



HYDRAULIC CHUCK

BCV/BBT/HSK/CAPTO®

BIG DAISHOWA SEIKI CO LTD

CATALOG No. **EXi 290**

For high precision machining in Automotive, Aerospace, Medical, and Die & Mold

Clamping range of 1/4"-1 1/4" (6mm-32mm)

Ideal tool holders for machining processes that require high accuracy such as drills, reamers, ball mills, end mills, diamond reamers and grinding tools.

High precision, smooth and stable cutting

Pre-balanced for high speed machining

Max. 20,000 RPM

Runout accuracy less than .00012" at 4xD

Easy clamping/unclamping operations with just 1 wrench!!



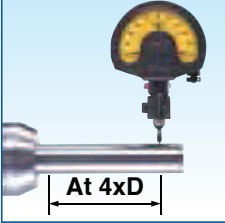
BIG-PLUS® tools can be used in machining centers with conventional spindles.

HYDRAULIC CHUCK

Wide variety of tool diameters and projections to fit any application. Available for simultaneous fit systems and all other major interfaces.

■ Simultaneous fit systems are standardized
BCV, BBT, HSK, CAPTO®

High precision runout accuracy less than .00012" (3µm)

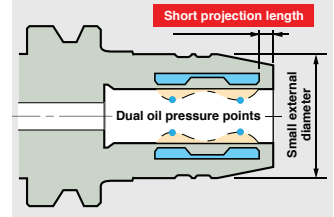


High precision runout accuracy less than .00012" (3µm) at 4xD improves the work piece surface finish and extends tool life.

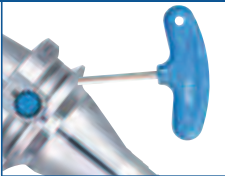
Repeatability is less than .00006" (1.5µm)!

Integral sleeve construction makes the difference for precision and rigidity

Compared with the traditional two-part construction sealed with O-rings, BIG Hydraulic Chucks are long lasting and maintenance free. Also, the rigidity is greatly improved by the short projection length and dual pressure points.



Easy clamping/unclamping operations with just 1 wrench



The cutting tool can be clamped or unclamped easily with just 1 wrench.

Available for all Machine tools (JIS-BT, ASME-CAT, HSK, CAPTO®)

Combined with machine tools with the BIG-PLUS® spindle, BIG-PLUS® tool holders dramatically improve the drilling accuracy and the surface finish. HSK and CAPTO® standards are also available. Wide variety of projections are standard.



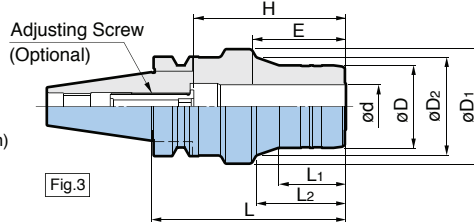
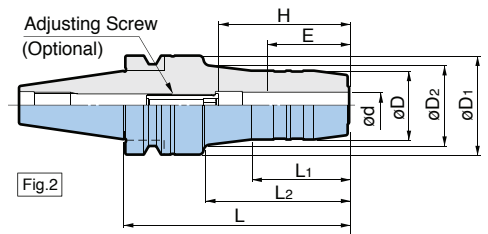
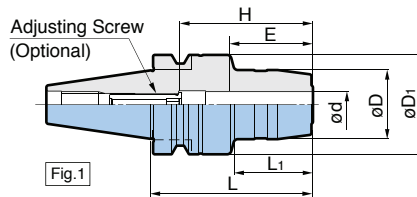
Balanced for high speed machining

Pre-balanced to less than 15g·mm. Vibration free machining at high speed. Max. 20,000 RPM.

BT Shank BBT30 (BIG-PLUS®) Inch Style MAS403

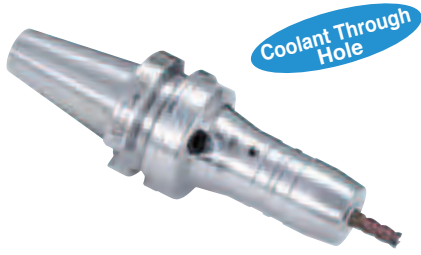


- Model Description
- BBT30** - **HDC** - **.250** - **2.5**
- Projection Length (in)
- Clamping Size (in)
- Hydraulic Chuck
- BIG-PLUS® BT No.

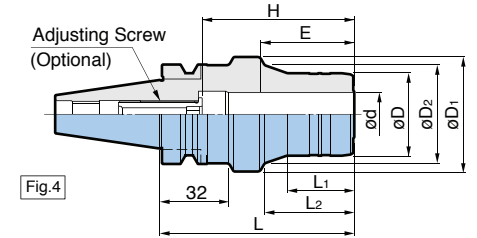
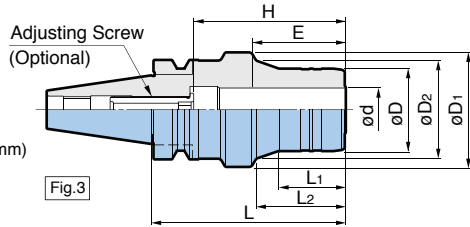
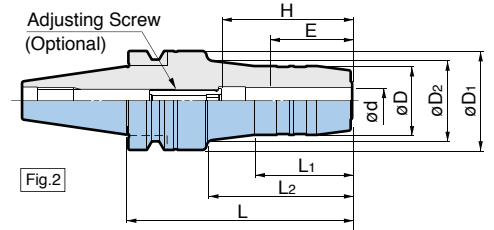
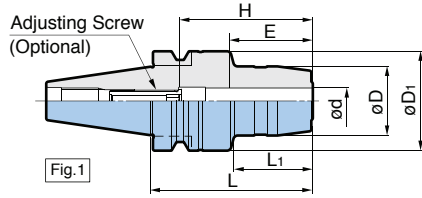


BIG-PLUS® tools can be used in machining centers with conventional spindles.

Model	Fig.	ød	øD	øD1	øD2	L	L1	L2	H	E Min.	Adjusting Screw	Weight (lbs)
BBT30-HDC.250-2.5	1	.250	1.02	1.79	-	2.5	1.14	-	1.10-1.97	1.10	HDA6-05032	1.33
	2				1.18	4	1.69	2.70				1.78
-HDC.375-2.5	1	.375	1.18	1.81	-	2.5	0.96	-	1.77-2.17	1.30	HDA10-08015	1.55
	2				1.34	4	1.77	2.48				1.30-2.17
-HDC.500-2.5	1	.500	1.30	1.81	-	2.5	0.98	-	1.57-2.36	1.50	HDA12-10025	1.55
	2				1.46	4	1.77	2.52				1.50-2.36
-HDC.625-2.5	1	.625	1.50	1.81	-	2.5	0.94	-	2.83	1.69	-	1.78
	2				1.81	4	1.85	2.52				1.69-2.76
-HDC.750-2.5	1	.750	1.50	2.09	-	2.5	0.55	-	1.69-2.24	1.69	HDA16-12030	2.00
	2				1.77	4	1.22	2.09				1.69-2.95
-HDC1.000-4	3	1.000	2.17	2.48	2.48	4	1.61	1.73	2.05-3.15	2.05	HDA25-16039	3.77



● Model Description
BBT30 - **HDC** - **6** - **45**
 ● BIG-PLUS® BT No.
 ● Hydraulic Chuck
 ● Clamping Size (mm)
 ● Projection Length (mm)



BIG-PLUS® tools can be used in machining centers with conventional spindles.

Model	Fig.	ød (mm)	øD	øD1	øD2	L	L1	L2	H	E Min.	Adjusting Screw	Weight (lbs)	
BBT30-HDC6-45	1	6	1.18	1.81	-	1.77	0.28	-	1.38-1.97	1.10	HDA6-05020	1.54	
-75	2		1.02	1.79	1.22	2.95	1.57	-	1.10-1.97		HDA6-05032	1.76	
-90	3					3.54	1.69	2.24			2.83	1.98	
-105	3		4.13	1.73	2.83	1.98							
-HDC8-45	1	8	1.26	1.81	-	1.77	0.28	-	1.38-1.97	1.10	HDA8-06020	1.54	
-75	2		1.10	1.79	1.30	2.95	1.61	-	1.10-1.97		HDA8-06032	1.76	
-90	3					3.54	1.73	2.24			2.83	1.98	
-105	3		4.13	1.73	2.83	1.98							
-HDC10-45	1	10	1.34	1.81	-	1.77	0.28	-	1.77-2.17	1.30	HDA10-08015	1.54	
-75	2		1.18		1.81	1.30	2.95	1.42	-		1.30-2.17	HDA10-08032	1.98
-90	3						3.54	1.77	2.01			2.60	2.20
-105	3		4.13		1.77	2.60	2.20						
-HDC12-45	1	12	1.42	1.81	-	1.77	0.28	-	2.17-2.36	1.50	HDA12-10010 ●	1.54	
-75	2		1.26		1.81	1.38	2.95	1.42	-		1.50-2.36	HDA12-10032	1.76
-90	3						3.54	1.77	2.01			2.64	1.98
-105	3		4.13		1.77	2.64	2.20						
-HDC14-90	3	14	1.34	1.81	1.46	3.54	1.81	2.05	1.50-2.36	1.50	HDA12-10032	1.98	
-HDC16-45 ▲	1	16	1.65	1.81	-	1.77	0.28	-	2.76	1.69	-	1.54	
-75	2		1.50		1.81	-	2.95	1.38	-		1.69-2.76	HDA16-12030	1.98
-90	3						3.54	1.85	-			2.20	
-HDC20-60	4	20	1.50	2.09	-	2.36	-	0.55	1.69-2.13	1.69	HDA16-12030	1.98	
-75					1.81	2.95	0.63	1.02	1.81-2.76		HDA16-12037	2.43	
-90					3.54	1.22	1.61	1.69-2.76	HDA16-12037		2.43		
-HDC25-105	4	25	2.17	2.48	-	4.13	1.73	-	2.05-3.15	2.05	HDA25-16039	3.75	
-HDC32-105	4	32	2.36	2.95	-	4.13	1.54	-	2.20-3.15	2.20	HDA25-16039	3.97	

- Adjustable cutter length H is the adjustment length using an optional adjusting screw. If a specific model number does not have a value for H, the inner bore is larger than the clamping diameter and use of adjustment screw is not available.
- Add the letter "W" to adjusting screw model number for hexagon sockets on both sides. (ex: HDA6-05020W)
Adjusting screw with ● indication is not available in W type.
- Model with ▲ indication cannot use an adjusting screw.

☞ For Straight Collet **PG. 6**

☞ For Inner Bore Cleaner **PG. 6**

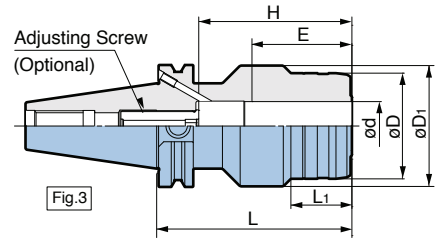
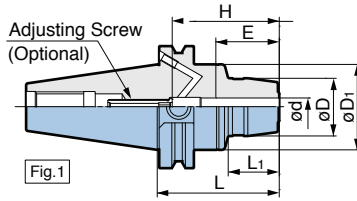
Caution

- Use only cutting tools that have a shank tolerance of h6. (see table on page 5)
- Do not use with cutting tools made with a flat on the shank (ie: Weldon type shank)
- Roughing end mills are not recommended for use with Hydraulic Chucks.
- Do not tighten the clamping screw without first inserting a cutting tool into the tool holder.
- Always insert the cutting tool into the hydraulic tool holder beyond min. clamping length "E".

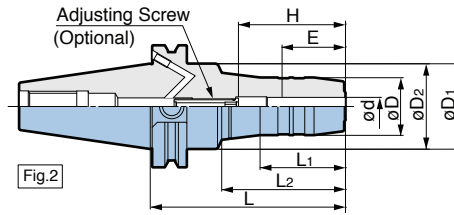
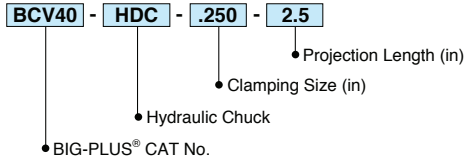
CAT Shank BCV40 (BIG-PLUS®) Inch Style ASME B5.50-2009



Coolant Through Hole



● Model Description



BIG-PLUS® tools can be used in machining centers with conventional spindles.

Model	Fig.	ød	øD	øD1	ød2	L	L1	L2	H	E Min.	Adjusting Screw	Weight (lbs)
BCV40-HDC.250-2.5	1	.250	1.02	1.75	-	2.5	1.02	-	1.10-1.97	1.10	HDA6-05032	2.44
-4	2				1.20	4	1.75	2.48				3.11
-5.5	1.75				5.5	1.75	4.09	3.77				
-HDC.375-2.5	1	.375	1.18	1.75	-	2.5	1.04	-	1.30-2.17	1.30	HDA10-08032	2.66
-4	2				1.37	4	1.75	2.52				3.11
-5.5	1.75				5.5	1.75	4.09	4.00				
-HDC.500-2.5	1	.500	1.30	1.75	-	2.5	.98	-	1.50-2.36	1.50	HDA12-10032	2.66
-4	2				1.75	4	1.75	2.60				3.33
-5.5	1.75				5.5	1.75	4.09	4.00				
-HDC.625-3	1	.625	1.50	1.75	-	3	1.54	-	1.69-2.76	1.69	HDA16-12030	2.89
-4	2				1.75	4	2.00	2.60				3.33
-5.5	1.75				5.5	2.00	4.09	4.22				
-HDC.750-3	1	.750	1.65	1.75	-	3	1.57	-	1.69-2.76	1.69	HDA16-12030	3.11
-4	2				1.75	4	2.00	2.60				3.55
-5.5	1.75				5.5	2.00	4.13	4.44				
-HDC1.000-3	3	1.000	2.17	2.48	-	3	.61	-	2.05-3.15	2.05	HDA16-12015	4.00
-4					4	1.25	-	4.66				
-5					5	1.75	-	5.77				
-HDC1.250-4	3	1.250	2.68	2.95	-	4	1.25	-	2.20-3.15	2.20	HDA25-16039	5.77

BT Shank BBT40 (BIG-PLUS®) Inch Style MAS403

BIG-PLUS® tools can be used in machining centers with conventional spindles.

Model	Fig. ※	ød	øD	øD1	L	L1	L2	H	E Min.	Adjusting Screw	Weight (lbs)
BBT40-HDC.250-2.5	1	.250	1.02	1.77	2.5	.91	-	1.10-1.97	1.10	HDA6-05032	2.66
-4	2				4	1.73	2.44				3.33
-5.5	5.5				1.73	3.94	4.00				
-HDC.375-2.5	1	.375	1.26	1.77	2.5	.94	-	1.30-2.17	1.30	HDA10-08032	2.89
-4	2		1.18		4	1.77	2.44				3.33
-5.5	5.5		1.77		3.94	4.22					
-HDC.500-2.5	1	.500	1.30	1.77	2.5	.71	-	1.50-2.36	1.50	HDA12-10032	2.89
-4	2				4	1.81	2.44				3.55
-5.5	5.5				1.77	3.94	4.22				
-HDC.625-3	1	.625	1.50	1.77	3	1.42	-	1.69-2.76	1.69	HDA16-12037	3.11
-4	2				4	1.85	2.40				3.55
-5.5	5.5				1.77	3.90	4.22				
-HDC.750-3	2	.750	1.65	2.09	3	1.34	-	1.69-2.76	1.69	HDA16-12037	3.33
-4				1.97	4	1.85	2.44				3.77
-5.5				5.5	1.77	3.94	4.66				
-HDC1.000-3	2	1.000	2.17	2.48	3	.98	1.10	2.05-3.15	2.05	HDA25-16033	4.22
-5					5	-	-			HDA25-16039	6.44
-HDC1.250-3.5					3	1.250	2.95			-	3.5
-5	4	2.48	-	5	-	-	6.22				

※Please refer to figures on page 4.



Coolant Through Hole

● Model Description

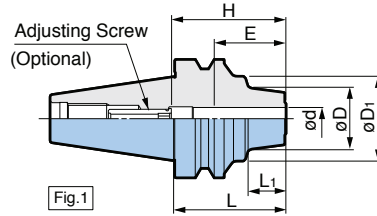
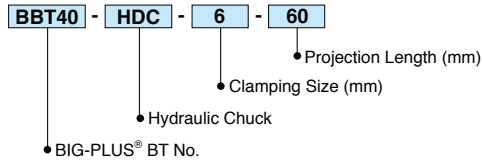


Fig.1

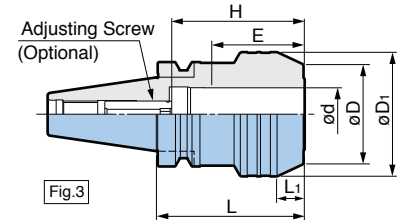


Fig.3

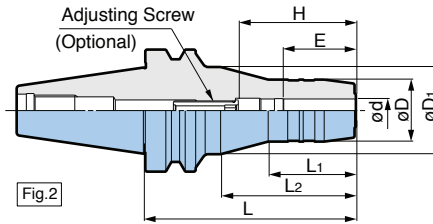


Fig.2

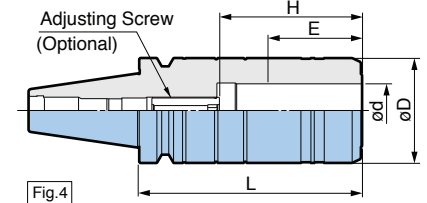


Fig.4

BIG-PLUS® tools can be used in machining centers with conventional spindles.

Model	Fig.	ød (mm)	øD	øD1	L	L1	L2	H	E Min.	Adjusting Screw	Weight (lbs)
BBT40-HDC6-60	1	6	1.06	1.77	2.36	.75	-	1.10-1.97	1.10	HDA6-05032	2.65
-90	3.54		1.97		2.98						
-110	4.33		2.76		3.31						
-135	5.31		3.74		3.64						
-165	6.50		4.69		4.19						
-HDC8-60	1	8	1.14	1.77	2.36	.75	-	1.10-1.97	1.10	HDA8-06032	2.65
-90	3.54		1.97		2.98						
-110	4.33		2.76		3.31						
-135	5.31		3.74		3.75						
-165	6.50		4.69		4.30						
-HDC10-60	1	10	1.22	1.77	2.36	.79	-	1.30-2.17	1.30	HDA10-08032	2.65
-90	3.54		1.97		2.98						
-110	4.33		2.76		3.31						
-135	5.31		3.74		3.75						
-165	6.50		4.69		4.30						
-HDC12-60	1	12	1.30	1.77	2.36	.79	-	1.50-2.36	1.50	HDA12-10032	2.65
-90	3.54		1.93		2.98						
-110	4.33		2.72		3.42						
-135	5.31		3.70		3.86						
-165	6.50		4.69		4.30						
-HDC14-90	2	14	1.34	1.77	3.54	1.81	1.93	1.50-2.36	1.50	HDA12-10032	2.98
-110	4.33				2.72	3.42					
-135	5.31				3.70	3.86					
-165	6.50				4.69	5.08					
-HDC16-75	2	16	1.50	1.77	2.95	1.38	1.42	1.70-2.76	1.70	HDA16-16037	2.87
-90					3.54	1.85	1.93				3.09
-110					4.33	2.72	3.53				
-135					5.31	3.70	4.08				
-165					6.50	4.69	5.08				
-HDC18-90	2	18	1.57	1.77	3.54	1.89	1.93	1.70-2.76	1.70	HDA16-12037	3.20
-110					4.33	2.72	3.53				
-135					5.31	3.70	4.08				
-165					6.50	4.69	5.19				
-HDC20-90	2	20	1.65	1.77	1.89	1.89	1.97	1.70-2.76	1.70	HDA16-12037	3.09
-110				4.33			2.76				3.75
-135				5.31			3.74				4.30
-165				6.50			4.69				5.19
-HDC20E-75				1			20				1.94
-HDC25E-75	2	25	2.17	2.48	2.95	.98	-	2.05-3.15	2.05	HDA25-16033	3.97
-110					4.33						5.19
-135					5.31						6.51
-165					6.50						7.84
-HDC32E-90	3	32	2.36	2.95	3.54	.63	-	2.20-3.17	2.20	HDA25-16039	4.75
-110	4.33		5.63								
-135	5.31		6.18								
-165	6.50		7.06								
	4		-	-	5.31	-	-	2.20-3.35			6.18
	2		2.48	2.48	6.50	-	-				7.06

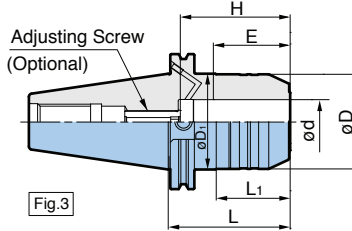
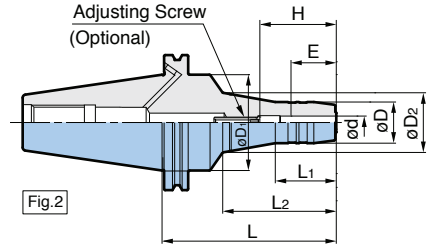
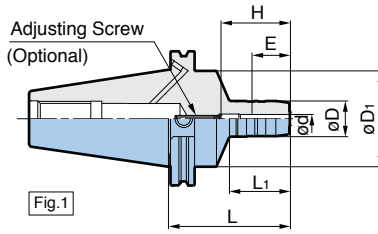
- Adjustable cutter length H is the adjustment length using an optional adjusting screw. If a specific model number does not have a value for H, the inner bore is larger than the clamping diameter and use of adjustment screw is not available.
- Add the letter "W" to adjusting screw model number for hexagon sockets on both sides. (ex: HDA6-05032W)
Adjusting screw with ● indication is not available in W type.

Caution

- Use only cutting tools that have a shank tolerance of h6. (see table page 5)
- Do not use with cutting tools made with a flat on the shank (ie: Weldon type shank)
- Roughing end mills are not recommended for use with Hydraulic Chucks.
- Do not tighten the clamping screw without first inserting a cutting tool into the tool holder.
- Always insert the cutting tool into the hydraulic tool holder beyond min. clamping length "E".



- Model Description
- BCV50** - **HDC** - **.250** - **3.5**
- Projection Length (in)
 - Clamping Size (in)
 - Hydraulic Chuck
 - BIG-PLUS® CAT No.



BIG-PLUS® tools can be used in machining centers with conventional spindles.

Model	Fig.	ød	øD	øD1	øD2	L	L1	L2	H	E Min.	Adjusting Screw	Weight (lbs)
BCV50-HDC.250-3.5	1	.250	1.02	2.75	-	3.5	1.75	-	1.10-1.97	1.10	HDA6-05032	7.33
-5	1.53				5	3.19		7.99				
-6.5	2.13				6.5	4.92		9.10				
-HDC.375-3.5	1	.375	1.18	2.75	-	3.5	1.75	-	1.30-2.17	1.30	HDA10-08032	7.33
-5	1.71				5	3.27		7.99				
-6.5	2.31				6.5	4.96		9.32				
-HDC.500-3.5	1	.500	1.30	2.75	-	3.5	1.75	-	1.50-2.36	1.50	HDA12-10032	7.55
-5	1.85				5	3.31		8.21				
-6.5	2.45				6.5	5.00		9.55				
-HDC.625-3.5	1	.625	1.50	2.75	-	3.5	1.75	-	1.69-2.76	1.69	HDA16-12037	7.77
-5	1.97				5	2.00	3.35	8.66				
-6.5	2.57				6.5	5.04	10.21					
-HDC.750-3.5	1	.750	1.65	2.75	-	3.5	1.75	-	1.69-2.76	1.69	HDA16-12037	7.99
-5	2.15				5	2.00	3.43	8.88				
-6.5	(2.75)				2.75	6.5	5.12	10.66				
-HDC1.000-3.5	3	1.000	2.48	2.75	-	3.5	2.03	-	2.05-3.15	2.05	HDA25-16039	8.88
-5					5	3.54	-	10.66				
-6.5					6.5	5.04	-	12.65				
-HDC1.250-3.5	3	1.250	2.72	2.75	-	3.5	2.09	-	2.20-3.15	2.20	HDA25-16039	9.55
-5					5	3.58	-	11.77				
-6.5					6.5	5.08	-	14.43				

- In the use of the adjusting screw in BCV50 series, please contact us because a guide screw needs to be set separately.
- Adjustable cutter length H is the adjustable length in the use of adjusting screw.
- Max. insertion length is the length when adjusting screw is not used.

For Straight Collet **PG. 6**

For Inner Bore Cleaner **PG. 6**

Caution

- Use only cutting tools that have a shank tolerance of h6. (see table below)
- Do not use with cutting tools made with a flat on the shank (ie: Weldon type shank)
- Roughing end mills are not recommended for use with Hydraulic Chucks.
- Do not tighten the clamping screw without first inserting a cutting tool into the tool holder.
- Always insert the cutting tool into the hydraulic tool holder beyond min. clamping length "E".

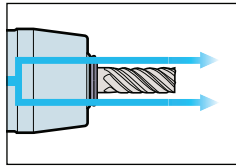
Allowable Shank Tolerance of Cutting Tools-h6

Reference Information "h6" Inch Series		Reference Information "h6" Metric Series	
Cutting Tool Shank Ø	Allowable Tolerance	Cutting Tool Shank Ø	Allowable Tolerance, μm
¼", ⅜"	+0, -.00035"	6, 8, 10mm	+0, -9mm
½", ⅝"	+0, -.00043"	12, 14, 16, 18mm	+0, -11mm
¾", 1"	+0, -.0005"	20, 25mm	+0, -13mm

ACCESSORIES

PJC Collet PAT. High Precision

For coolant to cutting tool periphery



For jet-through

- Model Description
- PJC** **.750** - **1/4**
- Outer Dia. (in)
- Inner Dia. (in)
- Perfect Jet Collet

Inch

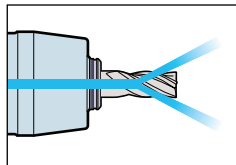
Model	Hydraulic Chuck Model
PJC.750-1/4, 3/8, 1/2, 5/8	HDC.750
PJC1.00-1/4, 3/8, 1/2, 5/8, 3/4	HDC1.000
PJC1.250-1/2, 5/8, 3/4, 7/8, 1	HDC1.250

Metric

Model	Hydraulic Chuck Model
PJC20-3, 4, 6, 8, 10, 12, 14, 16	HDC20
PJC25-3, 4, 6, 8, 10, 12, 14, 16, 18, 20	HDC25
PJC32-6, 8, 10, 12, 14, 16, 18, 20, 25	HDC32

PSC Collet PAT. High Precision

Oil hole collet for through-tools



For coolant-through tools

- Model Description
- PSC** **.750** - **1/4**
- Outer Dia. (in)
- Inner Dia. (in)
- Perfect Seal Collet

Inch

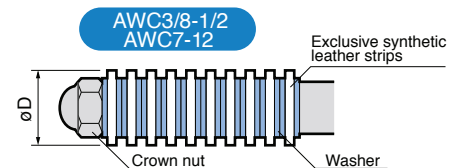
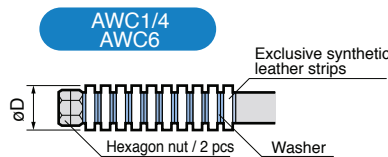
Model	Hydraulic Chuck Model
PSC.750-1/4, 3/8, 1/2, 5/8	HDC.750
PSC1.250-1/2, 5/8, 3/4, 7/8, 1	HDC1.250

Metric

Model	Hydraulic Chuck Model
PSC20-3, 4, 6, 8, 10, 12, 14, 16	HDC20
PSC25-3, 4, 6, 8, 10, 12, 14, 16, 18, 20	HDC25
PSC32-6, 8, 10, 12, 14, 16, 18, 20, 25	HDC32

α WIPER CLEANER PAT.P

Perfect for hydraulic chuck bores. Easy cleaning by simply inserting and removing.



Inch Style

Model	AWC1/4	AWC3/8	AWC1/2
øD (in)	.250	.375	.500

Metric Style

Model	AWC6	AWC8	AWC10	AWC12
øD (mm)	6	8	10	12

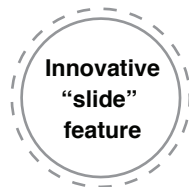
(Optional)

Spare parts set for α WIPER CLEANER
10 sets of exclusive synthetic leather strips, washers and nuts are included.

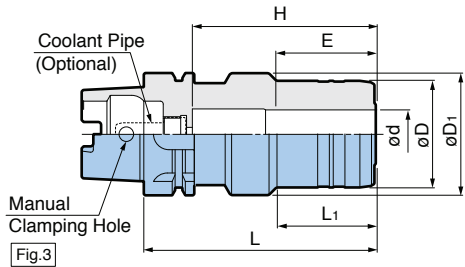
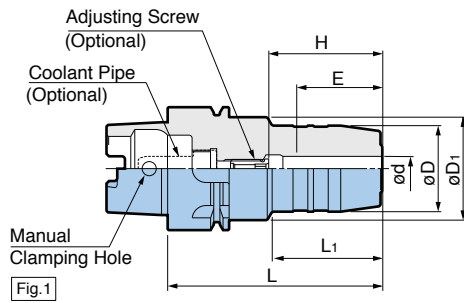
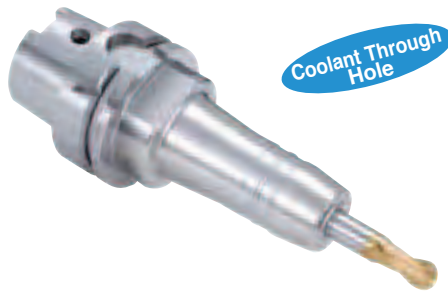
Model: **AW** □ **S-10P** □ --øDiameter

TK CLEANER PAT.P

Absolute cleaning of clamping bore by unique "slide" feature!



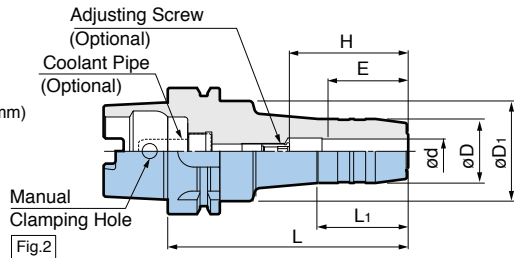
Model	Bore Diameter	L	Leather Strips Qty.
TKC14	14	60	2
16	16	70	
18	18		
20	20	80	3
25	25	100	4
32	32		



● Model Description

HSK-A40 - HDC - 6 - 70

- HSK Shank Type
- Hydraulic Chuck
- Clamping Size (mm)
- Projection Length (mm)



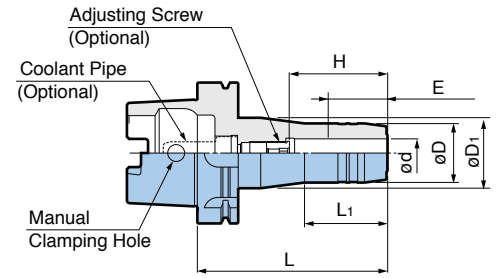
Model	Fig.	ød (mm)	øD	øD1	L	L1	H	E Min.	Max RPM	Adjusting Screw	Weight (lbs)		
HSK-A40-HDC6-70	1	6	1.02	1.32	2.76	1.42	1.10-1.42	1.10	17,000	HDA6-05013	1.04		
-HDC8-70		8	1.10		2.95	16.1	1.30-1.61	1.30					
-HDC10-75		10	1.18		3.15	18.1	1.50-1.77	1.50	15,000	HDA8-06013	1.10		
-HDC12-80		12	1.26		3.15	18.1	1.50-1.77	1.50					
HSK-A50-HDC6-75	1	6	1.02	1.64	2.95	1.56	1.10-1.46	1.10	17,000	HDA6-05013	1.55		
-HDC8-75		8	1.10		3.15	1.46	1.30-1.61	1.30					
-HDC10-80		10	1.18		3.35	1.65	1.50-1.81	1.50	15,000	HDA8-06013	1.55		
-HDC12-85		12	1.26		3.35	1.65	1.50-1.81	1.50					
-HDC16-90		16	1.50		3.54	1.89	1.69-2.01	1.69	13,000	HDA10-08015	1.77		
-HDC20-90 ▲		20	1.65		3.54	2.52	1.69-2.01	1.69					
-HDC25-90 ※		25	2.17		2.48	.91	2.44	2.05	10,000	-	1.66	2.87	
HSK-A63-HDC6-70 ※		2	6		1.02	1.97	2.76	.94	1.81	1.10	17,000	-	1.84
-120	4.72			1.73			1.10-1.89	HDA6-05032	2.65				
-150	5.90						3.09						
-HDC8-70 ※	8		1.10	2.76	.94		1.81	1.10	17,000	-	1.84		
-120				4.72	1.73		1.10-1.89					HDA8-06032	2.40
-150				5.90			3.31						
-HDC10-80 ※	10		1.18	3.15	1.38		2.17	1.30	15,000	-	2.43		
-120				4.72	1.77		1.30-2.09					HDA10-08032	2.87
-150				5.90			3.53						
-HDC12-85 ※	12		1.26	3.35	1.57		2.36	1.50	15,000	-	2.43		
-120				4.72	1.77		1.50-2.28					HDA12-10025	3.09
-150				5.90			3.53						
-HDC14-85 ※	14		1.34	3.35	1.57		2.36	1.50	15,000	-	2.65		
-120				4.72	1.77		1.50-2.28					HDA12-10025	3.09
-150				5.90			3.75						
-HDC16-90 ※	16		1.50	3.54	1.81		2.56	1.69	13,000	-	2.87		
-120				4.72			2.28-3.68					HDA16-12015	3.31
-150				5.90			1.69-2.68						
-HDC18-90 ※	18		1.57	3.54	1.81		2.56	1.69	13,000	-	2.40		
-120				4.72			2.28-3.68					HDA20-16015	3.53
-150				5.90			1.69-2.68						
-HDC20-90 ※ ▲	20		1.65	3.54	1.89		2.56	1.69	13,000	-	2.40		
-120				4.72			2.28-3.68					HDA20-16015	3.53
-150				5.90			1.69-2.68						
-HDC25-120 ※	3		25	2.17	2.48		4.72	2.00	3.74	2.05	-	4.64	
-HDC32-125 ※			32	2.36	2.95		4.92	2.20	3.94	2.20			12,000

- Adjustable cutter length H is the adjustment length when using an optional adjusting screw. Adjusting screw cannot be used in hydraulic chuck with ※ mark. H length is equal to the max. insertion length.
- Do not attempt to balance before first consulting BIG Kaiser.
- Straight collet cannot be used in HSK-A50-HDC20-90 & HSK-A63-HDC20-90 with ▲ mark.
- In some cases, machine rigidity and cutting tool balance may largely influence the max. RPM indicated. Gradually increase the RPM from a safe speed until the appropriate speed is reached.
- Coolant pipe is not included.
- In case the projection length needs to be adjusted from the shank side, use the adjusting screw with "W" which has hexagon sockets on both sides. (ex: HDA6-05013W)

➡ For Straight Collet **PG. 6** ➡ For Inner Bore Cleaner **PG. 6**

Caution

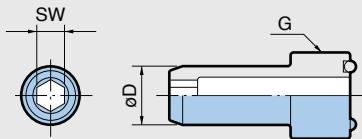
- Use only cutting tools that have a shank tolerance of h6. (see table on page 5)
- Do not use with cutting tools made with a flat on the shank (ie: Weldon type shank)
- Roughing end mills are not recommended for use with Hydraulic Chucks.
- Do not tighten the clamping screw without first inserting a cutting tool into the tool holder.
- Always insert the cutting tool into the hydraulic tool holder beyond min. clamping length "E".



Model	ød (mm)	øD	øD1	L	L1	H	E Min.	Max RPM	Adjusting Screw	Weight (lbs)		
HSK-A100-HDC6-75 ※	6	1.02	1.97	2.95	1.02	1.81	1.10	17,000	-	5.30		
-120				4.72	1.73	1.10-1.89			HDA6-05032	5.74		
-165				6.50		6.40						
-HDC8-75 ※	8	1.10		2.95	1.02	1.81			1.30	15,000	-	5.30
-120				4.72	1.73	1.10-1.89					HDA8-06032	5.74
-165				6.50		6.62						
-HDC10-90 ※	10	1.18		3.54	1.65	2.40	1.50	13,000			-	5.52
-120				4.72	1.77	1.30-2.09					HDA10-08032	5.96
-165				6.50		6.84						
-HDC12-95 ※	12	1.26		3.74	1.85	2.48			1.69	13,000	-	5.52
-120				4.72		1.50-2.28					HDA12-10025	5.96
-165				6.50							HDA12-10032	6.84
-HDC16-100 ※	16	1.50	3.94	2.09		2.68	1.69	13,000			-	5.74
-135			5.31			1.69-2.68					HDA16-12030	6.62
-165			6.50								HDA16-12037	7.28
-HDC20-105 ※	20	1.65	4.13		2.32	2.87			2.05	12,000	-	5.96
-135			5.31			2.28-2.68					HDA20-16015	6.84
-165			6.50								HDA25-16039	7.95
-HDC25-110 ※	25	2.24	2.48	4.33		2.44	3.07	2.05			-	7.28
-HDC32-110 ※	32	2.52	2.95	4.33		2.44	3.07	2.20			-	8.17

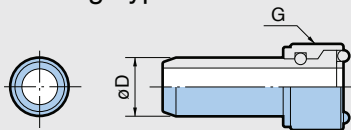
COOLANT PIPE for Form A and Form E

● Mono Block Type



Some machine tool builders may recommend the mono block type. Contact your machine builder and verify the proper style of coolant pipe to be selected.

● 1° Swing Type



DIN standard specifies ±1 degree of float. For proper installation, the special wrench is necessary.

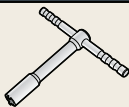


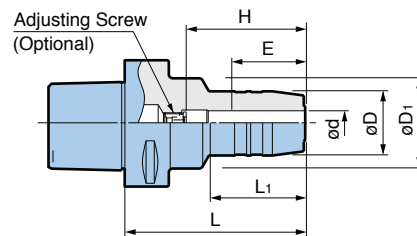
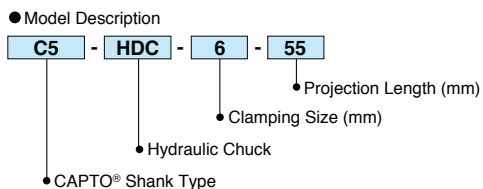
Caution For machines capable of supplying coolant through the spindle, the Coolant Pipe should be fitted to all HSK holders to protect against accidental selection of coolant.

Model	øD	G	SW (mm)
HSK40-CP	.315	M12xP1	4
50-CP	.394	M16xP1	5
63-CP	.472	M18xP1	6
100-CP	.630	M24xP1.5	8



Model	øD	G	Wrench (Optional)
HSK40-CPM	.315	M12xP1	CPW40
50-CPM	.394	M16xP1	CPW50
63-CPM	.472	M18xP1	CPW63
100-CPM	.630	M24xP1.5	CPW100





Model	ød (mm)	øD	øD1	L	L1	E Min.	H	Adjusting Screw	Weight (lbs)
C5-HDC6-55 ※	6	1.02	1.77	2.17	.71	1.10	1.89	-	1.76
-90				3.54	1.77		1.30-1.97	HDA6-05020	2.20
-120				4.72	1.10-1.97		HDA6-05032	2.65	
-HDC8-55 ※	8	1.10	1.77	2.17	.71	1.10	1.89	-	1.76
-90				3.54	1.77		1.30-1.97	HDA8-06020	2.43
-120				4.72	1.10-1.97		HDA8-06032	2.87	
-HDC10-60 ※	10	1.18	1.77	2.36	.94	1.30	2.09	-	1.98
-90				3.54	1.77		1.69-2.17	HDA10-08015	2.43
-120				4.72	1.30-2.13		HDA10-08032	2.87	
-HDC12-60 ※	12	1.26	1.81	2.36	.94	1.50	2.09	-	1.98
-90			3.54	1.89	2.09-2.36		HDA12-10010 ●	2.43	
-120			4.72	1.50-2.36	HDA12-10032		2.87		
-HDC14-90	14	1.34	1.77	3.54	1.89	1.50	2.09-2.36	HDA12-10010 ●	2.43
-120				4.72	1.50-2.36		HDA12-10032	2.87	
-HDC16-75 ※				1.97	2.95		1.38	2.68	-
-90 ※	16	1.50	1.89	3.54	1.89	1.69	3.27	-	2.65
-120			1.81	4.72			1.69-2.76	HDA16-12037	3.09
-HDC18-90 ※	18	1.57	1.89	3.54	1.89	1.69	3.27	-	2.65
-120			1.93	4.72			1.69-2.76	HDA16-12037	3.31
-HDC20-75 ※	20	1.65	2.05	2.95	1.38	1.69	2.68	-	2.43
-90 ※			1.97	3.54	1.89		3.27	-	2.65
-120			1.85	4.72	1.69-2.76		HDA16-12037	3.31	
-HDC25-90 ※	25	2.17	2.48	3.54	1.89	2.05	3.27	-	3.75

- Adjustable cutter length H is the adjustment length when using an optional adjusting screw.
- Adjusting screw cannot be used in hydraulic chuck with ※ mark.
H length is equal to the max. insertion length.
- In case the projection length needs to be adjusted from the shank side, use the adjusting screw with "W" which has hexagon sockets on both sides. (ex: HDA6-05020W)
Adjusting screw with ● indication is not available in W type.

☞ For Straight Collet **PG. 6**

☞ For Inner Bore Cleaner **PG. 6**

Caution ⚠

- Use only cutting tools that have a shank tolerance of h6. (see table on page 5)
- Do not use with cutting tools made with a flat on the shank (ie: Weldon type shank)
- Roughing end mills are not recommended for use with Hydraulic Chucks.
- Do not tighten the clamping screw without first inserting a cutting tool into the tool holder.
- Always insert the cutting tool into the hydraulic tool holder beyond min. clamping length "E".

Model	ød (mm)	øD	øD1	L	L1	E Min.	H	Adjusting Screw	Weight (lbs)
C6-HDC6-60 ※	6	1.02	1.77	2.36	.71	1.10	2.01	-	3.09
-90				3.54	1.89		1.30-1.97	HDA6-05020	3.31
-120				4.72	1.77		1.10-1.97	HDA6-05032	3.97
-150				5.91			4.42		
-HDC8-60 ※	8	1.10	1.77	2.36	.71	1.10	2.01	-	3.09
-90				3.54	1.89		1.30-1.97	HDA8-06020	3.53
-120				4.72	1.77		1.10-1.97	HDA8-06032	3.97
-150				5.91			4.42		
-HDC10-60 ※	10	1.18	1.77	2.56	.95	1.30	2.20	-	3.09
-90				3.54	1.89		1.69-2.17	HDA10-08015	3.53
-120				4.72	1.77		1.30-2.13	HDA10-08032	3.97
-150				5.91			4.64		
-HDC12-65 ※	12	1.26	1.81	2.56	.95	1.50	2.20	-	3.31
-90			1.77	3.54	1.89		1.89-2.36	HDA10-08015	3.53
-120				4.72			1.50-2.36	HDA10-08032	3.97
-150				5.91			4.64		
-HDC14-90	14	1.34	1.77	3.54	1.89	1.50	2.09-2.36	HDA12-10010 ●	3.53
-120				4.72			1.50-2.36	HDA12-10032	4.19
-150				5.91			4.64		
-HDC16-75 ※	16	1.50	1.97	2.95	1.38	1.69	2.60	-	3.53
-90 ※			1.85	3.54	1.89		3.19	-	3.75
-120			4.72	1.69-2.76			HDA16-12037	4.42	
-150			5.91	5.08					
-HDC18-90 ※	18	1.57	1.89	3.54	1.89	1.69	2.60	-	3.75
-120			1.93	4.72			1.69-2.76	HDA16-12037	4.42
-150				5.91			5.08		
-HDC20-75 ※	20	1.65	2.09	2.95	1.30	1.69	2.60	-	3.75
-90 ※			1.97	3.54	1.89		2.83	-	3.97
-120				4.72			1.69-2.76	HDA16-12037	4.64
-150				5.91			5.30		
-HDC25-90 ※	25	2.17	2.48	3.54	1.81	2.05	3.15	-	4.86
-120				4.72	2.01		2.64-3.11	HDA20-16015	6.18
-150				5.91	3.19		2.05-3.11	HDA25-16039	7.73
-HDC32-90 ※	32	2.95	2.48	3.54	1.69	2.20	3.19	-	6.18
-120		2.48	-	4.72	-		2.60-3.07	HDA20-160315	6.62

1. Adjustable cutter length H is the adjustable length using an optional adjusting screw.

2. Adjusting screw cannot be used in hydraulic chuck with ※ mark.

H length is equal to the max. insertion length.

3. In case the projection length needs to be adjusted from the shank side, use the adjusting

screw with "W" which has hexagon sockets on both sides. (ex: HDA6-05020W)

Adjusting screw with ● indication is not available in W type.

 For Straight Collet **PG. 6**

 For Inner Bore Cleaner **PG. 6**



Caution

1. Use only cutting tools that have a shank tolerance of h6. (see table on page 5)
2. Do not use with cutting tools made with a flat on the shank (ie: Weldon type shank)
3. Roughing end mills are not recommended for use with Hydraulic Chucks.
4. Do not tighten the clamping screw without first inserting a cutting tool into the tool holder.
5. Always insert the cutting tool into the hydraulic tool holder beyond min. clamping length "E".

Patented Worldwide



SIMULTANEOUS TAPER & FLANGE CONTACT

Simultaneous fit system surpasses all other spindle concepts while offering interchangeability with existing machines and tool holders.



Patented

USA, Canada, Germany, U.K., France, Italy
& South Korea

US Patent No. 5352073

For BIG-PLUS® Spindle System,
please refer to catalog

EXI
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MODERN FACILITIES FOR HIGH QUALITY PRODUCTION



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● Awaji Factory No. 2



● Awaji Factory No. 3



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