



KTA SPINDLE TOOLINGS

(A Tool Holder Company since 1985)

World's most preferred Indian Toolholding Company



Precision Hydraulic Expansion Chucks



Vol. 1
Precision at it's Best

www.ktaspindletoolings.com



◇ Features:

- "KTA" Hydraulic Expansion Chuck is a very precision & high technology product
- Maintenance free design & easy to use, along with Reduction Sleeves (RS Seal).
- Best suitable for Drilling , Reaming & Milling Operations.
- Most Recommended for Die & Mould making industries & machining of precision automobile components, as well as in Aerospace Field.
- Hydraulic Expansion chuck in slim 3 degree design most suitable for machining of cavities difficult to reach.
- Anti-vibration hydraulic chucks designed with extended heavy metal core construction, helps to improve the surface finish & reduce vibration tendency.
- The tool runs true less than 3 microns on 2.5D/ Max 50 mm, hence the tool life & machinability increases drastically. You can achieve the highest accuracy & Repeatability & High transferable Torque.
- Best operating temperature (20°C/40°C).

◇ Available in mountings:

For Heavy Duty Series & Standard Series Hydraulic Expansion Chucks

- BT(MAS 403) (DIN ISO 7388 -2)
- KBT(MAS 403) (DIN ISO 7388-2) (Face & Tapper Contact)
- SK(DIN 69871) (DIN ISO 7388 -1)
- HSK - A (DIN 69893 -1)
- HSK - C (DIN 69893 -1)
- HSK - E (DIN 69893 -5)
- HSK - F (DIN 69893 -6)
- CAT (ANSI - B 5.50)
- Cylindrical Shank
- VDI Shank
- Flange Type
- ER Type

For Slim 3 Degree Series Hydraulic Expansion Chucks

- BT(MAS 403) (DIN ISO 7388 -2)
- KBT(MAS 403) (DIN ISO 7388 -2)(Face & Tapper Contact)
- SK(DIN 69871) (DIN ISO 7388 -1)
- HSK - A (DIN 69893 -1)
- HSK - E (DIN 69893 -5)
- CAT (ANSI B 5.50)

◇ Capacity

Heavy Duty - ● HC12S ● HC20S ● HC32S | ● HC 1/2"S ● HC 3/4"S ● HC 1-1/4"S
Standard Series from Sizes: HC 06 to HC 32 | HC 1/2" to HC 1-1/4"
Slim 3° series: HC03 slim 3° to HC25 slim 3° | HC 1/8" to HC 1.0" slim 3°

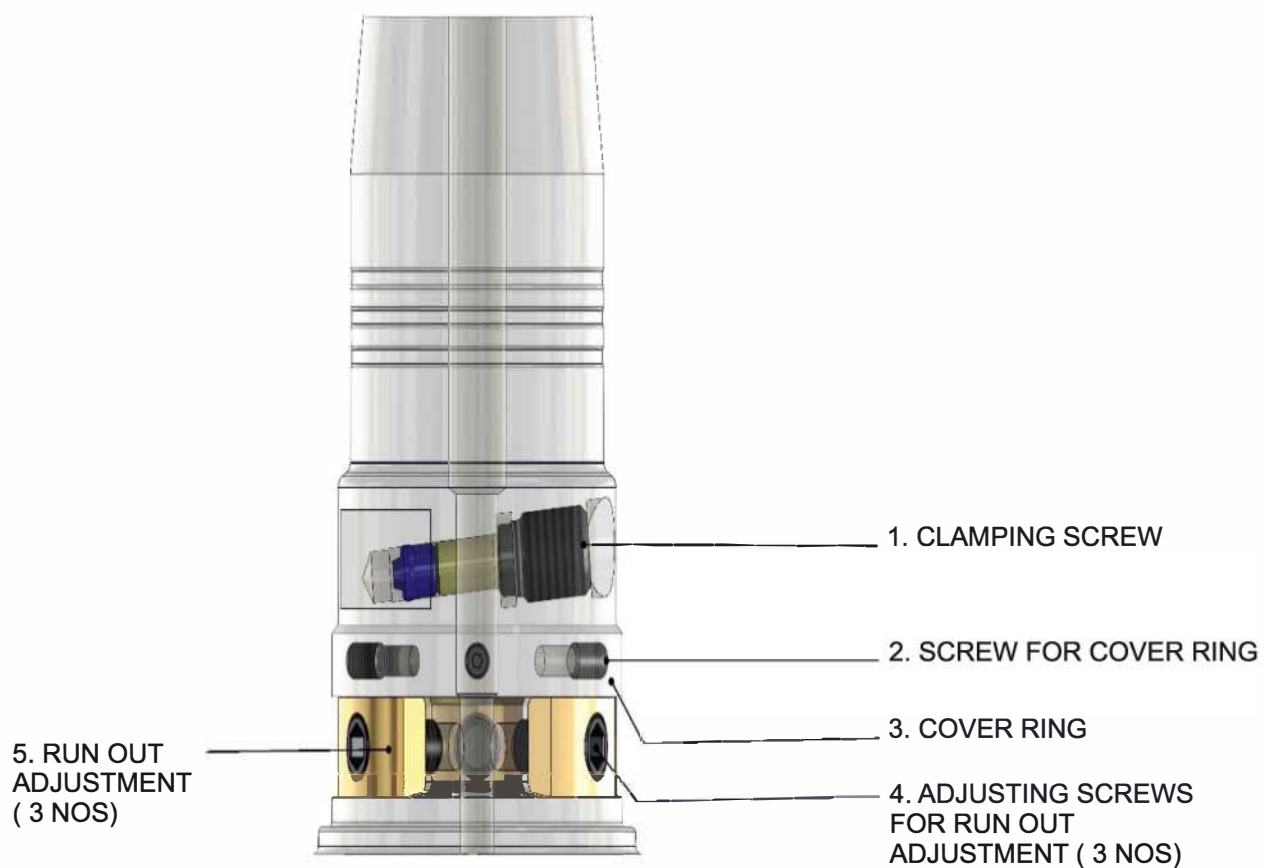
◇ Balancing

- Balanced to 2.5G 25000 RPM

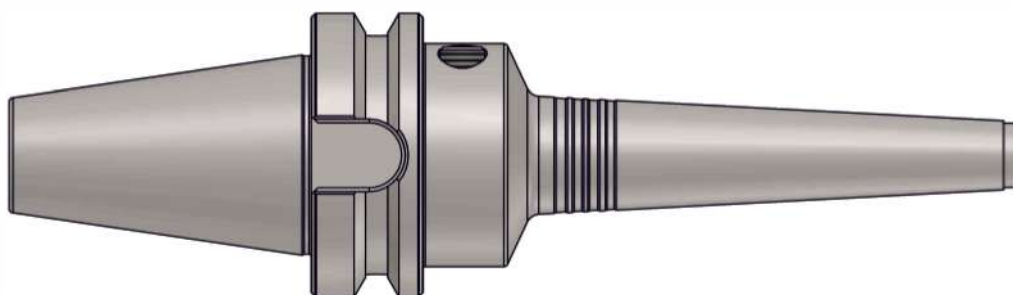
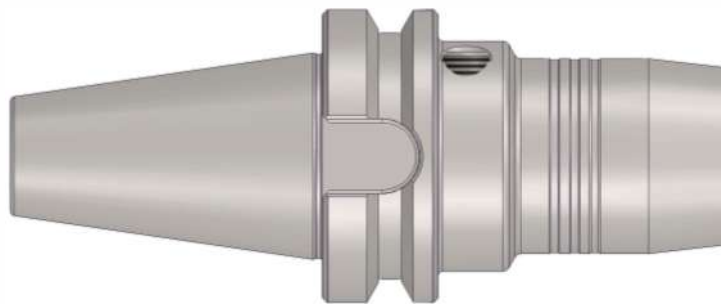
Hydraulic Expansion Chuck With Run Out Adjustment (HC - RA)

◇ Features :

- KTA "HC - RA" (Hydraulic Chuck With Run Out Adjustment) is very useful & suitable for Reaming operation.
- It is hydraulic clamped which gives a good clamping force & with the help of 3 adjustable wedges we can exactly set.
- A cover ring seals the inside adjustable system & therefore low maintenance & susceptible to dirt.
- Request to use our hydraulic chuck manual for safe clamping / care & maintenance.



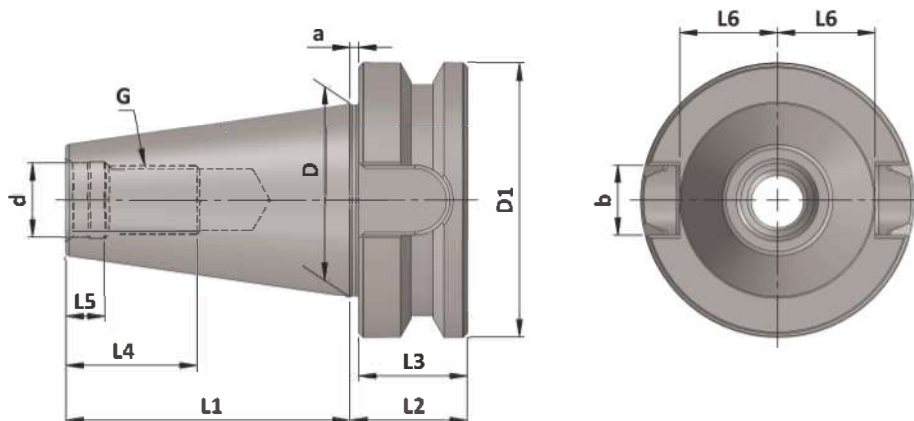
BT - DIN ISO 7388 - 2 (MAS 403)



BT (MAS 403) (DIN ISO 7388 - 2) Technical Information



BT (MAS 403) Form A



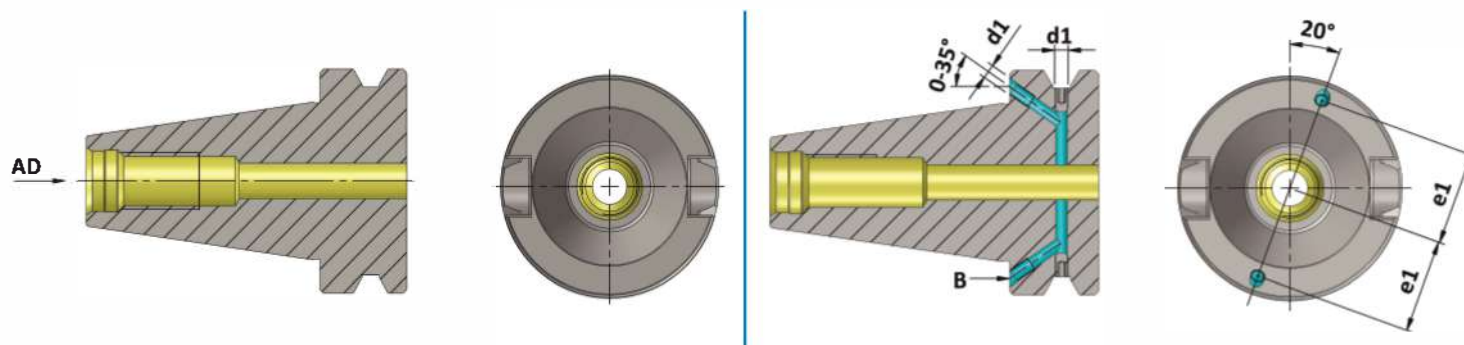
ISO	d	d1	D	D1	a	b	e1	G	L1	L2	L3	L4	L5	L6
30	12.50	-	31.75	46	2	16.10	-	M12	48.40	22	20	24	7	16.30
40	17	M4	44.45	63	2	16.10	27	M16	65.40	27	25	32	9	22.60
50	25	M6	69.85	100	3	25.70	42	M24	101.80	38	35	47	13	35.40

Old Name : BT (MAS 403) Form AD

New Name : BT (MAS 403) DIN ISO7388 - 2 JD
(Coolant Supply Through Center)

Old Name : BT (MAS 403) Form AD+B

New Name : BT (MAS 403) DIN ISO7388 - 2 JD/JF
(Coolant Supply Through Flange)



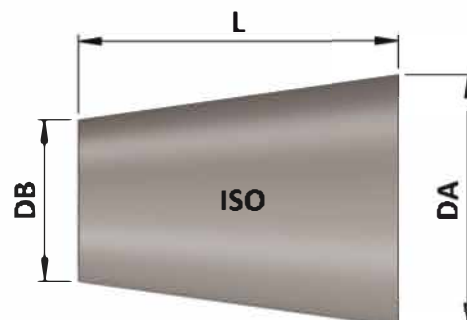
Material :- Case hardened steel, tensile strength in the core min. 950 N/mm²

Execution :- Case hardened to HRC 58 + 2, Case Depth 0.8 mm., Silver finish.

Accuracy :- 7:24 Taper Angle Class AT 3 As per DIN 2080

Taper Class AT 3 Details

ISO	L	DA-DB	AT 3
30	42	12.280	+0.002
40	59	17.208	+0.003
50	92	26.833	+0.004

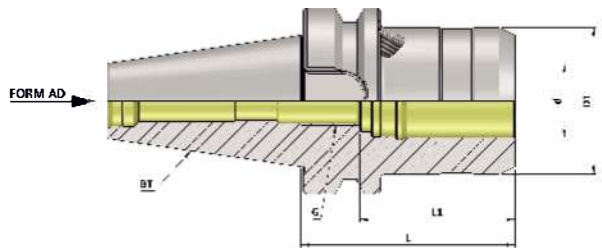


BT (MAS 403) (DIN ISO 7388 - 2) Hydraulic Expansion Chuck



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm

HEAVY DUTY



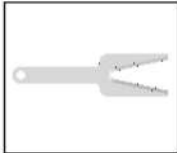
BT (MAS 403) Hydraulic Expansion Chuck (AD)

BT (MAS 403) Hydraulic Expansion Chuck (AD) (JD)					(Balanced to 2.5 G 25000 RPM)		
Item Name	Item Code	ISO	d	D1	G	L	L1
BT30 HC12S 069 AD 2.5G 25000 SL	K10101629616282	30	12	42	M10	69	40
BT30 HC20S 090 AD 2.5G 25000 SL	K10101168140282	30	20	50	M16	90	42
BT40 HC12S 058 AD 2.5G 25000 SL	K10102629617282	40	12	42	M10	58	40
BT40 HC20S 72.5 AD 2.5G 25000 SL	K10102168126235	40	20	50	M16	72.5	42
BT50 HC12S 069 AD 2.5G 25000 SL	K10103629616282	50	12	42	M10	69	40
BT50 HC20S 083 AD 2.5G 25000 SL	K10103168618282	50	20	50	M16	83	42
BT50 HC32S 090 AD 2.5G 25000 SL	K10103272140282	50	32	72	M16	90	55
BT30 HC1/2"S 069 AD/ 2.5G 25000 SL	K10101953616282	30	1/2"	42	M10	69	40
BT30 HC3/4"S 090 AD/ 2.5G 25000 SL	K10101954140282	30	3/4"	50	M16	90	42
BT40 HC1/2"S 058 AD/ 2.5G 25000 SL	K10102953617282	40	1/2"	42	M10	58	40
BT40 HC3/4"S 72.5 AD/ 2.5G 25000 SL	K10102954126282	40	3/4"	50	M16	72.5	42
BT50 HC1/2"S 069 AD/ 2.5G 25000 SL	K10103953616282	50	1/2"	42	M10	69	40
BT50 HC3/4"S 083 AD/ 2.5G 25000 SL	K10103954618282	50	3/4"	50	M16	83	42
BT50 HC1-1/4"S 090 AD/ 2.5G 25000 SL	K10103955140282	50	1-1/4"	72	M16	90	55

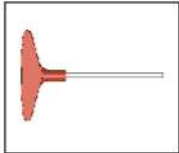
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No. 140-150



Spanner HC
Ref. Page No. 154



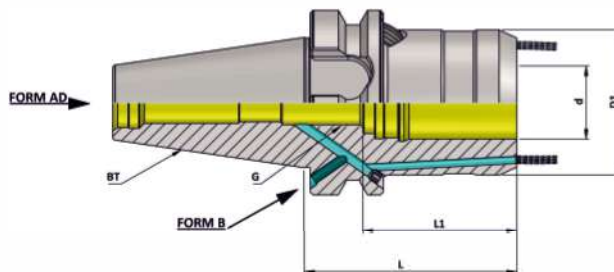
Key HC 5mm
Ref. Page No. 154

BT (MAS 403) (DIN ISO 7388 - 2) Hydraulic Expansion Chuck



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm

HEAVY DUTY



BT (MAS 403) Hydraulic Expansion Chuck (FCC - AD+B)

BT (MAS 403) Hydraulic Expansion Chuck (FCC - AD+B) (JD/JF)

(Balanced to 2.5 G 25000 RPM)

Item Name	Item Code	ISO	d	D1	G	L	L1
BT30 HC12S 069 FCC AD 2.5G 25000 SL	K10101629135227	30	12	42	M10	69	40
BT30 HC20S 090 FCC AD 2.5G 25000 SL	K10101168135129	30	20	50	M16	90	42
BT40 HC12S 058 FCC AD+B 2.5G 25000 SL	K10102629140230	40	12	42	M10	58	40
BT40 HC20S 72.5 FCC AD+B 2.5G 25000 SL	K10102168126140	40	20	50	M16	72.5	42
BT50 HC12S 069 FCC AD+B 2.5G 25000 SL	K10103629338255	50	12	42	M10	69	40
BT50 HC20S 083 FCC AD+B 2.5G 25000 SL	K10103168140140	50	20	50	M16	83	42
BT50 HC32S 090 FCC AD+B 2.5G 25000 SL	K10103272140140	50	32	72	M16	90	55
BT30 HC1/2"S 069 FCC AD 2.5G 25000SL	K10101953616286	30	1/2"	42	M10	69	40
BT30 HC3/4"S 090 FCC AD 2.5G 25000SL	K10101954140286	30	3/4"	50	M16	90	42
BT40 HC1/2"S 058 FCC AD+B/2.5G 25000 SL	K10102953617255	40	1/2"	42	M10	58	40
BT40 HC3/4"S 72.5 FCC AD+B/2.5G 25000 SL	K10102954126255	40	3/4"	50	M16	72.5	42
BT50 HC1/2"S 069 FCC AD+B/2.5G 25000 SL	K10103953616255	50	1/2"	42	M10	69	40
BT50 HC3/4"S 083 FCC AD+B/2.5G 25000 SL	K10103954618255	50	3/4"	50	M16	83	42
BT50 HC1-1/4"S 090 FCC AD+B/2.5G 25000 SL	K10103955140255	50	1-1/4"	72	M16	90	55

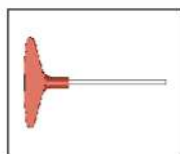
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No. 140-150



Spanner HC
Ref. Page No. 154

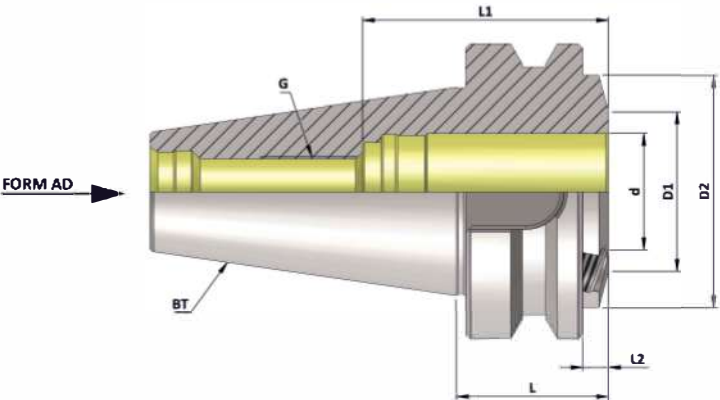


Key HC 5mm
Ref. Page No. 154

BT (MAS 403) (DIN ISO 7388 - 2) (JD) Short GP Hydraulic Expansion Chuck



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm

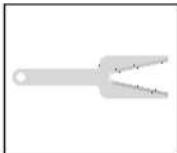


BT (MAS 403) Hydraulic Expansion Chuck (Short GP)						(Balanced to 2.5 G 25000 RPM)				
Item Name	Item Code	ISO	d	D1	D2	G	L	L1	L2	
BT40 Hc20 32.50 SHORT G.P. AD/ 2.5G 25000 SL	K10102637615281	40	20	34	49.5	M16	2.5	51	5.50	
BT40 HC3/4" 32.50 SHORT G.P. AD/ 2.5G 25000 SL	K10102653615282	40	3/4"	34	49.5	M16	32.5	51	5.50	

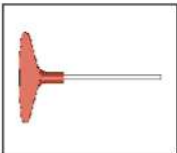
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No. 140-150



Spanner HC
Ref. Page No. 154

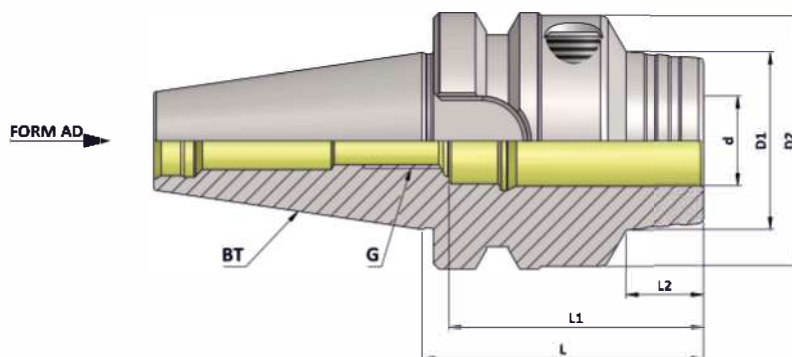


Key HC 5mm
Ref. Page No. 154

BT (MAS 403) (DIN ISO 7388 - 2) (JD) Hydraulic Expansion Chuck



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm



BT (MAS 403) Hydraulic Expansion Chuck (AD) (JD)

(Balanced to 2.5 G 25000 RPM)

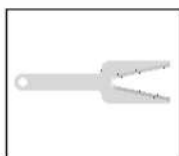
Item Name	Item Code	ISO	d	D1	D2	G	L	L1	L2
BT30 HC06 50.8 AD 2.5G 25000 SL	K10101642619282	30	6	26	45	M5	50.8	37	12
BT30 HC08 50.8 AD 2.5G 25000 SL	K10101643619282	30	8	28	45	M6	50.8	37	12.5
BT30 HC10 50.8 AD 2.5G 25000 SL	K10101644619282	30	10	30	45	M8	50.8	41	13
BT30 HC12 50.8 AD 2.5G 25000 SL	K10101636619282	30	12	32	45	M8	50.8	46	14
BT30 HC14 090 AD 2.5G 25000 SL	K10101645140282	30	14	34	45	M8	90	46	45
BT30 HC16 090 AD 2.5G 25000 SL	K10101646140282	30	16	38	45	M8	90	49	50
BT30 HC18 090 AD 2.5G 25000 SL	K10101647140282	30	18	40	45	M8	90	49	50
BT30 HC20 090 AD 2.5G 25000 SL	K10101637140277	30	20	42	45	M8	90	51	50

BT30 HC1/4" 50.8 AD/ 2.5G 25000 SL	K10101649619282	30	1/4"	26	45	M5	50.8	37	12
BT30 HC5/16" 50.8 AD/ 2.5G 25000 SL	K10101956619282	30	5/16"	28	45	M6	50.8	37	12.5
BT30 HC3/8" 50.8 AD/ 2.5G 25000 SL	K10101650619282	30	3/8"	30	45	M8	50.8	41	13
BT30 HC1/2" 50.8 AD/ 2.5G 25000 SL	K10101652619282	30	1/2"	32	45	M8	50.8	46	14
BT30 HC5/8" 090 AD/ 2.5G 25000 SL	K10101651140282	30	5/8"	38	45	M8	90	49	50
BT30 HC3/4" 090 AD/ 2.5G 25000 SL	K10101653140282	30	3/4"	42	45	M8	90	51	50

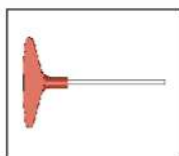
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No. 140-150



Spanner HC
Ref. Page No. 154

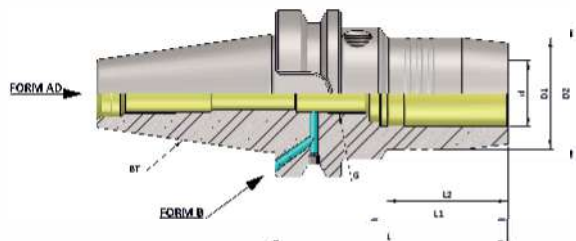


Key HC 5mm
Ref. Page No. 154

BT (MAS 403) (DIN ISO 7388 - 2) (JD/JF) Hydraulic Expansion Chuck

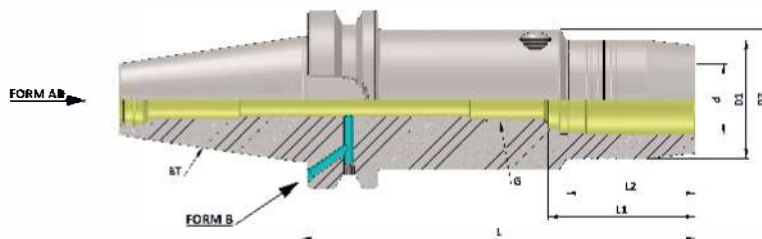


Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm



Standard GP

BT (MAS 403) Hydraulic Expansion Chuck (AD+B)



Long GP

BT (MAS 403) Hydraulic Expansion Chuck (AD+B)

BT (MAS 403) Hydraulic Expansion Chuck (AD+B) (JD/JF)

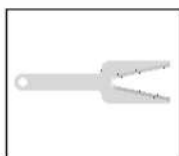
(Balanced to 2.5 G 25000 RPM)

Item Name	Item Code	ISO	d	D1	D2	G	L	L1	L2
BT40 HC06 090 AD+B 2.5G 25000 SL	K10102642140280	40	6	26	49.5	M5	90	37	29
BT40 HC06 140 AD+B 2.5G 25000 SL	K10102642169280	40	6	26	49.5	M5	140	37	29
BT40 HC08 090 AD+B 2.5G 25000 SL	K10102643140280	40	8	28	49.5	M6	90	37	30
BT40 HC08 140 AD+B 2.5G 25000 SL	K10102643169280	40	8	28	49.5	M6	140	37	30
BT40 HC10 090 AD+B 2.5G 25000 SL	K10102644140280	40	10	30	49.5	M8	90	41	35
BT40 HC10 140 AD+B 2.5G 25000 SL	K10102644169280	40	10	30	49.5	M8	140	41	35
BT40 HC12 090 AD+B 2.5G 25000 SL	K10102636140276	40	12	32	49.5	M10	90	46	40
BT40 HC12 140 AD+B 2.5G 25000 SL	K10102636169276	40	12	32	49.5	M10	140	46	40
BT40 HC14 090 AD+B 2.5G 25000 SL	K10102645140280	40	14	34	49.5	M10	90	46	40
BT40 HC14 140 AD+B 2.5G 25000 SL	K10102645169280	40	14	34	49.5	M10	140	46	40
BT40 HC16 090 AD+B 2.5G 25000 SL	K10102646140280	40	16	38	49.5	M12	90	49	45
BT40 HC16 140 AD+B 2.5G 25000 SL	K10102646169280	40	16	38	49.5	M12	140	49	45
BT40 HC18 090 AD+B 2.5G 25000 SL	K10102647140280	40	18	40	49.5	M12	90	49	46
BT40 HC18 140 AD+B 2.5G 25000 SL	K10102647169280	40	18	40	49.5	M12	140	49	46
BT40 HC20 090 AD+B 2.5G 25000 SL	K10102637140276	40	20	42	49.5	M16	90	51	47
BT40 HC20 140 AD+B 2.5G 25000 SL	K10102637169276	40	20	42	49.5	M16	140	51	47
BT40 HC25 090 AD+B 2.5G 25000 SL	K10102648140280	40	25	52	55	M16	90	57	50
BT40 HC25 140 AD+B 2.5G 25000 SL	K10102648169280	40	25	52	55	M16	140	57	75
BT40 HC32 090 AD+B 2.5G 25000 SL	K10102638140276	40	32	62	70	M16	90	61	25.5
BT40 HC32 140 AD+B 2.5G 25000 SL	K10102638169276	40	32	59	63	M16	140	61	61

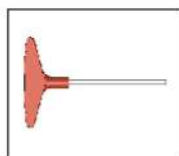
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No. 140-150



Spanner HC
Ref. Page No. 154

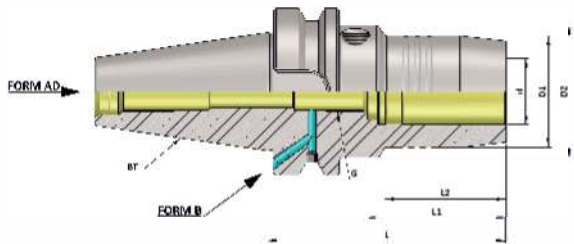


Key HC 5mm
Ref. Page No. 154

BT (MAS 403) (DIN ISO 7388 - 2) (JD/JF) Hydraulic Expansion Chuck

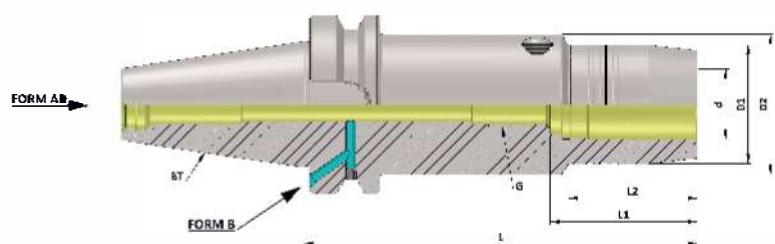


Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm



Standard GP

BT (MAS 403) Hydraulic Expansion Chuck (AD+B)



Long GP

BT (MAS 403) Hydraulic Expansion Chuck (AD+B)

BT (MAS 403) Hydraulic Expansion Chuck (AD+B) (JD/JF)										(Balanced to 2.5 G 25000 RPM)
Item Name	Item Code	ISO	d	D1	D2	G	L	L1	L2	
BT40 HC1/4" - 90 AD+B/2.5G 25000 SL	K10102649628230	40	1/4"	26	49.5	M5	90	37	29	
BT40 HC1/4" - 140 AD+B/2.5G 25000 SL	K10102649169230	40	1/4"	26	49.5	M5	140	37	29	
BT40 HC5/16" - 090 AD+B/2.5G 25000 SL	K10102956917230	40	5/16"	28	49.5	M6	90	37	30	
BT40 HC5/16" - 140 AD+B/2.5G 25000 SL	K10102956918230	40	5/16"	28	49.5	M6	140	37	30	
BT40 HC3/8" - 90 AD+B/2.5G 25000 SL	K10102650628230	40	3/8"	30	49.5	M8	90	41	35	
BT40 HC3/8" - 140 AD+B/2.5G 25000 SL	K10102650918230	40	3/8"	30	49.5	M8	140	41	35	
BT40 HC1/2" - 90 AD+B/2.5G 25000 SL	K10102652628230	40	1/2"	32	49.5	M10	90	46	40	
BT40 HC1/2" - 140 AD+B/2.5G 25000 SL	K10102652918230	40	1/2"	32	49.5	M10	140	46	40	
BT40 HC5/8" - 90 AD+B/2.5G 25000 SL	K10102651628230	40	5/8"	38	49.5	M12	90	49	45	
BT40 HC5/8" - 140 AD+B/2.5G 25000 SL	K10102651918230	40	5/8"	38	49.5	M12	140	49	45	
BT40 HC3/4" - 90 AD+B/2.5G 25000 SL	K10102653628230	40	3/4"	42	49.5	M16	90	51	47	
BT40 HC3/4" - 140 AD+B/2.5G 25000 SL	K10102653918230	40	3/4"	42	49.5	M16	140	51	47	
BT40 HC1" - 090 AD+B/2.5G 25000 SL	K10102957140230	40	1"	52	55	M16	90	57	50	
BT40 HC1" - 140 AD+B/2.5G 25000 SL	K10102957169230	40	1"	52	55	M16	140	57	75	
BT40 HC1-1/4" - 090 AD+B/2.5G 25000 SL	K10102951917230	40	1-1/4"	62	70	M16	90	61	25.5	
BT40 HC1-1/4" - 140 AD+B/2.5G 25000 SL	K10102951918230	40	1-1/4"	59	63	M16	140	61	61	

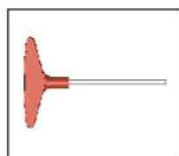
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No. 140-150



Spanner HC
Ref. Page No. 154

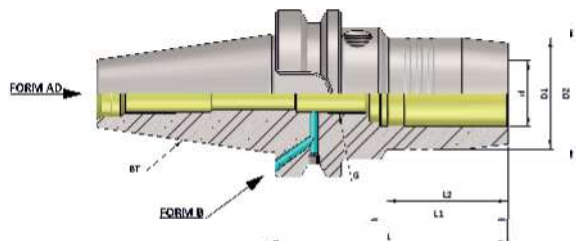


Key HC 5mm
Ref. Page No. 154

BT (MAS 403) (DIN ISO 7388 - 2) (JD/JF) Hydraulic Expansion Chuck

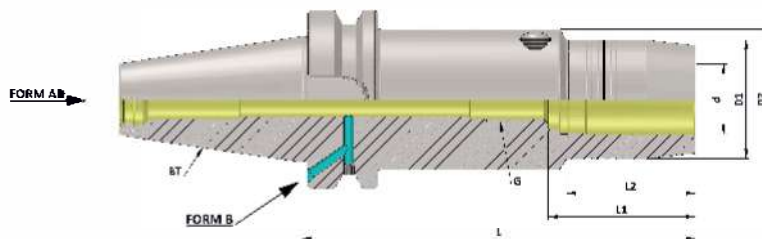


Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm



Standard GP

BT (MAS 403) Hydraulic Expansion Chuck (AD+B)



Long GP

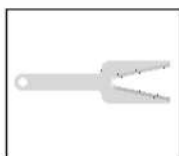
BT (MAS 403) Hydraulic Expansion Chuck (AD+B)

BT (MAS 403) Hydraulic Expansion Chuck (AD+B) (JD/JF)										(Balanced to 2.5 G 25000 RPM)
Item Name	Item Code	ISO	d	D1	D2	G	L	L1	L2	
BT50 HC06 090 AD+B 2.5G 25000 SL	K10103642156280	50	6	26	49.5	M5	90	37	29	
BT50 HC06 140 AD+B 2.5G 25000 SL	K10103642169280	50	6	26	49.5	M5	140	37	29	
BT50 HC08 090 AD+B 2.5G 25000 SL	K10103643156280	50	8	28	49.5	M6	90	37	30	
BT50 HC08 140 AD+B 2.5G 25000 SL	K10103643169280	50	8	28	49.5	M6	140	37	30	
BT50 HC10 090 AD+B 2.5G 25000 SL	K10103644156280	50	10	30	49.5	M8	90	41	34	
BT50 HC10 140 AD+B 2.5G 25000 SL	K10103644169280	50	10	30	49.5	M8	140	41	35	
BT50 HC12 090 AD+B 2.5G 25000 SL	K10103636156276	50	12	32	49.5	M10	90	46	34	
BT50 HC12 140 AD+B 2.5G 25000 SL	K10103636169276	50	12	32	49.5	M10	140	46	40	
BT50 HC14 090 AD+B 2.5G 25000 SL	K10103645156280	50	14	34	49.5	M10	90	46	34	
BT50 HC14 140 AD+B 2.5G 25000 SL	K10103645169280	50	14	34	49.5	M10	140	46	40	
BT50 HC16 090 AD+B 2.5G 25000 SL	K10103646156280	50	16	38	49.5	M12	90	49	35	
BT50 HC16 140 AD+B 2.5G 25000 SL	K10103646169280	50	16	38	49.5	M12	140	49	45	
BT50 HC18 090 AD+B 2.5G 25000 SL	K10103647156280	50	18	40	49.5	M12	90	49	35	
BT50 HC18 140 AD+B 2.5G 25000 SL	K10103647169280	50	18	40	49.5	M12	140	49	46	
BT50 HC20 090 AD+B 2.5G 25000 SL	K10103637156276	50	20	42	49.5	M16	90	51	35	
BT50 HC20 140 AD+B 2.5G 25000 SL	K10103637169276	50	20	42	49.5	M16	140	51	42	
BT50 HC25 110 AD+B 2.5G 25000 SL	K10103648156280	50	25	55	63	M16	110	57	48	
BT50 HC25 140 AD+B 2.5G 25000 SL	K10103648169280	50	25	55	63	M16	140	57	48	
BT50 HC32 110 AD+B 2.5G 25000 SL	K10103638159276	50	32	63	70	M16	110	61	50	
BT50 HC32 140 AD+B 2.5G 25000 SL	K10103638169276	50	32	63	70	M16	140	61	50	

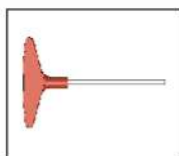
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No. 140-150



Spanner HC
Ref. Page No. 154

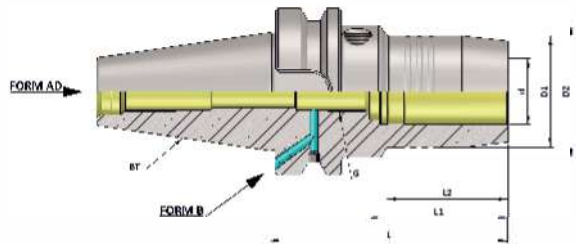


Key HC 5mm
Ref. Page No. 154

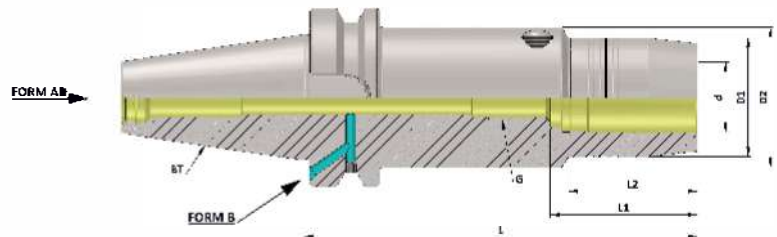
BT (MAS 403) (DIN ISO 7388 - 2) (JD/JF) Hydraulic Expansion Chuck



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm



Standard GP
BT (MAS 403) Hydraulic Expansion Chuck (AD+B)



Long GP
BT (MAS 403) Hydraulic Expansion Chuck (AD+B)

BT (MAS 403) Hydraulic Expansion Chuck (AD+B) (JD/JF)										(Balanced to 2.5 G 25000 RPM)
Item Name	Item Code	ISO	d	D1	D2	G	L	L1	L2	
BT50 HC1/4" - 090 AD+B/2.5G 25000 SL	K10103649917230	50	1/4"	26	49.5	M5	90	37	29	
BT50 HC1/4" - 140 AD+B/2.5G 25000 SL	K10103649918230	50	1/4"	26	49.5	M5	140	37	29	
BT50 HC5/16" - 090 AD+B/2.5G 25000 SL	K10103956917230	50	5/16"	28	49.5	M6	90	37	30	
BT50 HC5/16" - 140 AD+B/2.5G 25000 SL	K10103956918230	50	5/16"	28	49.5	M6	140	37	30	
BT50 HC3/8" - 090 AD+B/2.5G 25000 SL	K10103650917230	50	3/8"	30	49.5	M8	90	41	34	
BT50 HC3/8" - 140 AD+B/2.5G 25000 SL	K10103650918230	50	3/8"	30	49.5	M8	140	41	35	
BT50 HC1/2" - 090 AD+B/2.5G 25000 SL	K10103652917230	50	1/2"	32	49.5	M10	90	46	34	
BT50 HC1/2" - 140 AD+B/2.5G 25000 SL	K10103652918230	50	1/2"	32	49.5	M10	140	46	40	
BT50 HC5/8" - 090 AD+B/2.5G 25000 SL	K10103651917230	50	5/8"	38	49.5	M12	90	49	35	
BT50 HC5/8" - 140 AD+B/2.5G 25000 SL	K10103651918230	50	5/8"	38	49.5	M12	140	49	45	
BT50 HC3/4" - 090 AD+B/2.5G 25000 SL	K10103653917230	50	3/4"	42	49.5	M16	90	51	35	
BT50 HC3/4" - 140 AD+B/2.5G 25000 SL	K10103653918230	50	3/4"	42	49.5	M16	140	51	42	
BT50 HC1" - 110 AD+B/2.5G 25000 SL	K10103957917230	50	1"	55	63	M16	110	57	48	
BT50 HC1" - 140 AD+B/2.5G 25000 SL	K10103957918230	50	1"	55	63	M16	140	57	48	
BT50 HC1-1/4" - 110 AD+B/2.5G 25000 SL	K10103655917230	50	1-1/4"	63	70	M16	110	61	50	
BT50 HC1-1/4" - 140 AD+B/2.5G 25000 SL	K10103655918230	50	1-1/4"	63	70	M16	140	61	50	

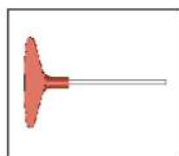
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No. 140-150



Spanner HC
Ref. Page No. 154

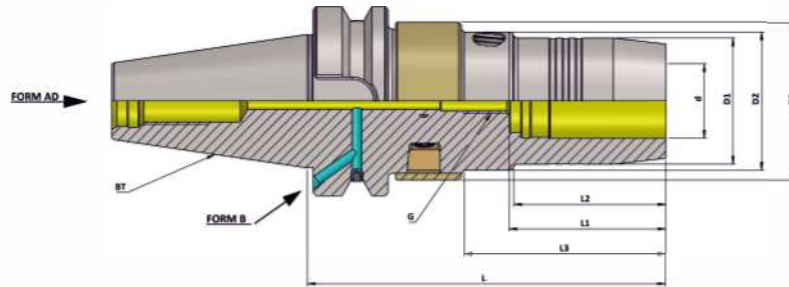


Key HC 5mm
Ref. Page No. 154

BT (MAS 403) (DIN ISO 7388-2) (JD/JF) Hydraulic Expansion Chuck With Run Out Adjustment



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm



BT (MAS 403) Hydraulic Expansion Chuck Run Out Adjustment (JD/JF)

(Balanced to 2.5 G 25000 RPM)

ITEM NAME	ITEM CODE	ISO	d	D1	D2	D3	G	L	L1	L2	L3
BT40 HC20 120 AD+B/RA 2.5G 25000 SL	K10102637162534	40	20	42	46	52.5	M8	120	51	50	67.5
BT40 HC32 140 AD+B/RA 2.5G 25000 SL	K10102638169534	40	32	42	46	52.5	M8	140	51	50	67.5
BT40 HC3/4" 120 AD+B/RA 2.5G 25000 SL	K10102653162534	40	3/4"	42	46	52.5	M8	120	51	50	67.5
BT40 HC1-1/4" 140 AD+B/RA 2.5G 25000 SL	K10102655169534	40	1-1/4"	42	46	52.5	M8	140	51	50	67.5
BT50 HC20 130 AD+B/RA 2.5G 25000 SL	K10103637165534	50	20	42	46	52.5	M8	130	51	50	67.5
BT50 HC32 150 AD+B/RA 2.5G 25000 SL	K10103638173534	50	32	42	46	52.5	M8	150	51	50	67.5
BT50 HC3/4" 130 AD+B/RA 2.5G 25000 SL	K10103653165534	50	3/4"	42	46	52.5	M8	130	51	50	67.5
BT50 HC1-1/4" 150 AD+B/RA 2.5G 25000 SL	K10103655173534	50	1-1/4"	42	46	52.5	M8	150	51	50	67.5

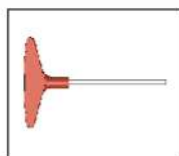
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No. 140-150



Spanner HC
Ref. Page No. 154

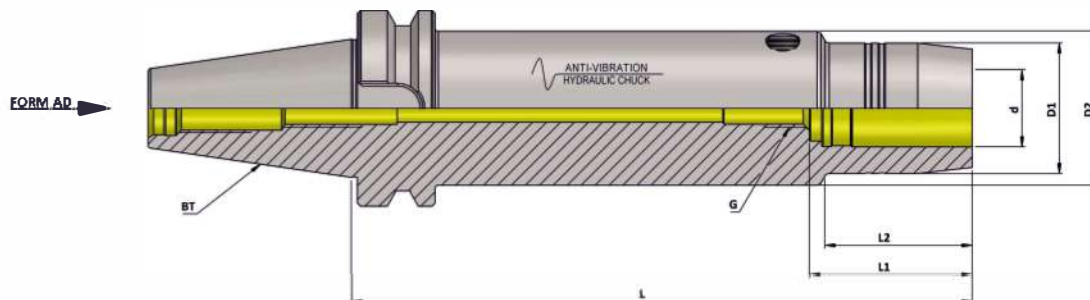


Key HC 5mm
Ref. Page No. 154

BT (MAS 403) (DIN ISO 7388-2) (JD) Hydraulic Expansion Chuck Anti - Vibration (HC-AD/AV)



Maximum Run out of the Internal Dia with respect to the External Taper 0.010 mm



BT (MAS 403) Hydraulic Expansion Chuck Anti - Vibration (HC - AD/AV)

ITEM NAME	ITEM CODE	ISO	d	D1	D2	G	L	L1	L2
BT40 HC20 200 AD/AV	K10102637239535	40	20	42	49.5	M16	200	51	47
BT40 HC20 250 AD/AV	K10102637182539	40	20	42	49.5	M16	250	51	47
BT40 HC20 300 AD/AV	K10102637183535	40	20	42	49.5	M16	300	51	47
BT40 HC3/4" 200 AD/AV	K10102653239539	40	3/4"	42	49.5	M16	200	51	47
BT40 HC3/4" 250 AD/AV	K10102653182539	40	3/4"	42	49.5	M16	250	51	47
BT40 HC3/4" 300 AD/AV	K10102653183539	40	3/4"	42	49.5	M16	300	51	47
BT40 HC25 200 AD/AV	K10102648239539	40	25	52	55	M16	200	57	50
BT40 HC25 250 AD/AV	K10102648182539	40	25	52	55	M16	250	57	50
BT40 HC25 300 AD/AV	K10102648183539	40	25	52	55	M16	300	57	50
BT40 HC1.0" 200 AD/AV	K10102656239539	40	1.0"	52	55	M16	200	57	50
BT40 HC1.0" 250 AD/AV	K10102656182539	40	1.0"	52	55	M16	250	57	50
BT40 HC1.0" 300 AD/AV	K10102656183539	40	1.0"	52	55	M16	300	57	50
BT40 HC32 200 AD/AV	K10102638239539	40	32	62	63	M16	200	61	48
BT40 HC32 250 AD/AV	K10102638182539	40	32	62	63	M16	250	61	48
BT40 HC32 300 AD/AV	K10102638183539	40	32	62	63	M16	300	61	48
BT40 HC1-1/4" 200 AD/AV	K10102655239539	40	1-1/4"	62	63	M16	200	61	48
BT40 HC1-1/4" 250 AD/AV	K10102655182539	40	1-1/4"	62	63	M16	250	61	48
BT40 HC1-1/4" 300 AD/AV	K10102655183539	40	1-1/4"	62	63	M16	300	61	48

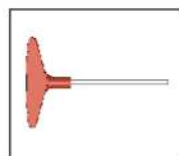
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No. 140-150



Spanner HC
Ref. Page No. 154

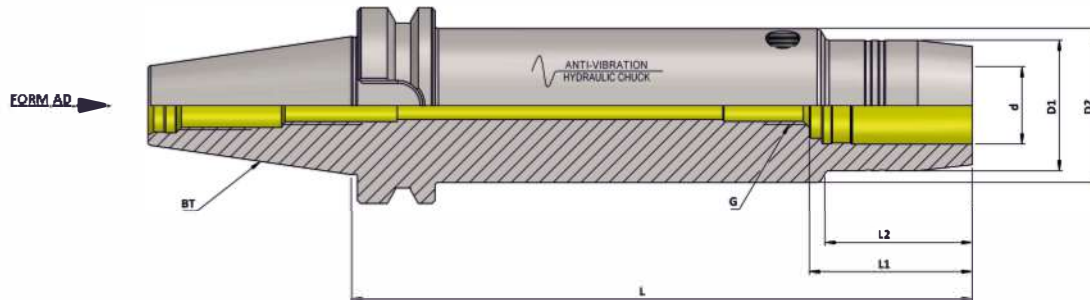


Key HC 5mm
Ref. Page No. 154

BT (MAS 403) (DIN ISO 7388-2) (JD) Hydraulic Expansion Chuck Anti - Vibration (HC-AD/AV)



Maximum Run out of the Internal Dia with respect to the External Taper 0.010 mm



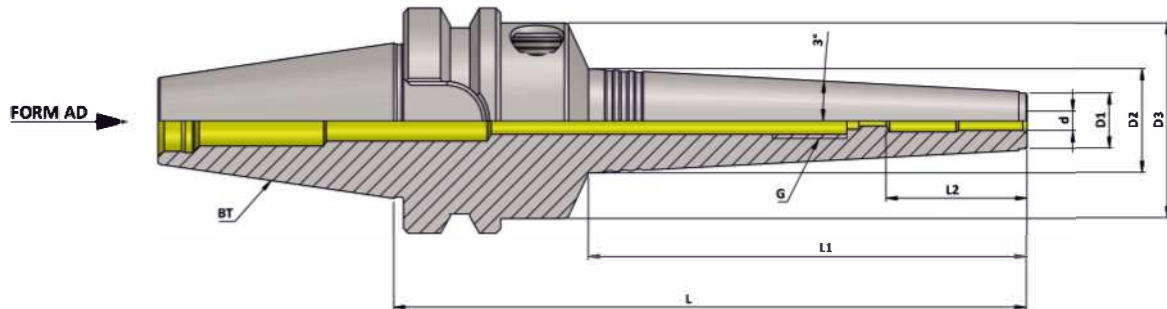
BT (MAS 403) Hydraulic Expansion Chuck Anti - Vibration (HC - AD/AV)

ITEM NAME	ITEM CODE	ISO	d	D1	D2	G	L	L1	L2
BT50 HC20 200 AD/AV	K10103637239535	50	20	42	49.5	M16	200	51	42
BT50 HC20 250 AD/AV	K10103637182539	50	20	42	49.5	M16	250	51	42
BT50 HC20 300 AD/AV	K10103637183535	50	20	42	49.5	M16	300	51	42
BT50 HC20 350 AD/AV	K10103637184539	50	20	42	49.5	M16	350	51	42
BT50 HC20 400 AD/AV	K10103637540535	50	20	42	49.5	M16	400	51	42
BT50 HC3/4" 200 AD/AV	K10103653239539	50	3/4"	42	49.5	M16	200	51	42
BT50 HC3/4" 250 AD/AV	K10103653182539	50	3/4"	42	49.5	M16	250	51	42
BT50 HC3/4" 300 AD/AV	K10103653183539	50	3/4"	42	49.5	M16	300	51	42
BT50 HC3/4" 350 AD/AV	K10103653184539	50	3/4"	42	49.5	M16	350	51	42
BT50 HC3/4" 400 AD/AV	K10103653540539	50	3/4"	42	49.5	M16	400	51	42
BT50 HC25 200 AD/AV	K10103648239539	50	25	52	55	M16	200	57	50
BT50 HC25 250 AD/AV	K10103648182539	50	25	52	55	M16	250	57	50
BT50 HC25 300 AD/AV	K10103648183539	50	25	52	55	M16	300	57	50
BT50 HC25 350 AD/AV	K10103648184539	50	25	52	55	M16	350	57	50
BT50 HC25 400 AD/AV	K10103648540539	50	25	52	55	M16	400	57	50
BT50 HC1.0" 200 AD/AV	K10103656239539	50	1.0"	52	55	M16	200	57	50
BT50 HC1.0" 250 AD/AV	K10103656182539	50	1.0"	52	55	M16	250	57	50
BT50 HC1.0" 300 AD/AV	K10103656183539	50	1.0"	52	55	M16	300	57	50
BT50 HC1.0" 350 AD/AV	K10103656184539	50	1.0"	52	55	M16	350	57	50
BT50 HC1.0" 400 AD/AV	K10103656540539	50	1.0"	52	55	M16	400	57	50
BT50 HC32 200 AD/AV	K10103638239539	50	32	62	63	M16	200	61	48
BT50 HC32 250 AD/AV	K10103638182539	50	32	62	63	M16	250	61	48
BT50 HC32 300 AD/AV	K10103638183539	50	32	62	63	M16	300	61	48
BT50 HC32 350 AD/AV	K10103638184539	50	32	62	63	M16	350	61	48
BT50 HC32 400 AD/AV	K10103638540539	50	32	62	63	M16	400	61	48
BT50 HC1-1/4" 200 AD/AV	K10103655239539	50	1-1/4"	62	63	M16	200	61	48
BT50 HC1-1/4" 250 AD/AV	K10103655182539	50	1-1/4"	62	63	M16	250	61	48
BT50 HC1-1/4" 300 AD/AV	K10103655183539	50	1-1/4"	62	63	M16	300	61	48
BT50 HC1-1/4" 350 AD/AV	K10103655184539	50	1-1/4"	62	63	M16	350	61	48
BT50 HC1-1/4" 400 AD/AV	K10103655540539	50	1-1/4"	62	63	M16	400	61	48

BT (MAS 403) (DIN ISO 7388 - 2) (JD) Hydraulic Expansion Chuck Slim 3 Degree



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm



BT (MAS 403) Hydraulic Expansion Chuck Slim 3 Degree (AD) (JD)

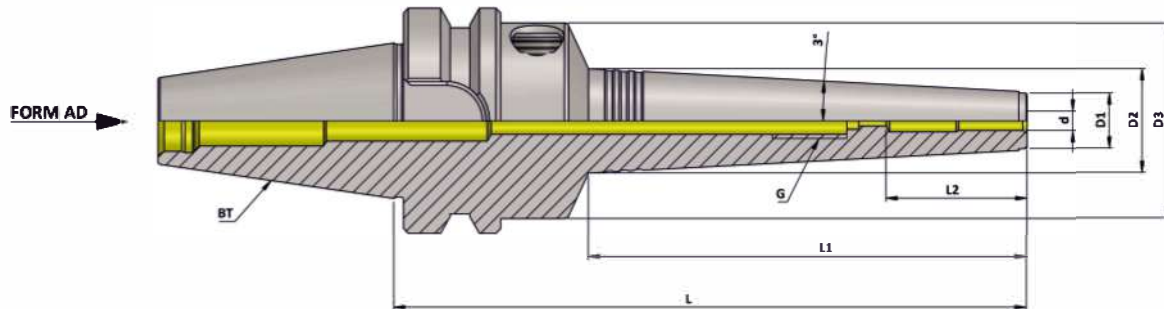
(Balanced to 2.5 G 25000 RPM)

Item Name	Item Code	ISO	d	D1	D2	D3	G	L	L1	L2
BT30 HC03 070 SLIM AD/2.5G 25000 SL	K10101707125542	30	3	11	14.0	46	M2.5	70	28	28
BT30 HC03 085 SLIM AD/2.5G 25000 SL	K10101707135542	30	3	11	14.9	46	M2.5	85	37	28
BT30 HC03 130 SLIM AD/2.5G 25000 SL	K10101707165542	30	3	11	19.9	46	M2.5	130	84	28
BT30 HC04 070 SLIM AD/2.5G 25000 SL	K10101708125542	30	4	11	14.0	46	M2.5	70	28	28
BT30 HC04 085 SLIM AD/2.5G 25000 SL	K10101708135542	30	4	11	14.9	46	M2.5	85	37	28
BT30 HC04 130 SLIM AD/2.5G 25000 SL	K10101708165542	30	4	11	19.9	46	M2.5	130	84	28
BT30 HC05 070 SLIM AD/2.5G 25000 SL	K10101709125542	30	5	12	14.9	46	M2.5	70	28	28
BT30 HC05 085 SLIM AD/2.5G 25000 SL	K10101709135542	30	5	12	15.9	46	M2.5	85	37	28
BT30 HC05 130 SLIM AD/2.5G 25000 SL	K10101709165542	30	5	12	20.8	46	M2.5	130	84	28
BT30 HC06 090 SLIM AD/2.5G 25000 SL	K10101642140542	30	6	13	17.0	46	M5	90	38	37
BT30 HC06 135 SLIM AD/2.5G 25000 SL	K10101642166542	30	6	13	21.9	46	M5	135	84	37
BT30 HC06 150 SLIM AD/2.5G 25000 SL	K10101642173542	30	6	13	23.4	46	M5	150	99	37
BT30 HC06 165 SLIM AD/2.5G 25000 SL	K10101642956542	30	6	13	25.0	46	M5	165	114	37
BT30 HC06 180 SLIM AD/2.5G 25000 SL	K10101642178542	30	6	13	26.7	46	M5	180	130	37
BT30 HC08 090 SLIM AD/2.5G 25000 SL	K10101643140542	30	8	15	19.0	46	M6	90	38	37
BT30 HC08 135 SLIM AD/2.5G 25000 SL	K10101643166542	30	8	15	23.9	46	M6	135	84	37
BT30 HC08 150 SLIM AD/2.5G 25000 SL	K10101643173542	30	8	15	25.4	46	M6	150	99	37
BT30 HC08 165 SLIM AD/2.5G 25000 SL	K10101643956542	30	8	15	27.0	46	M6	165	114	37
BT30 HC08 180 SLIM AD/2.5G 25000 SL	K10101643178542	30	8	15	28.7	46	M6	180	130	37
BT30 HC10 105 SLIM AD/2.5G 25000 SL	K10101644152542	30	10	17	22.6	46	M8	105	53	41
BT30 HC10 135 SLIM AD/2.5G 25000 SL	K10101644166542	30	10	17	25.9	46	M8	135	84	41
BT30 HC10 150 SLIM AD/2.5G 25000 SL	K10101644173542	30	10	17	27.4	46	M8	150	99	41
BT30 HC10 165 SLIM AD/2.5G 25000 SL	K10101644956542	30	10	17	29.0	46	M8	165	114	41
BT30 HC10 180 SLIM AD/2.5G 25000 SL	K10101644178542	30	10	17	30.7	46	M8	180	130	41
BT30 HC12 105 SLIM AD/2.5G 25000 SL	K10101636152542	30	12	19	24.6	46	M8	105	53	46
BT30 HC12 135 SLIM AD/2.5G 25000 SL	K10101636166542	30	12	19	27.9	46	M8	135	84	46
BT30 HC12 150 SLIM AD/2.5G 25000 SL	K10101636173542	30	12	19	29.4	46	M8	150	99	46
BT30 HC12 165 SLIM AD/2.5G 25000 SL	K10101636956542	30	12	19	31.0	46	M8	165	114	46
BT30 HC12 180 SLIM AD/2.5G 25000 SL	K10101636178542	30	12	19	32.7	46	M8	180	130	46

BT (MAS 403) (DIN ISO 7388 - 2) (JD) Hydraulic Expansion Chuck Slim 3 Degree



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm



BT (MAS 403) Hydraulic Expansion Chuck Slim 3 Degree (AD) (JD)

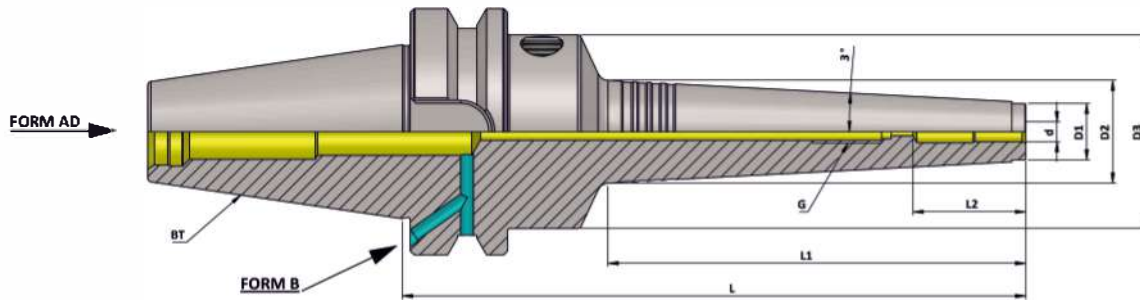
(Balanced to 2.5 G 25000 RPM)

Item Name	Item Code	ISO	d	D1	D2	D3	G	L	L1	L2
BT30 HC1/8" 070 SLIM AD/2.5G 25000 SL	K10101961125542	30	1/8"	11	14.0	46	M2.5	70	28	28
BT30 HC1/8" 085 SLIM AD/2.5G 25000 SL	K10101961135542	30	1/8"	11	14.9	46	M2.5	85	37	28
BT30 HC1/8" 130 SLIM AD/2.5G 25000 SL	K10101961165542	30	1/8"	11	19.9	46	M2.5	130	84	28
BT30 HC3/16" 070 SLIM AD/2.5G 25000 SL	K10101962125542	30	3/16"	11	14.0	46	M2.5	70	28	28
BT30 HC3/16" 085 SLIM AD/2.5G 25000 SL	K10101962135542	30	3/16"	11	14.9	46	M2.5	85	37	28
BT30 HC3/16" 130 SLIM AD/2.5G 25000 SL	K10101962165542	30	3/16"	11	19.9	46	M2.5	130	84	28
BT30 HC1/4" 090 SLIM AD/2.5G 25000 SL	K10101649140542	30	1/4"	13	17.0	46	M5	90	38	37
BT30 HC1/4" 135 SLIM AD/2.5G 25000 SL	K10101649166542	30	1/4"	13	21.9	46	M5	135	84	37
BT30 HC1/4" 150 SLIM AD/2.5G 25000 SL	K10101649173542	30	1/4"	13	23.4	46	M5	150	99	37
BT30 HC1/4" 165 SLIM AD/2.5G 25000 SL	K10101649956542	30	1/4"	13	25.0	46	M5	165	114	37
BT30 HC1/4" 180 SLIM AD/2.5G 25000 SL	K10101649178542	30	1/4"	13	26.7	46	M5	180	130	37
BT30 HC5/16" 090 SLIM AD/2.5G 25000 SL	K10101956140542	30	5/16"	15	19.0	46	M6	90	38	37
BT30 HC5/16" 135 SLIM AD/2.5G 25000 SL	K10101956166542	30	5/16"	15	23.9	46	M6	135	84	37
BT30 HC5/16" 150 SLIM AD/2.5G 25000 SL	K10101956173542	30	5/16"	15	25.4	46	M6	150	99	37
BT30 HC5/16" 165 SLIM AD/2.5G 25000 SL	K10101956956542	30	5/16"	15	27.0	46	M6	165	114	37
BT30 HC5/16" 180 SLIM AD/2.5G 25000 SL	K10101956178542	30	5/16"	15	28.7	46	M6	180	130	37
BT30 HC3/8" 105 SLIM AD/2.5G 25000 SL	K10101650152542	30	3/8"	17	22.6	46	M8	105	53	41
BT30 HC3/8" 135 SLIM AD/2.5G 25000 SL	K10101650166542	30	3/8"	17	25.9	46	M8	135	84	41
BT30 HC3/8" 150 SLIM AD/2.5G 25000 SL	K10101650173542	30	3/8"	17	27.4	46	M8	150	99	41
BT30 HC3/8" 165 SLIM AD/2.5G 25000 SL	K10101650956542	30	3/8"	17	29.0	46	M8	165	114	41
BT30 HC3/8" 180 SLIM AD/2.5G 25000 SL	K10101650178542	30	3/8"	17	30.7	46	M8	180	130	41
BT30 HC1/2" 105 SLIM AD/2.5G 25000 SL	K10101652152542	30	1/2"	19	24.6	46	M8	105	53	46
BT30 HC1/2" 135 SLIM AD/2.5G 25000 SL	K10101652166542	30	1/2"	19	27.9	46	M8	135	84	46
BT30 HC1/2" 150 SLIM AD/2.5G 25000 SL	K10101652173542	30	1/2"	19	29.4	46	M8	150	99	46
BT30 HC1/2" 165 SLIM AD/2.5G 25000 SL	K10101652956542	30	1/2"	19	31.0	46	M8	165	114	46
BT30 HC1/2" 180 SLIM AD/2.5G 25000 SL	K10101652178542	30	1/2"	19	32.7	46	M8	180	130	46

BT (MAS 403) (DIN ISO 7388 - 2) (JD/JF) Hydraulic Expansion Chuck Slim 3 Degree



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm



BT (MAS 403) Hydraulic Expansion Chuck Slim 3 Degree (AD+B) (JD/JF)

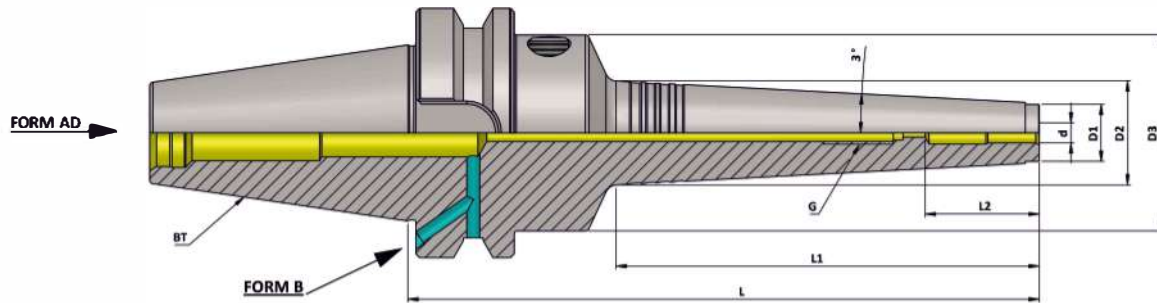
(Balanced to 2.5 G 25000 RPM)

Item Name	Item Code	ISO	d	D1	D2	D3	G	L	L1	L2
BT40 HC03 075 SLIM AD+B/2.5G 25000 SL	K10102707127259	40	3	11	14.0	46	—	75	28	28
BT40 HC03 090 SLIM AD+B/2.5G 25000 SL	K10102707140259	40	3	11	14.9	46	—	90	37	28
BT40 HC03 135 SLIM AD+B/2.5G 25000 SL	K10102707166259	40	3	11	19.9	46	—	135	84	28
BT40 HC04 075 SLIM AD+B/2.5G 25000 SL	K10102708127259	40	4	11	14.0	46	—	75	28	28
BT40 HC04 090 SLIM AD+B/2.5G 25000 SL	K10102708140259	40	4	11	14.9	46	—	90	37	28
BT40 HC04 135 SLIM AD+B/2.5G 25000 SL	K10102708166259	40	4	11	19.9	46	—	135	84	28
BT40 HC05 075 SLIM AD+B/2.5G 25000 SL	K10102709127259	40	5	12	14.9	46	—	75	28	28
BT40 HC05 090 SLIM AD+B/2.5G 25000 SL	K10102709140259	40	5	12	15.9	46	—	90	37	28
BT40 HC05 135 SLIM AD+B/2.5G 25000 SL	K10102709166259	40	5	12	20.8	46	—	135	84	28
BT40 HC06 090 SLIM AD+B/2.5G 25000 SL	K10102642140259	40	6	13	17.0	46	M5	90	38	37
BT40 HC06 135 SLIM AD+B/2.5G 25000 SL	K10102642166259	40	6	13	21.9	46	M5	135	84	37
BT40 HC06 150 SLIM AD+B/2.5G 25000 SL	K10102642173259	40	6	13	23.4	46	M5	150	99	37
BT40 HC06 165 SLIM AD+B/2.5G 25000 SL	K10102642956259	40	6	13	25.0	46	M5	165	114	37
BT40 HC06 180 SLIM AD+B/2.5G 25000 SL	K10102642178259	40	6	13	26.7	46	M5	180	130	37
BT40 HC08 090 SLIM AD+B/2.5G 25000 SL	K10102643140259	40	8	15	19.0	46	M6	90	38	37
BT40 HC08 135 SLIM AD+B/2.5G 25000 SL	K10102643166259	40	8	15	23.9	46	M6	135	84	37
BT40 HC08 150 SLIM AD+B/2.5G 25000 SL	K10102643173259	40	8	15	25.4	46	M6	150	99	37
BT40 HC08 165 SLIM AD+B/2.5G 25000 SL	K10102643956259	40	8	15	27.0	46	M6	165	114	37
BT40 HC08 180 SLIM AD+B/2.5G 25000 SL	K10102643178259	40	8	15	28.7	46	M6	180	130	37
BT40 HC10 105 SLIM AD+B/2.5G 25000 SL	K10102644152259	40	10	17	22.6	46	M8	105	53	41
BT40 HC10 135 SLIM AD+B/2.5G 25000 SL	K10102644166259	40	10	17	25.9	46	M8	135	84	41
BT40 HC10 150 SLIM AD+B/2.5G 25000 SL	K10102644173259	40	10	17	27.4	46	M8	150	99	41
BT40 HC10 165 SLIM AD+B/2.5G 25000 SL	K10102644956259	40	10	17	29.0	46	M8	165	114	41
BT40 HC10 180 SLIM AD+B/2.5G 25000 SL	K10102644178259	40	10	17	30.7	46	M8	180	130	41
BT40 HC12 105 SLIM AD+B/2.5G 25000 SL	K10102636152259	40	12	19	24.6	46	M8	105	53	46
BT40 HC12 135 SLIM AD+B/2.5G 25000 SL	K10102636166259	40	12	19	27.9	46	M8	135	84	46
BT40 HC12 150 SLIM AD+B/2.5G 25000 SL	K10102636173259	40	12	19	29.4	46	M8	150	99	46
BT40 HC12 165 SLIM AD+B/2.5G 25000 SL	K10102636956259	40	12	19	31.0	46	M8	165	114	46
BT40 HC12 180 SLIM AD+B/2.5G 25000 SL	K10102636178259	40	12	19	32.7	46	M8	180	130	46
BT40 HC14 135 SLIM AD+B/2.5G 25000 SL	K10102645166259	40	14	21	29.8	52.5	M10	135	84	46
BT40 HC14 165 SLIM AD+B/2.5G 25000 SL	K10102645956259	40	14	21	32.9	52.5	M10	165	114	46
BT40 HC14 180 SLIM AD+B/2.5G 25000 SL	K10102645178259	40	14	21	34.5	52.5	M10	180	129	46
BT40 HC16 135 SLIM AD+B/2.5G 25000 SL	K10102646166259	40	16	23	31.9	52.5	M12	135	84	49

BT (MAS 403) (DIN ISO 7388 - 2) (JD/JF) Hydraulic Expansion Chuck Slim 3 Degree



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm



BT (MAS 403) Hydraulic Expansion Chuck Slim 3 Degree (AD+B) (JD/JF)

(Balanced to 2.5 G 25000 RPM)

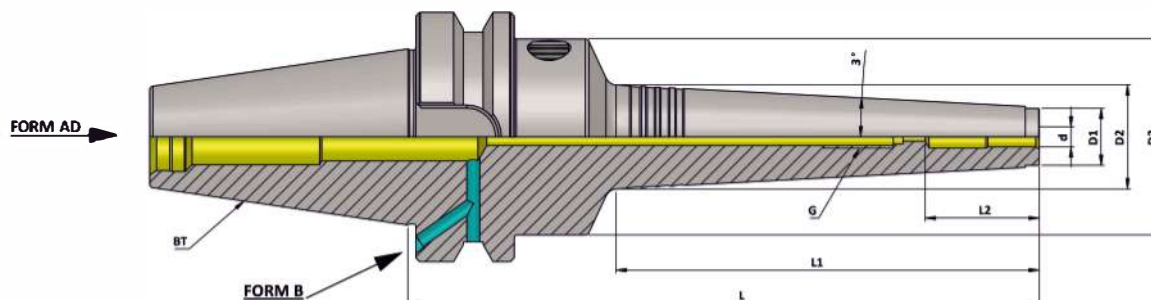
Item Name	Item Code	ISO	d	D1	D2	D3	G	L	L1	L2
BT40 HC16 165 SLIM AD+B/2.5G 25000 SL	K10102646956259	40	16	23	35.0	52.5	M12	165	114	49
BT40 HC16 180 SLIM AD+B/2.5G 25000 SL	K10102646178259	40	16	23	36.6	52.5	M12	180	129	49
BT40 HC18 135 SLIM AD+B/2.5G 25000 SL	K10102647166259	40	18	26	34.8	60	M12	135	84	49
BT40 HC18 165 SLIM AD+B/2.5G 25000 SL	K10102647956259	40	18	26	37.9	60	M12	165	114	49
BT40 HC18 180 SLIM AD+B/2.5G 25000 SL	K10102647178259	40	18	26	39.5	60	M12	180	129	49
BT40 HC20 135 SLIM AD+B/2.5G 25000 SL	K10102637166259	40	20	28	36.9	60	M16	135	84	51
BT40 HC20 165 SLIM AD+B/2.5G 25000 SL	K10102637956259	40	20	28	40.0	60	M16	165	114	51
BT40 HC20 180 SLIM AD+B/2.5G 25000 SL	K10102637178259	40	20	28	41.6	60	M16	180	129	51
BT40 HC25 135 SLIM AD+B/2.5G 25000 SL	K10102648166259	40	25	37	45.9	60	M16	135	84	51
BT40 HC25 165 SLIM AD+B/2.5G 25000 SL	K10102648956259	40	25	37	49.0	60	M16	165	114	51
BT40 HC25 180 SLIM AD+B/2.5G 25000 SL	K10102648178259	40	25	37	50.6	60	M16	180	129	51

BT40 HC1/8" 075 SLIM AD+B/2.5G 25000 SL	K10102961127542	40	1/8"	11	14.0	46	—	75	28	28
BT40 HC1/8" 090 SLIM AD+B/2.5G 25000 SL	K10102961140542	40	1/8"	11	14.9	46	—	90	37	28
BT40 HC1/8" 135 SLIM AD+B/2.5G 25000 SL	K10102961166542	40	1/8"	11	19.9	46	—	135	84	28
BT40 HC3/16" 075 SLIM AD+B/2.5G 25000 SL	K10102962127542	40	3/16"	11	14.0	46	—	75	28	28
BT40 HC3/16" 090 SLIM AD+B/2.5G 25000 SL	K10102962140542	40	3/16"	11	14.9	46	—	90	37	28
BT40 HC3/16" 135 SLIM AD+B/2.5G 25000 SL	K10102962166542	40	3/16"	11	19.9	46	—	135	84	28
BT40 HC1/4" 090 SLIM AD+B/2.5G 25000 SL	K10102649140542	40	1/4"	13	17.0	46	M5	90	38	37
BT40 HC1/4" 135 SLIM AD+B/2.5G 25000 SL	K10102649166542	40	1/4"	13	21.9	46	M5	135	84	37
BT40 HC1/4" 150 SLIM AD+B/2.5G 25000 SL	K10102649173542	40	1/4"	13	23.4	46	M5	150	99	37
BT40 HC1/4" 165 SLIM AD+B/2.5G 25000 SL	K10102649956542	40	1/4"	13	25.0	46	M5	165	114	37
BT40 HC1/4" 180 SLIM AD+B/2.5G 25000 SL	K10102649178542	40	1/4"	13	26.7	46	M5	180	130	37
BT40 HC5/16" 090 SLIM AD+B/2.5G 25000 SL	K10102956140542	40	5/16"	15	19.0	46	M6	90	38	37
BT40 HC5/16" 135 SLIM AD+B/2.5G 25000 SL	K10102956166542	40	5/16"	15	23.9	46	M6	135	84	37
BT40 HC5/16" 150 SLIM AD+B/2.5G 25000 SL	K10102956173542	40	5/16"	15	25.4	46	M6	150	99	37
BT40 HC5/16" 165 SLIM AD+B/2.5G 25000 SL	K10102956956542	40	5/16"	15	27.0	46	M6	165	114	37
BT40 HC5/16" 180 SLIM AD+B/2.5G 25000 SL	K10102956178542	40	5/16"	15	28.7	46	M6	180	130	37
BT40 HC3/8" 105 SLIM AD+B/2.5G 25000 SL	K10102650152542	40	3/8"	17	22.6	46	M8	105	53	41
BT40 HC3/8" 135 SLIM AD+B/2.5G 25000 SL	K10102650166542	40	3/8"	17	25.9	46	M8	135	84	41
BT40 HC3/8" 150 SLIM AD+B/2.5G 25000 SL	K10102650173542	40	3/8"	17	27.4	46	M8	150	99	41
BT40 HC3/8" 165 SLIM AD+B/2.5G 25000 SL	K10102650956542	40	3/8"	17	29.0	46	M8	165	114	41
BT40 HC3/8" 180 SLIM AD+B/2.5G 25000 SL	K10102650178542	40	3/8"	17	30.7	46	M8	180	130	41

BT (MAS 403) (DIN ISO 7388 - 2) (JD/JF) Hydraulic Expansion Chuck Slim 3 Degree



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm

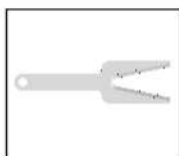


BT (MAS 403) Hydraulic Expansion Chuck Slim 3 Degree (AD+B) (JD/JF)											(Balanced to 2.5 G 25000 RPM)	
Item Name	Item Code	ISO	d	D1	D2	D3	G	L	L1	L2		
BT40 HC1/2" 105 SLIM AD+B/2.5G 25000 SL	K10102652152542	40	1/2"	19	24.6	46	M8	105	53	46		
BT40 HC1/2" 135 SLIM AD+B/2.5G 25000 SL	K10102652166542	40	1/2"	19	27.9	46	M8	135	84	46		
BT40 HC1/2" 150 SLIM AD+B/2.5G 25000 SL	K10102652173542	40	1/2"	19	29.4	46	M8	150	99	46		
BT40 HC1/2" 165 SLIM AD+B/2.5G 25000 SL	K10102652956542	40	1/2"	19	31.0	46	M8	165	114	46		
BT40 HC1/2" 180 SLIM AD+B/2.5G 25000 SL	K10102652178542	40	1/2"	19	32.7	46	M8	180	130	46		
BT40 HC5/8" 135 SLIM AD+B/2.5G 25000 SL	K10102651166542	40	5/8"	23	31.9	52.5	M12	135	84	49		
BT40 HC5/8" 165 SLIM AD+B/2.5G 25000 SL	K10102651956542	40	5/8"	23	35.0	52.5	M12	165	114	49		
BT40 HC5/8" 180 SLIM AD+B/2.5G 25000 SL	K10102651178542	40	5/8"	23	36.6	52.5	M12	180	129	49		
BT40 HC3/4" 135 SLIM AD+B/2.5G 25000 SL	K10102653166542	40	3/4"	28	36.9	60	M16	135	84	51		
BT40 HC3/4" 165 SLIM AD+B/2.5G 25000 SL	K10102653956542	40	3/4"	28	40.0	60	M16	165	114	51		
BT40 HC3/4" 180 SLIM AD+B/2.5G 25000 SL	K10102653178542	40	3/4"	28	41.6	60	M16	180	129	51		
BT40 HC 1.0" 135 SLIM AD+B/2.5G 25000 SL	K10102656166542	40	1.0"	37	45.9	60	M16	135	84	51		
BT40 HC 1.0" 165 SLIM AD+B/2.5G 25000 SL	K10102656956542	40	1.0"	37	49.0	60	M16	165	114	51		
BT40 HC 1.0" 180 SLIM AD+B/2.5G 25000 SL	K10102656178542	40	1.0"	37	50.6	60	M16	180	129	51		

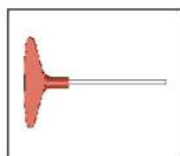
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No. 140-150



Spanner HC
Ref. Page No. 154

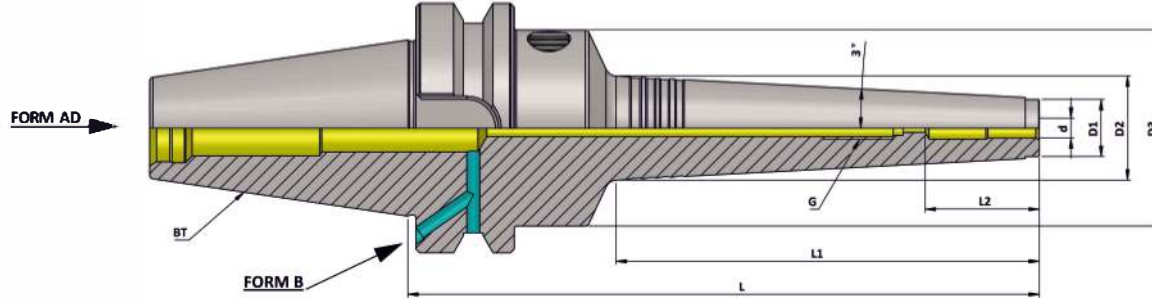


Key HC 5mm
Ref. Page No. 154

BT (MAS 403) (DIN ISO 7388 - 2) (JD/JF) Hydraulic Expansion Chuck Slim 3 Degree



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm



BT (MAS 403) Hydraulic Expansion Chuck Slim 3 Degree (AD+B) (JD/JF)

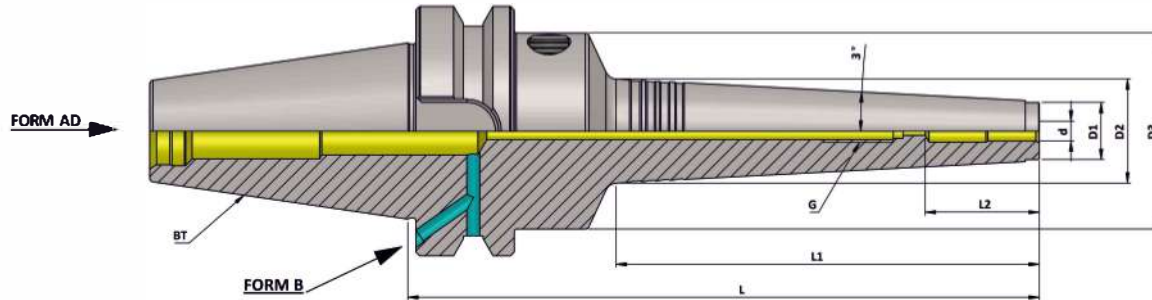
(Balanced to 2.5 G 25000 RPM)

Item Name	Item Code	ISO	d	D1	D2	D3	G	L	L1	L2
BT50 HC06 105 SLIM AD+B/2.5G 25000 SL	K10103642152259	50	6	13	17.0	46	M5	105	38	37
BT50 HC06 150 SLIM AD+B/2.5G 25000 SL	K10103642173259	50	6	13	21.9	46	M5	150	84	37
BT50 HC06 165 SLIM AD+B/2.5G 25000 SL	K10103642956259	50	6	13	23.4	46	M5	165	99	37
BT50 HC06 180 SLIM AD+B/2.5G 25000 SL	K10103642178259	50	6	13	25.0	46	M5	180	114	37
BT50 HC06 195 SLIM AD+B/2.5G 25000 SL	K10103642957259	50	6	13	26.7	46	M5	195	130	37
BT50 HC08 105 SLIM AD+B/2.5G 25000 SL	K10103643152259	50	8	15	19.0	46	M6	105	38	37
BT50 HC08 150 SLIM AD+B/2.5G 25000 SL	K10103643173259	50	8	15	23.9	46	M6	150	84	37
BT50 HC08 165 SLIM AD+B/2.5G 25000 SL	K10103643956259	50	8	15	25.4	46	M6	165	99	37
BT50 HC08 180 SLIM AD+B/2.5G 25000 SL	K10103643178259	50	8	15	27.0	46	M6	180	114	37
BT50 HC08 195 SLIM AD+B/2.5G 25000 SL	K10103643957259	50	8	15	28.7	46	M6	195	130	37
BT50 HC10 150 SLIM AD+B/2.5G 25000 SL	K10103644173259	50	10	17	25.9	46	M8	150	84	41
BT50 HC10 165 SLIM AD+B/2.5G 25000 SL	K10103644956259	50	10	17	27.4	46	M8	165	99	41
BT50 HC10 180 SLIM AD+B/2.5G 25000 SL	K10103644178259	50	10	17	29.0	46	M8	180	114	41
BT50 HC10 195 SLIM AD+B/2.5G 25000 SL	K10103644957259	50	10	17	30.7	46	M8	195	130	41
BT50 HC12 150 SLIM AD+B/2.5G 25000 SL	K10103636173259	50	12	19	27.9	46	M10	150	84	46
BT50 HC12 165 SLIM AD+B/2.5G 25000 SL	K10103636956259	50	12	19	29.4	46	M10	165	99	46
BT50 HC12 180 SLIM AD+B/2.5G 25000 SL	K10103636178259	50	12	19	31.0	46	M10	180	114	46
BT50 HC12 195 SLIM AD+B/2.5G 25000 SL	K10103636957259	50	12	19	32.7	46	M10	195	130	46
BT50 HC14 150 SLIM AD+B/2.5G 25000 SL	K10103645173259	50	14	21	31.4	52.5	M10	150	99	46
BT50 HC14 180 SLIM AD+B/2.5G 25000 SL	K10103645178259	50	14	21	32.9	52.5	M10	180	114	46
BT50 HC14 195 SLIM AD+B/2.5G 25000 SL	K10103645957259	50	14	21	34.5	52.5	M10	195	129	46
BT50 HC16 150 SLIM AD+B/2.5G 25000 SL	K10103646173259	50	16	23	31.9	52.5	M12	150	84	49
BT50 HC16 180 SLIM AD+B/2.5G 25000 SL	K10103646178259	50	16	23	35.0	52.5	M12	180	114	49
BT50 HC16 195 SLIM AD+B/2.5G 25000 SL	K10103646957259	50	16	23	36.6	52.5	M12	195	129	49
BT50 HC18 150 SLIM AD+B/2.5G 25000 SL	K10103647173259	50	18	26	34.8	60	M12	150	84	49
BT50 HC18 180 SLIM AD+B/2.5G 25000 SL	K10103647178259	50	18	26	37.9	60	M12	180	114	49
BT50 HC18 195 SLIM AD+B/2.5G 25000 SL	K10103647957259	50	18	26	39.5	60	M12	195	129	49
BT50 HC20 150 SLIM AD+B/2.5G 25000 SL	K10103637173259	50	20	28	36.9	60	M16	150	84	51
BT50 HC20 180 SLIM AD+B/2.5G 25000 SL	K10103637178259	50	20	28	40.0	60	M16	180	114	51
BT50 HC20 195 SLIM AD+B/2.5G 25000 SL	K10103637957259	50	20	28	41.6	60	M16	195	129	51
BT50 HC25 150 SLIM AD+B/2.5G 25000 SL	K10103648173259	50	25	37	45.9	60	M16	150	84	51
BT50 HC25 180 SLIM AD+B/2.5G 25000 SL	K10103648178259	50	25	37	49.0	60	M16	180	114	51
BT50 HC25 195 SLIM AD+B/2.5G 25000 SL	K10103648957259	50	25	37	50.6	60	M16	195	129	51

BT (MAS 403) (DIN ISO 7388 - 2) (JD/JF) Hydraulic Expansion Chuck Slim 3 Degree



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm



BT (MAS 403) Hydraulic Expansion Chuck Slim 3 Degree (AD+B) (JD/JF)

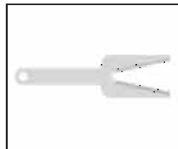
(Balanced to 2.5 G 25000 RPM)

Item Name	Item Code	ISO	d	D1	D2	D3	G	L	L1	L2
BT50 HC1/4" 105 SLIM AD+B/2.5G 25000 SL	K10103649152542	50	1/4"	13	17.0	46	M5	105	38	37
BT50 HC1/4" 150 SLIM AD+B/2.5G 25000 SL	K10103649173542	50	1/4"	13	21.9	46	M5	150	84	37
BT50 HC1/4" 165 SLIM AD+B/2.5G 25000 SL	K10103649956542	50	1/4"	13	23.4	46	M5	165	99	37
BT50 HC1/4" 180 SLIM AD+B/2.5G 25000 SL	K10103649178542	50	1/4"	13	25.0	46	M5	180	114	37
BT50 HC1/4" 195 SLIM AD+B/2.5G 25000 SL	K10103649957542	50	1/4"	13	26.7	46	M5	195	130	37
BT50 HC5/16" 105 SLIM AD+B/2.5G 25000 SL	K10103956152542	50	5/16"	15	19.0	46	M6	105	38	37
BT50 HC5/16" 150 SLIM AD+B/2.5G 25000 SL	K10103956173542	50	5/16"	15	23.9	46	M6	150	84	37
BT50 HC5/16" 165 SLIM AD+B/2.5G 25000 SL	K10103956956542	50	5/16"	15	25.4	46	M6	165	99	37
BT50 HC5/16" 180 SLIM AD+B/2.5G 25000 SL	K10103956178542	50	5/16"	15	27.0	46	M6	180	114	37
BT50 HC5/16" 195 SLIM AD+B/2.5G 25000 SL	K10103956957542	50	5/16"	15	28.7	46	M6	195	130	37
BT50 HC3/8" 150 SLIM AD+B/2.5G 25000 SL	K10103650173542	50	3/8"	17	25.9	46	M8	150	84	41
BT50 HC3/8" 165 SLIM AD+B/2.5G 25000 SL	K10103650956542	50	3/8"	17	27.4	46	M8	165	99	41
BT50 HC3/8" 180 SLIM AD+B/2.5G 25000 SL	K10103650178542	50	3/8"	17	29.0	46	M8	180	114	41
BT50 HC3/8" 195 SLIM AD+B/2.5G 25000 SL	K10103650957542	50	3/8"	17	30.7	46	M8	195	130	41
BT50 HC1/2" 150 SLIM AD+B/2.5G 25000 SL	K10103652173542	50	1/2"	19	27.9	46	M10	150	84	46
BT50 HC1/2" 165 SLIM AD+B/2.5G 25000 SL	K10103652956542	50	1/2"	19	29.4	46	M10	165	99	46
BT50 HC1/2" 180 SLIM AD+B/2.5G 25000 SL	K10103652178542	50	1/2"	19	31.0	46	M10	180	114	46
BT50 HC1/2" 195 SLIM AD+B/2.5G 25000 SL	K10103652957542	50	1/2"	19	32.7	46	M10	195	130	46
BT50 HC5/8" 150 SLIM AD+B/2.5G 25000 SL	K10103651173542	50	5/8"	23	31.9	52.5	M12	150	84	49
BT50 HC5/8" 180 SLIM AD+B/2.5G 25000 SL	K10103651178542	50	5/8"	23	35.0	52.5	M12	180	114	49
BT50 HC5/8" 195 SLIM AD+B/2.5G 25000 SL	K10103651957542	50	5/8"	23	36.6	52.5	M12	195	129	49
BT50 HC3/4" 150 SLIM AD+B/2.5G 25000 SL	K10103653173542	50	3/4"	28	36.9	60	M16	150	84	51
BT50 HC3/4" 180 SLIM AD+B/2.5G 25000 SL	K10103653178542	50	3/4"	28	40.0	60	M16	180	114	51
BT50 HC3/4" 195 SLIM AD+B/2.5G 25000 SL	K10103653957542	50	3/4"	28	41.6	60	M16	195	129	51
BT50 HC 1.0" 150 SLIM AD+B/2.5G 25000 SL	K10103656173542	50	1.0"	37	45.9	60	M16	150	84	51
BT50 HC 1.0" 180 SLIM AD+B/2.5G 25000 SL	K10103656178542	50	1.0"	37	49.0	60	M16	180	114	51
BT50 HC 1.0" 195 SLIM AD+B/2.5G 25000 SL	K10103656957542	50	1.0"	37	50.6	60	M16	195	129	51

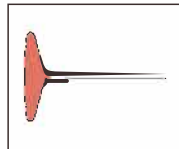
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No. 140-150



Spanner HC
Ref. Page No. 154

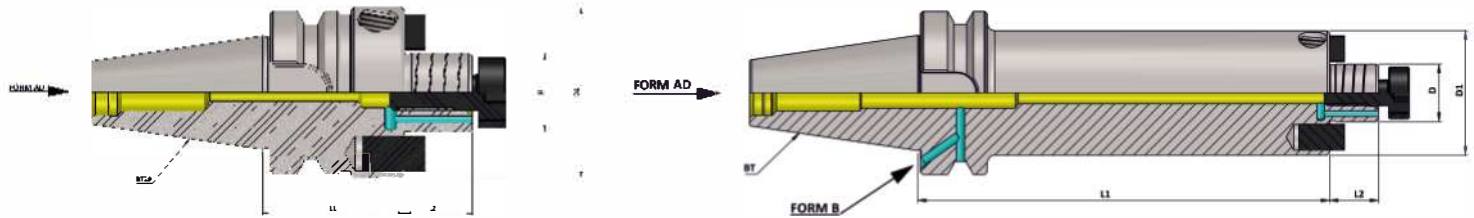


Key HC 5mm
Ref. Page No. 154

BT (MAS 403) (DIN ISO 7388-2) Hydraulic Expansion Face Mill Holder (HC-FMH-K)



Maximum Run out of the External Dia with respect to the External Taper 0.005 mm

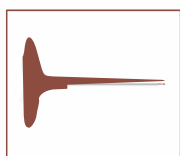


BT (MAS 403) Hydraulic Expansion Face Mill Holder (HC-FMH-K)

(Balanced to 2.5 G 25000 RPM)

ITEM NAME	ITEM CODE	ISO	D	D1	L1	L2
BT30 HC FMH-K22 040 AD 2.5G 25000 SL	K10101932106282	30	22	48	40	19
BT30 HC FMH-K27 040 AD 2.5G 25000 SL	K10101933106282	30	27	50	40	21
BT30 HC FMH-K1.0" 040 AD/ 2.5G 25000 SL	K10101974106282	30	1.0"	2.375"	40	0.687"
BT40 HC FMH-K22 045 AD+B/2.5G 25000 SL	K10102934108282	40	22	48	45	19
BT40 HC FMH-K22 100 AD+B/2.5G 25000 SL	K10102934148230	40	22	48	100	19
BT40 HC FMH-K22 160 AD+B/2.5G 25000 SL	K10102934175230	40	22	48	160	19
BT40 HC FMH-K27 045 AD+B/2.5G 25000 SL	K10102935108282	40	27	50	45	21
BT40 HC FMH-K27 100 AD+B/2.5G 25000 SL	K10102935148230	40	27	50	100	21
BT40 HC FMH-K27 160 AD+B/2.5G 25000 SL	K10102935175230	40	27	50	160	21
BT40 HC FMH-K32 050 AD+B/2.5G 25000 SL	K10102936111282	40	32	78	50	24
BT40 HC FMH-K32 100 AD+B/2.5G 25000 SL	K10102936148230	40	32	78	100	24
BT40 HC FMH-K32 160 AD+B/2.5G 25000 SL	K10102936175230	40	32	78	160	24
BT40 HC FMH-K40 055 AD+B/2.5G 25000 SL	K10102937115282	40	40	88	55	27
BT40 HC FMH-K40 100 AD+B/2.5G 25000 SL	K10102937148230	40	40	88	100	27
BT40 HC FMH-K40 160 AD+B/2.5G 25000 SL	K10102937175230	40	40	88	160	27
BT40 HC FMH-K1.0" 045 AD+B/2.5G 25000 SL	K10102974666230	40	1.0"	2.375"	45	0.687"
BT40 HC FMH-K1.0" 100 AD+B/2.5G 25000 SL	K10102974148230	40	1.0"	2.375"	100	0.687"
BT40 HC FMH-K1.0" 160 AD+B/2.5G 25000 SL	K10102974175230	40	1.0"	2.375"	160	0.687"
BT40 HC FMH-K1 1/4" 050 AD+B/2.5G 25000 SL	K10102975277230	40	1 1/4"	2.875"	50	0.687"
BT40 HC FMH-K1 1/4" 100 AD+B/2.5G 25000 SL	K10102975148230	40	1 1/4"	2.875"	100	0.687"
BT40 HC FMH-K1 1/4" 160 AD+B/2.5G 25000 SL	K10102975175230	40	1 1/4"	2.875"	160	0.687"
BT40 HC FMH-K1 1/2" 055 AD+B/2.5G 25000 SL	K10102976115230	40	1 1/2"	3.750"	55	0.938"
BT40 HC FMH-K1 1/2" 100 AD+B/2.5G 25000 SL	K10102976148230	40	1 1/2"	3.750"	100	0.938"
BT40 HC FMH-K1 1/2" 160 AD+B/2.5G 25000 SL	K10102976175230	40	1 1/2"	3.750"	160	0.938"

Accessories:

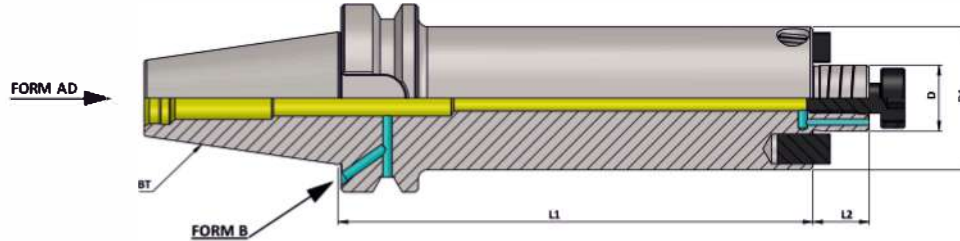


Key HC 5mm
Ref. Page No. 154

BT (MAS 403) (DIN ISO 7388-2) Hydraulic Expansion Face Mill Holder (HC-FMH-K)



Maximum Run out of the External Dia with respect to the External Taper 0.005 mm



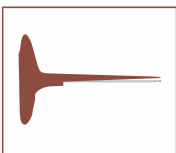
BT (MAS 403) Hydraulic Expansion Face Mill Holder (HC-FMH-K)

(Balanced to 2.5 G 25000 RPM)

ITEM NAME	ITEM CODE	ISO	D	D1	L1	L2
BT50 HC FMH-K22 060 AD+B/2.5G 25000 SL	K10103934117230	50	22	48	60	19
BT50 HC FMH-K22 100 AD+B/2.5G 25000 SL	K10103934148230	50	22	48	100	19
BT50 HC FMH-K22 160 AD+B/2.5G 25000 SL	K10103934175230	50	22	48	160	19
BT50 HC FMH-K27 060 AD+B/2.5G 25000 SL	K10103935117230	50	27	50	60	21
BT50 HC FMH-K27 100 AD+B/2.5G 25000 SL	K10103935148230	50	27	50	100	21
BT50 HC FMH-K27 160 AD+B/2.5G 25000 SL	K10103935175230	50	27	50	160	21
BT50 HC FMH-K32 060 AD+B/2.5G 25000 SL	K10103936117230	50	32	78	60	24
BT50 HC FMH-K32 100 AD+B/2.5G 25000 SL	K10103936148230	50	32	78	100	24
BT50 HC FMH-K32 160 AD+B/2.5G 25000 SL	K10103936175230	50	32	78	160	24
BT50 HC FMH-K40 060 AD+B/2.5G 25000 SL	K10103937117230	50	40	88	60	27
BT50 HC FMH-K40 100 AD+B/2.5G 25000 SL	K10103937148230	50	40	88	100	27
BT50 HC FMH-K40 160 AD+B/2.5G 25000 SL	K10103937175230	50	40	88	160	27

BT50 HC FMH-K1.0" 060 AD+B/2.5G 25000 SL	K10103974667230	50	1.0"	2.375"	60	0.687"
BT50 HC FMH-K1.0" 100 AD+B/2.5G 25000 SL	K10103974148230	50	1.0"	2.375"	100	0.687"
BT50 HC FMH-K1.0" 160 AD+B/2.5G 25000 SL	K10103974175230	50	1.0"	2.375"	160	0.687"
BT50 HC FMH-K1 1/4" 060 AD+B/2.5G 25000 SL	K10103975667230	50	1 1/4"	2.875"	60	0.687"
BT50 HC FMH-K1 1/4" 100 AD+B/2.5G 25000 SL	K10103975148230	50	1 1/4"	2.875"	100	0.687"
BT50 HC FMH-K1 1/4" 160 AD+B/2.5G 25000 SL	K10103975175230	50	1 1/4"	2.875"	160	0.687"
BT50 HC FMH-K1 1/2" 060 AD+B/2.5G 25000 SL	K10103976667230	50	1 1/2"	3.750"	60	0.938"
BT50 HC FMH-K1 1/2" 100 AD+B/2.5G 25000 SL	K10103976148230	50	1 1/2"	3.750"	100	0.938"
BT50 HC FMH-K1 1/2" 160 AD+B/2.5G 25000 SL	K10103976175230	50	1 1/2"	3.750"	160	0.938"

Accessories:

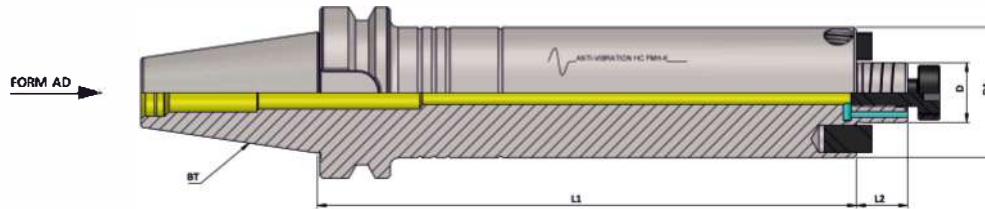


Key HC 5mm
Ref. Page No. 154

BT (MAS 403) (DIN ISO 7388-2) (JD) Hydraulic Expansion Face Mill Holder Anti-Vibration (HC- FMH-K AD/AV)



Maximum Run out of the External Dia with respect to the External Taper 0.010 mm

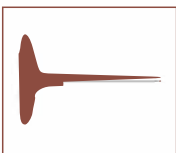


BT (MAS 403) Hydraulic Expansion Face Mill Holder (HC- FMH-K AD/AV)

ITEM NAME	ITEM CODE	ISO	D	D1	L1	L2
BT40 HC FMH-K22 200 AD/AV	K10102934239539	40	22	48	200	19
BT40 HC FMH-K22 250 AD/AV	K10102934182539	40	22	48	250	19
BT40 HC FMH-K22 300 AD/AV	K10102934183539	40	22	48	300	19
BT40 HC FMH-K27 200 AD/AV	K10102935239539	40	27	50	200	21
BT40 HC FMH-K27 250 AD/AV	K10102935182539	40	27	50	250	21
BT40 HC FMH-K27 300 AD/AV	K10102935183539	40	27	50	300	21
BT40 HC FMH-K32 200 AD/AV	K10102936239539	40	32	78	200	24
BT40 HC FMH-K32 250 AD/AV	K10102936182539	40	32	78	250	24
BT40 HC FMH-K32 300 AD/AV	K10102936183539	40	32	78	300	24
BT40 HC FMH-K40 200 AD/AV	K10102937239539	40	40	88	200	27
BT40 HC FMH-K40 250 AD/AV	K10102937182539	40	40	88	250	27
BT40 HC FMH-K40 300 AD/AV	K10102937183539	40	40	88	300	27

BT40 HC FMH-K1.0" 200 AD/AV	K10102974239539	40	1.0"	2.375"	200	0.687"
BT40 HC FMH-K1.0" 250 AD/AV	K10102974182539	40	1.0"	2.375"	250	0.687"
BT40 HC FMH-K1.0" 300 AD/AV	K10102974183539	40	1.0"	2.375"	300	0.687"
BT40 HC FMH-K1 1/4" 200 AD/AV	K10102975239539	40	1 1/4"	2.875"	200	0.687"
BT40 HC FMH-K1 1/4" 250 AD/AV	K10102975182539	40	1 1/4"	2.875"	250	0.687"
BT40 HC FMH-K1 1/4" 300 AD/AV	K10102975183539	40	1 1/4"	2.875"	300	0.687"
BT40 HC FMH-K1 1/2" 200 AD/AV	K10102976239539	40	1 1/2"	3.750"	200	0.938"
BT40 HC FMH-K1 1/2" 250 AD/AV	K10102976182539	40	1 1/2"	3.750"	250	0.938"
BT40 HC FMH-K1 1/2" 300 AD/AV	K10102976183539	40	1 1/2"	3.750"	300	0.938"

Accessories:

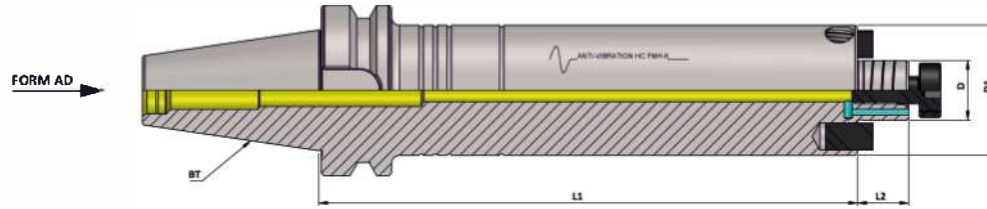


Key HC 5mm
Ref. Page No. 154

BT (MAS 403) (DIN ISO 7388-2) (JD) Hydraulic Expansion Face Mill Holder Anti-Vibration (HC- FMH-K AD/AV)



Maximum Run out of the External Dia with respect to the External Taper 0.010 mm

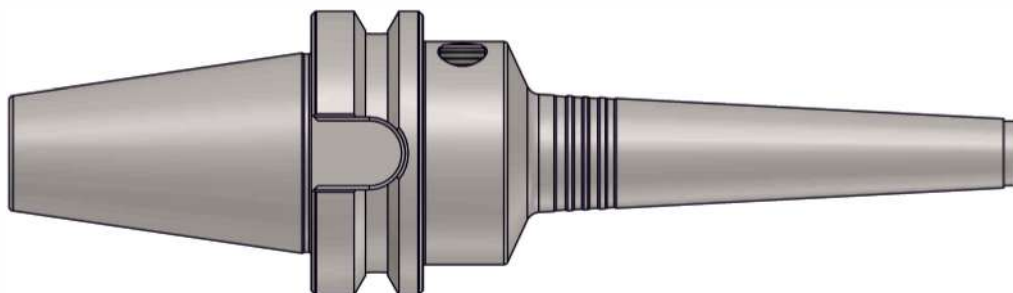
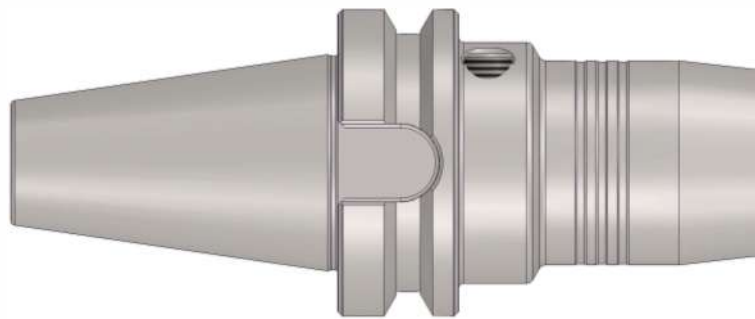


BT (MAS 403) Hydraulic Expansion Face Mill Holder (HC- FMH-K AD/AV)

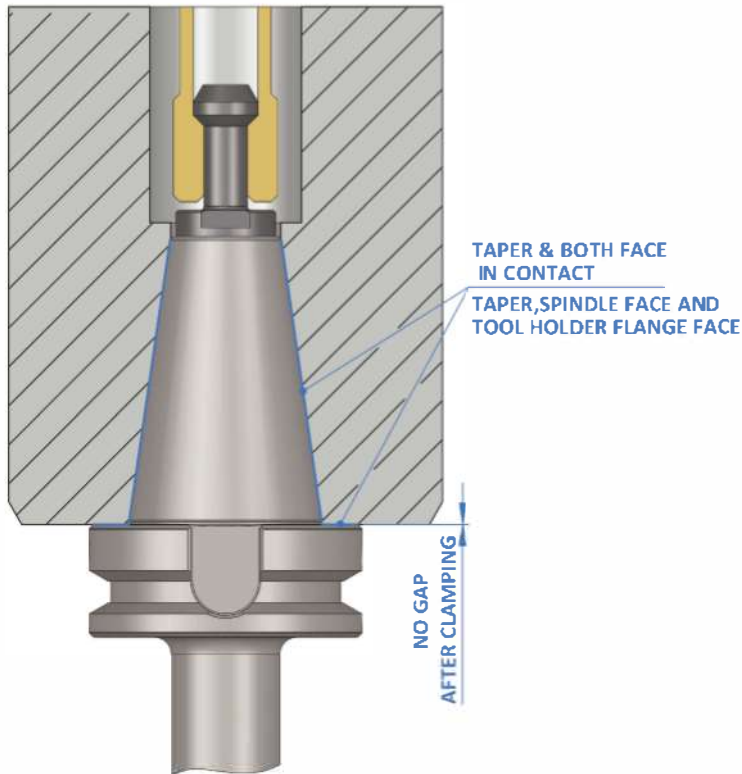
ITEM NAME	ITEM CODE	ISO	D	D1	L1	L2
BT50 HC FMH-K22 200 AD/AV	K10103934239539	50	22	48	200	19
BT50 HC FMH-K22 250 AD/AV	K10103934182539	50	22	48	250	19
BT50 HC FMH-K22 300 AD/AV	K10103934183539	50	22	48	300	19
BT50 HC FMH-K22 350 AD/AV	K10103934184539	50	22	48	350	19
BT50 HC FMH-K22 400 AD/AV	K10103934540539	50	22	48	400	19
BT50 HC FMH-K27 200 AD/AV	K10103935239539	50	27	50	200	21
BT50 HC FMH-K27 250 AD/AV	K10103935182539	50	27	50	250	21
BT50 HC FMH-K27 300 AD/AV	K10103935183539	50	27	50	300	21
BT50 HC FMH-K27 350 AD/AV	K10103935184539	50	27	50	350	21
BT50 HC FMH-K27 400 AD/AV	K10103935540539	50	27	50	400	21
BT50 HC FMH-K32 200 AD/AV	K10103936239539	50	32	78	200	24
BT50 HC FMH-K32 250 AD/AV	K10103936182539	50	32	78	250	24
BT50 HC FMH-K32 300 AD/AV	K10103936183539	50	32	78	300	24
BT50 HC FMH-K32 350 AD/AV	K10103936184539	50	32	78	350	24
BT50 HC FMH-K32 400 AD/AV	K10103936540539	50	32	78	400	24
BT50 HC FMH-K40 200 AD/AV	K10103937239539	50	40	88	200	27
BT50 HC FMH-K40 250 AD/AV	K10103937182539	50	40	88	250	27
BT50 HC FMH-K40 300 AD/AV	K10103937183539	50	40	88	300	27
BT50 HC FMH-K40 350 AD/AV	K10103937184539	50	40	88	350	27
BT50 HC FMH-K40 400 AD/AV	K10103937540539	50	40	88	400	27

BT50 HC FMH-K1.0" 200 AD/AV	K10103974239539	50	1.0"	2.375"	200	0.687"
BT50 HC FMH-K1.0" 250 AD/AV	K10103974182539	50	1.0"	2.375"	250	0.687"
BT50 HC FMH-K1.0" 300 AD/AV	K10103974183539	50	1.0"	2.375"	300	0.687"
BT50 HC FMH-K1.0" 350 AD/AV	K10103974184539	50	1.0"	2.375"	350	0.687"
BT50 HC FMH-K1.0" 400 AD/AV	K10103974540539	50	1.0"	2.375"	400	0.687"
BT50 HC FMH-K1 1/4" 200 AD/AV	K10103975239539	50	1 1/4"	2.875"	200	0.687"
BT50 HC FMH-K1 1/4" 250 AD/AV	K10103975182539	50	1 1/4"	2.875"	250	0.687"
BT50 HC FMH-K1 1/4" 300 AD/AV	K10103975183539	50	1 1/4"	2.875"	300	0.687"
BT50 HC FMH-K1 1/4" 350 AD/AV	K10103975184539	50	1 1/4"	2.875"	350	0.687"
BT50 HC FMH-K1 1/4" 400 AD/AV	K10103975540539	50	1 1/4"	2.875"	400	0.687"
BT50 HC FMH-K1 1/2" 200 AD/AV	K10103976239539	50	1 1/2"	3.750"	200	0.938"
BT50 HC FMH-K1 1/2" 250 AD/AV	K10103976182539	50	1 1/2"	3.750"	250	0.938"
BT50 HC FMH-K1 1/2" 300 AD/AV	K10103976183539	50	1 1/2"	3.750"	300	0.938"
BT50 HC FMH-K1 1/2" 350 AD/AV	K10103976184539	50	1 1/2"	3.750"	350	0.938"
BT50 HC FMH-K1 1/2" 400 AD/AV	K10103976540539	50	1 1/2"	3.750"	400	0.938"

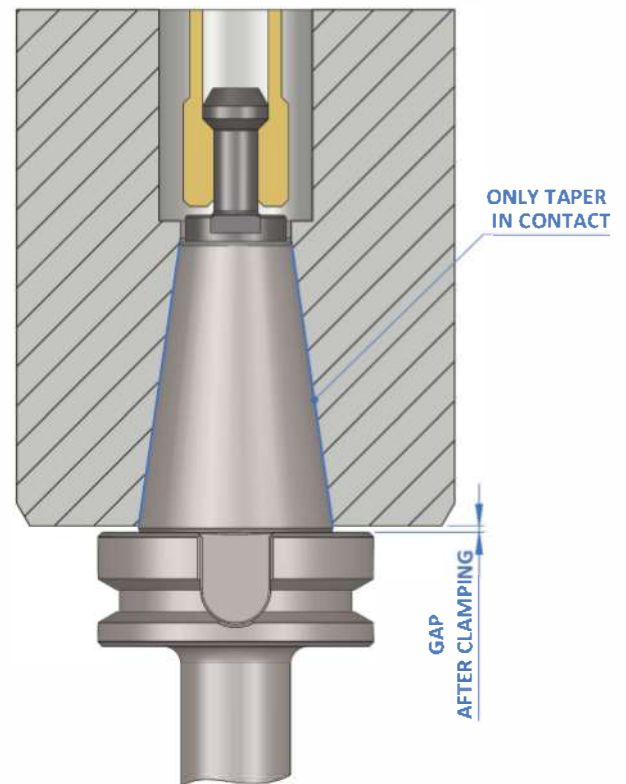
**KBT - DIN ISO 7388 - 2
(MAS 403)
(TAPER & FACE CONTACT)**



KBT (BT MAS 403)
TAPER AND BOTH FACE CONTACT HOLDER
(After Clamping)



BT (MAS 403) STANDARD HOLDER
(ONLY TAPER CONTACT)
(After Clamping)

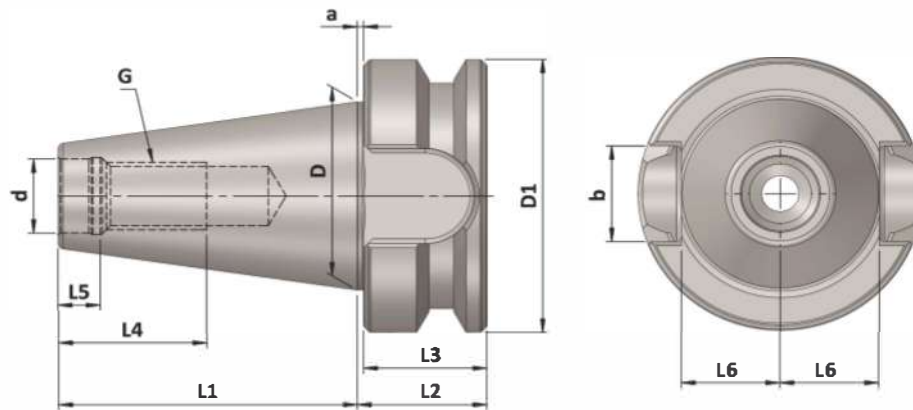


In KBT Tool Holder as mentioned Taper and both faces are in contact, due to which spindle and holder acts as one single unit, this allows a Higher “Radial Rigidity” hence we get good surface finish and dimensional accuracy while machining, also low vibration at higher speeds which increases Tool Life. Hence KBT Tool Holder has a remarkable significant as compared to Standard Tool Holders.

Note :

KBT Tool Holders are only recommended to use in Calibrated KBT Spindle Machines.

KBT (MAS 403) (DIN ISO 7388 - 2) Technical Information



ISO	d	D	D1	a	b	G	L1	L2	L3	L4	L5	L6
30	12.5	31.75	46	1	16.1	M12	48.4	21	20	24	7.0	16.3
40	17	44.45	63	1	16.1	M16	65.4	27	26	32	9.0	22.6
50	25	69.85	100	1.5	25.7	M24	101.8	38	36.5	47	13.0	35.4

◆ Features:

- KBT Tool Holder Provides More “Rigid” Clamping than the Standard “BT” Tool Holders.
- Achieves Higher “Radial Rigidity”
- Improves Tool life.
- Balanced to 2.5 G, 25000 RPM.

Material :- Case hardened steel, tensile strength in the core min. 950 N/mm²

Execution :- Case hardened to HRC 58 ± 2, Case Depth 0.8 mm., Silver finish.

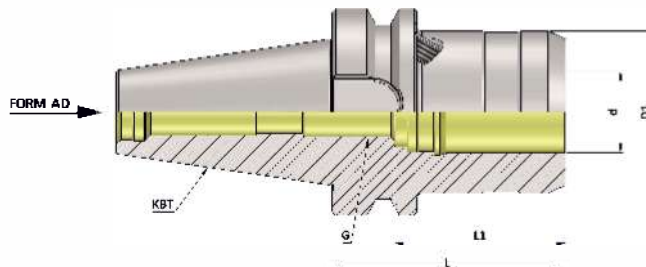
Accuracy :- 7:24 Taper Angle Class AT 3 As per DIN 2080

KBT (MAS 403) (DIN ISO 7388 - 2) (JD) Hydraulic Expansion Chuck



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm

HEAVY DUTY



KBT (MAS 403) Hydraulic Expansion Chuck (AD)

KBT (MAS 403) Hydraulic Expansion Chuck (AD) (JD)

(Balanced to 2.5 G 25000 RPM)

Item Name	Item Code	ISO	d	D1	G	L	L1
KBT30 HC12S 069 2.5G 25000 SL	K10313629616283	30	12	42	M10	69	40
KBT30 HC20S 090 2.5G 25000 SL	K10313168140283	30	20	50	M16	90	42
KBT40 HC12S 058 2.5G 25000 SL	K10314629617282	40	12	42	M10	58	40
KBT40 HC20S 72.5 2.5G 25000SL	K10314168126228	40	20	50	M16	72.5	42
KBT50 HC12S 069 2.5G 25000 SL	K10315629616281	50	12	42	M10	69	40
KBT50 HC20S 083 2.5G 25000 SL	K10315168618283	50	20	50	M16	83	42
KBT50 HC32S 090 2.5G 25000 SL	K10315272140283	50	32	72	M16	90	55
KBT30 HC1/2"S 069 2.5G 25000 SL	K10313953616283	30	1/2"	42	M10	69	40
KBT30 HC3/4"S 090 2.5G 25000 SL	K10313954140283	30	3/4"	50	M16	90	42
KBT40 HC1/2"S 058 2.5G 25000 SL	K10314953617283	40	1/2"	42	M10	58	40
KBT40 HC3/4"S 72.5 2.5G 25000 SL	K10314954126283	40	3/4"	50	M16	72.5	42
KBT50 HC1/2"S 069 2.5G 25000 SL	K10315953616283	50	1/2"	42	M10	69	40
KBT50 HC3/4"S 083 2.5G 25000 SL	K10315954618283	50	3/4"	50	M16	83	42
KBT50 HC1-1/4"S 090 2.5G 25000 SL	K10315955140283	50	1-1/4"	72	M16	90	55

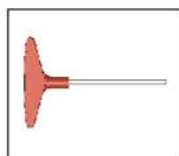
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No. 140-150



Spanner HC
Ref. Page No. 154



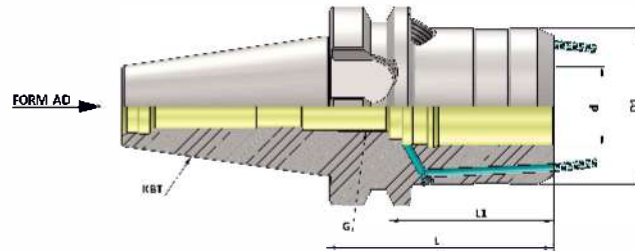
Key HC 5mm
Ref. Page No. 154

KBT (MAS 403) (DIN ISO 7388 - 2) (JD) Hydraulic Expansion Chuck



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm

HEAVY DUTY



KBT (MAS 403) Hydraulic Expansion Chuck (FCC - AD)

KBT (MAS 403) Hydraulic Expansion Chuck (FCC - AD) (JD)								(Balanced to 2.5 G 25000 RPM)
Item Name	Item Code	ISO	d	D1	G	L	L1	
KBT30 HC12S 069 FCC 2.5G 25000 SL	K10313629616256	30	12	42	M10	69	40	
KBT30 HC20S 090 FCC 2.5G 25000 SL	K10313168140256	30	20	50	M16	90	42	
KBT40 HC12S 058 FCC 2.5G 25000 SL	K10314629111256	40	12	42	M10	58	40	
KBT40 HC20S 72.5 FCC 2.5G 25000 SL	K10314168126256	40	20	50	M16	72.5	42	
KBT50 HC12S 069 FCC 2.5G 25000 SL	K10315629338256	50	12	42	M10	69	40	
KBT50 HC20S 083 FCC 2.5G 25000 SL	K10315168339256	50	20	50	M16	83	42	
KBT50 HC32S 090 FCC 2.5G 25000 SL	K10315272140256	50	32	72	M16	90	55	
KBT30 HC1/2"S 069 FCC 2.5G 25000 SL	K10313953616256	30	1/2"	42	M10	69	40	
KBT30 HC3/4"S 090 FCC 2.5G 25000 SL	K10313954140256	30	3/4"	50	M16	90	42	
KBT40 HC1/2"S 058 FCC 2.5G 25000 SL	K10314953617256	40	1/2"	42	M10	58	40	
KBT40 HC3/4"S 72.5 FCC 2.5G 25000 SL	K10314954126256	40	3/4"	50	M16	72.5	42	
KBT50 HC1/2"S 069 FCC 2.5G 25000 SL	K10315953616256	50	1/2"	42	M10	69	40	
KBT50 HC3/4"S 083 FCC 2.5G 25000 SL	K10315954618256	50	3/4"	50	M16	83	42	
KBT50 HC1-1/4"S 090 FCC 2.5G 25000 SL	K10315955140256	50	1-1/4"	72	M16	90	55	

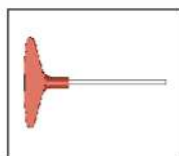
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No. 140-150



Spanner HC
Ref. Page No. 154

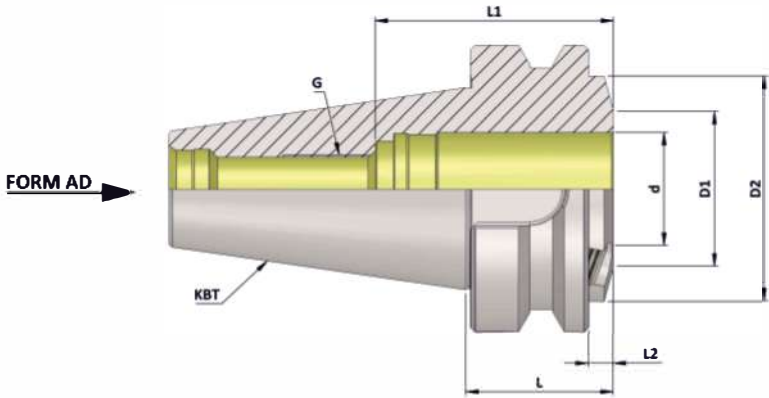


Key HC 5mm
Ref. Page No. 154

KBT (MAS 403) (DIN ISO 7388 - 2) (JD) Short GP Hydraulic Expansion Chuck



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm

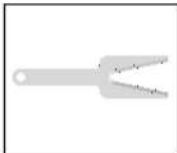


KBT (MAS 403) Hydraulic Expansion Chuck (Short GP)										(Balanced to 2.5 G 25000 RPM)	
Item Name	Item Code	ISO	d	D1	D2	G	L	L1	L2		
KBT40 HC20 32.50 SHORT G.P 2.5G 25000 SL	K10314637615283	40	20	34	49.5	M16	32.5	51	5.5		
KBT40 HC3/4" 32.50 SHORT G.P. 2.5G 25000 SL	K10314653615283	40	3/4"	34	49.5	M16	32.5	51	5.5		

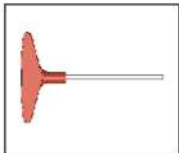
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No. 140-150



Spanner HC
Ref. Page No. 154

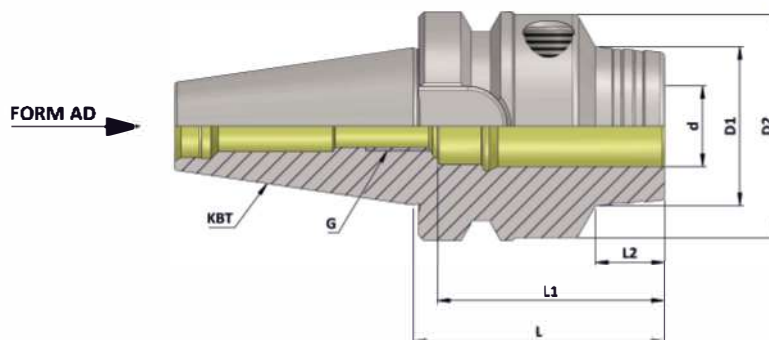


Key HC 5mm
Ref. Page No. 154

KBT (MAS 403) (DIN ISO 7388 - 2) (JD) Hydraulic Expansion Chuck



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm



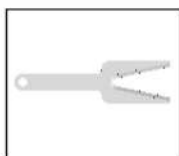
KBT (MAS 403) Hydraulic Expansion Chuck (AD) (JD)							(Balanced to 2.5 G 25000 RPM)		
Item Name	Item Code	ISO	d	D1	D2	G	L	L1	L2
KBT30 HC06 50.8 2.5G 25000 SL	K10313642619282	30	6	26	45	M5	50.8	37	12
KBT30 HC08 50.8 2.5G 25000 SL	K10313643619282	30	8	28	45	M6	50.8	37	12.5
KBT30 HC10 50.8 2.5G 25000 SL	K10313644619282	30	10	30	45	M8	50.8	41	13
KBT30 HC12 50.8 2.5G 25000 SL	K10313636619282	30	12	32	45	M8	50.8	46	14
KBT30 HC14 090 2.5G 25000 SL	K10313645140282	30	14	34	45	M8	90	46	45
KBT30 HC16 090 2.5G 25000 SL	K10313646140282	30	16	38	45	M8	90	49	50
KBT30 HC18 090 2.5G 25000 SL	K10313647140282	30	18	40	45	M8	90	49	50
KBT30 HC20 090 2.5G 25000 SL	K10313637140282	30	20	42	45	M8	90	51	50

KBT30 HC1/4" 50.8 2.5G 25000 SL	K10313649619283	30	1/4"	26	45	M5	50.8	37	12
KBT30 HC5/16" 50.8 2.5G 25000 SL	K10313956619283	30	5/16"	28	45	M6	50.8	37	12.5
KBT30 HC3/8" 50.8 2.5G 25000 SL	K10313650619283	30	3/8"	30	45	M8	50.8	41	13
KBT30 HC1/2" 50.8 2.5G 25000 SL	K10313652619283	30	1/2"	32	45	M8	50.8	46	14
KBT30 HC5/8" 090 2.5G 25000 SL	K10313651140283	30	5/8"	38	45	M8	90	49	50
KBT30 HC3/4" 090 2.5G 25000 SL	K10313653140283	30	3/4"	42	45	M8	90	51	50

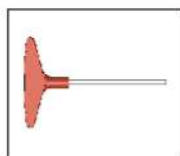
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No. 140-150



Spanner HC
Ref. Page No. 154

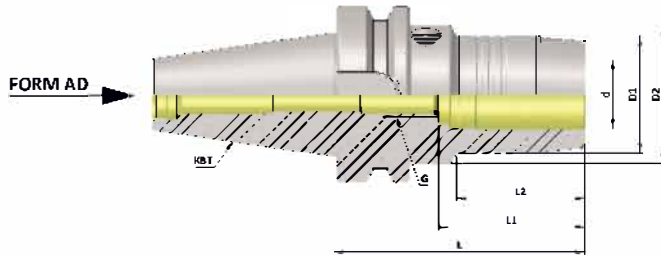


Key HC 5mm
Ref. Page No. 154

KBT (MAS 403) (DIN ISO 7388 - 2) (JD) Hydraulic Expansion Chuck

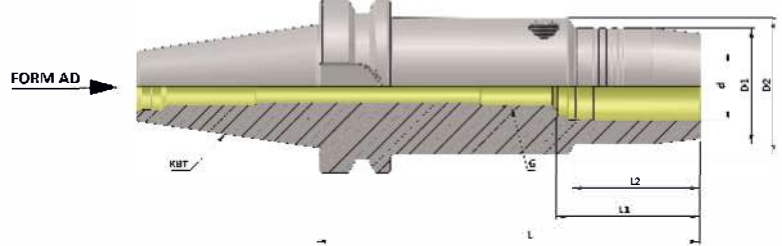


Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm



Standard GP

KBT (MAS 403) Hydraulic Expansion Chuck (AD)



Long GP

KBT (MAS 403) Hydraulic Expansion Chuck (AD)

KBT (MAS 403) Hydraulic Expansion Chuck (AD) (JD)

(Balanced to 2.5 G 25000 RPM)

Item Name	Item Code	ISO	d	D1	D2	G	L	L1	L2
KBT40 HC06 090 2.5G 25000 SL	K10314642140282	40	6	26	49.5	M5	90	37	29
KBT40 HC06 140 2.5G 25000 SL	K10314642169282	40	6	26	49.5	M5	140	37	29
KBT40 HC08 090 2.5G 25000 SL	K10314643140282	40	8	28	49.5	M6	90	37	30
KBT40 HC08 140 2.5G 25000 SL	K10314643169282	40	8	28	49.5	M6	140	37	30
KBT40 HC10 090 2.5G 25000 SL	K10314644140282	40	10	30	49.5	M8	90	41	35
KBT40 HC10 140 2.5G 25000 SL	K10314644169282	40	10	30	49.5	M8	140	41	35
KBT40 HC12 090 2.5G 25000 SL	K10314636140282	40	12	32	49.5	M10	90	46	40
KBT40 HC12 140 2.5G 25000 SL	K10314636169282	40	12	32	49.5	M10	140	46	40
KBT40 HC14 090 2.5G 25000 SL	K10314645140282	40	14	34	49.5	M10	90	46	40
KBT40 HC14 140 2.5G 25000 SL	K10314645169282	40	14	34	49.5	M10	140	46	40
KBT40 HC16 090 2.5G 25000 SL	K10314646140282	40	16	38	49.5	M12	90	49	45
KBT40 HC16 140 2.5G 25000 SL	K10314647169282	40	16	38	49.5	M12	140	49	45
KBT40 HC18 090 2.5G 25000 SL	K10314647140282	40	18	40	49.5	M12	90	49	46
KBT40 HC18 140 2.5G 25000 SL	K10314647169282	40	18	40	49.5	M12	140	49	46
KBT40 HC20 090 2.5G 25000 SL	K10314637140282	40	20	42	49.5	M16	90	51	47
KBT40 HC20 140 2.5G 25000 SL	K10314637169282	40	20	42	49.5	M16	140	51	47
KBT40 HC25 090 2.5G 25000 SL	K10314648140282	40	25	52	55	M16	90	57	50
KBT40 HC25 140 2.5G 25000 SL	K10314648169282	40	25	52	55	M16	140	57	75
KBT40 HC32 090 2.5G 25000 SL	K10314638140282	40	32	62	70	M16	90	61	25.5
KBT40 HC32 140 2.5G 25000 SL	K10314638169282	40	32	59	63	M16	140	61	61

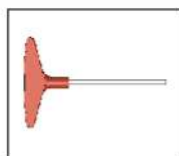
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No. 140-150



Spanner HC
Ref. Page No. 154

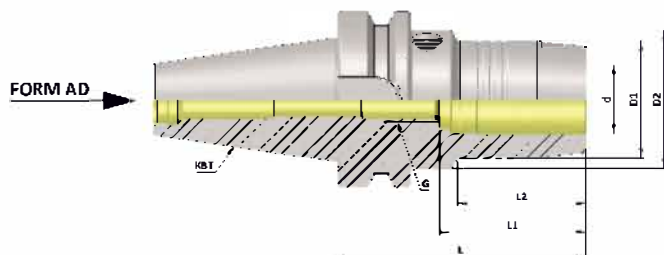


Key HC 5mm
Ref. Page No. 154

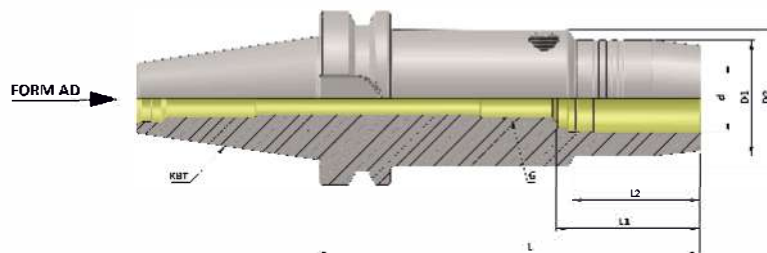
KBT (MAS 403) (DIN ISO 7388 - 2) (JD) Hydraulic Expansion Chuck



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm



Standard GP
KBT (MAS 403) Hydraulic Expansion Chuck (AD)



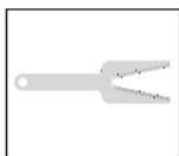
Long GP
KBT (MAS 403) Hydraulic Expansion Chuck (AD)

KBT (MAS 403) Hydraulic Expansion Chuck (AD) (JD)										(Balanced to 2.5 G 25000 RPM)
Item Name	Item Code	ISO	d	D1	D2	G	L	L1	L2	
KBT40 HC1/4" - 090 2.5G 25000 SL	K10314649917283	40	1/4"	26	49.5	M5	90	37	29	
KBT40 HC1/4" - 140 2.5G 25000 SL	K10314649918283	40	1/4"	26	49.5	M5	140	37	29	
KBT40 HC5/16" - 090 2.5G 25000 SL	K10314956917283	40	5/16"	28	49.5	M6	90	37	30	
KBT40 HC5/16" - 140 2.5G 25000 SL	K10314956918283	40	5/16"	28	49.5	M6	140	37	30	
KBT40 HC3/8" - 090 2.5G 25000 SL	K10314650917283	40	3/8"	30	49.5	M8	90	41	35	
KBT40 HC3/8" - 140 2.5G 25000 SL	K10314650918283	40	3/8"	30	49.5	M8	140	41	35	
KBT40 HC1/2" - 090 2.5G 25000 SL	K10314652917283	40	1/2"	32	49.5	M10	90	46	40	
KBT40 HC1/2" - 140 2.5G 25000 SL	K10314652918283	40	1/2"	32	49.5	M10	140	46	40	
KBT40 HC5/8" - 090 2.5G 25000 SL	K10314651917283	40	5/8"	38	49.5	M12	90	49	45	
KBT40 HC5/8" - 140 2.5G 25000 SL	K10314651918283	40	5/8"	38	49.5	M12	140	49	45	
KBT40 HC3/4" - 090 2.5G 25000 SL	K10314653917283	40	3/4"	42	49.5	M16	90	51	47	
KBT40 HC3/4" - 140 2.5G 25000 SL	K10314653918283	40	3/4"	42	49.5	M16	140	51	47	
KBT40 HC1" - 090 2.5G 25000 SL	K10314957917283	40	1"	52	55	M16	90	57	50	
KBT40 HC1" - 140 2.5G 25000 SL	K10314957918283	40	1"	52	55	M16	140	57	75	
KBT40 HC1-1/4" - 090 2.5G 25000 SL	K10314655917283	40	1-1/4"	62	70	M16	90	61	25.5	
KBT40 HC1-1/4" - 140 2.5G 25000 SL	K10314655918283	40	1-1/4"	59	63	M16	140	61	61	

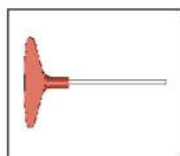
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No. 140-150



Spanner HC
Ref. Page No. 154

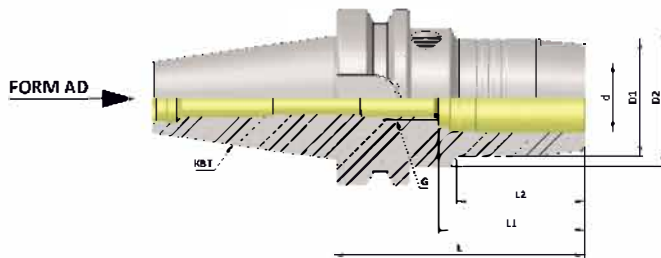


Key HC 5mm
Ref. Page No. 154

KBT (MAS 403) (DIN ISO 7388 - 2) (JD) Hydraulic Expansion Chuck

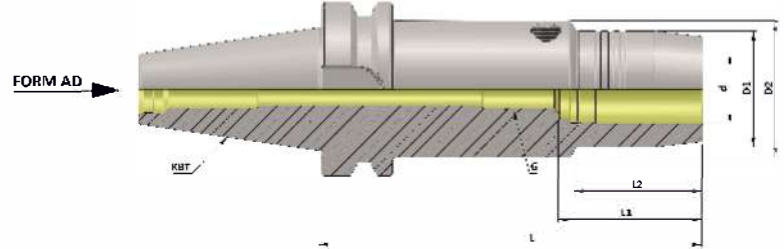


Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm



Standard GP

KBT (MAS 403) Hydraulic Expansion Chuck (AD)



Long GP

KBT (MAS 403) Hydraulic Expansion Chuck (AD)

KBT (MAS 403) Hydraulic Expansion Chuck (AD) (JD)										(Balanced to 2.5 G 25000 RPM)
Item Name	Item Code	ISO	d	D1	D2	G	L	L1	L2	
KBT40 HC06 090 2.5G 25000 SL	K10314642140282	40	6	26	49.5	M5	90	37	29	
KBT40 HC06 140 2.5G 25000 SL	K10314642169282	40	6	26	49.5	M5	140	37	29	
KBT40 HC08 090 2.5G 25000 SL	K10314643140282	40	8	28	49.5	M6	90	37	30	
KBT40 HC08 140 2.5G 25000 SL	K10314643169282	40	8	28	49.5	M6	140	37	30	
KBT40 HC10 090 2.5G 25000 SL	K10314644140282	40	10	30	49.5	M8	90	41	35	
KBT40 HC10 140 2.5G 25000 SL	K10314644169282	40	10	30	49.5	M8	140	41	35	
KBT40 HC12 090 2.5G 25000 SL	K10314636140282	40	12	32	49.5	M10	90	46	40	
KBT40 HC12 140 2.5G 25000 SL	K10314636169282	40	12	32	49.5	M10	140	46	40	
KBT40 HC14 090 2.5G 25000 SL	K10314645140282	40	14	34	49.5	M10	90	46	40	
KBT40 HC14 140 2.5G 25000 SL	K10314645169282	40	14	34	49.5	M10	140	46	40	
KBT40 HC16 090 2.5G 25000 SL	K10314646140282	40	16	38	49.5	M12	90	49	45	
KBT40 HC16 140 2.5G 25000 SL	K10314647169282	40	16	38	49.5	M12	140	49	45	
KBT40 HC18 090 2.5G 25000 SL	K10314647140282	40	18	40	49.5	M12	90	49	46	
KBT40 HC18 140 2.5G 25000 SL	K10314647169282	40	18	40	49.5	M12	140	49	46	
KBT40 HC20 090 2.5G 25000 SL	K10314637140282	40	20	42	49.5	M16	90	51	47	
KBT40 HC20 140 2.5G 25000 SL	K10314637169282	40	20	42	49.5	M16	140	51	47	
KBT40 HC25 090 2.5G 25000 SL	K10314648140282	40	25	52	55	M16	90	57	50	
KBT40 HC25 140 2.5G 25000 SL	K10314648169282	40	25	52	55	M16	140	57	75	
KBT40 HC32 090 2.5G 25000 SL	K10314638140282	40	32	62	70	M16	90	61	25.5	
KBT40 HC32 140 2.5G 25000 SL	K10314638169282	40	32	59	63	M16	140	61	61	

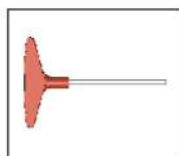
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No. 140-150



Spanner HC
Ref. Page No. 154

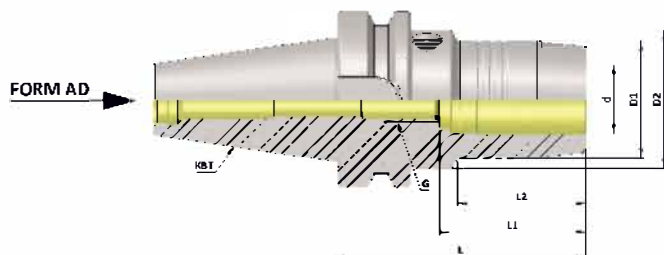


Key HC 5mm
Ref. Page No. 154

KBT (MAS 403) (DIN ISO 7388 - 2) (JD) Hydraulic Expansion Chuck

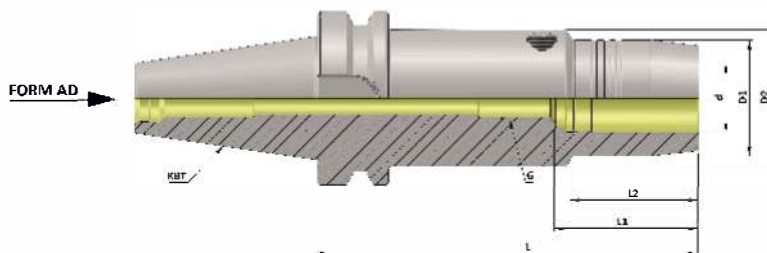


Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm



Standard GP

KBT (MAS 403) Hydraulic Expansion Chuck (AD)



Long GP

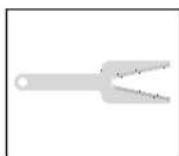
KBT (MAS 403) Hydraulic Expansion Chuck (AD)

KBT (MAS 403) Hydraulic Expansion Chuck (AD) (JD)					(Balanced to 2.5 G 25000 RPM)				
Item Name	Item Code	ISO	d	D1	D2	G	L	L1	L2
KBT50 HC1/4" - 090 2.5G 25000 SL	K10315649917283	50	1/4"	26	49.5	M5	90	37	29
KBT50 HC1/4" - 140 2.5G 25000 SL	K10315649918283	50	1/4"	26	49.5	M5	140	37	29
KBT50 HC5/16" - 090 2.5G 25000 SL	K10315956917283	50	5/16"	28	49.5	M6	90	37	30
KBT50 HC5/16" - 140 2.5G 25000 SL	K10315956918283	50	5/16"	28	49.5	M6	140	37	30
KBT50 HC3/8" - 090 2.5G 25000 SL	K10315650917283	50	3/8"	30	49.5	M8	90	41	34
KBT50 HC3/8" - 140 2.5G 25000 SL	K10315650918283	50	3/8"	30	49.5	M8	140	41	35
KBT50 HC1/2" - 090 2.5G 25000 SL	K10315652917283	50	1/2"	32	49.5	M10	90	46	34
KBT50 HC1/2" - 140 2.5G 25000 SL	K10315652918283	50	1/2"	32	49.5	M10	140	46	40
KBT50 HC5/8" - 090 2.5G 25000 SL	K10315651917283	50	5/8"	38	49.5	M12	90	49	35
KBT50 HC5/8" - 140 2.5G 25000 SL	K10315651918283	50	5/8"	38	49.5	M12	140	49	45
KBT50 HC3/4" - 090 2.5G 25000 SL	K10315653917283	50	3/4"	40	49.5	M16	90	51	35
KBT50 HC3/4" - 140 2.5G 25000 SL	K10315653918283	50	3/4"	42	49.5	M16	140	51	42
KBT50 HC1" - 110 2.5G 25000 SL	K10315957917283	50	1"	55	63	M16	110	57	48
KBT50 HC1" - 140 2.5G 25000 SL	K10315957918283	50	1"	55	63	M16	140	57	48
KBT50 HC1-1/4" - 110 2.5G 25000 SL	K10315655917283	50	1-1/4"	63	70	M16	110	61	50
KBT50 HC1-1/4" - 140 2.5G 25000 SL	K10315655918283	50	1-1/4"	63	70	M16	140	61	50

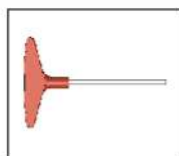
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No. 140-150



Spanner HC
Ref. Page No. 154

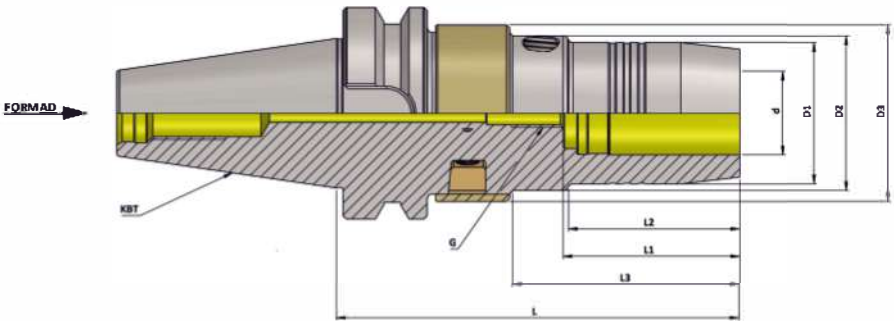


Key HC 5mm
Ref. Page No. 154

KBT (MAS 403) (DIN ISO 7388-2) (JD) Hydraulic Expansion Chuck With Run Out Adjustment



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm

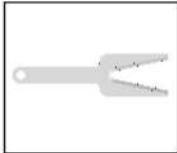


KBT (MAS 403) Hydraulic Expansion Chuck Run Out Adjustment										(Balanced to 2.5 G 25000 RPM)		
ITEM NAME	ITEM CODE	ISO	d	D1	D2	D3	G	L	L1	L2	L3	
KBT40 HC20 120 AD/RA 2.5G 25000 SL	K10314637162536	40	20	42	46	52.5	M8	120	51	50	67.5	
KBT40 HC32 140 AD/RA 2.5G 25000 SL	K10314638169536	40	32	42	46	52.5	M8	140	51	50	67.5	
KBT40 HC3/4" 120 AD/RA 2.5G 25000 SL	K10314653162536	40	3/4"	42	46	52.5	M8	120	51	50	67.5	
KBT40 HC1-1/4" 140 AD/RA 2.5G 25000 SL	K10291655169536	40	1-1/4"	42	46	52.5	M8	140	51	50	67.5	
KBT50 HC20 130 AD/RA 2.5G 25000 SL	K10315637165536	50	20	42	46	52.5	M8	130	51	50	67.5	
KBT50 HC32 150 AD/RA 2.5G 25000 SL	K10315638173536	50	32	42	46	52.5	M8	150	51	50	67.5	
KBT50 HC3/4" 130 AD/RA 2.5G 25000 SL	K10315653165536	50	3/4"	42	46	52.5	M8	130	51	50	67.5	
KBT50 HC1-1/4" 150 AD/RA 2.5G 25000 SL	K10315655173536	50	1-1/4"	42	46	52.5	M8	150	51	50	67.5	

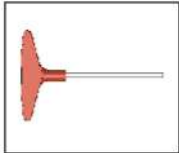
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No. 140-150



Spanner HC
Ref. Page No. 154

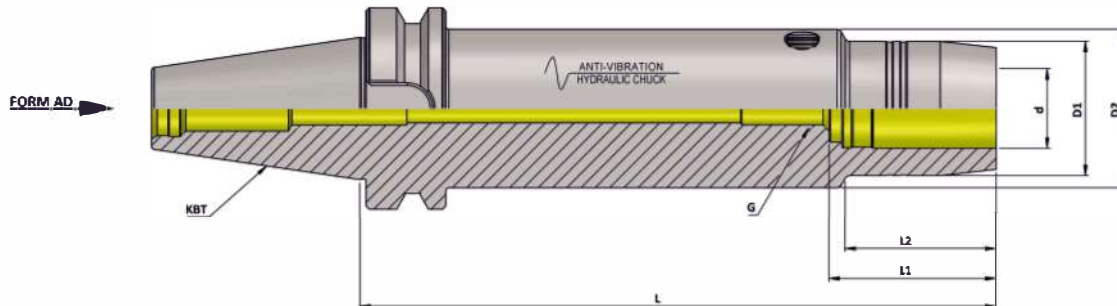


Key HC 5mm
Ref. Page No. 154

KBT (MAS 403) (DIN ISO 7388-2) Hydraulic Expansion Chuck Anti - Vibration (HC-AD/AV)



Maximum Run out of the Internal Dia with respect to the External Taper 0.010 mm



KBT (MAS 403) Hydraulic Expansion Chuck Anti - Vibration (HC-AD/AV)

ITEM NAME	ITEM CODE	ISO	d	D1	D2	G	L	L1	L2
KBT40 HC20 200 AD/AV	K10314637239535	40	20	42	49.5	M16	200	51	47
KBT40 HC20 250 AD/AV	K10314637182539	40	20	42	49.5	M16	250	51	47
KBT40 HC20 300 AD/AV	K10314637183535	40	20	42	49.5	M16	300	51	47
KBT40 HC3/4" 200 AD/AV	K10314653239539	40	3/4"	42	49.5	M16	200	51	47
KBT40 HC3/4" 250 AD/AV	K10314653182539	40	3/4"	42	49.5	M16	250	51	47
KBT40 HC3/4" 300 AD/AV	K10314653183539	40	3/4"	42	43.5	M16	300	51	47
KBT40 HC25 200 AD/AV	K10314648239539	40	25	52	55	M16	200	57	50
KBT40 HC25 250 AD/AV	K10314648182539	40	25	52	55	M16	250	57	50
KBT40 HC25 300 AD/AV	K10314648183539	40	25	52	55	M16	300	57	50
KBT40 HC1.0" 200 AD/AV	K10314656239539	40	1.0"	52	55	M16	200	57	50
KBT40 HC1.0" 250 AD/AV	K10314656182539	40	1.0"	52	55	M16	250	57	50
KBT40 HC1.0" 300 AD/AV	K10314656183539	40	1.0"	52	55	M16	300	57	50
KBT40 HC32 200 AD/AV	K10314638239539	40	32	62	63	M16	200	61	48
KBT40 HC32 250 AD/AV	K10314638182539	40	32	62	63	M16	250	61	48
KBT40 HC32 300 AD/AV	K10314638183539	40	32	62	63	M16	300	61	48
KBT40 HC1-1/4" 200 AD/AV	K10314655239539	40	1-1/4"	62	63	M16	200	61	48
KBT40 HC1-1/4" 250 AD/AV	K10314655182539	40	1-1/4"	62	63	M16	250	61	48
KBT40 HC1-1/4" 300 AD/AV	K10314655183539	40	1-1/4"	62	63	M16	300	61	48

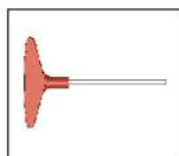
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No. 140-150



Spanner HC
Ref. Page No. 154

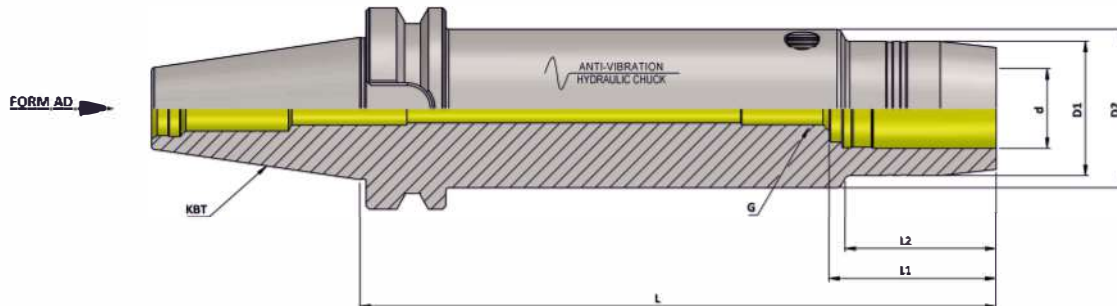


Key HC 5mm
Ref. Page No. 154

KBT (MAS 403) (DIN ISO 7388-2) Hydraulic Expansion Chuck Anti - Vibration (HC-AD/AV)



Maximum Run out of the Internal Dia with respect to the External Taper 0.010 mm



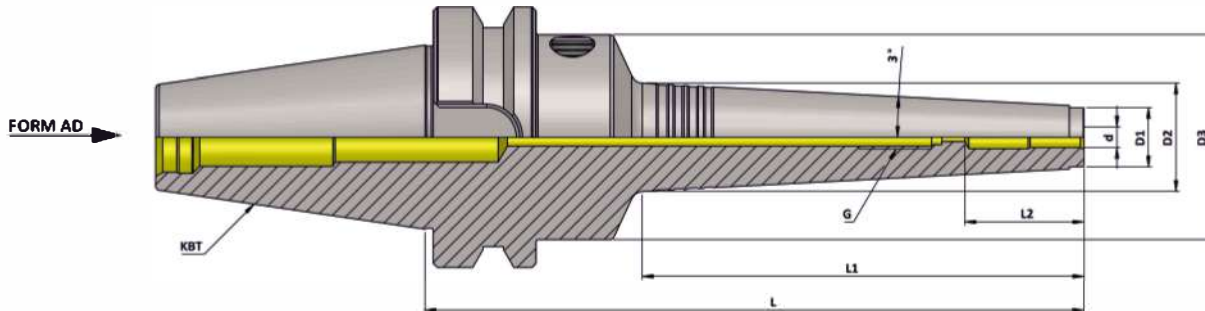
KBT (MAS 403) Hydraulic Expansion Chuck Anti - Vibration (HC-AD/AV)

ITEM NAME	ITEM CODE	ISO	d	D1	D2	G	L	L1	L2
KBT50 HC20 200 AD/AV	K10315637239535	50	20	42	49.5	M16	200	51	42
KBT50 HC20 250 AD/AV	K10315637182539	50	20	42	49.5	M16	250	51	42
KBT50 HC20 300 AD/AV	K10315637183535	50	20	42	49.5	M16	300	51	42
KBT50 HC20 350 AD/AV	K10315637184539	50	20	42	49.5	M16	350	51	42
KBT50 HC20 400 AD/AV	K10315637540535	50	20	42	49.5	M16	400	51	42
KBT50 HC3/4" 200 AD/AV	K10315653239539	50	3/4"	42	49.5	M16	200	51	42
KBT50 HC3/4" 250 AD/AV	K10315653182539	50	3/4"	42	49.5	M16	250	51	42
KBT50 HC3/4" 300 AD/AV	K10315653183539	50	3/4"	42	49.5	M16	300	51	42
KBT50 HC3/4" 350 AD/AV	K10315653184539	50	3/4"	42	49.5	M16	350	51	42
KBT50 HC3/4" 400 AD/AV	K10315653540539	50	3/4"	42	49.5	M16	400	51	42
KBT50 HC25 200 AD/AV	K10315648239539	50	25	52	55	M16	200	57	50
KBT50 HC25 250 AD/AV	K10315648182539	50	25	52	55	M16	250	57	50
KBT50 HC25 300 AD/AV	K10315648183539	50	25	52	55	M16	300	57	50
KBT50 HC25 350 AD/AV	K10315648184539	50	25	52	55	M16	350	57	50
KBT50 HC25 400 AD/AV	K10315648540539	50	25	52	55	M16	400	57	50
KBT50 HC1.0" 200 AD/AV	K10315656239539	50	1.0"	52	55	M16	200	57	50
KBT50 HC1.0" 250 AD/AV	K10315656182539	50	1.0"	52	55	M16	250	57	50
KBT50 HC1.0" 300 AD/AV	K10315656183539	50	1.0"	52	55	M16	300	57	50
KBT50 HC1.0" 350 AD/AV	K10315656184539	50	1.0"	52	55	M16	350	57	50
KBT50 HC1.0" 400 AD/AV	K10315656540539	50	1.0"	52	55	M16	400	57	50
KBT50 HC32 200 AD/AV	K10315638239539	50	32	62	63	M16	200	61	48
KBT50 HC32 250 AD/AV	K10315638182539	50	32	62	63	M16	250	61	48
KBT50 HC32 300 AD/AV	K10315638183539	50	32	62	63	M16	300	61	48
KBT50 HC32 350 AD/AV	K10315638184539	50	32	62	63	M16	350	61	48
KBT50 HC32 400 AD/AV	K10315638540539	50	32	62	63	M16	400	61	48
KBT50 HC1-1/4" 200 AD/AV	K10315655239539	50	1-1/4"	62	63	M16	200	61	48
KBT50 HC1-1/4" 250 AD/AV	K10315655182539	50	1-1/4"	62	63	M16	250	61	48
KBT50 HC1-1/4" 300 AD/AV	K10315655183539	50	1-1/4"	62	63	M16	300	61	48
KBT50 HC1-1/4" 350 AD/AV	K10315655184539	50	1-1/4"	62	63	M16	350	61	48
KBT50 HC1-1/4" 400 AD/AV	K10315655540539	50	1-1/4"	62	63	M16	400	61	48

KBT (MAS 403) (DIN ISO 7388 - 2) (JD) Hydraulic Expansion Chuck Slim 3 Degree



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm



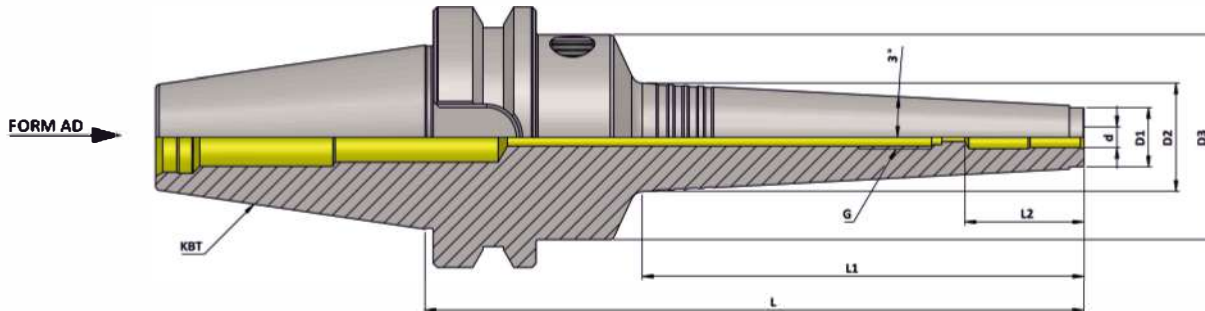
KBT (MAS 403) Hydraulic Expansion Chuck SI

Item Name	Item Code										
KBT30 HC03 070 SLIM AD/2.5G 25000 SL	K10313707125542	30	3	11	14.0	46	M2.5	70	28	28	
KBT30 HC03 085 SLIM AD/2.5G 25000 SL	K10313707135542	30	3	11	14.9	46	M2.5	85	37	28	
KBT30 HC03 130 SLIM AD/2.5G 25000 SL	K10313707165542	30	3	11	19.9	46	M2.5	130	84	28	
KBT30 HC04 070 SLIM AD/2.5G 25000 SL	K10313708125542	30	4	11	14.0	46	M2.5	70	28	28	
KBT30 HC04 085 SLIM AD/2.5G 25000 SL	K10313708135542	30	4	11	14.9	46	M2.5	85	37	28	
KBT30 HC04 130 SLIM AD/2.5G 25000 SL	K10313708165542	30	4	11	19.9	46	M2.5	130	84	28	
KBT30 HC05 070 SLIM AD/2.5G 25000 SL	K10313709125542	30	5	12	14.9	46	M2.5	70	28	28	
KBT30 HC05 085 SLIM AD/2.5G 25000 SL	K10313709135542	30	5	12	15.9	46	M2.5	85	37	28	
KBT30 HC05 130 SLIM AD/2.5G 25000 SL	K10313709165542	30	5	12	20.8	46	M2.5	130	84	28	
KBT30 HC06 090 SLIM AD/2.5G 25000 SL	K10313642140542	30	6	13	17.0	46	M5	90	38	37	
KBT30 HC06 135 SLIM AD/2.5G 25000 SL	K10313642166542	30	6	13	21.9	46	M5	135	84	37	
KBT30 HC06 150 SLIM AD/2.5G 25000 SL	K10313642173542	30	6	13	23.4	46	M5	150	99	37	
KBT30 HC06 165 SLIM AD/2.5G 25000 SL	K10313642956542	30	6	13	25.0	46	M5	165	114	37	
KBT30 HC06 180 SLIM AD/2.5G 25000 SL	K10313642178542	30	6	13	26.7	46	M5	180	130	37	
KBT30 HC08 090 SLIM AD/2.5G 25000 SL	K10313643140542	30	8	15	19.0	46	M6	90	38	37	
KBT30 HC08 135 SLIM AD/2.5G 25000 SL	K10313643166542	30	8	15	23.9	46	M6	135	84	37	
KBT30 HC08 150 SLIM AD/2.5G 25000 SL	K10313643173542	30	8	15	25.4	46	M6	150	99	37	
KBT30 HC08 165 SLIM AD/2.5G 25000 SL	K10313643956542	30	8	15	27.0	46	M6	165	114	37	
KBT30 HC08 180 SLIM AD/2.5G 25000 SL	K10313643178542	30	8	15	28.7	46	M6	180	130	37	
KBT30 HC10 105 SLIM AD/2.5G 25000 SL	K10313644152542	30	10	17	22.6	46	M8	105	53	41	
KBT30 HC10 135 SLIM AD/2.5G 25000 SL	K10313644166542	30	10	17	25.9	46	M8	135	84	41	
KBT30 HC10 150 SLIM AD/2.5G 25000 SL	K10313644173542	30	10	17	27.4	46	M8	150	99	41	
KBT30 HC10 165 SLIM AD/2.5G 25000 SL	K10313644956542	30	10	17	29.0	46	M8	165	114	41	
KBT30 HC10 180 SLIM AD/2.5G 25000 SL	K10313644178542	30	10	17	30.7	46	M8	180	130	41	
KBT30 HC12 105 SLIM AD/2.5G 25000 SL	K10313636152542	30	12	19	24.6	46	M8	105	53	46	
KBT30 HC12 135 SLIM AD/2.5G 25000 SL	K10313636166542	30	12	19	27.9	46	M8	135	84	46	
KBT30 HC12 150 SLIM AD/2.5G 25000 SL	K10313636173542	30	12	19	29.4	46	M8	150	99	46	
KBT30 HC12 165 SLIM AD/2.5G 25000 SL	K10313636956542	30	12	19	31.0	46	M8	165	114	46	
KBT30 HC12 180 SLIM AD/2.5G 25000 SL	K10313636178542	30	12	19	32.7	46	M8	180	130	46	

KBT (MAS 403) (DIN ISO 7388 - 2) (JD) Hydraulic Expansion Chuck Slim 3 Degree



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm



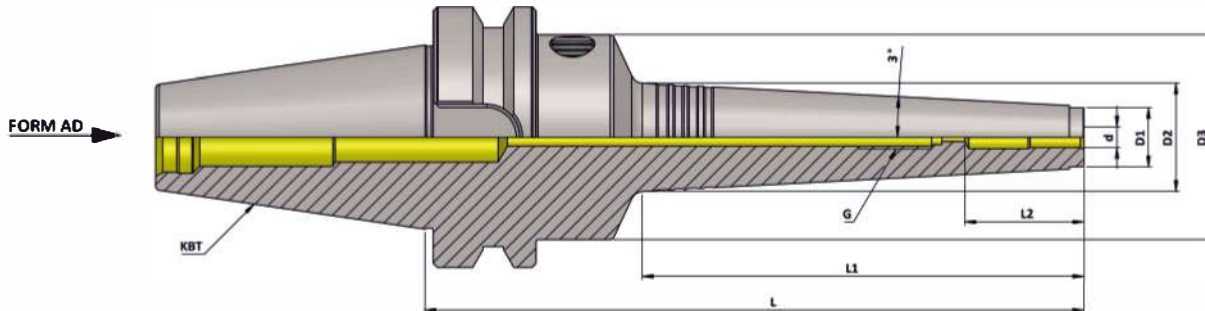
KBT (MAS 403) Hydraulic Expansion Chuck SI

Item Name	Item Code										
KBT30 HC1/8" 070 SLIM 2.5G 25000SL	K10313961125258	30	1/8"	11	14.0	46	M2.5	70	28	28	
KBT30 HC1/8" 085 SLIM 2.5G 25000SL	K10313961135258	30	1/8"	11	14.9	46	M2.5	85	37	28	
KBT30 HC1/8" 130 SLIM 2.5G 25000SL	K10313961165258	30	1/8"	11	19.9	46	M2.5	130	84	28	
KBT30 HC3/16" 070 SLIM 2.5G 25000SL	K10313962125258	30	3/16"	11	14.0	46	M2.5	70	28	28	
KBT30 HC3/16" 085 SLIM 2.5G 25000SL	K10313962135258	30	3/16"	11	14.9	46	M2.5	85	37	28	
KBT30 HC3/16" 130 SLIM 2.5G 25000SL	K10313962165258	30	3/16"	11	19.9	46	M2.5	130	84	28	
KBT30 HC1/4" 090 SLIM 2.5G 25000SL	K10313649140258	30	1/4"	13	17.0	46	M5	90	38	37	
KBT30 HC1/4" 135 SLIM 2.5G 25000SL	K10313649166258	30	1/4"	13	21.9	46	M5	135	84	37	
KBT30 HC1/4" 150 SLIM 2.5G 25000SL	K10313649173258	30	1/4"	13	23.4	46	M5	150	99	37	
KBT30 HC1/4" 165 SLIM 2.5G 25000SL	K10313649956258	30	1/4"	13	25.0	46	M5	165	114	37	
KBT30 HC1/4" 180 SLIM 2.5G 25000SL	K10313649178258	30	1/4"	13	26.7	46	M5	180	130	37	
KBT30 HC5/16" 090 SLIM 2.5G 25000SL	K10313956140258	30	5/16"	15	19.0	46	M6	90	38	37	
KBT30 HC5/16" 135 SLIM 2.5G 25000SL	K10313956166258	30	5/16"	15	23.9	46	M6	135	84	37	
KBT30 HC5/16" 150 SLIM 2.5G 25000SL	K10313956173258	30	5/16"	15	25.4	46	M6	150	99	37	
KBT30 HC5/16" 165 SLIM 2.5G 25000SL	K10313956956258	30	5/16"	15	27.0	46	M6	165	114	37	
KBT30 HC5/16" 180 SLIM 2.5G 25000SL	K10313956178258	30	5/16"	15	28.7	46	M6	180	130	37	
KBT30 HC3/8" 105 SLIM 2.5G 25000SL	K10313650152258	30	3/8"	17	22.6	46	M8	105	53	41	
KBT30 HC3/8" 135 SLIM 2.5G 25000SL	K10313650166258	30	3/8"	17	25.9	46	M8	135	84	41	
KBT30 HC3/8" 150 SLIM 2.5G 25000SL	K10313650173258	30	3/8"	17	27.4	46	M8	150	99	41	
KBT30 HC3/8" 165 SLIM 2.5G 25000SL	K10313650956258	30	3/8"	17	29.0	46	M8	165	114	41	
KBT30 HC3/8" 180 SLIM 2.5G 25000SL	K10313650178258	30	3/8"	17	30.7	46	M8	180	130	41	
KBT30 HC1/2" 105 SLIM 2.5G 25000SL	K10313652152258	30	1/2"	19	24.6	46	M8	105	53	46	
KBT30 HC1/2" 135 SLIM 2.5G 25000SL	K10313652166258	30	1/2"	19	27.9	46	M8	135	84	46	
KBT30 HC1/2" 150 SLIM 2.5G 25000SL	K10313652173258	30	1/2"	19	29.4	46	M8	150	99	46	
KBT30 HC1/2" 165 SLIM 2.5G 25000SL	K10313652956258	30	1/2"	19	31.0	46	M8	165	114	46	
KBT30 HC1/2" 180 SLIM 2.5G 25000SL	K10313652178258	30	1/2"	19	32.7	46	M8	180	130	46	

KBT (MAS 403) (DIN ISO 7388 - 2) (JD) Hydraulic Expansion Chuck Slim 3 Degree



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm

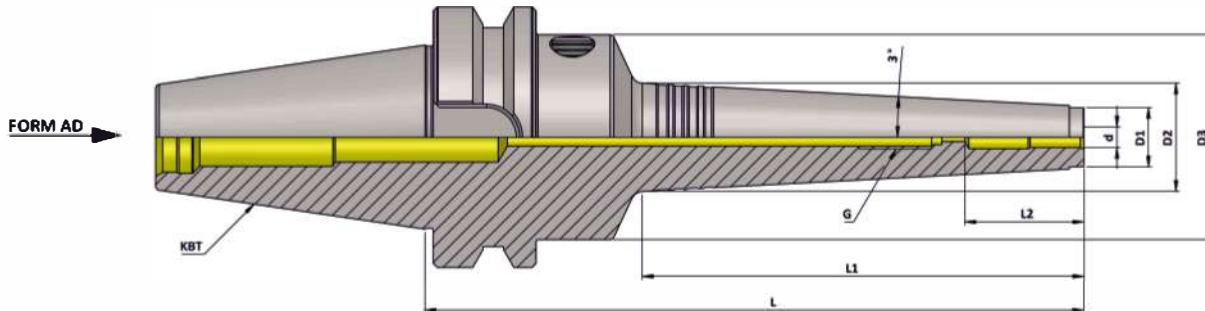


KBT (MAS 403) Hydraulic Expansion Chuck Slim 3 Degree (AD) (JD)							(Balanced to 2.5 G 25000 RPM)				
Item Name	Item Code	ISO	d	D1	D2	D3	G	L	L1	L2	
KBT40 HC03 075 SLIM AD/2.5G 25000 SL	K10314707127542	40	3	11	14.0	46	—	75	28	28	
KBT40 HC03 090 SLIM AD/2.5G 25000 SL	K10314707140542	40	3	11	14.9	46	—	90	37	28	
KBT40 HC03 135 SLIM AD/2.5G 25000 SL	K10314707166542	40	3	11	19.9	46	—	135	84	28	
KBT40 HC04 075 SLIM AD/2.5G 25000 SL	K10314708127542	40	4	11	14.0	46	—	75	28	28	
KBT40 HC04 090 SLIM AD/2.5G 25000 SL	K10314708140542	40	4	11	14.9	46	—	90	37	28	
KBT40 HC04 135 SLIM AD/2.5G 25000 SL	K10314708166542	40	4	11	19.9	46	—	135	84	28	
KBT40 HC05 075 SLIM AD/2.5G 25000 SL	K10314709127542	40	5	12	14.9	46	—	75	28	28	
KBT40 HC05 090 SLIM AD/2.5G 25000 SL	K10314709140542	40	5	12	15.9	46	—	90	37	28	
KBT40 HC05 135 SLIM AD/2.5G 25000 SL	K10314709166542	40	5	12	20.8	46	—	135	84	28	
KBT40 HC06 090 SLIM AD/2.5G 25000 SL	K10314642140542	40	6	13	17.0	46	M5	90	38	37	
KBT40 HC06 135 SLIM AD/2.5G 25000 SL	K10314642166542	40	6	13	21.9	46	M5	135	84	37	
KBT40 HC06 150 SLIM AD/2.5G 25000 SL	K10314642173542	40	6	13	23.4	46	M5	150	99	37	
KBT40 HC06 165 SLIM AD/2.5G 25000 SL	K10314642956542	40	6	13	25.0	46	M5	165	114	37	
KBT40 HC06 180 SLIM AD/2.5G 25000 SL	K10314642178542	40	6	13	26.7	46	M5	180	130	37	
KBT40 HC08 090 SLIM AD/2.5G 25000 SL	K10314643140542	40	8	15	19.0	46	M6	90	38	37	
KBT40 HC08 135 SLIM AD/2.5G 25000 SL	K10314643166542	40	8	15	23.9	46	M6	135	84	37	
KBT40 HC08 150 SLIM AD/2.5G 25000 SL	K10314643173542	40	8	15	25.4	46	M6	150	99	37	
KBT40 HC08 165 SLIM AD/2.5G 25000 SL	K10314643956542	40	8	15	27.0	46	M6	165	114	37	
KBT40 HC08 180 SLIM AD/2.5G 25000 SL	K10314643178542	40	8	15	28.7	46	M6	180	130	37	
KBT40 HC10 105 SLIM AD/2.5G 25000 SL	K10314644152542	40	10	17	22.6	46	M8	105	53	41	
KBT40 HC10 135 SLIM AD/2.5G 25000 SL	K10314644166542	40	10	17	25.9	46	M8	135	84	41	
KBT40 HC10 150 SLIM AD/2.5G 25000 SL	K10314644173542	40	10	17	27.4	46	M8	150	99	41	
KBT40 HC10 165 SLIM AD/2.5G 25000 SL	K10314644956542	40	10	17	29.0	46	M8	165	114	41	
KBT40 HC10 180 SLIM AD/2.5G 25000 SL	K10314644178542	40	10	17	30.7	46	M8	180	130	41	
KBT40 HC12 105 SLIM AD/2.5G 25000 SL	K10314636152542	40	12	19	24.6	46	M8	105	53	46	
KBT40 HC12 135 SLIM AD/2.5G 25000 SL	K10314636166542	40	12	19	27.9	46	M8	135	84	46	
KBT40 HC12 150 SLIM AD/2.5G 25000 SL	K10314636173542	40	12	19	29.4	46	M8	150	99	46	
KBT40 HC12 165 SLIM AD/2.5G 25000 SL	K10314636956542	40	12	19	31.0	46	M8	165	114	46	
KBT40 HC12 180 SLIM AD/2.5G 25000 SL	K10314636956542	40	12	19	32.7	46	M8	180	130	46	

KBT (MAS 403) (DIN ISO 7388 - 2) (JD) Hydraulic Expansion Chuck Slim 3 Degree



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm



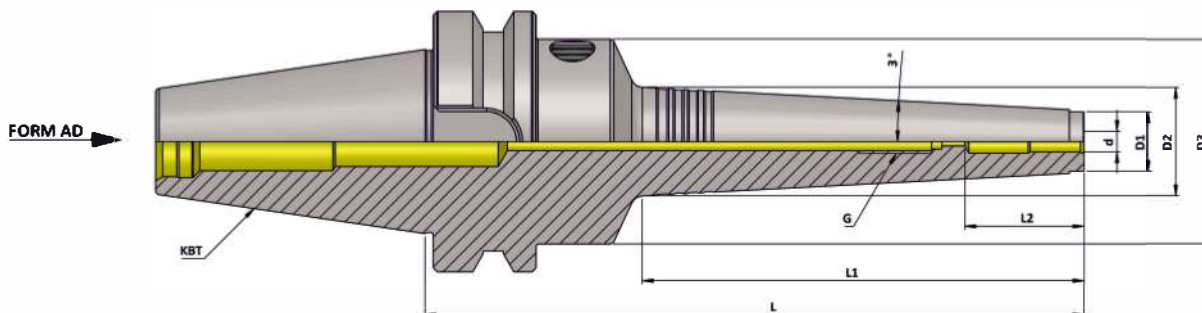
KBT (MAS 403) Hydraulic Expansion Chuck Slim 3 Degree (AD) (JD)							(Balanced to 2.5 G 25000 RPM)				
Item Name	Item Code	ISO	d	D1	D2	D3	G	L	L1	L2	
KBT40 HC14 135 SLIM AD/2.5G 25000 SL	K10314645166542	40	14	21	29.8	52.5	M10	135	84	46	
KBT40 HC14 165 SLIM AD/2.5G 25000 SL	K10314645956542	40	14	21	32.9	52.5	M10	165	114	46	
KBT40 HC14 180 SLIM AD/2.5G 25000 SL	K10314645178542	40	14	21	34.5	52.5	M10	180	129	46	
KBT40 HC16 135 SLIM AD/2.5G 25000 SL	K10314646166542	40	16	23	31.9	52.5	M12	135	84	49	
KBT40 HC16 165 SLIM AD/2.5G 25000 SL	K10314646956542	40	16	23	35.0	52.5	M12	165	114	49	
KBT40 HC16 180 SLIM AD/2.5G 25000 SL	K10314646178542	40	16	23	36.6	52.5	M12	180	129	49	
KBT40 HC18 135 SLIM AD/2.5G 25000 SL	K10314647166542	40	18	26	34.8	60	M12	135	84	49	
KBT40 HC18 165 SLIM AD/2.5G 25000 SL	K10314647956542	40	18	26	37.9	60	M12	165	114	49	
KBT40 HC18 180 SLIM AD/2.5G 25000 SL	K10314647178542	40	18	26	39.5	60	M12	180	129	49	
KBT40 HC20 135 SLIM AD/2.5G 25000 SL	K10314637166542	40	20	28	36.9	60	M16	135	84	51	
KBT40 HC20 165 SLIM AD/2.5G 25000 SL	K10314637956542	40	20	28	40.0	60	M16	165	114	51	
KBT40 HC20 180 SLIM AD/2.5G 25000 SL	K10314637178542	40	20	28	41.6	60	M16	180	129	51	
KBT40 HC25 135 SLIM AD/2.5G 25000 SL	K10314648166542	40	25	37	45.9	60	M16	135	84	51	
KBT40 HC25 165 SLIM AD/2.5G 25000 SL	K10314648956542	40	25	37	49.0	60	M16	165	114	51	
KBT40 HC25 180 SLIM AD/2.5G 25000 SL	K10314648178542	40	25	37	50.6	60	M16	180	129	51	

KBT40 HC1/8" 075 SLIM AD/2.5G 25000 SL	K10314961127258	40	1/8"	11	14.0	46	—	75	28	28
KBT40 HC1/8" 090 SLIM AD/2.5G 25000 SL	K10314961140258	40	1/8"	11	14.9	46	—	90	37	28
KBT40 HC1/8" 135 SLIM AD/2.5G 25000 SL	K10314961166258	40	1/8"	11	19.9	46	—	135	84	28
KBT40 HC3/16" 075 SLIM AD/2.5G 25000 SL	K10314962127258	40	3/16"	11	14.0	46	—	75	28	28
KBT40 HC3/16" 090 SLIM AD/2.5G 25000 SL	K10314962140258	40	3/16"	11	14.9	46	—	90	37	28
KBT40 HC3/16" 135 SLIM AD/2.5G 25000 SL	K10314962166258	40	3/16"	11	19.9	46	—	135	84	28
KBT40 HC1/4" 090 SLIM AD/2.5G 25000 SL	K10314649140542	40	1/4"	13	17.0	46	M5	90	38	37
KBT40 HC1/4" 135 SLIM AD/2.5G 25000 SL	K10314649166542	40	1/4"	13	21.9	46	M5	135	84	37
KBT40 HC1/4" 150 SLIM AD/2.5G 25000 SL	K10314649173542	40	1/4"	13	23.4	46	M5	150	99	37
KBT40 HC1/4" 165 SLIM AD/2.5G 25000 SL	K10314649956542	40	1/4"	13	25.0	46	M5	165	114	37
KBT40 HC1/4" 180 SLIM AD/2.5G 25000 SL	K10314649178542	40	1/4"	13	26.7	46	M5	180	130	37

KBT (MAS 403) (DIN ISO 7388 - 2) (JD) Hydraulic Expansion Chuck Slim 3 Degree



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm

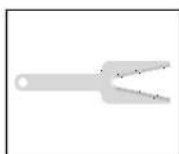


KBT (MAS 403) Hydraulic Expansion Chuck Slim 3 Degree (AD) (JD)							(Balanced to 2.5 G 25000 RPM)				
Item Name	Item Code	ISO	d	D1	D2	D3	G	L	L1	L2	
KBT40 HC5/16" 090 SLIM AD/2.5G 25000 SL	K10314956140542	40	5/16"	15	19.0	46	M6	90	38	37	
KBT40 HC5/16" 135 SLIM AD/2.5G 25000 SL	K10314956166542	40	5/16"	15	23.9	46	M6	135	84	37	
KBT40 HC5/16" 150 SLIM AD/2.5G 25000 SL	K10314956173542	40	5/16"	15	25.4	46	M6	150	99	37	
KBT40 HC5/16" 165 SLIM AD/2.5G 25000 SL	K10314956956542	40	5/16"	15	27.0	46	M6	165	114	37	
KBT40 HC5/16" 180 SLIM AD/2.5G 25000 SL	K10314956178542	40	5/16"	15	28.7	46	M6	180	130	37	
KBT40 HC3/8" 105 SLIM AD/2.5G 25000 SL	K10314650152542	40	3/8"	17	22.6	46	M8	105	53	41	
KBT40 HC3/8" 135 SLIM AD/2.5G 25000 SL	K10314650166542	40	3/8"	17	25.9	46	M8	135	84	41	
KBT40 HC3/8" 150 SLIM AD/2.5G 25000 SL	K10314650173542	40	3/8"	17	27.4	46	M8	150	99	41	
KBT40 HC3/8" 165 SLIM AD/2.5G 25000 SL	K10314650956542	40	3/8"	17	29.0	46	M8	165	114	41	
KBT40 HC3/8" 180 SLIM AD/2.5G 25000 SL	K10314650178542	40	3/8"	17	30.7	46	M8	180	130	41	
KBT40 HC1/2" 105 SLIM AD/2.5G 25000 SL	K10314652152542	40	1/2"	19	24.6	46	M8	105	53	46	
KBT40 HC1/2" 135 SLIM AD/2.5G 25000 SL	K10314652166542	40	1/2"	19	27.9	46	M8	135	84	46	
KBT40 HC1/2" 150 SLIM AD/2.5G 25000 SL	K10314652173542	40	1/2"	19	29.4	46	M8	150	99	46	
KBT40 HC1/2" 165 SLIM AD/2.5G 25000 SL	K10314652956542	40	1/2"	19	31.0	46	M8	165	114	46	
KBT40 HC1/2" 180 SLIM AD/2.5G 25000 SL	K10314652178542	40	1/2"	19	32.7	46	M8	180	130	46	
KBT40 HC5/8" 135 SLIM AD/2.5G 25000 SL	K10314651166542	40	5/8"	23	31.9	52.5	M12	135	84	49	
KBT40 HC5/8" 165 SLIM AD/2.5G 25000 SL	K10314651956542	40	5/8"	23	35.0	52.5	M12	165	114	49	
KBT40 HC5/8" 180 SLIM AD/2.5G 25000 SL	K10314651178542	40	5/8"	23	36.6	52.5	M12	180	129	49	
KBT40 HC3/4" 135 SLIM AD/2.5G 25000 SL	K10314653166259	40	3/4"	28	36.9	60	M16	135	84	51	
KBT40 HC3/4" 165 SLIM AD/2.5G 25000 SL	K10314653956259	40	3/4"	28	40.0	60	M16	165	114	51	
KBT40 HC3/4" 180 SLIM AD/2.5G 25000 SL	K10314653178259	40	3/4"	28	41.6	60	M16	180	129	51	
KBT40 HC1" 135 SLIM AD+B/2.5G 25000 SL	K10314957166259	40	1.0"	37	45.9	60	M16	135	84	51	
KBT40 HC1" 165 SLIM AD+B/2.5G 25000 SL	K10314957956259	40	1.0"	37	49.0	60	M16	165	114	51	
KBT40 HC1" 180 SLIM AD+B/2.5G 25000 SL	K10314957178259	40	1.0"	37	50.6	60	M16	180	129	51	

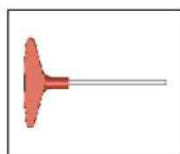
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No. 140-150



Spanner HC
Ref. Page No. 154

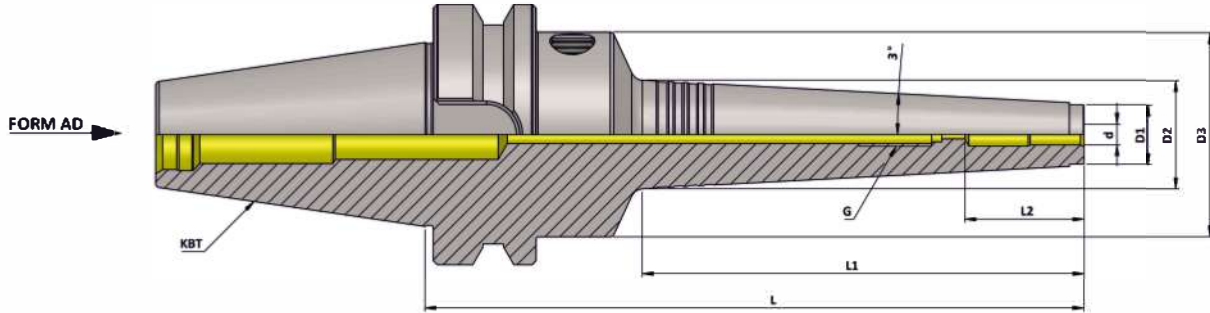


Key HC 5mm
Ref. Page No. 154

KBT (MAS 403) (DIN ISO 7388 - 2) (JD) Hydraulic Expansion Chuck Slim 3 Degree



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm



KBT (MAS 403) Hydraulic Expansion Chuck Slim 3 Degree (AD) (JD)

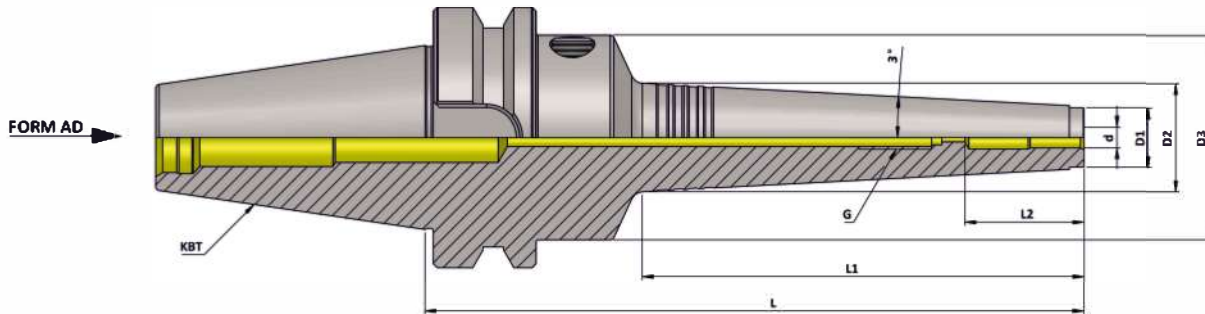
(Balanced to 2.5 G 25000 RPM)

Item Name	Item Code	ISO	d	D1	D2	D3	G	L	L1	L2
KBT50 HC06 105 SLIM AD/2.5G 25000 SL	K10315642152542	50	6	13	17.0	46	M5	105	38	37
KBT50 HC06 150 SLIM AD/2.5G 25000 SL	K10315642173542	50	6	13	21.9	46	M5	150	84	37
KBT50 HC06 165 SLIM AD/2.5G 25000 SL	K10315642956542	50	6	13	23.4	46	M5	165	99	37
KBT50 HC06 180 SLIM AD/2.5G 25000 SL	K10315642178542	50	6	13	25.0	46	M5	180	114	37
KBT50 HC06 195 SLIM AD/2.5G 25000 SL	K10315642957542	50	6	13	26.7	46	M5	195	130	37
KBT50 HC08 105 SLIM AD/2.5G 25000 SL	K10315643152542	50	8	15	19.0	46	M6	105	38	37
KBT50 HC08 150 SLIM AD/2.5G 25000 SL	K10315643173542	50	8	15	23.9	46	M6	150	84	37
KBT50 HC08 165 SLIM AD/2.5G 25000 SL	K10315643956542	50	8	15	25.4	46	M6	165	99	37
KBT50 HC08 180 SLIM AD/2.5G 25000 SL	K10315643178542	50	8	15	27.0	46	M6	180	114	37
KBT50 HC08 195 SLIM AD/2.5G 25000 SL	K10315643957542	50	8	15	28.7	46	M6	195	130	37
KBT50 HC10 150 SLIM AD/2.5G 25000 SL	K10315644152542	50	10	17	25.9	46	M8	150	84	41
KBT50 HC10 165 SLIM AD/2.5G 25000 SL	K10315644956542	50	10	17	27.4	46	M8	165	99	41
KBT50 HC10 180 SLIM AD/2.5G 25000 SL	K10315644178542	50	10	17	29.0	46	M8	180	114	41
KBT50 HC10 195 SLIM AD/2.5G 25000 SL	K10315644957542	50	10	17	30.7	46	M8	195	130	41
KBT50 HC12 150 SLIM AD/2.5G 25000 SL	K10315636173542	50	12	19	27.9	46	M10	150	84	46
KBT50 HC12 165 SLIM AD/2.5G 25000 SL	K10315636956542	50	12	19	29.4	46	M10	165	99	46
KBT50 HC12 180 SLIM AD/2.5G 25000 SL	K10315636178542	50	12	19	31.0	46	M10	180	114	46
KBT50 HC12 195 SLIM AD/2.5G 25000 SL	K10315636957542	50	12	19	32.7	46	M10	195	130	46
KBT50 HC14 150 SLIM AD/2.5G 25000 SL	K10315645173542	50	14	21	31.4	52.5	M10	150	99	46
KBT50 HC14 180 SLIM AD/2.5G 25000 SL	K10315645178542	50	14	21	32.9	52.5	M10	180	114	46
KBT50 HC14 195 SLIM AD/2.5G 25000 SL	K10315645957542	50	14	21	34.5	52.5	M10	195	129	46
KBT50 HC16 150 SLIM AD/2.5G 25000 SL	K10315646173542	50	16	23	31.9	52.5	M12	150	84	49
KBT50 HC16 180 SLIM AD/2.5G 25000 SL	K10315646178542	50	16	23	35.0	52.5	M12	180	114	49
KBT50 HC16 195 SLIM AD/2.5G 25000 SL	K10315646957542	50	16	23	36.6	52.5	M12	195	129	49
KBT50 HC18 150 SLIM AD/2.5G 25000 SL	K10315647173542	50	18	26	34.8	60	M12	150	84	49
KBT50 HC18 180 SLIM AD/2.5G 25000 SL	K10315647178542	50	18	26	37.9	60	M12	180	114	49
KBT50 HC18 195 SLIM AD/2.5G 25000 SL	K10315647957542	50	18	26	39.5	60	M12	195	129	49
KBT50 HC20 150 SLIM AD/2.5G 25000 SL	K10315637173542	50	20	28	36.9	60	M16	150	84	51
KBT50 HC20 180 SLIM AD/2.5G 25000 SL	K10315637178542	50	20	28	40.0	60	M16	180	114	51
KBT50 HC20 195 SLIM AD/2.5G 25000 SL	K10315637957542	50	20	28	41.6	60	M16	195	129	51
KBT50 HC25 150 SLIM AD/2.5G 25000 SL	K10315648173542	50	25	37	45.9	60	M16	150	84	51
KBT50 HC25 180 SLIM AD/2.5G 25000 SL	K10315648178542	50	25	37	49.0	60	M16	180	114	51
KBT50 HC25 195 SLIM AD/2.5G 25000 SL	K10315648957542	50	25	37	50.6	60	M16	195	129	51

KBT (MAS 403) (DIN ISO 7388 - 2) (JD) Hydraulic Expansion Chuck Slim 3 Degree



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm

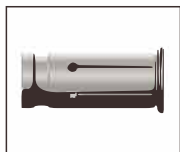


KBT (MAS 403) Hydraulic Expansion Chuck Slim 3 Degree (AD) (JD)

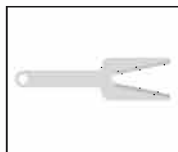
(Balanced to 2.5 G 25000 RPM)

Item Name	Item Code	ISO	d	D1	D2	D3	G	L	L1	L2
KBT50 HC1/4" 105 SLIM AD/2.5G 25000 SL	K10315649152259	50	1/4"	13	17.0	46	M5	105	38	37
KBT50 HC1/4" 150 SLIM AD/2.5G 25000 SL	K10315649173259	50	1/4"	13	21.9	46	M5	150	84	37
KBT50 HC1/4" 165 SLIM AD/2.5G 25000 SL	K10315649956259	50	1/4"	13	23.4	46	M5	165	99	37
KBT50 HC1/4" 180 SLIM AD/2.5G 25000 SL	K10315649178259	50	1/4"	13	25.0	46	M5	180	114	37
KBT50 HC1/4" 195 SLIM AD/2.5G 25000 SL	K10315649957259	50	1/4"	13	26.7	46	M5	195	130	37
KBT50 HC5/16" 105 SLIM AD/2.5G 25000 SL	K10315956152542	50	5/16"	15	19.0	46	M6	105	38	37
KBT50 HC5/16" 150 SLIM AD/2.5G 25000 SL	K10315956173542	50	5/16"	15	23.9	46	M6	150	84	37
KBT50 HC5/16" 165 SLIM AD/2.5G 25000 SL	K10315956956259	50	5/16"	15	25.4	46	M6	165	99	37
KBT50 HC5/16" 180 SLIM AD/2.5G 25000 SL	K10315956178259	50	5/16"	15	27.0	46	M6	180	114	37
KBT50 HC5/16" 195 SLIM AD/2.5G 25000 SL	K10315956957259	50	5/16"	15	28.7	46	M6	195	130	37
KBT50 HC3/8" 150 SLIM AD/2.5G 25000 SL	K10315650173542	50	3/8"	17	25.9	46	M8	150	84	41
KBT50 HC3/8" 165 SLIM AD/2.5G 25000 SL	K10315650956542	50	3/8"	17	27.4	46	M8	165	99	41
KBT50 HC3/8" 180 SLIM AD/2.5G 25000 SL	K10315650178542	50	3/8"	17	29.0	46	M8	180	114	41
KBT50 HC3/8" 195 SLIM AD/2.5G 25000 SL	K10315650957542	50	3/8"	17	30.7	46	M8	195	130	41
KBT50 HC1/2" 150 SLIM AD/2.5G 25000 SL	K10315652173542	50	1/2"	19	27.9	46	M10	150	84	46
KBT50 HC1/2" 165 SLIM AD/2.5G 25000 SL	K10315652956542	50	1/2"	19	29.4	46	M10	165	99	46
KBT50 HC1/2" 180 SLIM AD/2.5G 25000 SL	K10315652178542	50	1/2"	19	31.0	46	M10	180	114	46
KBT50 HC1/2" 195 SLIM AD/2.5G 25000 SL	K10315652957542	50	1/2"	19	32.7	46	M10	195	130	46
KBT50 HC5/8" 150 SLIM AD/2.5G 25000 SL	K10315651173542	50	5/8"	23	31.9	52.5	M12	150	84	49
KBT50 HC5/8" 180 SLIM AD/2.5G 25000 SL	K10315651178542	50	5/8"	23	35.0	52.5	M12	180	114	49
KBT50 HC5/8" 195 SLIM AD/2.5G 25000 SL	K10315651957542	50	5/8"	23	36.6	52.5	M12	195	129	49
KBT50 HC3/4" 150 SLIM AD/2.5G 25000 SL	K10315653173542	50	3/4"	28	36.9	60	M16	150	84	51
KBT50 HC3/4" 180 SLIM AD/2.5G 25000 SL	K10315653178542	50	3/4"	28	40.0	60	M16	180	114	51
KBT50 HC3/4" 195 SLIM AD/2.5G 25000 SL	K10315653957542	50	3/4"	28	41.6	60	M16	195	129	51
KBT50 HC1" 150 SLIM AD/2.5G 25000 SL	K10315957173542	50	1.0"	37	45.9	60	M16	150	84	51
KBT50 HC1" 180 SLIM AD/2.5G 25000 SL	K10315957178542	50	1.0"	37	49.0	60	M16	180	114	51
KBT50 HC1" 195 SLIM AD/2.5G 25000 SL	K10315957957542	50	1.0"	37	50.6	60	M16	195	129	51

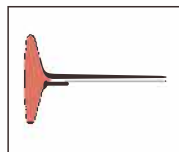
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No. 140-150



Spanner HC
Ref. Page No. 154

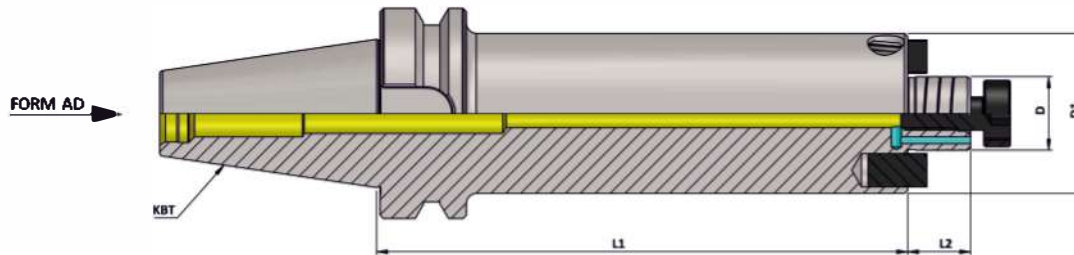


Key HC 5mm
Ref. Page No. 154

KBT (MAS 403) (DIN ISO 7388-2) Hydraulic Expansion Face mill Holder (HC-FMH-K)



Maximum Run out of the External Dia with respect to the External Taper 0.005 mm



KBT (MAS 403) Hydraulic Expansion Face mill Holder (HC-FMH-K)

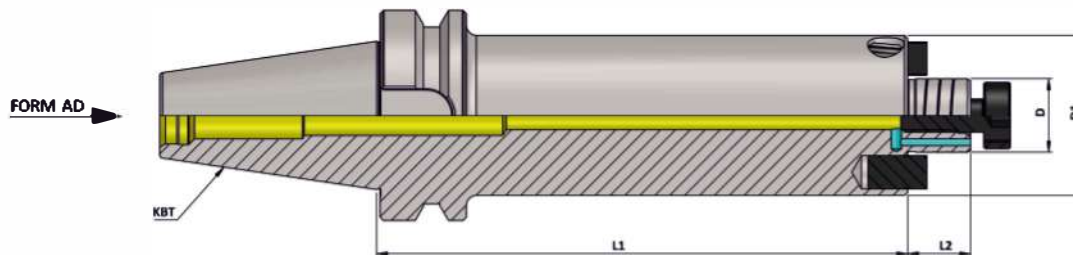
(Balanced to 2.5 G 25000 RPM)

ITEM NAME	ITEM CODE	ISO	D	D1	L1	L2
KBT30 HC FMH-K22 040 AD/ 2.5G 25000 SL	K10313932106282	30	22	48	40	19
KBT30 HC FMH-K27 040 AD/ 2.5G 25000 SL	K10313933106282	30	27	50	40	21
KBT30 HC FMH-K1.0" 040 AD 2.5G 25000 SL	K10313974276555	30	1.0"	2.375"	40	0.687"
KBT40 HC FMH-K22 045 AD/ 2.5G 25000 SL	K10314932108282	40	22	48	45	19
KBT40 HC FMH-K22 100 AD/ 2.5G 25000 SL	K10314934148282	40	22	48	100	19
KBT40 HC FMH-K22 160 AD/ 2.5G 25000 SL	K10314934175282	40	22	48	160	19
KBT40 HC FMH-K27 045 AD/ 2.5G 25000 SL	K10314933108282	40	27	50	45	21
KBT40 HC FMH-K27 100 AD/ 2.5G 25000 SL	K10314935148282	40	27	50	100	21
KBT40 HC FMH-K27 160 AD/ 2.5G 25000 SL	K10314935175282	40	27	50	160	21
KBT40 HC FMH-K32 050 AD/ 2.5G 25000 SL	K10314938111282	40	32	78	50	24
KBT40 HC FMH-K32 100 AD/ 2.5G 25000 SL	K10314936148282	40	32	78	100	24
KBT40 HC FMH-K32 160 AD/ 2.5G 25000 SL	K10314936175282	40	32	78	160	24
KBT40 HC FMH-K40 055 AD/ 2.5G 25000 SL	K10314939115282	40	40	88	55	27
KBT40 HC FMH-K40 100 AD/ 2.5G 25000 SL	K10314937148282	40	40	88	100	27
KBT40 HC FMH-K40 160 AD/ 2.5G 25000 SL	K10314937175282	40	40	88	160	27
KBT40 HC FMH-K1.0" 045 AD/ 2.5G 25000 SL	K10314974108282	40	1.0"	2.375"	45	0.687"
KBT40 HC FMH-K1.0" 100 AD/ 2.5G 25000 SL	K10314974148282	40	1.0"	2.375"	100	0.687"
KBT40 HC FMH-K1.0" 160 AD/ 2.5G 25000 SL	K10314974175282	40	1.0"	2.375"	160	0.687"
KBT40 HC FMH-K1 1/4" 050 AD/ 2.5G 25000 SL	K10314975111282	40	1 1/4"	2.875"	50	0.687"
KBT40 HC FMH-K1 1/4" 100 AD/ 2.5G 25000 SL	K10314975148282	40	1 1/4"	2.875"	100	0.687"
KBT40 HC FMH-K1 1/4" 160 AD/ 2.5G 25000 SL	K10314975175282	40	1 1/4"	2.875"	160	0.687"
KBT40 HC FMH-K1 1/2" 055 AD/ 2.5G 25000 SL	K10314976115282	40	1 1/2"	3.750"	55	0.938"
KBT40 HC FMH-K1 1/2" 100 AD/ 2.5G 25000 SL	K10314976148282	40	1 1/2"	3.750"	100	0.938"
KBT40 HC FMH-K1 1/2" 160 AD/ 2.5G 25000 SL	K10314976175282	40	1 1/2"	3.750"	160	0.938"

KBT (MAS 403) (DIN ISO 7388-2) Hydraulic Expansion Face mill Holder (HC-FMH-K)



Maximum Run out of the External Dia with respect to the External Taper 0.005 mm



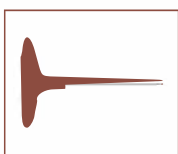
KBT (MAS 403) Hydraulic Expansion Face mill Holder (HC-FMH-K)

(Balanced to 2.5 G 25000 RPM)

ITEM NAME	ITEM CODE	ISO	D	D1	L1	L2
KBT50 HC FMH-K22 060 AD/ 2.5G 25000 SL	K10103934117230	50	22	48	60	19
KBT50 HC FMH-K22 100 AD/ 2.5G 25000 SL	K10315934148282	50	22	48	100	19
KBT50 HC FMH-K22 160 AD/ 2.5G 25000 SL	K10315934175282	50	22	48	160	19
KBT50 HC FMH-K27 060 AD/ 2.5G 25000 SL	K10315933117282	50	27	50	60	21
KBT50 HC FMH-K27 100 AD/ 2.5G 25000 SL	K10315935148282	50	27	50	100	21
KBT50 HC FMH-K27 160 AD/ 2.5G 25000 SL	K10315935175282	50	27	50	160	21
KBT50 HC FMH-K32 060 AD/ 2.5G 25000 SL	K10315938117282	50	32	78	60	24
KBT50 HC FMH-K32 100 AD/ 2.5G 25000 SL	K10315936148282	50	32	78	100	24
KBT50 HC FMH-K32 160 AD/ 2.5G 25000 SL	K10315936175282	50	32	78	160	24
KBT50 HC FMH-K40 060 AD/ 2.5G 25000 SL	K10315939117282	50	40	88	60	27
KBT50 HC FMH-K40 100 AD/ 2.5G 25000 SL	K10315937148282	50	40	88	100	27
KBT50 HC FMH-K40 160 AD/ 2.5G 25000 SL	K10315937175282	50	40	88	160	27

KBT50 HC FMH-K1.0" 060 AD/ 2.5G 25000 SL	K10315974666282	50	1.0"	2.375"	60	0.687"
KBT50 HC FMH-K1.0" 100 AD/ 2.5G 25000 SL	K10315974148282	50	1.0"	2.375"	100	0.687"
KBT50 HC FMH-K1.0" 160 AD/ 2.5G 25000 SL	K10315974175282	50	1.0"	2.375"	160	0.687"
KBT50 HC FMH-K1 1/4" 060 AD/ 2.5G 25000 SL	K10315975277282	50	1 1/4"	2.875"	60	0.687"
KBT50 HC FMH-K1 1/4" 100 AD/ 2.5G 25000 SL	K10315975148282	50	1 1/4"	2.875"	100	0.687"
KBT50 HC FMH-K1 1/4" 160 AD/ 2.5G 25000 SL	K10315975175282	50	1 1/4"	2.875"	160	0.687"
KBT50 HC FMH-K1 1/2" 060 AD/ 2.5G 25000 SL	K10315976117282	50	1 1/2"	3.750"	60	0.938"
KBT50 HC FMH-K1 1/2" 100 AD/ 2.5G 25000 SL	K10315976148282	50	1 1/2"	3.750"	100	0.938"
KBT50 HC FMH-K1 1/2" 160 AD/ 2.5G 25000 SL	K10315976175282	50	1 1/2"	3.750"	160	0.938"

Accessories:

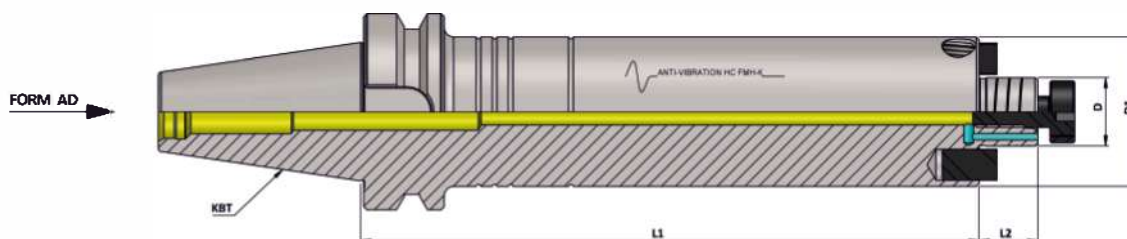


Key HC 5mm
Ref. Page No. 154

KBT (MAS 403) (DIN ISO 7388-2) Hydraulic Expansion Face mill Holder Anti-Vibration (HC-FMH-K AD/AV)



Maximum Run out of the External Dia with respect to the External Taper 0.010 mm

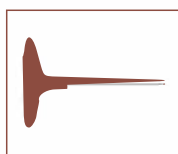


KBT (MAS 403) Hydraulic Expansion Face mill Holder (HC-FMH-K AD/AV)

ITEM NAME	ITEM CODE	ISO	D	D1	L1	L2
KBT40 HC FMH-K22 200 AD/AV	K10314934239539	40	22	48	200	19
KBT40 HC FMH-K22 250 AD/AV	K10314934182539	40	22	48	250	19
KBT40 HC FMH-K22 300 AD/AV	K10314934183539	40	22	48	300	19
KBT40 HC FMH-K27 200 AD/AV	K10314935239539	40	27	50	200	21
KBT40 HC FMH-K27 250 AD/AV	K10314935182539	40	27	50	250	21
KBT40 HC FMH-K27 300 AD/AV	K10314935183539	40	27	50	300	21
KBT40 HC FMH-K32 200 AD/AV	K10314936239539	40	32	78	200	24
KBT40 HC FMH-K32 250 AD/AV	K10314936182539	40	32	78	250	24
KBT40 HC FMH-K32 300 AD/AV	K10314936183539	40	32	78	300	24
KBT40 HC FMH-K40 200 AD/AV	K10314937239539	40	40	88	200	27
KBT40 HC FMH-K40 250 AD/AV	K10314937182539	40	40	88	250	27
KBT40 HC FMH-K40 300 AD/AV	K10314937183539	40	40	88	300	27

KBT40 HC FMH-K1.0" 200 AD/AV	K10314974239539	40	1.0"	2.375"	200	0.687"
KBT40 HC FMH-K1.0" 250 AD/AV	K10314974182539	40	1.0"	2.375"	250	0.687"
KBT40 HC FMH-K1.0" 300 AD/AV	K10314974183539	40	1.0"	2.375"	300	0.687"
KBT40 HC FMH-K1 1/4" 200 AD/AV	K10314975239539	40	1 1/4"	2.875"	200	0.687"
KBT40 HC FMH-K1 1/4" 250 AD/AV	K10314975182539	40	1 1/4"	2.875"	250	0.687"
KBT40 HC FMH-K1 1/4" 300 AD/AV	K10314975183539	40	1 1/4"	2.875"	300	0.687"
KBT40 HC FMH-K1 1/2" 200 AD/AV	K10314976239539	40	1 1/2"	3.750"	200	0.938"
KBT40 HC FMH-K1 1/2" 250 AD/AV	K10314976182539	40	1 1/2"	3.750"	250	0.938"
KBT40 HC FMH-K1 1/2" 300 AD/AV	K10314976183539	40	1 1/2"	3.750"	300	0.938"

Accessories:

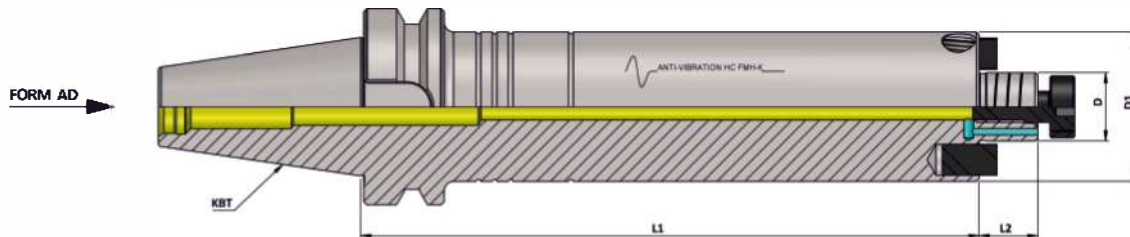


Key HC 5mm
Ref. Page No. 154

KBT (MAS 403) (DIN ISO 7388-2) Hydraulic Expansion Face mill Holder Anti-Vibration (HC-FMH-K AD/AV)



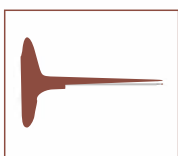
Maximum Run out of the External Dia with respect to the External Taper 0.010 mm



KBT (MAS 403) Hydraulic Expansion Face mill Holder (HC-FMH-K AD/AV)

ITEM NAME	ITEM CODE	ISO	D	D1	L1	L2
KBT50 HC FMH-K22 200 AD/AV	K10315934239539	50	22	48	200	19
KBT50 HC FMH-K22 250 AD/AV	K10315934182539	50	22	48	250	19
KBT50 HC FMH-K22 300 AD/AV	K10315934183539	50	22	48	300	19
KBT50 HC FMH-K22 350 AD/AV	K10315934184539	50	22	48	350	19
KBT50 HC FMH-K22 400 AD/AV	K10315934540539	50	22	48	400	19
KBT50 HC FMH-K27 200 AD/AV	K10315935239539	50	27	50	200	21
KBT50 HC FMH-K27 250 AD/AV	K10315935182539	50	27	50	250	21
KBT50 HC FMH-K27 300 AD/AV	K10315935183539	50	27	50	300	21
KBT50 HC FMH-K27 350 AD/AV	K10315935184539	50	27	50	350	21
KBT50 HC FMH-K27 400 AD/AV	K10315935540539	50	27	50	400	21
KBT50 HC FMH-K32 200 AD/AV	K10315936239539	50	32	78	200	24
KBT50 HC FMH-K32 250 AD/AV	K10315936182539	50	32	78	250	24
KBT50 HC FMH-K32 300 AD/AV	K10315936183539	50	32	78	300	24
KBT50 HC FMH-K32 350 AD/AV	K10315936184539	50	32	78	350	24
KBT50 HC FMH-K32 400 AD/AV	K10315936540539	50	32	78	400	24
KBT50 HC FMH-K40 200 AD/AV	K10315937239539	50	40	88	200	27
KBT50 HC FMH-K40 250 AD/AV	K10315937182539	50	40	88	250	27
KBT50 HC FMH-K40 300 AD/AV	K10315937183539	50	40	88	300	27
KBT50 HC FMH-K40 350 AD/AV	K10315937184539	50	40	88	350	27
KBT50 HC FMH-K40 400 AD/AV	K10315937540539	50	40	88	400	27

Accessories:

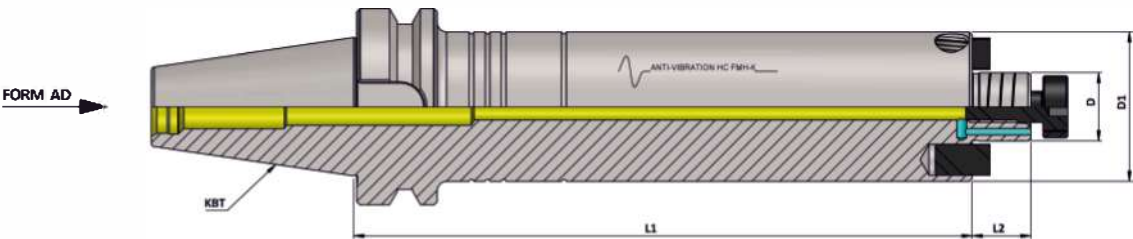


Key HC 5mm
Ref. Page No. 154

KBT (MAS 403) (DIN ISO 7388-2) Hydraulic Expansion Face mill Holder Anti-Vibration (HC-FMH-K AD/AV)



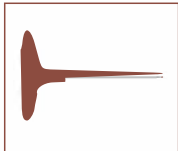
Maximum Run out of the External Dia with respect to the External Taper 0.010 mm



KBT (MAS 403) Hydraulic Expansion Face mill Holder (HC-FMH-K AD/AV)

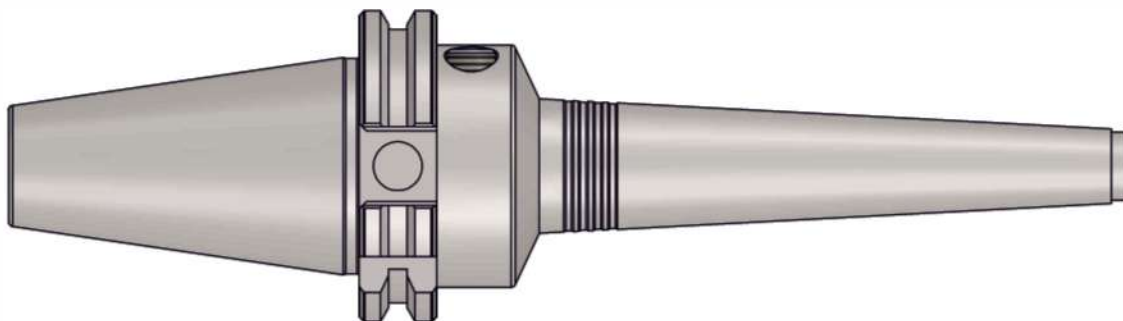
ITEM NAME	ITEM CODE	ISO	D	D1	L1	L2
KBT50 HC FMH-K1.0" 200 AD/AV	K10315974239539	50	1.0"	2.375"	200	0.687"
KBT50 HC FMH-K1.0" 250 AD/AV	K10315974182539	50	1.0"	2.375"	250	0.687"
KBT50 HC FMH-K1.0" 300 AD/AV	K10315974183539	50	1.0"	2.375"	300	0.687"
KBT50 HC FMH-K1.0" 350 AD/AV	K10315974184539	50	1.0"	2.375"	350	0.687"
KBT50 HC FMH-K1.0" 400 AD/AV	K10315974540539	50	1.0"	2.375"	400	0.687"
KBT50 HC FMH-K1 1/4" 200 AD/AV	K10315975239539	50	1 1/4"	2.875"	200	0.687"
KBT50 HC FMH-K1 1/4" 250 AD/AV	K10315975182539	50	1 1/4"	2.875"	250	0.687"
KBT50 HC FMH-K1 1/4" 300 AD/AV	K10315975183539	50	1 1/4"	2.875"	300	0.687"
KBT50 HC FMH-K1 1/4" 350 AD/AV	K10315975184539	50	1 1/4"	2.875"	350	0.687"
KBT50 HC FMH-K1 1/4" 400 AD/AV	K10315975540539	50	1 1/4"	2.875"	400	0.687"
KBT50 HC FMH-K1 1/2" 200 AD/AV	K10315976239539	50	1 1/2"	3.750"	200	0.938"
KBT50 HC FMH-K1 1/2" 250 AD/AV	K10315976182539	50	1 1/2"	3.750"	250	0.938"
KBT50 HC FMH-K1 1/2" 300 AD/AV	K10315976183539	50	1 1/2"	3.750"	300	0.938"
KBT50 HC FMH-K1 1/2" 350 AD/AV	K10315976184539	50	1 1/2"	3.750"	350	0.938"
KBT50 HC FMH-K1 1/2" 400 AD/AV	K10315976540539	50	1 1/2"	3.750"	400	0.938"

Accessories:

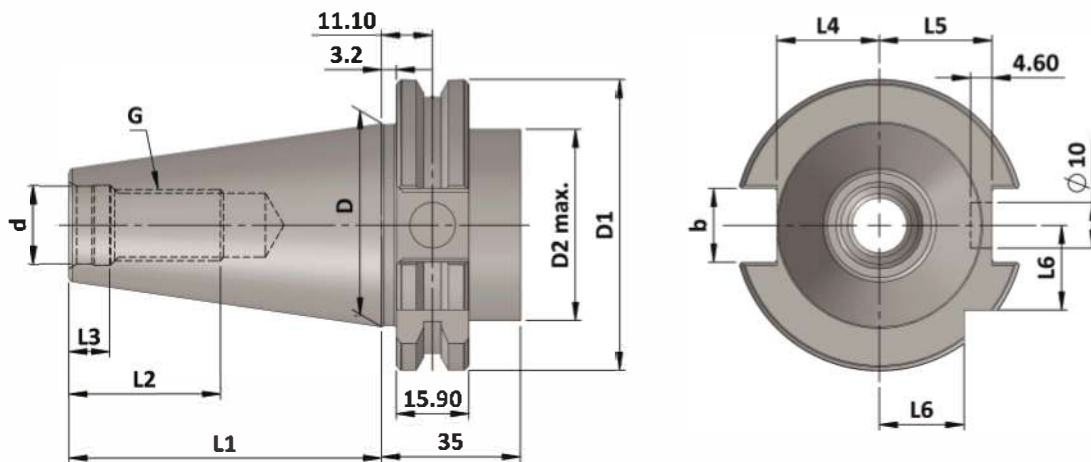


Key HC 5mm
Ref. Page No. 154

SK - DIN ISO 7388 - 1 (DIN 69871)



SK (DIN 69871) (DIN ISO 7388 - 1) Technical Information



SK	d	d1	D	D1	D2	e	b	G	L1	L2	L3	L4	L5	L6
30	13	4	31.75	50.00	45	21	16.1	M12	47.80	24	5.5	16.4	19.0	15.00
40	17	4	44.45	63.55	50	27	16.1	M16	68.40	32	8.2	22.80	25.0	18.50
50	25	6	69.85	97.50	80	42	25.7	M24	101.75	47	11.5	35.5	37.7	30.00

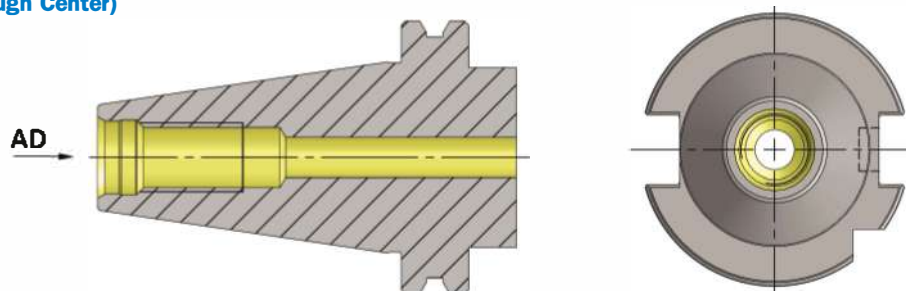
Material :- Case hardened steel, tensile strength in the core min. 950 N/mm²

Execution :- Case hardened to HRC 58 ± 2, Case Depth 0.8 mm., Silver finish.

Accuracy :- 7:24 Taper Angle Class AT 3 As per DIN 2080

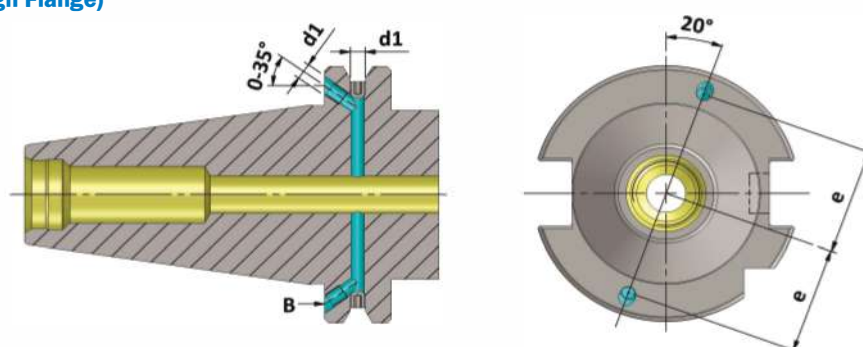
Old Name : SK (DIN 69871) AD

New Name : SK (DIN 69871) DIN ISO 7388- 1 AD
(Coolant Supply Through Center)



Old Name : SK (DIN 69871) AD+ B

New Name : SK (DIN 69871) DIN ISO 7388- 1 AD / AF
(Coolant Supply Through Flange)

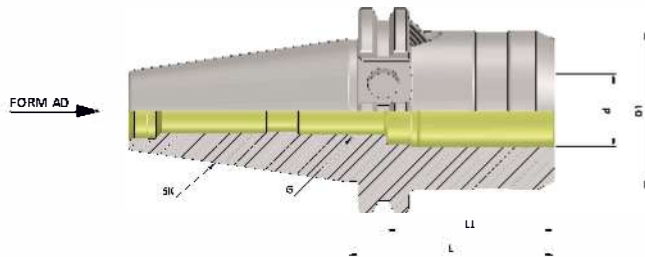


SK (DIN 69871) (DIN ISO 7388 - 1) Hydraulic Expansion Chuck

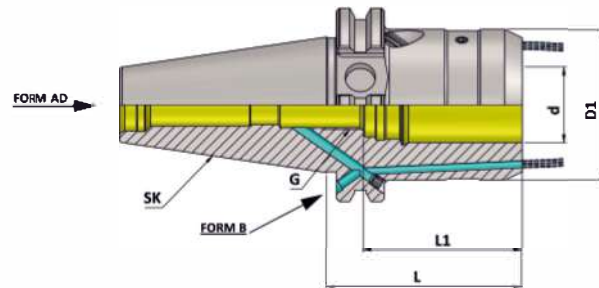


Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm

HEAVY DUTY



SK (DIN 69871) Hydraulic Expansion Chuck (AD)



SK (DIN 69871) Hydraulic Expansion Chuck (FCC - AD+B)

SK(DIN 69871) Hydraulic Expansion Chuck (AD)

(Balanced to 2.5 G 25000 RPM)

Item Name	Item Code	SK	d	D1	G	L	L1
SK40 HC12S 050 AD 2.5G 25000 SL	K10104629111282	40	12	42	M10	50	40
SK40 HC20S 64.5 AD 2.5G 25000 SL	K10104168122282	40	20	50	M16	64.5	42
SK50 HC12S 50.5 AD 2.5G 25000 SL	K10105629646282	50	12	42	M10	50.5	40
SK50 HC20S 64.5 AD 2.5G 25000 SL	K10105168122282	50	20	50	M16	64.5	42
SK50 HC32S 81.0 AD 2.5G 25000 SL	K10105272372282	50	32	72	M16	81	55

SK(DIN 69871) Hydraulic Expansion Chuck (FCC-AD+B) (AD/AF)

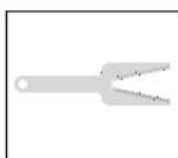
(Balanced to 2.5 G 25000 RPM)

Item Name	Item Code	SK	d	D1	G	L	L1
SK40 HC12S 050 FCC AD+B 2.5G 25000 SL	K10104629131230	40	12	42	M10	50	40
SK40 HC20S 64.5 FCC AD+B 2.5G 25000 SL	K10104168122140	40	20	50	M16	64.5	42
SK50 HC12S 50.5 FCC AD+B 2.5G 25000 SL	K10105629338255	50	12	42	M10	50.5	40
SK50 HC20S 64.5 FCC AD+B 2.5G 25000 SL	K10105168122230	50	20	50	M16	64.5	42
SK50 HC32S 81.0 FCC AD+B 2.5G 25000 SL	K10105272140140	50	32	72	M16	81	55

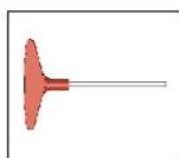
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No. 140-150



Spanner HC
Ref. Page No. 154

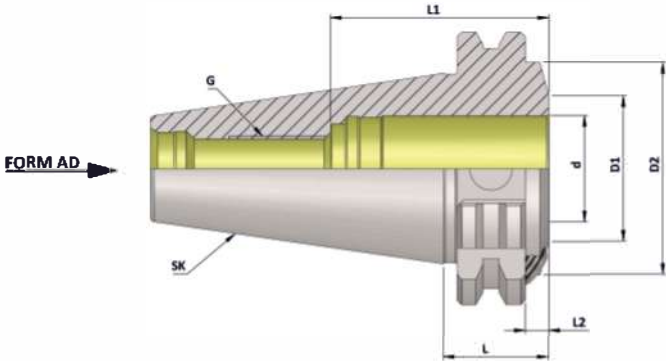


Key HC 5mm
Ref. Page No. 154

SK (DIN 69871) (DIN ISO 7388 - 1) (AD) Short GP Hydraulic Expansion Chuck



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm

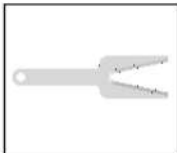


SK(DIN 69871) Hydraulic Expansion Chuck (Short GP)						(Balanced to 2.5 G 25000 RPM)				
Item Name	Item Code	SK	d	D1	D2	G	L	L1	L2	
SK40 HC20 24.60 SHORT G.P 2.5G 25000 SL	K10104637614281	40	20	34	49.5	M16	24.6	51	5.5	

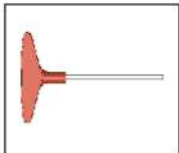
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No. 140-150



Spanner HC
Ref. Page No. 154

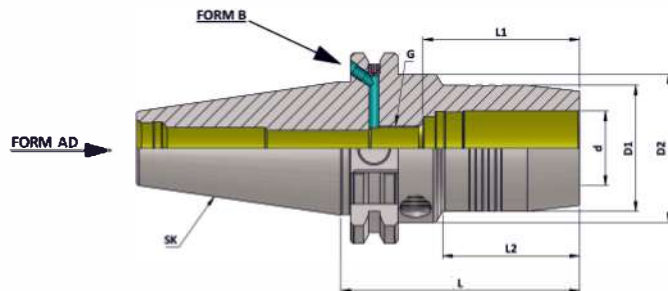


Key HC 5mm
Ref. Page No. 154

SK (DIN 69871) (DIN ISO 7388 - 1) (AD/AF) Hydraulic Expansion Chuck

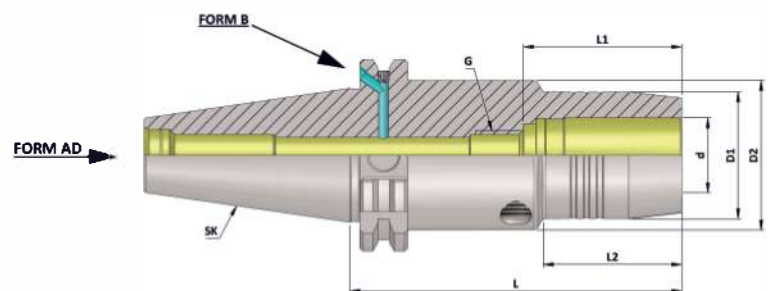


Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm



Standard GP

SK (DIN 69871) Hydraulic Expansion Chuck (AD+B)



Long GP

SK (DIN 69871) Hydraulic Expansion Chuck (AD+B)

SK(DIN 69871) Hydraulic Expansion Chuck (AD+B) (AD/AF)										(Balanced to 2.5 G 25000 RPM)
Item Name	Item Code	SK	d	D1	D2	G	L	L1	L2	
SK40 HC06 80.5 AD+B 2.5G 25000 SL	K10104642131280	40	6	26	49.5	M5	80.5	37	29.5	
SK40 HC06 110 AD+B 2.5G 25000 SL	K10104642156280	40	6	26	49.5	M5	110	37	29	
SK40 HC08 80.5 AD+B 2.5G 25000 SL	K10104643131280	40	8	28	49.5	M6	80.5	37	30	
SK40 HC08 110 AD+B 2.5G 25000 SL	K10104643156280	40	8	28	49.5	M6	110	37	30	
SK40 HC10 80.5 AD+B 2.5G 25000 SL	K10104644131280	40	10	30	49.5	M8	80.5	41	35	
SK40 HC10 110 AD+B 2.5G 25000 SL	K10104644156280	40	10	30	49.5	M8	110	41	35	
SK40 HC12 80.5 AD+B 2.5G 25000 SL	K10104636131276	40	12	32	49.5	M10	80.5	46	40	
SK40 HC12 110 AD+B 2.5G 25000 SL	K10104636156276	40	12	32	49.5	M10	110	46	40	
SK40 HC14 80.5 AD+B 2.5G 25000 SL	K10104645131280	40	14	34	49.5	M10	80.5	46	40	
SK40 HC14 110 AD+B 2.5G 25000 SL	K10104645156280	40	14	34	49.5	M10	110	46	40	
SK40 HC16 80.5 AD+B 2.5G 25000 SL	K10104646131280	40	16	38	49.5	M12	80.5	49	45	
SK40 HC16 110 AD+B 2.5G 25000 SL	K10104646156280	40	16	38	49.5	M12	110	49	45	
SK40 HC18 80.5 AD+B 2.5G 25000 SL	K10104647131280	40	18	40	49.5	M12	80.5	49	46	
SK40 HC18 110 AD+B 2.5G 25000 SL	K10104647156280	40	18	40	49.5	M12	110	49	46	
SK40 HC20 80.5 AD+B 2.5G 25000 SL	K10104637131276	40	20	42	49.5	M16	80.5	51	47	
SK40 HC20 110 AD+B 2.5G 25000 SL	K10104637156276	40	20	42	49.5	M16	110	51	47	
SK40 HC25 095 AD+B 2.5G 25000 SL	K10104648145280	40	25	55	63	M16	95	57	28	
SK40 HC25 110 AD+B 2.5G 25000 SL	K10104648156280	40	25	55	63	M16	110	57	28	
SK40 HC32 095 AD+B 2.5G 25000 SL	K10104638145276	40	32	63	70	M16	95	61	25.5	
SK40 HC32 110 AD+B 2.5G 25000 SL	K10104638156276	40	32	63	59	M16	110	61	59	

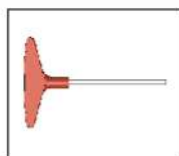
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No. 140-150



Spanner HC
Ref. Page No. 154

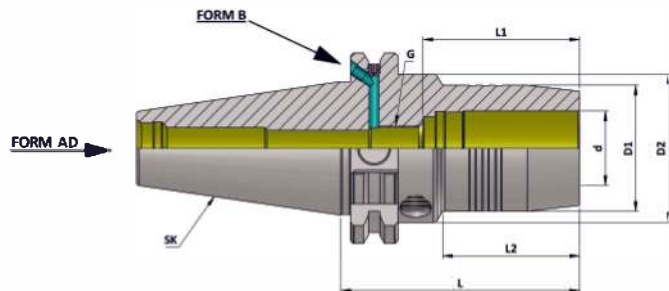


Key HC 5mm
Ref. Page No. 154

SK (DIN 69871) (DIN ISO 7388 - 1) (AD/AF) Hydraulic Expansion Chuck

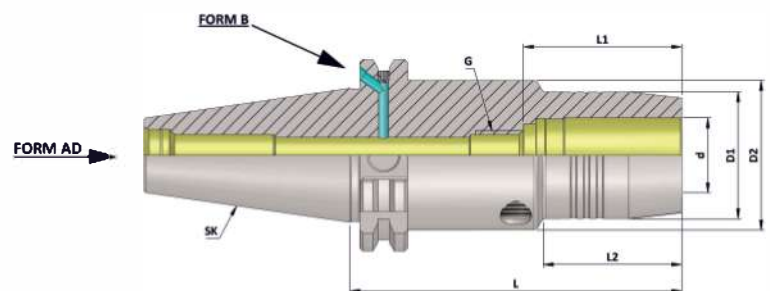


Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm



Standard GP

SK (DIN 69871) Hydraulic Expansion Chuck (AD+B)



Long GP

SK (DIN 69871) Hydraulic Expansion Chuck (AD+B)

SK(DIN 69871) Hydraulic Expansion Chuck (AD+B) (AD/AF)										(Balanced to 2.5 G 25000 RPM)
Item Name	Item Code	SK	d	D1	D2	G	L	L1	L2	
SK50 HC06 80.5 AD+B 2.5G 25000 SL	K10105642131280	50	6	26	49.5	M5	80.5	37	29.5	
SK50 HC06 110 AD+B 2.5G 25000 SL	K10105642156280	50	6	26	49.5	M5	110	37	29	
SK50 HC08 80.5 AD+B 2.5G 25000 SL	K10105643131280	50	8	28	49.5	M6	80.5	37	30	
SK50 HC08 110 AD+B 2.5G 25000 SL	K10105643156280	50	8	28	49.5	M6	110	37	30	
SK50 HC10 80.5 AD+B 2.5G 25000 SL	K10105644131280	50	10	30	49.5	M8	80.5	41	35	
SK50 HC10 110 AD+B 2.5G 25000 SL	K10105644156280	50	10	30	49.5	M8	110	41	35	
SK50 HC12 80.5 AD+B 2.5G 25000 SL	K10105636131276	50	12	32	49.5	M10	80.5	46	40	
SK50 HC12 110 AD+B 2.5G 25000 SL	K10105636156276	50	12	32	49.5	M10	110	46	40	
SK50 HC14 80.5 AD+B 2.5G 25000 SL	K10105645131280	50	14	34	49.5	M10	80.5	46	40	
SK50 HC14 110 AD+B 2.5G 25000 SL	K10105645156280	50	14	34	49.5	M10	110	46	40	
SK50 HC16 80.5 AD+B 2.5G 25000 SL	K10105646131280	50	16	38	49.5	M12	80.5	49	45	
SK50 HC16 110 AD+B 2.5G 25000 SL	K10105646156280	50	16	38	49.5	M12	110	49	45	
SK50 HC18 80.5 AD+B 2.5G 25000 SL	K10105647131280	50	18	40	49.5	M12	80.5	49	46	
SK50 HC18 110 AD+B 2.5G 25000 SL	K10105647156280	50	18	40	49.5	M12	110	49	46	
SK50 HC20 80.5 AD+B 2.5G 25000 SL	K10105637131276	50	20	42	49.5	M16	80.5	51	42	
SK50 HC20 110 AD+B 2.5G 25000 SL	K10105637156276	50	20	42	49.5	M16	110	51	42	
SK50 HC25 100 AD+B 2.5G 25000 SL	K10105648148280	50	25	55	63	M16	100	57	48	
SK50 HC25 110 AD+B 2.5G 25000 SL	K10105648162280	50	25	55	63	M16	110	57	48	
SK50 HC32 100 AD+B 2.5G 25000 SL	K10105638148276	50	32	63	70	M16	100	61	61	
SK50 HC32 110 AD+B 2.5G 25000 SL	K10105638162276	50	32	63	70	M16	110	61	61	

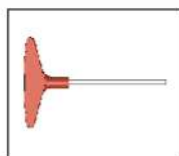
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No. 140-150



Spanner HC
Ref. Page No. 154

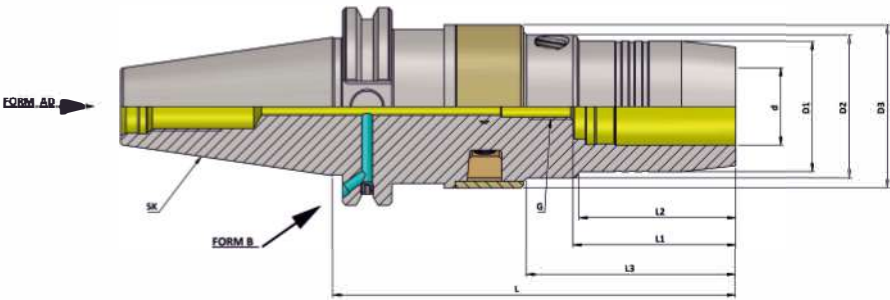


Key HC 5mm
Ref. Page No. 154

SK (DIN 69871) (DIN ISO 7388-1) Hydraulic Expansion Chuck With Run Out Adjustment



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm

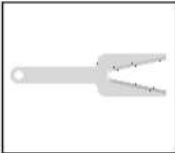


SK (DIN 69871) Hydraulic Expansion Chuck Run Out Adjustment											(Balanced to 2.5 G 25000 RPM)	
ITEM NAME	ITEM CODE	SK	d	D1	D2	D3	G	L	L1	L2	L3	
SK40 HC20 130 AD+B/RA 2.5G 25000 SL	K10104637156534	40	20	42	46	52.5	M8	130	51	50	67.5	
Sk40 HC32 150 AD+B/RA 2.5G 25000 SL	K10104638173534	40	32	42	46	52.5	M8	150	51	50	67.5	
SK50 HC20 110 AD+B/RA 2.5G 25000 SL	K10105637156534	50	20	42	46	52.5	M8	110	51	50	67.5	
SK50 HC32 125 AD+B/RA 2.5G 25000 SL	K10105638164534	50	32	42	46	52.5	M8	125	51	50	67.5	

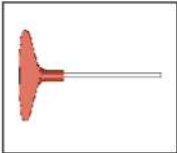
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No. 140-150



Spanner HC
Ref. Page No. 154

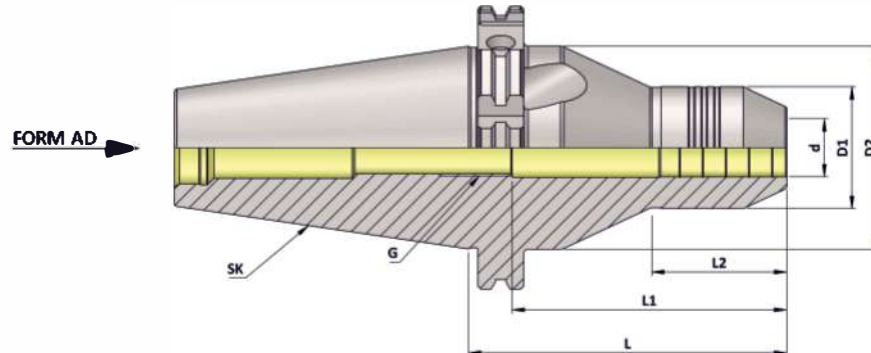


Key HC 5mm
Ref. Page No. 154

SK (DIN 69871) (DIN ISO 7388 - 1) (AD) Hydraulic Expansion Chuck For TOOL & CUTTER CNC Grinding Machines



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm



SK(DIN 69871) Hydraulic Expansion Chuck (AD)

(Balanced to 2.5 G 25000 RPM)

Item Name	Item Code	SK	d	D1	D2	G	L	L1	L2
SK50 HC06 110 (TOOL & CUTTER) AD 2.5G 25000 SL	K10105642629282	50	6	32	60	M5	110	43	45
SK50 HC08 110 (TOOL & CUTTER) AD 2.5G 25000 SL	K10105643629282	50	8	33.5	60	M6	110	43	50
SK50 HC10 110 (TOOL & CUTTER) AD 2.5G 25000 SL	K10105644629282	50	10	35	60	M8	110	43	50
SK50 HC12 110 (TOOL & CUTTER) AD 2.5G 25000 SL	K10105636629282	50	12	36.5	60	M10	110	50	55
SK50 HC14 110 (TOOL & CUTTER) AD 2.5G 25000 SL	K10105645629282	50	14	38	60	M10	110	50	60
SK50 HC16 110 (TOOL & CUTTER) AD 2.5G 25000 SL	K10105646629282	50	16	39.5	60	M12	110	53	60
SK50 HC18 110 (TOOL & CUTTER) AD 2.5G 25000 SL	K10105647629282	50	18	41	60	M12	110	53	60
SK50 HC20 110 (TOOL & CUTTER) AD 2.5G 25000 SL	K10105637629282	50	20	42	70	M16	110	95	41
SK50 HC25 110 (TOOL & CUTTER) AD 2.5G 25000 SL	K10105648629282	50	25	47	70	M16	110	95	40
SK50 HC32 110 (TOOL & CUTTER) AD 2.5G 25000 SL	K10105638629282	50	32	54	70	M16	110	95	56

SK50 HC3/4"110 (TOOL&CUTTER) AD/2.5G 25000 SL	K10105653629282	50	3/4"	42	70	M16	110	95	41
SK50 HC1-1/4"110 (TOOL&CUTTER) AD/2.5G 25000 SL	K10105655629282	50	1-1/4"	54	70	M16	110	95	56

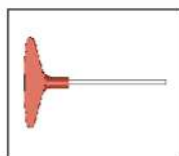
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No. 140-150



Spanner HC
Ref. Page No. 154

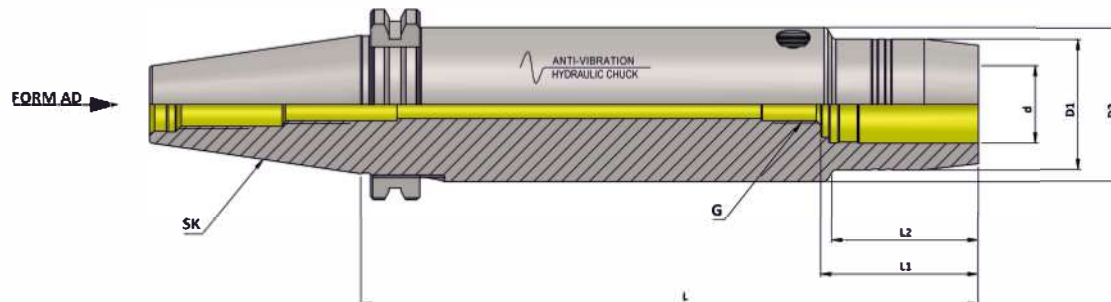


Key HC 4mm
Ref. Page No. 154

SK (DIN 69871) (DIN ISO 7388-1) Hydraulic Expansion Chuck Anti - Vibration (HC-AD/AV)



Maximum Run out of the Internal Dia with respect to the External Taper 0.010 mm



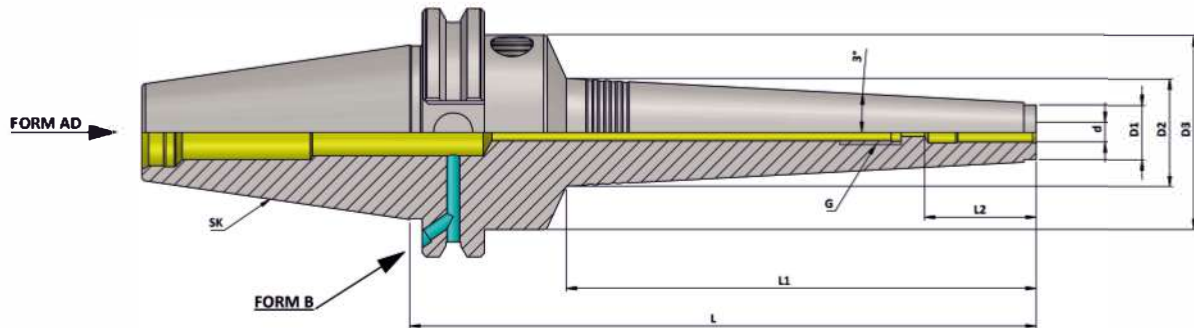
SK (DIN 69871) Hydraulic Expansion Chuck Anti - Vibration (HC-AD/AV)

ITEM NAME	ITEM CODE	SK	d	D1	D2	G	L	L1	L2
SK40 HC20 200 AD/AV	K10104637239535	40	20	42	49.5	M16	200	51	47
SK40 HC20 250 AD/AV	K10104637182539	40	20	42	49.5	M16	250	51	47
SK40 HC20 300 AD/AV	K10104637183535	40	20	42	49.5	M16	300	51	47
SK40 HC25 200 AD/AV	K10104648239539	40	25	52	55	M16	200	57	50
SK40 HC25 250 AD/AV	K10104648182539	40	25	52	55	M16	250	57	50
SK40 HC25 300 AD/AV	K10104648183539	40	25	52	55	M16	300	57	50
SK40 HC32 200 AD/AV	K10104638239539	40	32	62	63	M16	200	61	48
SK40 HC32 250 AD/AV	K10104638182539	40	32	62	63	M16	250	61	48
SK40 HC32 300 AD/AV	K10104638183539	40	32	62	63	M16	300	61	48
SK50 HC20 200 AD/AV	K10105637239535	50	20	42	49.5	M16	200	51	42
SK50 HC20 250 AD/AV	K10105637182539	50	20	42	49.5	M16	250	51	42
SK50 HC20 300 AD/AV	K10105637183535	50	20	42	49.5	M16	300	51	42
SK50 HC20 350 AD/AV	K10105637184539	50	20	42	49.5	M16	350	51	42
SK50 HC20 400 AD/AV	K10105637540535	50	20	42	49.5	M16	400	51	42
SK50 HC25 200 AD/AV	K10105648239539	50	25	52	55	M16	200	57	50
SK50 HC25 250 AD/AV	K10105648182539	50	25	52	55	M16	250	57	50
SK50 HC25 300 AD/AV	K10105648183539	50	25	52	55	M16	300	57	50
SK50 HC25 350 AD/AV	K10105648184539	50	25	52	55	M16	350	57	50
SK50 HC25 400 AD/AV	K10105648540539	50	25	52	55	M16	400	57	50
SK50 HC32 200 AD/AV	K10105638239539	50	32	62	63	M16	200	61	48
SK50 HC32 250 AD/AV	K10105638182539	50	32	62	63	M16	250	61	48
SK50 HC32 300 AD/AV	K10105638183539	50	32	62	63	M16	300	61	48
SK50 HC32 350 AD/AV	K10105638184539	50	32	62	63	M16	350	61	48
SK50 HC32 400 AD/AV	K10105638540539	50	32	62	63	M16	400	61	48

SK (DIN 69871) (DIN ISO 7388 - 1) (AD/AF) Hydraulic Expansion Chuck Slim 3 Degree



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm



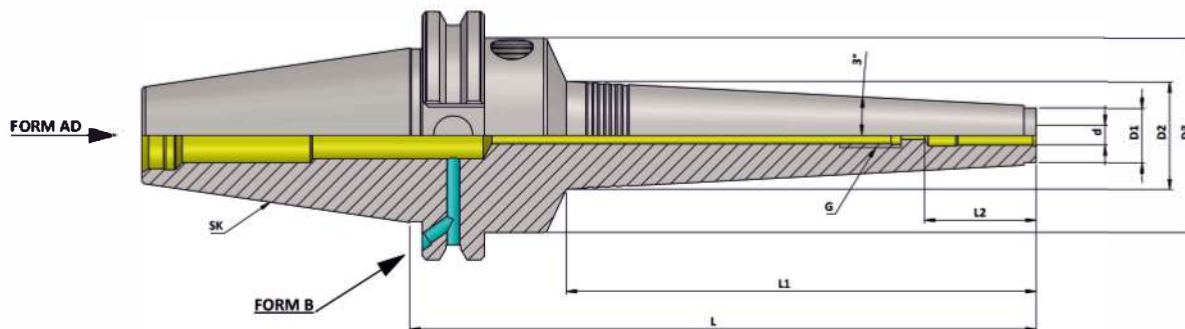
SK(DIN 69871) Hydraulic Expansion Chuck Slim

Item Code	Item Code											
SK40 HC03 075 SLIM AD+B/2.5G 25000 SL	K10104707127259	40	3	11	14.0	46	—	75	28	28		
SK40 HC03 090 SLIM AD+B/2.5G 25000 SL	K10104707140259	40	3	11	14.9	46	—	90	37	28		
SK40 HC03 135 SLIM AD+B/2.5G 25000 SL	K10104707166259	40	3	11	19.9	46	—	135	84	28		
SK40 HC04 075 SLIM AD+B/2.5G 25000 SL	K10104708127259	40	4	11	14.0	46	—	75	28	28		
SK40 HC04 090 SLIM AD+B/2.5G 25000 SL	K10104708140259	40	4	11	14.9	46	—	90	37	28		
SK40 HC04 135 SLIM AD+B/2.5G 25000 SL	K10104708166259	40	4	11	19.9	46	—	135	84	28		
SK40 HC05 075 SLIM AD+B/2.5G 25000 SL	K10104709127259	40	5	12	14.9	46	—	75	28	28		
SK40 HC05 090 SLIM AD+B/2.5G 25000 SL	K10104709140259	40	5	12	15.9	46	—	90	37	28		
SK40 HC05 135 SLIM AD+B/2.5G 25000 SL	K10104709166259	40	5	12	20.8	46	—	135	84	28		
SK40 HC06 090 SLIM AD+B/2.5G 25000 SL	K10104642140259	40	6	13	17.0	46	M5	90	38	37		
SK40 HC06 135 SLIM AD+B/2.5G 25000 SL	K10104642166259	40	6	13	21.9	46	M5	135	84	37		
SK40 HC06 150 SLIM AD+B/2.5G 25000 SL	K10104642173259	40	6	13	23.4	46	M5	150	99	37		
SK40 HC06 165 SLIM AD+B/2.5G 25000 SL	K10104642956259	40	6	13	25.0	46	M5	165	114	37		
SK40 HC06 180 SLIM AD+B/2.5G 25000 SL	K10104642178259	40	6	13	26.7	46	M5	180	130	37		
SK40 HC08 090 SLIM AD+B/2.5G 25000 SL	K10104643140259	40	8	15	19.0	46	M6	90	38	37		
SK40 HC08 135 SLIM AD+B/2.5G 25000 SL	K10104643166259	40	8	15	23.9	46	M6	135	84	37		
SK40 HC08 150 SLIM AD+B/2.5G 25000 SL	K10104643173259	40	8	15	25.4	46	M6	150	99	37		
SK40 HC08 165 SLIM AD+B/2.5G 25000 SL	K10104643956259	40	8	15	27.0	46	M6	165	114	37		
SK40 HC08 180 SLIM AD+B/2.5G 25000 SL	K10104643178259	40	8	15	28.7	46	M6	180	130	37		
SK40 HC10 105 SLIM AD+B/2.5G 25000 SL	K10104644152259	40	10	17	22.6	46	M8	105	53	41		
SK40 HC10 135 SLIM AD+B/2.5G 25000 SL	K10104644166259	40	10	17	25.9	46	M8	135	84	41		
SK40 HC10 150 SLIM AD+B/2.5G 25000 SL	K10104644173259	40	10	17	27.4	46	M8	150	99	41		
SK40 HC10 165 SLIM AD+B/2.5G 25000 SL	K10104644956259	40	10	17	29.0	46	M8	165	114	41		
SK40 HC10 180 SLIM AD+B/2.5G 25000 SL	K10104644178259	40	10	17	30.7	46	M8	180	130	41		
SK40 HC12 105 SLIM AD+B/2.5G 25000 SL	K10104636152259	40	12	19	24.6	46	M8	105	53	46		
SK40 HC12 135 SLIM AD+B/2.5G 25000 SL	K10104636166259	40	12	19	27.9	46	M8	135	84	46		
SK40 HC12 150 SLIM AD+B/2.5G 25000 SL	K10104636173259	40	12	19	29.4	46	M8	150	99	46		
SK40 HC12 165 SLIM AD+B/2.5G 25000 SL	K10104636956259	40	12	19	31.0	46	M8	165	114	46		
SK40 HC12 180 SLIM AD+B/2.5G 25000 SL	K10104636178259	40	12	19	32.7	46	M8	180	130	46		

SK (DIN 69871) (DIN ISO 7388 - 1) (AD/AF) Hydraulic Expansion Chuck Slim 3 Degree



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm

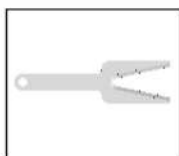


SK(DIN 69871) Hydraulic Expansion Chuck Slim 3 Degree (AD+B) (AD/AF)							(Balanced to 2.5 G 25000 RPM)				
Item Name	Item Code	SK	d	D1	D2	D3	G	L	L1	L2	
SK40 HC14 135 SLIM AD+B/2.5G 25000 SL	K10104645166259	40	14	21	29.8	52.5	M10	135	84	46	
SK40 HC14 165 SLIM AD+B/2.5G 25000 SL	K10104645956259	40	14	21	32.9	52.5	M10	165	114	46	
SK40 HC14 180 SLIM AD+B/2.5G 25000 SL	K10104645178259	40	14	21	34.5	52.5	M10	180	129	46	
SK40 HC16 135 SLIM AD+B/2.5G 25000 SL	K10104646166259	40	16	23	31.9	52.5	M12	135	84	49	
SK40 HC16 165 SLIM AD+B/2.5G 25000 SL	K10104646956259	40	16	23	35.0	52.5	M12	165	114	49	
SK40 HC16 180 SLIM AD+B/2.5G 25000 SL	K10104646178259	40	16	23	36.6	52.5	M12	180	129	49	
SK40 HC18 135 SLIM AD+B/2.5G 25000 SL	K10104647166259	40	18	26	34.8	60	M12	135	84	49	
SK40 HC18 165 SLIM AD+B/2.5G 25000 SL	K10104647956259	40	18	26	37.9	60	M12	165	114	49	
SK40 HC18 180 SLIM AD+B/2.5G 25000 SL	K10104647178259	40	18	26	39.5	60	M12	180	129	49	
SK40 HC20 135 SLIM AD+B/2.5G 25000 SL	K10104637166259	40	20	28	36.9	60	M16	135	84	51	
SK40 HC20 165 SLIM AD+B/2.5G 25000 SL	K10104637956259	40	20	28	40.0	60	M16	165	114	51	
SK40 HC20 180 SLIM AD+B/2.5G 25000 SL	K10104637178259	40	20	28	41.6	60	M16	180	129	51	
SK40 HC25 135 SLIM AD+B/2.5G 25000 SL	K10104648166259	40	25	37	45.9	60	M16	135	84	51	
SK40 HC25 165 SLIM AD+B/2.5G 25000 SL	K10104648956259	40	25	37	49.0	60	M16	165	114	51	
SK40 HC25 180 SLIM AD+B/2.5G 25000 SL	K10104648178259	40	25	37	50.6	60	M16	180	129	51	

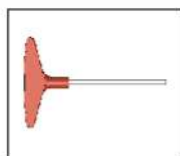
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No. 140-150



Spanner HC
Ref. Page No. 154

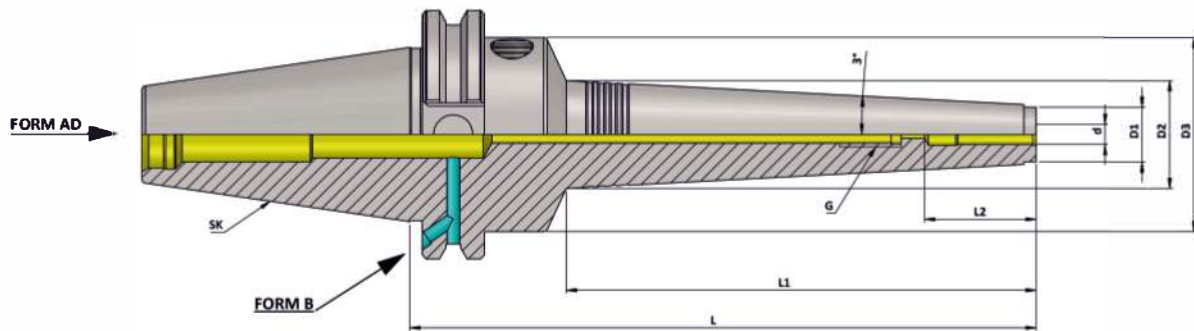


Key HC 5mm
Ref. Page No. 154

SK (DIN 69871) (DIN ISO 7388 - 1) (AD/AF) Hydraulic Expansion Chuck Slim 3 Degree



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm



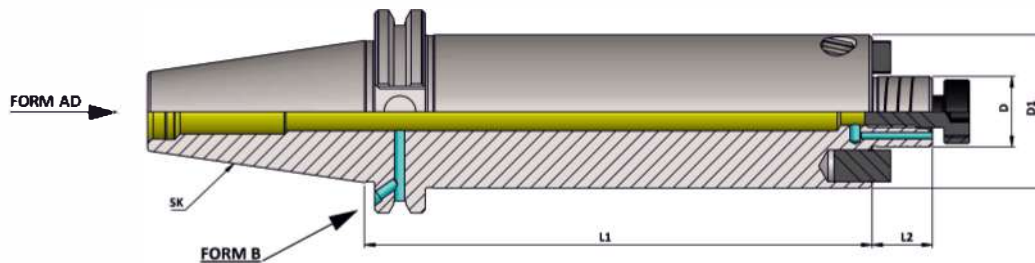
SK(DIN 69871) Hydraulic Expansion Chuck Slim

Item	Part	Item	Part	Item	Part	Item	Part	Item	Part	Item	Part	Item	Part
SK50 HC06 105 SLIM AD+B/2.5G 25000 SL	K10105642152259	50	6	13	17.0	46	M5	105	38	37			
SK50 HC06 150 SLIM AD+B/2.5G 25000 SL	K10105642173259	50	6	13	21.9	46	M5	150	84	37			
SK50 HC06 165 SLIM AD+B/2.5G 25000 SL	K10105642956259	50	6	13	23.4	46	M5	165	99	37			
SK50 HC06 180 SLIM AD+B/2.5G 25000 SL	K10105642178259	50	6	13	25.0	46	M5	180	114	37			
SK50 HC06 195 SLIM AD+B/2.5G 25000 SL	K10105642957259	50	6	13	26.7	46	M5	195	130	37			
SK50 HC08 105 SLIM AD+B/2.5G 25000 SL	K10105643152259	50	8	15	19.0	46	M6	105	38	37			
SK50 HC08 150 SLIM AD+B/2.5G 25000 SL	K10105643173259	50	8	15	23.9	46	M6	150	84	37			
SK50 HC08 165 SLIM AD+B/2.5G 25000 SL	K10105643956259	50	8	15	25.4	46	M6	165	99	37			
SK50 HC08 180 SLIM AD+B/2.5G 25000 SL	K10105643178259	50	8	15	27.0	46	M6	180	114	37			
SK50 HC08 195 SLIM AD+B/2.5G 25000 SL	K10105643957259	50	8	15	28.7	46	M6	195	130	37			
SK50 HC10 150 SLIM AD+B/2.5G 25000 SL	K10105644173259	50	10	17	25.9	46	M8	150	84	41			
SK50 HC10 165 SLIM AD+B/2.5G 25000 SL	K10105644956259	50	10	17	27.4	46	M8	165	99	41			
SK50 HC10 180 SLIM AD+B/2.5G 25000 SL	K10105644178259	50	10	17	29.0	46	M8	180	114	41			
SK50 HC10 195 SLIM AD+B/2.5G 25000 SL	K10105644957259	50	10	17	30.7	46	M8	195	130	41			
SK50 HC12 150 SLIM AD+B/2.5G 25000 SL	K10105636173259	50	12	19	27.9	46	M10	150	84	46			
SK50 HC12 165 SLIM AD+B/2.5G 25000 SL	K10105636956259	50	12	19	29.4	46	M10	165	99	46			
SK50 HC12 180 SLIM AD+B/2.5G 25000 SL	K10105636178259	50	12	19	31.0	46	M10	180	114	46			
SK50 HC12 195 SLIM AD+B/2.5G 25000 SL	K10105636957259	50	12	19	32.7	46	M10	195	130	46			
SK50 HC14 150 SLIM AD+B/2.5G 25000 SL	K10105645173259	50	14	21	31.4	52.5	M10	150	99	46			
SK50 HC14 180 SLIM AD+B/2.5G 25000 SL	K10105645178259	50	14	21	32.9	52.5	M10	180	114	46			
SK50 HC14 195 SLIM AD+B/2.5G 25000 SL	K10105645957259	50	14	21	34.5	52.5	M10	195	129	46			
SK50 HC16 150 SLIM AD+B/2.5G 25000 SL	K10105646173259	50	16	23	31.9	52.5	M12	150	84	49			
SK50 HC16 180 SLIM AD+B/2.5G 25000 SL	K10105646178259	50	16	23	35.0	52.5	M12	180	114	49			
SK50 HC16 195 SLIM AD+B/2.5G 25000 SL	K10105646957259	50	16	23	36.6	52.5	M12	195	129	49			
SK50 HC18 150 SLIM AD+B/2.5G 25000 SL	K10105647173259	50	18	26	34.8	60	M12	150	84	49			
SK50 HC18 180 SLIM AD+B/2.5G 25000 SL	K10105647178259	50	18	26	37.9	60	M12	180	114	49			
SK50 HC18 195 SLIM AD+B/2.5G 25000 SL	K10105647957259	50	18	26	39.5	60	M12	195	129	49			
SK50 HC20 150 SLIM AD+B/2.5G 25000 SL	K10105637173259	50	20	28	36.9	60	M16	150	84	51			
SK50 HC20 180 SLIM AD+B/2.5G 25000 SL	K10105637178259	50	20	28	40.0	60	M16	180	114	51			
SK50 HC20 195 SLIM AD+B/2.5G 25000 SL	K10105637957259	50	20	28	41.6	60	M16	195	129	51			
SK50 HC25 150 SLIM AD+B/2.5G 25000 SL	K10105648173259	50	25	37	45.9	60	M16	150	84	51			
SK50 HC25 180 SLIM AD+B/2.5G 25000 SL	K10105648178259	50	25	37	49.0	60	M16	180	114	51			
SK50 HC25 195 SLIM AD+B/2.5G 25000 SL	K10105648957259	50	25	37	50.6	60	M16	195	129	51			

SK (DIN 69871) (DIN ISO 7388-1) (AD/AF) Hydraulic Expansion Face Mill Holder (HC-FMH-K)



Maximum Run out of the External Dia with respect to the External Taper 0.005mm



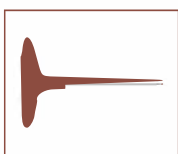
SK (DIN 69871) Hydraulic Expansion Face Mill Holder (HC-FMH-K)

(Balanced to 2.5 G 25000 RPM)

Item Name	Item Code	SK	D	D1	L1	L2
SK40 HC FMH-K22 045 AD+B 2.5G 25000 SL	K10104934108282	40	22	48	45	19
SK40 HC FMH-K22 100 AD+B/2.5G 25000 SL	K10104934148230	40	22	48	100	19
SK40 HC FMH-K22 160 AD+B/2.5G 25000 SL	K10104934175230	40	22	48	160	19
SK40 HC FMH-K27 050 AD+B 2.5G 25000 SL	K10104935111282	40	27	50	50	21
SK40 HC FMH-K27 100 AD+B/2.5G 25000 SL	K10104935148230	40	27	50	100	21
SK40 HC FMH-K27 160 AD+B/2.5G 25000 SL	K10104935175230	40	27	50	160	21
SK40 HC FMH-K32 055 AD+B 2.5G 25000 SL	K10104936115282	40	32	78	55	24
SK40 HC FMH-K32 100 AD+B/2.5G 25000 SL	K10104936148230	40	32	78	100	24
SK40 HC FMH-K32 160 AD+B/2.5G 25000 SL	K10104936175230	40	32	78	160	24
SK40 HC FMH-K40 055 AD+B 2.5G 25000 SL	K10104937115230	40	40	88	55	27
SK40 HC FMH-K40 100 AD+B/2.5G 25000 SL	K10104937148230	40	40	88	100	27
SK40 HC FMH-K40 160 AD+B/2.5G 25000 SL	K10104937175230	40	40	88	160	27

SK50 HC FMH-K22 045 AD+B/2.5G 25000 SL	K10105934108230	50	22	48	45	19
SK50 HC FMH-K22 100 AD+B/2.5G 25000 SL	K10105934148230	50	22	48	100	19
SK50 HC FMH-K22 160 AD+B/2.5G 25000 SL	K10105934175230	50	22	48	160	19
SK50 HC FMH-K27 045 AD+B/2.5G 25000 SL	K10105935108230	50	27	50	45	21
SK50 HC FMH-K27 100 AD+B/2.5G 25000 SL	K10105935148230	50	27	50	100	21
SK50 HC FMH-K27 160 AD+B/2.5G 25000 SL	K10105935175230	50	27	50	160	21
SK50 HC FMH-K32 050 AD+B/2.5G 25000 SL	K10105936111230	50	32	78	50	24
SK50 HC FMH-K32 100 AD+B/2.5G 25000 SL	K10105936148230	50	32	78	100	24
SK50 HC FMH-K32 160 AD+B/2.5G 25000 SL	K10105936175230	50	32	78	160	24
SK50 HC FMH-K40 055 AD+B/2.5G 25000 SL	K10105937115230	50	40	88	55	27
SK50 HC FMH-K40 100 AD+B/2.5G 25000 SL	K10105937148230	50	40	88	100	27
SK50 HC FMH-K40 160 AD+B/2.5G 25000 SL	K10105937175230	50	40	88	160	27

Accessories:

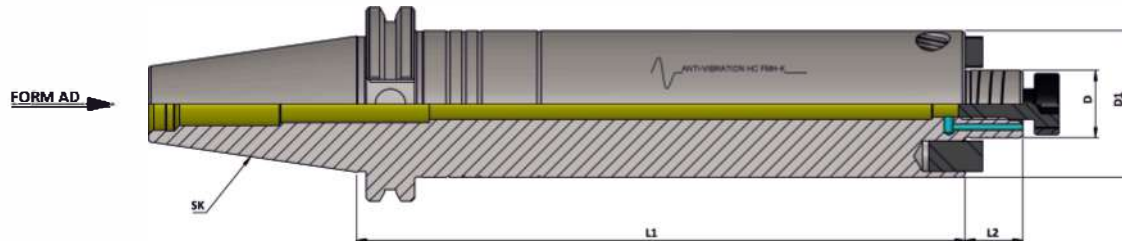


Key HC 5mm
Ref. Page No. 154

SK (DIN 69871) (DIN ISO 7388-1) Hydraulic Expansion Face Mill Holder Anti-Vibration (HC-FMH-K AD/AV)



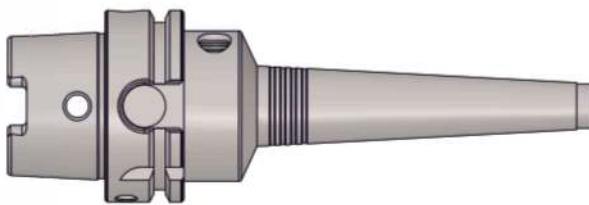
Maximum Run out of the External Dia with respect to the External Taper 0.010 mm



SK (DIN 69871) Hydraulic Expansion Face Mill Holder (HC-FMH-K AD/AV)

Item Name	Item Code	SK	D	D1	L1	L2
SK40 HC FMH-K22 200 AD/AV	K10104934239539	40	22	48	200	19
SK40 HC FMH-K22 250 AD/AV	K10104934182539	40	22	48	250	19
SK40 HC FMH-K22 300 AD/AV	K10104934183539	40	22	48	300	19
SK40 HC FMH-K27 200 AD/AV	K10104935239539	40	27	50	200	21
SK40 HC FMH-K27 250 AD/AV	K10104935182539	40	27	50	250	21
SK40 HC FMH-K27 300 AD/AV	K10104935183539	40	27	50	300	21
SK40 HC FMH-K32 200 AD/AV	K10104936239539	40	32	78	200	24
SK40 HC FMH-K32 250 AD/AV	K10104936182539	40	32	78	250	24
SK40 HC FMH-K32 300 AD/AV	K10104936183539	40	32	78	300	24
SK40 HC FMH-K40 200 AD/AV	K10104937239539	40	40	88	200	27
SK40 HC FMH-K40 250 AD/AV	K10104937182539	40	40	88	250	27
SK40 HC FMH-K40 300 AD/AV	K10104937183539	40	40	88	300	27
SK50 HC FMH-K22 200 AD/AV	K10105934239539	50	22	48	200	19
SK50 HC FMH-K22 250 AD/AV	K10105934182539	50	22	48	250	19
SK50 HC FMH-K22 300 AD/AV	K10105934183539	50	22	48	300	19
SK50 HC FMH-K22 350 AD/AV	K10105934184539	50	22	48	350	19
SK50 HC FMH-K22 400 AD/AV	K10105934540539	50	22	48	400	19
SK50 HC FMH-K27 200 AD/AV	K10105935239539	50	27	50	200	21
SK50 HC FMH-K27 250 AD/AV	K10105935182539	50	27	50	250	21
SK50 HC FMH-K27 300 AD/AV	K10105935183539	50	27	50	300	21
SK50 HC FMH-K27 350 AD/AV	K10105935184539	50	27	50	350	21
SK50 HC FMH-K27 400 AD/AV	K10105935540539	50	27	50	400	21
SK50 HC FMH-K32 200 AD/AV	K10105936239539	50	32	78	200	24
SK50 HC FMH-K32 250 AD/AV	K10105936182539	50	32	78	250	24
SK50 HC FMH-K32 300 AD/AV	K10105936183539	50	32	78	300	24
SK50 HC FMH-K32 350 AD/AV	K10105936184539	50	32	78	350	24
SK50 HC FMH-K32 400 AD/AV	K10105936540539	50	32	78	400	24
SK50 HC FMH-K40 200 AD/AV	K10105937239539	50	40	88	200	27
SK50 HC FMH-K40 250 AD/AV	K10105937182539	50	40	88	250	27
SK50 HC FMH-K40 300 AD/AV	K10105937183539	50	40	88	300	27
SK50 HC FMH-K40 350 AD/AV	K10105937184539	50	40	88	350	27
SK50 HC FMH-K40 400 AD/AV	K10105937540539	50	40	88	400	27

HSK-A (DIN 69893-1)



HSK-C (DIN 69893-1)

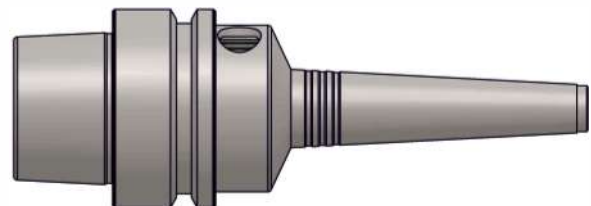
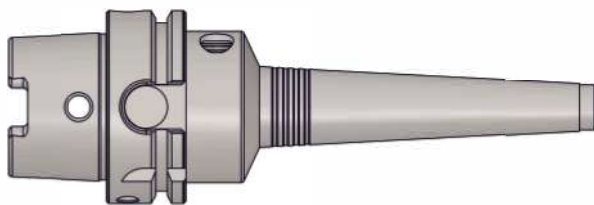


HSK-E (DIN 69893-5)

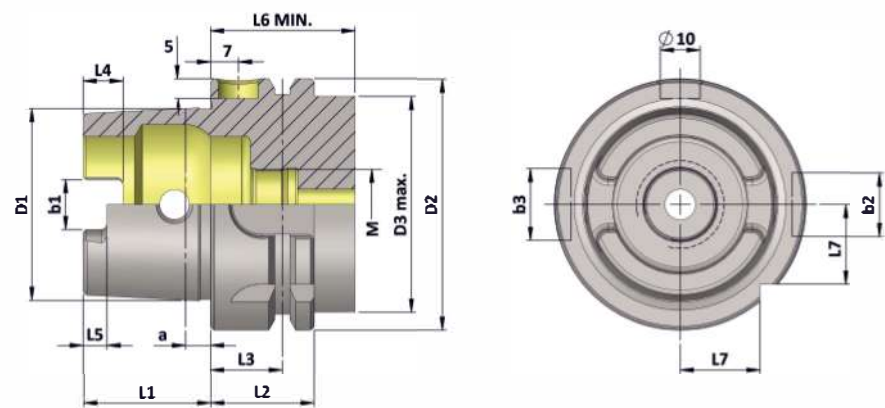
HSK-F (DIN 69893-6)



HSK (DIN 69893) Slim 3 Degree Series



HSK-A (DIN 69893-1) Form A **Technical Information**



HSK-A	D1	D2	D3	a	b1	b2	b3	M	L1	L2	L3	L4	L5	L6	L7
40	30	40	34	4	8.05	9	11	M12x1	20	20	16	6	3.5	35	12
50	38	50	42	5	10.54	12	14	M16x1	25	26	18	7.5	4.5	42	15.5
63	48	63	53	6.3	12.54	16	18	M18x1	32	26	18	10	6	42	20
100	75	100	88	10	20.02	20	22	M24x1.5	50	29	20	15	10	45	31.5
125	95	125	111	12.5	25.02	25	28	M30x1.5	63	29	20	19	12	45	39.5

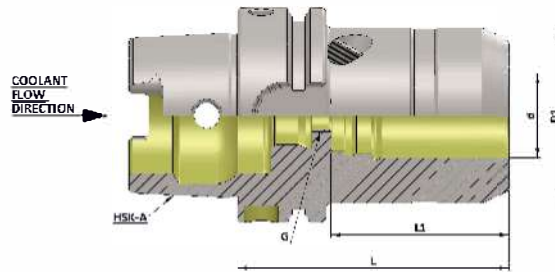
Material :- Case hardened steel, tensile strength in the core min. 950 N/mm²
 Execution :- Case hardened to HRC 58 ± 2, Case Depth 0.8 mm., Silver finish.
 Accuracy :- Taper Angle Class AT 3

HSK-A (DIN 69893-1) Form A Hydraulic Expansion Chuck



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm

HEAVY DUTY



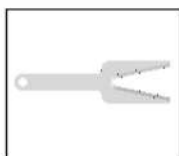
HSK-A (DIN 69893 - 1) Hydraulic Expansion Chuck

HSK-A (DIN 69893-1) Hydraulic Expansion Chuck					(Balanced to 2.5 G 25000 RPM)		
Item Name	Item Code	HSK-A	d	D1	G	L	L1
HSK-A 50 HC12S 085 2.5G 25000 SL	K10306629135283	50	12	42	M10	85	40
HSK-A 50 HC20S 090 2.5G 25000 SL	K10306168140283	50	20	50	M8	90	42
HSK-A 63 HC12S 080 2.5G 25000 SL	K10305629131283	63	12	42	-	80	40
HSK-A 63 HC20S 080 2.5G 25000 SL	K10305168131283	63	20	50	-	80	42
HSK-A 100 HC12S 095 2.5G 25000 SL	K10168629145283	100	12	42	M10	95	40
HSK-A 100 HC20S 090 2.5G 25000 SL	K10168168140283	100	20	50	-	90	42
HSK-A 100 HC32S 110 2.5G 25000 SL	K10168272156283	100	32	72	M16	110	55
HSK-A 50 HC1/2"S 085 2.5G 25000 SL	K10166953135283	50	1/2"	42	M10	85	40
HSK-A 50 HC3/4"S 090 2.5G 25000 SL	K10166954140283	50	3/4"	50	M8	90	42
HSK-A 63 HC1/2"S 080 2.5G 25000 SL	K10316953131283	63	1/2"	42	-	80	40
HSK-A 63 HC3/4"S 080 2.5G 25000 SL	K10316954131283	63	3/4"	50	-	80	42
HSK-A 100 HC1/2"S 095 2.5G 25000 SL	K10168953145283	100	1/2"	42	M10	95	40
HSK-A 100 HC3/4"S 090 2.5G 25000 SL	K10168954140283	100	3/4"	50	-	90	42
HSK-A 100 HC1-1/4"S 110 2.5G 25000 SL	K10168955156283	100	1-1/4"	72	M16	110	55

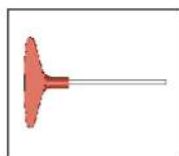
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No. 96-100



Spanner HC
Ref. Page No. 103



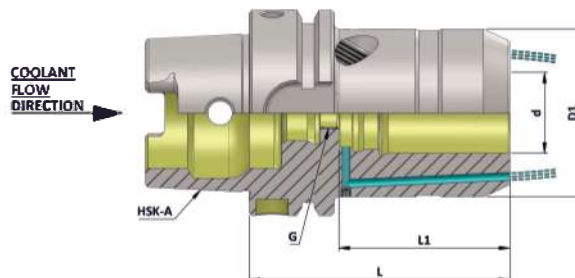
Key HC 5mm
Ref. Page No. 103

HSK-A (DIN 69893-1) Form A Hydraulic Expansion Chuck



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm

HEAVY DUTY



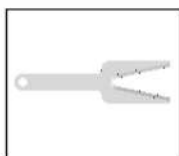
HSK-A (DIN 69893 - 1) Hydraulic Expansion Chuck (FCC)

HSK-A (DIN 69893-1) Hydraulic Expansion Chuck (FCC)					(Balanced to 2.5 G 25000 RPM)		
Item Name	Item Code	HSK-A	d	D1	G	L	L1
HSK-A 50 HC12S 085 FCC 2.5G 25000 SL	K10166629135227	50	12	42	M10	85	40
HSK-A 50 HC20S 090 FCC 2.5G 25000 SL	K10166168141124	50	20	50	M8	90	42
HSK-A 63 HC12S 080 FCC 2.5G 25000 SL	K10305629135227	63	12	42	-	80	40
HSK-A 63 HC20S 080 FCC 2.5G 25000 SL	K10167168141124	63	20	50	-	80	42
HSK-A 100 HC12S 095 FCC 2.5G 25000 SL	K10168629131255	100	12	42	M10	95	40
HSK-A 100 HC20S 090 FCC 2.5G 25000 SL	K10168168152124	100	20	50	-	90	42
HSK-A 100 HC32S 110 FCC 2.5G 25000 SL	K10168272156227	100	32	72	M16	110	55
HSK-A 50 HC1/2"S 085 FCC 2.5G 25000 SL	K10306953135256	50	1/2"	42	M10	85	40
HSK-A 50 HC3/4"S 090 FCC 2.5G 25000 SL	K10306954140256	50	3/4"	50	M8	90	42
HSK-A 63 HC1/2"S 080 FCC 2.5G 25000 SL	K10305953131256	63	1/2"	42	-	80	40
HSK-A 63 HC3/4"S 080 FCC 2.5G 25000 SL	K10305954131256	63	3/4"	50	-	80	42
HSK-A100 HC1/2"S 095 FCC 2.5G 25000 SL	K10168953145256	100	1/2"	42	M10	95	40
HSK-A100 HC3/4"S 090 FCC 2.5G 25000 SL	K10168954140256	100	3/4"	50	-	90	42
HSK-A100 HC1-1/4"S 110 FCC 2.5G 25000 SL	K10168955156256	100	1-1/4"	72	M16	110	55

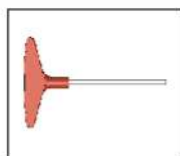
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No. 96-100



Spanner HC
Ref. Page No. 103

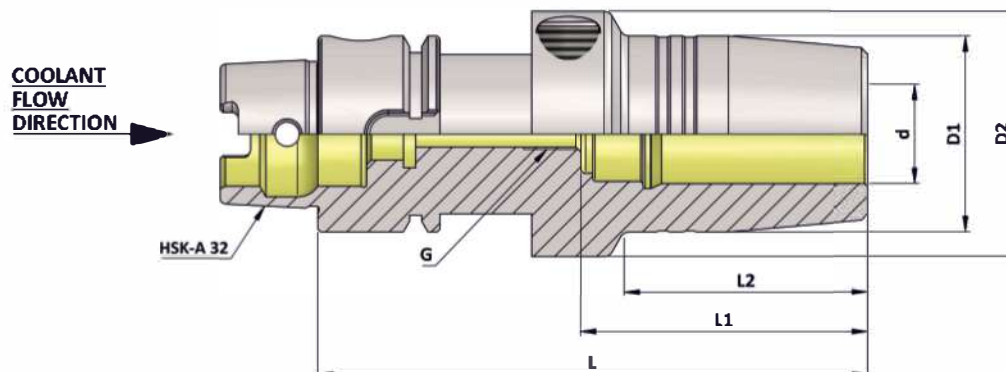


Key HC 5mm
Ref. Page No. 103

HSK-A (DIN 69893-1) Form A Hydraulic Expansion Chuck



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm



HSK-A (DIN 69893-1) Hydraulic Expansion Chuck

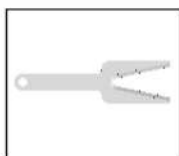
(Balanced to 2.5 G 25000 RPM)

Item Name	Item Code	HSK-A	d	D1	D2	G	L	L1	L2
HSK-A 32 HC06 080 2.5G 25000 SL	K10319642131283	32	6	26	40	M5	80	37	29
HSK-A 32 HC08 080 2.5G 25000 SL	K10319643131283	32	8	28	40	M6	80	37	29
HSK-A 32 HC10 085 2.5G 25000 SL	K10319644135283	32	10	30	40	M6	85	41	35
HSK-A 32 HC12 090 2.5G 25000 SL	K10319636140283	32	12	32	40	M6	90	46	40
HSK-A 32 HC1/4" 080 2.5G 25000 SL	K10319649131283	32	1/4"	26	40	M5	80	37	29
HSK-A 32 HC5/16" 080 2.5G 25000 SL	K10319956131283	32	5/16"	28	40	M6	80	37	29
HSK-A 32 HC3/8" 085 2.5G 25000 SL	K10319650135283	32	3/8"	30	40	M6	85	41	35
HSK-A 32 HC1/2" 090 2.5G 25000 SL	K10319652140283	32	1/2"	32	40	M6	90	46	40

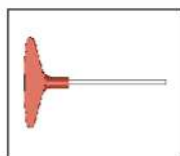
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No. 96-100



Spanner HC
Ref. Page No. 103

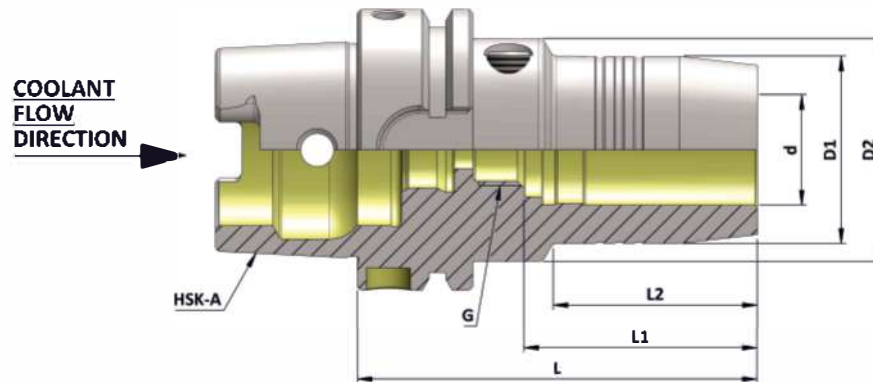


Key HC 5mm
Ref. Page No. 103

HSK-A (DIN 69893-1) Form A Hydraulic Expansion Chuck



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm



HSK-A (DIN 69893-1) Hydraulic Expansion Chuck

(Balanced to 2.5 G 25000 RPM)

Item Name	Item Code	HSK-A	d	D1	D2	G	L	L1	L2
HSK-A 40 HC06 070 2.5G 25000 SL	K10165642125283	40	6	26	33.5	M5	70	37	36
HSK-A 40 HC08 070 2.5G 25000 SL	K10165643125283	40	8	28	33.5	M6	70	37	36
HSK-A 40 HC10 075 2.5G 25000 SL	K10165644127283	40	10	30	33.5	M6	75	41	42
HSK-A 40 HC12 080 2.5G 25000 SL	K10165636131283	40	12	32	33.5	M6	80	46	48

HSK-A 40 HC1/4" 070 2.5G 25000 SL	K10165649125283	40	1/4"	26	33.5	M5	70	37	36
HSK-A 40 HC5/16" 070 2.5G 25000 SL	K10165956125283	40	5/16"	28	33.5	M6	70	37	36
HSK-A 40 HC3/8" 075 2.5G 25000 SL	K10165650127283	40	3/8"	30	33.5	M6	75	41	42
HSK-A 40 HC1/2" 080 2.5G 25000 SL	K10165652131283	40	1/2"	32	33.5	M6	80	46	48

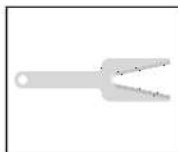
HSK-A 50 HC06 070 2.5G 25000 SL	K10306642125281	50	6	26	40	M5	70	37	28
HSK-A 50 HC08 070 2.5G 25000 SL	K10306643125281	50	8	28	40	M6	70	37	28
HSK-A 50 HC10 075 2.5G 25000 SL	K10306644127281	50	10	30	40	M8	75	41	34
HSK-A 50 HC12 085 2.5G 25000 SL	K10306636135275	50	12	32	40	M10	85	46	44
HSK-A 50 HC14 085 2.5G 25000 SL	K10306645135281	50	14	34	40	M10	85	46	44
HSK-A 50 HC16 090 2.5G 25000 SL	K10306646140281	50	16	38	53	M12	90	49	30
HSK-A 50 HC18 090 2.5G 25000 SL	K10306647140281	50	18	40	53	M12	90	49	30
HSK-A 50 HC20 090 2.5G 25000 SL	K10306637140275	50	20	42	57	M16	90	51	29

HSK-A 50 HC1/4" 070 2.5G 25000 SL	K10166649125283	50	1/4"	26	40	M5	70	37	28
HSK-A 50 HC5/16" 070 2.5G 25000 SL	K10166956125283	50	5/16"	28	40	M6	70	37	28
HSK-A 50 HC3/8" 075 2.5G 25000 SL	K10166650127283	50	3/8"	30	40	M8	75	41	34
HSK-A 50 HC1/2" 085 2.5G 25000 SL	K10166652135283	50	1/2"	32	40	M10	85	46	44
HSK-A 50 HC5/8" 090 2.5G 25000 SL	K10166651140283	50	5/8"	38	53	M12	90	49	30
HSK-A 50 HC3/4" 090 2.5G 25000 SL	K10166653140283	50	3/4"	42	57	M16	90	51	29

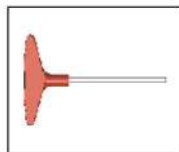
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No. 96-100



Spanner HC
Ref. Page No. 103

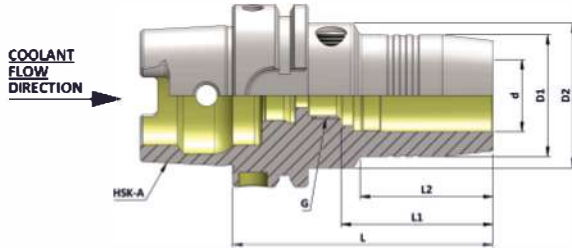


Key HC 5mm
Ref. Page No. 103

HSK-A (DIN 69893-1) Form A Hydraulic Expansion Chuck

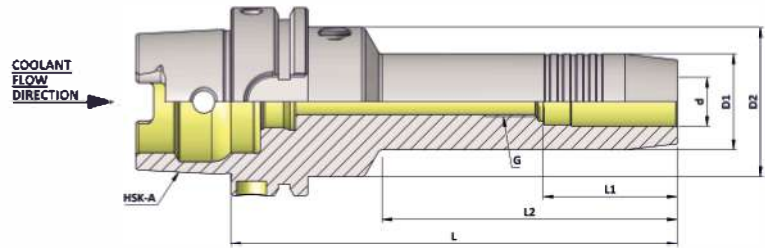


Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm



Standard GP

HSK-A (DIN 69893 - 1) Hydraulic Expansion Chuck



Long GP

HSK-A (DIN 69893 - 1) Hydraulic Expansion Chuck

HSK-A (DIN 69893-1) Hydraulic Expansion Chuck

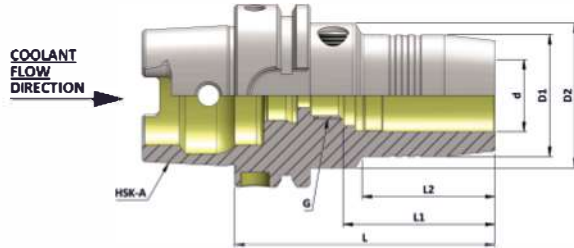
(Balanced to 2.5 G 25000 RPM)

Item Name	Item Code	HSK-A	d	D1	D2	G	L	L1	L2
HSK-A 63 HC06 070 2.5G 25000 SL	K10305642125281	63	6	26	50	M5	70	37	24
HSK-A 63 HC06 120 2.5G 25000 SL	K10305642162283	63	6	26	50	M5	120	37	73
HSK-A 63 HC06 150 2.5G 25000 SL	K10305642173281	63	6	26	50	M5	150	37	103
HSK-A 63 HC06 200 2.5G 25000 SL	K10305642239281	63	6	26	50	M5	200	37	153
HSK-A 63 HC08 070 2.5G 25000 SL	K10305643125281	63	8	28	50	M6	70	37	25
HSK-A 63 HC08 120 2.5G 25000 SL	K10305643162283	63	8	28	50	M6	120	37	74
HSK-A 63 HC08 150 2.5G 25000 SL	K10305643173281	63	8	28	50	M6	150	37	104
HSK-A 63 HC08 200 2.5G 25000 SL	K10305643239281	63	8	28	50	M6	200	37	154
HSK-A 63 HC10 080 2.5G 25000 SL	K10305644131281	63	10	30	50	M8	80	41	35
HSK-A 63 HC10 120 2.5G 25000 SL	K10305644162283	63	10	30	50	M8	120	41	74
HSK-A 63 HC10 150 2.5G 25000 SL	K10316644173283	63	10	30	50	M8	150	41	104
HSK-A 63 HC10 200 2.5G 25000 SL	K10305644239281	63	10	30	50	M8	200	41	154
HSK-A 63 HC12 085 2.5G 25000 SL	K10305636135275	63	12	32	50	M10	85	46	40
HSK-A 63 HC12 120 2.5G 25000 SL	K10305636162283	63	12	32	50	M10	120	46	75
HSK-A 63 HC12 150 2.5G 25000 SL	K10305636173275	63	12	32	50	M10	150	46	105
HSK-A 63 HC12 200 2.5G 25000 SL	K10305636239275	63	12	32	50	M10	200	46	155
HSK-A 63 HC14 085 2.5G 25000 SL	K10305645135281	63	14	34	50	M10	85	46	40
HSK-A 63 HC14 120 2.5G 25000 SL	K10305645162283	63	14	34	50	M10	120	46	75
HSK-A 63 HC14 150 2.5G 25000 SL	K10305645173281	63	14	34	50	M10	150	46	105
HSK-A 63 HC14 200 2.5G 25000 SL	K10305645239281	63	14	34	50	M10	200	46	155
HSK-A 63 HC16 090 2.5G 25000 SL	K10305646140281	63	16	38	50	M12	90	49	46
HSK-A 63 HC16 120 2.5G 25000 SL	K10305646162283	63	16	38	50	M12	120	49	76
HSK-A 63 HC16 150 2.5G 25000 SL	K10305646173281	63	16	38	50	M12	150	49	106
HSK-A 63 HC16 200 2.5G 25000 SL	K10305646239281	63	16	38	50	M12	200	49	156
HSK-A 63 HC18 090 2.5G 25000 SL	K10305647140281	63	18	40	50	M12	90	49	47
HSK-A 63 HC18 120 2.5G 25000 SL	K10305647162283	63	18	40	50	M12	120	49	77
HSK-A 63 HC18 150 2.5G 25000 SL	K10305647173281	63	18	40	50	M12	150	49	107
HSK-A 63 HC18 200 2.5G 25000 SL	K10305647239281	63	18	40	50	M12	200	49	157
HSK-A 63 HC20 090 2.5G 25000 SL	K10305637140275	63	20	42	50	M16	90	51	48
HSK-A 63 HC20 120 2.5G 25000 SL	K10305637162283	63	20	42	50	M16	120	51	78
HSK-A 63 HC20 150 2.5G 25000 SL	K10305637173275	63	20	42	50	M16	150	51	108
HSK-A 63 HC20 200 2.5G 25000 SL	K10305637239275	63	20	42	50	M16	200	51	158
HSK-A 63 HC25 120 2.5G 25000 SL	K10305648162281	63	25	57	50	M16	120	57	63
HSK-A 63 HC32 125 2.5G 25000 SL	K10305638164275	63	32	63	50	M16	125	61	61

HSK-A (DIN 69893-1) Form A Hydraulic Expansion Chuck

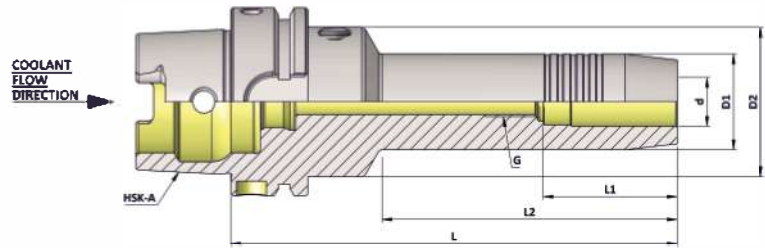


Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm



Standard GP

HSK-A (DIN 69893 - 1) Hydraulic Expansion Chuck



Long GP

HSK-A (DIN 69893 - 1) Hydraulic Expansion Chuck

HSK-A (DIN 69893-1) Hydraulic Expansion Chuck

(Balanced to 2.5 G 25000 RPM)

Item Name	Item Code	HSK-A	d	D1	D2	G	L	L1	L2
HSK-A 63 HC1/4" 070 2.5G 25000 SL	K10305649622283	63	1/4"	26	50	M5	70	37	24
HSK-A 63 HC1/4" 120 2.5G 25000 SL	K10316649162283	63	1/4"	26	50	M5	120	37	73
HSK-A 63 HC1/4" 150 2.5G 25000 SL	K10316649173283	63	1/4"	26	50	M5	150	37	103
HSK-A 63 HC1/4" 200 2.5G 25000 SL	K10316649239283	63	1/4"	26	50	M5	200	37	153
HSK-A 63 HC5/16" 070 2.5G 25000 SL	K10316956125283	63	5/16"	28	50	M6	70	37	25
HSK-A 63 HC5/16" 120 2.5G 25000 SL	K10316956162283	63	5/16"	28	50	M6	120	37	74
HSK-A 63 HC5/16" 150 2.5G 25000 SL	K10316956173283	63	5/16"	28	50	M6	150	37	104
HSK-A 63 HC5/16" 200 2.5G 25000 SL	K10316956239283	63	5/16"	28	50	M6	200	37	154
HSK-A 63 HC3/8" 080 2.5G 25000 SL	K10305650623283	63	3/8"	30	50	M8	80	41	35
HSK-A 63 HC3/8" 120 2.5G 25000 SL	K10316650162283	63	3/8"	30	50	M8	120	41	74
HSK-A 63 HC3/8" 150 2.5G 25000 SL	K10316650173283	63	3/8"	30	50	M8	150	41	104
HSK-A 63 HC3/8" 200 2.5G 25000 SL	K10316650239283	63	3/8"	30	50	M8	200	41	154
HSK-A 63 HC1/2" 085 2.5G 25000 SL	K10305652624283	63	1/2"	32	50	M10	85	46	40
HSK-A 63 HC1/2" 120 2.5G 25000 SL	K10316652162283	63	1/2"	32	50	M10	120	46	75
HSK-A 63 HC1/2" 150 2.5G 25000 SL	K10316652173283	63	1/2"	32	50	M10	150	46	105
HSK-A 63 HC1/2" 200 2.5G 25000 SL	K10316652239283	63	1/2"	32	50	M10	200	46	155
HSK-A 63 HC5/8" 090 2.5G 25000 SL	K10316651140283	63	5/8"	38	50	M12	90	49	46
HSK-A 63 HC5/8" 120 2.5G 25000 SL	K10316651162283	63	5/8"	38	50	M12	120	49	76
HSK-A 63 HC5/8" 150 2.5G 25000 SL	K10316651173283	63	5/8"	38	50	M12	150	49	106
HSK-A 63 HC5/8" 200 2.5G 25000 SL	K10316651239283	63	5/8"	38	50	M12	200	49	156
HSK-A 63 HC3/4" 090 2.5G 25000 SL	K10305653628283	63	3/4"	42	50	M16	90	51	48
HSK-A 63 HC3/4" 120 2.5G 25000 SL	K10316653162283	63	3/4"	42	50	M16	120	51	78
HSK-A 63 HC3/4" 150 2.5G 25000 SL	K10316653173283	63	3/4"	42	50	M16	150	51	108
HSK-A 63 HC3/4" 200 2.5G 25000 SL	K10316653239283	63	3/4"	42	50	M16	200	51	158
HSK-A 63 HC1" 120 2.5G 25000 SL	K10305656625283	63	1"	57	50	M16	120	57	63
HSK-A 63 HC1-1/4" 125 2.5G 25000 SL	K10305655626283	63	1-1/4"	63	50	M16	125	61	61

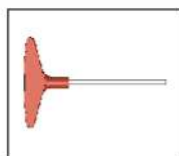
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No. 96-100



Spanner HC
Ref. Page No. 103

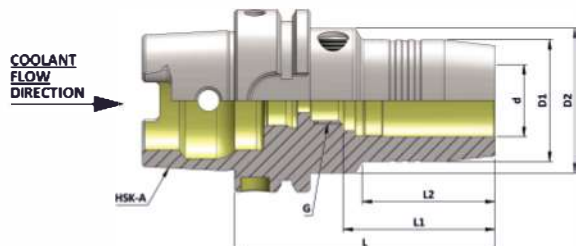


Key HC 5mm
Ref. Page No. 103

HSK-A (DIN 69893-1) Form A Hydraulic Expansion Chuck

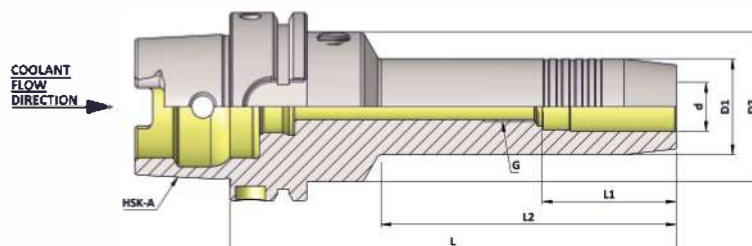


Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm



Standard GP

HSK-A (DIN 69893 - 1) Hydraulic Expansion Chuck



Long GP

HSK-A (DIN 69893 - 1) Hydraulic Expansion Chuck

HSK-A (DIN 69893-1) Hydraulic Expansion Chuck

(Balanced to 2.5 G 25000 RPM)

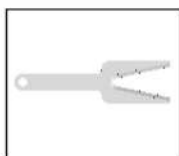
Item Name	Item Code	HSK-A	d	D1	D2	G	L	L1	L2
HSK-A 80 HC06 070 2.5G 25000 SL	K10320642125283	80	6	26	50	M5	70	37	24
HSK-A 80 HC08 070 2.5G 25000 SL	K10320643125283	80	8	28	50	M6	70	37	24
HSK-A 80 HC10 080 2.5G 25000 SL	K10320644131283	80	10	30	50	M8	80	41	35
HSK-A 80 HC12 085 2.5G 25000 SL	K10320636135283	80	12	32	50	M10	85	46	40
HSK-A 80 HC14 085 2.5G 25000 SL	K10320645135283	80	14	34	50	M10	85	46	40
HSK-A 80 HC16 095 2.5G 25000 SL	K10320646145283	80	16	38	50	M12	95	49	51
HSK-A 80 HC18 095 2.5G 25000 SL	K10320647145283	80	18	40	50	M12	95	49	51
HSK-A 80 HC20 095 2.5G 25000 SL	K10320637145283	80	20	42	50	M16	95	51	51
HSK-A 80 HC25 110 2.5G 25000 SL	K10320648156283	80	25	57	63	M16	110	57	65
HSK-A 80 HC32 125 2.5G 25000 SL	K10320638164283	80	32	63	63	M16	125	61	63

HSK-A 80 HC1/4" 070 2.5G 25000 SL	K10320649125283	80	1/4"	26	50	M5	70	37	24
HSK-A 80 HC5/16" 070 2.5G 25000 SL	K10320956125283	80	5/16"	28	50	M6	70	37	24
HSK-A 80 HC3/8" 080 2.5G 25000 SL	K10320650131283	80	3/8"	30	50	M8	80	41	35
HSK-A 80 HC1/2" 085 2.5G 25000 SL	K10320652135283	80	1/2"	32	50	M10	85	46	40
HSK-A 80 HC5/8" 095 2.5G 25000 SL	K10320651145283	80	5/8"	38	50	M12	95	49	51
HSK-A 80 HC3/4" 095 2.5G 25000 SL	K10320653145283	80	3/4"	42	50	M16	95	51	51
HSK-A 80 HC1" 110 2.5G 25000 SL	K10320957156283	80	1"	57	63	M16	110	57	65
HSK-A 80 HC1-1/4" 125 2.5G 25000 SL	K10320655164283	80	1-1/4"	63	63	M16	125	61	63

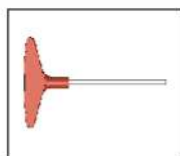
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No. 96-100



Spanner HC
Ref. Page No. 103

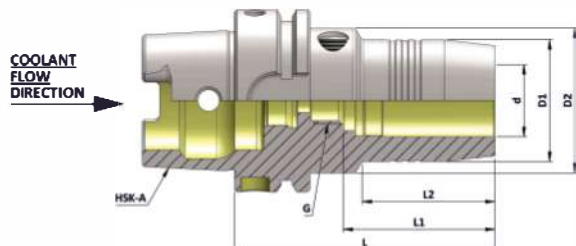


Key HC 5mm
Ref. Page No. 103

HSK-A (DIN 69893-1) Form A Hydraulic Expansion Chuck

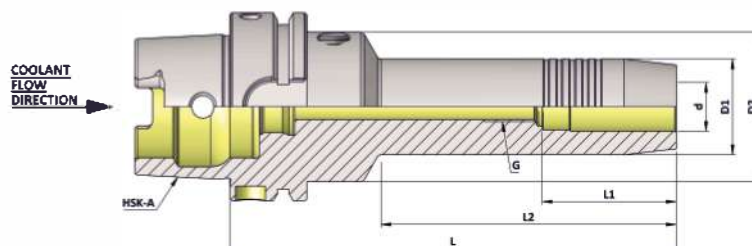


Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm



Standard GP

HSK-A (DIN 69893 - 1) Hydraulic Expansion Chuck



Long GP

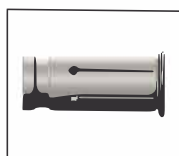
HSK-A (DIN 69893 - 1) Hydraulic Expansion Chuck

HSK-A (DIN 69893-1) Hydraulic Expansion Chuck

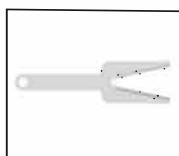
(Balanced to 2.5 G 25000 RPM)

Item Name	Item Code	HSK-A	d	D1	D2	G	L	L1	L2
HSK-A 100 HC06 075 2.5G 25000 SL	K10168642127281	100	6	26	50	M5	75	37	26
HSK-A 100 HC06 150 2.5G 25000 SL	K10168642173281	100	6	26	50	M5	150	37	100
HSK-A 100 HC06 200 2.5G 25000 SL	K10168642239281	100	6	26	50	M5	200	37	150
HSK-A 100 HC08 075 2.5G 25000 SL	K10168643127281	100	8	28	50	M6	75	37	26
HSK-A 100 HC08 150 2.5G 25000 SL	K10168643173281	100	8	28	50	M6	150	37	100
HSK-A 100 HC08 200 2.5G 25000 SL	K10168643239281	100	8	28	50	M6	200	37	150
HSK-A 100 HC10 090 2.5G 25000 SL	K10168644140281	100	10	30	50	M8	90	41	42
HSK-A 100 HC10 150 2.5G 25000 SL	K10168644173281	100	10	30	50	M8	150	41	100
HSK-A 100 HC10 200 2.5G 25000 SL	K10168644239281	100	10	30	50	M8	200	41	150
HSK-A 100 HC12 095 2.5G 25000 SL	K10168636145275	100	12	32	50	M10	95	46	47
HSK-A 100 HC12 150 2.5G 25000 SL	K10168636173275	100	12	32	50	M10	150	46	100
HSK-A 100 HC12 200 2.5G 25000 SL	K10168636239275	100	12	32	50	M10	200	46	150
HSK-A 100 HC14 095 2.5G 25000 SL	K10168645145281	100	14	34	50	M10	95	46	47
HSK-A 100 HC14 150 2.5G 25000 SL	K10168645173281	100	14	34	50	M10	150	46	100
HSK-A 100 HC14 200 2.5G 25000 SL	K10168645239281	100	14	34	50	M10	200	46	150
HSK-A 100 HC16 100 2.5G 25000 SL	K10168646148281	100	16	38	50	M12	100	49	53
HSK-A 100 HC16 150 2.5G 25000 SL	K10168646173281	100	16	38	50	M12	150	49	100
HSK-A 100 HC16 200 2.5G 25000 SL	K10168646239281	100	16	38	50	M12	200	49	150
HSK-A 100 HC18 100 2.5G 25000 SL	K10168647148281	100	18	40	50	M12	100	49	53
HSK-A 100 HC18 150 2.5G 25000 SL	K10168647173281	100	18	40	50	M12	150	49	100
HSK-A 100 HC18 200 2.5G 25000 SL	K10168647239281	100	18	40	50	M12	200	49	150
HSK-A 100 HC20 105 2.5G 25000 SL	K10168637152275	100	20	42	50	M16	105	51	59
HSK-A 100 HC20 150 2.5G 25000 SL	K10168637173275	100	20	42	50	M16	150	51	100
HSK-A 100 HC20 200 2.5G 25000 SL	K10168637239275	100	20	42	50	M16	200	51	150
HSK-A 100 HC25 110 2.5G 25000 SL	K10168648159281	100	25	57	63	M16	110	57	62
HSK-A 100 HC32 110 2.5G 25000 SL	K10168638162275	100	32	63	67	M16	110	61	60

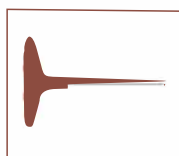
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No. 96-100



Spanner HC
Ref. Page No. 103

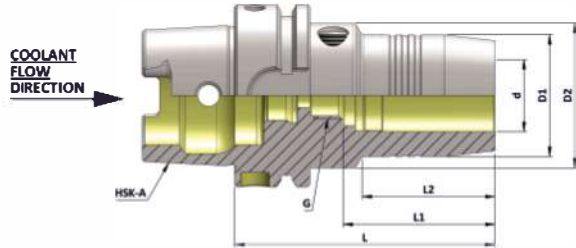


Key HC 5mm
Ref. Page No. 103

HSK-A (DIN 69893-1) Form A Hydraulic Expansion Chuck

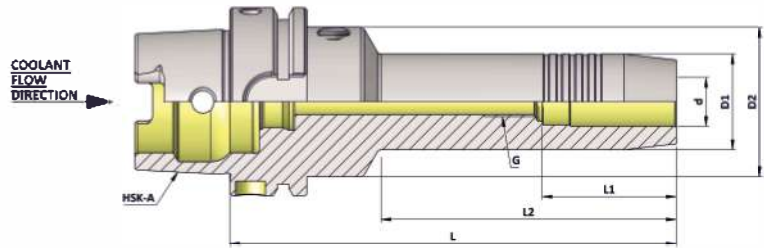


Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm



Standard GP

HSK-A (DIN 69893 - 1) Hydraulic Expansion Chuck



Long GP

HSK-A (DIN 69893 - 1) Hydraulic Expansion Chuck

HSK-A (DIN 69893-1) Hydraulic Expansion Chuck

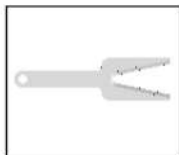
(Balanced to 2.5 G 25000 RPM)

Item Name	Item Code	HSK-A	d	D1	D2	G	L	L1	L2
HSK-A 100 HC1/4" 075 2.5G 25000 SL	K10168649127283	100	1/4"	26	50	M5	75	37	26
HSK-A 100 HC1/4" 150 2.5G 25000 SL	K10168649173283	100	1/4"	26	50	M5	150	37	100
HSK-A 100 HC1/4" 200 2.5G 25000 SL	K10168649239283	100	1/4"	26	50	M5	200	37	150
HSK-A 100 HC5/16" 075 2.5G 25000 SL	K10168956127283	100	5/16"	28	50	M6	75	37	26
HSK-A 100 HC5/16" 150 2.5G 25000 SL	K10168956173283	100	5/16"	28	50	M6	150	37	100
HSK-A 100 HC5/16" 200 2.5G 25000 SL	K10168956239283	100	5/16"	28	50	M6	200	37	150
HSK-A 100 HC3/8" 090 2.5G 25000 SL	K10168650140283	100	3/8"	30	50	M8	90	41	42
HSK-A 100 HC3/8" 150 2.5G 25000 SL	K10168650173283	100	3/8"	30	50	M8	150	41	100
HSK-A 100 HC3/8" 200 2.5G 25000 SL	K10168650239283	100	3/8"	30	50	M8	200	41	150
HSK-A 100 HC1/2" 095 2.5G 25000 SL	K10168652145283	100	1/2"	32	50	M10	95	46	47
HSK-A 100 HC1/2" 150 2.5G 25000 SL	K10168652173283	100	1/2"	32	50	M10	150	46	100
HSK-A 100 HC1/2" 200 2.5G 25000 SL	K10168652239283	100	1/2"	32	50	M10	200	46	150
HSK-A 100 HC5/8" 100 2.5G 25000 SL	K10168651148283	100	5/8"	38	50	M12	100	49	53
HSK-A 100 HC5/8" 150 2.5G 25000 SL	K10168651173283	100	5/8"	38	50	M12	150	49	100
HSK-A 100 HC5/8" 200 2.5G 25000 SL	K10168651239283	100	5/8"	38	50	M12	200	49	150
HSK-A 100 HC3/4" 105 2.5G 25000 SL	K10168653152283	100	3/4"	42	50	M16	105	51	59
HSK-A 100 HC3/4" 150 2.5G 25000 SL	K10168653173283	100	3/4"	42	50	M16	150	51	100
HSK-A 100 HC3/4" 200 2.5G 25000 SL	K10168653239283	100	3/4"	42	50	M16	200	51	150
HSK-A 100 HC1" 110 2.5G 25000 SL	K10168957156283	100	1"	57	63	M16	110	57	62
HSK-A 100 HC1-1/4" - 110 2.5G 25000 SL	K10168655627283	100	1-1/4"	64	75	M16	110	61	62

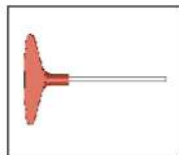
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No. 96-100



Spanner HC
Ref. Page No. 103

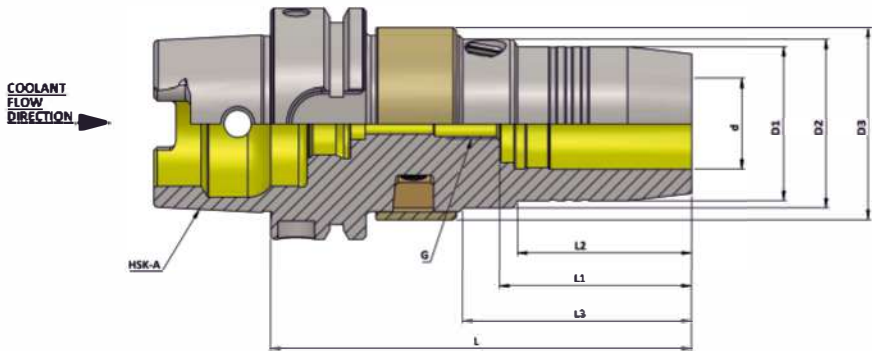


Key HC 5mm
Ref. Page No. 103

HSK-A (DIN 69893-1) **Hydraulic Expansion Chuck** **With Run Out Adjustment**



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm

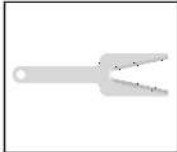


HSK-A (DIN 69893-1) Hydraulic Expansion Chuck Run Out Adjustment										(Balanced to 2.5 G 25000 RPM)		
ITEM NAME	ITEM CODE	HSK-A	d	D1	D2	D3	G	L	L1	L2	L3	
HSK-A63 HC20 115 AD /RA 2.5G 25000 SL	K10316637159536	63	20	42	46	52.5	M8	115	51	50	65.5	
HSK-A 63 HC32 150 AD/RA 2.5G 25000 SL	K10316638173536	63	32	42	46	52.5	M8	150	51	50	65.5	
HSK-A 63 HC3/4" 115 AD/RA 2.5G 25000 SL	K10316653159536	63	3/4"	42	46	52.5	M8	115	51	50	65.5	
HSK-A 63 HC1-1/4" 150 AD/RA 2.5G 25000 SL	K10316655173536	63	1-1/4"	42	46	52.5	M8	150	51	50	65.5	
HSK-A100 HC20 120 AD/RA 2.5G 25000 SL	K10168637162536	100	20	42	46	52.5	M8	120	51	50	65.5	
HSK-A 100 HC32 150 AD/RA 2.5G 25000 SL	K10168638173536	100	32	42	46	52.5	M8	150	51	50	65.5	
HSK-A 100 HC3/4" 120 AD/RA 2.5G 25000 SL	K10168653162536	100	3/4"	42	46	52.5	M8	120	51	50	65.5	
HSK-A 100 HC1-1/4" 150 AD/RA 2.5G 25000 SL	K10168655173536	100	1-1/4"	42	46	52.5	M8	150	51	50	65.5	

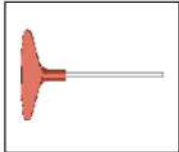
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No. 96-100



Spanner HC
Ref. Page No. 103

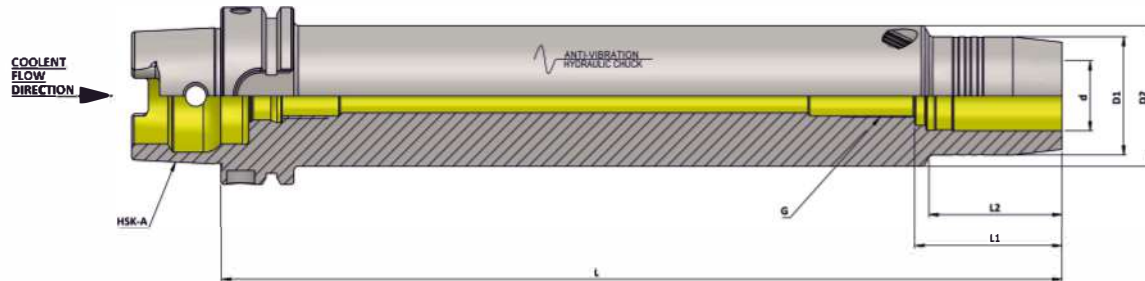


Key HC 5mm
Ref. Page No. 103

HSK-A (DIN 69893-1) Hydraulic Expansion Chuck Anti - Vibration (HC-AD/AV)



Maximum Run out of the Internal Dia with respect to the External Taper 0.010 mm



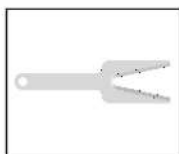
HSK-A (DIN 69893-1) Hydraulic Expansion Chuck Anti - Vibration (HC-AD/AV)

ITEM NAME	ITEM CODE	HSK-A	d	D1	D2	G	L	L1	L2
HSK-A 63 HC20 200 AD/AV	K10316637239539	63	20	42	50	M16	200	51	47
HSK-A 63 HC20 250 AD/AV	K10316637182539	63	20	42	50	M16	250	51	47
HSK-A 63 HC20 300 AD/AV	K10316637183535	63	20	42	50	M16	300	51	47
HSK-A 63 HC3/4" 200 AD/AV	K10316653239539	63	3/4"	42	50	M16	200	51	47
HSK-A 63 HC3/4" 250 AD/AV	K10316653182539	63	3/4"	42	50	M16	250	51	47
HSK-A 63 HC3/4" 300 AD/AV	K10316653183539	63	3/4"	42	50	M16	300	51	47
HSK-A 63 HC25 200 AD/AV	K10305648239539	63	25	52	55	M16	200	57	50
HSK-A 63 HC25 250 AD/AV	K10305648182539	63	25	52	55	M16	250	57	50
HSK-A 63 HC25 300 AD/AV	K10305648184539	63	25	52	55	M16	350	57	50
HSK-A 63 HC 1.0" 200 AD/AV	K10305656239539	63	1.0"	52	55	M16	200	57	50
HSK-A 63 HC 1.0" 250 AD/AV	K10305656182539	63	1.0"	52	55	M16	250	57	50
HSK-A 63 HC 1.0" 300 AD/AV	K10305656183539	63	1.0"	52	55	M16	350	57	50
HSK-A 63 HC32 200 AD/AV	K10316638239539	63	32	62	63	M16	200	61	48
HSK-A 63 HC32 250 AD/AV	K10316638182539	63	32	62	63	M16	250	61	48
HSK-A 63 HC32 300 AD/AV	K10316638183539	63	32	62	63	M16	300	61	48
HSK-A 63 HC1-1/4" 200 AD/AV	K10316975239539	63	1-1/4"	62	63	M16	200	61	48
HSK-A 63 HC1-1/4" 250 AD/AV	K10316975182539	63	1-1/4"	62	63	M16	250	61	48
HSK-A 63 HC1-1/4" 300 AD/AV	K10316975183539	63	1-1/4"	62	63	M16	300	61	48

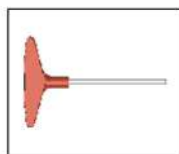
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No. 96-100



Spanner HC
Ref. Page No. 103

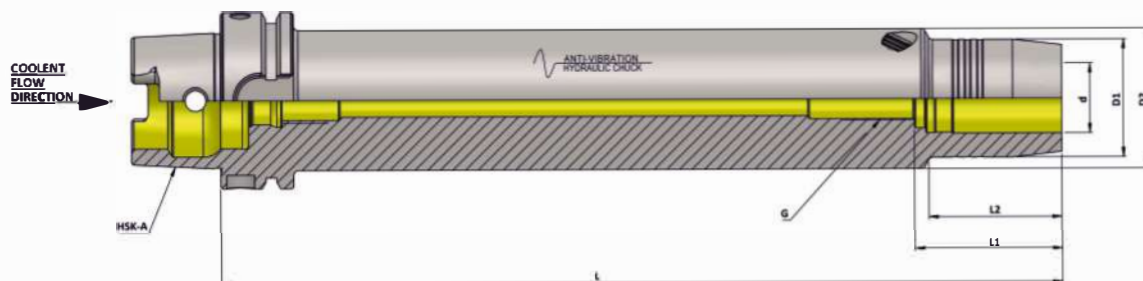


Key HC 5mm
Ref. Page No. 103

HSK-A (DIN 69893-1) Hydraulic Expansion Chuck Anti - Vibration (HC-AD/AV)



Maximum Run out of the Internal Dia with respect to the External Taper 0.010 mm



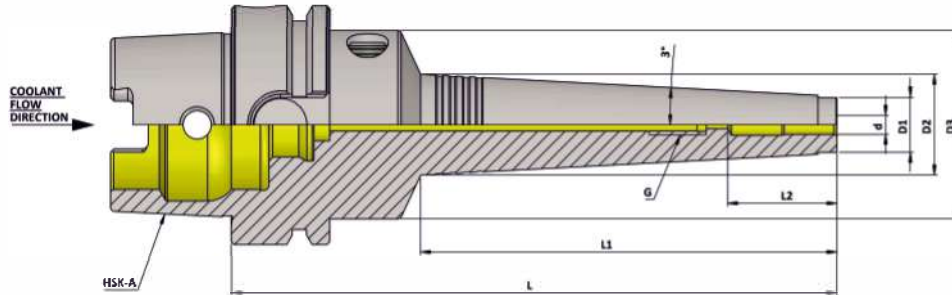
HSK-A (DIN 69893-1) Hydraulic Expansion Chuck Anti - Vibration (HC-AD/AV)

ITEM NAME	ITEM CODE	HSK-A	d	D1	D2	G	L	L1	L2
HSK-A 100 HC20 200 AD/AV	K10168637239539	100	20	42	50	M16	200	51	47
HSK-A 100 HC20 250 AD/AV	K10168637182539	100	20	42	50	M16	250	51	47
HSK-A 100 HC20 300 AD/AV	K10168637183535	100	20	42	50	M16	300	51	47
HSK-A 100 HC20 350 AD/AV	K10168637184539	100	20	42	50	M16	350	51	47
HSK-A 100 HC20 400 AD/AV	K10168637540535	100	20	42	50	M16	400	51	47
HSK-A 100 HC3/4" 200 AD/AV	K10168653239539	100	3/4"	42	50	M16	200	51	47
HSK-A 100 HC3/4" 250 AD/AV	K10168653182539	100	3/4"	42	50	M16	250	51	47
HSK-A 100 HC3/4" 300 AD/AV	K10168653183539	100	3/4"	42	50	M16	300	51	47
HSK-A 100 HC3/4" 350 AD/AV	K10168653184539	100	3/4"	42	50	M16	350	51	47
HSK-A 100 HC3/4" 400 AD/AV	K10168653540539	100	3/4"	42	50	M16	400	51	47
HSK-A 100 HC25 200 AD/AV	K10168648239539	100	25	52	55	M16	200	57	50
HSK-A 100 HC25 250 AD/AV	K10168648182539	100	25	52	55	M16	250	57	50
HSK-A 100 HC25 300 AD/AV	K10168648183539	100	25	52	55	M16	300	57	50
HSK-A 100 HC25 350 AD/AV	K10168648184539	100	25	52	55	M16	350	57	50
HSK-A 100 HC25 400 AD/AV	K10168648540539	100	25	52	55	M16	400	57	50
HSK-A 100 HC 1.0" 200 AD/AV	K10168656239539	100	1.0"	52	55	M16	200	57	50
HSK-A 100 HC 1.0" 250 AD/AV	K10168656182539	100	1.0"	52	55	M16	250	57	50
HSK-A 100 HC 1.0" 300 AD/AV	K10168656183539	100	1.0"	52	55	M16	300	57	50
HSK-A 100 HC 1.0" 350 AD/AV	K10168656184539	100	1.0"	52	55	M16	350	57	50
HSK-A 100 HC 1.0" 400 AD/AV	K10168656540539	100	1.0"	52	55	M16	400	57	50
HSK-A 100 HC32 200 AD/AV	K10168638239539	100	32	62	63	M16	200	61	48
HSK-A 100 HC32 250 AD/AV	K10168638182539	100	32	62	63	M16	250	61	48
HSK-A 100 HC32 300 AD/AV	K10168638183539	100	32	62	63	M16	300	61	48
HSK-A 100 HC32 350 AD/AV	K10168638184539	100	32	62	63	M16	350	61	48
HSK-A 100 HC32 400 AD/AV	K10168638540539	100	32	62	63	M16	400	61	48
HSK-A 100 HC1-1/4" 200 AD/AV	K10168975239539	100	1-1/4"	62	63	M16	200	61	48
HSK-A 100 HC1-1/4" 250 AD/AV	K10168975182539	100	1-1/4"	62	63	M16	250	61	48
HSK-A 100 HC1-1/4" 300 AD/AV	K10168975183539	100	1-1/4"	62	63	M16	300	61	48
HSK-A 100 HC1-1/4" 350 AD/AV	K10168975184539	100	1-1/4"	62	63	M16	350	61	48
HSK-A 100 HC1-1/4" 400 AD/AV	K10168975540539	100	1-1/4"	62	63	M16	400	61	48

HSK-A (DIN 69893-1) Form A Hydraulic Expansion Chuck Slim 3 Degree



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm



HSK-A (DIN 69893-1) Hydraulic Expansion Chuck Slim 3 Degree

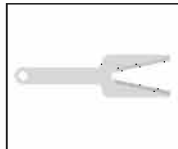
(Balanced to 2.5 G 25000 RPM)

Item Name	Item Code	HSK-A	d	D1	D2	D3	G	L	L1	L2
HSK-A 40 HC03 090 SLIM 2.5G 25000 SL	K10165707140542	40	3	11	14.0	46	M2.5	90	28	28
HSK-A 40 HC03 100 SLIM 2.5G 25000 SL	K10165707148542	40	3	11	14.9	46	M2.5	100	37	28
HSK-A 40 HC03 145 SLIM 2.5G 25000 SL	K10165707958542	40	3	11	19.9	46	M2.5	145	84	28
HSK-A 40 HC04 090 SLIM 2.5G 25000 SL	K10165708140542	40	4	11	14.0	46	M2.5	90	28	28
HSK-A 40 HC04 100 SLIM 2.5G 25000 SL	K10165708148542	40	4	11	14.9	46	M2.5	100	37	28
HSK-A 40 HC04 145 SLIM 2.5G 25000 SL	K10165708958542	40	4	11	19.9	46	M2.5	145	84	28
HSK-A 40 HC05 090 SLIM 2.5G 25000 SL	K10165709140542	40	5	12	14.9	46	M2.5	90	28	28
HSK-A 40 HC05 100 SLIM 2.5G 25000 SL	K10165709148542	40	5	12	15.9	46	M2.5	100	37	28
HSK-A 40 HC05 145 SLIM 2.5G 25000 SL	K10165709958542	40	5	12	20.8	46	M2.5	145	84	28
HSK-A 40 HC06 105 SLIM 2.5G 25000 SL	K10165642152542	40	6	13	17.0	46	M5	105	38	37
HSK-A 40 HC06 150 SLIM 2.5G 25000 SL	K10165642173542	40	6	13	21.9	46	M5	150	84	37
HSK-A 40 HC06 165 SLIM 2.5G 25000 SL	K10165642956542	40	6	13	23.4	46	M5	165	99	37
HSK-A 40 HC06 180 SLIM 2.5G 25000 SL	K10165642178542	40	6	13	25.0	46	M5	180	114	37
HSK-A 40 HC08 105 SLIM 2.5G 25000 SL	K10165643152542	40	8	15	19.0	46	M6	105	38	37
HSK-A 40 HC08 150 SLIM 2.5G 25000 SL	K10165643173542	40	8	15	23.9	46	M6	150	84	37
HSK-A 40 HC08 165 SLIM 2.5G 25000 SL	K10165643956542	40	8	15	25.4	46	M6	165	99	37
HSK-A 40 HC08 180 SLIM 2.5G 25000 SL	K10165643178542	40	8	15	27.0	46	M6	180	114	37
HSK-A 40 HC10 120 SLIM 2.5G 25000 SL	K10165644162542	40	10	17	22.6	46	M6	120	53	41
HSK-A 40 HC10 150 SLIM 2.5G 25000 SL	K10165644173542	40	10	17	25.9	46	M6	150	84	41
HSK-A 40 HC10 165 SLIM 2.5G 25000 SL	K10165644956542	40	10	17	27.4	46	M6	165	99	41
HSK-A 40 HC10 180 SLIM 2.5G 25000 SL	K10165644178542	40	10	17	29.0	46	M6	180	114	41
HSK-A 40 HC12 120 SLIM 2.5G 25000 SL	K10165636162542	40	12	19	24.6	46	M6	120	53	46
HSK-A 40 HC12 150 SLIM 2.5G 25000 SL	K10165636173542	40	12	19	27.9	46	M6	150	84	46
HSK-A 40 HC12 165 SLIM 2.5G 25000 SL	K10165636956542	40	12	19	29.4	46	M6	165	99	46
HSK-A 40 HC12 180 SLIM 2.5G 25000 SL	K10165636178542	40	12	19	31.0	46	M6	180	114	46

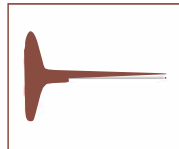
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No. 96-100



Spanner HC
Ref. Page No. 103

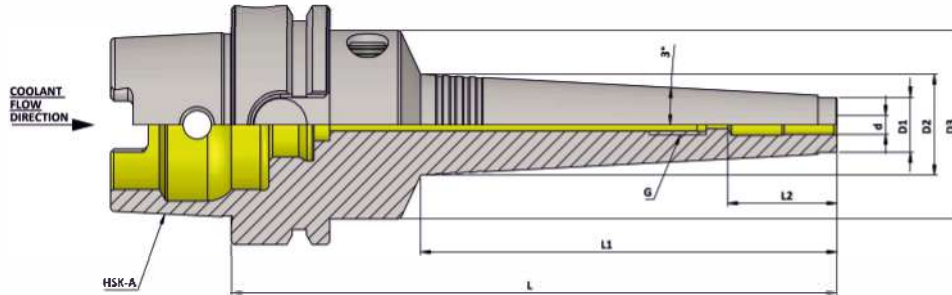


Key HC 5mm
Ref. Page No. 103

HSK-A (DIN 69893-1) Form A Hydraulic Expansion Chuck Slim 3 Degree



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm



HSK-A (DIN 69893-1) Hydraulic Expansion Chuck Slim 3 Degree

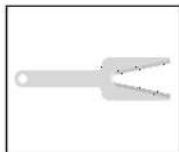
(Balanced to 2.5 G 25000 RPM)

Item Name	Item Code	HSK-A	d	D1	D2	D3	G	L	L1	L2
HSK-A 40 HC1/8" 090 SLIM 2.5G 25000SL	K10165961140258	40	1/8"	11	14.0	46	M2.5	90	28	28
HSK-A 40 HC1/8" 100 SLIM 2.5G 25000SL	K10165961148258	40	1/8"	11	14.9	46	M2.5	100	37	28
HSK-A 40 HC1/8" 145 SLIM 2.5G 25000SL	K10165961958258	40	1/8"	11	19.9	46	M2.5	145	84	28
HSK-A 40 HC3/16" 090 SLIM 2.5G 25000SL	K10165962140258	40	3/16"	11	14.0	46	M2.5	90	28	28
HSK-A 40 HC3/16" 100 SLIM 2.5G 25000SL	K10165962148258	40	3/16"	11	14.9	46	M2.5	100	37	28
HSK-A 40 HC3/16" 145 SLIM 2.5G 25000SL	K10165962958258	40	3/16"	11	19.9	46	M2.5	145	84	28
HSK-A 40 HC1/4" 105 SLIM 2.5G 25000SL	K10165649152258	40	1/4"	13	17.0	46	M5	105	38	37
HSK-A 40 HC1/4" 150 SLIM 2.5G 25000SL	K10165649173258	40	1/4"	13	21.9	46	M5	150	84	37
HSK-A 40 HC1/4" 165 SLIM 2.5G 25000SL	K10165649956258	40	1/4"	13	23.4	46	M5	165	99	37
HSK-A 40 HC1/4" 180 SLIM 2.5G 25000SL	K10165649178258	40	1/4"	13	25.0	46	M5	180	114	37
HSK-A 40 HC5/16" 105 SLIM 2.5G 25000SL	K10165956152258	40	5/16"	15	19.0	46	M6	105	38	37
HSK-A 40 HC5/16" 150 SLIM 2.5G 25000SL	K10165956173258	40	5/16"	15	23.9	46	M6	150	84	37
HSK-A 40 HC5/16" 165 SLIM 2.5G 25000SL	K10165956956258	40	5/16"	15	25.4	46	M6	165	99	37
HSK-A 40 HC5/16" 180 SLIM 2.5G 25000SL	K10165956178258	40	5/16"	15	27.0	46	M6	180	114	37
HSK-A 40 HC3/8" 120 SLIM 2.5G 25000SL	K10165650162258	40	3/8"	17	22.6	46	M6	120	53	41
HSK-A 40 HC3/8" 150 SLIM 2.5G 25000SL	K10165650173258	40	3/8"	17	25.9	46	M6	150	84	41
HSK-A 40 HC3/8" 165 SLIM 2.5G 25000SL	K10165650956258	40	3/8"	17	27.4	46	M6	165	99	41
HSK-A 40 HC3/8" 180 SLIM 2.5G 25000SL	K10165650178258	40	3/8"	17	29.0	46	M6	180	114	41
HSK-A 40 HC1/2" 120 SLIM 2.5G 25000SL	K10165652162258	40	1/2"	19	24.6	46	M6	120	53	46
HSK-A 40 HC1/2" 150 SLIM 2.5G 25000SL	K10165652173258	40	1/2"	19	27.9	46	M6	150	84	46
HSK-A 40 HC1/2" 165 SLIM 2.5G 25000SL	K10165652956258	40	1/2"	19	29.4	46	M6	165	99	46
HSK-A 40 HC1/2" 180 SLIM 2.5G 25000SL	K10165652178258	40	1/2"	19	31.0	46	M6	180	114	46

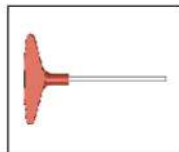
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No. 96-100



Spanner HC
Ref. Page No. 103



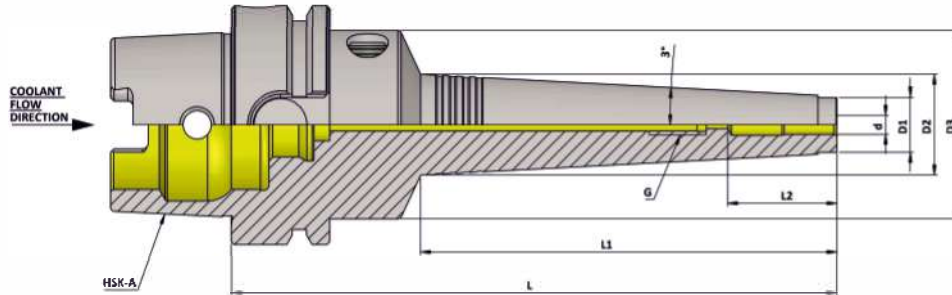
Key HC 5mm
Ref. Page No. 103

HSK-A (DIN 69893-1) Form A

Hydraulic Expansion Chuck Slim 3 Degree



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm



HSK-A (DIN 69893-1) Hydraulic Expansion Chuck Slim 3 Degree

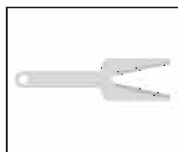
(Balanced to 2.5 G 25000 RPM)

Item Name	Item Code	HSK-A	d	D1	D2	D3	G	L	L1	L2
HSK-A 50 HC03 095 SLIM 2.5G 25000 SL	K10166707145542	50	3	11	14.0	46	M2.5	95	28	28
HSK-A 50 HC03 105 SLIM 2.5G 25000 SL	K10166707152542	50	3	11	14.9	46	M2.5	105	37	28
HSK-A 50 HC03 150 SLIM 2.5G 25000 SL	K10166707173542	50	3	11	19.9	46	M2.5	150	84	28
HSK-A 50 HC04 095 SLIM 2.5G 25000 SL	K10166708145542	50	4	11	14.0	46	M2.5	95	28	28
HSK-A 50 HC04 105 SLIM 2.5G 25000 SL	K10166708152542	50	4	11	14.9	46	M2.5	105	37	28
HSK-A 50 HC04 150 SLIM 2.5G 25000 SL	K10166708173542	50	4	11	19.9	46	M2.5	150	84	28
HSK-A 50 HC05 095 SLIM 2.5G 25000 SL	K10166709145542	50	5	12	14.9	46	M2.5	95	28	28
HSK-A 50 HC05 105 SLIM 2.5G 25000 SL	K10166709152542	50	5	12	15.9	46	M2.5	105	37	28
HSK-A 50 HC05 150 SLIM 2.5G 25000 SL	K10166709173542	50	5	12	20.8	46	M2.5	150	84	28
HSK-A 50 HC06 105 SLIM 2.5G 25000 SL	K10166642152542	50	6	13	17.0	46	M5	105	38	37
HSK-A 50 HC06 150 SLIM 2.5G 25000 SL	K10166642173542	50	6	13	21.9	46	M5	150	84	37
HSK-A 50 HC06 165 SLIM 2.5G 25000 SL	K10166642956542	50	6	13	23.4	46	M5	165	99	37
HSK-A 50 HC06 180 SLIM 2.5G 25000 SL	K10166642178542	50	6	13	25.0	46	M5	180	114	37
HSK-A 50 HC08 105 SLIM 2.5G 25000 SL	K10166643152542	50	8	15	19.0	46	M6	105	38	37
HSK-A 50 HC08 150 SLIM 2.5G 25000 SL	K10166643173542	50	8	15	23.9	46	M6	150	84	37
HSK-A 50 HC08 165 SLIM 2.5G 25000 SL	K10166643956542	50	8	15	25.4	46	M6	165	99	37
HSK-A 50 HC08 180 SLIM 2.5G 25000 SL	K10166643178542	50	8	15	27.0	46	M6	180	114	37
HSK-A 50 HC10 120 SLIM 2.5G 25000 SL	K10166644162542	50	10	17	22.6	46	M8	120	53	41
HSK-A 50 HC10 150 SLIM 2.5G 25000 SL	K10166644173542	50	10	17	25.9	46	M8	150	84	41
HSK-A 50 HC10 165 SLIM 2.5G 25000 SL	K10166644956542	50	10	17	27.4	46	M8	165	99	41
HSK-A 50 HC10 180 SLIM 2.5G 25000 SL	K10166644178542	50	10	17	29.0	46	M8	180	114	41
HSK-A 50 HC12 120 SLIM 2.5G 25000 SL	K10166636162542	50	12	19	24.6	46	M10	120	53	46
HSK-A 50 HC12 150 SLIM 2.5G 25000 SL	K10166636173542	50	12	19	27.9	46	M10	150	84	46
HSK-A 50 HC12 165 SLIM 2.5G 25000 SL	K10166636956542	50	12	19	29.4	46	M10	165	99	46
HSK-A 50 HC12 180 SLIM 2.5G 25000 SL	K10166636178542	50	12	19	31.0	46	M10	180	114	46

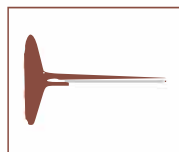
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No. 96-100



Spanner HC
Ref. Page No. 103



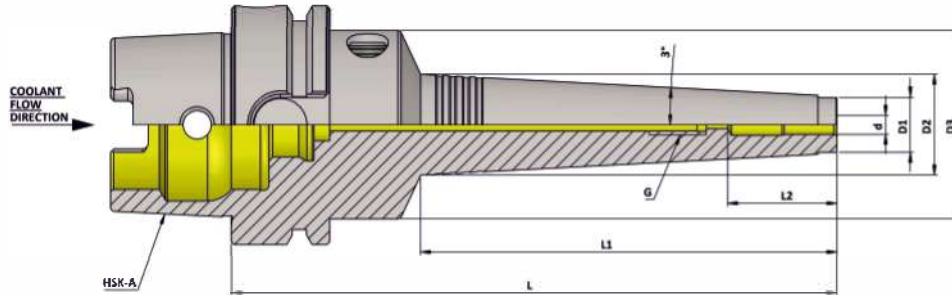
Key HC 5mm
Ref. Page No. 103

HSK-A (DIN 69893-1) Form A

Hydraulic Expansion Chuck Slim 3 Degree



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm



HSK-A (DIN 69893-1) Hydraulic Expansion Chuck Slim 3 Degree

(Balanced to 2.5 G 25000 RPM)

Item Name	Item Code	HSK-A	d	D1	D2	D3	G	L	L1	L2
HSK-A 50 HC1/8" 095 SLIM 2.5G 25000SL	K10166961145258	50	1/8"	11	14.0	46	M2.5	95	28	28
HSK-A 50 HC1/8" 105 SLIM 2.5G 25000SL	K10166961152258	50	1/8"	11	14.9	46	M2.5	105	37	28
HSK-A 50 HC1/8" 150 SLIM 2.5G 25000SL	K10166961173258	50	1/8"	11	19.9	46	M2.5	150	84	28
HSK-A 50 HC3/16" 095 SLIM 2.5G 25000SL	K10166962145258	50	3/16"	11	14.0	46	M2.5	95	28	28
HSK-A 50 HC3/16" 105 SLIM 2.5G 25000SL	K10166962152258	50	3/16"	11	14.9	46	M2.5	105	37	28
HSK-A 50 HC3/16" 150 SLIM 2.5G 25000SL	K10166962173258	50	3/16"	11	19.9	46	M2.5	150	84	28
HSK-A 50 HC1/4" 105 SLIM 2.5G 25000SL	K10166649152258	50	1/4"	13	17.0	46	M5	105	38	37
HSK-A 50 HC1/4" 150 SLIM 2.5G 25000SL	K10166649173258	50	1/4"	13	21.9	46	M5	150	84	37
HSK-A 50 HC1/4" 165 SLIM 2.5G 25000SL	K10166649956258	50	1/4"	13	23.4	46	M5	165	99	37
HSK-A 50 HC1/4" 180 SLIM 2.5G 25000SL	K10166649178258	50	1/4"	13	25.0	46	M5	180	114	37
HSK-A 50 HC5/16" 105 SLIM 2.5G 25000SL	K10166956152258	50	5/16"	15	19.0	46	M6	105	38	37
HSK-A 50 HC5/16" 150 SLIM 2.5G 25000SL	K10166956173258	50	5/16"	15	23.9	46	M6	150	84	37
HSK-A 50 HC5/16" 165 SLIM 2.5G 25000SL	K10166956956258	50	5/16"	15	25.4	46	M6	165	99	37
HSK-A 50 HC5/16" 180 SLIM 2.5G 25000SL	K10166956178258	50	5/16"	15	27.0	46	M6	180	114	37
HSK-A 50 HC3/8" 120 SLIM 2.5G 25000SL	K10166650162258	50	3/8"	17	22.6	46	M8	120	53	41
HSK-A 50 HC3/8" 150 SLIM 2.5G 25000SL	K10166650173258	50	3/8"	17	25.9	46	M8	150	84	41
HSK-A 50 HC3/8" 165 SLIM 2.5G 25000SL	K10166650956258	50	3/8"	17	27.4	46	M8	165	99	41
HSK-A 50 HC3/8" 180 SLIM 2.5G 25000SL	K10166650178258	50	3/8"	17	29.0	46	M8	180	114	41
HSK-A 50 HC1/2" 120 SLIM 2.5G 25000SL	K10166652162258	50	1/2"	19	24.6	46	M10	120	53	46
HSK-A 50 HC1/2" 150 SLIM 2.5G 25000SL	K10166652173258	50	1/2"	19	27.9	46	M10	150	84	46
HSK-A 50 HC1/2" 165 SLIM 2.5G 25000SL	K10166652956258	50	1/2"	19	29.4	46	M10	165	99	46
HSK-A 50 HC1/2" 180 SLIM 2.5G 25000SL	K10166652178258	50	1/2"	19	31.0	46	M10	180	114	46

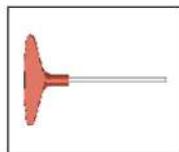
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No. 96-100



Spanner HC
Ref. Page No. 103

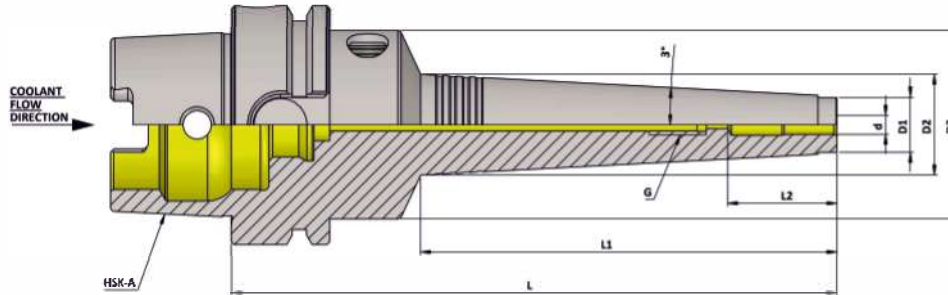


Key HC 5mm
Ref. Page No. 103

HSK-A (DIN 69893-1) Form A Hydraulic Expansion Chuck Slim 3 Degree



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm



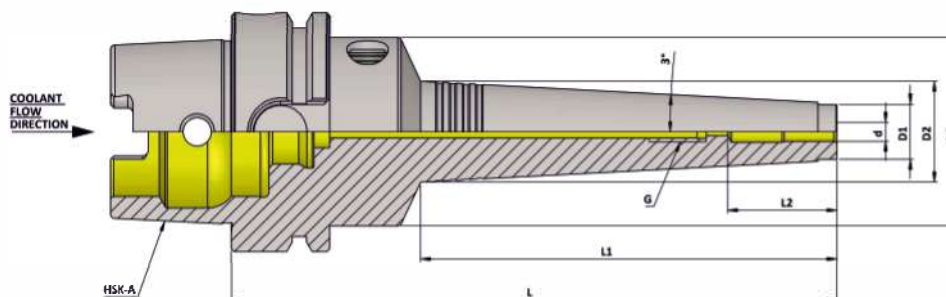
HSK-A (DIN 69893-1) Hydraulic Expansion Chuck Slim 3 Degree							(Balanced to 2.5 G 25000 RPM)				
Item Name	Item Code	HSK-A	d	D1	D2	D3	G	L	L1	L2	
HSK-A 63 HC03 080 SLIM AD/2.5G 25000 SL	K10316707131258	63	3	11	14.0	46	—	80	28	28	
HSK-A 63 HC03 090 SLIM AD/2.5G 25000 SL	K10316707140542	63	3	11	14.9	46	—	90	37	28	
HSK-A 63 HC03 135 SLIM AD/2.5G 25000 SL	K10316707166542	63	3	11	19.9	46	—	135	84	28	
HSK-A 63 HC04 080 SLIM AD/2.5G 25000 SL	K10316708131258	63	4	11	14.0	46	—	80	28	28	
HSK-A 63 HC04 090 SLIM AD/2.5G 25000 SL	K10316708140542	63	4	11	14.9	46	—	90	37	28	
HSK-A 63 HC04 135 SLIM AD/2.5G 25000 SL	K10316708166542	63	4	11	19.9	46	—	135	84	28	
HSK-A 63 HC05 080 SLIM AD/2.5G 25000 SL	K10316709131258	63	5	12	14.9	46	—	80	28	28	
HSK-A 63 HC05 090 SLIM AD/2.5G 25000 SL	K10316709140542	63	5	12	15.9	46	—	90	37	28	
HSK-A 63 HC05 135 SLIM AD/2.5G 25000 SL	K10316709166542	63	5	12	20.8	46	—	135	84	28	
HSK-A 63 HC06 090 SLIM AD/2.5G 25000 SL	K10316642140542	63	6	13	17.0	46	M5	90	38	37	
HSK-A 63 HC06 135 SLIM AD/2.5G 25000 SL	K10316642166542	63	6	13	21.9	46	M5	135	84	37	
HSK-A 63 HC06 150 SLIM AD/2.5G 25000 SL	K10316642173542	63	6	13	23.4	46	M5	150	99	37	
HSK-A 63 HC06 165 SLIM AD/2.5G 25000 SL	K10316642956542	63	6	13	25.0	46	M5	165	114	37	
HSK-A 63 HC06 180 SLIM AD/2.5G 25000 SL	K10316642178542	63	6	13	26.7	46	M5	180	130	37	
HSK-A 63 HC08 090 SLIM AD/2.5G 25000 SL	K10316643140542	63	8	15	19.0	46	M6	90	38	37	
HSK-A 63 HC08 135 SLIM AD/2.5G 25000 SL	K10316643166542	63	8	15	23.9	46	M6	135	84	37	
HSK-A 63 HC08 150 SLIM AD/2.5G 25000 SL	K10316643173542	63	8	15	25.4	46	M6	150	99	37	
HSK-A 63 HC08 165 SLIM AD/2.5G 25000 SL	K10316643956542	63	8	15	27.0	46	M6	165	114	37	
HSK-A 63 HC08 180 SLIM AD/2.5G 25000 SL	K10316643178542	63	8	15	28.7	46	M6	180	130	37	
HSK-A 63 HC10 105 SLIM AD/2.5G 25000 SL	K10316644152542	63	10	17	22.6	46	M8	105	53	41	
HSK-A 63 HC10 135 SLIM AD/2.5G 25000 SL	K10316644166542	63	10	17	25.9	46	M8	135	84	41	
HSK-A 63 HC10 150 SLIM AD/2.5G 25000 SL	K10316644173542	63	10	17	27.4	46	M8	150	99	41	
HSK-A 63 HC10 165 SLIM AD/2.5G 25000 SL	K10316644956542	63	10	17	29.0	46	M8	165	114	41	
HSK-A 63 HC10 180 SLIM AD/2.5G 25000 SL	K10316644178542	63	10	17	30.7	46	M8	180	130	41	
HSK-A 63 HC12 105 SLIM AD/2.5G 25000 SL	K10316636152542	63	12	19	24.6	46	M10	105	53	46	
HSK-A 63 HC12 135 SLIM AD/2.5G 25000 SL	K10316636166542	63	12	19	27.9	46	M10	135	84	46	
HSK-A 63 HC12 150 SLIM AD/2.5G 25000 SL	K10316636173542	63	12	19	29.4	46	M10	150	99	46	
HSK-A 63 HC12 165 SLIM AD/2.5G 25000 SL	K10316636956542	63	12	19	31.0	46	M10	165	114	46	
HSK-A 63 HC12 180 SLIM AD/2.5G 25000 SL	K10316636178542	63	12	19	32.7	46	M10	180	130	46	
HSK-A 63 HC14 135 SLIM AD/2.5G 25000 SL	K10316645166542	63	14	21	29.8	52.5	M10	135	84	46	
HSK-A 63 HC14 165 SLIM AD/2.5G 25000 SL	K10316645956542	63	14	21	32.9	52.5	M10	165	114	46	
HSK-A 63 HC14 180 SLIM AD/2.5G 25000 SL	K10316645178542	63	14	21	34.5	52.5	M10	180	130	46	

HSK-A (DIN 69893-1) Form A

Hydraulic Expansion Chuck Slim 3 Degree



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm



HSK-A (DIN 69893-1) Hydraulic Expansion Chuck Slim 3 Degree

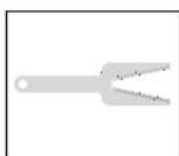
(Balanced to 2.5 G 25000 RPM)

Item Name	Item Code	HSK-A	d	D1	D2	D3	G	L	L1	L2
HSK-A 63 HC16 135 SLIM AD/2.5G 25000 SL	K10316646166542	63	16	23	31.9	52.5	M12	135	84	49
HSK-A 63 HC16 165 SLIM AD/2.5G 25000 SL	K10316646956542	63	16	23	35.0	52.5	M12	165	114	49
HSK-A 63 HC16 180 SLIM AD/2.5G 25000 SL	K10316646178542	63	16	23	36.6	52.5	M12	180	130	49
HSK-A 63 HC18 135 SLIM AD/2.5G 25000 SL	K10316647166542	63	18	26	34.8	60	M12	135	84	49
HSK-A 63 HC18 165 SLIM AD/2.5G 25000 SL	K10316647956542	63	18	26	37.9	60	M12	165	114	49
HSK-A 63 HC18 180 SLIM AD/2.5G 25000 SL	K10316647178542	63	18	26	39.5	60	M12	180	130	49
HSK-A 63 HC20 150 SLIM AD/2.5G 25000 SL	K10316637173542	63	20	28	36.9	60	M16	150	84	51
HSK-A 63 HC20 180 SLIM AD/2.5G 25000 SL	K10316637178542	63	20	28	40.0	60	M16	180	114	51
HSK-A 63 HC20 195 SLIM AD/2.5G 25000 SL	K10316637957542	63	20	28	41.6	60	M16	195	130	51
HSK-A 63 HC25 150 SLIM AD/2.5G 25000 SL	K10316648173542	63	25	37	45.9	60	M16	150	84	51
HSK-A 63 HC25 180 SLIM AD/2.5G 25000 SL	K10316648178542	63	25	37	49.0	60	M16	180	114	51
HSK-A 63 HC25 195 SLIM AD/2.5G 25000 SL	K10316648957542	63	25	37	50.6	60	M16	195	130	51

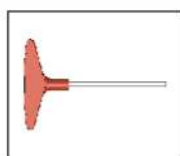
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No. 96-100



Spanner HC
Ref. Page No. 103



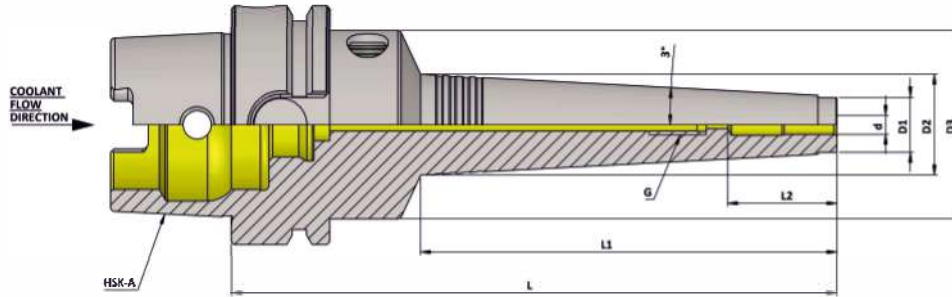
Key HC 5mm
Ref. Page No. 103

HSK-A (DIN 69893-1) Form A

Hydraulic Expansion Chuck Slim 3 Degree



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm

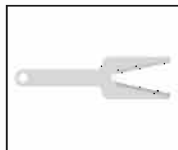


HSK-A (DIN 69893-1) Hydraulic Expansion Chuck Slim 3 Degree										(Balanced to 2.5 G 25000 RPM)
Item Name	Item Code	HSK-A	d	D1	D2	D3	G	L	L1	L2
HSK-A 63 HC1/8" 080 SLIM 2.5G 25000SL	K10305961131258	63	1/8"	11	14.0	46	—	80	28	28
HSK-A 63 HC1/8" 090 SLIM 2.5G 25000SL	K10305961179258	63	1/8"	11	14.9	46	—	90	37	28
HSK-A 63 HC1/8" 135 SLIM 2.5G 25000SL	K10305961166258	63	1/8"	11	19.9	46	—	135	84	28
HSK-A 63 HC3/16" 080 SLIM 2.5G 25000SL	K10305962131258	63	3/16"	11	14.0	46	—	80	28	28
HSK-A 63 HC3/16" 090 SLIM 2.5G 25000SL	K10305962140258	63	3/16"	11	14.9	46	—	90	37	28
HSK-A 63 HC3/16" 135 SLIM 2.5G 25000SL	K10305962166258	63	3/16"	11	19.9	46	—	135	84	28
HSK-A 63 HC1/4" 090 SLIM 2.5G 25000SL	K10305649140258	63	1/4"	13	17.0	46	M5	90	38	37
HSK-A 63 HC1/4" 135 SLIM 2.5G 25000SL	K10305649166258	63	1/4"	13	21.9	46	M5	135	84	37
HSK-A 63 HC1/4" 150 SLIM 2.5G 25000SL	K10305649173258	63	1/4"	13	23.4	46	M5	150	99	37
HSK-A 63 HC1/4" 165 SLIM 2.5G 25000SL	K10305649956258	63	1/4"	13	25.0	46	M5	165	114	37
HSK-A 63 HC1/4" 180 SLIM 2.5G 25000SL	K10305649178258	63	1/4"	13	26.7	46	M5	180	130	37
HSK-A 63 HC5/16" 090 SLIM 2.5G 25000SL	K10305956140258	63	5/16"	15	19.0	46	M6	90	38	37
HSK-A 63 HC5/16" 135 SLIM 2.5G 25000SL	K10305956166258	63	5/16"	15	23.9	46	M6	135	84	37
HSK-A 63 HC5/16" 150 SLIM 2.5G 25000SL	K10305956173258	63	5/16"	15	25.4	46	M6	150	99	37
HSK-A 63 HC5/16" 165 SLIM 2.5G 25000SL	K10305956956258	63	5/16"	15	27.0	46	M6	165	114	37
HSK-A 63 HC5/16" 180 SLIM 2.5G 25000SL	K10305956178258	63	5/16"	15	28.7	46	M6	180	130	37
HSK-A 63 HC3/8" 105 SLIM 2.5G 25000SL	K10305650152258	63	3/8"	17	22.6	46	M8	105	53	41
HSK-A 63 HC3/8" 135 SLIM 2.5G 25000SL	K10305650166258	63	3/8"	17	25.9	46	M8	135	84	41
HSK-A 63 HC3/8" 150 SLIM 2.5G 25000SL	K10305650173258	63	3/8"	17	27.4	46	M8	150	99	41
HSK-A 63 HC3/8" 165 SLIM 2.5G 25000SL	K10305650956258	63	3/8"	17	29.0	46	M8	165	114	41
HSK-A 63 HC3/8" 180 SLIM 2.5G 25000SL	K10305650178258	63	3/8"	17	30.7	46	M8	180	130	41
HSK-A 63 HC1/2" 105 SLIM 2.5G 25000SL	K10305652152258	63	1/2"	19	24.6	46	M10	105	53	46
HSK-A 63 HC1/2" 135 SLIM 2.5G 25000SL	K10305652166258	63	1/2"	19	27.9	46	M10	135	84	46
HSK-A 63 HC1/2" 150 SLIM 2.5G 25000SL	K10305652173258	63	1/2"	19	29.4	46	M10	150	99	46
HSK-A 63 HC1/2" 165 SLIM 2.5G 25000SL	K10305652956258	63	1/2"	19	31.0	46	M10	165	114	46
HSK-A 63 HC1/2" 180 SLIM 2.5G 25000SL	K10305652178258	63	1/2"	19	32.7	46	M10	180	130	46

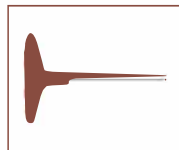
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No. 96-100



Spanner HC
Ref. Page No. 103

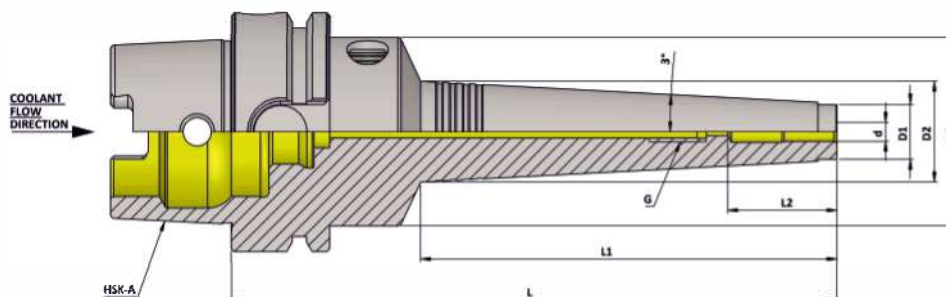


Key HC 5mm
Ref. Page No. 103

HSK-A (DIN 69893-1) Form A Hydraulic Expansion Chuck Slim 3 Degree



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm

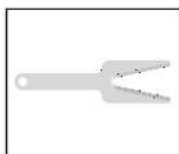


HSK-A (DIN 69893-1) Hydraulic Expansion Chuck Slim 3 Degree											(Balanced to 2.5 G 25000 RPM)	
Item Name	Item Code	HSK-A	d	D1	D2	D3	G	L	L1	L2		
HSK-A 63 HC5/8" 135 SLIM 2.5G 25000SL	K10305651166258	63	5/8"	23	31.9	52.5	M12	135	84	49		
HSK-A 63 HC5/8" 165 SLIM 2.5G 25000SL	K10305651956258	63	5/8"	23	35.0	52.5	M12	165	114	49		
HSK-A 63 HC5/8" 180 SLIM 2.5G 25000SL	K10305651178258	63	5/8"	23	36.6	52.5	M12	180	130	49		
HSK-A 63 HC3/4" 150 SLIM 2.5G 25000SL	K10305653173258	63	3/4"	28	36.9	60	M16	150	84	51		
HSK-A 63 HC3/4" 180 SLIM 2.5G 25000SL	K10305653178258	63	3/4"	28	40.0	60	M16	180	114	51		
HSK-A 63 HC3/4" 195 SLIM 2.5G 25000SL	K10305653957258	63	3/4"	28	41.6	60	M16	195	130	51		
HSK-A 63 HC 1.0" 150 SLIM 2.5G 25000SL	K10305656173258	63	1.0"	37	45.9	60	M16	150	84	51		
HSK-A 63 HC 1.0" 180 SLIM 2.5G 25000SL	K10305656178258	63	1.0"	37	49.0	60	M16	180	114	51		
HSK-A 63 HC 1.0" 195 SLIM 2.5G 25000SL	K10305656957258	63	1.0"	37	50.6	60	M16	195	130	51		

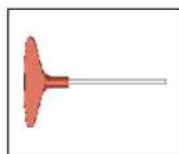
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No. 96-100



Spanner HC
Ref. Page No. 103

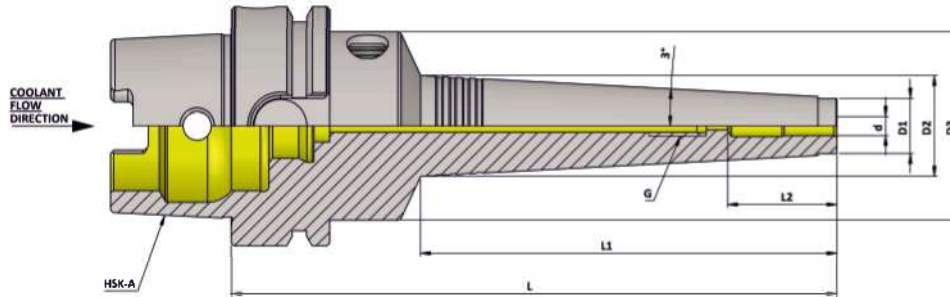


Key HC 5mm
Ref. Page No. 103

HSK-A (DIN 69893-1) Form A Hydraulic Expansion Chuck Slim 3 Degree



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm

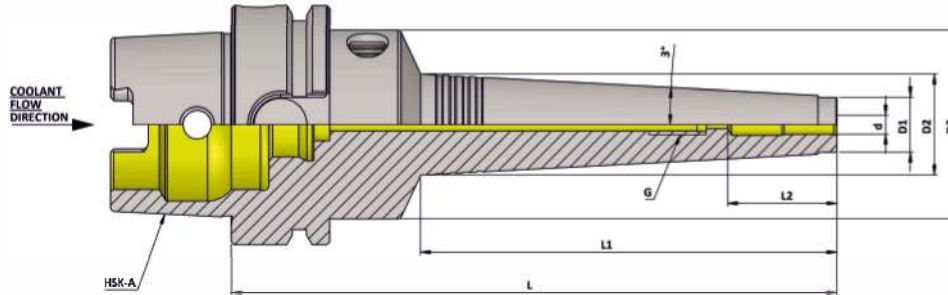


HSK-A (DIN 69893-1) Hydraulic Expansion Chuck Slim 3 Degree							(Balanced to 2.5 G 25000 RPM)				
Item Name		Item Code	HSK-A	d	D1	D2	D3	G	L	L1	L2
HSK-A 100 HC06 105 SLIM 2.5G 25000 SL		K10168642152542	100	6	13	17.0	46	M5	105	38	37
HSK-A 100 HC06 150 SLIM 2.5G 25000 SL		K10168642173542	100	6	13	21.9	46	M5	150	84	37
HSK-A 100 HC06 165 SLIM 2.5G 25000 SL		K10168642956542	100	6	13	23.4	46	M5	165	99	37
HSK-A 100 HC06 180 SLIM 2.5G 25000 SL		K10168642178542	100	6	13	25.0	46	M5	180	114	37
HSK-A 100 HC06 195 SLIM 2.5G 25000 SL		K10168642957542	100	6	13	26.7	46	M5	195	130	37
HSK-A 100 HC08 105 SLIM 2.5G 25000 SL		K10168643152542	100	8	15	19.0	46	M6	105	38	37
HSK-A 100 HC08 150 SLIM 2.5G 25000 SL		K10168643173542	100	8	15	23.9	46	M6	150	84	37
HSK-A 100 HC08 165 SLIM 2.5G 25000 SL		K10168643956542	100	8	15	25.4	46	M6	165	99	37
HSK-A 100 HC08 180 SLIM 2.5G 25000 SL		K10168643178542	100	8	15	27.0	46	M6	180	114	37
HSK-A 100 HC08 195 SLIM 2.5G 25000 SL		K10168643957542	100	8	15	28.7	46	M6	195	130	37
HSK-A 100 HC10 150 SLIM 2.5G 25000 SL		K10168644173542	100	10	17	25.9	46	M8	150	84	41
HSK-A 100 HC10 165 SLIM 2.5G 25000 SL		K10168644956542	100	10	17	27.4	46	M8	165	99	41
HSK-A 100 HC10 180 SLIM 2.5G 25000 SL		K10168644178542	100	10	17	29.0	46	M8	180	114	41
HSK-A 100 HC10 195 SLIM 2.5G 25000 SL		K10168644957542	100	10	17	30.7	46	M8	195	130	41
HSK-A 100 HC12 150 SLIM 2.5G 25000 SL		K10168636173542	100	12	19	27.9	46	M10	150	84	46
HSK-A 100 HC12 165 SLIM 2.5G 25000 SL		K10168636956542	100	12	19	29.4	46	M10	165	99	46
HSK-A 100 HC12 180 SLIM 2.5G 25000 SL		K10168636178542	100	12	19	31.0	46	M10	180	114	46
HSK-A 100 HC12 195 SLIM 2.5G 25000 SL		K10168636957542	100	12	19	32.7	46	M10	195	130	46
HSK-A 100 HC14 150 SLIM 2.5G 25000 SL		K10168645173542	100	14	21	29.8	52.5	M10	150	84	46
HSK-A 100 HC14 180 SLIM 2.5G 25000 SL		K10168645178542	100	14	21	32.9	52.5	M10	180	114	46
HSK-A 100 HC14 195 SLIM 2.5G 25000 SL		K10168645957542	100	14	21	34.5	52.5	M10	195	130	46
HSK-A 100 HC16 150 SLIM 2.5G 25000 SL		K10168646173542	100	16	23	31.9	52.5	M12	150	84	49
HSK-A 100 HC16 180 SLIM 2.5G 25000 SL		K10168646178542	100	16	23	35.0	52.5	M12	180	114	49
HSK-A 100 HC16 195 SLIM 2.5G 25000 SL		K10168646957542	100	16	23	36.6	52.5	M12	195	130	49
HSK-A 100 HC18 150 SLIM 2.5G 25000 SL		K10168647173542	100	18	26	34.8	60	M12	150	84	49
HSK-A 100 HC18 180 SLIM 2.5G 25000 SL		K10168647178542	100	18	26	37.9	60	M12	180	114	49
HSK-A 100 HC18 195 SLIM 2.5G 25000 SL		K10168647957542	100	18	26	39.5	60	M12	195	130	49
HSK-A 100 HC20 150 SLIM 2.5G 25000 SL		K10168637173542	100	20	28	36.9	60	M16	150	84	51
HSK-A 100 HC20 180 SLIM 2.5G 25000 SL		K10168637178542	100	20	28	40.0	60	M16	180	114	51
HSK-A 100 HC20 195 SLIM 2.5G 25000 SL		K10168637957542	100	20	28	41.6	60	M16	195	130	51
HSK-A 100 HC25 150 SLIM 2.5G 25000 SL		K10168648173542	100	25	37	45.9	60	M16	150	84	51
HSK-A 100 HC25 180 SLIM 2.5G 25000 SL		K10168648178542	100	25	37	49.0	60	M16	180	114	51
HSK-A 100 HC25 195 SLIM 2.5G 25000 SL		K10168648957542	100	25	37	50.6	60	M16	195	130	51

HSK-A (DIN 69893-1) Form A Hydraulic Expansion Chuck Slim 3 Degree



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm

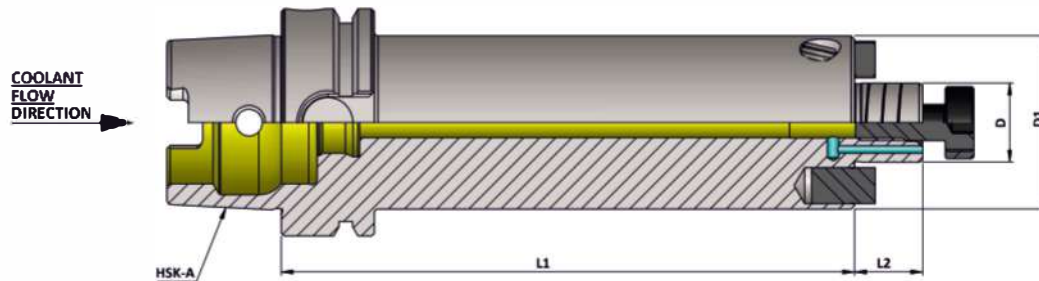


HSK-A (DIN 69893-1) Hydraulic Expansion Chuck Slim 3 Degree						(Balanced to 2.5 G 25000 RPM)				
Item Name	Item Code	HSK-A	d	D1	D2	D3	G	L	L1	L2
HSK-A 100 HC1/4" 105 SLIM 2.5G 25000SL	K10168649152258	100	1/4"	13	17.0	46	M5	105	38	37
HSK-A 100 HC1/4" 150 SLIM 2.5G 25000SL	K10168649173258	100	1/4"	13	21.9	46	M5	150	84	37
HSK-A 100 HC1/4" 165 SLIM 2.5G 25000SL	K10168649956258	100	1/4"	13	23.4	46	M5	165	99	37
HSK-A 100 HC1/4" 180 SLIM 2.5G 25000SL	K10168649178258	100	1/4"	13	25.0	46	M5	180	114	37
HSK-A 100 HC1/4" 195 SLIM 2.5G 25000SL	K10168649957258	100	1/4"	13	26.7	46	M5	195	130	37
HSK-A 100 HC5/16" 105 SLIM 2.5G 25000SL	K10168956152258	100	5/16"	15	19.0	46	M6	105	38	37
HSK-A 100 HC5/16" 150 SLIM 2.5G 25000SL	K10168956173258	100	5/16"	15	23.9	46	M6	150	84	37
HSK-A 100 HC5/16" 165 SLIM 2.5G 25000SL	K10168956956258	100	5/16"	15	25.4	46	M6	165	99	37
HSK-A 100 HC5/16" 180 SLIM 2.5G 25000SL	K10168956178258	100	5/16"	15	27.0	46	M6	180	114	37
HSK-A 100 HC5/16" 195 SLIM 2.5G 25000SL	K10168956957258	100	5/16"	15	28.7	46	M6	195	130	37
HSK-A 100 HC3/8" 150 SLIM 2.5G 25000SL	K10168650173258	100	3/8"	17	25.9	46	M8	150	84	41
HSK-A 100 HC3/8" 165 SLIM 2.5G 25000SL	K10168650956258	100	3/8"	17	27.4	46	M8	165	99	41
HSK-A 100 HC3/8" 180 SLIM 2.5G 25000SL	K10168650178258	100	3/8"	17	29.0	46	M8	180	114	41
HSK-A 100 HC3/8" 195 SLIM 2.5G 25000SL	K10168650957258	100	3/8"	17	30.7	46	M8	195	130	41
HSK-A 100 HC1/2" 150 SLIM 2.5G 25000SL	K10168652173258	100	1/2"	19	27.9	46	M10	150	84	46
HSK-A 100 HC1/2" 165 SLIM 2.5G 25000SL	K10168652956258	100	1/2"	19	29.4	46	M10	165	99	46
HSK-A 100 HC1/2" 180 SLIM 2.5G 25000SL	K10168652178258	100	1/2"	19	31.0	46	M10	180	114	46
HSK-A 100 HC1/2" 195 SLIM 2.5G 25000SL	K10168652957258	100	1/2"	19	32.7	46	M10	195	130	46
HSK-A 100 HC5/8" 150 SLIM 2.5G 25000SL	K10168651173258	100	5/8"	23	31.9	52.5	M12	150	84	49
HSK-A 100 HC5/8" 180 SLIM 2.5G 25000SL	K10168651178258	100	5/8"	23	35.0	52.5	M12	180	114	49
HSK-A 100 HC5/8" 195 SLIM 2.5G 25000SL	K10168651957258	100	5/8"	23	36.6	52.5	M12	195	130	49
HSK-A 100 HC3/4" 150 SLIM 2.5G 25000SL	K10168653173258	100	3/4"	28	36.9	60	M16	150	84	51
HSK-A 100 HC3/4" 180 SLIM 2.5G 25000SL	K10168653178258	100	3/4"	28	40.0	60	M16	180	114	51
HSK-A 100 HC3/4" 195 SLIM 2.5G 25000SL	K10168653957258	100	3/4"	28	41.6	60	M16	195	130	51
HSK-A 100 HC 1.0" 150 SLIM 2.5G 25000SL	K10168656173258	100	1.0"	37	45.9	60	M16	150	84	51
HSK-A 100 HC 1.0" 180 SLIM 2.5G 25000SL	K10168656178258	100	1.0"	37	49.0	60	M16	180	114	51
HSK-A 100 HC 1.0" 195 SLIM 2.5G 25000SL	K10168656957258	100	1.0"	37	50.6	60	M16	195	130	51

HSK-A (DIN 69893-1) Hydraulic Expansion Face Mill Holder (HC-FMH-K)



Maximum Run out of the External Dia with respect to the External Taper 0.005 mm

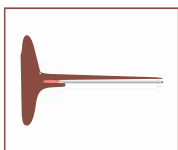


HSK-A (DIN 69893-1) Hydraulic Expansion Face Mill Holder (HC-FMH-K)

(Balanced to 2.5 G 25000 RPM)

Item Name	Item Code	HSK-A	D	D1	L1	L2
HSK-A 50 HC FMH-K22 060 / 2.5G 25000 SL	K10166932117282	50	22	48	60	19
HSK-A 50 HC FMH-K27 060 / 2.5G 25000 SL	K10166933117282	50	27	50	60	21
HSK-A 50 HC FMH-K1.0" 060 2.5G 25000 SL	K10166974117283	50	1.0"	2.375"	60	0.687
HSK-A 63 HC FMH-K22 050 / 2.5G 25000 SL	K10316932111282	63	22	48	50	19
HSK-A 63 HC FMH-K22 100 2.5G 25000 SL	K10316934148283	63	22	48	100	19
HSK-A 63 HC FMH-K22 160 2.5G 25000 SL	K10316934175283	63	22	48	160	19
HSK-A 63 HC FMH-K27 055 / 2.5G 25000 SL	K10316933115282	63	27	50	55	21
HSK-A 63 HC FMH-K27 100 2.5G 25000 SL	K10316935148283	63	27	50	100	21
HSK-A 63 HC FMH-K27 160 2.5G 25000 SL	K10316935175283	63	27	50	160	21
HSK-A 63 HC FMH-K32 060 / 2.5G 25000 SL	K10316938117282	63	32	78	60	24
HSK-A 63 HC FMH-K32 100 2.5G 25000 SL	K10316936148283	63	32	78	100	24
HSK-A 63 HC FMH-K32 160 2.5G 25000 SL	K10316936175283	63	32	78	160	24
HSK-A 63 HC FMH-K40 065 / 2.5G 25000 SL	K10316939123282	63	40	88	65	27
HSK-A 63 HC FMH-K40 100 2.5G 25000 SL	K10316937148283	63	40	88	100	27
HSK-A 63 HC FMH-K40 160 2.5G 25000 SL	K10316937175283	63	40	88	160	27
HSK-A 63 HC FMH-K1.0" 050 2.5G 25000 SL	K10316974111283	63	1.0"	2.375"	50	0.687
HSK-A 63 HC FMH-K1.0" 100 2.5G 25000 SL	K10316974148283	63	1.0"	2.375"	100	0.687
HSK-A 63 HC FMH-K1.0" 160 2.5G 25000 SL	K10316974175283	63	1.0"	2.375"	160	0.687
HSK-A 63 HC FMH-K1 1/4" 060 2.5G 25000 SL	K10316975117283	63	1 1/4"	2.875"	60	0.687
HSK-A 63 HC FMH-K1 1/4" 100 2.5G 25000 SL	K10316975148283	63	1 1/4"	2.875"	100	0.687
HSK-A 63 HC FMH-K1 1/4" 160 2.5G 25000 SL	K10316975175283	63	1 1/4"	2.875"	160	0.687
HSK-A 63 HC FMH-K1 1/2" 065 2.5G 25000 SL	K10316976123283	63	1 1/2"	3.750"	65	0.938
HSK-A 63 HC FMH-K1 1/2" 100 2.5G 25000 SL	K10316976148283	63	1 1/2"	3.750"	100	0.938
HSK-A 63 HC FMH-K1 1/2" 160 2.5G 25000 SL	K10316976175283	63	1 1/2"	3.750"	160	0.938

Accessories

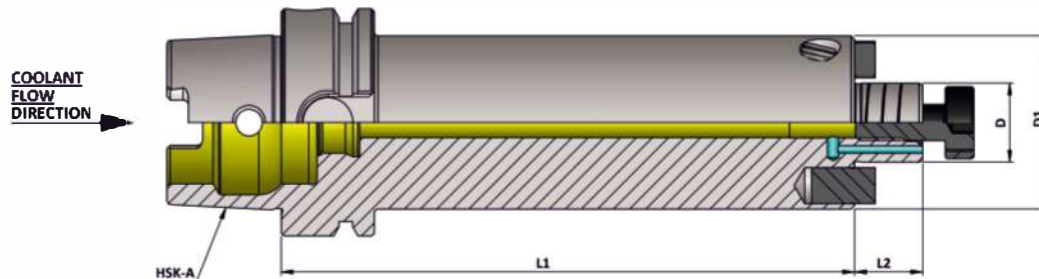


Key HC 5mm
Ref. Page No. 103

HSK-A (DIN 69893-1) Hydraulic Expansion Face Mill Holder (HC-FMH-K)



Maximum Run out of the External Dia with respect to the External Taper 0.005 mm



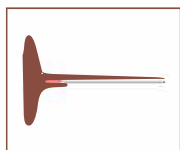
HSK-A (DIN 69893-1) Hydraulic Expansion Face Mill Holder (HC-FMH-K)

(Balanced to 2.5 G 25000 RPM)

Item Name	Item Code	HSK-A	D	D1	L1	L2
HSK-A 100 HC FMH-K22 055 / 2.5G 25000 SL	K10168932114282	100	22	48	55	19
HSK-A 100 HC FMH-K22 100 2.5G 25000 SL	K10168934148283	100	22	48	100	19
HSK-A 100 HC FMH-K22 160 2.5G 25000 SL	K10168934175283	100	22	48	160	19
HSK-A 100 HC FMH-K27 055 / 2.5G 25000 SL	K10168933115282	100	27	50	55	21
HSK-A 100 HC FMH-K27 100 2.5G 25000 SL	K10168935148283	100	27	50	100	21
HSK-A 100 HC FMH-K27 160 2.5G 25000 SL	K10168935175283	100	27	50	160	21
HSK-A 100 HC FMH-K32 060 / 2.5G 25000 SL	K10168938117282	100	32	78	60	24
HSK-A 100 HC FMH-K32 100 2.5G 25000 SL	K10168936148283	100	32	78	100	24
HSK-A 100 HC FMH-K32 160 2.5G 25000 SL	K10168936175283	100	32	78	160	24
HSK-A 100 HC FMH-K40 065 / 2.5G 25000 SL	K10168939123282	100	40	88	65	27
HSK-A 100 HC FMH-K40 100 2.5G 25000 SL	K10168937148283	100	40	88	100	27
HSK-A 100 HC FMH-K40 160 2.5G 25000 SL	K10168937175283	100	40	88	160	27

HSK-A 100 HC FMH-K1.0" 055 2.5G 25000 SL	K10168974115283	100	1.0"	2.375"	55	0.687
HSK-A 100 HC FMH-K1.0" 100 2.5G 25000 SL	K10168974148283	100	1.0"	2.375"	100	0.687
HSK-A 100 HC FMH-K1.0" 160 2.5G 25000 SL	K10168974175283	100	1.0"	2.375"	160	0.687
HSK-A 100 HC FMH-K1 1/4" 060 2.5G 25000 SL	K10168975117283	100	1 1/4"	2.875"	60	0.687
HSK-A 100 HC FMH-K1 1/4" 100 2.5G 25000 SL	K10168975148283	100	1 1/4"	2.875"	100	0.687
HSK-A 100 HC FMH-K1 1/4" 160 2.5G 25000 SL	K10168975175283	100	1 1/4"	2.875"	160	0.687
HSK-A 100 HC FMH-K1 1/2" 065 2.5G 25000 SL	K10168976123283	100	1 1/2"	3.750"	65	0.938
HSK-A 100 HC FMH-K1 1/2" 100 2.5G 25000 SL	K10168976148283	100	1 1/2"	3.750"	100	0.938
HSK-A 100 HC FMH-K1 1/2" 160 2.5G 25000 SL	K10168976175283	100	1 1/2"	3.750"	160	0.938

Accessories:

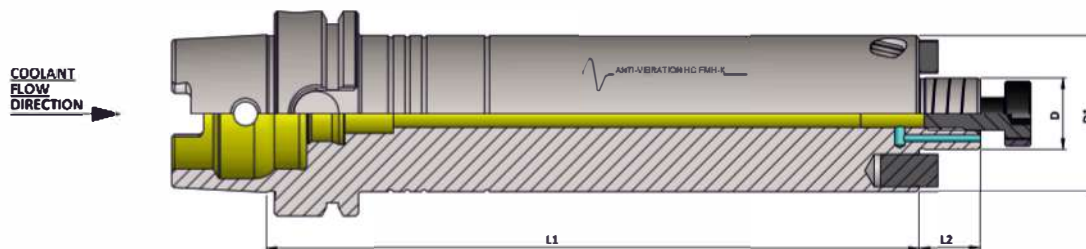


Key HC 5mm
Ref. Page No. 103

HSK-A (DIN 69893-1) Hydraulic Expansion Face Mill Holder Anti - Vibration (HC-FMH-K AD/AV)



Maximum Run out of the External Dia with respect to the External Taper 0.010 mm

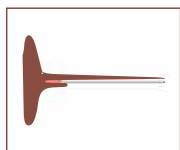


HSK-A (DIN 69893-1) Hydraulic Expansion Face Mill Holder (HC-FMH-K - AD/AV)

ITEM NAME	ITEM CODE	HSK-A	D	D1	L1	L2
HSK-A 63 HC FMH-K22 200 AD/AV	K10305934239539	63	22	48	200	19
HSK-A 63 HC FMH-K22 250 AD/AV	K10305934182539	63	22	48	250	19
HSK-A 63 HC FMH-K22 300 AD/AV	K10305934183539	63	22	48	300	19
HSK-A 63 HC FMH-K27 200 AD/AV	K10305935239539	63	27	50	200	21
HSK-A 63 HC FMH-K27 250 AD/AV	K10305935182539	63	27	50	250	21
HSK-A 63 HC FMH-K27 300 AD/AV	K10305935183539	63	27	50	300	21
HSK-A 63 HC FMH-K32 200 AD/AV	K10305936239539	63	32	78	200	24
HSK-A 63 HC FMH-K32 250 AD/AV	K10305936182539	63	32	78	250	24
HSK-A 63 HC FMH-K32 300 AD/AV	K10305936183539	63	32	78	300	24
HSK-A 63 HC FMH-K40 200 AD/AV	K10305937239539	63	40	88	200	27
HSK-A 63 HC FMH-K40 250 AD/AV	K10305937182539	63	40	88	250	27
HSK-A 63 HC FMH-K40 300 AD/AV	K10305937183539	63	40	88	300	27

HSK-A 63 HC FMH-K1.0" 200 AD/AV	K10305974239539	63	1.0"	2.375"	200	0.687"
HSK-A 63 HC FMH-K1.0" 250 AD/AV	K10305974182539	63	1.0"	2.375"	250	0.687"
HSK-A 63 HC FMH-K1.0" 300 AD/AV	K10305974183539	63	1.0"	2.375"	300	0.687"
HSK-A 63 HC FMH-K1 1/4" 200 AD/AV	K10305975239539	63	1 1/4"	2.875"	200	0.687"
HSK-A 63 HC FMH-K1 1/4" 250 AD/AV	K10305975182539	63	1 1/4"	2.875"	250	0.687"
HSK-A 63 HC FMH-K1 1/4" 300 AD/AV	K10305975183539	63	1 1/4"	2.875"	300	0.687"
HSK-A 63 HC FMH-K1 1/2" 200 AD/AV	K10305976239539	63	1 1/2"	3.750"	200	0.938"
HSK-A 63 HC FMH-K1 1/2" 250 AD/AV	K10305976182539	63	1 1/2"	3.750"	250	0.938"
HSK-A 63 HC FMH-K1 1/2" 300 AD/AV	K10305976183539	63	1 1/2"	3.750"	300	0.938"

Accessories:

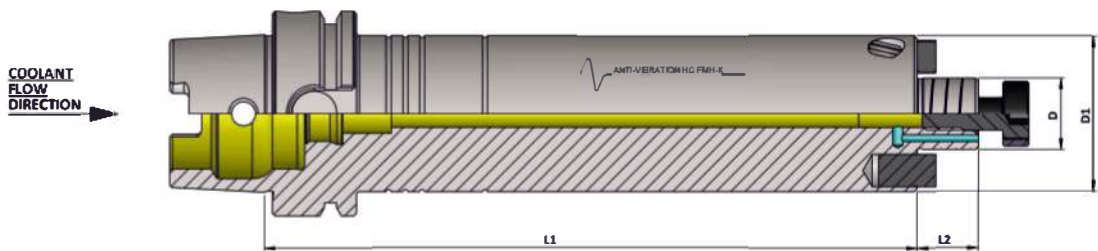


Key HC 5mm
Ref. Page No. 103

HSK-A (DIN 69893-1) **Hydraulic Expansion Face Mill Holder** **Anti - Vibration (HC-FMH-K AD/AV)**



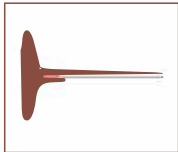
Maximum Run out of the External Dia with respect to the External Taper 0.010 mm



HSK-A (DIN 69893-1) Hydraulic Expansion Face Mill Holder (HC-FMH-K - AD/AV)

ITEM NAME	ITEM CODE	HSK-A	D	D1	L1	L2
HSK-A 100 HC FMH-K22 200 AD/AV	K10168934239539	100	22	48	200	19
HSK-A 100 HC FMH-K22 250 AD/AV	K10168934182539	100	22	48	250	19
HSK-A 100 HC FMH-K22 300 AD/AV	K10168934183539	100	22	48	300	19
HSK-A 100 HC FMH-K22 350 AD/AV	K10168934184539	100	22	48	350	19
HSK-A 100 HC FMH-K22 400 AD/AV	K10168934540539	100	22	48	400	19
HSK-A 100 HC FMH-K27 200 AD/AV	K10168935239539	100	27	50	200	21
HSK-A 100 HC FMH-K27 250 AD/AV	K10168935182539	100	27	50	250	21
HSK-A 100 HC FMH-K27 300 AD/AV	K10168935183539	100	27	50	300	21
HSK-A 100 HC FMH-K27 350 AD/AV	K10168935184539	100	27	50	350	21
HSK-A 100 HC FMH-K27 400 AD/AV	K10168935540539	100	27	50	400	21
HSK-A 100 HC FMH-K32 200 AD/AV	K10168936239539	100	32	78	200	24
HSK-A 100 HC FMH-K32 250 AD/AV	K10168936182539	100	32	78	250	24
HSK-A 100 HC FMH-K32 300 AD/AV	K10168936183539	100	32	78	300	24
HSK-A 100 HC FMH-K32 350 AD/AV	K10168936184539	100	32	78	350	24
HSK-A 100 HC FMH-K32 400 AD/AV	K10168936540539	100	32	78	400	24
HSK-A 100 HC FMH-K40 200 AD/AV	K10168937239539	100	40	88	200	27
HSK-A 100 HC FMH-K40 250 AD/AV	K10168937182539	100	40	88	250	27
HSK-A 100 HC FMH-K40 300 AD/AV	K10168937183539	100	40	88	300	27
HSK-A 100 HC FMH-K40 350 AD/AV	K10168937184539	100	40	88	350	27
HSK-A 100 HC FMH-K40 400 AD/AV	K10168937540539	100	40	88	400	27

Accessories:

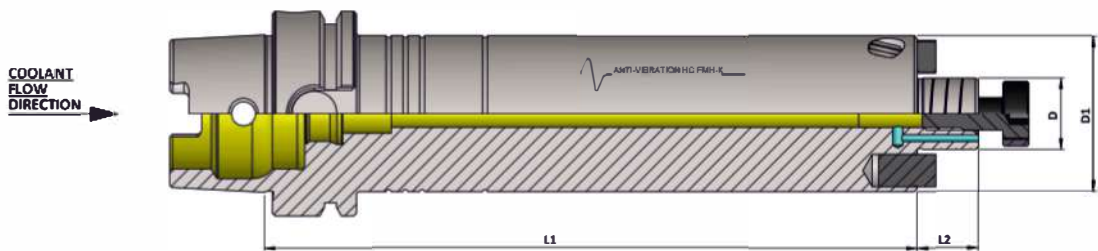


Key HC 5mm
Ref. Page No. 103

HSK-A (DIN 69893-1) **Hydraulic Expansion Face Mill Holder** **Anti - Vibration (HC-FMH-K AD/AV)**



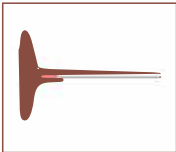
Maximum Run out of the External Dia with respect to the External Taper 0.010 mm



HSK-A (DIN 69893-1) Hydraulic Expansion Face Mill Holder (HC-FMH-K - AD/AV)

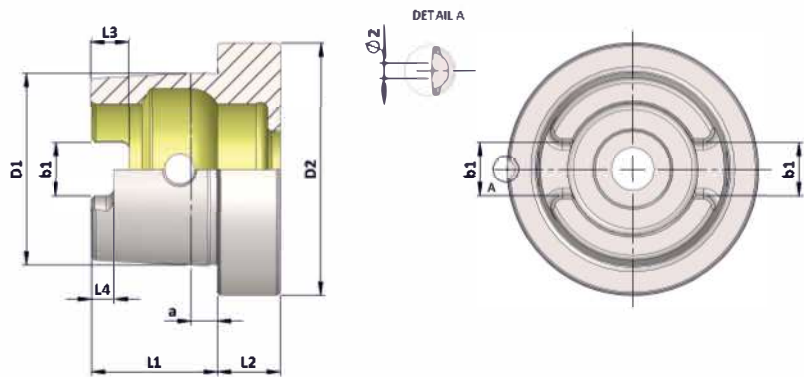
ITEM NAME	ITEM CODE	HSK-A	D	D1	L1	L2
HSK-A 100 HC FMH-K1.0" 200 AD/AV	K10168974239539	100	1.0"	2.375"	200	0.687"
HSK-A 100 HC FMH-K1.0" 250 AD/AV	K10168974182539	100	1.0"	2.375"	250	0.687"
HSK-A 100 HC FMH-K1.0" 300 AD/AV	K10168974183539	100	1.0"	2.375"	300	0.687"
HSK-A 100 HC FMH-K1.0" 350 AD/AV	K10168974184539	100	1.0"	2.375"	350	0.687"
HSK-A 100 HC FMH-K1.0" 400 AD/AV	K10168974540539	100	1.0"	2.375"	400	0.687"
HSK-A 100 HC FMH-K1 1/4" 200 AD/AV	K10168975239539	100	1 1/4"	2.875"	200	0.687"
HSK-A 100 HC FMH-K1 1/4" 250 AD/AV	K10168975182539	100	1 1/4"	2.875"	250	0.687"
HSK-A 100 HC FMH-K1 1/4" 300 AD/AV	K10168975183539	100	1 1/4"	2.875"	300	0.687"
HSK-A 100 HC FMH-K1 1/4" 350 AD/AV	K10168975184539	100	1 1/4"	2.875"	350	0.687"
HSK-A 100 HC FMH-K1 1/4" 400 AD/AV	K10168975540539	100	1 1/4"	2.875"	400	0.687"
HSK-A 100 HC FMH-K1 1/2" 200 AD/AV	K10168976239539	100	1 1/2"	3.750"	200	0.938"
HSK-A 100 HC FMH-K1 1/2" 250 AD/AV	K10168976182539	100	1 1/2"	3.750"	250	0.938"
HSK-A 100 HC FMH-K1 1/2" 300 AD/AV	K10168976183539	100	1 1/2"	3.750"	300	0.938"
HSK-A 100 HC FMH-K1 1/2" 350 AD/AV	K10168976184539	100	1 1/2"	3.750"	350	0.938"
HSK-A 100 HC FMH-K1 1/2" 400 AD/AV	K10168976540539	100	1 1/2"	3.750"	400	0.938"

Accessories:



Key HC 5mm
 Ref. Page No. 103

HSK-C (DIN 69893-1) Form C Technical Information



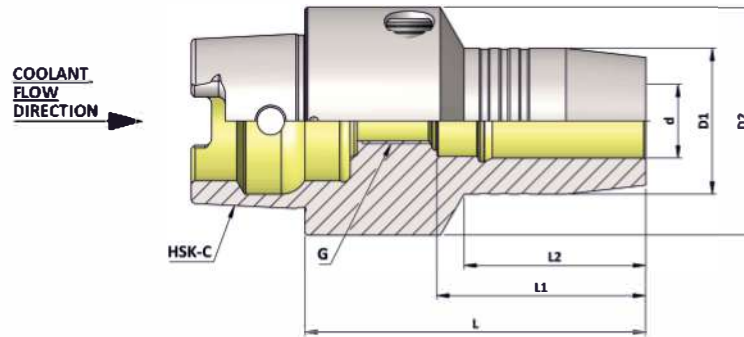
HSK-C	D1	D2	a	b1	L1	L2	L3	L4
40	30	40	4	8.05	20	10	6	3.50
50	38	50	5	10.54	25	12.50	7.50	4.50
63	48	63	6.30	12.54	32	12.50	10	6

Material :- Case hardened steel, tensile strength in the core min. 950 N/mm²
 Execution :- Case hardened to HRC 58 ± 2, Case Depth 0.8 mm., Silver finish.
 Accuracy :- Taper Angle Class AT 3

HSK-C (DIN 69893-1) Form C Hydraulic Expansion Chuck



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm



HSK-C (DIN 69893-1) Hydraulic Expansion Chuck

(Balanced to 2.5 G 25000 RPM)

Item Name	Item Code	HSK-C	d	D1	D2	G	L	L1	L2
HSK-C 40 HC06 060 2.5G 25000 SL	K10303642117283	40	6	26	40	M5	60	37	35
HSK-C 40 HC08 060 2.5G 25000 SL	K10303643117283	40	8	28	40	M6	60	37	36
HSK-C 40 HC10 065 2.5G 25000 SL	K10303644123283	40	10	30	40	M6	65	41	41
HSK-C 40 HC12 070 2.5G 25000 SL	K10303636125283	40	12	32	40	M6	70	46	47

HSK-C 40 HC1/4" 060 2.5G 25000 SL	K10303649117283	40	1/4"	26	50	M5	60	37	35
HSK-C 40 HC5/16" 060 2.5G 25000 SL	K10303956117283	40	5/16"	28	40	M6	60	37	36
HSK-C 40 HC3/8" 065 2.5G 25000 SL	K10303650123283	40	3/8"	30	40	M6	65	41	41
HSK-C 40 HC1/2" 070 2.5G 25000 SL	K10303652125283	40	1/2"	32	40	M6	70	46	47

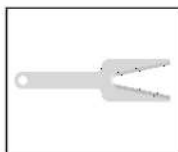
HSK-C 50 HC06 060 2.5G 25000 SL	K10309642117283	50	6	26	40	M5	60	37	30
HSK-C 50 HC08 060 2.5G 25000 SL	K10309644123283	50	8	28	50	M6	60	37	30
HSK-C 50 HC10 065 2.5G 25000 SL	K10303650123283	50	10	30	50	M8	65	41	35
HSK-C 50 HC12 075 2.5G 25000 SL	K10309636127283	50	12	32	50	M10	75	46	40
HSK-C 50 HC14 075 2.5G 25000 SL	K10309645127283	50	14	34	50	M10	75	46	40
HSK-C 50 HC16 080 2.5G 25000 SL	K10309646131283	50	16	38	50	M12	80	49	50
HSK-C 50 HC18 080 2.5G 25000 SL	K10309647131283	50	18	40	50	M12	80	49	50
HSK-C 50 HC20 080 2.5G 25000 SL	K10309637131283	50	20	42	50	M16	80	51	50
HSK-C 50 HC25 090 2.5G 25000 SL	K10309648140283	50	25	49.5	50	M16	90	57	59

HSK-C 50 HC1/4" 060 2.5G 25000 SL	K10309649117283	50	1/4"	26	50	M5	60	37	30
HSK-C 50 HC5/16" 060 2.5G 25000 SL	K10309956117283	50	5/16"	28	50	M6	60	37	30
HSK-C 50 HC3/8" 065 2.5G 25000 SL	K10309650123283	50	3/8"	30	50	M8	65	41	35
HSK-C 50 HC1/2" 075 2.5G 25000 SL	K10309652127283	50	1/2"	32	50	M10	75	46	40
HSK-C 50 HC5/8" 080 2.5G 25000 SL	K10309651131283	50	5/8"	38	50	M12	80	49	50
HSK-C 50 HC3/4" 080 2.5G 25000 SL	K10309653131283	50	3/4"	42	50	M16	80	51	50
HSK-C 50 HC1" 090 2.5G 25000 SL	K10309957140283	50	1"	49.5	50	M16	90	57	59

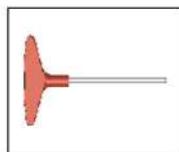
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No. 96-100



Spanner HC
Ref. Page No. 103

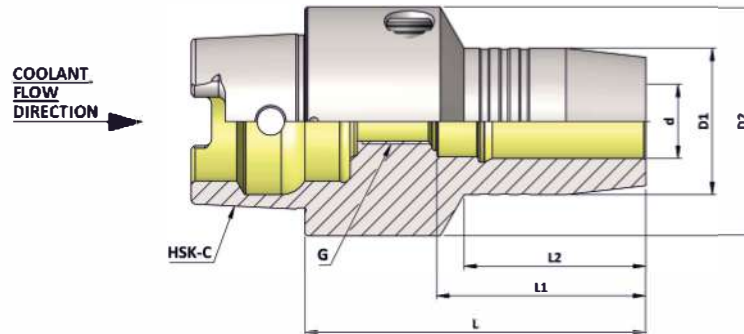


Key HC 5mm
Ref. Page No. 103

HSK-C (DIN 69893-1) Form C Hydraulic Expansion Chuck



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm



HSK-C (DIN 69893-1) Hydraulic Expansion Chuck

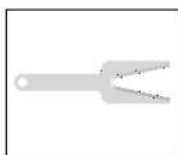
(Balanced to 2.5 G 25000 RPM)

Item Name	Item Code	HSK-C	d	D1	D2	G	L	L1	L2
HSK-C 63 HC06 060 2.5G 25000 SL	K10302642117283	63	6	26	63	M5	60	37	25
HSK-C 63 HC08 060 2.5G 25000 SL	K10302643117283	63	8	28	63	M6	60	37	25
HSK-C 63 HC10 065 2.5G 25000 SL	K10302644123283	63	10	30	63	M8	65	41	31
HSK-C 63 HC12 075 2.5G 25000 SL	K10302636127283	63	12	32	63	M10	75	46	41
HSK-C 63 HC14 075 2.5G 25000 SL	K10302645127283	63	14	34	63	M10	75	46	42
HSK-C 63 HC16 080 2.5G 25000 SL	K10302646131283	63	16	38	63	M12	80	49	48
HSK-C 63 HC18 080 2.5G 25000 SL	K10302647131283	63	18	40	63	M12	80	49	48
HSK-C 63 HC20 080 2.5G 25000 SL	K10302637131283	63	20	62	63	M16	80	51	49
HSK-C 63 HC25 095 2.5G 25000 SL	K10302648145283	63	25	58	63	M16	95	57	63
HSK-C 63 HC32 100 2.5G 25000 SL	K10302638148283	63	32	62	63	M16	100	61	60
HSK-C 63 HC1/4" 060 2.5G 25000 SL	K10302649117283	63	1/4"	26	63	M5	60	37	25
HSK-C 63 HC5/16" 060 2.5G 25000 SL	K10302956117283	63	5/16"	28	63	M6	60	37	25
HSK-C 63 HC3/8" 065 2.5G 25000 SL	K10302650123283	63	3/8"	30	63	M8	65	41	31
HSK-C 63 HC1/2" 075 2.5G 25000 SL	K10302652127283	63	1/2"	32	63	M10	75	46	41
HSK-C 63 HC5/8" 080 2.5G 25000 SL	K10302651131283	63	5/8"	38	63	M12	80	49	48
HSK-C 63 HC3/4" 080 2.5G 25000 SL	K10302653131283	63	3/4"	42	63	M16	80	51	49
HSK-C 63 Hc1" 095 2.5G 25000 SL	K10302957145283	63	1"	58	63	M16	95	57	63
HSK-C 63 HC1-1/4" 100 2.5G 25000 SL	K10302655148283	63	1-1/4"	62	63	M16	100	61	60

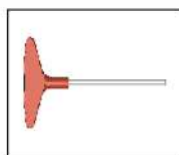
Accessories:



Reduction Sleeve Seal
(RSS) Ref. Page No. 96-100



Spanner HC
Ref. Page No. 103

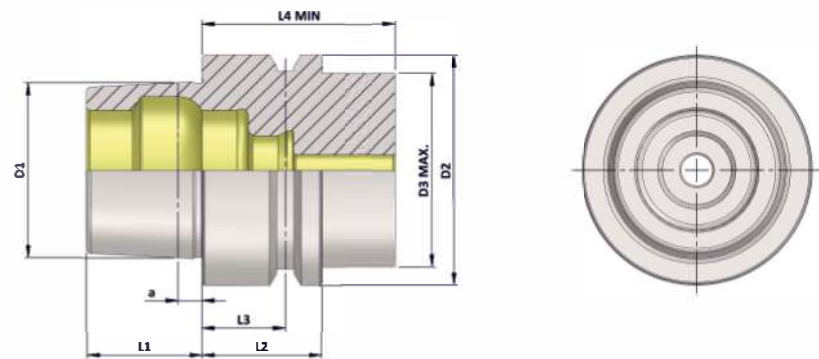


Key HC 5mm
Ref. Page No. 103

Note: All Dimensions are in mm

HSK-E (DIN 69893-5) Form E

Technical Information



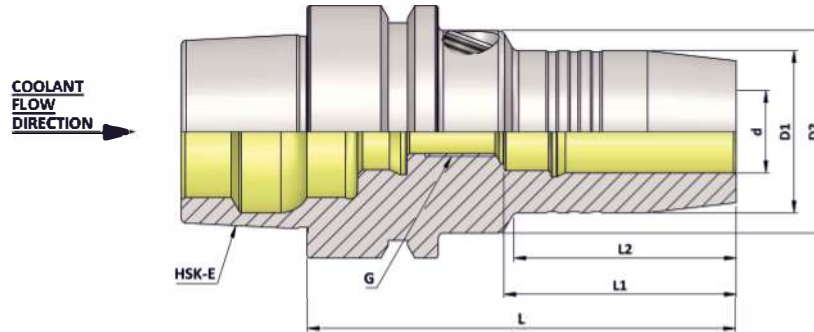
HSK-E	D1	D2	D3	a	L1	L2	L3	L4
40	30	40	34	4	20	20	16	35
50	38	50	42	5	25	26	18	42

Material :- Case hardened steel, tensile strength in the core min. 950 N/mm²
Execution :- Case hardened to HRC 58 ± 2, Case Depth 0.8 mm., Silver finish.
Accuracy :- Taper Angle Class AT 3

HSK-E (DIN 69893-5) Form E Hydraulic Expansion Chuck



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm



HSK-E (DIN 69893-5) Hydraulic Expansion Chuck

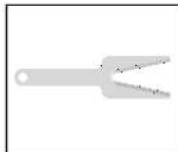
(Balanced to 2.5 G 25000 RPM)

Item Name	Item Code	HSK-E	d	D1	D2	G	L	L1	L2
HSK-E 40 HC06 070 2.5G 25000 SL	K10321642125283	40	6	26	33.5	M5	70	37	36
HSK-E 40 HC08 070 2.5G 25000 SL	K10321643125283	40	8	28	33.5	M6	70	37	36
HSK-E 40 HC10 075 2.5G 25000 SL	K10321644127283	40	10	30	33.5	M6	75	41	42
HSK-E 40 HC12 080 2.5G 25000 SL	K10321636131283	40	12	32	33.5	M6	80	46	48
HSK-E 40 HC1/4" 070 2.5G 25000 SL	K10321649125283	40	1/4"	26	33.5	M5	70	37	36
HSK-E 40 HC5/16" 070 2.5G 25000 SL	K10321956125283	40	5/16"	28	33.5	M6	70	37	36
HSK-E 40 HC3/8" 075 2.5G 25000 SL	K10321650127283	40	3/8"	30	33.5	M6	75	41	42
HSK-E 40 HC1/2" 080 2.5G 25000 SL	K10321652131283	40	1/2"	32	33.5	M6	80	46	48
HSK-E 50 HC06 070 2.5G 25000 SL	K10286642125283	50	6	26	40	M5	70	37	28
HSK-E 50 HC08 070 2.5G 25000 SL	K10286643125283	50	8	28	40	M6	70	37	28
HSK-E 50 HC10 075 2.5G 25000 SL	K10286644127283	50	10	30	40	M8	75	41	34
HSK-E 50 HC12 085 2.5G 25000 SL	K10286636135283	50	12	32	40	M10	85	46	44
HSK-E 50 HC14 085 2.5G 25000 SL	K10286645135283	50	14	34	40	M10	85	46	44
HSK-E 50 HC16 090 2.5G 25000 SL	K10286646140283	50	16	38	42	M12	90	49	30
HSK-E 50 HC18 090 2.5G 25000 SL	K10286647140283	50	18	40	42	M12	90	49	29
HSK-E 50 HC20 090 2.5G 25000 SL	K10286637140283	50	20	42	42	M16	90	51	29
HSK-E 50 HC1/4" 070 2.5G 25000 SL	K10286649125283	50	1/4"	26	40	M5	70	37	28
HSK-E 50 HC5/16" 070 2.5G 25000 SL	K10286956125283	50	5/16"	28	40	M6	70	37	28
HSK-E 50 HC3/8" 075 2.5G 25000 SL	K10286650127283	50	3/8"	30	40	M8	75	41	34
HSK-E 50 HC1/2" 085 2.5G 25000 SL	K10286652135283	50	1/2"	32	40	M10	85	46	44
HSK-E 50 HC5/8" 090 2.5G 25000 SL	K10286651140283	50	5/8"	38	42	M12	90	49	30
HSK-E 50 HC3/4" 090 2.5G 25000 SL	K10286653140283	50	3/4"	42	42	M16	90	51	29

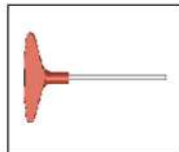
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No. 96-100



Spanner HC
Ref. Page No. 103

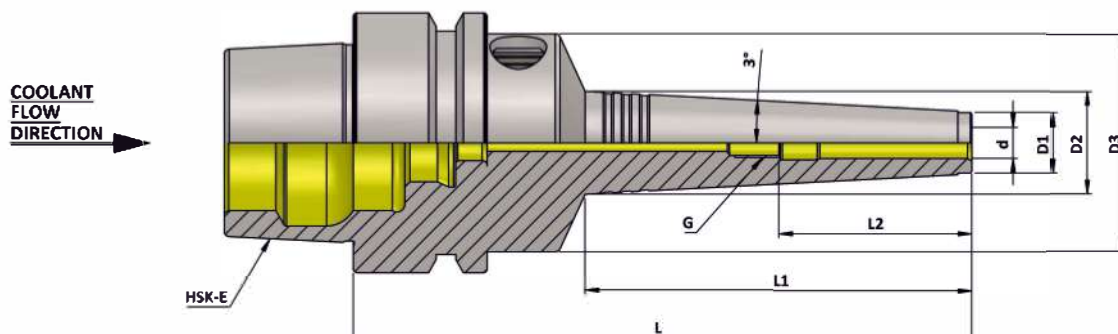


Key HC 5mm
Ref. Page No. 103

HSK-E (DIN 69893-5) Form E Hydraulic Expansion Chuck Slim 3 Degree



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm



HSK-E (DIN 69893-5) Hydraulic Expansion Chuck Slim 3 Degree

(Balanced to 2.5 G 25000 RPM)

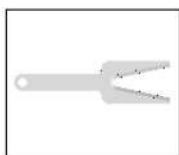
Item Name	Item Code	HSK-E	d	D1	D2	D3	G	L	L1	L2
HSK-E 40 HC03 090 SLIM 2.5G 25000SL	K10165707140258	40	3	11	14.0	46	M2.5	90	28	28
HSK-E 40 HC04 090 SLIM 2.5G 25000SL	K10165708140258	40	4	11	14.0	46	M2.5	90	28	28
HSK-E 40 HC05 090 SLIM 2.5G 25000SL	K10165709140258	40	5	12	14.9	46	M2.5	90	28	28
HSK-E 40 HC06 105 SLIM 2.5G 25000SL	K10165642152258	40	6	13	17.0	46	M5	105	38	37
HSK-E 40 HC08 105 SLIM 2.5G 25000SL	K10165643152258	40	8	15	19.0	46	M6	105	38	37
HSK-E 40 HC10 120 SLIM 2.5G 25000SL	K10165644162258	40	10	17	22.6	46	M6	120	53	41
HSK-E 40 HC12 120 SLIM 2.5G 25000SL	K10165636162258	40	12	19	24.6	46	M6	120	53	46

HSK-E 40 HC1/8" 090 SLIM 2.5G 25000SL	K10321961140258	40	1/8"	11	14.0	46	M2.5	90	28	28
HSK-E 40 HC3/16" 090 SLIM 2.5G 25000SL	K10321962140258	40	3/16"	11	14.0	46	M2.5	90	28	28
HSK-E 40 HC1/4" 105 SLIM 2.5G 25000SL	K10321649152258	40	1/4"	13	17.0	46	M5	105	38	37
HSK-E 40 HC5/16" 105 SLIM 2.5G 25000SL	K10321956152258	40	5/16"	15	19.0	46	M6	105	38	37
HSK-E 40 HC3/8" 120 SLIM 2.5G 25000SL	K10321650162258	40	3/8"	17	22.6	46	M6	120	53	41
HSK-E 40 HC1/2" 120 SLIM 2.5G 25000SL	K10321652162258	40	1/2"	19	24.6	46	M6	120	53	46

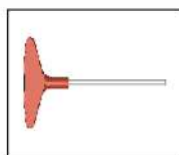
Accessories:



Reduction Sleeve Seal
(RSS) Ref. Page No. 96-100



Spanner HC
Ref. Page No. 103



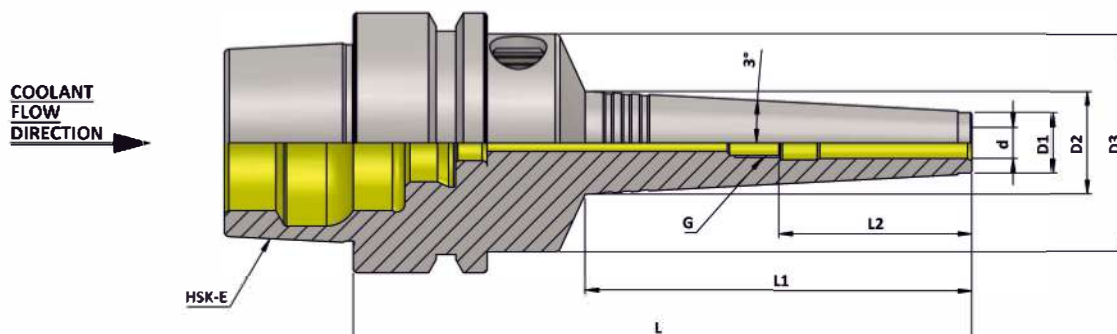
Key HC 5mm
Ref. Page No. 103

Note: All Dimensions are in mm

HSK-E (DIN 69893-5) Form E Hydraulic Expansion Chuck Slim 3 Degree



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm



HSK-E (DIN 69893-5) Hydraulic Expansion Chuck Slim 3 Degree

(Balanced to 2.5 G 25000 RPM)

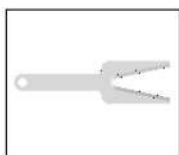
Item Name	Item Code	HSK-E	d	D1	D2	D3	G	L	L1	L2
HSK-E 50 HC03 095 SLIM 2.5G 25000SL	K10286707145258	50	3	11	14.0	46	M2.5	95	28	28
HSK-E 50 HC04 095 SLIM 2.5G 25000SL	K10286708145258	50	4	11	14.0	46	M2.5	95	28	28
HSK-E 50 HC05 095 SLIM 2.5G 25000SL	K10286709145258	50	5	12	14.9	46	M2.5	95	28	28
HSK-E 50 HC06 105 SLIM 2.5G 25000SL	K10286642152258	50	6	13	17.0	46	M5	105	38	37
HSK-E 50 HC08 105 SLIM 2.5G 25000SL	K10286643152258	50	8	15	19.0	46	M6	105	38	37
HSK-E 50 HC10 120 SLIM 2.5G 25000SL	K10286644162258	50	10	17	22.6	46	M8	120	53	41
HSK-E 50 HC12 120 SLIM 2.5G 25000SL	K10286636162258	50	12	19	24.6	46	M10	120	53	46

HSK-E 50 HC1/8" 095 SLIM 2.5G 25000SL	K10286961145258	50	1/8"	11	14.0	46	M2.5	95	28	28
HSK-E 50 HC3/16" 095 SLIM 2.5G 25000SL	K10286962145258	50	3/16"	11	14.0	46	M2.5	95	28	28
HSK-E 50 HC1/4" 105 SLIM 2.5G 25000SL	K10286649152258	50	1/4"	13	17.0	46	M5	105	38	37
HSK-E 50 HC5/16" 105 SLIM 2.5G 25000SL	K10286956152258	50	5/16"	15	19.0	46	M6	105	38	37
HSK-E 50 HC3/8" 120 SLIM 2.5G 25000SL	K10286650162258	50	3/8"	17	22.6	46	M8	120	53	41
HSK-E 50 HC1/2" 120 SLIM 2.5G 25000SL	K10286652162258	50	1/2"	19	24.6	46	M10	120	53	46

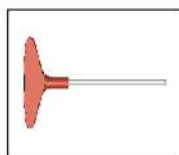
Accessories:



Reduction Sleeve Seal
(RSS) Ref. Page No. 96-100

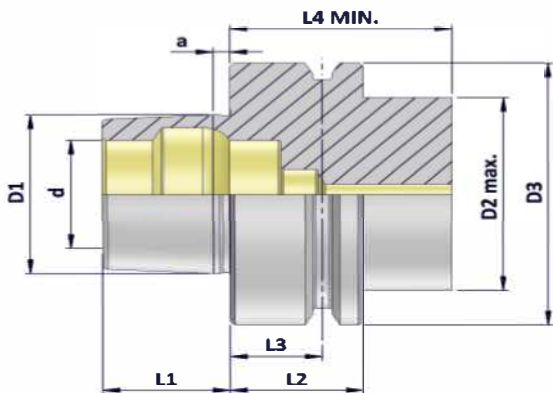


Spanner HC
Ref. Page No. 103



Key HC 5mm
Ref. Page No. 103

HSK-F (DIN 69893-6) Form F Technical Information



HSK-F	D1	D2	D3	a	b1	L1	L2	L3	L4
63	26	38	53	63	5	25	26	18	42

Material :- Case hardened steel, tensile strength in the core min. 950 N/mm²

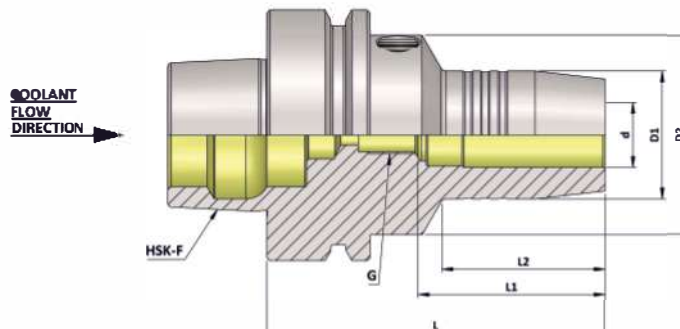
Execution :- Case hardened to HRC 58 ± 2, Case Depth 0.8 mm., Silver finish.

Accuracy :- Taper Angle Class AT 3

HSK-F (DIN 69893-6) Form F Hydraulic Expansion Chuck



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm



HSK-F (DIN 69893-6) Hydraulic Expansion Chuck

(Balanced to 2.5 G 25000 RPM)

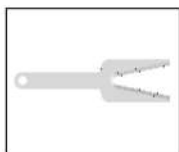
Item Name	Item Code	HSK-F	d	D1	D2	G	L	L1	L2
HSK-63F HC06 070 2.5G 25000 SL	K10260642125283	63	6	26	50	M5	70	37	24
HSK-63F HC08 070 2.5G 25000 SL	K10260643125283	63	8	28	50	M6	70	37	25
HSK-63F HC10 080 2.5G 25000 SL	K10260644131283	63	10	30	50	M8	80	41	35
HSK-63F HC12 085 2.5G 25000 SL	K10260636135283	63	12	32	50	M10	85	46	40
HSK-63F HC14 085 2.5G 25000 SL	K10260645135283	63	14	34	50	M10	85	46	40
HSK-63F HC16 090 2.5G 25000 SL	K10260646140283	63	16	38	50	M12	90	49	46
HSK-63F HC18 090 2.5G 25000 SL	K10260647140283	63	18	40	50	M12	90	49	47
HSK-63F HC20 090 2.5G 25000 SL	K10260637140283	63	20	42	50	M16	90	51	48
HSK-63F HC25 120 2.5G 25000 SL	K10260648162283	63	25	57	53	M16	120	57	63

HSK-63F HC1/4" 070 2.5G 25000 SL	K10260649125283	63	1/4"	26	50	M5	70	37	24
HSK-63F HC5/16" 070 2.5G 25000 SL	K10260956125283	63	5/16"	28	50	M6	70	37	25
HSK-63F HC3/8" 080 2.5G 25000 SL	K10260650131283	63	3/8"	30	50	M8	80	41	35
HSK-63F HC1/2" 085 2.5G 25000 SL	K10260652135283	63	1/2"	32	50	M10	85	46	40
HSK-63F HC5/8" 090 2.5G 25000 SL	K10260651140283	63	5/8"	38	50	M12	90	49	46
HSK-63F HC3/4" 090 2.5G 25000 SL	K10260653140283	63	3/4"	42	50	M16	90	51	48
HSK-63F HC1" 120 2.5G 25000 SL	K10260957162283	63	1"	57	53	M16	120	57	63

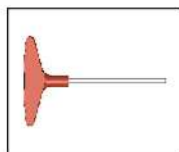
Accessories:



Reduction Sleeve Seal
(RSS) Ref. Page No. 96-100

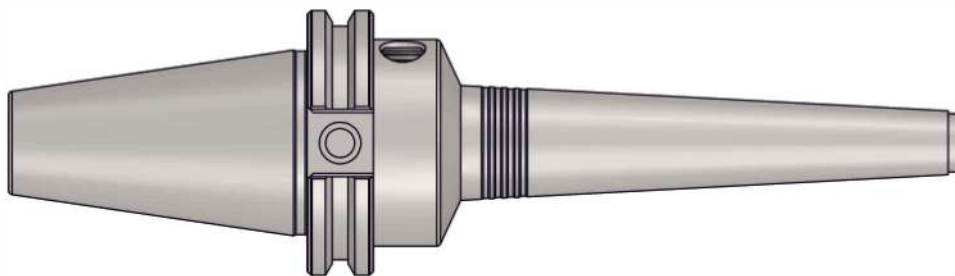


Spanner HC
Ref. Page No. 103

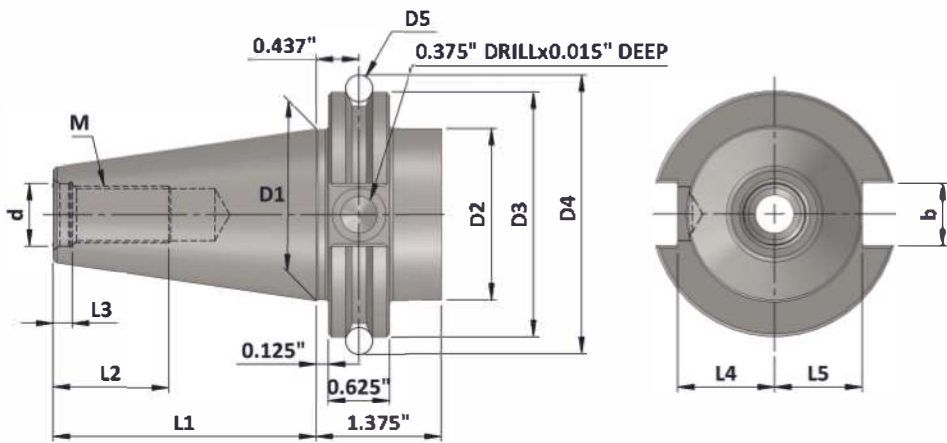


Key HC 5mm
Ref. Page No. 103

CAT - (ANSI B 5.50)



CAT (ANSI B 5.50) Technical Information



CAT	d	D1	D2	D3	D4	D5	b	M UNC 2B	L1	L2	L3	L4	L5
40	0.641"	1.750"	1.750"	2.500"	2.863"	0.2813"	0.645"	5/8" - 11"	2.687"	1.12"	0.188"0	0.985"	0.890"
50	1.031"	2.750"	2.750"	3.875"	4.238"	0.2813"	1" - 8"	1" - 8"	4.000"	1.75"	0.250"	1.485"	1.390"

Material :- Case hardened steel, tensile strength in the core min. 950 N/mm²

Execution :- Case hardened to HRC 58 ± 2, Case Depth 0.8 mm., Silver finish.

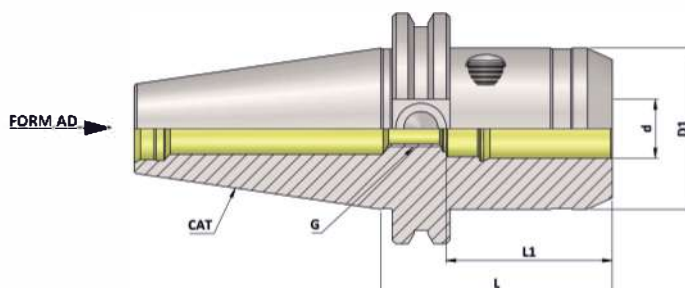
Accuracy :- 7:24 Taper Angle Class AT 3 As per DIN 2080

CAT (ANSI B 5.50) Hydraulic Expansion Chuck



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm

HEAVY DUTY



CAT (ANSI B 5.50) Hydraulic Expansion Chuck (Heavy Duty)

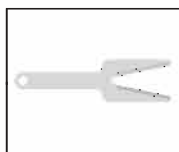
(Balanced to 2.5 G 25000 RPM)

Item Name	Item Code	CAT	d	D1	G	L	L1
CAT40 HC 1/2" S 064 2.5G 25000 SL	K10203652621230	40	1/2"	44.5	M10	64	46
CAT40 HC 3/4" S 064 2.5G 25000 SL	K10203653621230	40	3/4"	44.5	M16	64	51
CAT40 HC12S 064 2.5G 25000 SL	K10203629120283	40	12	44.5	M10	64	46
CAT40 HC20S 064 2.5G 25000 SL	K10203168278283	40	20	44.5	M16	64	51
CAT50 HC1/2"S 50.5 2.5G 25000 SL	K10204652646283	50	1/2"	42	M10	50.5	40
CAT50 HC3/4"S 64.5 2.5G 25000 SL	K10204653122283	50	3/4"	50	M16	64.5	42
CAT50 HC1-1/4"S 081 2.5G 25000 SL	K10204951132283	50	1-1/4"	72	M16	81	55
CAT50 HC12S 50.5 2.5G 25000 SL	K10204629646283	50	12	42	M10	50.5	40
CAT50 HC20S 64.5 2.5G 25000 SL	K10204168122283	50	20	50	M16	64.5	42
CAT50 HC32S 081 2.5G 25000 SL	K10204272132283	50	32	72	M16	81	55

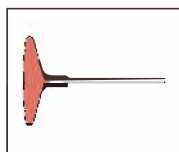
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No. 140-150



Spanner HC
Ref. Page No. 154



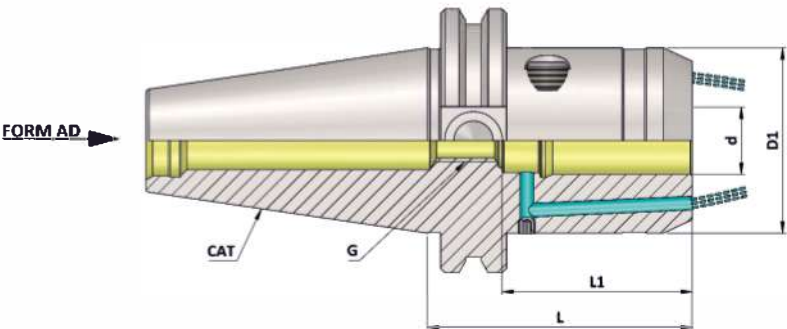
Key HC 5mm
Ref. Page No. 154

CAT (ANSI B 5.50) Hydraulic Expansion Chuck



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm

HEAVY DUTY

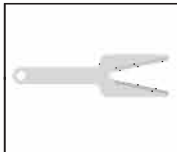


CAT (ANSI B 5.50) Hydraulic Expansion Chuck (FCC - Heavy Duty)						(Balanced to 2.5 G 25000 RPM)	
Item Name	Item Code	CAT	d	D1	G	L	L1
CAT40 HC1/2"S 064 FCC 2.5G 25000 SL	K10203953120256	40	1/2"	44.5	M10	64	46
CAT40 HC3/4"S 064 FCC 2.5G 25000 SL	K10203954120256	40	3/4"	44.5	M16	64	51
CAT40 HC12S 064 FCC 2.5G 25000 SL	K10203629120256	40	12	44.5	M10	64	46
CAT40 HC20S 064 FCC 2.5G 25000 SL	K10203168120256	40	20	44.5	M16	64	51
CAT50 HC1/2"S 50.5 FCC 2.5G 25000 SL	K10204953646256	50	1/2"	42	M10	50.5	40
CAT50 HC3/4"S 64.5 FCC 2.5G 25000 SL	K10204954122256	50	3/4"	50	M16	64.5	42
CAT50 HC1-1/4"S 081 FCC 2.5G 25000 SL	K10204955132256	50	1-1/4"	72	M16	81	55
CAT50 HC12S 50.5 FCC 2.5G 25000 SL	K10204629646256	50	12	42	M10	50.5	40
CAT50 HC20S 64.5 FCC 2.5G 25000 SL	K10204168122256	50	20	50	M16	64.5	42
CAT50 HC32S 081 FCC 2.5G 25000 SL	K10204272132256	50	32	72	M16	81	55

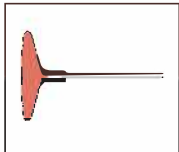
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No. 140-150



Spanner HC
Ref. Page No. 154

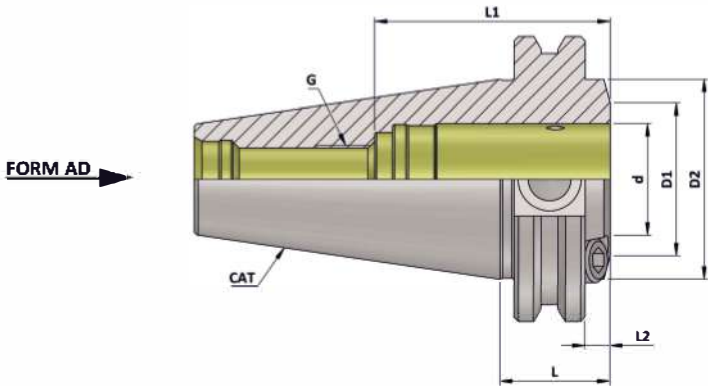


Key HC 5mm
Ref. Page No. 154

CAT (ANSI B 5.50) Short GP Hydraulic Expansion Chuck



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm

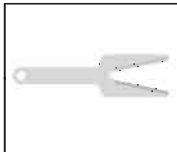


CAT (ANSI B 5.50) Hydraulic Expansion Chuck (Short GP)					(Balanced to 2.5 G 25000 RPM)					
Item Name	Item Code	CAT	d	D1	D2	G	L	L1	L2	
CAT40 HC 3/4" 24.60 SHORT G.P. 2.5G 25000 SL	K10203653614283	40	3/4"	34	44.45	M16	24.6	51	5.55	
CAT40 HC20 24.60 SHORT G.P. 2.5G 25000 SL	K10203637614283	40	20	34	44.45	M16	24.6	51	5.55	

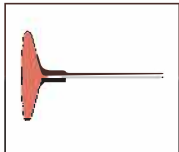
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No. 140-150



Spanner HC
Ref. Page No. 154

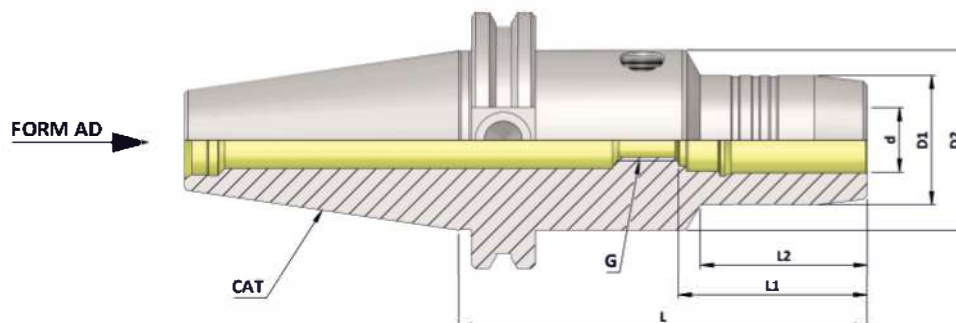


Key HC 5mm
Ref. Page No. 154

CAT (ANSI B 5.50) Hydraulic Expansion Chuck



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm



CAT (ANSI B 5.50) Hydraulic Expansion Chuck

(Balanced to 2.5 G 25000 RPM)

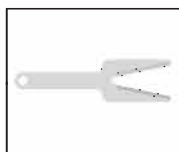
Item Name	Item Code	CAT	d	D1	D2	G	L	L1	L2
CAT40 HC06 - 101.60 2.5G 25000 SL	K10203642620230	40	6	26	44.5	M5	101.6	37	32.5
CAT40 HC08 - 101.60 2.5G 25000 SL	K10203643620230	40	8	28	44.5	M6	101.6	37	35.5
CAT40 HC10 - 101.60 2.5G 25000 SL	K10203644620230	40	10	30	44.5	M8	101.6	41	41.5
CAT40 HC12 - 101.60 2.5G 25000 SL	K10203636620230	40	12	32	44.5	M10	101.6	46	41.5
CAT40 HC14 - 101.60 2.5G 25000 SL	K10203645620230	40	14	34	44.5	M10	101.6	46	49.5
CAT40 HC16 - 101.60 2.5G 25000 SL	K10203646620230	40	16	38	44.5	M12	101.6	49	49.5
CAT40 HC18 - 101.60 2.5G 25000 SL	K10203647620230	40	18	40	44.5	M12	101.6	49	49.5
CAT40 HC20 - 101.60 2.5G 25000 SL	K10203637620230	40	20	42	44.5	M16	101.6	51	49.5
CAT40 HC25 - 101.60 2.5G 25000 SL	K10203648620230	40	25	55	65	M16	101.6	57	45
CAT40 HC32 - 101.60 2.5G 25000 SL	K10203638620230	40	32	63	70	M16	101.6	61	48

CAT40 HC 1/4" - 101.60 2.5G 25000 SL	K10203649620230	40	1/4"	26	44.5	M5	101.6	37	32.5
CAT40 HC5/16" - 101.60 2.5G 25000 SL	K10203956919283	40	5/16"	28	44.5	M6	101.6	37	35.5
CAT40 HC 3/8" - 101.60 2.5G 25000 SL	K10203650620230	40	3/8"	30	44.5	M8	101.6	41	41.5
CAT40 HC 1/2" - 101.60 2.5G 25000 SL	K10203652620230	40	1/2"	32	44.5	M10	101.6	46	41.5
CAT40 HC 5/8" - 101.60 2.5G 25000 SL	K10203651620230	40	5/8"	38	44.5	M12	101.6	49	49.5
CAT40 HC 3/4" - 101.60 2.5G 25000 SL	K10203653620230	40	3/4"	42	44.5	M16	101.6	51	49.5
CAT40 HC 1.0" - 101.60 2.5G 25000 SL	K10203656620230	40	1"	55	61	M16	101.6	57	45
CAT40 HC 1-1/4" - 101.60 2.5G 25000 SL	K10203655620230	40	1-1/4"	61	70	M16	101.6	61	48

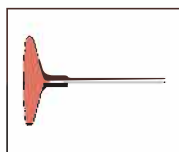
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No. 140-150



Spanner HC
Ref. Page No. 154

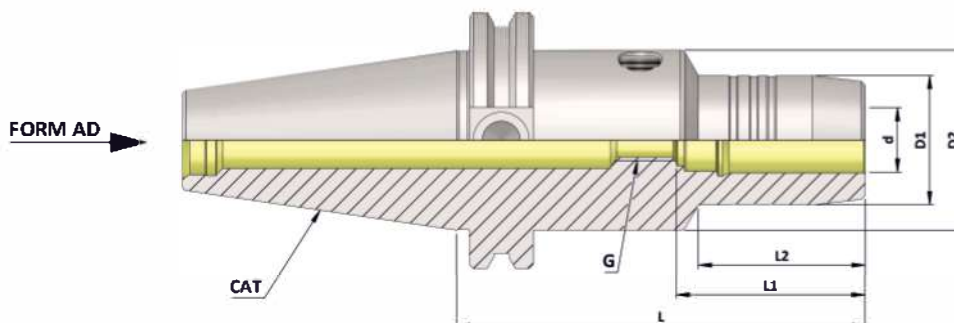


Key HC 5mm
Ref. Page No. 154

CAT (ANSI B 5.50) Hydraulic Expansion Chuck



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm



CAT (ANSI B 5.50) Hydraulic Expansion Chuck

(Balanced to 2.5 G 25000 RPM)

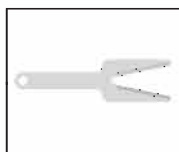
Item Name	Item Code	CAT	d	D1	D2	G	L	L1	L2
CAT40 HC06 - 150 2.5G 25000 SL	K10203642173283	40	6	26	44.5	M5	150	37	32.5
CAT40 HC08 - 150 2.5G 25000 SL	K10203643173283	40	8	28	44.5	M6	150	37	35.5
CAT40 HC10 - 150 2.5G 25000 SL	K10203644173283	40	10	30	44.5	M8	150	41	41.5
CAT40 HC12 - 150 2.5G 25000 SL	K10203636173283	40	12	32	44.5	M10	150	46	41.5
CAT40 HC14 - 150 2.5G 25000 SL	K10203645173283	40	14	34	44.5	M10	150	46	49.5
CAT40 HC16 - 150 2.5G 25000 SL	K10203646173283	40	16	38	44.5	M12	150	49	49.5
CAT40 HC18 - 150 2.5G 25000 SL	K10203647173283	40	18	40	44.5	M12	150	49	49.5
CAT40 HC20 - 150 2.5G 25000 SL	K10203637173283	40	20	42	44.5	M16	150	51	49.5
CAT40 HC25 - 150 2.5G 25000 SL	K10203648173283	40	25	55	65	M16	150	57	66
CAT40 HC32 - 150 2.5G 25000 SL	K10203638173283	40	32	63	70	M16	150	61	25.5

CAT40 HC1/4" 150 2.5G 25000 SL	K10203649173283	40	1/4"	26	44.5	M5	150	37	32.5
CAT40 HC5/16" 150 2.5G 25000 SL	K10203956173283	40	5/16"	28	44.5	M6	150	37	35.5
CAT40 HC3/8" 150 2.5G 25000 SL	K10203650173283	40	3/8"	30	44.5	M8	150	41	41.5
CAT40 HC1/2" 150 2.5G 25000 SL	K10203652173283	40	1/2"	32	44.5	M10	150	46	41.5
CAT40 HC5/8" 150 2.5G 25000 SL	K10203651173283	40	5/8"	38	44.5	M12	150	49	49.5
CAT40 HC3/4" 150 2.5G 25000 SL	K10203653173283	40	3/4"	42	44.5	M16	150	51	49.5
CAT40 HC1" 150 2.5G 25000 SL	K10203957173283	40	1"	55	65	M16	150	57	66
CAT40 HC1-1/4" 150 2.5G 25000 SL	K10203655173283	40	1-1/4"	63	70	M16	150	61	25.5

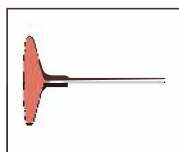
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No. 140-150



Spanner HC
Ref. Page No. 154

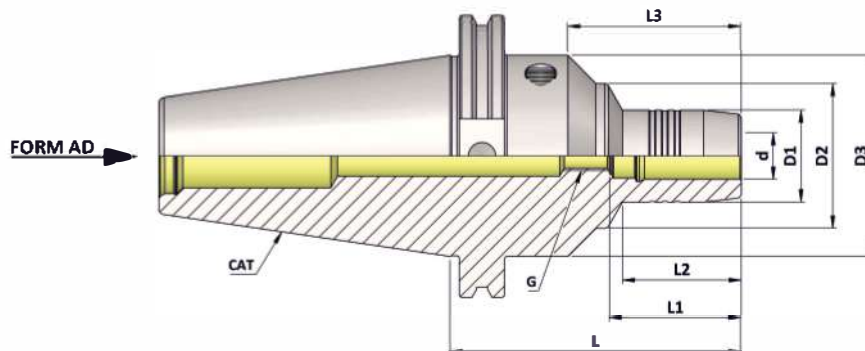


Key HC 5mm
Ref. Page No. 154

CAT (ANSI B 5.50) Hydraulic Expansion Chuck



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm



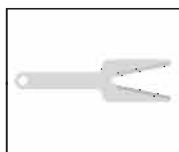
CAT (ANSI B 5.50) Hydraulic Expansion Chuck							(Balanced to 2.5 G 25000 RPM)		
Item Name	Item Code	CAT	d	D1	D2	G	L	L1	L2
CAT40 HC06 - 101.60 2.5G 25000 SL	K10203642620230	40	6	26	44.5	M5	101.6	37	32.5
CAT40 HC08 - 101.60 2.5G 25000 SL	K10203643620230	40	8	28	44.5	M6	101.6	37	35.5
CAT40 HC10 - 101.60 2.5G 25000 SL	K10203644620230	40	10	30	44.5	M8	101.6	41	41.5
CAT40 HC12 - 101.60 2.5G 25000 SL	K10203636620230	40	12	32	44.5	M10	101.6	46	41.5
CAT40 HC14 - 101.60 2.5G 25000 SL	K10203645620230	40	14	34	44.5	M10	101.6	46	49.5
CAT40 HC16 - 101.60 2.5G 25000 SL	K10203646620230	40	16	38	44.5	M12	101.6	49	49.5
CAT40 HC18 - 101.60 2.5G 25000 SL	K10203647620230	40	18	40	44.5	M12	101.6	49	49.5
CAT40 HC20 - 101.60 2.5G 25000 SL	K10203637620230	40	20	42	44.5	M16	101.6	51	49.5
CAT40 HC25 - 101.60 2.5G 25000 SL	K10203648620230	40	25	55	65	M16	101.6	57	45
CAT40 HC32 - 101.60 2.5G 25000 SL	K10203638620230	40	32	63	70	M16	101.6	61	48

CAT40 HC 1/4" - 101.60 2.5G 25000 SL	K10203649620230	40	5/16"	26	44.5	M5	101.6	37	32.5
CAT50 HC5/16" - 101.60 2.5G 25000 SL	K10204956919283	50	5/16"	28	50.25	M6	101.6	37	36
CAT40 HC 3/8" - 101.60 2.5G 25000 SL	K10203650620230	40	3/8"	30	44.5	M8	101.6	41	41.5
CAT40 HC 1/2" - 101.60 2.5G 25000 SL	K10203652620230	40	1/2"	32	44.5	M10	101.6	46	41.5
CAT40 HC 5/8" - 101.60 2.5G 25000 SL	K10203651620230	40	5/8"	38	44.5	M12	101.6	46	49.5
CAT40 HC 3/4" - 101.60 2.5G 25000 SL	K10203653620230	40	3/4"	42	44.5	M16	101.6	51	49.5
CAT40 HC 1.0" - 101.60 2.5G 25000 SL	K10203656620230	40	1"	55	61	M16	101.6	57	45
CAT40 HC 1-1/4" - 101.60 2.5G 25000 SL	K10203655620230	40	1-1/4"	61	70	M16	101.6	61	48

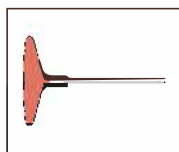
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No. 140-150



Spanner HC
Ref. Page No. 154

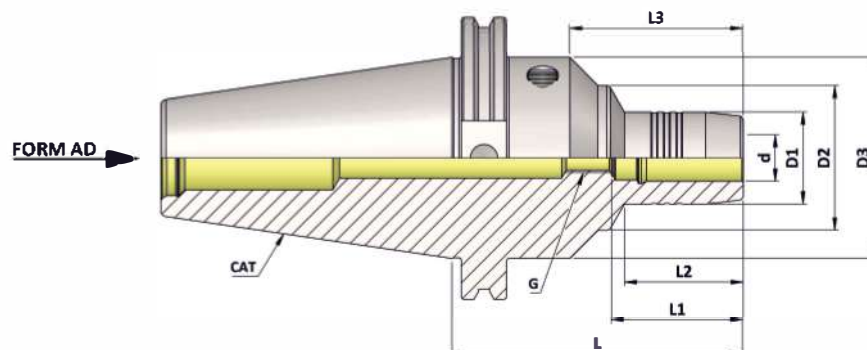


Key HC 5mm
Ref. Page No. 154

CAT (ANSI B 5.50) Hydraulic Expansion Chuck



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm



CAT (ANSI B 5.50) Hydraulic Expansion Chuck

(Balanced to 2.5 G 25000 RPM)

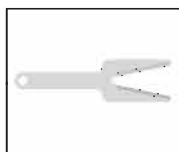
Item Name	Item Code	CAT	d	D1	D2	D3	G	L	L1	L2	L3
CAT50 HC06 150 2.5G 25000 SL	K10204642173283	50	6	26	50.3	69.85	M5	150	37	32.5	60.5
CAT50 HC08 150 2.5G 25000 SL	K10204643173283	50	8	28	50.3	69.85	M6	150	37	36	60.5
CAT50 HC10 150 2.5G 25000 SL	K10204644173283	50	10	30	50.3	69.85	M8	150	41	36	60.5
CAT50 HC12 150 2.5G 25000 SL	K10204636173283	50	12	32	50.3	69.85	M10	150	46	41.5	60.5
CAT50 HC14 150 2.5G 25000 SL	K10204645173283	50	14	34	50.3	69.85	M10	150	46	41.5	60.5
CAT50 HC16 150 2.5G 25000 SL	K10204646173283	50	16	38	50.3	69.85	M12	150	49	47.5	60.5
CAT50 HC18 150 2.5G 25000 SL	K10204647173283	50	18	40	50.3	69.85	M12	150	49	47.5	60.5
CAT50 HC20 150 2.5G 25000 SL	K10204637173283	50	20	42	50.3	69.85	M16	150	51	49.5	60.5
CAT50 HC25 150 2.5G 25000 SL	K10204648173283	50	25	57	63	69.85	M16	150	57	49.5	64
CAT50 HC32 150 2.5G 25000 SL	K10204638173283	50	32	64	-	69.85	M16	150	61	65	-

CAT50 HC1/4" 150 2.5G 25000 SL	K10204649173283	50	1/4"	26	50.25	69.85	M5	150	37	32.5	60.5
CAT50 HC5/16" 150 2.5G 25000 SL	K10204956173283	50	5/16"	28	50.25	69.85	M6	150	37	36	60.5
CAT50 HC3/8" 150 2.5G 25000 SL	K10204650173283	50	3/8"	30	50.25	69.85	M8	150	41	36	60.5
CAT50 HC1/2" 150 2.5G 25000 SL	K10204652173283	50	1/2"	32	50.25	69.85	M10	150	46	41.5	60.5
CAT50 HC5/8" 150 2.5G 25000 SL	K10204651173283	50	5/8"	38	50.25	69.85	M12	150	49	47.5	60.5
CAT50 HC3/4" 150 2.5G 25000 SL	K10204653173283	50	3/4"	42	50.25	69.85	M16	150	51	49.5	60.5
CAT50 HC1" 150 2.5G 25000 SL	K10204957173283	50	1"	57	63	69.85	M16	150	57	49.5	64
CAT50 HC1-1/4" 150 2.5G 25000 SL	K10204655173283	50	1-1/4"	64	-	69.85	M16	150	61	65	-

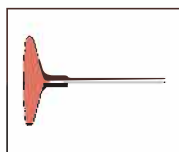
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No. 140-150



Spanner HC
Ref. Page No. 154

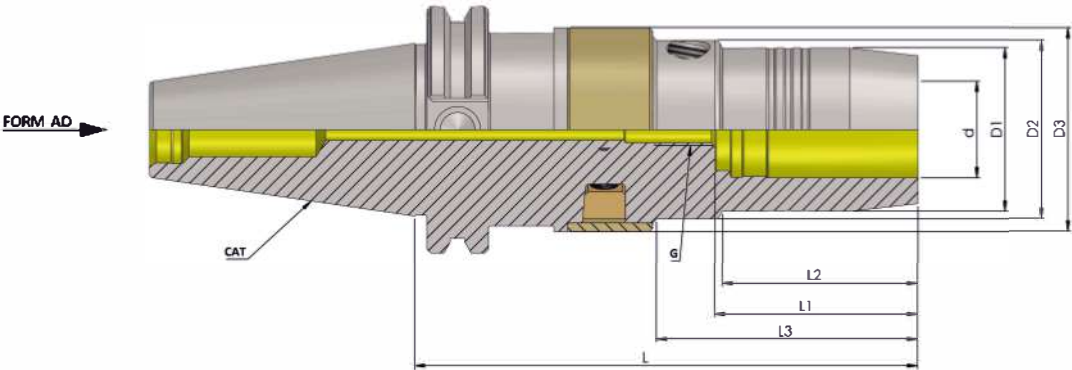


Key HC 5mm
Ref. Page No. 154

CAT (ANSI B 5.50) Hydraulic Expansion Chuck With Run Out Adjustment



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm

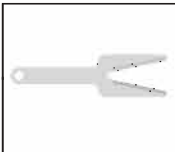


CAT (ANSI-B 5.50) Hydraulic Expansion Chuck Run Out Adjustment										(Balanced to 2.5 G 25000 RPM)		
ITEM NAME	ITEM CODE	CAT	d	D1	D2	D3	G	L	L1	L2	L3	
CAT40 HC20 130 AD/RA 2.5G 25000 SL	K10203637165536	40	20	42	46	52.5	M8	130	51	50	67.5	
CAT40 HC32 150 AD/RA 2.5G 25000 SL	K10204638173536	40	32	42	46	52.5	M8	150	51	50	67.5	
CAT40 HC3/4" 130 AD/RA 2.5G 25000 SL	K10203653916536	40	3/4"	42	46	52.5	M8	130	51	50	67.5	
CAT40 HC1-1/4" 150 AD/RA 2.5G 25000 SL	K10204655173536	40	1-1/4"	42	46	52.5	M8	150	51	50	67.5	
CAT50 HC20 110 AD/RA 2.5G 25000 SL	K10204637156536	50	20	42	46	52.5	M8	110	51	50	67.5	
CAT50 HC32 125 AD/RA 2.5G 25000 SL	K10204638164536	50	32	42	46	52.5	M8	125	51	50	67.5	
CAT50 HC3/4"110 AD/RA 2.5G 25000 SL	K10204653916536	50	3/4"	42	46	52.5	M8	110	51	50	67.5	
CAT50 HC1-1/4" 125 AD/RA 2.5G 25000 SL	K10204655164536	50	1-1/4"	42	46	52.5	M8	125	51	50	67.5	

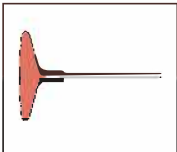
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No. 140-150



Spanner HC
Ref. Page No. 154

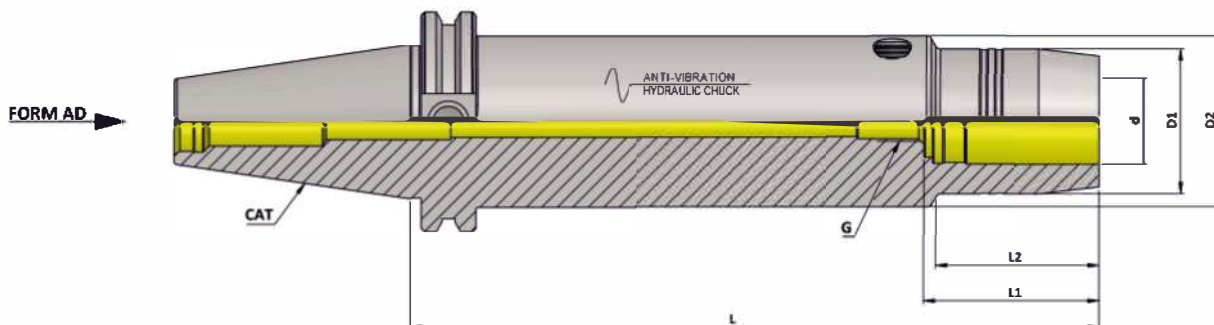


Key HC 5mm
Ref. Page No. 154

CAT (ANSI B 5.50) Hydraulic Expansion Chuck Anti - Vibration (HC-AD/AV)



Maximum Run out of the Internal Dia with respect to the External Taper 0.010 mm



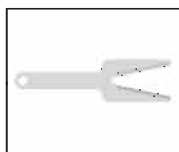
CAT (ANSI-B 5.50) Hydraulic Expansion Chuck Anti - Vibration (HC - AD/AV)

ITEM NAME	ITEM CODE	CAT	d	D1	D2	G	L	L1	L2
CAT40 HC3/4" 200 AD/AV	K10203653239539	40	3/4"	42	49.5	M16	200	51	47
CAT40 HC3/4" 250 AD/AV	K10203653182539	40	3/4"	42	49.5	M16	250	51	47
CAT40 HC3/4" 300 AD/AV	K10203653183539	40	3/4"	42	49.5	M16	300	51	47
CAT40 HC20 200 AD/AV	K10203637239539	40	20	42	49.5	M16	200	51	47
CAT40 HC20 250 AD/AV	K10203637182539	40	20	42	49.5	M16	250	51	47
CAT40 HC20 300 AD/AV	K10203637183539	40	20	42	49.5	M16	300	51	47
CAT40 HC 1.0" 200 AD/AV	K10203656239539	40	1.0"	52	55	M16	200	57	50
CAT40 HC 1.0" 250 AD/AV	K10203656182539	40	1.0"	52	55	M16	250	57	50
CAT40 HC 1.0" 300 AD/AV	K10203656183539	40	1.0"	52	55	M16	300	57	50
CAT40 HC25 200 AD/AV	K10203648239539	40	25	52	55	M16	200	57	50
CAT40 HC25 250 AD/AV	K10203648182539	40	25	52	55	M16	250	57	50
CAT40 HC25 300 AD/AV	K10203648183539	40	25	52	55	M16	300	57	50
CAT40 HC1-1/4" 200 AD/AV	K10203951239539	40	1-1/4"	62	63	M16	200	61	48
CAT40 HC1-1/4" 250 AD/AV	K10203951182539	40	1-1/4"	62	63	M16	250	61	48
CAT40 HC1-1/4" 300 AD/AV	K10203951183539	40	1-1/4"	62	63	M16	300	61	48
CAT40 HC32 200 AD/AV	K10203638239539	40	32	62	63	M16	200	61	48
CAT40 HC32 250 AD/AV	K10203638182539	40	32	62	63	M16	250	61	48
CAT40 HC32 300 AD/AV	K10203638183539	40	32	62	63	M16	300	61	48

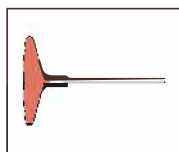
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No. 140-150



Spanner HC
Ref. Page No. 154

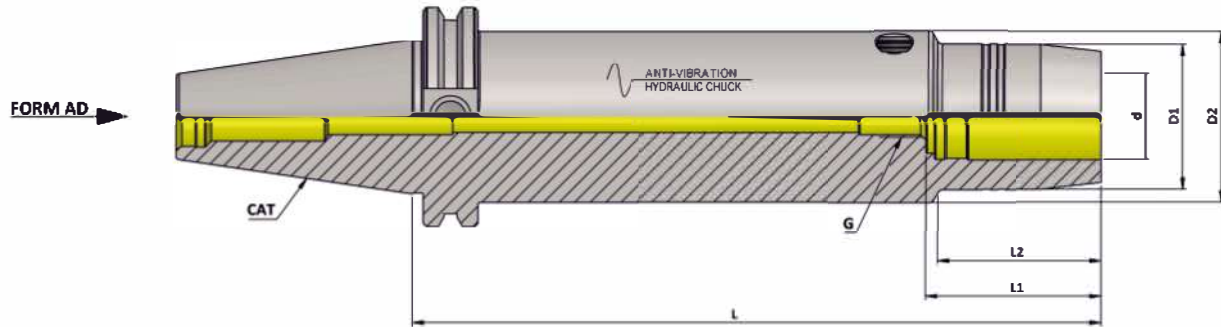


Key HC 5mm
Ref. Page No. 154

CAT (ANSI B 5.50) Hydraulic Expansion Chuck Anti - Vibration (HC-AD/AV)



Maximum Run out of the Internal Dia with respect to the External Taper 0.010 mm



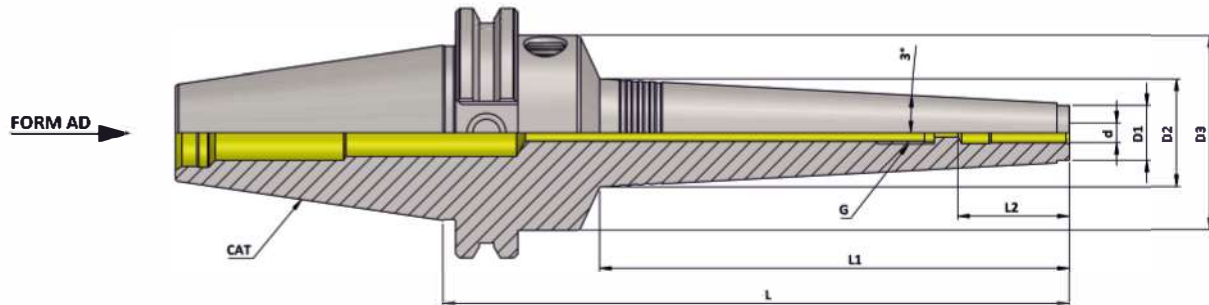
CAT (ANSI-B 5.50) Hydraulic Expansion Chuck Anti - Vibration (HC - AD/AV)

ITEM NAME	ITEM CODE	CAT	d	D1	D2	G	L	L1	L2
CAT50 HC3/4" 200 AD/AV	K10204653239539	50	3/4"	42	49.5	M16	200	51	42
CAT50 HC3/4" 250 AD/AV	K10204653182539	50	3/4"	42	49.5	M16	250	51	42
CAT50 HC3/4" 300 AD/AV	K10204653183539	50	3/4"	42	49.5	M16	300	51	42
CAT50 HC3/4" 350 AD/AV	K10204653184539	50	3/4"	42	49.5	M16	350	51	42
CAT50 HC3/4" 400 AD/AV	K10204653540539	50	3/4"	42	49.5	M16	400	51	42
CAT50 HC20 200 AD/AV	K10204637239539	50	20	42	49.5	M16	200	51	42
CAT50 HC20 250 AD/AV	K10204637182539	50	20	42	49.5	M16	250	51	42
CAT50 HC20 300 AD/AV	K10204637183539	50	20	42	49.5	M16	300	51	42
CAT50 HC20 350 AD/AV	K10204637184539	50	20	42	49.5	M16	350	51	42
CAT50 HC20 400 AD/AV	K10204637540539	50	20	42	49.5	M16	400	51	42
CAT50 HC 1.0" 200 AD/AV	K10204656239539	50	1.0"	52	55	M16	200	57	50
CAT50 HC 1.0" 250 AD/AV	K10204656182539	50	1.0"	52	55	M16	250	57	50
CAT50 HC 1.0" 300 AD/AV	K10204656183539	50	1.0"	52	55	M16	300	57	50
CAT50 HC 1.0" 350 AD/AV	K10204656184539	50	1.0"	52	55	M16	350	57	50
CAT50 HC 1.0" 400 AD/AV	K10204656540539	50	1.0"	52	55	M16	400	57	50
CAT50 HC25 200 AD/AV	K10204648239539	50	25	52	55	M16	200	57	50
CAT50 HC25 250 AD/AV	K10204648182539	50	25	52	55	M16	250	57	50
CAT50 HC25 300 AD/AV	K10204648183539	50	25	52	55	M16	300	57	50
CAT50 HC25 350 AD/AV	K10204648184539	50	25	52	55	M16	350	57	50
CAT50 HC25 400 AD/AV	K10204648540539	50	25	52	55	M16	400	57	50
CAT50 HC1-1/4" 200 AD/AV	K10204951239539	50	1-1/4"	62	63	M16	200	61	48
CAT50 HC1-1/4" 250 AD/AV	K10204951182539	50	1-1/4"	62	63	M16	250	61	48
CAT50 HC1-1/4" 300 AD/AV	K10204951183539	50	1-1/4"	62	63	M16	300	61	48
CAT50 HC1-1/4" 350 AD/AV	K10204951184539	50	1-1/4"	62	63	M16	350	61	48
CAT50 HC1-1/4" 400 AD/AV	K10204951540539	50	1-1/4"	62	63	M16	400	61	48
CAT50 HC32 200 AD/AV	K10204638239539	50	32	62	63	M16	200	61	48
CAT50 HC32 250 AD/AV	K10204638182539	50	32	62	63	M16	250	61	48
CAT50 HC32 300 AD/AV	K10204638183539	50	32	62	63	M16	300	61	48
CAT50 HC32 350 AD/AV	K10204638184539	50	32	62	63	M16	350	61	48
CAT50 HC32 400 AD/AV	K10204638540539	50	32	62	63	M16	400	61	48

CAT (ANSI B 5.50) Hydraulic Expansion Chuck Slim 3 Degree



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm



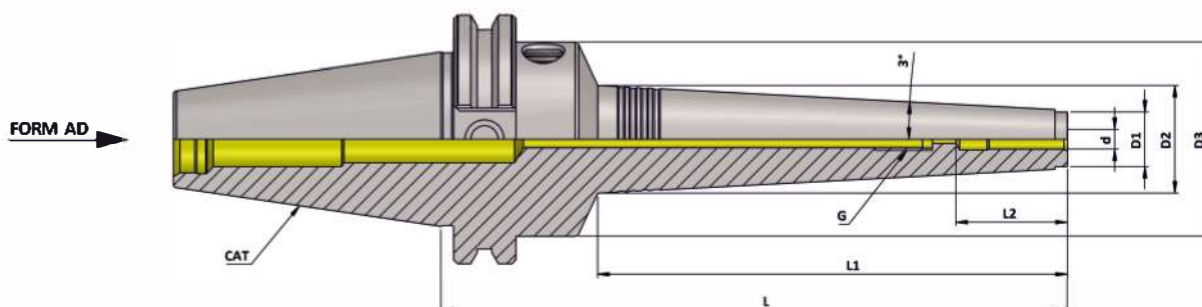
CAT (ANSI B 5.50) Hydraulic Expansion Ch

Item Name	Item Code										
CAT40 HC03 075 SLIM 2.5G 25000SL	K10203707127258	40	3	11	13.1	46	—	75	20	28	
CAT40 HC03 090 SLIM 2.5G 25000SL	K10203707140258	40	3	11	13.5	46	—	90	25	28	
CAT40 HC03 135 SLIM 2.5G 25000SL	K10203707166258	40	3	11	18.2	46	—	135	69	28	
CAT40 HC04 075 SLIM 2.5G 25000SL	K10203708127258	40	4	11	13.1	46	—	75	20	28	
CAT40 HC04 090 SLIM 2.5G 25000SL	K10203708140258	40	4	11	13.5	46	—	90	25	28	
CAT40 HC04 135 SLIM 2.5G 25000SL	K10203708166258	40	4	11	18.2	46	—	135	69	28	
CAT40 HC05 075 SLIM 2.5G 25000SL	K10203709127258	40	5	12	14.1	46	—	75	20	28	
CAT40 HC05 090 SLIM 2.5G 25000SL	K10203709140258	40	5	12	14.6	46	—	90	25	28	
CAT40 HC05 135 SLIM 2.5G 25000SL	K10203709166258	40	5	12	19.2	46	—	135	69	28	
CAT40 HC06 090 SLIM 2.5G 25000SL	K10203642140258	40	6	13	15.6	46	M5	90	25	37	
CAT40 HC06 135 SLIM 2.5G 25000SL	K10203642166258	40	6	13	20.2	46	M5	135	69	37	
CAT40 HC06 150 SLIM 2.5G 25000SL	K10203642173258	40	6	13	21.9	46	M5	150	84	37	
CAT40 HC06 165 SLIM 2.5G 25000SL	K10203642956258	40	6	13	23.4	46	M5	165	99	37	
CAT40 HC06 180 SLIM 2.5G 25000SL	K10203642178258	40	6	13	25.0	46	M5	180	114	37	
CAT40 HC08 090 SLIM 2.5G 25000SL	K10203643140258	40	8	15	17.6	46	M6	90	25	37	
CAT40 HC08 135 SLIM 2.5G 25000SL	K10203643166258	40	8	15	22.2	46	M6	135	69	37	
CAT40 HC08 150 SLIM 2.5G 25000SL	K10203643173258	40	8	15	23.9	46	M6	150	84	37	
CAT40 HC08 165 SLIM 2.5G 25000SL	K10203643956258	40	8	15	25.4	46	M6	165	99	37	
CAT40 HC08 180 SLIM 2.5G 25000SL	K10203643178258	40	8	15	27.0	46	M6	180	114	37	
CAT40 HC10 105 SLIM 2.5G 25000SL	K10203644152258	40	10	17	21.0	46	M8	105	39	41	
CAT40 HC10 135 SLIM 2.5G 25000SL	K10203644166258	40	10	17	24.2	46	M8	135	69	41	
CAT40 HC10 150 SLIM 2.5G 25000SL	K10203644173258	40	10	17	25.9	46	M8	150	84	41	
CAT40 HC10 165 SLIM 2.5G 25000SL	K10203644956258	40	10	17	27.4	46	M8	165	99	41	
CAT40 HC10 180 SLIM 2.5G 25000SL	K10203644178258	40	10	17	29.0	46	M8	180	114	41	
CAT40 HC12 105 SLIM 2.5G 25000SL	K10203636152258	40	12	19	23.0	46	M8	105	39	46	
CAT40 HC12 135 SLIM 2.5G 25000SL	K10203636166258	40	12	19	26.2	46	M8	135	69	46	
CAT40 HC12 150 SLIM 2.5G 25000SL	K10203636173258	40	12	19	27.9	46	M8	150	84	46	
CAT40 HC12 165 SLIM 2.5G 25000SL	K10203636956258	40	12	19	29.4	46	M8	165	99	46	
CAT40 HC12 180 SLIM 2.5G 25000SL	K10203636178258	40	12	19	31.0	46	M8	180	114	46	
CAT40 HC14 135 SLIM 2.5G 25000SL	K10203645166258	40	14	21	28.2	52.5	M10	135	69	46	
CAT40 HC14 165 SLIM 2.5G 25000SL	K10203645956258	40	14	21	31.4	52.5	M10	165	99	46	
CAT40 HC14 180 SLIM 2.5G 25000SL	K10203645178258	40	14	21	32.9	52.5	M10	180	114	46	

CAT (ANSI B 5.50) Hydraulic Expansion Chuck Slim 3 Degree



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm



CAT (ANSI B 5.50) Hydraulic Expansion Chuck Slim 3 Degree

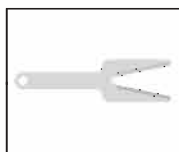
(Balanced to 2.5 G 25000 RPM)

Item Name	Item Code	CAT	d	D1	D2	D3	G	L	L1	L2
CAT40 HC16 135 SLIM 2.5G 25000SL	K10203646166258	40	16	23	30.2	52.5	M12	135	69	49
CAT40 HC16 165 SLIM 2.5G 25000SL	K10203646956258	40	16	23	33.4	52.5	M12	165	99	49
CAT40 HC16 180 SLIM 2.5G 25000SL	K10203646178258	40	16	23	34.9	52.5	M12	180	114	49
CAT40 HC18 135 SLIM 2.5G 25000SL	K10203647166258	40	18	26	32.2	60	M12	135	69	49
CAT40 HC18 165 SLIM 2.5G 25000SL	K10203647956258	40	18	26	35.4	60	M12	165	99	49
CAT40 HC18 180 SLIM 2.5G 25000SL	K10203647178258	40	18	26	37.0	60	M12	180	114	49
CAT40 HC20 135 SLIM 2.5G 25000SL	K10203637166258	40	20	28	34.2	60	M16	135	69	51
CAT40 HC20 165 SLIM 2.5G 25000SL	K10203637956258	40	20	28	37.4	60	M16	165	99	51
CAT40 HC20 180 SLIM 2.5G 25000SL	K10203637178258	40	20	28	39.0	60	M16	180	114	51
CAT40 HC25 135 SLIM 2.5G 25000SL	K10203648166258	40	25	37	43.2	60	M16	135	69	51
CAT40 HC25 165 SLIM 2.5G 25000SL	K10203648956258	40	25	37	46.4	60	M16	165	99	51
CAT40 HC25 180 SLIM 2.5G 25000SL	K10203648178258	40	25	37	48.0	60	M16	180	114	51

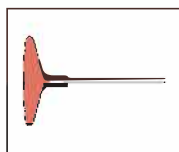
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No. 140-150



Spanner HC
Ref. Page No. 154

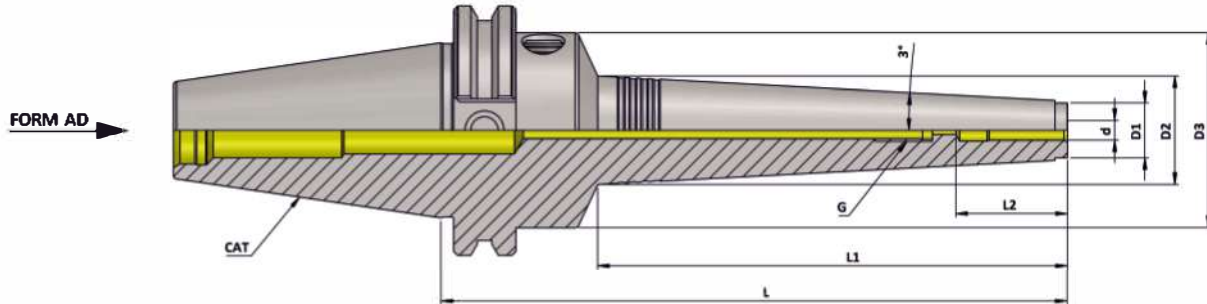


Key HC 5mm
Ref. Page No. 154

CAT (ANSI B 5.50) Hydraulic Expansion Chuck Slim 3 Degree



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm



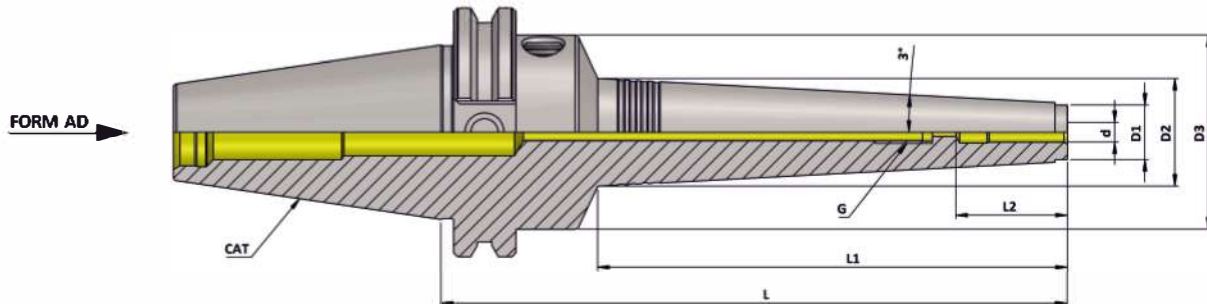
CAT (ANSI B 5.50) Hydraulic Expansion Ch

Item Name	Item Code											
CAT40 HC1/8" 075 SLIM 2.5G 25000SL	K10203961127258	40	1/8"	11	13.1	46	—	75	20	28		
CAT40 HC1/8" 090 SLIM 2.5G 25000SL	K10203961140258	40	1/8"	11	13.5	46	—	90	25	28		
CAT40 HC1/8" 135 SLIM 2.5G 25000SL	K10203961166258	40	1/8"	11	18.2	46	—	135	69	28		
CAT40 HC3/16" 075 SLIM 2.5G 25000SL	K10203962127258	40	3/16"	11	13.1	46	—	75	20	28		
CAT40 HC3/16" 090 SLIM 2.5G 25000SL	K10203962140258	40	3/16"	11	13.5	46	—	90	25	28		
CAT40 HC3/16" 135 SLIM 2.5G 25000SL	K10203962166258	40	3/16"	11	18.2	46	—	135	69	28		
CAT40 HC1/4" 090 SLIM 2.5G 25000SL	K10203649140258	40	1/4"	13	15.6	46	M5	90	25	37		
CAT40 HC1/4" 135 SLIM 2.5G 25000SL	K10203649166258	40	1/4"	13	20.2	46	M5	135	69	37		
CAT40 HC1/4" 150 SLIM 2.5G 25000SL	K10203649173258	40	1/4"	13	21.9	46	M5	150	84	37		
CAT40 HC1/4" 165 SLIM 2.5G 25000SL	K10203649956258	40	1/4"	13	23.4	46	M5	165	99	37		
CAT40 HC1/4" 180 SLIM 2.5G 25000SL	K10203649178258	40	1/4"	13	25.0	46	M5	180	114	37		
CAT40 HC5/16" 090 SLIM 2.5G 25000SL	K10203956140258	40	5/16"	15	17.6	46	M6	90	25	37		
CAT40 HC5/16" 135 SLIM 2.5G 25000SL	K10203956166258	40	5/16"	15	22.2	46	M6	135	69	37		
CAT40 HC5/16" 150 SLIM 2.5G 25000SL	K10203956173258	40	5/16"	15	23.9	46	M6	150	84	37		
CAT40 HC5/16" 165 SLIM 2.5G 25000SL	K10203956956258	40	5/16"	15	25.4	46	M6	165	99	37		
CAT40 HC5/16" 180 SLIM 2.5G 25000SL	K10203956178258	40	5/16"	15	27.0	46	M6	180	114	37		
CAT40 HC3/8" 105 SLIM 2.5G 25000SL	K10203650152258	40	3/8"	17	21.0	46	M8	105	39	41		
CAT40 HC3/8" 135 SLIM 2.5G 25000SL	K10203650166258	40	3/8"	17	24.2	46	M8	135	69	41		
CAT40 HC3/8" 150 SLIM 2.5G 25000SL	K10203650173258	40	3/8"	17	25.9	46	M8	150	84	41		
CAT40 HC3/8" 165 SLIM 2.5G 25000SL	K10203650956258	40	3/8"	17	27.4	46	M8	165	99	41		
CAT40 HC3/8" 180 SLIM 2.5G 25000SL	K10203650178258	40	3/8"	17	29.0	46	M8	180	114	41		
CAT40 HC1/2" 105 SLIM 2.5G 25000SL	K10203652152258	40	1/2"	19	23.0	46	M8	105	39	46		
CAT40 HC1/2" 135 SLIM 2.5G 25000SL	K10203652166258	40	1/2"	19	26.2	46	M8	135	69	46		
CAT40 HC1/2" 150 SLIM 2.5G 25000SL	K10203652173258	40	1/2"	19	27.9	46	M8	150	84	46		
CAT40 HC1/2" 165 SLIM 2.5G 25000SL	K10203652956258	40	1/2"	19	29.4	46	M8	165	99	46		
CAT40 HC1/2" 180 SLIM 2.5G 25000SL	K10203652178258	40	1/2"	19	31.0	46	M8	180	114	46		
CAT40 HC5/8" 135 SLIM 2.5G 25000SL	K10203651166258	40	5/8"	23	30.2	52.5	M12	135	69	49		
CAT40 HC5/8" 165 SLIM 2.5G 25000SL	K10203651956258	40	5/8"	23	33.4	52.5	M12	165	99	49		
CAT40 HC5/8" 180 SLIM 2.5G 25000SL	K10203651178258	40	5/8"	23	34.9	52.5	M12	180	114	49		
CAT40 HC3/4" 135 SLIM 2.5G 25000SL	K10203653166258	40	3/4"	28	34.2	60	M16	135	69	51		
CAT40 HC3/4" 165 SLIM 2.5G 25000SL	K10203653956258	40	3/4"	28	37.4	60	M16	165	99	51		
CAT40 HC3/4" 180 SLIM 2.5G 25000SL	K10203653178258	40	3/4"	28	39.0	60	M16	180	114	51		
CAT40 HC 1.0" 135 SLIM 2.5G 25000SL	K10203656166258	40	1.0"	37	43.2	60	M16	135	69	51		
CAT40 HC 1.0" 165 SLIM 2.5G 25000SL	K10203656956258	40	1.0"	37	46.4	60	M16	165	99	51		
CAT40 HC 1.0" 180 SLIM 2.5G 25000SL	K10203656178258	40	1.0"	37	48.0	60	M16	180	114	51		

CAT (ANSI B 5.50) Hydraulic Expansion Chuck Slim 3 Degree



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm



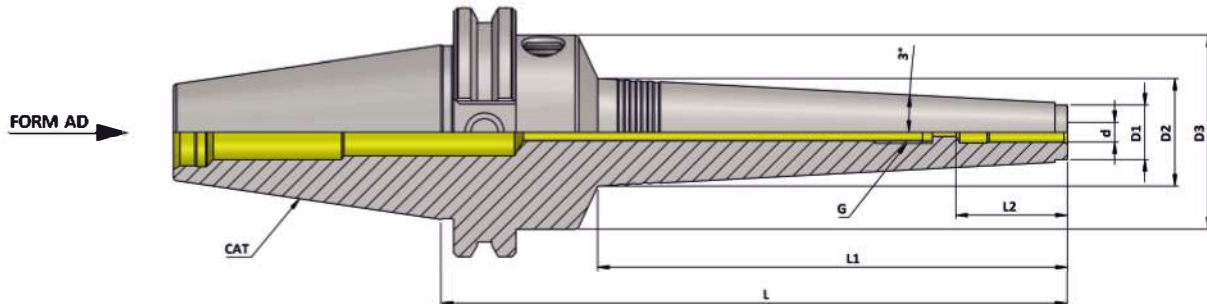
CAT (ANSI B 5.50) Hydraulic Expansion Ch

Item Name	Item Cod										
CAT50 HC06 105 SLIM 2.5G 25000SL	K10204642152258	50	6	13	17.0	46	M5	105	38	37	
CAT50 HC06 150 SLIM 2.5G 25000SL	K10204642173258	50	6	13	21.9	46	M5	150	84	37	
CAT50 HC06 165 SLIM 2.5G 25000SL	K10204642956258	50	6	13	23.4	46	M5	165	99	37	
CAT50 HC06 180 SLIM 2.5G 25000SL	K10204642178258	50	6	13	25.0	46	M5	180	114	37	
CAT50 HC06 195 SLIM 2.5G 25000SL	K10204642957258	50	6	13	26.7	46	M5	195	130	37	
CAT50 HC08 105 SLIM 2.5G 25000SL	K10204643152258	50	8	15	19.0	46	M6	105	38	37	
CAT50 HC08 150 SLIM 2.5G 25000SL	K10204643173258	50	8	15	23.9	46	M6	150	84	37	
CAT50 HC08 165 SLIM 2.5G 25000SL	K10204643956258	50	8	15	25.4	46	M6	165	99	37	
CAT50 HC08 180 SLIM 2.5G 25000SL	K10204643178258	50	8	15	27.0	46	M6	180	114	37	
CAT50 HC08 195 SLIM 2.5G 25000SL	K10204643957258	50	8	15	28.7	46	M6	195	130	37	
CAT50 HC10 150 SLIM 2.5G 25000SL	K10204644173258	50	10	17	25.9	46	M8	150	84	41	
CAT50 HC10 165 SLIM 2.5G 25000SL	K10204644956258	50	10	17	27.4	46	M8	165	99	41	
CAT50 HC10 180 SLIM 2.5G 25000SL	K10204644178258	50	10	17	29.0	46	M8	180	114	41	
CAT50 HC10 195 SLIM 2.5G 25000SL	K10204644957258	50	10	17	30.7	46	M8	195	130	41	
CAT50 HC12 150 SLIM 2.5G 25000SL	K10204636173258	50	12	19	27.9	46	M10	150	84	46	
CAT50 HC12 165 SLIM 2.5G 25000SL	K10204636956258	50	12	19	29.4	46	M10	165	99	46	
CAT50 HC12 180 SLIM 2.5G 25000SL	K10204636178258	50	12	19	31.0	46	M10	180	114	46	
CAT50 HC12 195 SLIM 2.5G 25000SL	K10204636957258	50	12	19	32.7	46	M10	195	130	46	
CAT50 HC14 150 SLIM 2.5G 25000SL	K10204645173258	50	14	21	31.4	52.5	M10	150	99	46	
CAT50 HC14 180 SLIM 2.5G 25000SL	K10204645178258	50	14	21	32.9	52.5	M10	180	114	46	
CAT50 HC14 195 SLIM 2.5G 25000SL	K10204645957258	50	14	21	34.5	52.5	M10	195	129	46	
CAT50 HC16 150 SLIM 2.5G 25000SL	K10204646173258	50	16	23	31.9	52.5	M12	150	84	49	
CAT50 HC16 180 SLIM 2.5G 25000SL	K10204646178258	50	16	23	35.0	52.5	M12	180	114	49	
CAT50 HC16 195 SLIM 2.5G 25000SL	K10204646957258	50	16	23	36.6	52.5	M12	195	129	49	
CAT50 HC18 150 SLIM 2.5G 25000SL	K10204647173258	50	18	26	34.8	60	M12	150	84	49	
CAT50 HC18 180 SLIM 2.5G 25000SL	K10204647178258	50	18	26	37.9	60	M12	180	114	49	
CAT50 HC18 195 SLIM 2.5G 25000SL	K10204647957258	50	18	26	39.5	60	M12	195	129	49	
CAT50 HC20 150 SLIM 2.5G 25000SL	K10204637173258	50	20	28	36.9	60	M16	150	84	51	
CAT50 HC20 180 SLIM 2.5G 25000SL	K10204637178258	50	20	28	40.0	60	M16	180	114	51	
CAT50 HC20 195 SLIM 2.5G 25000SL	K10204637957258	50	20	28	41.6	60	M16	195	129	51	
CAT50 HC25 150 SLIM 2.5G 25000SL	K10204648173258	50	25	37	45.9	60	M16	150	84	51	
CAT50 HC25 180 SLIM 2.5G 25000SL	K10204648178258	50	25	37	49.0	60	M16	180	114	51	
CAT50 HC25 195 SLIM 2.5G 25000SL	K10204648957258	50	25	37	50.6	60	M16	195	129	51	

CAT (ANSI B 5.50) Hydraulic Expansion Chuck Slim 3 Degree



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm



CAT (ANSI B 5.50) Hydraulic Expansion Chuck Slim 3 Degree

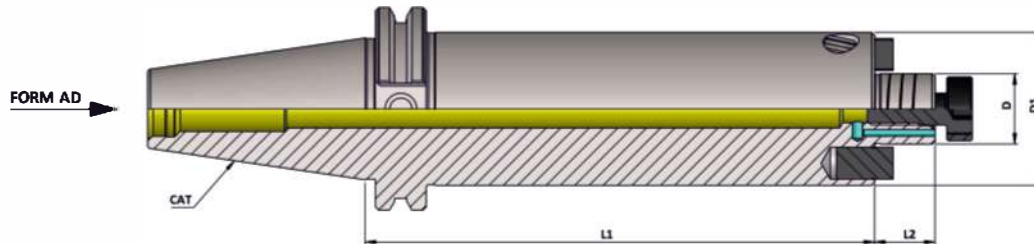
(Balanced to 2.5 G 25000 RPM)

Item Name	Item Code	CAT	d	D1	D2	D3	G	L	L1	L2
CAT50 HC1/4" 105 SLIM 2.5G 25000SL	K10204649152258	50	1/4"	13	17.0	46	M5	105	38	37
CAT50 HC1/4" 150 SLIM 2.5G 25000SL	K10204649173258	50	1/4"	13	21.9	46	M5	150	84	37
CAT50 HC1/4" 165 SLIM 2.5G 25000SL	K10204649956258	50	1/4"	13	23.4	46	M5	165	99	37
CAT50 HC1/4" 180 SLIM 2.5G 25000SL	K10204649178258	50	1/4"	13	25.0	46	M5	180	114	37
CAT50 HC1/4" 195 SLIM 2.5G 25000SL	K10204649957258	50	1/4"	13	26.7	46	M5	195	130	37
CAT50 HC5/16" 105 SLIM 2.5G 25000SL	K10204956152258	50	5/16"	15	19.0	46	M6	105	38	37
CAT50 HC5/16" 150 SLIM 2.5G 25000SL	K10204956173258	50	5/16"	15	23.9	46	M6	150	84	37
CAT50 HC5/16" 165 SLIM 2.5G 25000SL	K10204956956258	50	5/16"	15	25.4	46	M6	165	99	37
CAT50 HC5/16" 180 SLIM 2.5G 25000SL	K10204956178258	50	5/16"	15	27.0	46	M6	180	114	37
CAT50 HC5/16" 195 SLIM 2.5G 25000SL	K10204956957258	50	5/16"	15	28.7	46	M6	195	130	37
CAT50 HC3/8" 150 SLIM 2.5G 25000SL	K10204650173258	50	3/8"	17	25.9	46	M8	150	84	41
CAT50 HC3/8" 165 SLIM 2.5G 25000SL	K10204650956258	50	3/8"	17	27.4	46	M8	165	99	41
CAT50 HC3/8" 180 SLIM 2.5G 25000SL	K10204650178258	50	3/8"	17	29.0	46	M8	180	114	41
CAT50 HC3/8" 195 SLIM 2.5G 25000SL	K10204650957258	50	3/8"	17	30.7	46	M8	195	130	41
CAT50 HC1/2" 150 SLIM 2.5G 25000SL	K10204652173258	50	1/2"	19	27.9	46	M10	150	84	46
CAT50 HC1/2" 165 SLIM 2.5G 25000SL	K10204652956258	50	1/2"	19	29.4	46	M10	165	99	46
CAT50 HC1/2" 180 SLIM 2.5G 25000SL	K10204652178258	50	1/2"	19	31.0	46	M10	180	114	46
CAT50 HC1/2" 195 SLIM 2.5G 25000SL	K10204652957258	50	1/2"	19	32.7	46	M10	195	130	46
CAT50 HC5/8" 150 SLIM 2.5G 25000SL	K10204651173258	50	5/8"	23	31.9	52.5	M12	150	84	49
CAT50 HC5/8" 180 SLIM 2.5G 25000SL	K10204651178258	50	5/8"	23	35.0	52.5	M12	180	114	49
CAT50 HC5/8" 195 SLIM 2.5G 25000SL	K10204651957258	50	5/8"	23	36.6	52.5	M12	195	129	49
CAT50 HC3/4" 150 SLIM 2.5G 25000SL	K10204653173258	50	3/4"	28	36.9	60	M16	150	84	51
CAT50 HC3/4" 180 SLIM 2.5G 25000SL	K10204653178258	50	3/4"	28	40.0	60	M16	180	114	51
CAT50 HC3/4" 195 SLIM 2.5G 25000SL	K10204653957258	50	3/4"	28	41.6	60	M16	195	129	51
CAT50 HC 1.0" 150 SLIM 2.5G 25000SL	K10204656173258	50	1.0"	37	45.9	60	M16	150	84	51
CAT50 HC 1.0" 180 SLIM 2.5G 25000SL	K10204656178258	50	1.0"	37	49.0	60	M16	180	114	51
CAT50 HC 1.0" 195 SLIM 2.5G 25000SL	K10204656957258	50	1.0"	37	50.6	60	M16	195	129	51

CAT (ANSI B 5.50) Hydraulic Expansion Face Mill Holder (HC-FMH-K)



Maximum Run out of the External Dia with respect to the External Taper 0.005 mm



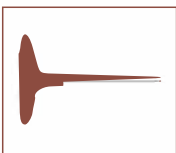
CAT (ANSI-B 5.50) Hydraulic Expansion Face Mill Holder (HC-FMH-K)

(Balanced to 2.5 G 25000 RPM)

Item Name	Item Code	CAT	D	D1	L1	L2
CAT40 HC FMH-K 1.0" X 2.0" AD/ 2.5G 25000 SL	K10203952913282	40	1.0"	2.375"	2.0"	0.687"
CAT40 HC FMH-K1.0" X 4.0" AD/ 2.5G 25000 SL	K10203974863282	40	1.0"	2.375"	4.0"	0.687"
CAT40 HC FMH-K1.0" X 6.0" AD/ 2.5G 25000 SL	K10203974647282	40	1.0"	2.375"	6.0"	0.687"
CAT40 HC FMH-K 1 1/4" X 2.0" AD/ 2.5G 25000 SL	K10203952914282	40	1 1/4"	2.875"	2.0"	0.687"
CAT40 HC FMH-K1 1/4" X 4.0" AD/ 2.5G 25000 SL	K10203975863282	40	1 1/4"	2.875"	4.0"	0.687"
CAT40 HC FMH-K1 1/4" X 6.0" AD/ 2.5G 25000 SL	K10203975647282	40	1 1/4"	2.875"	6.0"	0.687"
CAT40 HC FMH-K 1 1/2" X 2.0" AD/ 2.5G 25000 SL	K10203952915282	40	1 1/2"	3.750"	2.0"	0.938"
CAT40 HC FMH-K1 1/2" X 4.0" AD/ 2.5G 25000 SL	K10203976863282	40	1 1/2"	3.750"	4.0"	0.938"
CAT40 HC FMH-K1 1/2" X 6.0" AD/ 2.5G 25000 SL	K10203976647282	40	1 1/2"	3.750"	6.0"	0.938"

CAT40 HC FMH-K22 045 AD/ 2.5G 25000 SL	K10203934108282	40	22	48	45	19
CAT40 HC FMH-K22 100 AD/ 2.5G 25000 SL	K10203934148282	40	22	48	100	19
CAT40 HC FMH-K22 160 AD/ 2.5G 25000 SL	K10203934175282	40	22	48	160	19
CAT40 HC FMH-K27 050 AD/ 2.5G 25000 SL	K10203935111282	40	27	50	50	21
CAT40 HC FMH-K27 100 AD/ 2.5G 25000 SL	K10203935148282	40	27	50	100	21
CAT40 HC FMH-K27 160 AD/ 2.5G 25000 SL	K10203935175282	40	27	50	160	21
CAT40 HC FMH-K32 055 AD/ 2.5G 25000 SL	K10203936111282	40	32	78	55	24
CAT40 HC FMH-K32 100 AD/ 2.5G 25000 SL	K10203936148282	40	32	78	100	24
CAT40 HC FMH-K32 160 AD/ 2.5G 25000 SL	K10203936175282	40	32	78	160	24
CAT40 HC FMH-K40 055 AD/ 2.5G 25000 SL	K10203937115282	40	40	88	55	27
CAT40 HC FMH-K40 100 AD/ 2.5G 25000 SL	K10203937148282	40	40	88	100	27
CAT40 HC FMH-K40 160 AD/ 2.5G 25000 SL	K10203937175282	40	40	88	160	27

Accessories:

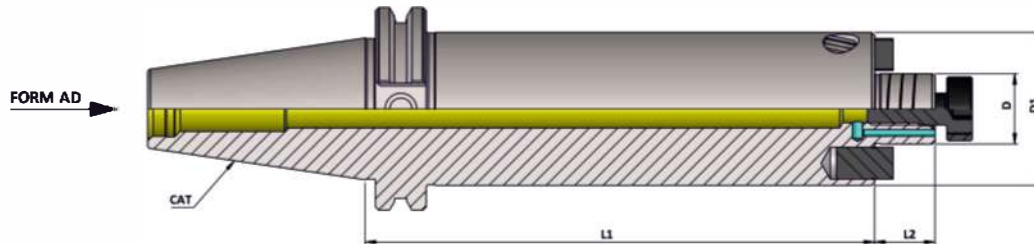


Key HC 5mm
Ref. Page No. 154

CAT (ANSI B 5.50) Hydraulic Expansion Face Mill Holder (HC-FMH-K)



Maximum Run out of the External Dia with respect to the External Taper 0.005 mm



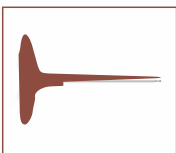
CAT (ANSI-B 5.50) Hydraulic Expansion Face Mill Holder (HC-FMH-K)

(Balanced to 2.5 G 25000 RPM)

Item Name	Item Code	CAT	D	D1	L1	L2
CAT50 HC FMH-K 1.0" X 2.0" AD/ 2.5G 25000 SL	K10204952913282	50	1.0"	2.375"	2.0"	0.687"
CAT50 HC FMH-K1.0" 4.0" AD/ 2.5G 25000 SL	K10204974863282	50	1.0"	2.375"	4.0"	0.687"
CAT50 HC FMH-K1.0" 6.0" AD/ 2.5G 25000 SL	K10204974647282	50	1.0"	2.375"	6.0"	0.687"
CAT50 HC FMH-K 1 1/4" X 2.0" AD/ 2.5G 25000 SL	K10204952914282	50	1 1/4"	2.875"	2.0"	0.687"
CAT50 HC FMH-K1 1/4" 4.0" AD/ 2.5G 25000 SL	K10204975863282	50	1 1/4"	2.875"	4.0"	0.687"
CAT50 HC FMH-K1 1/4" 6.0" AD/ 2.5G 25000 SL	K10204975647282	50	1 1/4"	2.875"	6.0"	0.687"
CAT50 HC FMH-K 1 1/2" X 2.0" AD/ 2.5G 25000 SL	K10204952915282	50	1 1/2"	3.750"	2.0"	0.938"
CAT50 HC FMH-K1 1/2" 4.0" AD/ 2.5G 25000 SL	K10204976863282	50	1 1/2"	3.750"	4.0"	0.938"
CAT50 HC FMH-K1 1/2" 6.0" AD/ 2.5G 25000 SL	K10204976647282	50	1 1/2"	3.750"	6.0"	0.938"

CAT50 HC FMH-K22 045 AD/ 2.5G 25000 SL	K10204934108282	50	22	48	45	19
CAT50 HC FMH-K22 100 AD/ 2.5G 25000 SL	K10204934148282	50	22	48	100	19
CAT50 HC FMH-K22 160 AD/ 2.5G 25000 SL	K10204934175282	50	22	48	160	19
CAT50 HC FMH-K27 045 AD/ 2.5G 25000 SL	K10204935108282	50	27	50	45	21
CAT50 HC FMH-K27 100 AD/ 2.5G 25000 SL	K10204935148282	50	27	50	100	21
CAT50 HC FMH-K27 160 AD/ 2.5G 25000 SL	K10204935175282	50	27	50	160	21
CAT50 HC FMH-K32 050 AD/ 2.5G 25000 SL	K10204936111282	50	32	78	50	24
CAT50 HC FMH-K32 100 AD/ 2.5G 25000 SL	K10204936148282	50	32	78	100	24
CAT50 HC FMH-K32 160 AD/ 2.5G 25000 SL	K10204936175282	50	32	78	160	24
CAT50 HC FMH-K40 055 AD/ 2.5G 25000 SL	K10204937115282	50	40	88	55	27
CAT50 HC FMH-K40 100 AD/ 2.5G 25000 SL	K10204937148282	50	40	88	100	27
CAT50 HC FMH-K40 160 AD/ 2.5G 25000 SL	K10204937175282	50	40	88	160	27

Accessories:

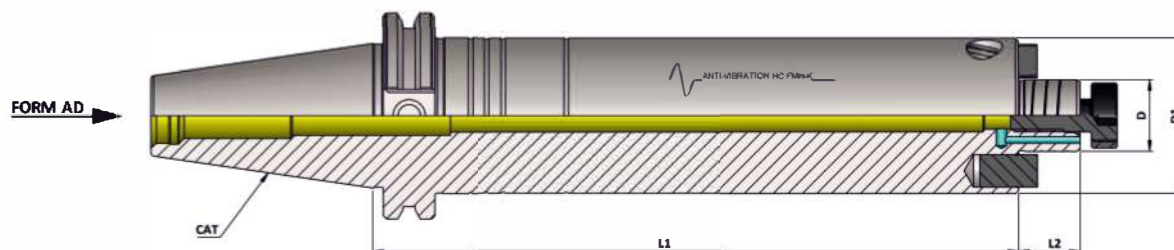


Key HC 5mm
Ref. Page No. 154

CAT (ANSI B 5.50) Hydraulic Expansion Face Mill Holder Anti - Vibration (HC-FMH-K AD/AV)



Maximum Run out of the External Dia with respect to the External Taper 0.010 mm

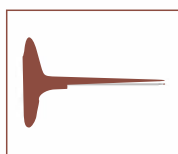


CAT (ANSI-B 5.50) Hydraulic Expansion Face Mill Holder (HC-FMH-K - AD/AV))

Item Name	Item Code	CAT	D	D1	L1	L2
CAT40 HC FMH-K1.0" 200 AD/AV	K10203974239539	40	1.0"	2.375"	200	0.687"
CAT40 HC FMH-K1.0" 250 AD/AV	K10203974182539	40	1.0"	2.375"	250	0.687"
CAT40 HC FMH-K1.0" 300 AD/AV	K10203974183539	40	1.0"	2.375"	300	0.687"
CAT40 HC FMH-K1 1/4" 200 AD/AV	K10203975239539	40	1 1/4"	2.875"	200	0.687"
CAT40 HC FMH-K1 1/4" 250 AD/AV	K10203975182539	40	1 1/4"	2.875"	250	0.687"
CAT40 HC FMH-K1 1/4" 300 AD/AV	K10203975183539	40	1 1/4"	2.875"	300	0.687"
CAT40 HC FMH-K1 1/2" 200 AD/AV	K10203976239539	40	1 1/2"	3.750"	200	0.938"
CAT40 HC FMH-K1 1/2" 250 AD/AV	K10203976182539	40	1 1/2"	3.750"	250	0.938"
CAT40 HC FMH-K1 1/2" 300 AD/AV	K10203976183539	40	1 1/2"	3.750"	300	0.938"

CAT40 HC FMH-K22 200 AD/AV	K10203934239539	40	22	48	200	19
CAT40 HC FMH-K22 250 AD/AV	K10203934182539	40	22	48	250	19
CAT40 HC FMH-K22 300 AD/AV	K10203934183539	40	22	48	300	19
CAT40 HC FMH-K27 200 AD/AV	K10203935239539	40	27	50	200	21
CAT40 HC FMH-K27 250 AD/AV	K10203935182539	40	27	50	250	21
CAT40 HC FMH-K27 300 AD/AV	K10203935183539	40	27	50	300	21
CAT40 HC FMH-K32 200 AD/AV	K10203936239539	40	32	78	200	24
CAT40 HC FMH-K32 250 AD/AV	K10203936182539	40	32	78	250	24
CAT40 HC FMH-K32 300 AD/AV	K10203936183539	40	32	78	300	24
CAT40 HC FMH-K40 200 AD/AV	K10203937239539	40	40	88	200	27
CAT40 HC FMH-K40 250 AD/AV	K10203937182539	40	40	88	250	27
CAT40 HC FMH-K40 300 AD/AV	K10203937183539	40	40	88	300	27

Accessories:

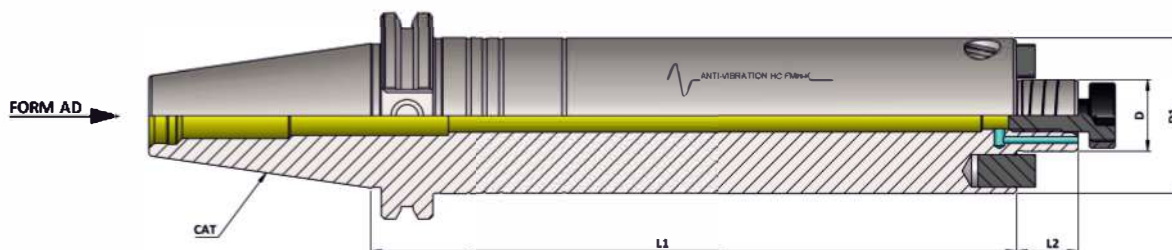


Key HC 5mm
Ref. Page No. 154

CAT (ANSI B 5.50) Hydraulic Expansion Face Mill Holder Anti - Vibration (HC-FMH-K AD/AV)



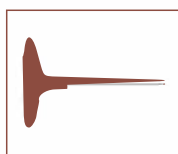
Maximum Run out of the External Dia with respect to the External Taper 0.010 mm



CAT (ANSI-B 5.50) Hydraulic Expansion Face Mill Holder (HC-FMH-K - AD/AV))

Item Name	Item Code	CAT	D	D1	L1	L2
CAT50 HC FMH-K1.0" 200 AD/AV	K10204974239539	50	1.0"	2.375"	200	0.687"
CAT50 HC FMH-K1.0" 250 AD/AV	K10204974182539	50	1.0"	2.375"	250	0.687"
CAT50 HC FMH-K1.0" 300 AD/AV	K10204974183539	50	1.0"	2.375"	300	0.687"
CAT50 HC FMH-K1.0" 350 AD/AV	K10204974184539	50	1.0"	2.375"	350	0.687"
CAT50 HC FMH-K1.0" 400 AD/AV	K10204974540539	50	1.0"	2.375"	400	0.687"
CAT50 HC FMH-K1 1/4" 200 AD/AV	K10204975239539	50	1 1/4"	2.875"	200	0.687"
CAT50 HC FMH-K1 1/4" 250 AD/AV	K10204975182539	50	1 1/4"	2.875"	250	0.687"
CAT50 HC FMH-K1 1/4" 300 AD/AV	K10204975183539	50	1 1/4"	2.875"	300	0.687"
CAT50 HC FMH-K1 1/4" 350 AD/AV	K10204975184539	50	1 1/4"	2.875"	350	0.687"
CAT50 HC FMH-K1 1/4" 400 AD/AV	K10204975540539	50	1 1/4"	2.875"	400	0.687"
CAT50 HC FMH-K1 1/2" 200 AD/AV	K10204976239539	50	1 1/2"	3.750"	200	0.938"
CAT50 HC FMH-K1 1/2" 250 AD/AV	K10204976182539	50	1 1/2"	3.750"	250	0.938"
CAT50 HC FMH-K1 1/2" 300 AD/AV	K10204976183539	50	1 1/2"	3.750"	300	0.938"
CAT50 HC FMH-K1 1/2" 350 AD/AV	K10204976184539	50	1 1/2"	3.750"	350	0.938"
CAT50 HC FMH-K1 1/2" 400 AD/AV	K10204976540539	50	1 1/2"	3.750"	400	0.938"

Accessories:

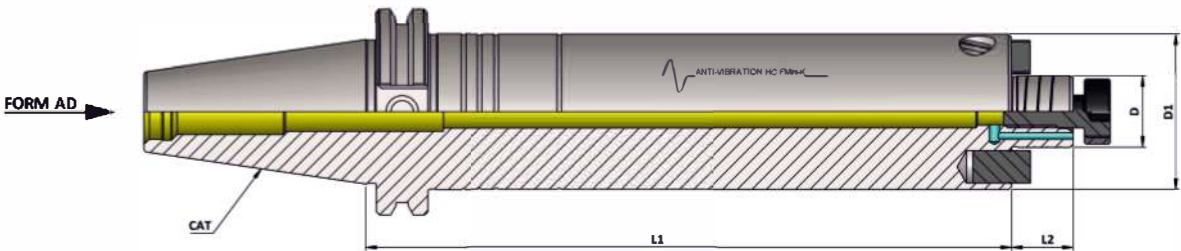


Key HC 5mm
Ref. Page No. 154

CAT (ANSI B 5.50) Hydraulic Expansion Face Mill Holder Anti - Vibration (HC-FMH-K AD/AV)



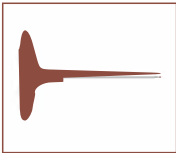
Maximum Run out of the External Dia with respect to the External Taper 0.010 mm



CAT (ANSI-B 5.50) Hydraulic Expansion Face Mill Holder (HC-FMH-K - AD/AV))

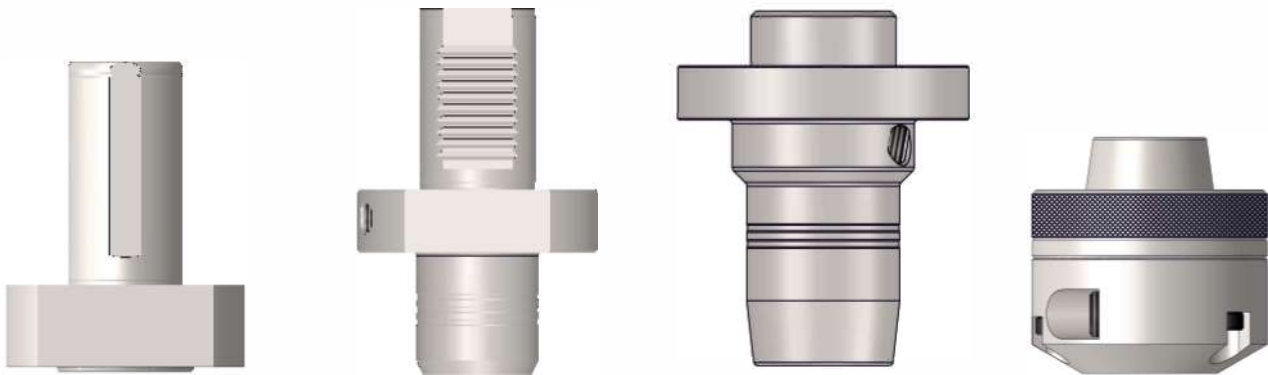
Item Name	Item Code	CAT	D	D1	L1	L2
CAT50 HC FMH-K22 200 AD/AV	K10204934239539	50	22	48	200	19
CAT50 HC FMH-K22 250 AD/AV	K10204934182539	50	22	48	250	19
CAT50 HC FMH-K22 300 AD/AV	K10204934183539	50	22	48	300	19
CAT50 HC FMH-K22 350 AD/AV	K10204934184539	50	22	48	350	19
CAT50 HC FMH-K22 400 AD/AV	K10204934540539	50	22	48	400	19
CAT50 HC FMH-K27 200 AD/AV	K10204935239539	50	27	50	200	21
CAT50 HC FMH-K27 250 AD/AV	K10204935182539	50	27	50	250	21
CAT50 HC FMH-K27 300 AD/AV	K10204935183539	50	27	50	300	21
CAT50 HC FMH-K27 350 AD/AV	K10204935184539	50	27	50	350	21
CAT50 HC FMH-K27 400 AD/AV	K10204935540539	50	27	50	400	21
CAT50 HC FMH-K32 200 AD/AV	K10204936239539	50	32	78	200	24
CAT50 HC FMH-K32 250 AD/AV	K10204936182539	50	32	78	250	24
CAT50 HC FMH-K32 300 AD/AV	K10204936183539	50	32	78	300	24
CAT50 HC FMH-K32 350 AD/AV	K10204936184539	50	32	78	350	24
CAT50 HC FMH-K32 400 AD/AV	K10204936540539	50	32	78	400	24
CAT50 HC FMH-K40 200 AD/AV	K10204937239539	50	40	88	200	27
CAT50 HC FMH-K40 250 AD/AV	K10204937182539	50	40	88	250	27
CAT50 HC FMH-K40 300 AD/AV	K10204937183539	50	40	88	300	27
CAT50 HC FMH-K40 350 AD/AV	K10204937184539	50	40	88	350	27
CAT50 HC FMH-K40 400 AD/AV	K10204937540539	50	40	88	400	27

Accessories:



Key HC 5mm
Ref. Page No. 154

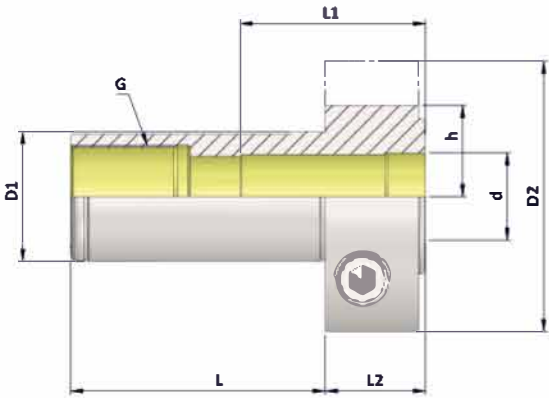
Cylindrical Shank VDI Shank Flange Type ER Type



Cylindrical Shank Hydraulic Expansion Chuck



Maximum Run out of the Internal Dia with respect to the External Dia 0.003 mm



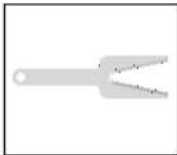
Cylindrical Shank Hydraulic Expansion Chuck

Item Name	Item Code	d	D1	D2	G	h	L	L1	L2
DIA 25 HC12 L049	K10261636630127	25	12	52	M18	17.5	49	35.5	19.5
DIA 1" HC1/2" 049	K10219652357127	1/2"	1"	52	M18	17.5	49	35.5	19.5
DIA 25 HC16 L056	K10285646631127	25	16	56	M18	17.5	56	40	19.5
DIA 1" HC5/8" 056	K10219651111127	5/8"	1"	56	M18	17.5	56	40	19.5
DIA 32 HC20 L059	K10333637632127	32	20	60	M18	21.5	59	42.8	19.5
DIA 1-1/4" HC3/4" 059	K10219653116127	3/4"	1-1/4"	60	M18	21.5	59	42.8	19.5

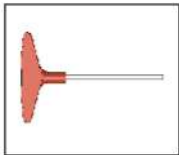
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No.140-150



Spanner HC
Ref. Page No.154

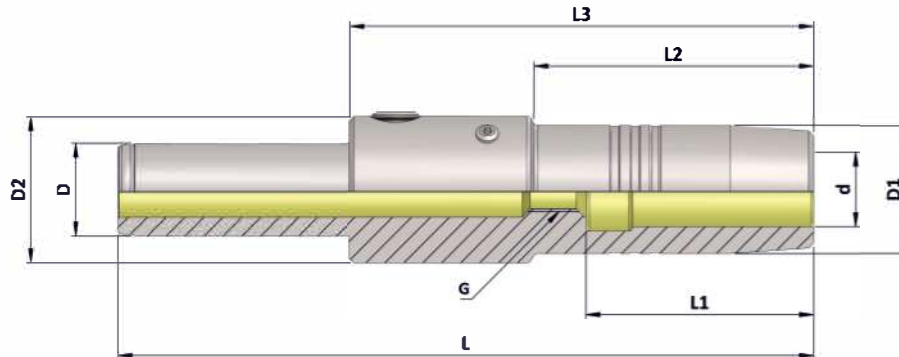


Key HC 5mm
Ref. Page No.154

Cylindrical Shank Hydraulic Expansion Chuck



Maximum Run out of the Internal Dia with respect to the External Dia 0.003 mm



Cylindrical Shank Hydraulic Expansion Chuck

Item Name	Item Code	d	D	D1	D2	G	L	L1	L2	L3
DIA20 HC06 L 150	K10160642236127	6	20	16	31.5	M5	150	37	54	100
DIA20 HC08 L 150	K10160643236127	8	20	18	31.5	M5	150	37	54	100
DIA20 HC10 L 150	K10160644236127	10	20	20	31.5	M6	150	41	54	100
DIA20 HC12 L 150	K10160636236127	12	20	25	31.5	M6	150	46	100	100
DIA20 HC16 L 150	K10160646236127	16	20	27.5	31.5	M10	150	49	60	100
DIA20 HC20 L 150	K10160637236127	20	20	31.5	31.5	M10	150	51	100	100

DIA 3/4" HC1/4" 150	K10221649173127	1/4"	3/4"	16	31.5	M5	150	37	54	100
DIA 3/4" HC5/16" 150	K10221956173127	5/16"	3/4"	18	31.5	M5	150	37	54	100
DIA 3/4" HC3/8" 150	K10221650173127	3/8"	3/4"	20	31.5	M6	150	41	54	100
DIA 3/4" HC1/2" 150	K10221652173127	1/2"	3/4"	25	31.5	M6	150	46	100	100
DIA 3/4" HC5/8" 150	K10221651173127	5/8"	3/4"	27.5	31.5	M10	150	49	60	100
DIA 3/4" HC3/4" 150	K10221653173127	3/4"	3/4"	31.5	31.5	M10	150	51	100	100

DIA32 HC20 L 150	K10162637236127	20	32	31.5	31.5	M10	150	51	90	90
DIA32 HC20 L 200	K10162637237127	20	32	31.5	31.5	M10	200	51	90	90

DIA 1 1/4" HC3/4" 150	K10222653173127	3/4"	1-1/4"	31.5	31.5	M10	150	51	90	90
DIA 1 1/4" HC3/4" 200	K10222653239127	3/4"	1-1/4"	31.5	31.5	M10	200	51	90	90

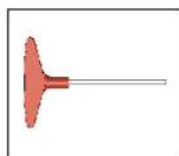
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No.140-150



Spanner HC
Ref. Page No.154

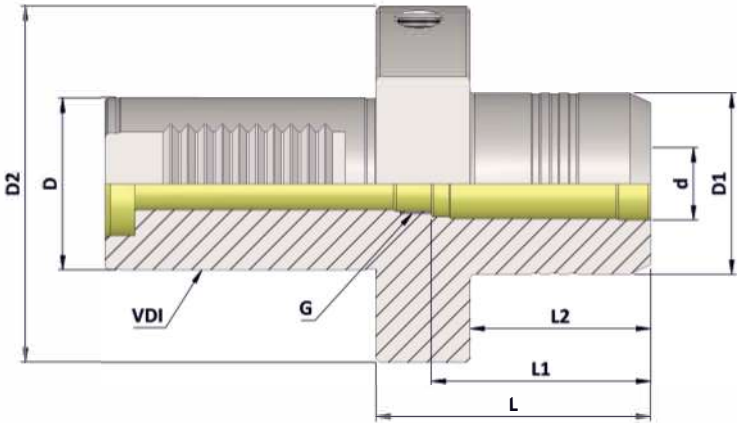


Key HC 5mm
Ref. Page No.154

VDI Shank Hydraulic Expansion Chuck



Maximum Run out of the Internal Dia with respect to the External Dia 0.003 mm



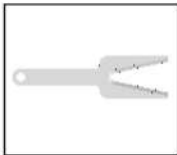
VDI Shank Hydraulic Expansion Chuck

Item Name	Item Code	VDI	d	D	D1	D2	G	L	L1	L2
VDI 25 HC12 L055 (with stopper)	K10285636633127	25	12	25	32	58	M10	55	46	37
VDI 25 HC1/2" 055 (with stopper)	K10285652115127	25	1/2"	25	32	58	M10	55	46	37
VDI30 HC20 L064 (with stopper)	K10261637634127	30	20	30	42	68	M16	64	51	42
VDI 30 HC3/4" 064 (with stopper)	K10261653120127	30	3/4"	30	42	68	M16	64	51	42
VDI40 HC20 L064 (with stopper)	K10262637634127	40	20	40	42	83	M20	64	51	42
VDI 40 HC3/4" 064 (with stopper)	K10262653120127	40	3/4"	40	42	83	M20	64	51	42
VDI30 HC32 L086 (without stopper)	K10261638635127	30	32	30	64	68	-	86	-	64
VDI30 HC1-1/4" 086 (without stopper)	K10261655136127	30	1-1/4"	30	64	68	-	86	-	64
VDI40 HC32 L086 (without stopper)	K10262638635127	40	32	40	46	64	83	-	86	64
VDI40 HC1-1/4" 086 (without stopper)	K10262655136127	40	1-1/4"	40	64	83	-	86	-	64

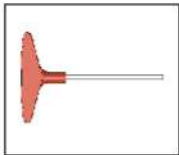
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No.140-150



Spanner HC
Ref. Page No.154

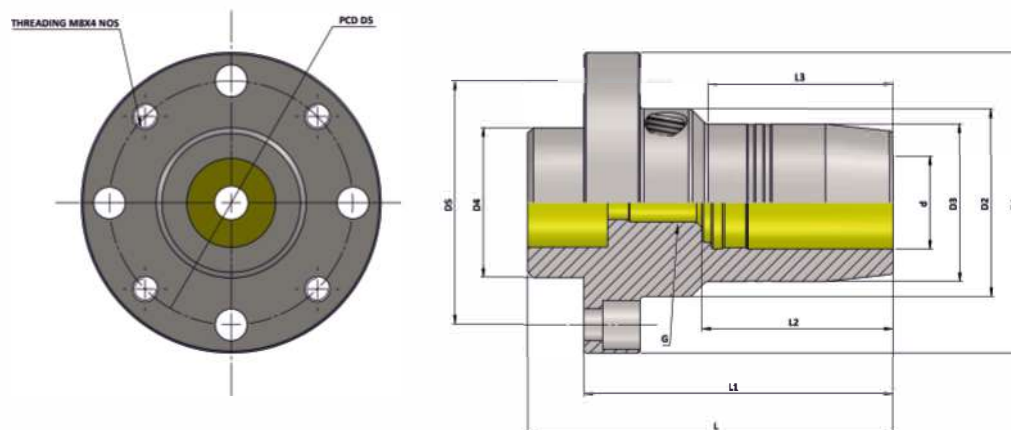


Key HC 5mm
Ref. Page No.154

Flange Type Hydraulic Expansion Chuck



Maximum Run out of the Internal Dia with respect to the External Dia 0.003 mm



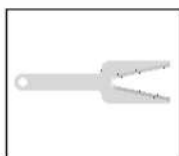
Flange Type Hydraulic Expansion Chuck

Item Name	Item Code	d	D1	D2	D3	D4	D5	G	L	L1	L2	L3
FLANGE TYPE HC 12 070	K10368636125127	12	70	40	32	35	53	M10	84.7	75	45	45
FLANGE TYPE HC 12 080	K10368636131127	12	80	50	32	40	63	M10	87.2	77.5	45	44
FLANGE TYPE HC 20 080	K10368637131127	20	80	50	42	40	63	M16	92.2	82.5	50	51.5
FLANGE TYPE HC 32 100	K10368638148127	32	100	64	64	50	79	M16	114.7	103	60	84

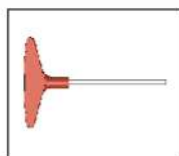
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No.140-150



Spanner HC
Ref. Page No.154

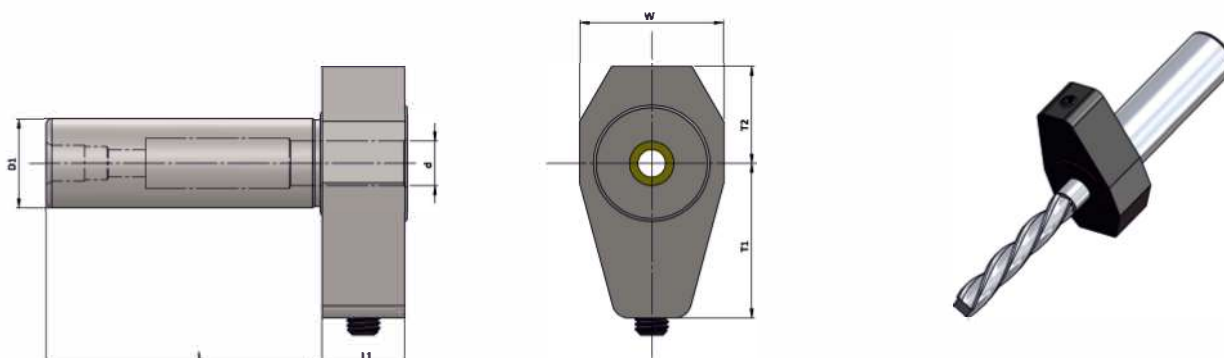


Key HC 5mm
Ref. Page No.154

Hydraulic Expansion Chuck for Sliding Head (SLH-HC)



Maximum Runout of the Internal Dia with respect to External Dia 0.005 mm



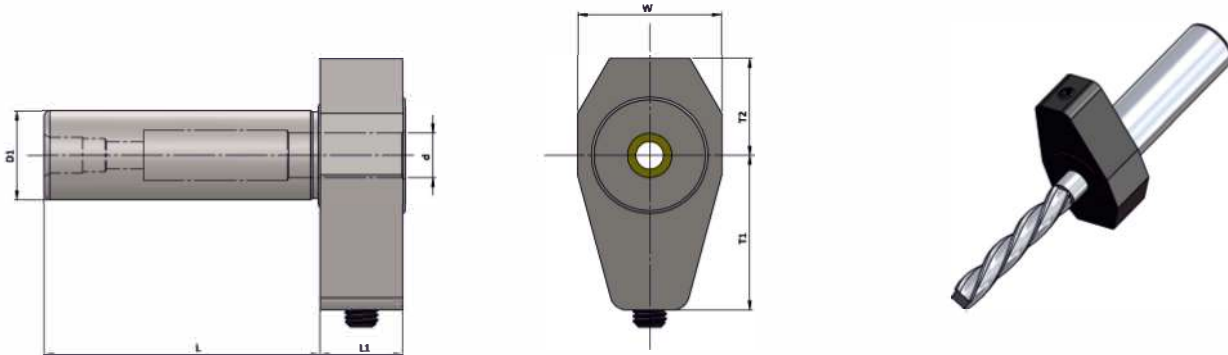
Hydraulic Expansion Chuck for Sliding Head (SLH-HC)

Item Name	Item Code	d	D1	L	L1	W	T1	T2
SL.H.16 HC03 050 -	K10371707111127	3	16	50	15	22	23	17.5
SL.H.16 HC04 050 -	K10371708111127	4	16	50	15	22	23	17.5
SL.H.16 HC06 050 -	K10371642111127	6	16	50	15	22	24.5	18.5
SL.H.16 HC08 050 -	K10371643111127	8	16	50	15	24	25.5	19.5
SL.H.16 HC1/8" 050	K10371961111127	1/8"	16	50	15	22	23	17.5
SL.H.16 HC3/16" 050	K10371962111127	3/16"	16	50	15	22	23	17.5
SL.H.16 HC1/4" 050	K10371649111127	1/4"	16	50	15	22	24.5	18.5
SL.H.16 HC5/16" 050	K10371956111127	5/16"	16	50	15	24	25.5	19.5
SL.H.20 HC03 070 -	K10373707125127	3	20	70	15	22	23	17.5
SL.H.20 HC04 070 -	K10373708125127	4	20	70	15	22	23	17.5
SL.H.20 HC06 070 -	K10373642125127	6	20	70	15	22	24.5	18.5
SL.H.20 HC08 070 -	K10373643125127	8	20	70	15	24	25.5	19.5
SL.H.20 HC10 070 -	K10373644125127	10	20	70	15	26	26.5	20.5
SL.H.20 HC1/8" 070	K10373961125127	1/8"	20	70	15	22	23	17.5
SL.H.20 HC3/16" 070	K10373962125127	3/16"	20	70	15	22	23	17.5
SL.H.20 HC1/4" 070	K10373649125127	1/4"	20	70	15	22	24.5	18.5
SL.H.20 HC5/16" 070	K10373956125127	5/16"	20	70	15	24	25.5	19.5
SL.H.20 HC3/8" 070	K10373650125127	3/8"	20	70	15	26	26.5	20.5
SL.H.25 HC03 070 -	K10375707125127	3	25	70	15	28	23	17.5
SL.H.25 HC04 070 -	K10375708125127	4	25	70	15	28	23	17.5
SL.H.25 HC06 070 -	K10375642125127	6	25	70	15	28	24.5	18.5
SL.H.25 HC08 070 -	K10375643125127	8	25	70	15	28	25.5	19.5
SL.H.25 HC10 070 -	K10375644125127	10	25	70	15	28	26.5	20.5
SL.H.25 HC12 070 -	K10375636125127	12	25	70	15	28	29	21.5

Hydraulic Expansion Chuck for Sliding Head (SLH-HC)



Maximum Runout of the Internal Dia with respect to External Dia 0.005 mm



Hydraulic Expansion Chuck for Sliding Head (SLH-HC)

Item Name	Item Code	d	D1	L	L1	W	T1	T2
SL.H.25 HC1/8" 070	K10375961125127	1/8"	25	70	15	28	23	17.5
SL.H.25 HC3/16" 070	K10375962125127	3/16"	25	70	15	28	23	17.5
SL.H.25 HC1/4" 070	K10375649125127	1/4"	25	70	15	28	24.5	18.5
SL.H.25 HC5/16" 070	K10375956125127	5/16"	25	70	15	28	25.5	19.5
SL.H.25 HC3/8" 070	K10375650125127	3/8"	25	70	15	28	26.5	20.5
SL.H.25 HC1/2" 070	K10375652125127	1/2"	25	70	15	28	29	21.5

SL.H.3/4" HC03 060 -	K10372707117127	3	3/4"	60	15	22	23	17.5
SL.H.3/4" HC04 060 -	K10372708117127	4	3/4"	60	15	22	23	17.5
SL.H.3/4" HC06 060 -	K10372642117127	6	3/4"	60	15	22	24.5	18.5
SL.H.3/4" HC08 060 -	K10372643117127	8	3/4"	60	15	24	25.5	19.5
SL.H.3/4" HC10 060 -	K10372644117127	10	3/4"	60	15	26	26.5	20.5

SL.H.3/4" HC1/8" 060	K10372961117127	1/8"	3/4"	60	15	22	23	17.5
SL.H.3/4" HC3/16" 060	K10372962117127	3/16"	3/4"	60	15	22	23	17.5
SL.H.3/4" HC1/4" 060	K10372649117127	1/4"	3/4"	60	15	22	24.5	18.5
SL.H.3/4" HC5/16" 060	K10372956117127	5/16"	3/4"	60	15	24	25.5	19.5
SL.H.3/4" HC3/8" 060	K10372650117127	3/8"	3/4"	60	15	26	26.5	20.5

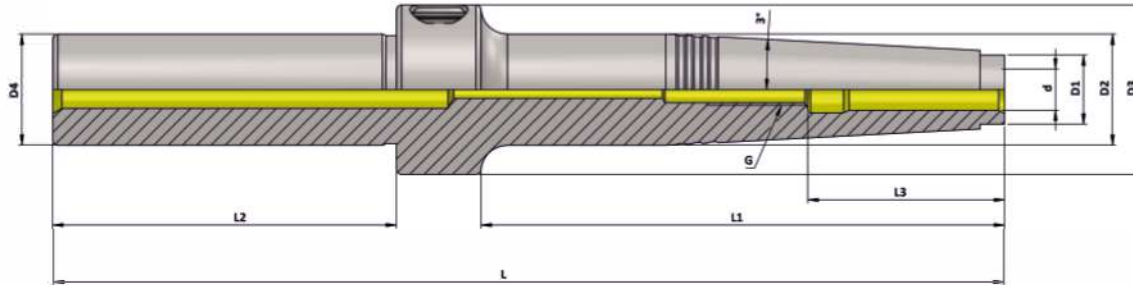
SL.H.1.0" HC03 070 -	K10376707125127	3	1.0"	70	15	28	23	17.5
SL.H.1.0" HC04 070 -	K10376708125127	4	1.0"	70	15	28	23	17.5
SL.H.1.0" HC06 070 -	K10376642125127	6	1.0"	70	15	28	24.5	18.5
SL.H.1.0" HC08 070 -	K10376643125127	8	1.0"	70	15	28	25.5	19.5
SL.H.1.0" HC10 070 -	K10376644125127	10	1.0"	70	15	28	26.5	20.5
SL.H.1.0" HC12 070 -	K10376636125127	12	1.0"	70	15	28	29	21.5

SL.H.1.0" HC1/8" 070	K10376961125127	1/8"	1.0"	70	15	28	23	17.5
SL.H.1.0" HC3/16" 070	K10376962125127	3/16"	1.0"	70	15	28	23	17.5
SL.H.1.0" HC1/4" 070	K10376649125127	1/4"	1.0"	70	15	28	24.5	18.5
SL.H.1.0" HC5/16" 070	K10376956125127	5/16"	1.0"	70	15	28	25.5	19.5
SL.H.1.0" HC3/8" 070	K10376650125127	3/8"	1.0"	70	15	28	26.5	20.5
SL.H.1.0" HC1/2" 070	K10376652125127	1/2"	1.0"	70	15	28	29	21.5

Cylindrical Shank Hydraulic Expansion Chuck Slim 3 Degree



Maximum Runout of the Internal Dia with respect to External Dia 0.003 mm



Cylindrical Shank Hydraulic Expansion Chuck Slim 3 Degree

ITEM NAME	ITEM CODE	d	D1	D2	D3	D4	G	L	L1	L2	L3
DIA20 HC03 L 180 SLIM	K10160707960557	3	11	18	46	20	M2.5	180	98	55	28
DIA20 HC04 L 180 SLIM	K10160708960557	4	11	18	46	20	M2.5	180	98	55	28
DIA20 HC06 L 180 SLIM	K10160642960557	6	13	20	46	20	M5	180	99	55	37
DIA20 HC08 L 180 SLIM	K10160643960557	8	15	22	46	20	M5	180	99	55	37
DIA20 HC10 L 180 SLIM	K10160644960557	10	17	24	46	20	M6	180	100	55	41
DIA20 HC12 L 180 SLIM	K10160636960557	12	19	26	46	20	M6	180	100	55	46

DIA20 HC1/8" L 180 SLIM	K10160961960557	1/8"	11	18	46	20	M2.5	180	98	55	28
DIA20 HC3/16" L 180 SLIM	K10160962960557	3/16"	11	18	46	20	M2.5	180	98	55	28
DIA20 HC1/4" L 180 SLIM	K10160649960557	1/4"	13	20	46	20	M5	180	99	55	37
DIA20 HC5/16" L 180 SLIM	K10160956960557	5/16"	15	22	46	20	M5	180	99	55	37
DIA20 HC3/8" L 180 SLIM	K10160650960557	3/8"	17	24	46	20	M6	180	100	55	41
DIA20 HC1/2" L 180 SLIM	K10160652960557	1/2"	19	26	46	20	M6	180	100	55	46

DIA32 HC06 L 210 SLIM	K10162642961557	6	13	20	46	32	M5	210	109	60	37
DIA32 HC08 L 210 SLIM	K10162643961557	8	15	22	46	32	M5	210	109	60	37
DIA32 HC10 L 210 SLIM	K10162644961557	10	17	24	46	32	M6	210	110	60	41
DIA32 HC12 L 210 SLIM	K10162636961557	12	19	26	46	32	M6	210	110	60	46

DIA32 HC1/4" L 210 SLIM	K10162649961557	1/4"	13	20	46	32	M5	210	109	60	37
DIA32 HC5/16" L 210 SLIM	K10162956961557	5/16"	15	22	46	32	M5	210	109	60	37
DIA32 HC3/8" L 210 SLIM	K10162650961557	3/8"	17	24	46	32	M6	210	110	60	41
DIA32 HC1/2" L 210 SLIM	K10162652961557	1/2"	19	26	46	32	M6	210	110	60	46

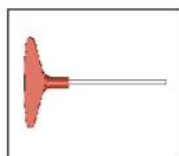
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No.140-150



Spanner HC
Ref. Page No.154

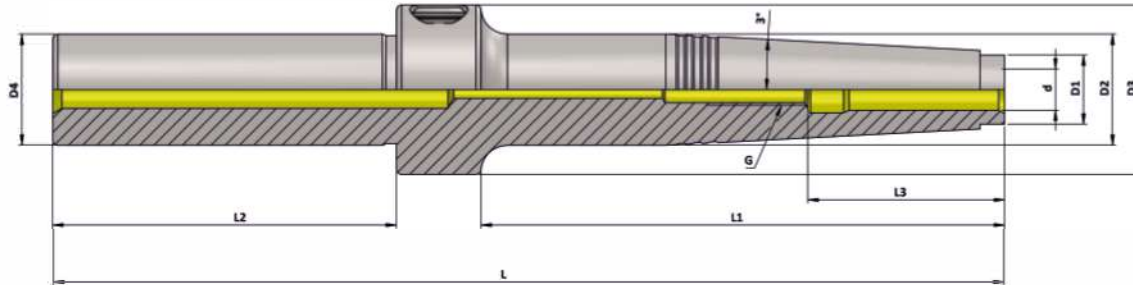


Key HC 5mm
Ref. Page No.154

Cylindrical Shank Hydraulic Expansion Chuck Slim 3 Degree



Maximum Runout of the Internal Dia with respect to External Dia 0.003 mm



Cylindrical Shank Hydraulic Expansion Chuck Slim 3 Degree

ITEM NAME	ITEM CODE	d	D1	D2	D3	D4	G	L	L1	L2	L3
DIA 3/4" HC03 L 180 SLIM	K10221707960557	3	11	18	46	3/4"	M2.5	180	98	55	28
DIA 3/4" HC04 L 180 SLIM	K10221708960557	4	11	18	46	3/4"	M2.5	180	98	55	28
DIA 3/4" HC06 L 180 SLIM	K10221642960557	6	13	20	46	3/4"	M5	180	99	55	37
DIA 3/4" HC08 L 180 SLIM	K10221643960557	8	15	22	46	3/4"	M5	180	99	55	37
DIA 3/4" HC10 L 180 SLIM	K10221644960557	10	17	24	46	3/4"	M6	180	100	55	41
DIA 3/4" HC12 L 180 SLIM	K10221636960557	12	19	26	46	3/4"	M6	180	100	55	46

DIA 3/4" HC1/8" L 180 SLIM	K10221961960557	1/8"	11	18	46	3/4"	M2.5	180	98	55	28
DIA 3/4" HC3/16" L 180 SLIM	K10221962960557	3/16"	11	18	46	3/4"	M2.5	180	98	55	28
DIA 3/4" HC1/4" L 180 SLIM	K10221649960557	1/4"	13	20	46	3/4"	M5	180	99	55	37
DIA 3/4" HC5/16" L 180 SLIM	K10221956960557	5/16"	15	22	46	3/4"	M5	180	99	55	37
DIA 3/4" HC3/8" L 180 SLIM	K10221650960557	3/8"	17	24	46	3/4"	M6	180	100	55	41
DIA 3/4" HC1/2" L 180 SLIM	K10221652960557	1/2"	19	26	46	3/4"	M6	180	100	55	46

DIA 1 1/4" HC06 L 210 SLIM	K10222642961557	6	13	20	46	1-1/4"	M5	210	109	60	37
DIA 1 1/4" HC08 L 210 SLIM	K10222643961557	8	15	22	46	1-1/4"	M5	210	109	60	37
DIA 1 1/4" HC10 L 210 SLIM	K10222644961557	10	17	24	46	1-1/4"	M6	210	110	60	41
DIA 1 1/4" HC12 L 210 SLIM	K10222636961557	12	19	26	46	1-1/4"	M6	210	110	60	46

DIA 1 1/4" HC1/4" L 210 SLIM	K10222649961557	1/4"	13	20	46	1-1/4"	M5	210	109	60	37
DIA 1 1/4" HC5/16" L 210 SLIM	K10222956961557	5/16"	15	22	46	1-1/4"	M5	210	109	60	37
DIA 1 1/4" HC3/8" L 210 SLIM	K10222650961557	3/8"	17	24	46	1-1/4"	M6	210	110	60	41
DIA 1 1/4" HC1/2" L 210 SLIM	K10222652961557	1/2"	19	26	46	1-1/4"	M6	210	110	60	46

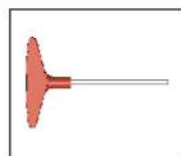
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No.140-150



Spanner HC
Ref. Page No.154

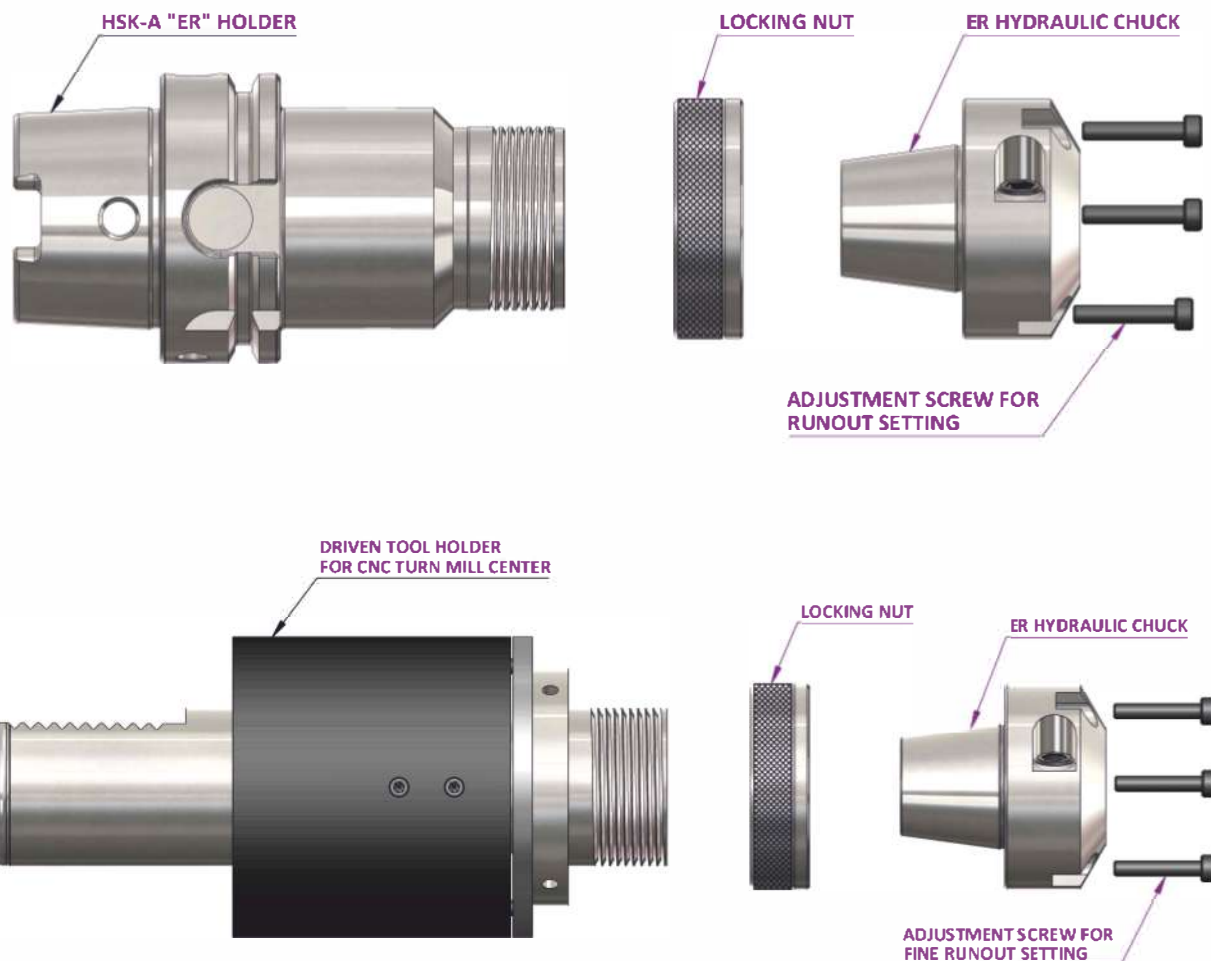


Key HC 5mm
Ref. Page No.154

KTA “ER” Type Hydraulic Expansion Chuck

◆ Features :

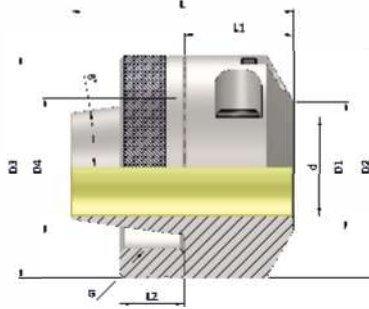
- Best suitable for positive driven tools.
- you can easily convert standard “ER” series holders into High Precision “ER” Hydraulic Chucks.
- Easy to handle & maintenance free design.
- 2 to 3 times clamping force compared to standard “ER” Collect Chucks.
- With the help of 3 Axial clamping screws, it is possible to adjust tool run out precisely (**0.002 mm is possible**), hence increases the tool life as well as productivity.



“ER” Type Hydraulic Expansion Chuck



Maximum Run out of the Internal Dia with respect to the External Taper 0.003 mm



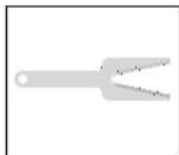
ER Type Hydraulic Expansion Chuck

Item Name	Item Code	ER	d	D1	D2	D3	D4	G	L	L1	L2
ER 16 HC06	K10322642301127	16	6	16	34	34	16	M22X1.5	30	14	10
ER 16M HC06	K10327642301127	16M	6	16	34	34	16	M19X1	30	14	10
ER 16 HC1/4"	K10322649301127	16	1/4"	16	34	34	16	M22X1.5	30	14	10
ER 16M HC1/4"	K10380649301127	16M	1/4"	16	34	34	16	M19X1	30	14	10
ER 20 HC12	K10324636301127	20	12	22	43.5	43.5	20	M25X1.5	40	24	12
ER 20M HC12	K10328636301127	20M	12	22	43.5	43.5	20	M24X1	40	24	12
ER 20 HC1/2"	K10324652301127	20	1/2"	22	43.5	43.5	20	M25X1.5	40	24	12
ER 20M HC1/2"	K10328652301127	20M	1/2"	22	43.5	43.5	20	M24X1	40	24	12
ER 25 HC12	K10323636301127	25	12	26	48	48	25	M32X1.5	46	26	15
ER 25M HC12	K10329636301127	25M	12	26	48	48	25	M30X1	46	26	15
ER 25 HC16	K10323646301127	25	16	26	48	48	25	M32X1.5	46	26	15
ER 25M HC16	K10329646301127	25M	16	26	48	48	25	M30X1	46	26	15
ER 25 HC1/2"	K10323652301127	25	1/2"	26	48	48	25	M32X1.5	46	26	15
ER 25M HC1/2"	K10329652301127	25M	1/2"	26	48	48	25	M30X1	46	26	15
ER 25 HC5/8"	K10323651301127	25	5/8"	26	48	48	25	M32X1.5	46	26	15
ER 25M HC5/8"	K10329651301127	25M	5/8"	26	48	48	25	M30X1	46	26	15
ER 32 HC20	K10325637301127	32	20	30	52	52	32	M40X1.5	52	25.5	15
ER 32 HC3/4"	K10325653301127	32	3/4"	30	52	52	32	M40X1.5	52	25.5	15
ER 40 HC25	K10326648301127	40	25	35	59	62	40	M50X1.5	56	22	20
ER 40 HC 1.0"	K10326656301127	40	1"	35	59	62	40	M50X1.5	56	22	20

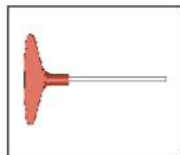
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No.140-150



Spanner HC
Ref. Page No.154

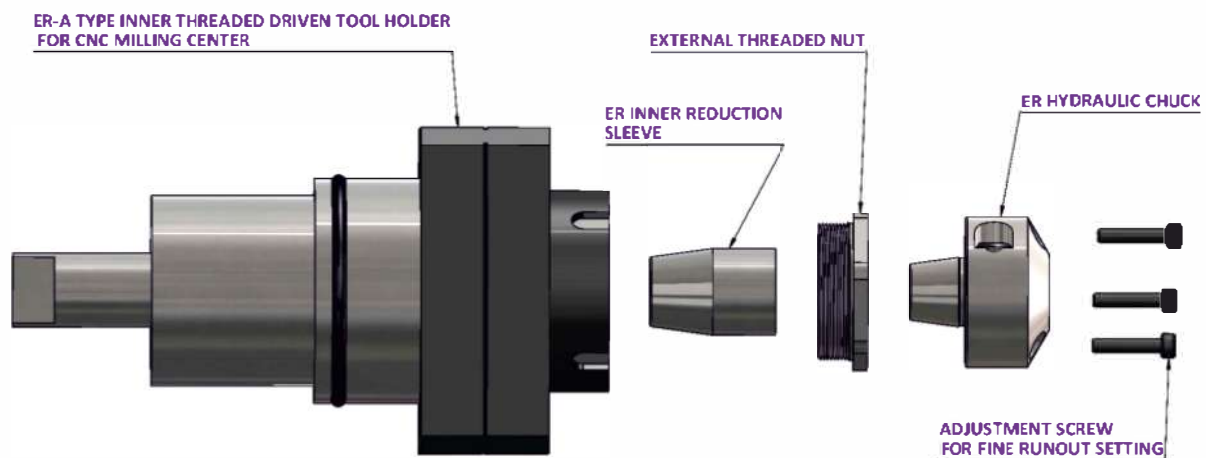


Key HC 5mm
Ref. Page No.154

ER - 'A' Type Hydraulic Chuck For Internal Threaded Driven Tools & Holders

◆ Features :

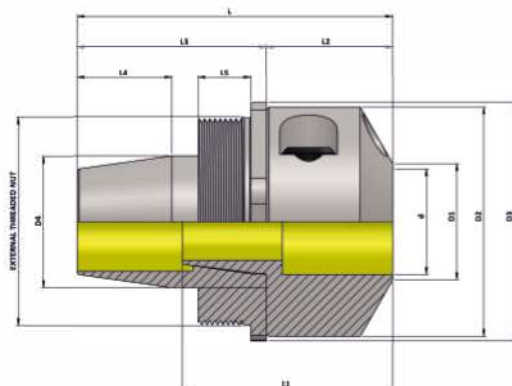
- These type of ER Inner Sleeves & ER HC Adaptors are exclusively used for Internal Threaded Driven Tools on Milling Tool holders ER 'A' Type.
- The tool with complete straight shank recommended with h6 Tolerance.
- Easy to handle & Maintenance free design.
- With the help of 3 axial clamping screws it is possible to adjust Tool Run Out precisely. (0.002/0.003 MM is possible), Hence increases tool life as well as productivity.



ER A-TYPE Hydraulic Chuck For Internal Threaded Driven Tools and Holders



Maximum Runout of the Internal Dia with respect to External taper 0.003 mm



ER A-TYPE Hydraulic Chuck for Internal Threaded Driven Tools and Holders

ITEM NAME	ITEM CODE	d	D1	D2	D3	D4	L	L1	L2	L3	L4	L5
ER 20/25 HC12	K10377636301127	12	22	43.5	43.5	25	60.5	40	24	36	18	10
ER 25/32 HC12	K10378636301127	12	26	48	48	32	71	46	26	44.5	24.5	12
ER 25/32 HC16	K10378646301127	16	26	48	48	32	71	46	26	44.5	24.5	12
ER 32/40 HC20	K10379637301127	20	30	52	56	40	75.5	52	25.5	49.5	28	13.5
ER 20/25 HC1/2"	K10377652301127	1/2"	0.866"	1.713"	1.713"	0.984"	2.382"	1.575"	0.945"	1.417"	0.709"	0.394"
ER 25/32 HC1/2"	K10378652301127	1/2"	1.024"	1.890"	1.890"	1.260"	2.795"	1.811"	1.024"	1.752"	0.965"	0.472"
ER 25/32 HC5/8"	K10378651301127	5/8"	1.024"	1.890"	1.890"	1.260"	2.795"	1.811"	1.024"	1.752"	0.965"	0.472"
ER 32/40 HC3/4"	K10379653301127	3/4"	1.181"	2.047"	2.205"	1.575"	2.972"	2.047"	1.004"	1.949"	1.102"	0.531"

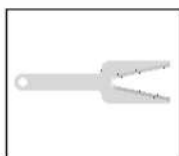
External Threaded Nut Details

Item Name	Suitable Threaded Nut	Hex. Size	Threaded Nut Tightening Torque (nm)	MINIMUM-MaximumSafe TransferableTorque (nm)
ER 20/25 HC12	M32X1.5	40	50 Nm	50-90 Nm
ER 25/32 HC12	M40X1.5	44	104 Nm	50-90 Nm
ER 25/32 HC16	M40X1.5	44	104 Nm	120-185 Nm
ER 32/40 HC20	M50X1.5	52	128 Nm	230 -330 Nm
ER 20/25 HC1/2"	M32X1.5	40	50 Nm	50-90 Nm
ER 25/32 HC1/2"	M40X1.5	44	104 Nm	50-90 Nm
ER 25/32 HC5/8"	M40X1.5	44	104 Nm	120-185 Nm
ER 32/40 HC3/4"	M50X1.5	52	128 Nm	230 -330 Nm

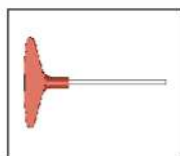
Accessories:



Reduction Sleeve Seal
(RS Seal) Ref. Page No.140-150



Spanner HC
Ref. Page No.154

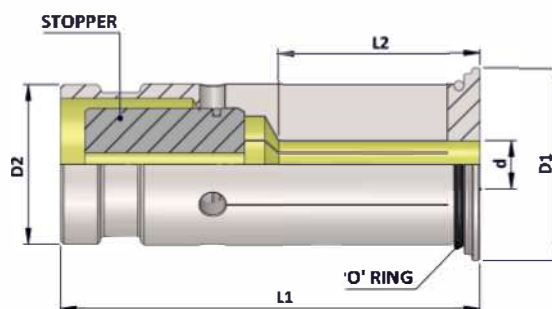


Key HC 5mm
Ref. Page No.154

Reduction Sleeve Seal (RS Seal) For Hydraulic Expansion Chuck



Stopper for adjustable stop/
length adjustment

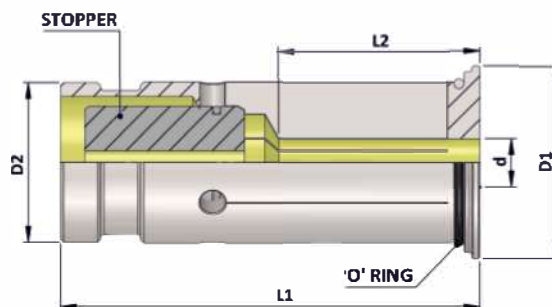


Reduction Sleeve Seal (RS Seal)					Concentricity within 0.005mm	
Item Name	Item Code	d	D1	D2	L1	Minimum Insertion Length (L2)
RS SEAL 12 x 3	K10251209556127	3	16.5	12	44	14
RS SEAL 12 x 4	K10251209528127	4	16.5	12	44	15
RS SEAL 12 x 5	K10251209561127	5	16.5	12	44	18
RS SEAL 12 x 6	K10251209342127	6	16.5	12	44	25
RS SEAL 12 x 7	K10251695854127	7	16.5	12	44	25
RS SEAL 12 x 8	K10251209314127	8	16.5	12	44	26
RS SEAL 20 x 3	K10251217323127	3	24	20	52.5	14
RS SEAL 20 x 4	K10251217434127	4	24	20	52.5	15
RS SEAL 20 x 5	K10251217442127	5	24	20	52.5	18
RS SEAL 20 x 6	K10312185301127	6	24	20	52.5	25
RS SEAL 20 x 7	K10251217426127	7	24	20	52.5	25
RS SEAL 20 x 8	K10251217443127	8	24	20	52.5	30
RS SEAL 20 x 9	K10251217415127	9	24	20	52.5	30
RS SEAL 20 x 10	K10251217416127	10	24	20	52.5	33
RS SEAL 20 x 11	K10251217444127	11	24	20	52.5	33
RS SEAL 20 x 12	K10251217445127	12	24	20	52.5	34
RS SEAL 20 x 13	K10251217417127	13	24	20	52.5	34
RS SEAL 20 x 14	K10251217418127	14	24	20	52.5	34
RS SEAL 20 x 15	K10251217419127	15	24	20	52.5	40
RS SEAL 20 x 16	K10312195301127	16	24	20	52.5	40

Reduction Sleeve Seal (RS Seal) For Hydraulic Expansion Chuck



Stopper for adjustable stop/
length adjustment



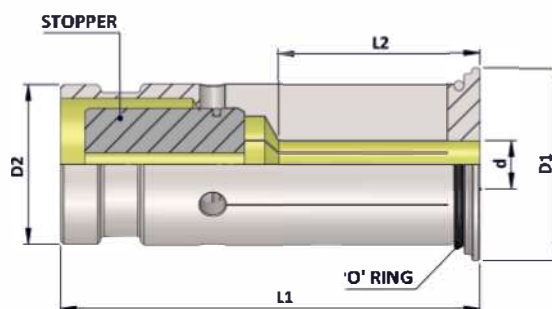
Reduction Sleeve Seal (RS Seal)					Concentricity within 0.005mm	
Item Name	Item Code	d	D1	D2	L1	Minimum Insertion Length (L2)
RS SEAL 25 x 6	K10251695867127	6	29	25	56.5	25
RS SEAL 25 x 8	K10251695894127	8	29	25	56.5	25
RS SEAL 25 x 10	K10251695895127	10	29	25	56.5	33
RS SEAL 25 x 12	K10251695874127	12	29	25	56.5	34
RS SEAL 25 x 14	K10251695896127	14	29	25	56.5	34
RS SEAL 25 x 16	K10251695875127	16	29	25	56.5	40
RS SEAL 25 x 18	K10251695897127	18	29	25	56.5	40
RS SEAL 25 x 20	K10251695898127	20	29	25	56.5	40

RS SEAL 32 x 6	K10251229324127	6	36	32	63.5	25
RS SEAL 32 x 7	K10251695905127	7	36	32	63.5	25
RS SEAL 32 x 8	K10251229325127	8	36	32	63.5	25
RS SEAL 32 x 9	K10251695906127	9	36	32	63.5	33
RS SEAL 32 x 10	K10251229322127	10	36	32	63.5	33
RS SEAL 32 x 11	K10251695907127	11	36	32	63.5	34
RS SEAL 32 x 12	K10251229327127	12	36	32	63.5	34
RS SEAL 32 x 13	K10251695908127	13	36	32	63.5	34
RS SEAL 32 x 14	K10251229326127	14	36	32	63.5	34
RS SEAL 32 x 15	K10251695909127	15	36	32	63.5	40
RS SEAL 32 x 16	K10251229420127	16	36	32	63.5	40
RS SEAL 32 x 18	K10251229501127	18	36	32	63.5	40
RS SEAL 32 x 20	K10251229554127	20	36	32	63.5	40
RS SEAL 32 x 25	K10251229481127	25	36	32	63.5	42

Reduction Sleeve Seal (RS Seal) For Hydraulic Expansion Chuck



Stopper for adjustable stop/
length adjustment



Reduction Sleeve Seal (RS Seal)

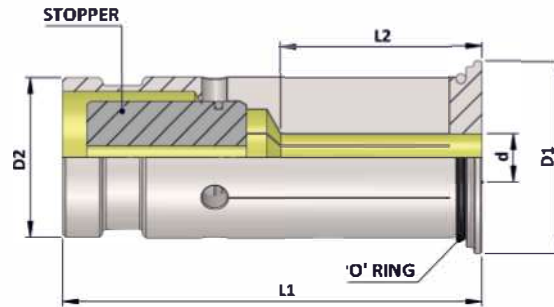
Concentricity within 0.005mm

Item Name	Item Code	d	D1	D2	L1	Minimum Insertion Length (L2)
RS SEAL 12 X 1/8"	K10251695920127	1/8"	16.5	12	44	14
RS SEAL 12 X 3/16"	K10251695921127	3/16"	16.5	12	44	15
RS SEAL 12 X 1/4"	K10251695922127	1/4"	16.5	12	44	25
RS SEAL 12 X 5/16"	K10251695923127	5/16"	16.5	12	44	26
RS SEAL 20 X 1/8"	K10251695925127	1/8"	24	20	52.5	14
RS SEAL 20 X 3/16"	K10251695926127	3/16"	24	20	52.5	15
RS SEAL 20 X 1/4"	K10251695927127	1/4"	24	20	52.5	25
RS SEAL 20 X 5/16"	K10251695928127	5/16"	24	20	52.5	30
RS SEAL 20 X 3/8"	K10251695929127	3/8"	24	20	52.5	33
RS SEAL 20 X 1/2"	K10251695930127	1/2"	24	20	52.5	34
RS SEAL 20 X 5/8"	K10251695931127	5/8"	24	20	52.5	40
RS SEAL 25 X 1/4"	K10251695869521	1/4"	29	25	56.5	25
RS SEAL 25 X 5/16" -	K10251695470127	5/16"	29	25	56.5	25
RS SEAL 25 X 3/8" -	K10251695755127	3/8"	29	25	56.5	33
RS SEAL 25 X 1/2"-	K10251695138127	1/2"	29	25	56.5	34
RS SEAL 25 X 5/8"-	K10251695130127	5/8"	29	25	56.5	40
RS SEAL 25 X 3/4"-	K10251695517127	3/4"	29	25	56.5	40
RS SEAL 32 X 1/4"	K10251695932127	1/4"	36	32	63.5	25
RS SEAL 32 X 5/16"	K10251695933127	5/16"	36	32	63.5	25
RS SEAL 32 X 3/8"	K10251695934127	3/8"	36	32	63.5	33
RS SEAL 32 X 1/2"	K10251695935127	1/2"	36	32	63.5	34
RS SEAL 32 X 5/8"	K10251695936127	5/8"	36	32	63.5	40
RS SEAL 32 X 3/4"	K10251695937127	3/4"	36	32	63.5	40
RS SEAL 32 X 1.0"	K10251695938127	1.0"	36	32	63.5	42

Reduction Sleeve Seal (RS Seal) For Hydraulic Expansion Chuck



Stopper for adjustable stop/
length adjustment

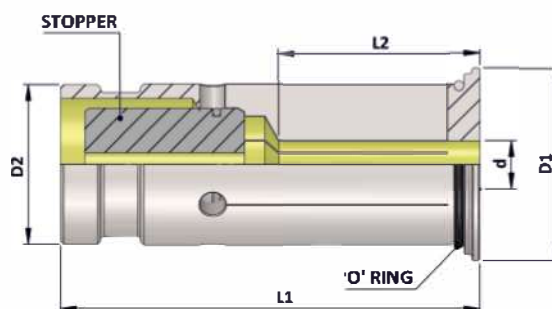


Reduction Sleeve Seal (RS Seal)					Concentricity within 0.005mm	
Item Name	Item Code	d	D1	D2	L1	Minimum Insertion Length (L2)
RS SEAL 1/2" - 1/8" (3.175)	K10334658636127	1/8" (3.175)	16.50	1/2" (12.70)	44	14
RS SEAL 1/2" - 3/16" (4.7625)	K10334659637127	3/16" (4.7625)	16.50	1/2" (12.70)	44	18
RS SEAL 1/2" - 1/4" (6.350)	K10334660638127	1/4" (6.350)	16.50	1/2" (12.70)	44	25
RS SEAL 1/2" - 5/16" (7.9375)	K10334661639127	5/16" (7.9375)	16.50	1/2" (12.70)	44	26
RS SEAL 3/4" - 1/8" (3.175)	K10335658636127	1/8" (3.175)	24	3/4"(19.05)	52.50	14
RS SEAL 3/4" - 3/16" (4.7625)	K10335659637127	3/16" (4.7625)	24	3/4"(19.05)	52.50	18
RS SEAL 3/4" - 1/4" (6.350)	K10335660638127	1/4" (6.350)	24	3/4"(19.05)	52.50	25
RS SEAL 3/4" - 5/16" (7.9375)	K10335661639127	5/16" (7.9375)	24	3/4"(19.05)	52.50	30
RS SEAL 3/4" - 7/16" (11.1125)	K10251695939127	7/16" (11.1125)	24	3/4" (19.05)	52.5	33
RS SEAL 3/4" - 3/8" (9.525)	K10335667640127	3/8" (9.525)	24	3/4"(19.05)	52.50	33
RS SEAL 3/4" - 1/2" (12.700)	K10335662641127	1/2" (12.700)	24	3/4"(19.05)	52.50	34
RS SEAL 3/4" - 5/8" (15.875)	K10335667640127	5/8" (15.875)	24	3/4"(19.05)	52.50	40
RS SEAL 1.0" - 1/4" (6.350)	K10362660638127	1/4" (6.350)	29	1.0"(25.400)	56.5	25
RS SEAL 1.0" - 5/16" (7.9375)	K10362661639127	5/16" (7.9375)	29	1.0"(25.400)	56.5	25
RS SEAL 1.0" - 3/8" (9.525)	K10362667640127	3/8" (9.525)	29	1.0"(25.400)	56.5	33
RS SEAL 1.0" - 1/2" (12.700)	K10362662641127	1/2" (12.700)	29	1.0"(25.400)	56.5	34
RS SEAL 1.0" - 5/8" (15.875)	K10362663642127	5/8" (15.875)	29	1.0"(25.400)	56.5	40
RS SEAL 1.0" - 3/4" (19.050)	K10362664643127	3/4" (19.050)	29	1.0"(25.400)	56.5	40
RS SEAL 1-1/4" - 1/4" (6.350)	K10336660638127	1/4" (6.350)	36	1-1/4" (31.750)	63.50	25
RS SEAL 1-1/4" - 5/16"(7.9375)	K10336661639127	5/16" (7.9375)	36	1-1/4" (31.750)	63.50	25
RS SEAL 1-1/4" - 3/8" (9.525)	K10336667640127	3/8" (9.525)	36	1-1/4" (31.750)	63.50	33
RS SEAL 1-1/4" - 1/2" (12.700)	K10336662641127	1/2" (12.700)	36	1-1/4" (31.750)	63.50	34
RS SEAL 1-1/4" - 5/8" (15.875)	K10336663642127	5/8" (15.875)	36	1-1/4" (31.750)	63.50	40
RS SEAL 1-1/4" - 3/4" (19.050)	K10336664643127	3/4" (19.050)	36	1-1/4" (31.750)	63.50	40
RS SEAL 1-1/4" - 1" (25.400)	K10336665644127	1" (25.400)	36	1-1/4" (31.750)	63.50	42

Reduction Sleeve Seal (RS Seal) For Hydraulic Expansion Chuck



Stopper for adjustable stop/
length adjustment

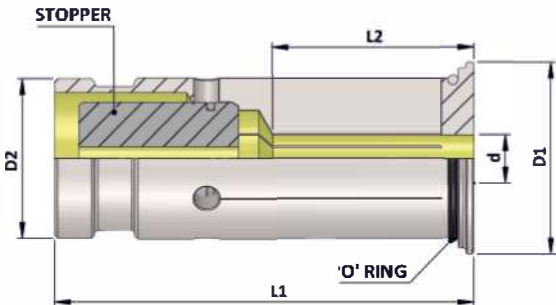


Reduction Sleeve Seal (RS Seal)					Concentricity within 0.005mm	
Item Name	Item Code	d	D1	D2	L1	Minimum Insertion Length (L2)
RS SEAL 1/2" X 3	K10251695176127	3	16.5	1/2"	44	14
RS SEAL 1/2" X 4	K10251695579127	4	16.5	1/2"	44	15
RS SEAL 1/2" X 5	K10251695546127	5	16.5	1/2"	44	18
RS SEAL 1/2" X 6	K10251695301127	6	16.5	1/2"	44	25
RS SEAL 1/2" X 7	K10251695559127	7	16.5	1/2"	44	25
RS SEAL 1/2" X 8	K10251695171127	8	16.5	1/2"	44	26
RS SEAL 3/4" X 3	K10251695940127	3	24	3/4"	52.5	14
RS SEAL 3/4" X 4	K10251695941127	4	24	3/4"	52.5	15
RS SEAL 3/4" X 5	K10251695942127	5	24	3/4"	52.5	18
RS SEAL 3/4" X 6	K10251695943127	6	24	3/4"	52.5	25
RS SEAL 3/4" X 8	K10251695944127	8	24	3/4"	52.5	30
RS SEAL 3/4" X 10	K10251695945127	10	24	3/4"	52.5	33
RS SEAL 3/4" X 12	K10251695946127	12	24	3/4"	52.5	34
RS SEAL 3/4" X 14	K10251695947127	14	24	3/4"	52.5	34
RS SEAL 3/4" X 16	K10251695948127	16	24	3/4"	52.5	40
RS SEAL 1.0" X 6	K10362185877127	6	29	1.0"	56.5	25
RS SEAL 1.0" X 8	K10362187877127	8	29	1.0"	56.5	25
RS SEAL 1.0" X 10	K10362189877127	10	29	1.0"	56.5	33
RS SEAL 1.0" X 12	K10362191877127	12	29	1.0"	56.5	34
RS SEAL 1.0" X 14	K10362193877127	14	29	1.0"	56.5	34
RS SEAL 1.0" X 16	K10362195877127	16	29	1.0"	56.5	40
RS SEAL 1.0" X 18	K10362271877127	18	29	1.0"	56.5	40
RS SEAL 1.0" X 20	K10362196877127	20	29	1.0"	56.5	40

Reduction Sleeve Seal (RS Seal) For Hydraulic Expansion Chuck



Stopper for adjustable stop/
length adjustment

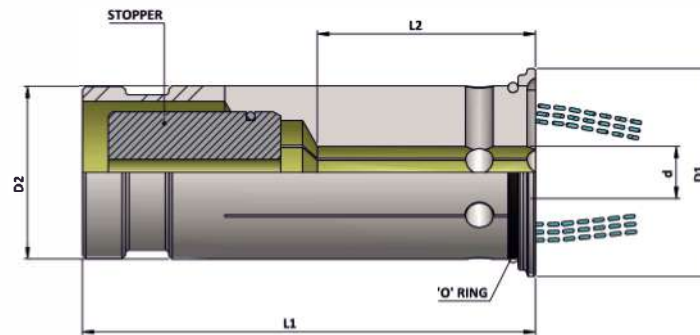


Reduction Sleeve Seal (RS Seal)					Concentricity within 0.005mm	
Item Name	Item Code	d	D1	D2	L1	Minimum Insertion Length (L2)
RS SEAL 1-1/4" X 6	K10336185877127	6	36	1-1/4"	63.5	25
RS SEAL 1-1/4" X 8	K10336187877127	8	36	1-1/4"	63.5	25
RS SEAL 1-1/4" X 10	K10336189877127	10	36	1-1/4"	63.5	33
RS SEAL 1-1/4" X 12	K10336191877127	12	36	1-1/4"	63.5	34
RS SEAL 1-1/4" X 14	K10336193877127	14	36	1-1/4"	63.5	34
RS SEAL 1-1/4" X 16	K10336195877127	16	36	1-1/4"	63.5	40
RS SEAL 1-1/4" X 18	K10336271877127	18	36	1-1/4"	63.5	40
RS SEAL 1-1/4" X 20	K10251695949127	20	36	1-1/4"	63.5	40
RS SEAL 1-1/4" X 25	K10251695950127	25	36	1-1/4"	63.5	42

Reduction Sleeve Face Through Coolant (RS - TC)



Stopper for adjustable stop/
length adjustment



Reduction Sleeve Face Through Coolant (RS - TC)

Concentricity within 0.005mm

Item Name	Item Code	d	D1	D2	L1	Minimum Insertion Length (L2)
RS TC 12 X 3	K10251988962127	3	16.5	12	44	14
RS TC 12 X 4	K10251988963127	4	16.5	12	44	15
RS TC 12 X 5	K10251988964127	5	16.5	12	44	18
RS TC 12 X 6	K10251988965127	6	16.5	12	44	25
RS TC 12 X 7	K10251988854127	7	16.5	12	44	25
RS TC 12 X 8	K10251988966127	8	16.5	12	44	26

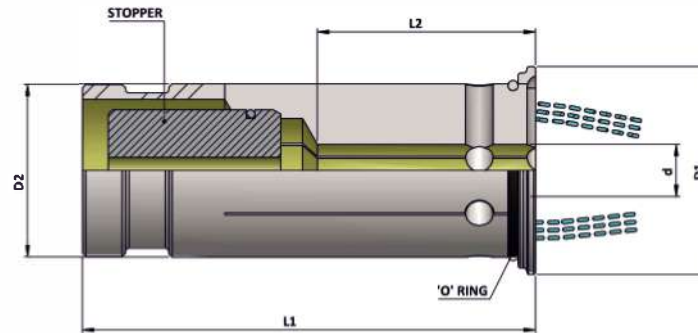
RS TC 20 X 3	K10251988967127	3	24	20	52.5	14
RS TC 20 X 4	K10251988968127	4	24	20	52.5	15
RS TC 20 X 5	K10251988969127	5	24	20	52.5	18
RS TC 20 X 6	K10251988970127	6	24	20	52.5	25
RS TC 20 X 7	K10251988971127	7	24	20	52.5	25
RS TC 20 X 8	K10251988972127	8	24	20	52.5	30
RS TC 20 X 9	K10251988973127	9	24	20	52.5	30
RS TC 20 X 10	K10251988974127	10	24	20	52.5	33
RS TC 20 X 11	K10251988975127	11	24	20	52.5	33
RS TC 20 X 12	K10251988976127	12	24	20	52.5	34
RS TC 20 X 13	K10251988977127	13	24	20	52.5	34
RS TC 20 X 14	K10251988978127	14	24	20	52.5	34
RS TC 20 X 15	K10251988979127	15	24	20	52.5	40
RS TC 20 X 16	K10251988980127	16	24	20	52.5	40

RS TC 25 X 6	K10251988867127	6	29	25	56.5	25
RS TC 25 X 8	K10251988894127	8	29	25	56.5	25
RS TC 25 X 10	K10251988895127	10	29	25	56.5	33
RS TC 25 X 12	K10251988869127	12	29	25	56.5	34
RS TC 25 X 14	K10251988896127	14	29	25	56.5	34
RS TC 25 X 16	K10251988868127	16	29	25	56.5	40
RS TC 25 X 18	K10251988897127	18	29	25	56.5	40
RS TC 25 X 20	K10251988898127	20	29	25	56.5	40

Reduction Sleeve Face Through Coolant (RS - TC)



Stopper for adjustable stop/
length adjustment



Reduction Sleeve Face Through Coolant (RS - TC)

Concentricity within 0.005mm

Item Name	Item Code	d	D1	D2	L1	Minimum Insertion Length (L2)
RS TC 32 X 6	K10251988981127	6	36	32	63.5	25
RS TC 32 X 7	K10251988905127	7	36	32	63.5	25
RS TC 32 X 8	K10251988982127	8	36	32	63.5	25
RS TC 32 X 9	K10251988906127	9	36	32	63.5	33
RS TC 32 X 10	K10251988983127	10	36	32	63.5	33
RS TC 32 X 11	K10251988907127	11	36	32	63.5	34
RS TC 32 X 12	K10251988984127	12	36	32	63.5	34
RS TC 32 X 13	K10251988908127	13	36	32	63.5	34
RS TC 32 X 14	K10251988985127	14	36	32	63.5	34
RS TC 32 X 15	K10251988909127	15	36	32	63.5	40
RS TC 32 X 16	K10251988986127	16	36	32	63.5	40
RS TC 32 X 18	K10251988987127	18	36	32	63.5	40
RS TC 32 X 20	K10251988988127	20	36	32	63.5	40
RS TC 32 X 25	K10251988989127	25	36	32	63.5	42

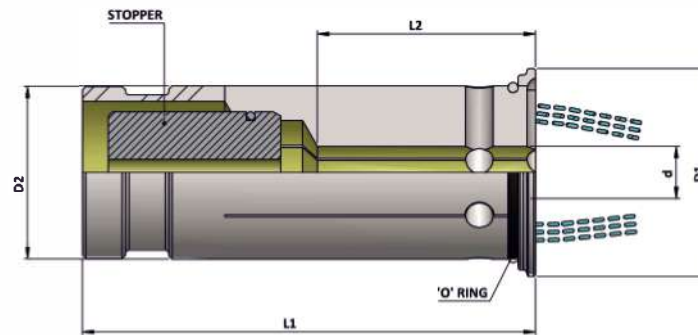
RS TC 12 X 1/8"	K10251988920127	1/8"	16.5	12	44	14
RS TC 12 X 3/16"	K10251988921127	3/16"	16.5	12	44	15
RS TC 12 X 1/4"	K10251988922127	1/4"	16.5	12	44	25
RS TC 12 X 5/16"	K10251988923127	5/16"	16.5	12	44	26

RS TC 20 X 1/8"	K10251988925127	1/8"	24	20	52.5	14
RS TC 20 X 3/16"	K10251988926127	3/16"	24	20	52.5	15
RS TC 20 X 1/4"	K10251988927127	1/4"	24	20	52.5	25
RS TC 20 X 5/16"	K10251988928127	5/16"	24	20	52.5	30
RS TC 20 X 3/8"	K10251988929127	3/8"	24	20	52.5	33
RS TC 20 X 1/2"	K10251988930127	1/2"	24	20	52.5	34
RS TC 20 X 5/8"	K10251988931127	5/8"	24	20	52.5	40

Reduction Sleeve Face Through Coolant (RS - TC)



Stopper for adjustable stop/
length adjustment



Reduction Sleeve Face Through Coolant (RS - TC)

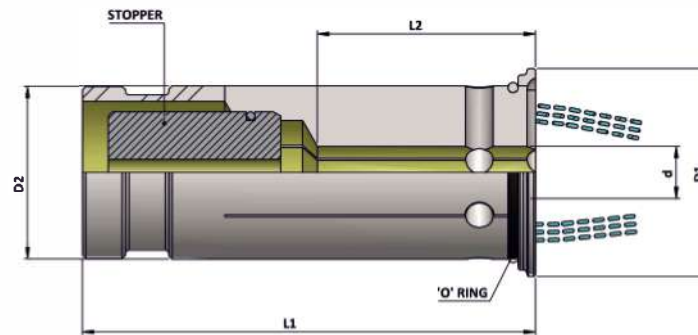
Concentricity within 0.005mm

Item Name	Item Code	d	D1	D2	L1	Minimum Insertion Length (L2)
RS TC 25 X 1/4"	K10251988869521	1/4"	29	25	56.5	25
RS TC 25 X 5/16"	K10251988470127	5/16"	29	25	56.5	25
RS TC 25 X 3/8"	K10251988755127	3/8"	29	25	56.5	33
RS TC 25 X 1/2"	K10251988138127	1/2"	29	25	56.5	34
RS TC 25 X 5/8"	K10251988130127	5/8"	29	25	56.5	40
RS TC 25 X 3/4"	K10251988517127	3/4"	29	25	56.5	40
RS TC 32 X 1/4"	K10251988932127	1/4"	36	32	63.5	25
RS TC 32 X 5/16"	K10251988933127	5/16"	36	32	63.5	25
RS TC 32 X 3/8"	K10251988934127	3/8"	36	32	63.5	33
RS TC 32 X 1/2"	K10251988935127	1/2"	36	32	63.5	34
RS TC 32 X 5/8"	K10251988936127	5/8"	36	32	63.5	40
RS TC 32 X 3/4"	K10251988937127	3/4"	36	32	63.5	40
RS TC 32 X 1.0"	K10251988938127	1.0"	36	32	63.5	42
RS TC 1/2" X 1/8"	K10251988990127	1/8"	16.5	1/2"	44	14
RS TC 1/2" X 3/16"	K10251988991127	3/16"	16.5	1/2"	44	18
RS TC 1/2" X 1/4"	K10251988992127	1/4"	16.5	1/2"	44	25
RS TC 1/2" X 5/16"	K10251988993127	5/16"	16.5	1/2"	44	26
RS TC 3/4" X 1/8"	K10251988994127	1/8"	24	3/4"	52.5	14
RS TC 3/4" X 3/16"	K10251988995127	3/16"	24	3/4"	52.5	18
RS TC 3/4" X 1/4"	K10251988996127	1/4"	24	3/4"	52.5	25
RS TC 3/4" X 5/16"	K10251988997127	5/16"	24	3/4"	52.5	30
RS TC 3/4" X 7/16"	K10251988998127	7/16"	24	3/4"	52.5	33
RS TC 3/4" X 3/8"	K10251988999127	3/8"	24	3/4"	52.5	33
RS TC 3/4" X 1/2"	K10251988100127	1/2"	24	3/4"	52.5	34
RS TC 3/4" X 5/8"	K10251988855127	5/8"	24	3/4"	52.5	40

Reduction Sleeve Face Through Coolant (RS - TC)



Stopper for adjustable stop/
length adjustment



Reduction Sleeve Face Through Coolant (RS - TC)

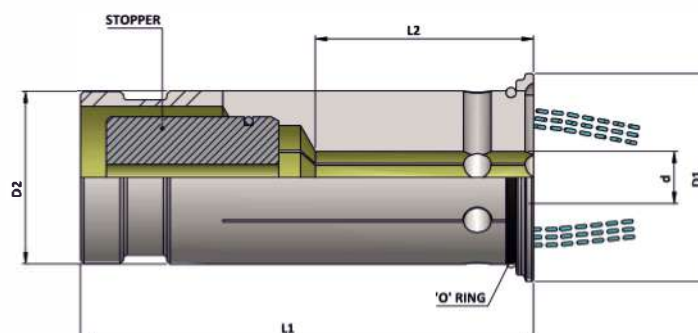
Concentricity within 0.005mm

Item Name	Item Code	d	D1	D2	L1	Minimum Insertion Length (L2)
RS TC 1.0" X 1/4"	K10251988141127	1/4"	29	1.0"	56.5	25
RS TC 1.0" X 5/16"	K10251988143127	5/16"	29	1.0"	56.5	25
RS TC 1.0" X 3/8"	K10251988576127	3/8"	29	1.0"	56.5	33
RS TC 1.0" X 1/2"	K10251988731127	1/2"	29	1.0"	56.5	34
RS TC 1.0" X 5/8"	K10251988850127	5/8"	29	1.0"	56.5	40
RS TC 1.0" X 3/4"	K10251988119127	3/4"	29	1.0"	56.5	40
RS TC 1-1/4" X 1/4"	K10251988873127	1/4"	36	1-1/4"	63.5	25
RS TC 1-1/4" X 5/16"	K10251988109127	5/16"	36	1-1/4"	63.5	25
RS TC 1-1/4" X 3/8"	K10251988446127	3/8"	36	1-1/4"	63.5	33
RS TC 1-1/4" X 1/2"	K10251988447127	1/2"	36	1-1/4"	63.5	34
RS TC 1-1/4" X 5/8"	K10251988448127	5/8"	36	1-1/4"	63.5	40
RS TC 1-1/4" X 3/4"	K10251988449127	3/4"	36	1-1/4"	63.5	40
RS TC 1-1/4" X 1.0"	K10251988450127	1.0"	36	1-1/4"	63.5	42
RS TC 1/2"X 3	K10251988176127	3	16.5	1/2"	44	14
RS TC 1/2"X 4	K10251988579127	4	16.5	1/2"	44	15
RS TC 1/2"X 5	K10251988546127	5	16.5	1/2"	44	18
RS TC 1/2"X 6	K10251988301127	6	16.5	1/2"	44	25
RS TC 1/2"X 7	K10251988559127	7	16.5	1/2"	44	25
RS TC 1/2"X 8	K10251988171127	8	16.5	1/2"	44	26
RS TC 3/4" X 3	K10251988940127	3	24	3/4"	52.5	14
RS TC 3/4" X 4	K10251988941127	4	24	3/4"	52.5	15
RS TC 3/4" X 5	K10251988942127	5	24	3/4"	52.5	18
RS TC 3/4" X 6	K10251988943127	6	24	3/4"	52.5	25
RS TC 3/4" X 8	K10251988944127	8	24	3/4"	52.5	30
RS TC 3/4" X 10	K10251988945127	10	24	3/4"	52.5	33
RS TC 3/4" X 12	K10251988946127	12	24	3/4"	52.5	34
RS TC 3/4" X 14	K10251988947127	14	24	3/4"	52.5	34
RS TC 3/4" X 16	K10251988948127	16	24	3/4"	52.5	40

Reduction Sleeve Face Through Coolant (RS - TC)

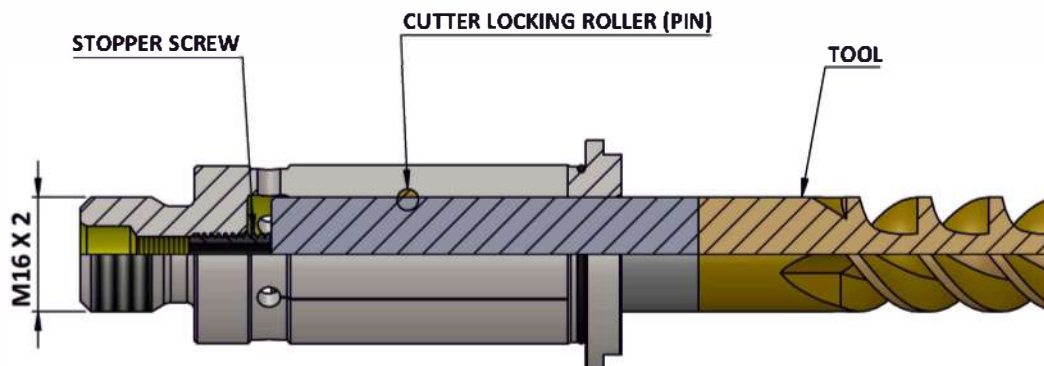


Stopper for adjustable stop/
length adjustment



Reduction Sleeve Face Through Coolant (RS - TC)					Concentricity within 0.005mm	
Item Name	Item Code	d	D1	D2	L1	Minimum Insertion Length (L2)
RS TC 1.0"X 6	K10251988549127	6	29	1.0"	56.5	25
RS TC 1.0"X 8	K10251988177127	8	29	1.0"	56.5	25
RS TC 1.0"X 10	K10251988260127	10	29	1.0"	56.5	33
RS TC 1.0"X 12	K10251988268521	12	29	1.0"	56.5	34
RS TC 1.0"X 14	K10251988253127	14	29	1.0"	56.5	34
RS TC 1.0"X 16	K10251988283127	16	29	1.0"	56.5	40
RS TC 1.0"X 18	K10251988599127	18	29	1.0"	56.5	40
RS TC 1.0"X 20	K10251988266127	20	29	1.0"	56.5	40
RS TC 1 1/4"X 6	K10251988716127	6	36	1-1/4"	63.5	25
RS TC 1 1/4"X 8	K10251988810127	8	36	1-1/4"	63.5	25
RS TC 1 1/4"X 10	K10251988711127	10	36	1-1/4"	63.5	33
RS TC 1 1/4"X 12	K10251988712127	12	36	1-1/4"	63.5	34
RS TC 1 1/4"X 14	K10251988715127	14	36	1-1/4"	63.5	34
RS TC 1 1/4"X 16	K10251988809127	16	36	1-1/4"	63.5	40
RS TC 1 1/4"X 18	K10251988710127	18	36	1-1/4"	63.5	40
RS TC 1-1/4" X 20	K10251988949127	20	36	1-1/4"	63.5	40
RS TC 1-1/4" X 25	K10251988950127	25	36	1-1/4"	63.5	42

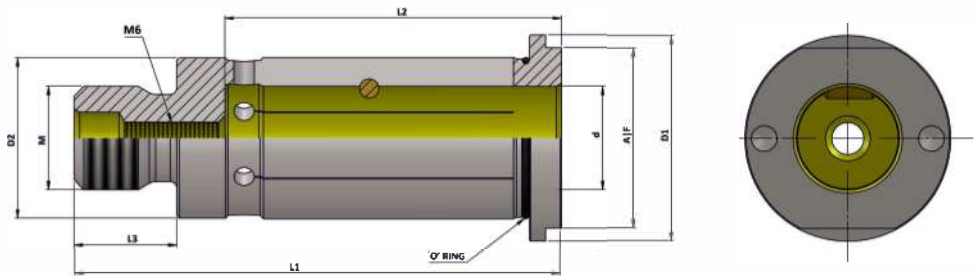
Reduction Sleeve Non Pull Out For Hydraulic Expansion Chuck (RS - NP)



Reduction Sleeve Non Pull Out (RS - NP)

Tool Pull out is one of the major issue in milling chuck, Especially when machining high super alloy like titanium or Inconel and also when single tool is running for longer duration, i.e. during high cycle time jobs. So with the help of this non pull-out sleeve in a highly accurate hydraulic chuck with a maximum runout of 0.005 mm at 3D these problem of tool coming out can be completely eliminated, These non-pull-out sleeve is specially designed for a standard tool having a Weldon shank, these special non pull out sleeve comes with a very simple and mechanically designed. Which comprise of one roller and easy to use, So once you insert a tool having a Weldon shank just positioned the roller into the Weldon flat and with the help of the back stopper screw push the tool till it touches to the roller , Once the tool is locked it cannot be pulled out during machining. Also the threads of M16x2 on the Non Pull Out sleeves is used which is screwed in our KTA Hydraulic Chuck, so there is a dual non pull out system one for a tool and another for sleeve so it acts as a dual effect of non-pull out during machining and also these sleeves along with cutter is clamped by Hydraulic System of the holder which gives a very rigid clamping along with good run out of 0.005mm at 3D. Which improves and quality Life of the tools and even very good machining finish.

Reduction Sleeve Non Pull Out For Hydraulic Expansion Chuck (RS - NP)



Reduction Sleeve Non Pull Out (RS - NP)

Item Name	Item Code	d	D1	D2	A/F	M	L1	L2	L3
RS 25 X 12 NON PULLOUT	K10251695869127	12	31.9	25	28	M16 x 2	76	51	16
RS 25 X 16 NON PULLOUT	K10251695868127	16	31.9	25	28	M16 x 2	76	52.5	16
RS 25 X 1/2" NON PULL OUT	K10251604138559	1/2"	31.9	25	28	M16 x 2	76	51	16
RS 25 X 5/8" NON PULL OUT	K10251604130559	5/8"	31.9	25	28	M16 x 2	76	52.5	16
RS 1.0" X 12 NON PULL OUT	K10251604268559	12	31.9	1.0"	28	M16 x 2	76	51	16
RS 1.0" X 16 NON PULL OUT	K10251604283559	16	31.9	1.0"	28	M16 x 2	76	52.5	16
RS 1.0" X 1/2" NON PULLOUT	K10251695911127	1/2"	31.9	1.0"	28	M16 x 2	76	51	16
RS 1.0" X 5/8" NON PULLOUT	K10251695912127	5/8"	31.9	1.0"	28	M16 x 2	76	52.5	16

Accessories:



Spanner 25A
Ref. Page No. 103



Pin



Pin Ejector

Hydraulic Expansion Chuck KIT



Item Name	Item Code
SPANNER E25 A	K10101629616279
BT30 HC20S 090 KIT	K10101168140279

BT40 HC12S 058 KIT	K10102629617279
BT40 HC20S 72.5 KIT	K10102168126279
BT40 HC25 090 KIT	K10102648140279

BT50 HC12S 069 KIT	K10103629616279
BT50 HC20S 083 KIT	K10103168618279
BT50 HC25 110 KIT	K10103648156279
BT50 HC32S 090 KIT	K10103272140279

KBT30 HC12S 069 KIT	K10313629616279
KBT30 HC20S 090 KIT	K10313168616279

KBT40 HC12S 058 KIT	K10314629617279
KBT40 HC20S 72.5 KIT	K10314168126279
KBT40 HC25 090 KIT	K10314648140279

KBT50 HC12S 069 KIT	K10315629616279
KBT50 HC20S 083 KIT	K10315168618279
KBT50 HC25 110 KIT	K10315648156279
KBT50 HC32S 090 KIT	K10315272140279

Item Name	Item Code
SK40 HC12S 050 KIT	K10104629111287
SK40 HC20S 64.5 KIT	K10104168122287
SK40 HC25 095 KIT	K10104648145279

SK50 HC12S 050 KIT	K10105629111287
SK50 HC20S 64.5 KIT	K10105168122287
SK50 HC25 100 KIT	K10105648148279
SK50 HC32S 81.0 KIT	K10105272372287

HSK-A 50 HC12S 085 KIT	K10306629135279
HSK-A 50 HC20S 090 KIT	K10306168140279

HSK-A 63 HC12S 080 KIT	K10316629131279
HSK-A 63 HC20S 080 KIT	K10316168131279
HSK-A 63 HC25 120 KIT	K10316648162279

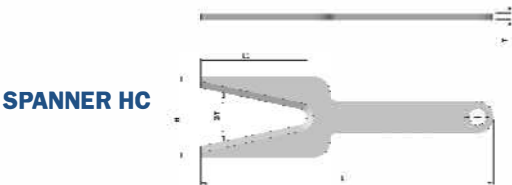
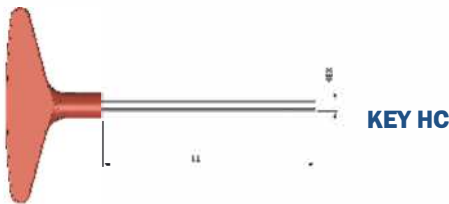
HSK-A 100 HC12S 095 KIT	K10168629145279
HSK-A 100 HC20S 090 KIT	K10168168140279
HSK-A 100 HC25 110 KIT	K10316648156279
HSK-A 100 HC32S 110 KIT	K10168272156279

CAT40 HC 1/2" 64.0 KIT	K10203652278279
CAT40 HC 3/4" 64.0 KIT	K10203653278279

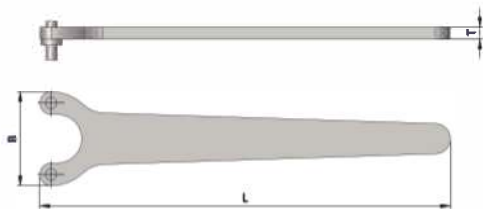
CAT50 HC3/4"S 64.5 KIT	K10204954122279
CAT50 HC1-1/4"S 081 KIT	K10204955132279



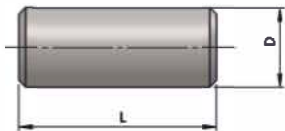
Accessories



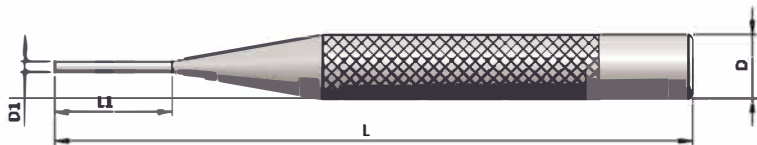
Item Name	Item Code	L	L1	H	T	HEX
KEY HC 4mm	K10337641336127	-	110	-	-	4
KEY HC 5mm	K10337668645127	-	110	-	-	5
SPANNER HC	K10184641301127	182	65	50	-	-



Item Name	Item Code	T	B	L
SPANNER E25 A	K10184487301127	4	31	130

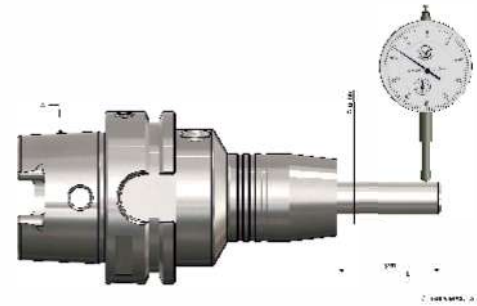
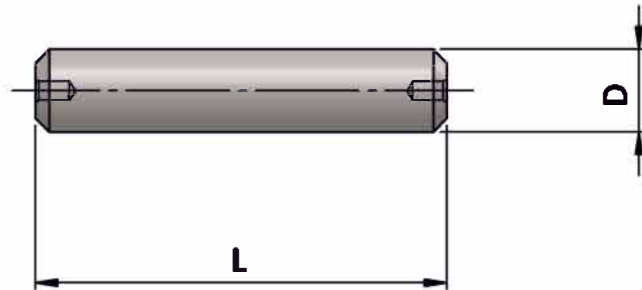


ITEM NAME	ITEM CODE	D	L
PIN FOR RS SLEEVE NON PULL OUT	K10283531877127	3.0	9.0



ITEM NAME	ITEM CODE	D	D1	L	L1
PIN EJECTOR FOR RS SLEEVE NON PULL OUT	K10283531877521	6	1.5	100	17

Hydraulic Expansion Chuck Run Out Test Mandrells



Hydraulic Expansion Chuck Run Out Test Mandrells

Item Name	Item Code	D	L
HC Test Mandrell DIA 3.00 MM	K10361925901127	3	50
HC Test Mandrell DIA 4.00 MM	K10361925902127	4	50
HC Test Mandrell DIA 5.00 MM	K10361925903127	5	50
HC Test Mandrell DIA 6.00 MM	K10361925884127	6	65
HC Test Mandrell DIA 8.00 MM	K10361925885127	8	65
HC Test Mandrell DIA 10.00 MM	K10361925886127	10	80
HC Test Mandrell DIA 12.00 MM	K10361925887127	12	100
HC Test Mandrell DIA 14.00 MM	K10361925888127	14	100
HC Test Mandrell DIA 16.00 MM	K10361925889127	16	105
HC Test Mandrell DIA 18.00 MM	K10361925890127	18	105
HC Test Mandrell DIA 20.00 MM	K10361925891127	20	105
HC Test Mandrell DIA 25.00 MM	K10361925892127	25	115
HC Test Mandrell DIA 32.00 MM	K10361925893127	32	115

HC TEST MANDRELL DIA 1/8"	K10369524951127	1/8"	50
HC TEST MANDRELL DIA 3/16"	K10369547951127	3/16"	50
HC TEST MANDRELL DIA 1/4"	K10369545951127	1/4"	65
HC TEST MANDRELL DIA 5/16"	K10369542951127	5/16"	65
HC TEST MANDRELL DIA 3/8"	K10369548951127	3/8"	80
HC TEST MANDRELL DIA 1/2"	K10369543951127	1/2"	100
HC TEST MANDRELL DIA 5/8"	K10369546951127	5/8"	105
HC TEST MANDRELL DIA 3/4"	K10369551951127	3/4"	105
HC TEST MANDRELL DIA 1.0"	K10369437951127	1.0"	115
HC TEST MANDRELL DIA 1 1/4"	K10369509951127	1 1/4"	115

Technical Information Recommended Torque Values (Tightening Torque/ Slipping Torque)



Hydraulic Chuck (Heavy Duty) : Metric Series

Holder Size	Tool Shank Dia. & Tolerance	Minimum Clamping Depth (mm)	Maximum Safe Transferable Torque (Nm)
HC 12S	Ø 12.0 h6	41	110 Nm
HC 20S	Ø 20.0 h6	45	520 Nm
HC 32S	Ø 32.0 h6	54	900 Nm

Hydraulic Chuck (HC) : Metric Series

Holder Size	Tool Shank Dia. & Tolerance	Minimum Clamping Depth (mm)	Maximum Safe Transferable Torque (Nm)
HC 06	Ø 6.0 h6	33	16 Nm
HC 08	Ø 8.0 h6	33	23 Nm
HC 10	Ø 10.0 h6	37	45 Nm
HC 12	Ø 12.0 h6	41	90 Nm
HC 14	Ø 14.0 h6	41	110 Nm
HC 16	Ø 16.0 h6	44	185 Nm
HC 18	Ø 18.0 h6	45	240 Nm
HC 20	Ø 20.0 h6	45	330 Nm
HC 25	Ø 25.0 h6	48	450 Nm
HC 32	Ø 32.0 h6	54	650 Nm

Hydraulic Chuck (Heavy Duty) : Inches Series

Holder Size	Tool Shank Dia. & Tolerance	Minimum Clamping Depth (mm)	Maximum Safe Transferable Torque (Nm)
HC 1/2" S	Ø 1/2" h6	38	110 Nm
HC 5/8" S	Ø 5/8" h6	41	185 Nm
HC 3/4" S	Ø 3/4" h6	43	520 Nm

Hydraulic Chuck (HC) : Inches Series

Holder Size	Tool Shank Dia. & Tolerance	Minimum Clamping Depth (mm)	Maximum Safe Transferable Torque (Nm)
HC 1/4"	Ø 1/4" h6	33	16 Nm
HC 3/8"	Ø 3/8" h6	37	45 Nm
HC 1/2"	Ø 1/2" h6	41	90 Nm
HC 5/8"	Ø 5/8" h6	44	185 Nm
HC 3/4"	Ø 3/4" h6	45	330 Nm
HC 1.0"	Ø 1.0" h6	48	450 Nm
HC 1-1/4"	Ø 1-1/4" h6	54	650 Nm

Technical Information Recommended Torque Values (Tightening Torque/ Slipping Torque)



Hydraulic Expansion Chuck : Slim 3 Degree Series			
Holder Size	Tool Shank Dia. & Tolerance	Minimum Clamping Depth (mm)	Maximum Safe Transferable Torque (Nm)
HC 03	ø 3.0 h6	12	3
HC 04	ø 4.0 h6	16	6
HC 05	ø 5.0 h6	20	10
HC 06	ø 6.0 h6	33	20
HC 08	ø 8.0 h6	33	35
HC 10	ø 10.0 h6	37	65
HC 12	ø 12.0 h6	41	110
HC 14	ø 14.0 h6	41	120
HC 16	ø 16.0 h6	44	160
HC 18	ø 18.0 h6	45	200
HC 20	ø 20.0 h6	45	260
HC 25	ø 25.0 h6	48	380

Hydraulic Expansion Chuck : Slim 3 Degree (Inches Series)			
Holder Size	Tool Shank Dia. & Tolerance	Minimum Clamping Depth (mm)	Maximum Safe Transferable Torque (Nm)
HC 1/8"	ø 1/8" h6	12	3
HC 3/16"	ø 3/16" h6	16	6
HC 1/4"	ø 1/4" h6	33	20
HC 5/16"	ø 5/16" h6	33	35
HC 3/8"	ø 3/8" h6	37	65
HC 1/2"	ø 1/2" h6	41	110
HC 5/8"	ø 5/8" h6	44	160
HC 3/4"	ø 3/4" h6	45	260
HC 1"	ø 1" h6	48	380

Technical Information

Hydraulic Reduction Sleeve (RS Seal)

Minimum Clamping Depth



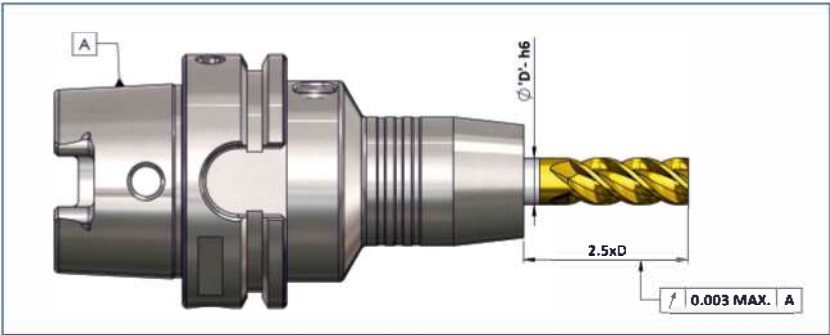
Item Name	Minimun Clamping Depth (mm)
RS SEAL 12 x 3	14
RS SEAL 12 x 4	15
RS SEAL 12 x 5	18
RS SEAL 12 x 6	25
RS SEAL 12 x 7	25
RS SEAL 12 x 8	26
RS SEAL 20 x 3	14
RS SEAL 20 x 4	15
RS SEAL 20 x 5	18
RS SEAL 20 x 6	25
RS SEAL 20 x 7	25
RS SEAL 20 x 8	30
RS SEAL 20 x 9	30
RS SEAL 20 x 10	33
RS SEAL 20 x 11	33
RS SEAL 20 x 12	34
RS SEAL 20 x 13	34
RS SEAL 20 x 14	34
RS SEAL 20 x 15	40
RS SEAL 20 x 16	40

Item Name	Minimun Clamping Depth (mm)
RS SEAL 1/2" - 1/8" (3.175)	14
RS SEAL 1/2" - 3/16" (4.7625)	18
RS SEAL 1/2" - 1/4" (6.350)	25
RS SEAL 1/2" - 5/16" (7.9375)	26
RS SEAL 3/4" - 1/8" (3.175)	14
RS SEAL 3/4" - 3/16" (4.7625)	18
RS SEAL 3/4" - 1/4" (6.350)	25
RS SEAL 3/4" - 5/16" (7.9375)	30
RS SEAL 3/4" - 3/8" (9.525)	33
RS SEAL 3/4" - 7/16" (11.11)	33
RS SEAL 3/4" - 1/2" (12.700)	34
RS SEAL 3/4" - 5/8" (15.875)	40

Item Name	Minimun Clamping Depth (mm)
RS SEAL 25 x 6	25
RS SEAL 25 x 8	25
RS SEAL 25 x 10	33
RS SEAL 25 x 12	34
RS SEAL 25 x 14	34
RS SEAL 25 x 16	40
RS SEAL 25 x 18	40
RS SEAL 25 x 20	40
RS SEAL 32 x 6	25
RS SEAL 32 x 7	25
RS SEAL 32 x 8	25
RS SEAL 32 x 9	33
RS SEAL 32 x 10	33
RS SEAL 32 x 11	34
RS SEAL 32 x 12	34
RS SEAL 32 x 13	34
RS SEAL 32 x 14	34
RS SEAL 32 x 15	40
RS SEAL 32 x 16	40
RS SEAL 32 x 18	40
RS SEAL 32 x 20	40
RS SEAL 32 x 25	42

Item Name	Minimun Clamping Depth (mm)
RS SEAL 1.0" - 1/4" (6.350)	25
RS SEAL 1.0" - 5/16" (7.9375)	25
RS SEAL 1.0" - 3/8" (9.525)	33
RS SEAL 1.0" - 1/2" (12.700)	34
RS SEAL 1.0" - 5/8" (15.875)	40
RS SEAL 1.0" - 3/4" (19.050)	40
RS SEAL 1-1/4" - 1/4" (6.350)	25
RS SEAL 1-1/4" - 5/16" (7.9375)	25
RS SEAL 1-1/4" - 3/8" (9.525)	33
RS SEAL 1-1/4" - 1/2" (12.700)	34
RS SEAL 1-1/4" - 5/8" (15.875)	40
RS SEAL 1-1/4" - 3/4" (19.050)	40
RS SEAL 1-1/4" - 1" (25.400)	42

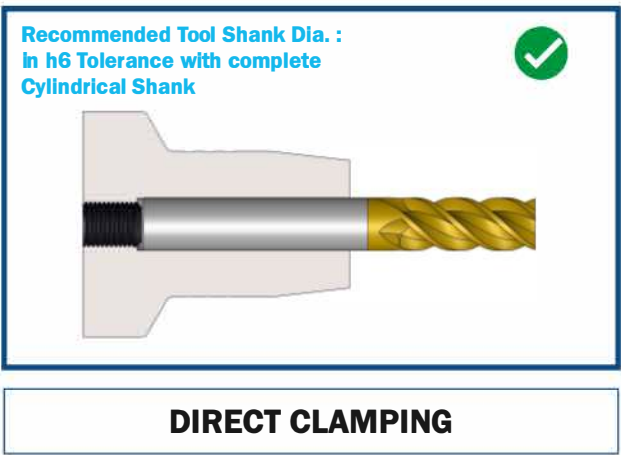
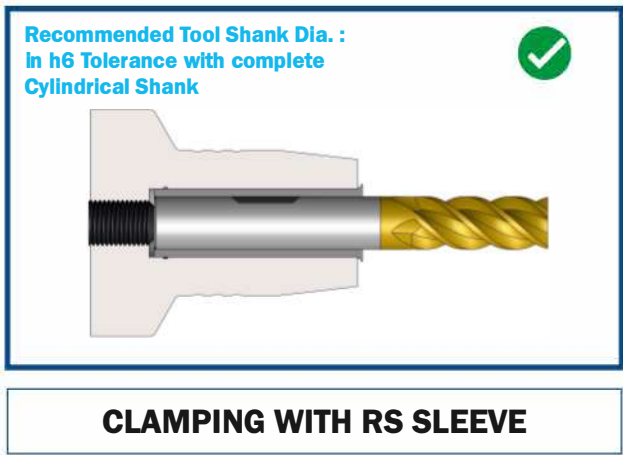
Tool Run out Inspection



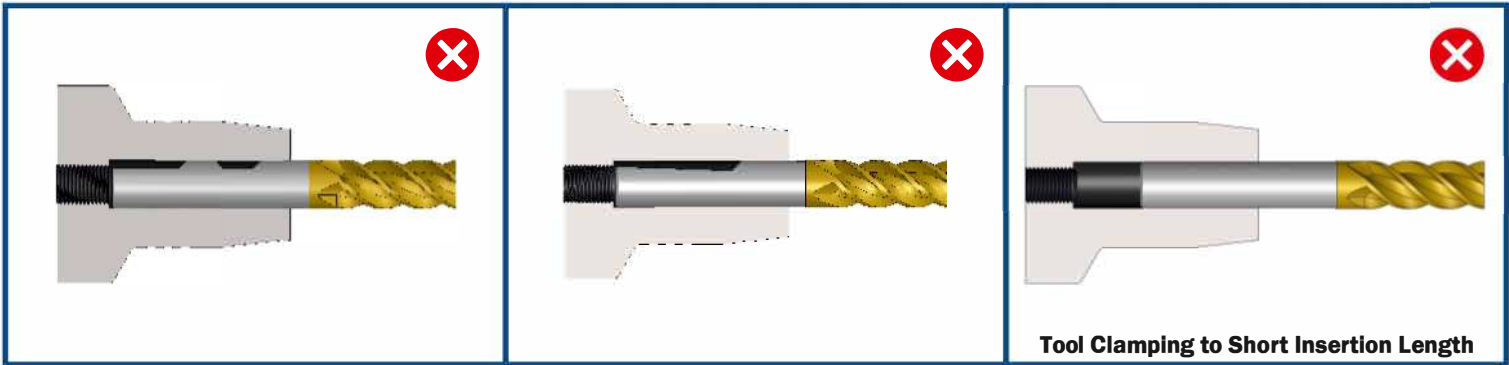
Controlled Run out Guaranteed 0.003 mm max on 2.5D WITH TOOL CLAMPING

Guideline for Tool Clamping

Correct way of Tool Clamping



Incorrect way of Tool Clamping



Notes



KTA SPINDLE TOOLINGS is one of Largest Manufacturer of Complete Toolholding Systems founded in 1985 by Mr. Vijay Z. Chopda, who has striven to create "Precision at its Best" products using world's latest technology upgradation available from time to time. 1st Indian Toolholding Company to have its subsidiary "HPCHO GmbH" in Weilheim /Bavaria, GERMANY, established in 2013. Now KTA SPINDLE TOOLINGS is 1st Company based in India who is equipped with Complete Toolholding Systems (Hydraulic, Shrinking, Tapping Holder, Mechanical, accessories) KTA Spindle Toolings is considered as a precision manufacturer of Toolholders having more than 4700 catalog products with most of them ex-stock at Pune, India and Weilheim, Germany.

KTA is leading private label supplier of Toolholding systems to many OEM in Europe and India along with leading catalog house. KTA has complete program of Toolholding and accessories comprises of more than 4700 products. KTA has its presence in more than 22 countries with highest business share from • Germany • U.S.A • United Kingdom • Taiwan Australia • Mexico • France • Italy • Korea • Singapore • Malaysia • Canada • Brazil • Netherlands • Hungary • Spain and others. Customers belongs to different Industries such as Automotive, General Engineering, Die & Mould, Aerospace, Power Generation. Today the company is moving ahead to become a leading global player in Toolholding Industry under dynamic leadership of Mr. Vipul V. Chopda.



KTA SPINDLE TOOLINGS

(A Tool Holder Company since 1985)

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