



Your technology partner for cost-effective machining

UNIQ® – the new generation of hydraulic expansion technology

# INDUSTRIAL DESIGN WITH ADDED VALUE – UNIQ® CHUCK

The newly-developed hydraulic clamping system enables high machining parameters through excellent stability and accuracy. It minimises self-excited vibration so that clamped tools are not exposed to micro-vibration. This in turn leads to a reduced spindle load of up to 5 percent, enables a significantly longer tool life and guarantees optimal surface quality.

In addition, the brilliant surface which MAPAL creates using a specially developed polishing process ensures that the chucks are more resistant to dirt and corrosion. Users can safely clamp the tool in the holder with little force requirement. This is ensured by "foolproof handling", i.e. simple and self-explanatory handling of the chucks. This saves a considerable amount of time compared to other clamping mechanisms, especially with the Hydro DReaM Chuck 4.5°.



### Design features in detail:

#### Design philosophy

FEM supported contours for maximum rigidity with minimum use of resources

#### Blue actuator screw

- Optical control element foolproof
- Reduced risk of errors and accidents

#### Polished surface

Maximum resistance to corrosion and dirt

#### Reduced tightening torque

- Reduction of non-productive timeErgonomic handling

### Signature elements

Information on function and product



### Formal language - Bionic contours

- Higher stability and accuracy of the overall system
- Less displacement of the tool
- The tool cutting edge is constantly in intervention
- Less weight due to minimal use of resources
- Fits well in the hand when setting up the tool magazine
- Self-excited vibrations are minimized
- The tools are not exposed to micro vibrations



#### Polished surfaces

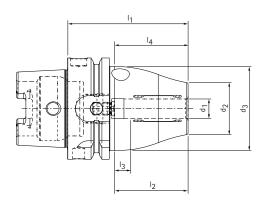
- Dirt resistance (corrosion resistance) increased
- Highest balancing qualities due to compacted



### Blue actuation screw | Signature Elements

- Clear assignment of the operating screw and easier actuation by reducing the up to 70 %reduced tightening torque of the operating screw
- Clarity of the product created, important functional and product information immediately available

With axial tool length adjustment Shank hollow shank taper A according to DIN 69893-1





LICK V	Dimensions					G	Torque *	Specification	Order No.	Availability		
HSK-A	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	I <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	I <sub>4</sub>		[Nm]			
63	6,0	26,0	50,0	65,0	37,0	10,0	35,2	M5	22	MHC-HSK-A063-06-065-1-0-A	31270591	
63	8,0	28,0	50,0	65,0	37,0	10,0	35,2	M6	47	MHC-HSK-A063-08-065-1-0-A	31270593	
63	10,0	30,0	50,0	75,0	41,0	10,0	45,2	M8x1	85	MHC-HSK-A063-10-075-1-0-A	31270595	
63	12,0	32,0	52,5	75,0	46,0	10,0	45,2	M8x1	130	MHC-HSK-A063-12-075-1-0-A	31229418	
63	14,0	34,0	52,5	75,0	46,0	10,0	45,2	M8x1	240	MHC-HSK-A063-14-075-1-0-A	31374670	in stock
63	16,0	38,0	52,5	79,0	49,0	10,0	49,2	M8x1	350	MHC-HSK-A063-16-079-1-0-A	31270598	III Stock
63	18,0	38,0	52,5	79,0	49,0	10,0	49,2	M8x1	430	MHC-HSK-A063-18-079-1-0-A	31374671	
63	20,0	38,0	52,5	79,0	51,0	10,0	49,2	M8x1	520	MHC-HSK-A063-20-079-1-0-A	31229438	
63	25,0	48,0	57,0	95,0	57,0	10,0	45,0	M10x1	700	MHC-HSK-A063-25-095-1-0-A	31396170	
63	32,0	58,5	62,5	110,0	61,0	10,0	56,6	M10x1	900	MHC-HSK-A063-32-110-1-0-A	31396171	
100	6,0	26,0	50,0	73,0	37,0	10,0	40,2	M5	22	MHC-HSK-A100-06-073-1-0-A	31345192	
100	8,0	28,0	50,0	73,0	37,0	10,0	40,2	M6	47	MHC-HSK-A100-08-073-1-0-A	31345193	
100	10,0	30,0	50,0	83,0	41,0	10,0	50,2	M8x1	85	MHC-HSK-A100-10-083-1-0-A	31345194	
100	12,0	32,0	52,5	83,0	46,0	10,0	50,2	M8x1	130	MHC-HSK-A100-12-083-1-0-A	31345195	
100	14,0	34,0	52,5	83,0	46,0	10,0	50,2	M8x1	240	MHC-HSK-A100-14-083-1-0-A	31345196	
100	16,0	38,0	52,5	87,0	49,0	10,0	54,2	M8x1	350	MHC-HSK-A100-16-087-1-0-A	31345197	in stock
100	18,0	38,0	52,5	87,0	49,0	10,0	54,2	M8x1	430	MHC-HSK-A100-18-087-1-0-A	31345198	
100	20,0	38,0	52,5	87,0	51,0	10,0	54,2	M8x1	520	MHC-HSK-A100-20-087-1-0-A	31345199	
100	25,0	56,0	70,0	95,0	57,0	10,0	62,2	M10x1	700	MHC-HSK-A100-25-095-1-0-A	31345200	
100	32,0	60,0	75,0	100,0	61,0	10,0	67,2	M10x1	900	MHC-HSK-A100-32-100-1-0-A	31345201	

<sup>\*</sup> Permissible transmittable torque.

### Dimensions in mm.

Application: For clamping tools with smooth cylindrical shanks to DIN 1835 Form A, DIN 6535 Form HA as well as with recesses to DIN 1835 Form B, E and DIN 6535 Form HB, HE directly and with reducing sleeve in the clamping diameter. The clamping diameter is designed for a shank tolerance h6.

Scope of delivery: With length adjustment screw, without coolant tube.

Design: Highest tool life and production quality when using smooth shanks according to DIN 1835 form A and DIN 6535 form HA.

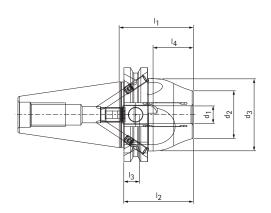
With a length of 2.5xD (max. 50 mm) concentricity 3  $\mu$ m. When using cylindrical shanks

with inclined clamping surface (form E and form HE), the accuracy may be impaired. Torque transmission perfectly tailored to your application.

Note: Coolant supply via central through hole. Coolant tubes, code carriers, reducing sleeves for reducing the clamping diameter (when using the reducing sleeve, an impairment of the accuracy is possible) see category accessories, spare parts and measuring equipment. Length adjustment screws available on request.

Balance quality: G 2.5 at 25,000 min-1 as delivered.

With axial tool length adjustment
Shank hollow shank taper A according to ISO 7388-1 form AD/AF





SK				Dime	nsions				G	Torque *	Specification	Order No.	Availability
3N	d <sub>1</sub>	$d_2$	$d_3$	d <sub>4</sub>	I <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	I <sub>4</sub>		[INTT]			
40	6,0	26,0	42,0	-	50,0	37,0	10,0	27,1	M5	22	MHC-SK040-06-050-3-0-A	31345212	
40	8,0	28,0	42,0	-	50,0	37,0	10,0	27,1	M6	47	MHC-SK040-08-050-3-0-A	31345213	
40	10,0	30,0	42,0	-	50,0	41,0	10,0	27,1	M8x1	85	MHC-SK040-10-050-3-0-A	31345214	
40	12,0	32,0	49,0	-	50,0	46,0	10,0	27,1	M10x1	130	MHC-SK040-12-050-3-0-A	31345215	
40	14,0	34,0	49,0	-	50,0	46,0	10,0	27,1	M10x1	240	MHC-SK040-14-050-3-0-A	31374686	in stock
40	16,0	38,0	49,0	-	64,5	49,0	10,0	41,6	M12x1	350	MHC-SK040-16-065-3-0-A	31345216	III SLOCK
40	18,0	38,0	49,0	-	64,5	49,0	10,0	41,6	M12x1	430	MHC-SK040-18-065-3-0-A	31374687	
40	20,0	38,0	49,0	-	64,5	51,0	10,0	41,6	M16x1	520	MHC-SK040-20-065-3-0-A	31345217	
40	25,0	48,0	57,0	49,5	110,0	57,0	10,0	65,3	M10x1	700	MHC-SK040-25-110-3-0-A	31396178	
40	32,0	58,5	62,5	49,5	115,0	61,0	10,0	65,5	M12x1	900	MHC-SK040-32-115-3-0-A	31396179	

<sup>\*</sup> Permissible transmittable torque.

### ${\bf Dimensions\ in\ mm.}$

Application: For clamping tools with smooth cylindrical shanks to DIN 1835 Form A, DIN 6535 Form HA as well as with recesses to DIN 1835 Form B, E and DIN 6535 Form HB, HE directly and with reducing sleeve in the clamping diameter. The clamping diameter is designed for a shank tolerance h6.

Scope of delivery: With length adjustment screw, without coolant tube.

Design: Highest tool life and production quality when using smooth shanks according to DIN 1835 form A and DIN 6535 form HA.

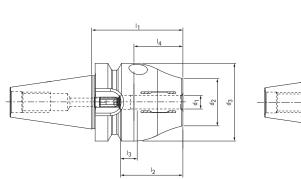
With a length of 2.5xD (max. 50 mm) concentricity 3  $\mu$ m. When using cylindrical shanks

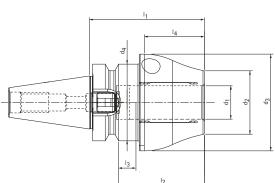
with inclined clamping surface (form E and form HE), the accuracy may be impaired. Torque transmission perfectly tailored to your application.

Note: Coolant supply via central through hole. Coolant tubes, code carriers, reducing sleeves for reducing the clamping diameter (when using the reducing sleeve, an impairment of the accuracy is possible) see category accessories, spare parts and measuring equipment. Length adjustment screws available on request.

Balance quality: G 2.5 at 25,000 min<sup>-1</sup> as delivered.

With axial tool length adjustment Shank BT according to ISO 7388-2 form JD/JF (JIS B 6339)







ВТ				Dime	nsions				G	Torque * [Nm]	Specification	Order No.	Availability
ы	$d_1$	$d_2$	$d_3$	$d_4$	I <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	14		[INIII]			
30**	6,0	26,0	46,0	-	54,0	37,0	10,0	29	M5	22	MHC-BT030-06-054-1-0-A	31280342	
30**	8,0	28,0	46,0	-	54,0	37,0	10,0	29	M6	47	MHC-BT030-08-054-1-0-A	31280343	
30**	10,0	30,0	50,0	46,0	54,0	41,0	10,0	23,5	M8x1	85	MHC-BT030-10-054-1-0-A	31280344	
30**	12,0	32,0	50,0	46,0	54,0	46,0	10,0	23,5	M10x1	130	MHC-BT030-12-054-1-0-A	31280345	in stock
30**	14,0	38,0	52,0	46,0	54,0	46,0	10,0	21,0	M10x1	240	MHC-BT030-14-054-1-0-A	31374678	III SLUCK
30**	16,0	38,0	55,0	46,0	69,0	49,0	10,0	38,5	M12x1	350	MHC-BT030-16-069-1-0-A	31280346	
30**	18,0	38,0	55,0	46,0	69,0	49,0	10,0	36,0	M12x1	430	MHC-BT030-18-069-1-0-A	31374679	
30**	20,0	38,0	58,0	46,0	69,0	51,0	10,0	38,5	M12x1	520	MHC-BT030-20-069-1-0-A	31280347	
40	6,0	26,0	42,0	-	58,0	37,0	10,0	27,2	M5	22	MHC-BT040-06-058-3-0-A	31345236	
40	8,0	28,0	42,0	-	58,0	37,0	10,0	27,2	M6	47	MHC-BT040-08-058-3-0-A	31345237	
40	10,0	30,0	42,0	-	58,0	41,0	10,0	27,2	M8x1	85	MHC-BT040-10-058-3-0-A	31345238	
40	12,0	32,0	49,0	-	58,0	46,0	10,0	27,2	M10x1	130	MHC-BT040-12-058-3-0-A	31345239	
40	14,0	34,0	49,0	-	58,0	46,0	10,0	27,2	M10x1	240	MHC-BT040-14-058-3-0-A	31396154	in stock
40	16,0	38,0	49,0	-	72,5	49,0	10,0	41,7	M12x1	350	MHC-BT040-16-073-3-0-A	31345240	III SLUCK
40	18,0	38,0	49,0	-	72,5	49,0	10,0	41,7	M12x1	430	MHC-BT040-18-073-3-0-A	31396155	
40	20,0	38,0	49,0	-	72,5	51,0	10,0	41,7	M16x1	520	MHC-BT040-20-073-3-0-A	31345241	
40	25,0	48,0	57,0	-	100,0	57,0	10,0	44,6	M16x1	700	MHC-BT040-25-100-3-0-A	31396156	
40	32,0	58,5	62,0	-	105,0	61,0	10,0	50,0	M16x1	900	MHC-BT040-32-105-3-0-A	31396157	

<sup>\*</sup> Permissible transmittable torque.

#### Dimensions in mm.

Application: For clamping tools with smooth cylindrical shanks to DIN 1835 Form A, DIN 6535 Form HA as well as with recesses to DIN 1835 Form B, E and DIN 6535 Form HB, HE directly and with reducing sleeve in the clamping diameter. The clamping diameter is designed for a shank tolerance h6.

Scope of delivery: With length adjustment screw, without tightening bolt.

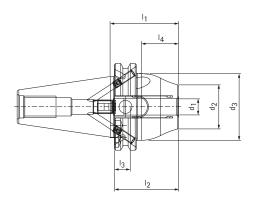
Design: Highest tool life and manufacturing quality when using smooth shanks according to DIN 1835 form A and DIN 6535 form HA. With an overhang length of 2.5xD (max.

50 mm) concentricity accuracy 3  $\mu$ m. When using cylindrical shanks with inclined clamping surface (form E and form HE), the accuracy may be impaired. Torque transmission perfectly tailored to your application.

Note: Coolant supply via central through hole. Tightening bolts, reducing sleeves for reducing the clamping diameter. (When using the reducing sleeve, accuracy may be impaired) see category accessories and spare parts. Length adjustment screws available on request. Balance quality: G 2.5 at 25,000 min<sup>-1</sup> as delivered.

<sup>\*\*</sup> Design: Steep taper size is not available in combined JD/JF version.

With axial tool length adjustment Shank "CAT" according to ASME B5.50-1994





CAT			D	imensior	ns			G	Torque *	Specification	Order No.	Availability
CAI	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	I <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>		[Nm]			
40	6,0	26,0	42,0	50,0	37,0	10,0	27,1	M5	22	MHC-CAT040-06-050-3-0-A	31345224	
40	8,0	28,0	42,0	50,0	37,0	10,0	27,1	M6	47	MHC-CAT040-08-050-3-0-A	31345225	
40	10,0	30,0	42,0	50,0	41,0	10,0	27,1	M8x1	85	MHC-CAT040-10-050-3-0-A	31345226	
40	12,0	32,0	49,0	50,0	46,0	10,0	27,1	M10x1	130	MHC-CAT040-12-050-3-0-A	31345227	in stock
40	14,0	32,0	49,0	50,0	46,0	10,0	27,1	M10x1	240	MHC-CAT040-14-050-3-0-A	31374694	In Stock
40	16,0	38,0	49,0	64,5	49,0	10,0	41,6	M12x1	350	MHC-CAT040-16-065-3-0-A	31345228	
40	18,0	38,0	49,0	64,5	49,0	10,0	41,6	M12x1	430	MHC-CAT040-18-065-3-0-A	31374695	
40	20,0	38,0	49,0	64,5	51,0	10,0	41,6	M16x1	520	MHC-CAT040-20-065-3-0-A	31345229	

 $<sup>\ ^{*}\</sup> Permissible\ transmittable\ torque.$ 

### Dimensions in mm.

Application: For clamping tools with smooth cylindrical shanks to DIN 1835 Form A, DIN 6535 Form HA as well as with recesses to DIN 1835 Form B, E and DIN 6535 Form HB, HE directly and with reducing sleeve in the clamping diameter. The clamping diameter is designed for a shank tolerance h6.

Scope of delivery: With length adjustment screw, without coolant tube.

Design: Highest tool life and production quality when using smooth shanks according to DIN 1835 form A and DIN 6535 form HA.

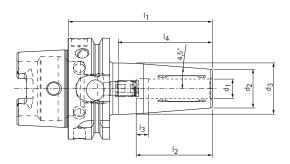
With a length of 2.5xD (max. 50 mm) concentricity 3  $\mu$ m. When using cylindrical shanks

with inclined clamping surface (form E and form HE), the accuracy may be impaired. Torque transmission perfectly tailored to your application.

Note: Coolant supply via central through hole. Coolant tubes, code carriers, reducing sleeves for reducing the clamping diameter (when using the reducing sleeve, an impairment of the accuracy is possible) see category accessories, spare parts and measuring equipment. Length adjustment screws available on request.

Balance quality: G 2.5 at 25,000 min<sup>-1</sup> as delivered.

With axial tool length adjustment, clamping insertion in the collar Shank HSK-A according to DIN 69893-1





HSK-A			D	imensior	ıs			G	Torque *	Specification	Order No.	Availability
пэк-м	d <sub>1</sub>	d <sub>2</sub>	$d_3$	I <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	l <sub>4</sub>		[INIII]			
63	6,0	21,0	27,0	80,0	37,0	10,0	48,9	M5	18	MHC-HSK-A063-06-080-1-0-A	31270515	
63	6,0	21,0	27,0	120,0	37,0	10,0	48,9	M5	18	MHC-HSK-A063-06-120-1-0-A	31441122	
63	8,0	21,0	27,0	80,0	37,0	10,0	48,9	M6	35	MHC-HSK-A063-08-080-1-0-A	31270525	
63	8,0	21,0	27,0	120,0	37,0	10,0	48,9	M6	35	MHC-HSK-A063-08-120-1-0-A	31441123	
63	10,0	24,0	32,0	85,0	41,0	10,0	53,7	M8x1	60	MHC-HSK-A063-10-085-1-0-A	31270550	
63	10,0	24,0	32,0	120,0	41,0	10,0	61,6	M8x1	60	MHC-HSK-A063-10-120-1-0-A	31441124	
63	12,0	24,0	32,0	90,0	46,0	10,0	58,6	M10x1	90	MHC-HSK-A063-12-090-1-0-A	31229439	
63	12,0	24,0	32,0	120,0	46,0	10,0	61,6	M10x1	90	MHC-HSK-A063-12-120-1-0-A	31441125	
63	14,0	27,0	34,0	90,0	46,0	10,0	57,2	M10x1	130	MHC-HSK-A063-14-090-1-0-A	31375071	in stock
63	14,0	27,0	34,0	120,0	46,0	10,0	56,2	M10x1	130	MHC-HSK-A063-14-120-1-0-A	31441126	III SLUCK
63	16,0	27,0	34,0	95,0	49,0	10,0	63,1	M12x1	200	MHC-HSK-A063-16-095-1-0-A	31270555	
63	16,0	27,0	34,0	120,0	49,0	10,0	56,2	M12x1	200	MHC-HSK-A063-16-120-1-0-A	31441127	
63	18,0	33,0	42,0	95,0	49,0	10,0	63,0	M12x1	250	MHC-HSK-A063-18-095-1-0-A	31375072	
63	18,0	33,0	42,0	120,0	49,0	10,0	68,9	M12x1	250	MHC-HSK-A063-18-120-1-0-A	31441128	
63	20,0	33,0	42,0	100,0	51,0	10,0	68,9	M16x1	330	MHC-HSK-A063-20-100-1-0-A	31229440	
63	20,0	33,0	42,0	120,0	51,0	10,0	68,9	M16x1	330	MHC-HSK-A063-20-120-1-0-A	31441129	
63	25,0	44,0	52,5	115,0	57,0	10,0	85,4	M16x1	500	MHC-HSK-A063-25-115-1-0-A	31396186	
63	32,0	44,0	52,5	120,0	61,0	10,0	90,1	M16x1	650	MHC-HSK-A063-32-120-1-0-A	31396187	
100	6,0	21,0	27,0	85,0	37,0	10,0	38,7	M5	18	MHC-HSK-A100-06-085-1-0-A	31344789	
100	6,0	21,0	27,0	120,0	37,0	10,0	48,9	M5	18	MHC-HSK-A100-06-120-1-0-A	31496256	
100	8,0	21,0	27,0	85,0	37,0	10,0	38,7	M6	35	MHC-HSK-A100-08-085-1-0-A	31344860	
100	8,0	21,0	27,0	120,0	37,0	10,0	48,9	M6	35	MHC-HSK-A100-08-120-1-0-A	31496257	in stock
100	10,0	24,0	32,0	90,0	41,0	10,0	53,7	M8x1	60	MHC-HSK-A100-10-090-1-0-A	31344862	III SLUCK
100	10,0	24,0	32,0	120,0	41,0	10,0	61,6	M8x1	60	MHC-HSK-A100-10-120-1-0-A	31496258	
100	12,0	24,0	32,0	95,0	46,0	10,0	58,6	M10x1	90	MHC-HSK-A100-12-095-1-0-A	31344863	
100	12,0	24,0	32,0	120,0	46,0	10,0	61,6	M10x1	90	MHC-HSK-A100-12-120-1-0-A	31496259	

UNIQ® DReaM Chuck, 4.5° | With axial tool length adjustment, clamping insertion in the collar, shank HSK-A according to DIN 69893-1

HSK-A			D	imensior	ıs			G	Torque *	Specification	Order No.	Availability
пэк-А	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	I <sub>1</sub>	I <sub>2</sub>	l <sub>3</sub>	I <sub>4</sub>		[Nm]			
100	14,0	27,0	34,0	95,0	46,0	10,0	57,2	M10x1	130	MHC-HSK-A100-14-095-1-0-A	31344864	
100	14,0	27,0	34,0	120,0	46,0	10,0	56,2	M10x1	130	MHC-HSK-A100-14-120-1-0-A	31496300	
100	16,0	27,0	34,0	100,0	49,0	10,0	63,1	M12x1	200	MHC-HSK-A100-16-100-1-0-A	31344865	
100	16,0	27,0	34,0	120,0	49,0	10,0	56,2	M12X1	200	MHC-HSK-A100-16-120-1-0-A	31496301	
100	18,0	33,0	42,0	100,0	49,0	10,0	63,0	M12x1	250	MHC-HSK-A100-18-100-1-0-A	31344866	in stock
100	18,0	33,0	42,0	120,0	49,0	10,0	68,9	M12X1	250	MHC-HSK-A100-18-120-1-0-A	31496302	
100	20,0	33,0	42,0	105,0	51,0	10,0	68,9	M16x1	330	MHC-HSK-A100-20-105-1-0-A	31344867	
100	20,0	33,0	42,0	120,0	51,0	10,0	68,9	M16X1	330	MHC-HSK-A100-20-120-1-0-A	31496303	
100	25,0	44,0	53,0	115,0	57,0	10,0	80,7	M16x1	500	MHC-HSK-A100-25-115-1-0-A	31344868	
100	32,0	44,0	53,0	120,0	61,0	10,0	84,6	M16x1	650	MHC-HSK-A100-32-120-1-0-A	31344869	

<sup>\*</sup> Permissible transmittable torque.

### Dimensions in mm.

Application: For clamping tools with smooth cylindrical shanks to DIN 1835 Form A, DIN 6535 Form HA as well as with recesses to DIN 1835 Form B, E and DIN 6535 Form HB, HE directly and with reducing sleeve in the clamping diameter. The clamping diameter is designed for a shank tolerance h6.

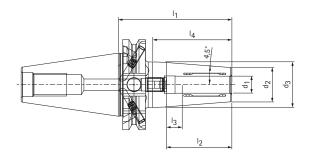
Scope of delivery: With length adjustment screw, without coolant tube. Design: Highest tool life and production quality when using plain shanks according to DIN 1835 form A and DIN 6535 form HA. With a cantilever length of 2.5xD (max. 50 mm) concentricity 3  $\mu$ m. When using cylindrical shanks with inclined clamping surface

(form E and form HE), the accuracy may be impaired. Torque transmission perfectly tailored to your application.

Note: Coolant supply via central through hole. Coolant tubes, code carriers, reducing sleeves for reducing the clamping diameter (when using the reducing sleeve, an impairment of the accuracy is possible) see category accessories, spare parts and measuring equipment. Length adjustment screws available on request.

Balance quality: G 2.5 at 25,000 min<sup>-1</sup> as delivered.

With axial tool length adjustment, clamping insertion in the collar Shank hollow shank taper A according to ISO 7388-1 form AD/AF





SK				Dime	nsions				G	Torque *	Specification	Order No.	Availability
3K	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	d <sub>4</sub>		l <sub>2</sub>	l <sub>3</sub>	I <sub>4</sub>		[INIII]			
40	6,0	21,0	27,0	-	80,0	37,0	10,0	55,7	M5	18	MHC-SK040-06-080-3-0-A	31344880	
40	6,0	21,0	27,0	-	120,0	37,0	10,0	48,9	M5	18	MHC-SK040-06-120-3-0-A	31441418	
40	8,0	21,0	27,0	-	80,0	37,0	10,0	55,7	M6	35	MHC-SK040-08-080-3-0-A	31344881	
40	8,0	21,0	27,0	-	120,0	37,0	10,0	48,9	M6	35	MHC-SK040-08-120-3-0-A	31441419	
40	10,0	24,0	32,0	-	80,0	41,0	10,0	55,7	M8x1	60	MHC-SK040-10-080-3-0-A	31344882	
40	10,0	24,0	32,0	-	120,0	41,0	10,0	61,6	M8x1	60	MHC-SK040-10-120-3-0-A	31441490	
40	12,0	24,0	32,0	-	80,0	46,0	10,0	55,7	M10x1	90	MHC-SK040-12-080-3-0-A	31344883	
40	12,0	24,0	32,0	-	120,0	46,0	10,0	61,6	M10x1	90	MHC-SK040-12-120-3-0-A	31441491	
40	14,0	27,0	34,0	-	80,0	46,0	10,0	55,8	M10x1	130	MHC-SK040-14-080-3-0-A	31375087	in stook
40	14,0	27,0	34,0	-	120,0	46,0	10,0	56,2	M10x1	130	MHC-SK040-14-120-3-0-A	31441492	in stock
40	16,0	27,0	34,0	-	80,0	49,0	10,0	55,8	M12x1	200	MHC-SK040-16-080-3-0-A	31344884	
40	16,0	27,0	34,0	-	120,0	49,0	10,0	56,2	M12x1	200	MHC-SK040-16-120-3-0-A	31441493	
40	18,0	33,0	42,0	-	80,0	49,0	10,0	57,2	M12x1	250	MHC-SK040-18-080-3-0-A	31375088	
40	18,0	33,0	42,0	-	120,0	49,0	10,0	68,9	M12x1	250	MHC-SK040-18-120-3-0-A	31441494	
40	20,0	33,0	42,0	-	80,0	51,0	10,0	57,2	M16x1	330	MHC-SK040-20-080-3-0-A	31344885	
40	20,0	33,0	42,0	-	120,0	51,0	10,0	68,9	M16x1	330	MHC-SK040-20-120-3-0-A	31441495	
40	25,0	44,0	53,0	49,0	100,0	57,0	10,0	58,7	M10x1	500	MHC-SK040-25-100-3-0-A	31396194	
40	32,0	44,0	53,0	-	100,0	61,0	10,0	58,3	M10x1	650	MHC-SK040-32-100-3-0-A	31396195	

<sup>\*</sup> Permissible transmittable torque.

### ${\bf Dimensions\ in\ mm.}$

Application: For clamping tools with smooth cylindrical shanks to DIN 1835 Form A, DIN 6535 Form HA as well as with recesses to DIN 1835 Form B, E and DIN 6535 Form HB, HE directly and with reducing sleeve in the clamping diameter. The clamping diameter is designed for a shank tolerance h6.

Scope of delivery: With length adjustment screw, without coolant tube.

Design: Highest tool life and production quality when using smooth shanks according to DIN 1835 form A and DIN 6535 form HA.

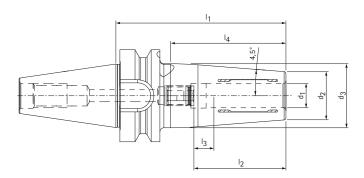
With a length of 2.5xD (max. 50 mm) concentricity 3  $\mu$ m. When using cylindrical shanks

with inclined clamping surface (form E and form HE), the accuracy may be impaired. Torque transmission perfectly tailored to your application.

Note: Coolant supply via central through hole. Coolant tubes, code carriers, reducing sleeves for reducing the clamping diameter (when using the reducing sleeve, an impairment of the accuracy is possible) see category accessories, spare parts and measuring equipment. Length adjustment screws available on request.

Balance quality: G 2.5 at 25,000 min-1 as delivered.

With axial tool length adjustment, clamping insertion in the collar Shank BT according to ISO 7388-2 form JD/JF (JIS B 6339)





BT	Dimensions							G	Torque *	Specification	Order No.	Availability
ы	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	I <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	I <sub>4</sub>		[Nm]			
30**	6,0	21,0	27,0	85,0	37,0	10,0	57,7	M5	18	MHC-BT030-06-085-1-0-A	31280360	
30**	8,0	21,0	27,0	85,0	37,0	10,0	57,7	M6	35	MHC-BT030-08-085-1-0-A	31280361	
30**	10,0	24,0	32,0	85,0	41,0	10,0	57,7	M8x1	60	MHC-BT030-10-085-1-0-A	31280362	
30**	12,0	24,0	32,0	85,0	46,0	10,0	57,7	M10x1	90	MHC-BT030-12-085-1-0-A	31280365	in stook
30**	14,0	27,0	34,0	85,0	46,0	10,0	57,2	M10x1	130	MHC-BT030-14-085-1-0-A	31375079	in stock
30**	16,0	27,0	34,0	85,0	49,0	10,0	57,2	M10x1	200	MHC-BT030-16-085-1-0-A	31280366	
30**	18,0	33,0	42,0	85,0	49,0	10,0	57,5	M12x1	250	MHC-BT030-18-085-1-0-A	31375080	
30**	20,0	33,0	42,0	85,0	51,0	10,0	57,5	M10x1	330	MHC-BT030-20-085-1-0-A	31280367	
40	6,0	21,0	27,0	90,0	37,0	10,0	57,7	M5	18	MHC-BT040-06-090-3-0-A	31344904	
40	6,0	21,0	27,0	120,0	37,0	10,0	48,9	M5	18	MHC-BT040-06-120-3-0-A	31496324	
40	8,0	21,0	27,0	90,0	37,0	10,0	57,7	M6	35	MHC-BT040-08-090-3-0-A	31344905	
40	8,0	21,0	27,0	120,0	37,0	10,0	48,9	M6	35	MHC-BT040-08-120-3-0-A	31496325	
40	10,0	24,0	32,0	90,0	41,0	10,0	57,7	M8x1	60	MHC-BT040-10-090-3-0-A	31344906	
40	10,0	24,0	32,0	120,0	41,0	10,0	61,6	M8x1	60	MHC-BT040-10-120-3-0-A	31496326	
40	12,0	24,0	32,0	90,0	46,0	10,0	57,7	M10x1	90	MHC-BT040-12-090-3-0-A	31344907	
40	12,0	24,0	32,0	120,0	46,0	10,0	61,6	M10x1	90	MHC-BT040-12-120-3-0-A	31496327	
40	14,0	27,0	34,0	90,0	46,0	10,0	57,2	M10x1	130	MHC-BT040-14-090-3-0-A	31396128	in stock
40	14,0	27,0	34,0	120,0	46,0	10,0	56,2	M10x1	130	MHC-BT040-14-120-3-0-A	31496328	III SLOCK
40	16,0	27,0	34,0	90,0	49,0	10,0	57,2	M12x1	200	MHC-BT040-16-090-3-0-A	31344908	
40	16,0	27,0	34,0	120,0	49,0	10,0	56,2	M12x1	200	MHC-BT040-16-120-3-0-A	31496329	
40	18,0	33,0	42,0	90,0	49,0	10,0	57,5	M12x1	250	MHC-BT040-18-090-3-0-A	31396129	
40	18,0	33,0	42,0	120,0	49,0	10,0	68,9	M12x1	250	MHC-BT040-18-120-3-0-A	31496330	
40	20,0	33,0	42,0	90,0	51,0	10,0	57,5	M16x1	330	MHC-BT040-20-090-3-0-A	31344909	
40	20,0	33,0	42,0	120,0	51,0	10,0	68,9	M16x1	330	MHC-BT040-20-120-3-0-A	31496331	
40	25,0	44,0	53,0	100,0	57,0	10,0	67,9	M16x1	500	MHC-BT040-25-100-3-0-A	31396140	
40	32,0	44,0	53,0	100,0	61,0	10,0	67,9	M16x1	650	MHC-BT040-32-100-3-0-A	31396141	

<sup>\*</sup> Permissible transmittable torque.

#### Dimensions in mm

Application: For clamping tools with smooth cylindrical shanks to DIN 1835 Form A, DIN 6535 Form HA as well as with recesses to DIN 1835 Form B, E and DIN 6535 Form HB, HE directly and with reducing sleeve in the clamping diameter. The clamping diameter is designed for a shank tolerance h6.

Scope of delivery: With length adjustment screw, without tightening bolt.

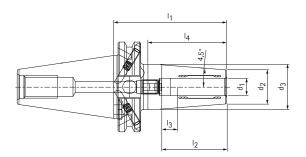
Design: Highest tool life and manufacturing quality when using smooth shanks according to DIN 1835 form A and DIN 6535 form HA. With an overhang length of 2.5xD

(max. 50 mm) concentricity accuracy 3  $\mu$ m. When using cylindrical shanks with inclined clamping surface (form E and form HE), the accuracy may be impaired. Torque transmission perfectly tailored to your application.

Note: Coolant supply via central through hole. Tightening bolts, reducing sleeves for reducing the clamping diameter. (When using the reducing sleeve, accuracy may be impaired) see category accessories and spare parts. Length adjustment screws available on request. Balance quality: G 2.5 at 25,000 min<sup>-1</sup> as delivered.

<sup>\*\*</sup> Design: Steep taper size is not available in combination design JD/JF

With axial tool length adjustment, clamping insertion in the collar Shank "CAT" according to ASME B5.50-1994





CAT			D	imensio	าร			G	Torque *	Specification	Order No.	Availability
CAI	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	I <sub>1</sub>	l <sub>2</sub>	l <sub>3</sub>	14		[Nm]			
40	6,0	21,0	27,0	80,0	37,0	10,0	55,7	M5	18	MHC-CAT040-06-080-3-0-A	31344892	
40	8,0	21,0	27,0	80,0	37,0	10,0	55,7	M6	35	MHC-CAT040-08-080-3-0-A	31344893	
40	10,0	24,0	32,0	80,0	41,0	10,0	55,7	M8x1	60	MHC-CAT040-10-080-3-0-A	31344894	
40	12,0	24,0	32,0	80,0	46,0	10,0	55,7	M10x1	90	MHC-CAT040-12-080-3-0-A	31344895	in stock
40	14,0	27,0	34,0	80,0	46,0	10,0	55,8	M10x1	130	MHC-CAT040-14-080-3-0-A	31375095	III SLOCK
40	16,0	27,0	34,0	80,0	49,0	10,0	55,8	M12x1	200	MHC-CAT040-16-080-3-0-A	31344896	
40	18,0	33,0	42,0	80,0	49,0	10,0	57,2	M12x1	250	MHC-CAT040-18-080-3-0-A	31375096	
40	20,0	33,0	42,0	80,0	51,0	10,0	57,2	M16x1	330	MHC-CAT040-20-080-3-0-A	31344897	

<sup>\*</sup> Permissible transmittable torque.

### ${\bf Dimensions\ in\ mm.}$

Application: For clamping tools with smooth cylindrical shanks to DIN 1835 Form A, DIN 6535 Form HA as well as with recesses to DIN 1835 Form B, E and DIN 6535 Form HB, HE directly and with reducing sleeve in the clamping diameter. The clamping diameter is designed for a shank tolerance h6.

Scope of delivery: With length adjustment screw, without coolant tube.

Design: Highest tool life and production quality when using smooth shanks according to DIN 1835 form A and DIN 6535 form HA.

With a length of 2.5xD (max. 50 mm) concentricity 3  $\mu$ m. When using cylindrical shanks

with inclined clamping surface (form E and form HE), the accuracy may be impaired. Torque transmission perfectly tailored to your application.

Note: Coolant supply via central through hole. Coolant tubes, code carriers, reducing sleeves for reducing the clamping diameter (when using the reducing sleeve, an impairment of the accuracy is possible) see category accessories, spare parts and measuring equipment. Length adjustment screws available on request.

Balance quality: G 2.5 at 25,000 min-1 as delivered.





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