	37	10	27	M6x15	3	1,1	16.407.63.08.Z	30339760
63	10	36	50	85	41	10	32	M8x1x15,5	3	1,2	16.407.63.10.Z	30339761
63	12	38	52,5	90	46	10	37	M10x1x9,8	5	1,3	16.407.63.12.Z	30339762
63	14	40	52,5	90	46	10	37	M10x1x13	5	1,3	16.407.63.14.Z	30339763
63	16	42	52,5	95	49	10	42	M12x1x15	5	1,5	16.407.63.16.Z	30339764
63	18	44	52,5	95	49	10	42	M12x1x17	5	1,5	16.407.63.18.Z	30339765
63	20	48	52,5	100	51	10	45	M16x1x15,8	5	1,5	16.407.63.20.Z	30339766
63	25	57	53	120	57	10	62	M16x1x19,8	5	2,1	16.407.63.25.Z	30339767
63	32	63	53	125	61	10	62	M16x1x25,8	5	2,3	16.407.63.32.Z	30339768

# HPH - High Performance Holder DIN 69893-A

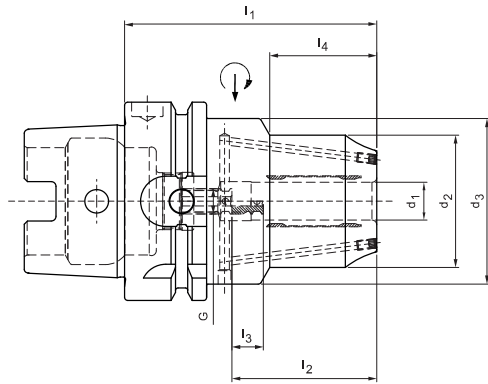
Short heavy duty design



Nominal size HSK-A	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$d_3$	$l_1$	$l_2$	$l_3$	$l_4$					
63	12	42	52,5	80	46	10	34	M8x1	3	1,1	16.408.63.12.Z	30494132
63	20	49	52,5	80	51	10	36	M8x1	3	1,3	16.408.63.20.Z	30372363

# HPH - High Performance Holder DIN 69893-A

Short heavy duty design, with resealable coolant duct holes

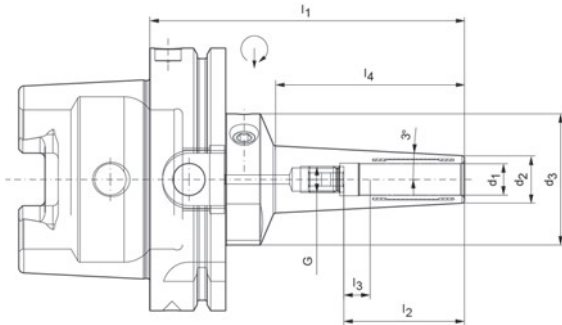


Nominal size HSK-A	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$d_3$	$l_1$	$l_2$	$l_3$	$l_4$					
63	12	42	52,5	80	46	10	34	M8x1	3	1,6	16.408.63.12.KKB	30565349
63	16	46	52,5	80	49	10	35	M8x1	3	1,4	16.408.63.16.KKB	30565353
63	20	49	52,5	80	51	10	36	M8x1	3	1,4	16.408.63.20.KKB	30565354

# HPH - High Performance Holder

## HPH 3° MULTI, DIN 69893-A

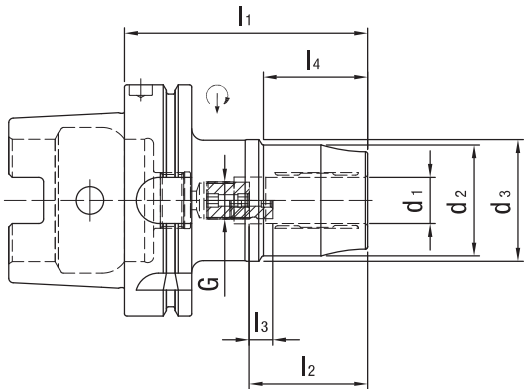
Narrow design, 3°



Nominal size HSK-A	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$d_3$	$l_1$	$l_2$	$l_3$	$l_4$					
100	3	9	50	120	28,0	16	70,0	M2,5	1,3	2,3	16.404.100.03.Z/120	30856775
100	4	10	50	120	28,0	12	70,0	M2,5	1,3	2,3	16.404.100.04.Z/120	30845043
100	5	11	50	120	28,0	8	70,0	M2,5	1,3	2,3	16.404.100.05.Z/120	30856776
100	6	12	50	120	37,0	10	70,0	M5,0	2,5	2,3	16.404.100.06.Z/120	30856777
100	7	13	50	120	37,0	10	70,0	M5,0	2,5	2,3	16.404.100.07.Z/120	30856778
100	8	14	50	120	37,0	10	71,0	M6,0	3	2,3	16.404.100.08.Z/120	30856779
100	9	15	50	120	37,0	10	71,0	M6,0	3	2,4	16.404.100.09.Z/120	30856780
100	10	16	50	120	41,0	10	71,0	M8x1	3	2,4	16.404.100.10.Z/120	30856781
100	11	17	50	120	41,0	10	71,0	M8x1	3	2,4	16.404.100.11.Z/120	30856782
100	12	18	50	120	46,0	10	72,0	M10x1	5	2,4	16.404.100.12.Z/120	30856783
100	13	20	50	120	46,0	10	72,0	M10x1	5	2,4	16.404.100.13.Z/120	30856784
100	14	22	50	120	46,0	10	68,0	M10x1	5	2,5	16.404.100.14.Z/120	30856785
100	16	24	50	120	49,0	10	68,0	M12x1	5	2,5	16.404.100.16.Z/120	30856786
100	18	26	50	120	49,0	10	69,0	M12x1	5	2,5	16.404.100.18.Z/120	30856787
100	20	28	50	120	51,0	10	69,0	M16x1	5	2,5	16.404.100.20.Z/120	30845056

# HPH - High Performance Holder DIN 69893-A

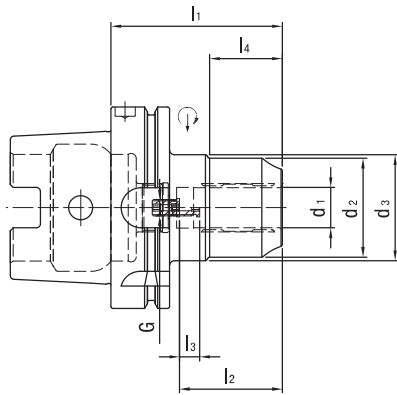
Short narrow design



Nominal size HSK-A	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$d_3$	$l_1$	$l_2$	$l_3$	$l_4$					
100	6	32	50	85	37	10	26	M5x15	2,5	2,8	16.407.100.06.Z	30469210
100	8	34	50	85	37	10	27	M6x15	3	2,8	16.407.100.08.Z	30469216
100	10	36	50	90	41	10	32	M8x1x15,5	3	2,9	16.407.100.10.Z	30469218
100	12	38	52,5	95	46	10	37	M10x1x9,8	5	2,9	16.407.100.12.Z	30469220
100	14	40	52,5	95	46	10	37	M10x1x13	5	2,9	16.407.100.14.Z	30469221
100	16	42	52,5	100	49	10	42	M12x1x15	5	3	16.407.100.16.Z	30469222
100	18	44	52,5	100	49	10	42	M12x1x17	5	3	16.407.100.18.Z	30469229
100	20	48	52,5	105	51	10	45	M16x1x15,8	5	3	16.407.100.20.Z	30469233
100	25	57	63	115	57	10	60	M16x1x19,8	5	3,8	16.407.100.25.Z	30469234
100	32	63	75	120	61	10	60	M16x1x25,8	5	4	16.407.100.32.Z	30469236

# HPH - High Performance Holder DIN 69893-A

Short heavy duty design

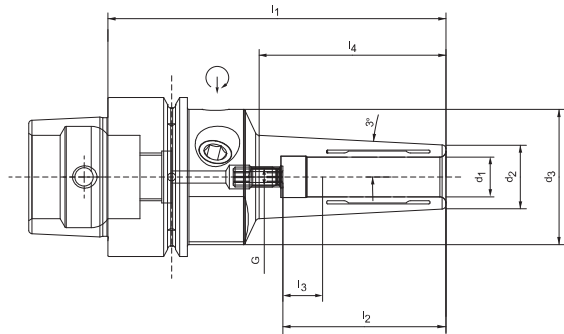


Nominal size HSK-A	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$d_3$	$l_1$	$l_2$	$l_3$	$l_4$					
100	12	42	52,5	85	46	10	34	M8x1	3	2,1	16.408.100.12.Z	30515435
100	20	49	52,5	85	51	10	36	M8x1	3	2,6	16.408.100.20.Z	30436113
100	32	68	72	100	61	10	42	M8x1	3	3,8	16.408.100.32.Z	30471219

# HPH - High Performance Holder

## HPH 3° MULTI, DIN 69893-E

Narrow design, 3°

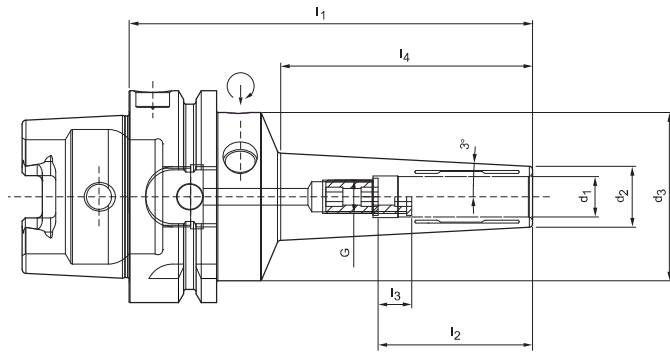


Nominal size HSK-A	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>					
40	3	9	34	85	28	16	45	M2,5	1,3	0,3	18.404.40.03.Z/85	30817154
40	4	10	34	85	28	12	45	M2,5	1,3	0,3	18.404.40.04.Z/85	30817157
40	5	11	34	85	28	8	45	M2,5	1,3	0,4	18.404.40.05.Z/85	30817158
40	6	12	34	85	37	10	46	M5	2,5	0,4	18.404.40.06.Z/85	30817160
40	8	14	34	85	37	10	46	M6	3	0,4	18.404.40.08.Z/85	30817161
40	10	16	34	85	41	10	47	M5	2,5	0,4	18.404.40.10.Z/85	30817162
40	12	18	34	85	46	10	47	M5	2,5	0,4	18.404.40.12.Z/85	30817165

# HPH - High Performance Holder

## HPH 3° MULTI, DIN 69893-E

Narrow design, 3°

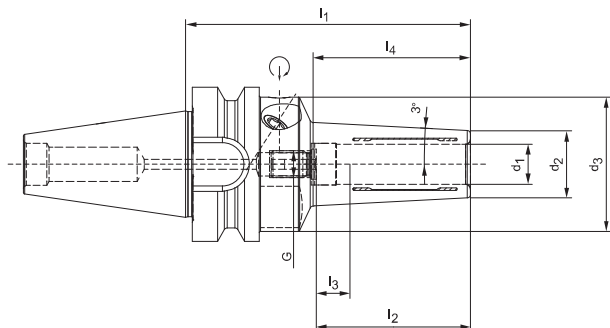


Nominal size HSK-A	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$d_3$	$l_1$	$l_2$	$l_3$	$l_4$					
50	3	9	42	85	28	16	37	M2,5	1,3	0,6	18.404.50.03.Z/85	30817167
50	4	10	42	85	28	12	37	M2,5	1,3	0,6	18.404.50.04.Z/85	30817169
50	5	11	42	85	28	8	37	M2,5	1,3	0,6	18.404.50.05.Z/85	30817175
50	6	12	42	85	37	10	38	M5	2,5	0,6	18.404.50.06.Z/85	30817178
50	8	14	42	85	37	10	38	M6	3	0,6	18.404.50.08.Z/85	30817181
50	10	16	42	85	41	10	39	M8x1	3	0,6	18.404.50.10.Z/85	30817186
50	12	18	42	85	46	10	39	M8x1	3	0,6	18.404.50.12.Z/85	30817187

# HPH - High Performance Holder

## HPH 3° MULTI, ISO 7388-2 (JIS B6339)

Narrow design, coolant supply as per ISO 7388-2, Form JD/JF

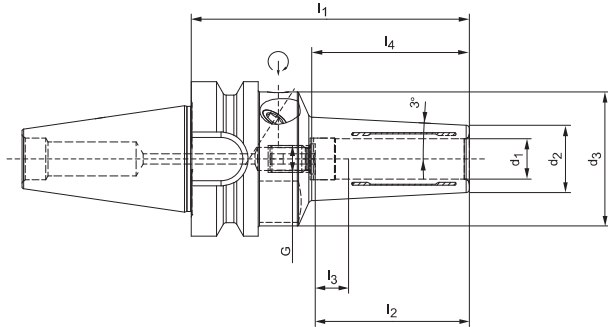


Nominal size BT	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>					
30	3	10	40	85	28	16	45	M2,5	1,3	0,6	22.404.30.03.Z/85	30818761
30	4	12	40	85	28	12	45	M2,5	1,3	0,6	22.404.30.04.Z/85	30818762
30	5	13	40	85	28	8	45	M2,5	1,3	0,6	22.404.30.05.Z/85	30818763
30	6	14	40	85	37	10	46	M5	2,5	0,6	22.404.30.06.Z/85	30818764
30	8	16	40	85	37	10	46	M6	3	0,7	22.404.30.08.Z/85	30818765
30	10	18	40	85	41	10	47	M8x1	3	0,7	22.404.30.10.Z/85	30818766
30	12	20	40	85	46	10	47	M8x1	3	0,7	22.404.30.12.Z/85	30818767
30	14	24	40	85	46	10	47	M8x1	3	0,7	22.404.30.14.Z/85	30818769
30	16	26	40	85	49	10	48	M8x1	3	0,7	22.404.30.16.Z/85	30818770
30	18	28	40	85	49	10	48	M8x1	3	0,7	22.404.30.18.Z/85	30818772
30	20	30	40	85	51	10	49	M8x1	3	0,7	22.404.30.20.Z/85	30818773

# HPH - High Performance Holder

## HPH 3° MULTI, ISO 7388-2 (JIS B6339)

Narrow design, FaceContact, coolant supply as per ISO 7388-2, Form JD/JF

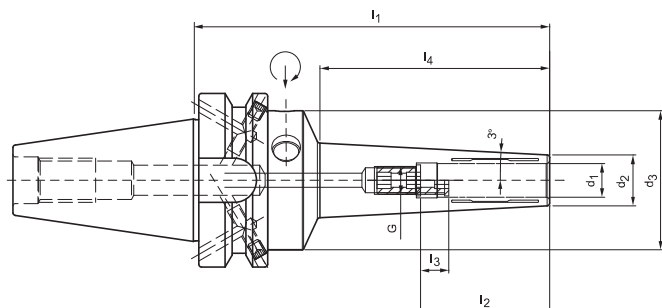


Nominal size BT-FC	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>					
30	3	10	40	85	28	16	45	M2,5	1,3	0,6	27.404.30.03.Z/85	30818925
30	4	12	40	85	28	12	45	M2,5	1,3	0,6	27.404.30.04.Z/85	30818927
30	5	13	40	85	28	8	45	M2,5	1,3	0,6	27.404.30.05.Z/85	30818930
30	6	14	40	85	37	10	46	M5	2,5	0,6	27.404.30.06.Z/85	30818932
30	8	16	40	85	37	10	46	M6	3	0,6	27.404.30.08.Z/85	30818934
30	10	18	40	85	41	10	47	M8x1	3	0,6	27.404.30.10.Z/85	30818936
30	12	20	40	85	46	10	47	M8x1	3	0,6	27.404.30.12.Z/85	30818939
30	14	24	40	85	46	10	47	M8x1	3	0,7	27.404.30.14.Z/85	30818941
30	16	26	40	85	49	10	48	M8x1	3	0,7	27.404.30.16.Z/85	30818942
30	18	28	40	85	49	10	48	M8x1	3	0,7	27.404.30.18.Z/85	30818944
30	20	30	40	85	51	10	49	M8x1	3	0,7	27.404.30.20.Z/85	30818947

# HPH - High Performance Holder

## HPH 3° MULTI, ISO 7388-2 (JIS B6339)

Narrow design, coolant supply as per ISO 7388-2, Form JD/JF



Nominal size BT	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>					
40	3	9	49,5	120	28	16	72	M2,5	1,3	1,3	22.404.40.03.Z.120	30777235
40	3	13	49,5	160	28	16	109	M2,5	1,3	1,6	22.404.40.03.Z/160	30856800
40	3	13	49,5	200	28	16	150	M2,5	1,3	1,9	22.404.40.03.Z/200	30857100
40	4	10	49,5	120	28	12	72	M2,5	1,3	1,3	22.404.40.04.Z.120	30777237
40	4	14	49,5	160	28	12	109	M2,5	1,3	1,7	22.404.40.04.Z/160	30856801
40	4	14	49,5	200	28	12	150	M2,5	1,3	1,9	22.404.40.04.Z/200	30857102
40	5	11	49,5	120	28	8	72	M2,5	1,3	1,3	22.404.40.05.Z.120	30777238
40	5	15	49,5	160	28	8	109	M2,5	1,3	1,7	22.404.40.05.Z/160	30856802
40	5	15	49,5	200	28	8	150	M2,5	1,3	2	22.404.40.05.Z/200	30857104
40	6	12	49,5	120	37	10	72	M5	2,5	1,3	22.404.40.06.Z.120	30756850
40	6	16	49,5	160	37	10	111	M5	2,5	1,7	22.404.40.06.Z/160	30856803
40	6	16	49,5	200	37	10	152	M5	2,5	2	22.404.40.06.Z/200	30857105
40	8	14	49,5	120	37	10	72	M6	3	1,3	22.404.40.08.Z.120	30756851
40	8	18	49,5	160	37	10	111	M6	3	1,7	22.404.40.08.Z/160	30856804
40	8	18	49,5	200	37	10	152	M6	3	2,0	22.404.40.08.Z/200	30857106
40	10	16	49,5	120	41	10	73	M8x1	3	1,3	22.404.40.10.Z.120	30756852
40	10	20	49,5	160	41	10	113	M8x1	3	1,8	22.404.40.10.Z/160	30856806
40	10	20	49,5	200	41	10	154	M8x1	3	2,2	22.404.40.10.Z/200	30857112
40	12	18	49,5	120	46	10	74	M10x1	5	1,3	22.404.40.12.Z.120	30756853
40	12	22	49,5	160	46	10	114	M10x1	5	1,9	22.404.40.12.Z/160	30856808
40	12	22	49,5	200	46	10	155	M10x1	5	2,2	22.404.40.12.Z/200	30857114
40	14	22	49,5	120	46	10	71	M10x1	5	1,4	22.404.40.14.Z.120	30856795
40	14	26	49,5	160	46	10	113	M10x1	5	2	22.404.40.14.Z/160	30856809
40	14	26	49,5	200	46	10	154	M10x1	5	2,5	22.404.40.14.Z/200	30857116
40	16	24	49,5	120	49	10	71	M12x1	5	1,5	22.404.40.16.Z.120	30856796
40	16	28	49,5	160	49	10	113	M12x1	5	2,1	22.404.40.16.Z/160	30856810
40	16	28	49,5	200	49	10	154	M12x1	5	2,6	22.404.40.16.Z/200	30857117
40	18	26	49,5	120	49	10	72	M12x1	5	1,5	22.404.40.18.Z.120	30856797
40	18	30	49,5	160	49	10	114	M12x1	5	2,2	22.404.40.18.Z/160	30856811
40	18	30	49,5	200	49	10	155	M12x1	5	2,6	22.404.40.18.Z/200	30857119
40	20	28	49,5	120	51	10	72	M16x1	5	1,5	22.404.40.20.Z.120	30856799
40	20	32	49,5	160	51	10	114	M16x1	5	2,2	22.404.40.20.Z/160	30856813
40	20	32	49,5	200	51	10	155	M16x1	5	2,7	22.404.40.20.Z/200	30857120

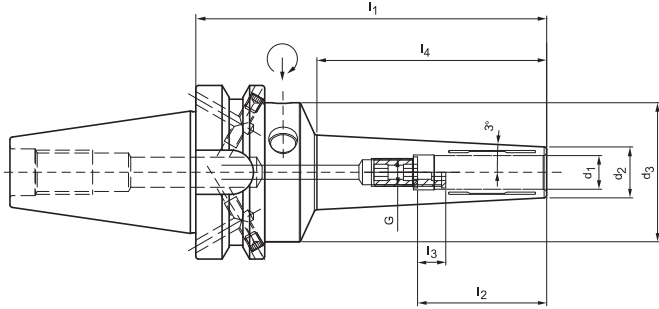
Dimensions in mm.

Basic form JD. Please indicate form JF (prev. B) in your order.

# HPH - High Performance Holder

## HPH 3° MULTI, ISO 7388-2 (JIS B6339)

Narrow design, FaceContact, coolant supply as per ISO 7388-2, FaceContact, Form JD/JF

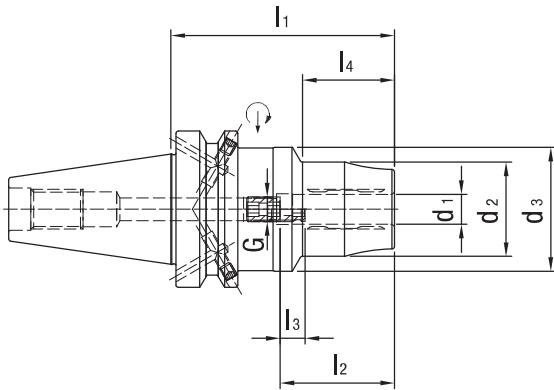


Nominal size BT-FC	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$d_3$	$l_1$	$l_2$	$l_3$	$l_4$					
40	3	9	49,5	120	28	16	72	M2,5	1,3	1,3	27.404.40.03.Z/120	30909966
40	4	10	49,5	120	28	12	72	M2,5	1,3	1,3	27.404.40.04.Z/120	30909968
40	5	11	49,5	120	28	8	72	M2,5	1,3	1,3	27.404.40.05.Z/120	30909970
40	6	12	49,5	120	37	10	72	M5	2,5	1,3	27.404.40.06.Z/120	30909971
40	8	14	49,5	120	37	10	72	M6	3	1,3	27.404.40.08.Z/120	30909972
40	10	16	49,5	120	41	10	73	M8x1	3	1,3	27.404.40.10.Z/120	30909973
40	12	18	49,5	120	46	10	74	M10x1	5	1,3	27.404.40.12.Z/120	30909975
40	14	22	49,5	120	46	10	71	M10x1	5	1,4	27.404.40.14.Z/120	30909976
40	16	24	49,5	120	49	10	71	M12x1	5	1,5	27.404.40.16.Z/120	30909977
40	18	26	49,5	120	49	10	72	M12x1	5	1,5	27.404.40.18.Z/120	30909978
40	20	28	49,5	120	51	10	72	M16x1	5	1,5	27.404.40.20.Z/120	30909979

Dimensions in mm.  
Basic form JD. Please indicate form JF (prev. B) in your order.

# HPH - High Performance Holder ISO 7388-2 (JIS B6339)

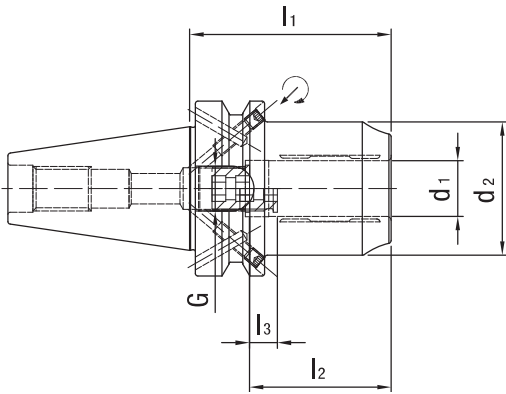
Short narrow design, coolant supply as per ISO 7388-2, Form JD/JF



Nominal size BT	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$d_3$	$l_1$	$l_2$	$l_3$	$l_4$					
40	6	32	50	80	37	10	26	M5x12,5	2,5	1,6	22.407.40.06.Z	30466220
40	8	34	50	80	37	10	27	M6x12,5	3	1,6	22.407.40.08.Z	30466222
40	10	36	50	85	41	10	32	M8x1x13,5	3	1,6	22.407.40.10.Z	30466224
40	12	38	50	90	46	10	37	M10x1x13,5	5	1,7	22.407.40.12.Z	30466234
40	14	40	50	90	46	10	37	M10x1x13,5	5	1,8	22.407.40.14.Z	30466239
40	16	42	50	95	49	10	42	M12x1x13,5	5	1,8	22.407.40.16.Z	30466242
40	18	44	50	95	49	10	42	M12x1x13,5	5	1,9	22.407.40.18.Z	30466244
40	20	48	50	100	51	10	45	M16x1x13,5	8	1,9	22.407.40.20.Z	30466246
40	25	57	52	110	57	10	60	M16x1x13,5	8	2,4	22.407.40.25.Z	30466250
40	32	63	62	120	61	10	65	M16x1x13,5	8	2,7	22.407.40.32.Z	30466252

# HPH - High Performance Holder ISO 7388-2 (JIS B6339)

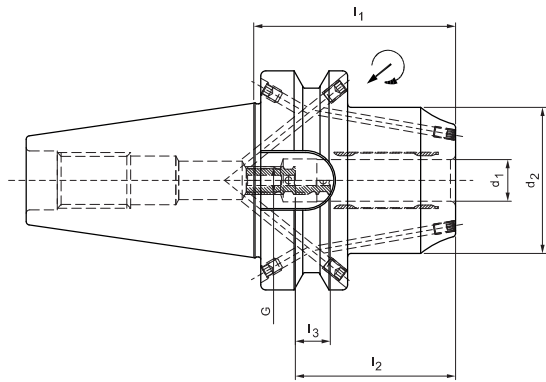
Short heavy duty design, coolant supply as per ISO 7388-2, Form JD/JF



Nominal size BT	Dimensions					G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$l_1$	$l_2$	$l_3$					
40	12	42	58	46	10	M8x1x13,5	3	1,1	22.408.40.12.Z	30494128
40	20	49	72,5	51	10	M16x1x13,5	8	1,4	22.408.40.20.Z	30372364

## HPH - High Performance Holder ISO 7388-2 (JIS B6339)

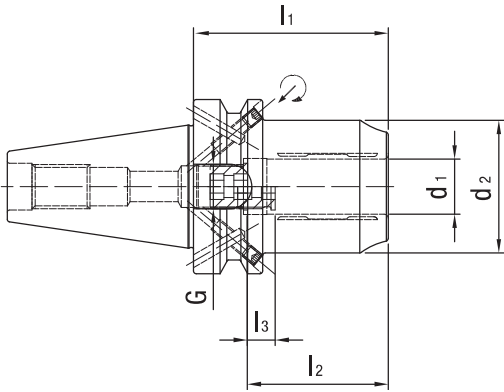
Short heavy duty design, coolant supply as per ISO 7388-2, Form JD/JF, with resealable coolant duct holes



Nominal size BT	Dimensions					G	sw	Weight [kg]	Order designation	Order No.
	d <sub>1</sub>	d <sub>2</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>					
40	12	42	58	46	10	M8x1	3	1,1	22.408.40.12.KKB	30565357
40	16	46	72,5	49	10	M12x1	5	1,3	22.408.40.16.KKB	30565359
40	20	49	72,5	51	10	M16x1	8	1,6	22.408.40.20.KKB	30565361

# HPH - High Performance Holder ISO 7388-2 (JIS B6339)

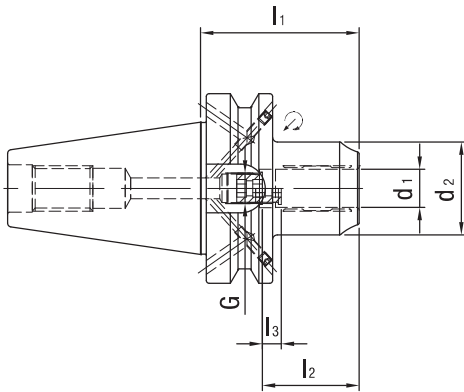
Short heavy duty design, coolant supply as per ISO 7388-2, FaceContact, Form JD/JF, with resealable coolant duct holes



Nominal size BT-FC	Dimensions					G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$l_1$	$l_2$	$l_3$					
40	12	42	58	46	10	M8x1	3	1,1	27.408.40.12.Z	30970446
40	20	49	72,5	51	10	M16x1	8	1,4	27.408.40.20.Z	30717004
40	32	63	90	61	10	M16x1	8		27.408.40.32.Z	30717007

# HPH - High Performance Holder ISO 7388-2 (JIS B6339)

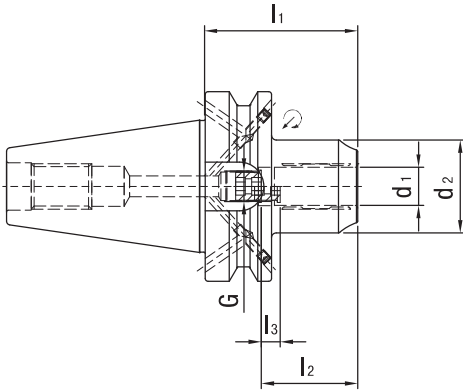
Short heavy duty design, coolant supply as per ISO 7388-2, Form JD/JF



Nominal size BT	Dimensions					G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$l_1$	$l_2$	$l_3$					
50	12	42	69	46	10	M8x1x13,5	3	3,4	22.408.50.12.Z	30515438
50	20	49	83,5	51	10	M16x1x13,5	8	4	22.408.50.20.Z	30435871
50	32	72	90	61	10	M16x1x13,5	8	4,6	22.408.50.32.Z	30471206

# HPH - High Performance Holder ISO 7388-2 (JIS B6339)

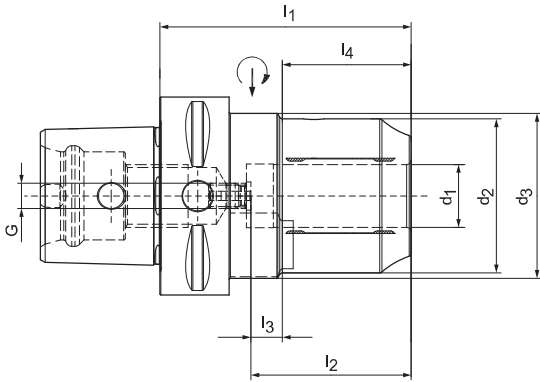
Short heavy duty design, FaceContact, coolant supply as per ISO 7388-2, Form JD/JF



Nominal size BT-FC	Dimensions					G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$l_1$	$l_2$	$l_3$					
50	12	42	69	46	10	M8x1	3	3,4	27.408.50.12.Z	30970463
50	20	49	83,5	51	10	M16x1	8	4	27.408.50.20.Z	30970465
50	32	72	90	61	10	M16x1	8	4,6	27.408.50.32.Z	30970466

# HPH - High Performance Holder PSC 63

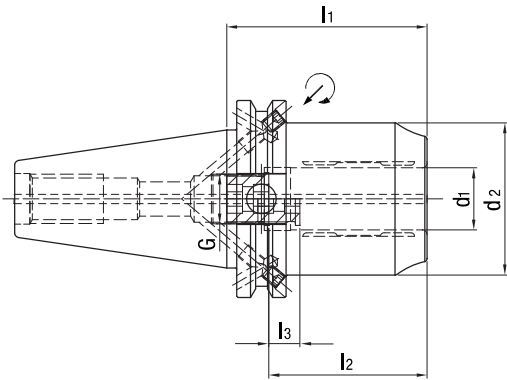
Short heavy duty design, according to ISO 26623-1, IK



Nominal size PSC	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	$d_1$	$d_2$	$d_3$	$l_1$	$l_2$	$l_3$	$l_4$					
63	20	49	52,5	80	51	10	41	M8x1	3	1,4	67.408.63.20.Z	30854987

# HPH - High Performance Holder ANSI CAT 40

Inch & metric series, short heavy duty design, coolant supply as per ISO 7388-1, Form AD/AF



HPH - High Performance Holder

## Inch series



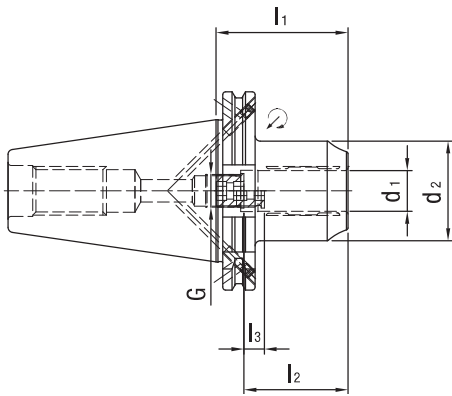
Nominal size CAT	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	d <sub>1</sub>		d <sub>2</sub>	l <sub>1</sub>		l <sub>2</sub>	l <sub>3</sub>					
	mm	inch	mm	mm	inch	mm	mm					
40	12,70	1/2	42,00	50,00	1,9685	46	10	M8x1	3	1,10	31.408.40.1/2".Z	30567770
40	15,88	5/8	44,50	50,00	1,9685	49	10	M12x1	5	1,10	31.408.40.5/8".Z	30567771
40	19,05	3/4	49,00	64,50	2,5394	51	10	M16x1	8	1,30	31.408.40.3/4".Z	30567773

## Metric Series

Nominal size CAT	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	d <sub>1</sub>		d <sub>2</sub>	l <sub>1</sub>		l <sub>2</sub>	l <sub>3</sub>					
	mm	inch	mm	mm	inch	mm	mm					
40	20,00	0,7874	49,00	64,50	2,5394	51	10	M16x1	8	1,30	31.408.40.20.Z	30560822

# HPH - High Performance Holder ANSI CAT 50

Metric series, short heavy duty design, coolant supply as per ISO 7388-1, Form AD/AF



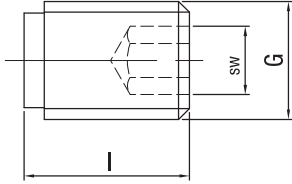
## Metric Series



Nominal size CAT	Dimensions							G	sw	Weight [kg]	Order designation	Order No.
	d <sub>1</sub>		d <sub>2</sub>	l <sub>1</sub>		l <sub>2</sub>	l <sub>3</sub>					
	mm	inch	mm	mm	inch	mm	mm					
50	20,00	0,7874	49,00	64,50	2,5394	51	10	M16x1	8	3,10	31.408.50.20.Z	30586001

# Pressure Screw HPH

For pressure input. High-strength pressure screws - for safe acceptance of high clamping forces  
 Coated pressure screws DLC - for optimum wear protection and long service life



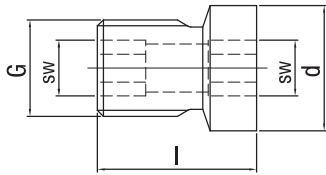
Order designation	Order No.	G	sw	l	Weight [kg]
89.122.288	10003470	M10	5	10	0,006
89.122.287	10070217	M10	5	14	0,009

## Allocation of Pressure Screw HPH

Order designation	Order No.	G	sw	l	For High Performance Holder
89.122.288	10003470	M10	5	10	16.408.63.20.Z; 16.408.100.20.Z; 16.408.63.12.Z; 16.408.100.12.Z
89.122.287	10070217	M10	5	14	Others

## Stop Screw HPH

For length adjustment



### Stop Screw HPH for HSK-A63; HSK-A100; SK40

Order designation	Order No.	G	sw	For clamping diameter	d	l	Weight [kg]
89.122.119	30340240	M5	2,5	6	5,5	15	0,001
89.122.120	30340241	M6	3	8	7	15	0,002
89.122.121	30340242	M8x1	3	10	9	15,5	0,005
89.122.122	30340243	M10x1	5	12	9,8	15,5	0,006
89.122.123	30340244	M10x1	5	14	13	16,5	0,008
89.122.124	30340245	M12x1	5	16	15	18	0,015
89.122.125	30340246	M12x1	5	18	17	20	0,02
89.122.126	30340247	M16x1	5	20	15,8	18,5	0,03
89.122.127	30340249	M16x1	5	25	19,8	22	0,05
89.122.128	30340250	M16x1	5	32	25,8	25	0,07

### Stop Screw HPH for BT40

Only "wet" design - thus short cantilever length

Order designation	Order No.	G	sw	For clamping diameter	d	l	Weight [kg]
89.122.88	30252539	M5	2,5	6	5,5	12,5	0,001
89.122.89	30252540	M6	3	8	7	12,5	0,002
89.122.23	30252541	M8x1	3	10	9	13,5	0,004
89.122.90	30252542	M10x1	5	12	9,8	13,5	0,006
89.122.90	30252542	M10x1	5	14	9,8	13,5	0,006
89.122.24	30252543	M12x1	5	16	13	13,5	0,011
89.122.24	30252543	M12x1	5	18	13	13,5	0,011
89.122.91	30252547	M16x1	8	20	15,8	13,5	0,021
89.122.91	30252547	M16x1	8	25	15,8	13,5	0,021
89.122.91	30252547	M16x1	8	32	15,8	13,5	0,021

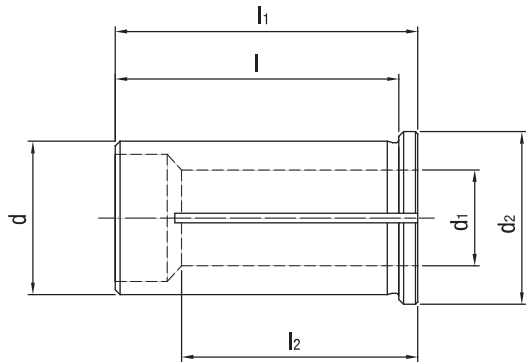
### Stop Screw HPH for short heavy duty design

Only "wet" design - thus short cantilever length

Order designation	Order No.	G	sw	For clamping diameter
89.122.23	30252541	M8x1	3	20 (HSK)
89.122.91	30252547	M16x1	8	20 (ISO/BT)

## Reducing Sleeve, coolant sealed

With slits, for flexible diameter application

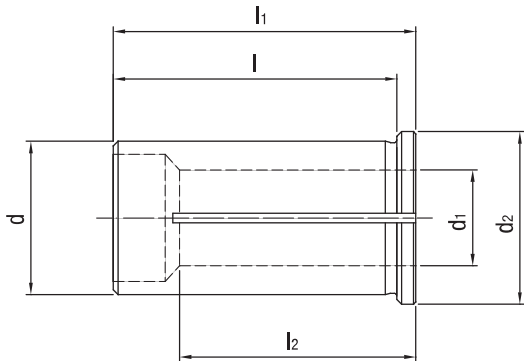


Dimensions							Order designation	Order No.
d	d <sub>1</sub>	d <sub>2</sub>	l	l <sub>1</sub>	l <sub>2</sub>	Weight [kg]		
12	1	16	40	44	20	0,04	40.456.12.01.Z	30503691
12	1,5	16	40	44	20	0,04	40.456.12.015.Z	30503718
12	2	16	40	44	20	0,04	40.456.12.02.Z	30503725
12	2,5	16	40	44	20	0,04	40.456.12.025.Z	30503728
12	3	16	40	44	29	0,03	40.456.12.03.Z	30251059
12	4	16	40	44	29	0,03	40.456.12.04.Z	30251060
12	5	16	40	44	29	0,03	40.456.12.05.Z	30251061
12	6	16	40	44	36	0,03	40.456.12.06.Z	30251062
12	7	16	40	44	37	0,03	40.456.12.07.Z	30251063
12	8	16	40	44	37	0,02	40.456.12.08.Z	30251064
12	9	16	40	44	37	0,02	40.456.12.09.Z	30251065
12	10	16	40	44	40	0,01	40.456.12.10.Z	30251066
20	3	25	50	54	28	0,1	40.456.20.03.Z	30251067
20	4	25	50	54	28	0,1	40.456.20.04.Z	30251068
20	5	25	50	54	28	0,1	40.456.20.05.Z	30251069
20	6	25	50	54	36	0,1	40.456.20.06.Z	30251070
20	7	25	50	54	38	0,1	40.456.20.07.Z	30251071
20	8	25	50	54	37	0,09	40.456.20.08.Z	30251072
20	9	25	50	54	38	0,09	40.456.20.09.Z	30251073
20	10	25	50	54	40	0,09	40.456.20.10.Z	30251074
20	11	25	50	54	40	0,08	40.456.20.11.Z	30251075
20	12	25	50	54	45	0,08	40.456.20.12.Z	30251076
20	13	25	50	54	45	0,07	40.456.20.13.Z	30251077
20	14	25	50	54	45	0,07	40.456.20.14.Z	30251078
20	15	25	50	54	45	0,06	40.456.20.15.Z	30251079
20	16	25	50	54	48	0,05	40.456.20.16.Z	30251080

Caution: Never clamp without tool - the reducing sleeve will be damaged!

## Reducing Sleeve, coolant sealed

With slits, for flexible diameter application

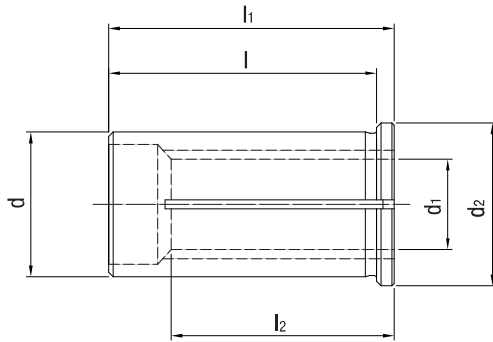


Dimensions							Order designation	Order No.
d	d <sub>1</sub>	d <sub>2</sub>	l	l <sub>1</sub>	l <sub>2</sub>	Weight [kg]		
25	3	30	56	60	29	0,18	40.456.25.03.Z	30251081
25	4	30	56	60	29	0,18	40.456.25.04.Z	30251082
25	5	30	56	60	29	0,18	40.456.25.05.Z	30251083
25	6	30	56	60	37	0,18	40.456.25.06.Z	30251084
25	7	30	56	60	37	0,18	40.456.25.07.Z	30251085
25	8	30	56	60	37	0,17	40.456.25.08.Z	30251086
25	9	30	56	60	38	0,17	40.456.25.09.Z	30251087
25	10	30	56	60	40	0,16	40.456.25.10.Z	30251088
25	12	30	56	60	46	0,15	40.456.25.12.Z	30251089
25	14	30	56	60	47	0,14	40.456.25.14.Z	30251090
25	16	30	56	60	48	0,13	40.456.25.16.Z	30251091
25	18	30	56	60	48	0,11	40.456.25.18.Z	30251092
25	20	30	56	60	50	0,09	40.456.25.20.Z	30251093
32	6	36	60	64	36	0,31	40.456.32.06.Z	30251094
32	7	36	60	64	37	0,31	40.456.32.07.Z	30251095
32	8	36	60	64	36	0,3	40.456.32.08.Z	30251096
32	9	36	60	64	37	0,3	40.456.32.09.Z	30251097
32	10	36	60	64	40	0,29	40.456.32.10.Z	30251098
32	11	36	60	64	40	0,28	40.456.32.11.Z	30251099
32	12	36	60	64	45	0,28	40.456.32.12.Z	30251100
32	13	36	60	64	45	0,28	40.456.32.13.Z	30251101
32	14	36	60	64	46	0,27	40.456.32.14.Z	30251102
32	15	36	60	64	46	0,26	40.456.32.15.Z	30251103
32	16	36	60	64	48	0,26	40.456.32.16.Z	30251104
32	17	36	60	64	48	0,25	40.456.32.17.Z	30251105
32	18	36	60	64	49	0,24	40.456.32.18.Z	30251106
32	19	36	60	64	49	0,23	40.456.32.19.Z	30251107
32	20	36	60	64	50	0,22	40.456.32.20.Z	30251108
32	22	36	60	64	50	0,19	40.456.32.22.Z	30251109
32	25	36	60	64	56	0,15	40.456.32.25.Z	30251110

Caution: Never clamp without tool - the reducing sleeve will be damaged!

## Reducing Sleeve, KKB

With coolant bores, for flexible diameter application



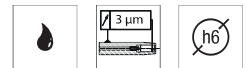
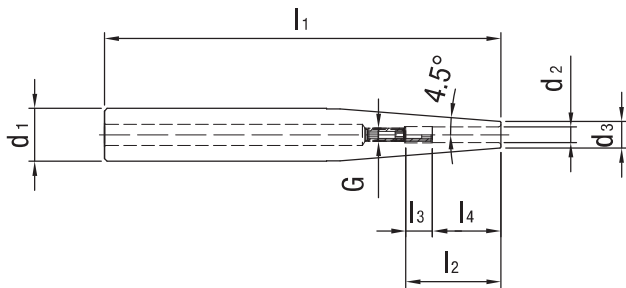
Dimensions							Order designation	Order No.
d	d <sub>1</sub>	d <sub>2</sub>	l	l <sub>1</sub>	l <sub>2</sub>	Weight [kg]		
12	3	16	40	44	29	0,03	40.456.12.03.KKB	30557343
12	4	16	40	44	29	0,03	40.456.12.04.KKB	30557344
12	5	16	40	44	29	0,03	40.456.12.05.KKB	30557345
12	6	16	40	44	36	0,03	40.456.12.06.KKB	30557346
12	8	16	40	44	37	0,02	40.456.12.08.KKB	30557347
20	3	25	50	54	28	0,1	40.456.20.03.KKB	30557348
20	4	25	50	54	28	0,1	40.456.20.04.KKB	30557350
20	5	25	50	54	28	0,1	40.456.20.05.KKB	30557351
20	6	25	50	54	36	0,1	40.456.20.06.KKB	30557352
20	8	25	50	54	37	0,09	40.456.20.08.KKB	30557353
20	10	25	50	54	40	0,09	40.456.20.10.KKB	30557354
20	12	25	50	54	45	0,08	40.456.20.12.KKB	30557355
20	14	25	50	54	45	0,07	40.456.20.14.KKB	30557356
20	16	25	50	54	48	0,05	40.456.20.16.KKB	30557358
32	6	36	60	64	36	0,31	40.456.32.06.KKB	30557359
32	8	36	60	64	36	0,3	40.456.32.08.KKB	30557360
32	10	36	60	64	40	0,29	40.456.32.10.KKB	30557361
32	12	36	60	64	45	0,28	40.456.32.12.KKB	30557362
32	14	36	60	64	46	0,27	40.456.32.14.KKB	30557364
32	16	36	60	64	48	0,26	40.456.32.16.KKB	30557365
32	18	36	60	64	49	0,24	40.456.32.18.KKB	30557366
32	20	36	60	64	50	0,22	40.456.32.20.KKB	30557367
32	25	36	60	64	56	0,15	40.456.32.25.KKB	30557369

Caution: Never clamp without tool - the reducing sleeve will be damaged!

## Shrink Extension

As flexible adaptation, length adjustment screw (from  $\varnothing$  6mm)

Tool length as per customer request possible

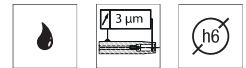
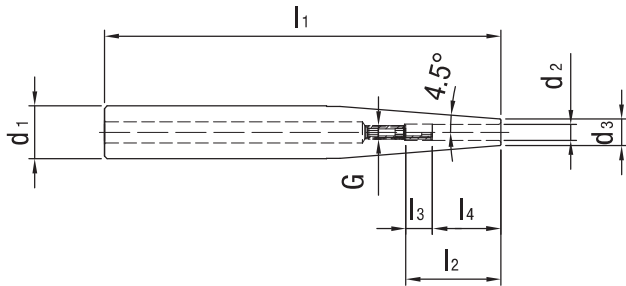


Dimensions							G	sw	Weight [kg]	Order designation	Order No.
d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>					
12	3	8	150	-	-	12	-	0,1	-	40.357.12.03.Z	30344729
12	4	8	150	-	-	16	-	0,1	-	40.357.12.04.Z	30344730
12	5	10	150	-	-	20	-	0,1	-	40.357.12.05.Z	30344731
12	6	10	150	36	10	26	M5	2,5	0,1	40.357.12.06.Z	30344732
16	3	10	150	-	-	12	-	0,2	-	40.357.16.03.Z	30344733
16	4	10	150	-	-	16	-	0,2	-	40.357.16.04.Z	30344734
16	5	10	150	-	-	20	-	0,2	-	40.357.16.05.Z	30344735
16	6	10	150	36	10	26	M5	2,5	0,2	40.357.16.06.Z	30344736
16	8	12	150	36	10	26	M6	3	0,2	40.357.16.08.Z	30344737
20	3	10	150	-	-	12	-	0,3	-	40.357.20.03.Z	30344738
20	4	10	150	-	-	16	-	0,3	-	40.357.20.04.Z	30344739
20	5	10	150	-	-	20	-	0,3	-	40.357.20.05.Z	30344740
20	6	10	150	36	10	26	M5	2,5	0,3	40.357.20.06.Z	30344741
20	8	12	150	36	10	26	M6	3	0,3	40.357.20.08.Z	30344742
20	10	14	150	42	10	32	M8x1	3	0,3	40.357.20.10.Z	30344743
20	12	16	150	47	10	37	M10x1	5	0,3	40.357.20.12.Z	30344744

## Shrink Extension

As flexible adaptation, length adjustment screw (from  $\varnothing 6\text{mm}$ )

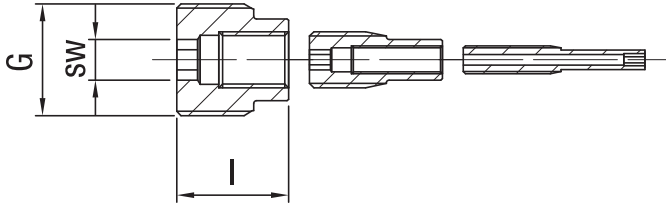
Tool length as per customer request possible



Dimensions							G	sw	Weight [kg]	Order designation	Order No.
d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	l <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>					
25	3	10	150	-	-	12	-	0,5	-	40.357.25.03.Z	30344745
25	4	10	150	-	-	16	-	0,5	-	40.357.25.04.Z	30344746
25	5	15	150	-	-	20	-	0,5	-	40.357.25.05.Z	30344747
25	6	20	150	36	10	26	M5	2,5	0,5	40.357.25.06.Z	30344748
25	8	20	150	36	10	26	M6	3	0,5	40.357.25.08.Z	30344749
25	10	20	150	42	10	32	M8x1	3	0,5	40.357.25.10.Z	30344750
25	12	20	150	47	10	37	M10x1	5	0,5	40.357.25.12.Z	30344751
25	14	20	150	47	10	37	M10x1	5	0,4	40.357.25.14.Z	30344752
25	16	22	150	50	10	40	M10x1	5	0,4	40.357.25.16.Z	30344753
32	6	20	150	36	10	26	M5	2,5	0,8	40.357.32.06.Z	30344754
32	8	20	150	36	10	26	M6	3	0,8	40.357.32.08.Z	30344755
32	10	24	150	42	10	32	M8x1	3	0,8	40.357.32.10.Z	30344756
32	12	24	150	47	10	37	M10x1	5	0,8	40.357.32.12.Z	30344757
32	14	27	150	47	10	37	M10x1	5	0,8	40.357.32.14.Z	30344758
32	16	27	150	50	10	40	M10x1	5	0,8	40.357.32.16.Z	30344759
32	18	27	150	50	10	40	M10x1	5	0,7	40.357.32.18.Z	30337832
32	20	27	150	52	10	42	M10x1	5	0,7	40.357.32.20.Z	30337833

## AAS Stop Screw

With the use of WTE Reducing Sleeves for axial length adjustment



### Stop Screw AAS 12 for order designation 40.456.12.xx

Dimensions				Order designation	Order No.
G	sw	l	Weight [kg]		
M10x1	2,5	16	0,002	89.122.103	30308896
M4x0,5	1,5	26	0,001	89.122.101	30308901

### Stop Screw AAS 20 for order designation 40.456.20.xx

Dimensions				Order designation	Order No.
G	sw	l	Weight [kg]		
M16x1	5	16	0,002	89.122.99	30308897
M8x1	2,5	19	0,002	89.122.100	30308899
M4x0,5	1,5	26	0,001	89.122.101	30308901

### Stop Screw AAS 25 for order designation 40.456.25.xx

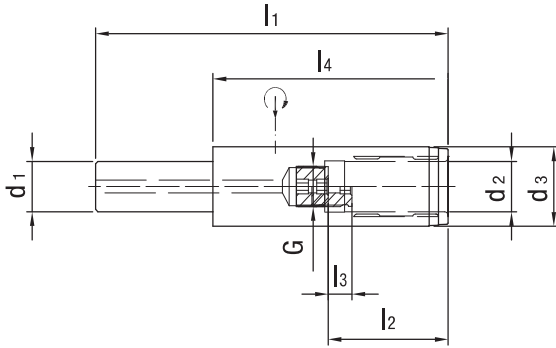
Dimensions				Order designation	Order No.
G	sw	l	Weight [kg]		
M16x1	5	20	0,002	89.122.104	30308904
M8x1	2,5	19	0,002	89.122.100	30308899
M4x0,5	1,5	26	0,001	89.122.101	30308901

### Stop Screw AAS 32 for order designation 40.456.32.xx

Dimensions				Order designation	Order No.
G	sw	l	Weight [kg]		
M16x1	5	20	0,002	89.122.104	30308904
M8x1	2,5	19	0,002	89.122.100	30308899

## Hydraulic Expansion Extension

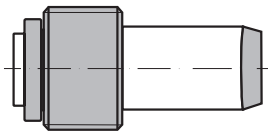
As flexible adaptation



Dimensions							G	sw	Weight [kg]	Order designation	Order No.
$d_1$	$d_2$	$d_3$	$l_1$	$l_2$	$l_3$	$l_4$					
20	12	25	150	46	10	100	M10x1	5	0.5	40.557.20.12.Z	30479021
20	20	31.5	150	51	10	100	M16x1	5	0.6	40.557.20.20.Z	30479022
32	20	31.5	150	51	10	90	M16x1	5	0.7	40.557.32.20.Z	30479024
32	20	31.5	200	51	10	90	M16x1	5	0.8	40.557.32.20.Z/200	30479025

## Coolant Transfer Pipe

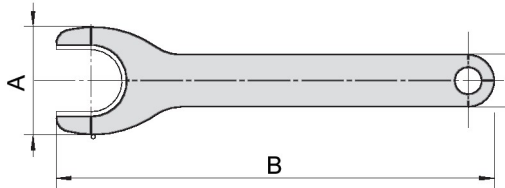
For DIN 69893-A/E



HSK	Weight [kg]	Order designation	Order No.
32	0,01	89.220.72	30326003
40	0,01	89.220.73	30326004
50	0,02	89.220.74	30326005
63	0,02	89.220.75	30326006
80	0,02	89.220.76	30326007
100	0,03	89.220.77	30326008

## Extraction Key

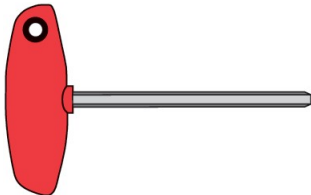
For easy extraction of the Reducing Sleeves from the WTE Hydraulic Chuck



For	A	B	Order designation	Order No.
HS 12	24,6	100	89.206.26	30251198
HS 20	38	160	89.206.27	30251199
HS 25	51	180	89.206.28	30251200
HS 32	63	200	89.206.29	30251201

## Hexagonal T-key

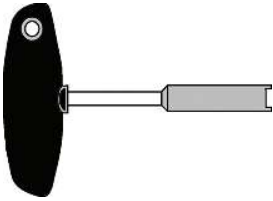
For axial length adjustment



sw	l	Weight [kg]	Order designation	Order No.
2,5	150	0,02	89.206.01	10034540
3	150	0,02	89.206.02	10013347
5	150	0,06	89.206.03	10041807
8	150	0,1	89.206.04	10041808

## Assembly Key

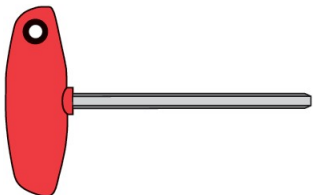
For Coolant Transfer Pipe



sw	Weight [kg]	Order designation	Order No.
32	0,01	89.206.20	10074750
40	0,01	89.206.21	10074751
50	0,01	89.206.22	10074752
63	0,01	89.206.23	10040110
80	0,02	89.206.24	10074774
100	0,02	89.206.25	10074775

## Hexagonal T-key

For pressure input



sw	l	Weight [kg]	Order designation	Order No.
5	100	0,06	89.206.15	10006236