

# BBT30 Tooling System

BIG-PLUS Spindle System is a licensed product of BIG DAISHOWA SEIKI CO LTD.

No Sinking of Holder  
Z-direction Dimension Stability and  
Working Face Accuracy Improved



Prevention of Z-dimension variation in high speed rotation

Repeating Accuracy of On/Off-Spindle Improved

Firm contacting of flange surface achieves stable high accuracy for fitting.

Bending Stiffness Improved by Duplex-Holding

Anti-vibration Improved by Duplex-Holding

Duplex-holding prevents fretting.

High Efficient Machining in High Speed Rotation/Feeding

Even if the spindle is expanded during high speed rotation, the taper and flange surface contacts firmly. Sustaining balancing of duplex-holding achieves high efficient machining.

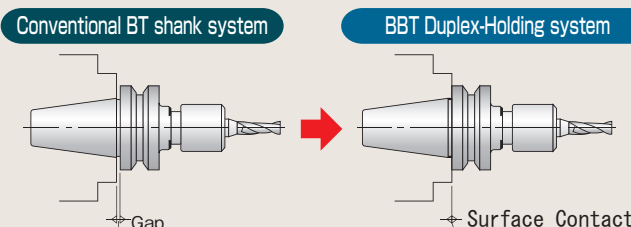
Long life of cutting tools

## Comparison with conventional holders

### <Adopting BIG-PLUS Spindle System>

With the duplex-holding by taper and flange surface, the bending stiffness is stronger and the high speed cutting and feeding is available. Since the flange surface contacts with the spindle surface, sinking of the holder is prevented during high speed rotation and heavy cutting. The Z-direction dimension stability is firmer.

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## BBT30 Super G1 Chucks

### ■Ultra High Precision

Guaranteeing the integrated runout accuracy of within 5 $\mu$ m.  
Highest precision in this industrial field.

### ■Super Rigidity·Super Grip Force

Most effectively usable for machining work by the end-mill.

### ■Super Balancing

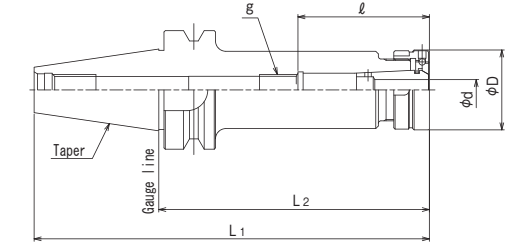
For high rotation machining, even the standard model can be used  
for rotation up to 25,000min<sup>-1</sup>

### ■Safety

Locknut and Safety Cover (PAT.) ensuring  
safety in high rotation machining.



#### ●Dimensional Drawing



Unit: mm													
Model	Gripping Capacity d	Nut Outside Diameter D	Total Length L1	Length from the Gauge Line L2	Length Adjustment Screw		Taper	Applicable Collet (option)	Applicable Lock Nut	Applicable Spanner (option)	Length Adjustment Screw (option)	Coolant Seal Screw (option)	Weight (kg)
BBT30-SGC6-45	1.0~6.0	20	93.4	45	M8×0.75	47	BBT30 7/24	SG6	SGN6	FS20	APM6	CSH6	0.5
-SGC6-75			123.4	75		52							0.6
-SGC6-105			153.4	105									0.7
BBT30-SGC8-45	1.0~8.0	26	93.4	45	M10×1.5	46		SG8	SGN8	FS26	APM8-2	CSH8	0.5
-SGC8-75			123.4	75									0.6
-SGC8-105			153.4	105									0.7
BBT30-SGC10-45	2.0~10.0	31	93.4	45	M12×1.5	51		SG10	SGN10	FS33	APM10-2	CSH10	0.5
-SGC10-75			123.4	75									0.6
-SGC10-105			153.4	105									0.8
BBT30-SGC12-45	3.0~12.5	36	93.4	45	M14×1.5	38		SG12	SGN12	FS36	APM12-2	CSH12	0.5
-SGC12-75			123.4	75		62							0.7
-SGC12-105			153.4	105									0.9
BBT30-SGC16-45	3.0~16.0	42	93.4	45	M18×1.5	—		SG16	SGN16	FS42	—	CSH16	0.5
-SGC16-75			123.4	75		68							0.8
BBT30-SGC20-60	3.0~20.0	50	108.4	60	M22×1.5	—		SG20	SGN20	FS50	—	CSH20	0.7
-SGC20-90			138.4	90		73							1.0

◆The above Max. I of tapered is the length when Length Adjustment Bolt (APM) is used.

◆Dimensions of tapered shank are in accordance with the standard of BIG-PLUS spindle.

◆Collet, Spanner, Coolant-Sealing Back-up Screw, Length Adjustment Bolt and retention knob are not included in the above. They are separate accessories.

※For the collets and spanners, please refer to page 43.

## BBT30 New Drill Mill Chucks

### ■Wide Range of Use

Various cutting tools including drill bits, tapping drills, reamers,  
and end mills can be chucked.

### ■High Gripping Force

That is an advantage of double taper collets.

### ■Applicable to high-pressure coolant

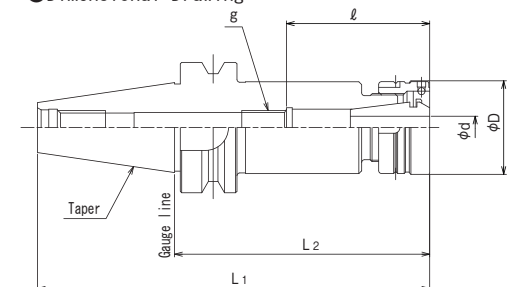
Coolant of high pressure up to 7.0MPa is usable.

### ■High Balancing

Grinding of the external surface of  
the holder secures a high balancing.



#### ●Dimensional Drawing



Unit: mm													
Model	Gripping Capacity d	Nut Outside Diameter D	Total Length L1	Length from the Gauge Line L2	Length Adjustment Screw		Taper	Applicable Collet (option)	Applicable Lock Nut	Applicable Spanner (option)	Length Adjustment Screw (option)	Coolant Seal Screw (option)	Weight (kg)
					g	Maximum2							
BBT30-NDC7S-60	0.5~7.0	22	108.4	60	M8×0.75	55	BBT30 7/24	YCC7	NDN7S	FS22	APM7-2	CSH7	0.5
-NDC7S-90			138.4	90									0.6
-NDC7S-120			168.4	120									0.7
BBT30-NDC7-60		25	108.4	60		52			NDN7	FS26			0.5
-NDC7-90			138.4	90									0.6
-NDC7-120			168.4	120									0.7
BBT30-NDC10-60	0.5~10.0	33	108.4	60	M12×1.5	50		YCC10	NDN10	FS33	APM10-2	CSH10	0.5
-NDC10-90			138.4	90									0.7
-NDC10-120			168.4	120									0.9
BBT30-NDC13-60	0.5~13.0	36	108.4	60	M15×1.5	62		YCC13	NDN13	FS36	APM13-2	CSH13	0.5
-NDC13-90			138.4	90									0.7
-NDC13-120			168.4	120									0.9
BBT30-NDC16-75	2.5~16.0	42	123.4	75	M18×1.5	68		YCC16	NDN16	FS42	APM16-2	CSH16	0.7
-NDC16-105			153.4	105									0.9
-NDC16-120			168.4	120									1.1
BBT30-NDC20-75	3.5~20.0	52	123.4	75	M15×1.5	60		YCC20	NDN20	FS52	APM13-1	—	0.7
※ -NDC20-105			153.4	105	M22×1.5	73					APM20-2	CSH20	1.0
-NDC20-120			168.4	120									1.2
※ BBT30-NDC25-90	5.0~25.0	62	138.4	90	M15×1.5	80		YCC25	NDN25	FS62	APM13-2	—	1.0
※ -NDC25-120			168.4	120								—	1.7

※Coolant seal screw must be used. ◆Dimensions of the Taper Shank are in accordance with the standard of BIG-PLUS spindle. ◆Dimensions of Max. I are those when length adjustment bolt -APM type is used. ◆Collet, spanner, retention knob, coolant sealing back up screw, length adjustment bolt are not included the above. They are separate accessories.

※For the collets and spanners, please refer to page 45.

BBT30 Power Lock Milling Chucks

■High gripping torque

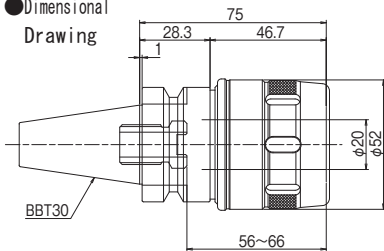
Gripping torque was increased by making the tightening collar thicker, and by strengthening tightening of the opening by modifying chuck ID with straight slit.

■High Rigidity・High Accuracy

High rigidity thanks to tightening collar end holding system (duplex holding) and it is manufactured with concentricity within 0.005mm



●Dimensional Drawing



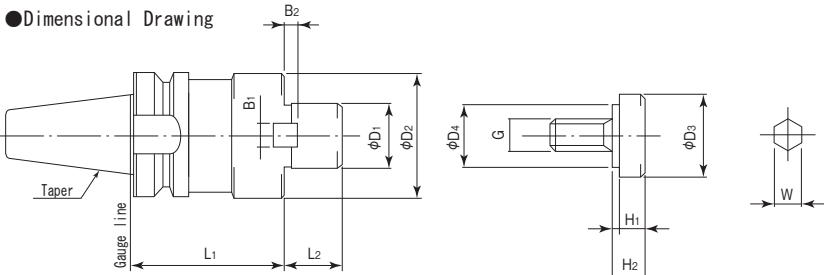
Unit: mm									
Model	Grip Diameter d	Nut Outside Diameter D	Total Length L <sub>1</sub>	Length from the Gauge Line L <sub>2</sub>	Maximum $\phi$	Taper	Applicable Collet (option)	Applicable Spanner (option)	Weight (kg)
BBT30-PMC20-75	20	52	123.4	75	75	BBT30 7/24	SCR20 SCA20 SCC20	FS55	0.96

※Please use a tool of which shank diameter tolerance h7.  
※Dimensions of tapered shank are in accordance with the standard of BIG-PLUS spindle.  
※Straight collet and Spanner are not included in the above. They are separate accessories.  
※For the collets and spanners, please refer to page 46.

BBT30 Face Mill Arbors



●Dimensional Drawing



Unit: mm														
Model	Taper	D <sub>1</sub>	L <sub>1</sub>	D <sub>2</sub>	L <sub>2</sub>	B <sub>1</sub>	B <sub>2</sub>	G	D <sub>3</sub>	D <sub>4</sub>	H <sub>1</sub>	H <sub>2</sub>	W	Weight (kg)
BBT30-FMA22-40	BBT30 7/24	22.0	40	45	18	$\phi$ 10	5	M10	(六角穴付ボルトM10×35 $\ell$ )					0.70
-FMA22-60			60											0.90
BBT30-FMA22.225-40			40											0.70
-FMA22.225-60		22.225	60	45	18	8	3.5	M8	13	—	8	—	6	0.90
-FMA22.225-90			90											1.30
BBT30-FMA25.4-60		25.4	60	50	22	9.5	5	M12	33	23	10	12	10	1.00
-FMA25.4-90			90											1.50

※ Special sizes are also available.  
※ Retention knob is a separate accessory.

CNC Keyless Drill Chucks with BBT30 Shank

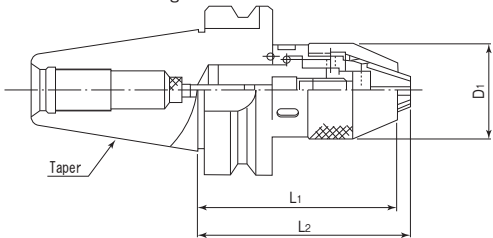
■Integration of shank and chuck made its compact size and safety.

■Re-tightening with hook spanner prevents loosening at an emergency stopping.

■Run-out accuracy: smaller than 0.05mm



●Dimensional Drawing



Unit: mm							
Model	Gripping Capacity	D	L <sub>1</sub>	L <sub>2</sub>	Taper	Applicable Spanner	Weight (kg)
BBT30-LC6.5F-70	0.5~6.5	34	70	76	BBT30	FS6.5LC	0.60
BBT30-LC13F-90	0.5~13	50	90	102		FS13LC	1.15

Super Keyless Drill Chucks with BBT30 Shank

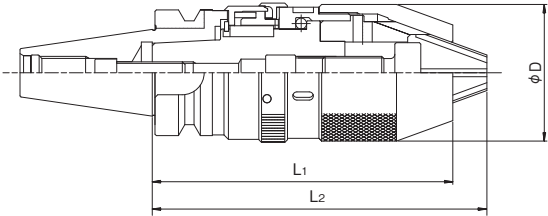
■The sleeve-lock mechanism working in reverse rotation.

■M16 tapping available.

■Run-out accuracy: smaller than 0.05mm



●Dimensional Drawing



Unit: mm							
Model	Gripping Capacity	D	L <sub>1</sub>	L <sub>2</sub>	Taper	Applicable Spanner	Weight (kg)
BBT30-SLC13-110	0.5~13	51	110	122.5	BBT30	FS13LC	1.40