BDV/DV SHANK

COLLET CHUCK

MEGA MICRO CHUCK

Clamping diameter: ø0.45 - ø8.05

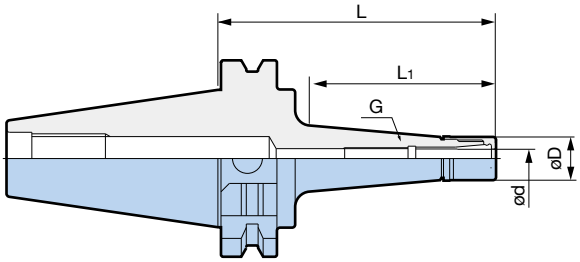
Ultra-slim design with ø10mm nut outer diameter.
High speed collet chuck with minimized interference.

DUAL CONTACT
BIG-PLUS®

Center through

Max. 40,000min^{-1}

●Models for ultra-small endmilling are newly added!

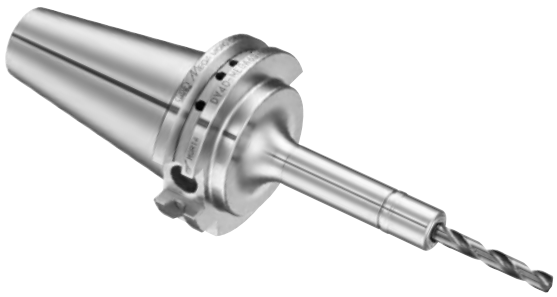


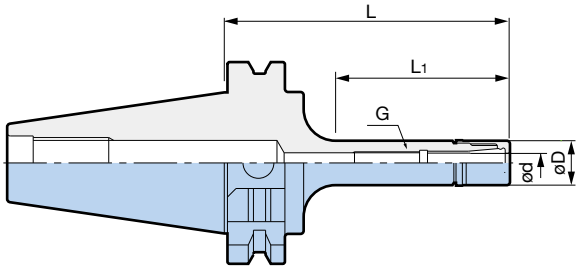
[High Rigidity Taper Type]

BIG-PLUS (BDV Shank) tools can be used on both BIG-PLUS spindles and conventional **DV spindles**.

BIG-PLUS BDV SHANK Model	DV SHANK Model	Clamping diameter ød	øD	L	L1	G	Collet Model	Nut Model	Weight (kg)
—	**DV30-MEGA6S- 60T**	0.45 - 6.05	14	60	36	M7P0.75	NBC6S-□	MGN6S	0.41
—	**-MEGA8S- 75T**	2.95 - 8.05	18	75	51	M9P0.75	NBC8S-□	MGN8S	0.48
BDV40-MEGA3S- 90T	—	0.45 - 3.25	10	90	60	M4P0.7	NBC3S-□	MGN3S	0.9
-MEGA4S- 90T	—	0.45 - 4.05	12	90	60	M5P0.8	NBC4S-□	MGN4S	1.0
-MEGA6S- 60T	—	0.45 - 6.05	14	60	30	M7P0.75	NBC6S-□	MGN6S	0.9
- 90T	—			90	60				1.0
-120T	—			120	90				1.1
-MEGA8S- 90T	—	2.95 - 8.05	18	90	60	M9P0.75	NBC8S-□	MGN8S	1.0

1. Nut is included. Collet and wrench must be ordered separately.
2. Weight includes the nut but not the collet.
3. Please note that the practical spindle speed may be considerably influenced by the machine rigidity and tool balance. When using, slowly ramp up to the appropriate speed starting from slow speeds.





[Straight Type]

BIG-PLUS (BDV Shank) tools can be used on both BIG-PLUS spindles and conventional **DV spindles**.

BIG-PLUS BDV SHANK Model	Clamping diameter ød	øD	L	L1	G	Collet Model	Nut Model	Weight (kg)
BDV40-MEGA6S- 90	0.45 - 6.05	14	90	55	M7P0.75	NBC6S-□	MGN6S	0.9

1. Nut is included. Collet and wrench must be ordered separately.
2. Weight includes the nut but not the collet.
3. Please note that the practical spindle speed may be considerably influenced by the machine rigidity and tool balance. When using, slowly ramp up to the appropriate speed starting from slow speeds.

Standard Accessory

MEGA NUT

For Spares ☞G6

Optional Accessories

Mega Wrench

☞G33

Micro Collet

☞G4

MEGA MICRO SEAL NUT (for 6S and 8S)
MEGA MICRO COOLANT NUT (for 6S)

☞G6

Collet Case

☞G6

Adjusting Screw

☞G23

Clamping diameter: ø0.25 - ø25.4

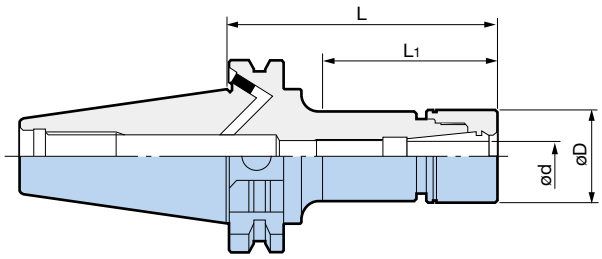
MEGA NEW BABY CHUCK

High speed version of NEW BABY CHUCK boasting a history of results.
Makes high speed machining possible in addition to its high accuracy and versatility.

DUAL CONTACT BIG-PLUS®

Coolant-through hole

Max. 35,000min^{-1}

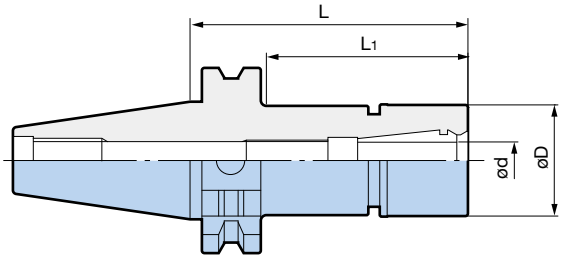


BIG-PLUS (BDV Shank) tools can be used on both BIG-PLUS spindles and conventional **DV spindles**.

BIG-PLUS BDV SHANK Model	Clamping diameter ød	øD	L	L1	Collet Model	Nut Model	Weight (kg)
BDV40-MEGA 6N- 90	0.25 - 6	20	90	55	NBC 6-□	MGN 6	1.1
-135			135	100			1.2
-MEGA 8N- 90	0.5 - 8	25	90	57	NBC 8-□	MGN 8	1.1
-135			135	102			1.3
-MEGA10N- 90	1.5 - 10	30	90	59	NBC10-□	MGN10	1.2
-135			135	104			1.4
-MEGA13N- 90	2.5 - 13	35	90	61	NBC13-□	MGN13	1.3
-135			135	106			1.6
-165			165	136			1.8
-MEGA16N- 90	2.5 - 16	42	90	65	NBC16-□	MGN16	1.5
-135			135	110			1.9
-165			165	140			2.2
-MEGA20N- 60	2.5 - 20	46	60	40	NBC20-□	MGN20	1.3
- 90			90	70			1.6
-135			135	115			2.0
-165			165	145			2.3
-200			200	180			2.6
-MEGA25N- 90	15.5 - 25.4	60	90	70	NBC25-□	MGN25	1.8
-120			120	100			2.3

1. Nut is included. Collet, wrench, and Adjusting Screw must be ordered separately.
2. Weight includes the nut but not the collet.
3. Through holes are provided, allowing switching between center through and flange through use.
4. Please note that the practical spindle speed may be considerably influenced by the machine rigidity and tool balance. When using, slowly ramp up to the appropriate speed starting from slow speeds.

Center through



DV30 SHANK

Not BIG-PLUS (DUAL CONTACT) specification

DV SHANK Model	Clamping diameter ød	øD	L	L1	Collet Model	Nut Model	Weight (kg)
DV30-MEGA10N- 75	1.5 - 10	30	75	54	NBC10-□	MGN10	0.60

1. Nut is included. Collet, wrench, and Adjusting Screw must be ordered separately.
2. Weight includes the nut but not the collet.
3. Center through coolant supply is available.
4. Please note that the practical spindle speed may be considerably influenced by the machine rigidity and tool balance. When using, slowly ramp up to the appropriate speed starting from slow speeds.

COLLET CHUCK

MEGA NEW BABY CHUCK

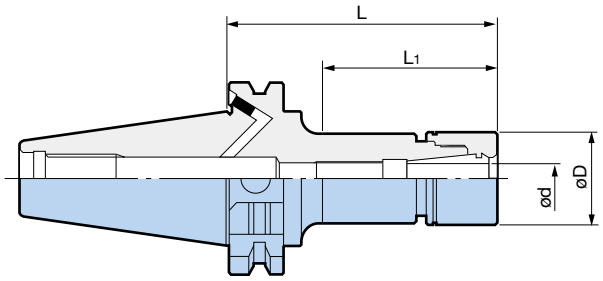
Clamping diameter: ø0.25 - ø25.4

The DUAL CONTACT BIG-PLUS system has been standardized.
The abundant variety is also ideal as reliable general-purpose holders.

DUAL CONTACT
BIG-PLUS®

Coolant-through hole

Max. 20,000min^{-1}



BIG-PLUS (BDV Shank) tools can be used on both BIG-PLUS spindles and conventional **DV spindles**.

BIG-PLUS BDV SHANK Model	Clamping diameter ød	øD	L	L_1	Collet Model	Nut Model	Weight (kg)
BDV50-MEGA 6N- 90	0.25 - 6	20	90	50	NBC 6-□	MGN 6	3.0
-120			120	80			3.0
-165			165	125			3.1
-MEGA10N- 90	1.5 - 10	30	90	55	NBC10-□	MGN10	3.2
-120			120	80			3.3
-165			165	125			3.5
-MEGA13N- 90	2.5 - 13	35	90	55	NBC13-□	MGN13	3.2
-120			120	80			3.4
-165			165	125			3.7
-MEGA16N- 90	2.5 - 16	42	90	55	NBC16-□	MGN16	3.4
-120			120	85			3.7
-165			165	130			4.1
-200			200	165			4.4
-MEGA20N- 90	2.5 - 20	46	90	55	NBC20-□	MGN20	3.5
-120			120	85			3.8
-165			165	130			4.3
-200			200	165			4.6
-MEGA25N-105	15.5 - 25.4	60	105	77	NBC25-□	MGN25	4.0
-135			135	107			4.6

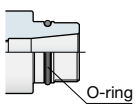
1. Nut is included. Collet, wrench, and Adjusting Screw must be ordered separately.
2. Weight includes the nut but not the collet.
3. Through holes are provided, allowing switching between center through and flange through use.
4. Please note that the practical spindle speed may be considerably influenced by the machine rigidity and tool balance. When using, slowly ramp up to the appropriate speed starting from slow speeds.

Standard Accessory

MEGA NUT

For Spares G12

O-ring



For Spares G12

Optional Accessories

MEGA NUT Flat Type

G12

Mega Wrench

G33

Collet

G7

MEGA PERFECT SEAL

G13

Adjusting Screw

G23

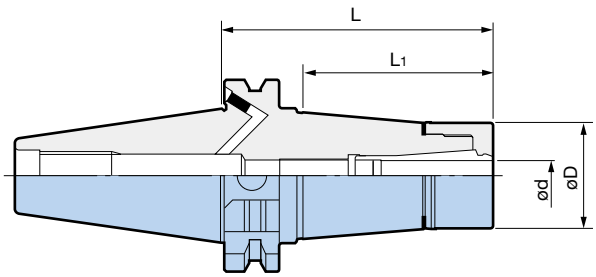
A high precision, high speed and high rigidity collet chuck especially for endmilling.

- Tapered body enhances damping effect by varying vibration frequency.
- Uses the MEGA E Collet designed for endmilling, delivering optimal clamping performance.

DUAL CONTACT
BIG-PLUS®

Coolant-through hole

Max. 30,000min^{-1}



BIG-PLUS (BDV Shank) tools can be used on both BIG-PLUS spindles and conventional **DV spindles**.

BIG-PLUS BDV SHANK Model	Clamping diameter ød	øD	L	L_1	Collet Model	Nut Model	Weight (kg)
BDV40-MEGA 6E- 90	3 - 6	25	90	60	MEC 6-□	MEN 6	1.2
-MEGA 8E- 60	3 - 8	30	60	30	MEC 8-□	MEN 8	1.2
- 90			90	63			1.3
-MEGA 10E- 60	3 - 10	35	60	33	MEC10-□	MEN10	1.3
- 90			90	64			1.4
-MEGA 13E- 60	3 - 12	42	60	35	MEC13-□	MEN13	1.5
- 90			90	61			1.7
-120			120	95			1.9
BDV50-MEGA 6E-120	3 - 6	25	120	90	MEC 6-□	MEN 6	3.3
-MEGA 8E-120	3 - 8	30	120	90	MEC 8-□	MEN 8	3.4
-MEGA 10E-120	3 - 10	35	120	90	MEC10-□	MEN10	3.6
-MEGA 13E- 90	3 - 12	42	90	60	MEC13-□	MEN13	3.6
-120			120	90			3.8
-165			165	137			4.4

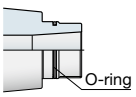
1. The nut is included but the collet, wrench and Adjusting Screw must be ordered separately.
2. Weight includes the nut but not the collet.
3. Please note that the practical spindle speed may be considerably influenced by the machine rigidity and tool balance. When using, slowly ramp up to the appropriate speed starting from slow speeds.
4. Through holes are provided, allowing switching between center through and flange through use.

Standard Accessory

MEGA E Nut

For Spares G18

O-ring



For Spares G18

Optional Accessories

Mega Wrench

G33

MEGA E Collet

G18

MEGA E PERFECT SEAL

G19

Adjusting Screw

G23

COLLET CHUCK

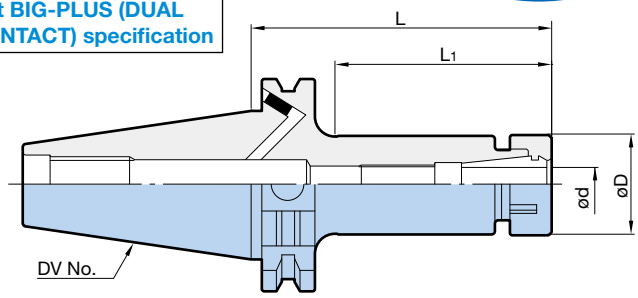
NEW BABY CHUCK

Clamping diameter: ø0.25 - ø20

A wide-ranging variety with sizes from short through long meets all the needs of high precision machining.

Coolant-through hole

Not BIG-PLUS (DUAL CONTACT) specification



DV SHANK Model	Clamping diameter ød	øD	L	L1	Collet Model	Nut Model	Weight (kg)
DV40-NBS 6- 60	0.25 - 6	20	60	34	NBC 6-□	NBN 6	0.9
- 90			90	60			1.0
-135			135	105			1.0
-NBS 8- 60	0.5 - 8	25	60	34	NBC 8-□	NBN 8	0.9
- 90			90	62			1.0
-135			135	107			1.2
-NBS10- 60	1.5 - 10	30	60	34	NBC10-□	NBN10	1.0
- 90			90	64			1.1
-135			135	104			1.4
-NBS13- 60	2.5 - 13	35	60	37	NBC13-□	NBN13	1.0
- 90			90	66			1.2
-135			135	106			1.6
-NBS16- 60	2.5 - 16	42	60	38	NBC16-□	NBN16	1.1
- 90			90	68			1.4
-135			135	113			1.8
-NBS20- 60	2.5 - 20	46	60	40	NBC20-□	NBN20	1.3
- 90			90	70			1.6
-135			135	115			2.0
-165			165	145			2.3
-200			200	180			2.6

1. The nut is included but the collet, wrench and Adjusting Screw must be ordered separately.
2. Through holes are provided, allowing switching between center through and flange through use.
3. Weight includes the nut but not the collet.

Standard Accessory

New Baby Nut

For Spares G15

Optional Accessories

New Baby Wrench

G36

Collet

G7

BABY PERFECT SEAL

G15

Adjusting Screw

G23

Tap Adjusting Screw

G23

Clamping diameter: ø0.25 - ø20

NEW BABY CHUCK

DV SHANK Model	Clamping diameter ød	øD	L	L_1	Collet Model	Nut Model	Weight (kg)
DV50-NBS 6-120	0.25 - 6	20	120	85	NBC 6-□	NBN 6	2.8
-165			165	125			3.1
-NBS 8-120	0.5 - 8	25	120	85	NBC 8-□	NBN 8	2.9
-165			165	130			3.0
-NBS10- 90	1.5 - 10	30	90	60	NBC10-□	NBN10	2.9
-120			120	85			3.0
-165			165	130			3.2
-NBS13- 90	2.5 - 13	35	90	60	NBC13-□	NBN13	3.0
-120			120	80			3.4
-165			165	125			3.7
-NBS16- 90	2.5 - 16	42	90	60	NBC16-□	NBN16	3.1
-120			120	85			3.9
-165			165	130			4.3
-200			200	165			4.6
-NBS20- 75	2.5 - 20	46	75	45	NBC20-□	NBN20	3.1
- 90			90	60			3.2
-120			120	85			4.0
-165			165	130			4.5
-200			200	165			4.8

1. The nut is included but the collet, wrench and Adjusting Screw must be ordered separately.
2. Through holes are provided, allowing switching between center through and flange through use.
3. Weight includes the nut but not the collet.

MILLING CHUCK

MEGA DOUBLE POWER CHUCK

Clamping diameter: ø16 - ø42

Complete contact with the nut and body in conjunction with the BIG-PLUS specifications for double effect. High rigidity equal to integration with the machine spindle.

[Jet Through Type]

DUAL CONTACT
BIG-PLUS®

Coolant-through hole

Max. 25,000min^{-1}

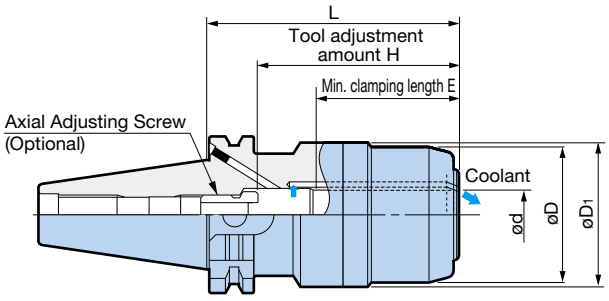


Fig. 1

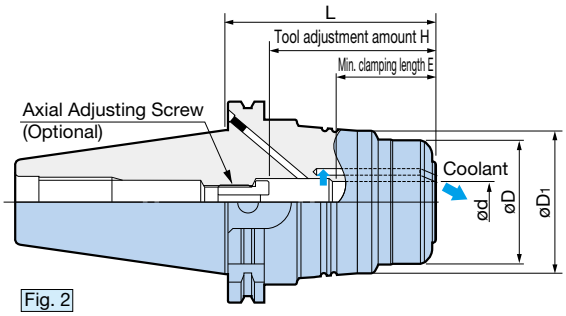


Fig. 2

BIG-PLUS (BDV Shank) tools can be used on both BIG-PLUS spindles and conventional **DV spindles**.

BIG-PLUS BDV SHANK Model	Fig.	Clamping diameter ød	øD	øD1	L	H	E	Mega Wrench	Weight (kg)
BDV40-MEGA16DS- 90A	1	16	42	53	92	73	48	MGR42L	1.8
-MEGA20DS-100A		20	50	55	102	71 - 81	50	MGR50L	1.9
-135A					137				2.5
-MEGA25DS-100A		25	62	63	102	73 - 83	56	MGR62L	2.4
-135A					137				3.0
-MEGA32DS-100A		32	70	71	102	78 - 88	60	MGR70L	2.2
-135A					137				3.0
BDV50-MEGA16DS- 70	2	16	46	55	72.5	73	48	MGR46L	3.5
-MEGA20DS-100		20	60	69	102.5	71 - 81	50	MGR60L	4.9
-135					137.5				5.7
-MEGA25DS-105		25	70	77	107.5	78 - 88	56	MGR70L	5.4
-135					137.5				6.3
-MEGA32DS-105	1	32	80	86	107.5	80 - 97	60	MGR80L	5.7
-135					137.5				6.7
-MEGA42DS-105		42	99	100	107	90 - 107		MGR99L	6.1

1. Wrench is not included. Please order separately.
2. Please note that the practical spindle speed may be considerably influenced by the machine rigidity and tool balance. When using, slowly ramp up to the appropriate speed starting from slow speeds.
3. Tool adjustment amount "H" indicates the adjustment length with an Adjusting Screw.
4. Through holes are provided, allowing switching between center through and flange through use.

●MEGA16DS requires the hex socket head screw (M8) for axial adjustment.
However, please contact us if using for center through applications.
H dimension is the max. tool shank length that can be inserted into the holder.
●DS types have jet-through coolant supply, thus tools with oil holes cannot be used.

Optional Accessories

Straight Collet

PJC Collet G25
PSC Collet G26
C Collet G28

Mega Wrench

G33

Axial Adjusting Screw

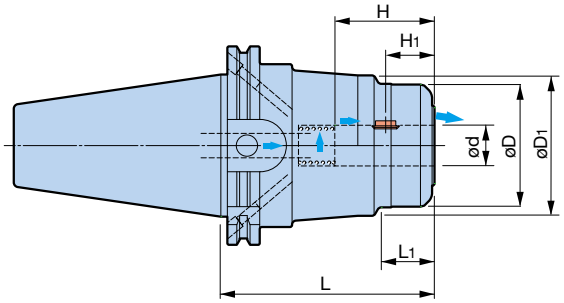
G30

A holder equipped with tool Non-Pullout mechanism.
The unique Key Grip locking mechanism prevents the tool from slipping or pulling out during heavy machining.

Center through

Flood Jet-Through Coolant

Not BIG-PLUS (DUAL CONTACT) specification



● Model Description

DV50 - MEGA 20 DPG - 105 ADF

- DV50 - DV No.
- MEGA - MEGA CHUCK
- 20 - Chuck bore
- DPG - PERFECT GRIP
- 105 - L dimension
- ADF

DV SHANK Model	ød	øD	øD1	L	L1	H	H1	Mega Wrench	Weight (kg)
DV50-MEGA20DPG -105ADF	20	60	69	105	27	49	24	MGR60L	5.1
-MEGA25DPG -105ADF	25	70	77		33	55	23	MGR70L	5.4
-MEGA32DPG -105ADF	32	80	86		41	59		MGR80L	5.6

1. Key Grip and Spring are included.
2. Wrench is not included. Please order separately.
3. H1 is the dimension from the center of the Key Grip to the front end of the chuck.

● Key Grips are consumable products. Do not use a damaged Key Grip.
● For coolant through tools, a seal bushing (optional) is required instead of a spring. Please contact us for details.

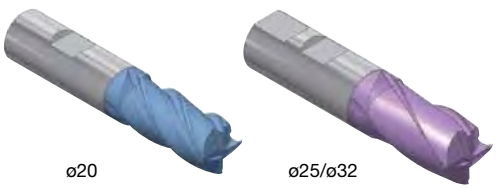
■Standard Accessories

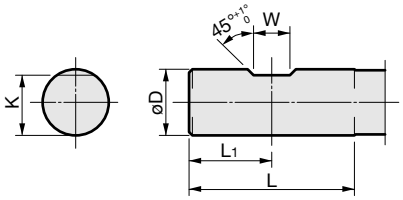
Chuck size	Key Grip (2 pcs)	Spring
ø20	**PKG20-2P**	**PSP1823**
ø25	**PKG25-2P**	**PSP2420**
ø32	**PKG32-2P**	**PSP3128**

1. Key Grips are sold as 2-piece sets.

Cylindrical Shank with Flat Section JIS B 4005 (ISO3338-2)

The following standard shank is required for MEGA Perfect GRIP.





øD Nominal	øD Tolerance	L	L1	W Nominal	W Tolerance	K Nominal	K Tolerance
20	0 -0.013	50	25	11	+0.2 0	18.2	0 -0.4
25		56	32	12		23	
32	0 -0.016	60	36	14		30	

1. JIS Standards require sizes ø25 or higher to be double-flat types. The MEGA Perfect GRIP does not use a rear flat surface, but is capable of clamping double flat shanks.
2. JIS B4005 has the same dimensions as International Standard ISO3338-2 and German Standard DIN1835-1.

CAUTION

In case you are adding your own flat, the tool projection length in the MEGA Perfect GRIP will be decided by the flat position. Refer to H1 in the MEGA Perfect GRIP chart, decide the flat position to add, and then cut the cutter at L1 on cutter shank.

MILLING CHUCK

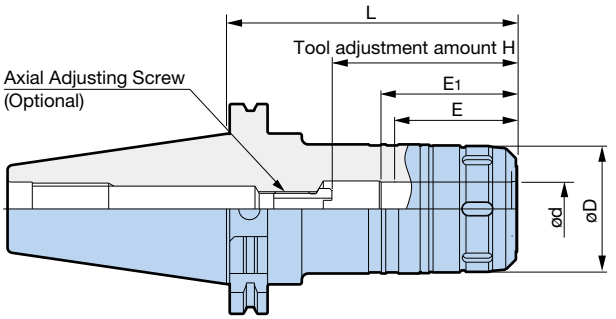
NEW Hi-POWER MILLING CHUCK

Clamping diameter: ø20 - ø42

The BIG original slit mechanism supports high power and high-precision endmilling from heavy cuts to fine cuts.

DUAL CONTACT
BIG-PLUS®

Coolant-through hole



BIG-PLUS (BDV Shank) tools can be used on both BIG-PLUS spindles and conventional **DV spindles**.

BIG-PLUS BDV SHANK Model	DV SHANK Model	Clamping diameter ød	øD	L	H	Min. clamping length E	Min. clamping length E1	Wrench	MEGA WRENCH Model	Weight (kg)
BDV40-HMC20S- 85	**DV40-HMC20S- 85**	20	50	85	69 - 79	50	56	FK45-50L	MGR50L	1.6
-105	**-105**			105						1.9
-120	**-120**			120						2.1
-HMC25S- 95	**-HMC25S- 95**	25	59	95	71 - 81	56	57	FK58-62L	MGR59L	2.0
-105	**-105**			105						2.2
-HMC32S- 95	**-HMC32S- 95**	32	68	95	79 - 89	60	64	FK68-75L	MGR68L	2.1
-105	**-105**			105						2.3
-135	**-135**			135						3.0
BDV50-HMC20S-105	**DV50-HMC20S-105**	20	50	105	69 - 79	50	56	FK45-50L	MGR50L	3.9
-135	**-135**			135						4.3
-HMC25S-105	**-HMC25S-105**	25	59	105	76 - 86	56	57	FK58-62L	MGR59L	4.2
-135	**-135**			135						4.8
-HMC32S-105	**-HMC32S-105**	32	68	105	88 - 98	60	72	FK68-75L	MGR68L	4.4
-135	**-135**			135						5.2
-165	**-165**			165						6.0
-HMC42S-135	**-HMC42S-135**	42	85	135	93 - 105	70	73	FK80-90L	MGR85L	6.3

1. Wrench and Axial Adjusting Screw are not included. Please order separately.
2. When using center through coolant;
   - Set screw with sealing compound applied (standard accessory) should be used to plug an air bleeding hole.
   - Oil hole type should be chosen when Straight Collet is required.
3. Tool adjustment amount "H" indicates the adjustment length with an Axial Adjusting Screw.
4. When using center through coolant, insert a tool shank into E_1 or more.

● MEGA WRENCH can also be used to tighten/remove tools.

Optional Accessories

Straight Collet

PJC Collet G25
PSC Collet G26
OCA Collet G27
C Collet G28

Wrench

G30

Mega Wrench

G33

Axial Adjusting Screw

G30

DUAL CONTACT BIG-PLUS®

Coolant-through hole

[HMC12J Type]

● A slim yet highly rigid milling chuck with ø32 outer diameter nut for reduced interference.

■ Jet through coolant securely supplied from chuck nose to cutting edge.

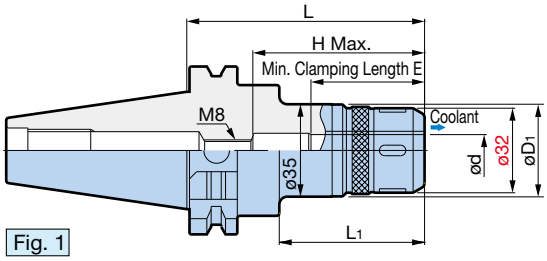


Fig. 1

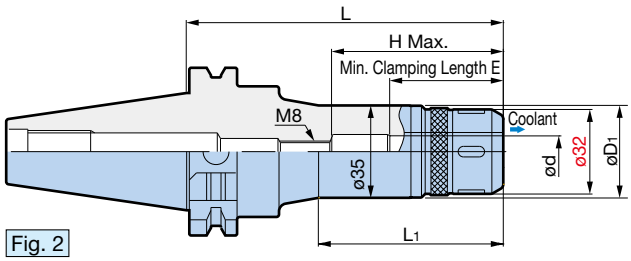


Fig. 2

BIG-PLUS (BDV Shank) tools can be used on both BIG-PLUS spindles and conventional **DV spindles**.

BIG-PLUS BDV SHANK Model	DV SHANK Model	Fig.	Clamping Diameter ød	øD1	L	L1	H Max.	E	Wrench	Weight (kg)
BDV40-HMC12J- 90	**DV40-HMC12J- 90**	1	12	35	90	55	65	43	FK31-33	1.4
-120	**-120**	2			120	70				1.6
BDV50-HMC12J-105	**DV50-HMC12J-105**	1			105					3.5
-135	**-135**	2			135					3.8

1. Wrench is not included. Please order separately.
2. MEGA WRENCH cannot be used.

HYDRAULIC CHUCK

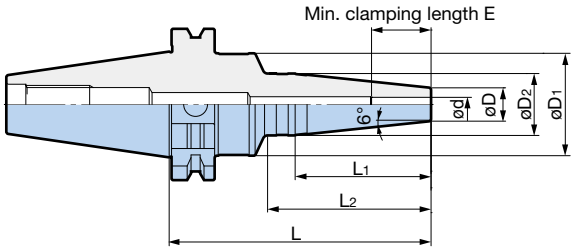
For versatile high-precision machining including molds and automotive components.

DUAL CONTACT
BIG-PLUS®

Coolant-through hole

● Slim design minimizes workpiece interference, ideal for mold making.

[SUPER SLIM Type PAT.] Clamping diameter: ø4 - ø12



BIG-PLUS (BDV Shank) tools can be used on both BIG-PLUS spindles and conventional **DV spindles**.

BIG-PLUS BDV SHANK Model	Clamping diameter ød	øD	øD1	øD2	L	L1	L2	E	Weight (kg)
BDV40-HDC 4S-110	4	14	43	26	110	57	68	19	1.2
-HDC 6S-110	6							25	
-HDC 8S-110	8	17		28		52	69	31	1.3
-HDC10S-110	10	19	44	30				33	
-HDC12S-110	12	21		32			70	36	

1. Adjusting Screw cannot be used.

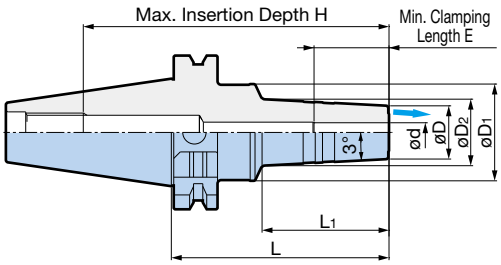
● It is recommended to use a Grip Bar to periodically confirm the gripping force of the Hydraulic Chuck. G30

Caution

- Use only cutting tools that have a shank tolerance within h6.
- Do not use with cutting tools made with a flat on the shank. (ie: Weldon type shank)
- We do not recommend use with roughing endmills.
- Do not clamp without a tool.
- Always insert the cutting tool into the holder beyond min. clamping length E.

[Jet Through Type PAT.] Clamping diameter: ø4 - ø12

Coolant-through hole



BIG-PLUS (BDV Shank) tools can be used on both BIG-PLUS spindles and conventional **DV spindles**.

BIG-PLUS BDV SHANK Model	Clamping diameter ød	øD	øD1	øD2	L	L1	H	E	Weight (kg)
BDV40-HDC 4J- 90	4	20	38	25	90	50	(125)	19	1.1
-HDC 6J- 90	6							25	
-HDC 8J- 90	8	22	40	27		52		31	1.2
-HDC10J- 90	10	24	42	29				33	
-HDC12J- 90	12	26	44	31				36	

1. Adjusting Screw cannot be used.
2. H dimensions in ( ) are reference length up to the PULLSTUD BOLT.

● It is recommended to use a Grip Bar to periodically confirm the gripping force of the Hydraulic Chuck. G30

Caution

- Use only cutting tools that have a shank tolerance within h6.
- Do not use with cutting tools made with a flat on the shank. (ie: Weldon type shank)
- We do not recommend use with roughing endmills.
- Do not clamp without a tool.
- Always insert the cutting tool into the holder beyond min. clamping length E.

[Standard Type] Clamping diameter: ø6 - ø20

DUAL CONTACT BIG-PLUS®

Coolant-through hole

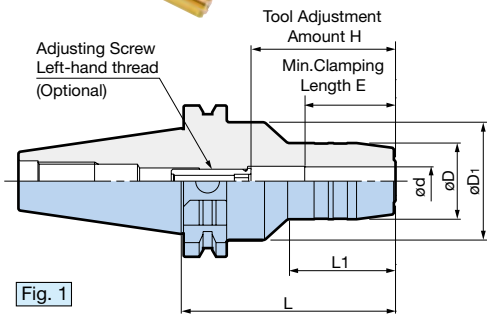


Fig. 1

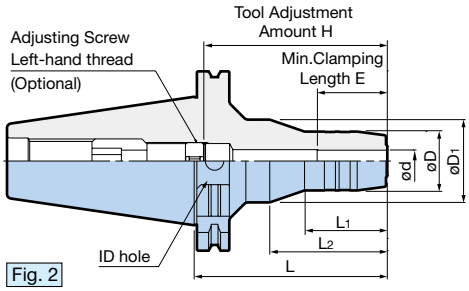


Fig. 2

BIG-PLUS (BDV Shank) tools can be used on both BIG-PLUS spindles and conventional **DV spindles**.

BIG-PLUS BDV SHANK Model	Fig.	ød	øD	øD1	L	L1	L2	H	E	Adjusting Screw (Optional)	Weight (kg)
BDV40-HDC 6 - 90	1	6	26	49.5	90	43	—	28 - 50	28	HDA 6-05032	1.3
-HDC 8 - 90		8	28							HDA 8-06032	
-HDC10 - 90		10	30			44		33 - 55	33	HDA10-08032	
-HDC12 - 90		12	32					38 - 60	38	HDA12-10032	
-HDC14 - 90		14	34								1.4
-HDC16 - 90		16	38			47		43 - 70	43	HDA16-12037	
-HDC18 - 90		18	40			49					
-HDC20 - 90		20	42			51					
BDV50-HDC12L-105	2	12	32	45	105	44	63	100 - 120	38	HDA 6-20010	3.2
-HDC20L-105		20	42	50		46	63	71 - 111	43	HDA20-12047	3.3

1. Adjusting Screw **with hexagon sockets on both sides** is also available, allowing adjustment from the shank side as well. Add the letter **"W"** at the end of the model number when ordering. (Example: HDA6-05032W)

- It is recommended to use a Grip Bar to periodically confirm the gripping force of the Hydraulic Chuck. G30

Straight Collets G25

Caution

- Use only cutting tools that have a shank tolerance within h6.
- Do not use with cutting tools made with a flat on the shank. (ie: Weldon type shank)
- We do not recommend use with roughing endmills.
- Do not clamp without a tool.
- Always insert the cutting tool into the holder beyond min. clamping length E.

CK SHANK (DV: DIN69871 A and D Standards

Coolant-through hole

Not BIG-PLUS (DUAL CONTACT) specification

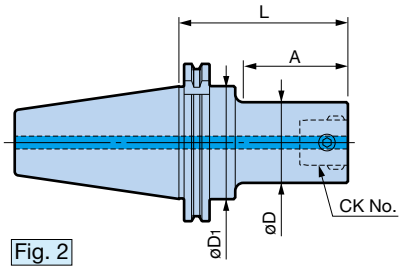


Fig. 2

● Model Description

DV40 - CKB1 - 75
- 75: L dimension
- CKB1: CK No.
- DV40: Shank standard and taper No.

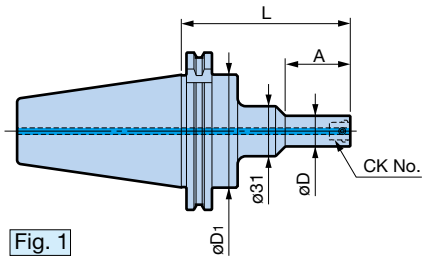


Fig. 1

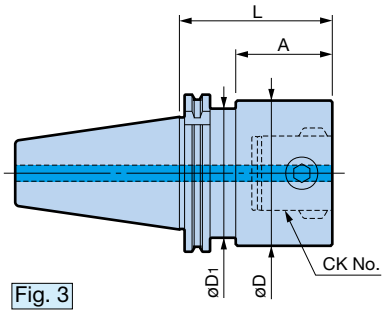


Fig. 3

DV Shank models are mounted on DIN standard spindles.

DV SHANK Model	Fig.	CK No.	øD1	øD	L	A	Weight (kg)
DV40-CKB1- 75	1	CK1	44.7	19	75	35	1.1
-CKB2- 85	2	CK2		24	85	45	1.1
-CKB3- 95		CK3		31	95	55	1.3
-CKB4- 90		CK4		39	90	54	1.4
-CKB5- 80	3	CK5	49.6	50	80	60	1.5
-CKB6- 65		CK6		64	65	45	1.4
DV50-CKB1-105	1	CK1	70.1	19	105	39	3.0
-CKB2-115	2	CK2		24	115	74	3.0
-CKB3-125		CK3		31	125	95	3.2
-CKB4-120		CK4		39	120	90	3.5
-180					180	150	4.0
-CKB5-105		CK5		50	105	75	3.7
-180					180	150	4.8
-225					225	195	5.5
-CKB6- 95		CK6		64	95	59	4.1
-170					170	134	6.0
-230					230	194	7.4
-CKB7- 95	3	CK7	80	90	95	75	5.3

1. The L_1 and A diameters in the table are the values when the EWN BORING HEAD is attached.
2. Cutting edges and drive keys are aligned with boring heads mounted.
3. Center through coolant supply is available.
4. Mounting the DV Shank model on an ISO standard spindle may cause interference.

<CAT and ANSI standard shanks are also available upon request.>

Heads A41

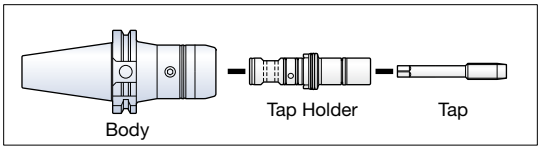
M2 - M20

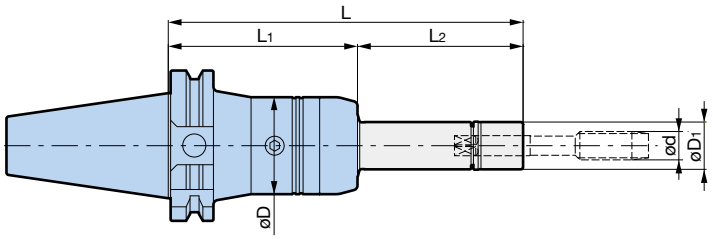
MEGA SYNCHRO TAPPING HOLDER PAT.

Improves thread quality and tap life by reducing thrust loads caused by synchronization errors up to 90%.

DUAL CONTACT BIG-PLUS®

Coolant-through hole





BIG-PLUS (BDV Shank) tools can be used on both BIG-PLUS spindles and conventional **DV spindles**.

BIG-PLUS BDV SHANK Model	DV SHANK Model	Tap Holder Model	Tapping range d	øD	øD1	L	L1	L2	Weight (kg)
BDV40-MGT 6- 80	**DV40-MGT 6- 80**	MGT 6-d- 30	M2 - M6 No.3 - U1/4	36	16	110	80	30	1.3
		- 70				150		70	
		-100				180		100	
-MGT12- 80	**-MGT12- 80**	MGT12-d- 30	M6 - M12 U1/4 - U7/16 P1/8	41	20 · 30	110	80	30	1.3
		- 70				150		70	
		-100				180		100	
-MGT20-105	**-MGT20-105**	MGT20-d- 35	M12 - M20 U1/2 - U3/4 P1/4 - P3/8	54	30	140	105	35	1.9
		- 85				190		85	
		-115				220		115	
BDV50-MGT 6- 85	**DV50-MGT 6- 85**	MGT 6-d- 30	M2 - M6 No.3 - U1/4	36	16	115	85	30	3.2
		- 70				155		70	
		-100				185		100	
-MGT12- 85	**-MGT12- 85**	MGT12-d- 30	M6 - M12 U1/4 - U7/16 P1/8	41	20 · 30	115	85	30	3.2
		- 70				155		70	
		-100				185		100	
-MGT20-105	**-MGT20-105**	MGT20-d- 35	M12 - M20 U1/2 - U3/4 P1/4 - P3/8	54	30	140	105	35	3.8
		- 85				190		85	
		-115				220		115	

1. MGT Set Screw is included.
2. Tap holder and wrench are not included. Please order separately.

Cannot be used with machining center without synchronized tapping function.

Tap holders A136

Caution

Tap with eccentric thread relief, having no margin on tap periphery, may cause oversize threads.
In such case, tap with con-eccentric thread relief is recommended. A135

● Tapping range (DIN/ISO)

Tap Holder Size	DIN Standard			ISO Standard	
	DIN371	DIN376	DIN353	ISO529	ISO2284
MGT 6	M3 - M 6	M 5 - M 8		M 3 - M5	
MGT12	M5 - M10	M 8 - M12	1/8	M6, M8, M12	1/8
MGT20	M10	M12 - M20	1/4 - 1/2	M10 - M20	1/4 - 3/8

Tap holders A136

MEGA SYNCHRO TAPPING HOLDER PAT. M2 - M20

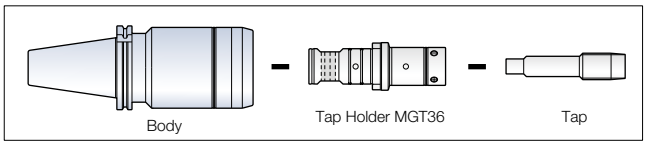
[Large Diameter Tap MGT36 PAT.]

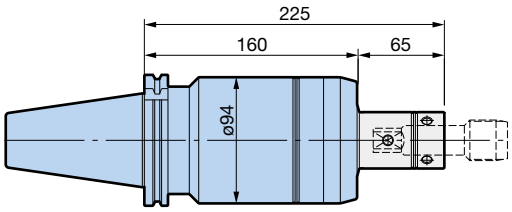
With a structure that smoothly tracks under high cutting torque of large diameter tapping, it compensates for axial deviation due to synchronization error, greatly reducing load during tapping.

DUAL CONTACT
BIG-PLUS®

Center through

BIG-PLUS (BDV Shank) tools can be used on both BIG-PLUS spindles and conventional **DV spindles**.





BIG-PLUS BDV SHANK Model	DV SHANK Model	Weight (kg)
BDV50-MGT36-160	**DV50-MGT36-160**	8.7

1. MGT Set Screw is included.
2. Tap holder must be ordered separately.

Cannot be used with machining center without synchronized tapping function.

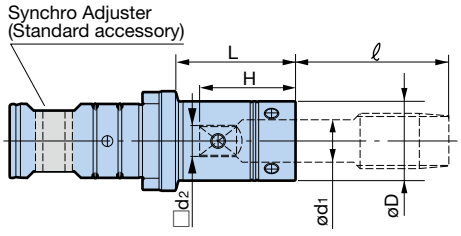
Large Diameter Tap Holder MGT36 PAT.

●For DIN

Tap holder model	Tap size		ød1	□d2	H	øD	L	Weight (kg)
	DIN376	DIN353						
MGT36-180145-65	M22,24	P5/8	18	14.5	45	38	65	1.4
-200160-65	M27	P3/4	20	16	51	40		1.4
-220180-65	M30	P7/8	22	18	53	42		1.5
-250200-65	M33	P1	25	20	58	49		1.6
-280220-65	M36	—	28	22	62	52		1.6

1. Adjusting Screw is included.

JIS Tap holders A139



DUAL CONTACT

BIG-PLUS®

Center through

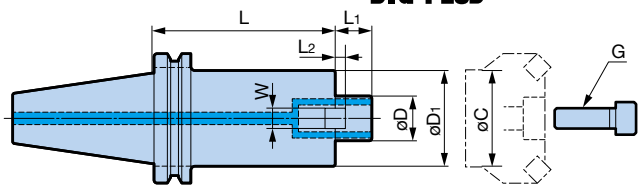


Fig. 1

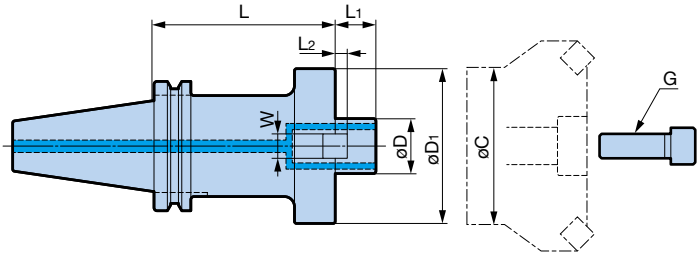
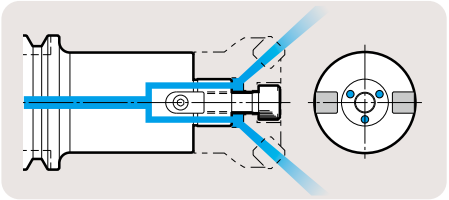


Fig. 2

Securely supplies coolant/air to the cutting edge



BIG-PLUS (BDV Shank) tools can be used on both BIG-PLUS spindles and conventional **DV spindles**.

BIG-PLUS BDV SHANK Model	Fig.	øD	øD1	L	L1	L2	W	G	Weight (kg)	Min. flange diameter øC
BDV40-FMH16-37- 40	1	16	37	40	16	5	8	M 8	1.1	28
-FMH22-47- 45		22	47	45	18	5	10	M10	1.2	38
- 60				60					1.4	36
- 90				90					1.8	
-150				150					2.5	
-60- 50	2	22	60	50	18	5	10	M10	1.4	38
- 90				90					2.0	
-FMH27-60- 50		27	60	50	20	6	12	M12	1.4	46
- 90				90					2.0	
-76- 60		27	76	60	20	6	12	M12	1.9	48
- 90				90					2.3	
-FMH32-96- 60		32	96	60	22	7	14	M16	2.1	58
BDV50-FMH16-37-105	1	16	37	105	16	5	8	M 8	3.4	28
-FMH22-47- 60		22	47	60	18	5	10	M10	3.1	38
-105				105					3.7	36
-150				150					4.3	
-200				200					4.9	
-250				250					5.6	
-60- 60		22	60	60	18	5	10	M10	3.5	38
-105				105					4.4	
-150				150					5.4	
-200				200					6.5	
-FMH27-60- 45		27	60	45	20	6	12	M12	3.2	46
- 90				90					4.1	
-150				150					5.4	
-200				200					6.5	
-76- 45		27	76	45	20	6	12	M12	3.6	48
- 90				90					5.1	
-150				150					7.2	
-200				200					8.9	
-FMH32-96- 50	2	32	96	50	22	7	14	M16	4.1	58
- 90				90					6.2	
-150				150					8.4	
-200				200					10.4	
-FMH40-100- 50		40	100	50	26	8.5	16	M20 (MBA-M20H)	4.3	70
- 75				75					5.6	
-105				105					6.9	

1. Center through coolant supply only is available.
2. The weight does not include the cutter.
3. Cutter clamping screw is included.
   If the provided clamping screw is not compatible, separately select one from the clamping screw table on A121.
4. When using a cutter without oil holes, an optional clamping screw with a through hole allows coolant supply.
5. For the detailed dimensions of clamping screw MBA-M20H, see A121.

GENERAL TOOLHOLDER

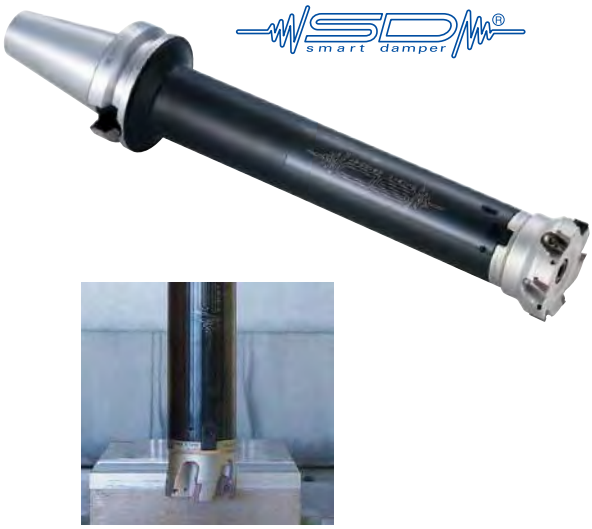
FACE MILL ARBOR TYPE H

Built-in Damper SMART DAMPER

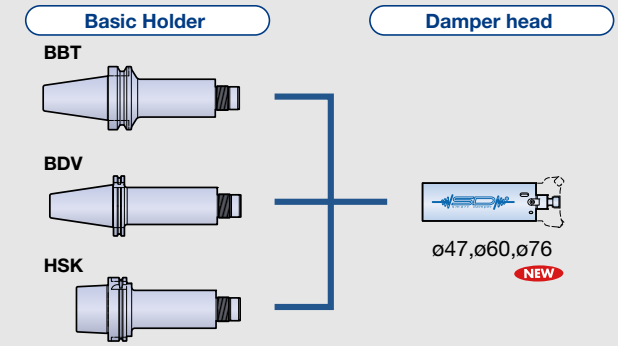
DUAL CONTACT
BIG-PLUS®

Center through

● Dynamic damper eliminates chatter.



System layout diagram



Caution

Damper head becomes unremovable from the basic holder once they are used for machining after assembled.

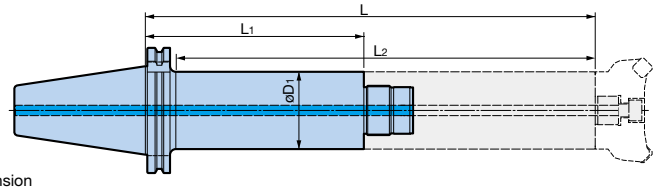
DUAL CONTACT
BIG-PLUS®

[Basic Holder]

● Model Description

BDV50 - SDF36 - 47 - 170

- 170: L1 dimension
- 47: Body diameter
- SDF36: Connection size
- BDV50: BIG-PLUS DV No.



BIG-PLUS (BDV Shank) tools can be used on both BIG-PLUS spindles and conventional **DV spindles**.

BIG-PLUS BDV SHANK Model	øD1	L	L1	L2	Weight (kg)	Applicable damper head
BDV50-SDF36-47-170	47	350	170	325	4.9	SDF36-FMH22DP-47
-60-170	60	350	170	325	6.2	SDF36-FMH22DP-60 -FMH27DP-60
-60-220		400	220	375	7.3	
-SDF57-76-170 NEW	76	350	170	325	8.5	SDF-57-FMH27DP-76 -FMH32DP-96
-76-220 NEW		400	220	375	10.2	

[Damper Head]

● Model Description

SDF36 - FMH 22 DP - 47 - 180

- 180: L dimension
- 47: øD1 dimension
- DP: Built-In Damper Type
- 22: Spigot diameter
- FMH: FACE MILL ARBOR TYPE H
- SDF36: Connection size

Fig. 1

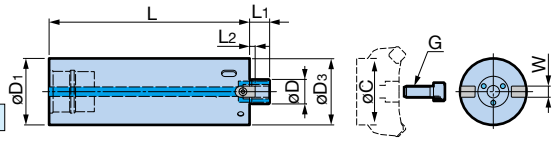
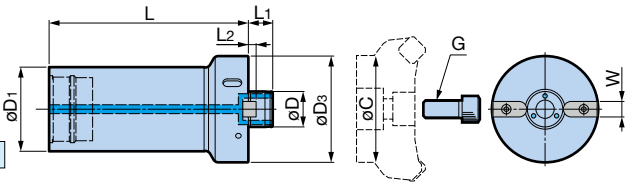


Fig. 2



Model	Fig.	øD	øD1	øD3	L	L1	L2	W	G	Weight (kg)	Wrench Model	Min. flange diameter øC
SDF36-FMH22DP-47-180	1	22	47	47	180	18	5	10	M10	3.0	FK45-50L	36
-60-180		22	60	60	180	18	5	10	M10	4.5	FK58-62L	49
-FMH27DP-60-180		27	60	60	180	20	6	12	M12	4.5		46
SDF57-FMH27DP-76-180 NEW	1	27	76	76	180	20	6	12	M12	8.1	FK68-75L	48
-FMH32DP-96-180 NEW	2	32	76	96	180	22	7	14	M16	8.7	FK92-100	58

1. Refer to the operation manual regarding the mounting method to the basic holder.
2. The weight does not include the cutter.
3. Hook wrench and cutter clamping screw are included.
4. If the standard clamping screw does not fit the cutter, select the suitable one from the clamping screw table and order it separetely. A121
5. øC indicates the smallest mounting surface diameter of the cutter that can be mounted on the arbor.
   Be careful when using a cutter with the mounting diameter considerably smaller than the cutting diameter, as it may not fit.

SCREW-ON HOLDER NEW

●Base Holders for Screw-On Cutter.

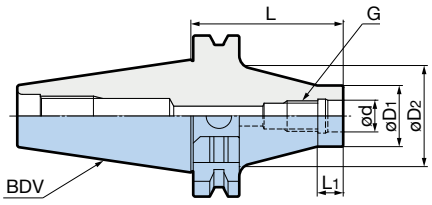
DUAL CONTACT BIG-PLUS®

Center through

● Model Description

BDV40 - M10 - 19 - 65

- 65: L dimension
- 19: Tip Diameter
- M10: Thread Size
- BDV40: BIG-PLUS DV No.



BIG-PLUS (BDV Shank) tools can be used on both BIG-PLUS spindles and conventional **DV spindles**.

BIG-PLUS BDV SHANK Model	ød	øD1	øD2	L	L1	G	Weight (kg)
BDV40-M10-19- 65	10.5	19	35	65	10	M10	1.0
-110				110			1.2
-M12-24- 60	12.5	24	40	60		M12	1.0
-105				105			1.3
-M16-29- 55	17	29	45	55		M16	1.1
100				100			1.4

ANGLE HEAD

ANGLE HEAD AG90 SERIES

Clamping diameter: ø0.25 - ø20

DUAL CONTACT
BIG-PLUS®

Spindle angle
90°

NEW BABY CHUCK Type

- High runout accuracy is achieved through the adoption of the high-precision New Baby Chuck.

- Model Description

BDV40 - AG90 / NBS 6 - 180

- 180: L dimension
- 6: Maximum clamping diameter
- NBS: NEW BABY CHUCK System
- AG90: 90° Head type
- BDV40: BIG-PLUS DV No.

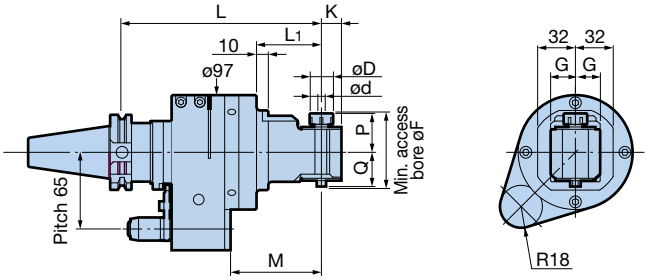


Fig. 1 **Max. 6,000min-1**

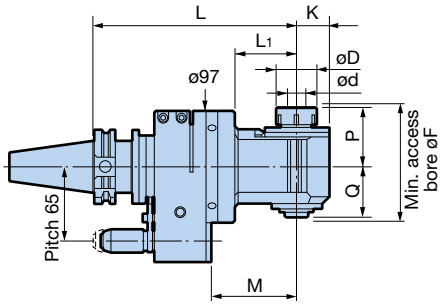


Fig. 2 **Max.6,000min-1**

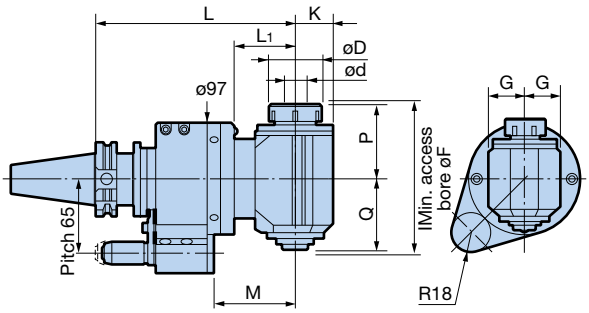


Fig. 3 High Rigidity Type **Max.3,000min-1**

- Tap Collet with tension mechanism can also be used to perform tapping. (NBS10 or larger)

BIG-PLUS (BDV Shank) tools can be used on both BIG-PLUS spindles and conventional **DV spindles**.

BIG-PLUS BDV SHANK Model	Fig.	Clamping diameter ød	øD	G	K	L	L1	M	P	Q	øF	Collet Model	Speed Ratio Input:Output	Weight (kg)
BDV40-AG90/NBS 6 -180	1	0.25 - 6	20	21	17	180	55	77	33	29	67	NBC 6	1:1	5.1
-210						210	85	107						5.3
-240						240	115	137						5.5
-270						270	145	167						5.7
-AG90/NBS10 -180	2	1.5 - 10	30	30	25	180	55	77	45	43	91	NBC10		5.5
-210						210	85	107						5.9
-240						240	115	137						6.2
-AG90/NBS13 -180	2	2.5 - 13	35	31	28	180	55	77	52	45	101	NBC13		5.6
-210						210	85	107						6.0
-240						240	115	137						6.3
-AG90/NBS20S-175S	3	2.5 - 20	46	35	33	175	53	72	65	62	132	NBC20		8.0

1. **The cutting tool rotates in reverse to the machine spindle.**
2. Nut and wrench are included. Collet is not included.
3. The angles of the Locating Pin to the drive key groove and direction of cutting edge are freely adjustable.
4. A Stop Block is required when mounting on machines. Please order separately.
5. When supplied through the Stop Block, coolant can be ejected from the housing.
6. Automatic tool change may not be available depending on machine tool models.
7. New Baby Endmill Collets cannot be used.

Collets G7
Tap Collets G17
Insertion Length List B20
Stop Blocks A170

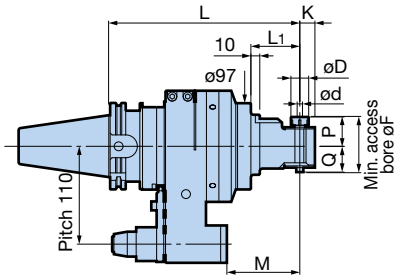


Fig. 1 **Max.6,000min-1**

● Model Description

BDV50 - **AG90** / **NBS** **6** - **215**

- 215 : L dimension
- 6 : Maximum clamping diameter
- NBS : NEW BABY CHUCK System
- AG90 : 90° Head type
- BDV50 : BIG-PLUS DV No.

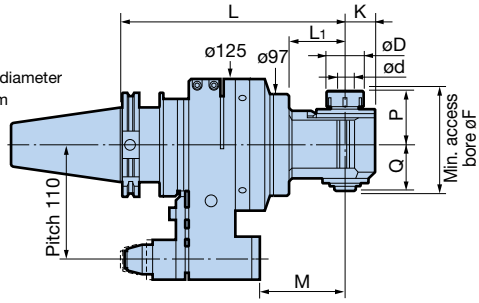


Fig. 2 **Max.6,000min-1**

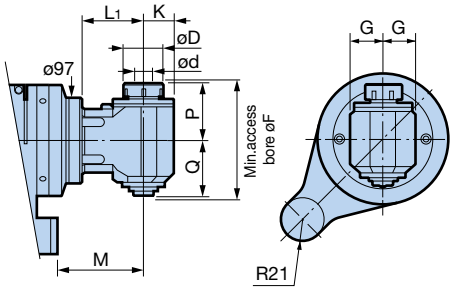


Fig. 3 **Max.3,000min-1**

● Tap Collet with tension mechanism can also be used to perform tapping. (NBS10 or larger)

BIG-PLUS (BDV Shank) tools can be used on both BIG-PLUS spindles and conventional **DV spindles.**

BIG-PLUS BDV SHANK Model	Fig.	Clamping diameter ød	øD	G	K	L	L1	M	P	Q	øF	Collet Model	Speed Ratio Input:Output	Weight (kg)
BDV50-AG90/NBS 6 -215	1	0.25 - 6	20	21	17	215	55	82	33	29	67	NBC 6	1:1	12.6
-245						245	85	112						12.8
-275						275	115	142						13.0
-305						305	145	172						13.2
-AG90/NBS10 -215	2	1.5 - 10	30	30	25	215	55	82	45	43	91	NBC10		13.0
-245						245	85	112						13.4
-275						275	115	142						13.7
-AG90/NBS13 -215	2	2.5 - 13	35	31	28	215	55	82	52	45	101	NBC13		13.1
-245						245	85	112						13.5
-275						275	115	142						13.8
-AG90/NBS20 -230	3	2.5 - 20	46	35	35	230	70	97	65	62	132	NBC20		14.2

1. **The cutting tool rotates in reverse to the machine spindle.**
2. Nut and wrench are included. Collet is not included.
3. The angles of the Locating Pin to the drive key groove and direction of cutting edge are freely adjustable.
4. A Stop Block is required when mounting on machines. Please order separately.
5. When supplied through the Stop Block, coolant can be ejected from the housing.
6. Automatic tool change may not be available depending on machine tool models.
7. New Baby Endmill Collets cannot be used.

Collets **G7**
Tap Collets **G17**
Stop Blocks **A170**

NEW BABY CHUCK Insertion Length List

Model	Max. Insertion Length	Model	Max. Insertion Length
BDV40-AG90/NBS 6	33	**BDV50-AG90/NBS6**	33
-AG90/NBS10	45	**-AG90/NBS10**	45
-AG90/NBS13	52	**-AG90/NBS13**	52
-AG90/NBS20S-175S	70	**-AG90/NBS20**	70
-AGU/NBS13 -280	50	**-AGU/NBS20 -315**	50

ANGLE HEAD

ANGLE HEAD AG90 SERIES

Highly versatile ø32 milling chuck is used.
Straight Collets allow the use of tools with various diameters.

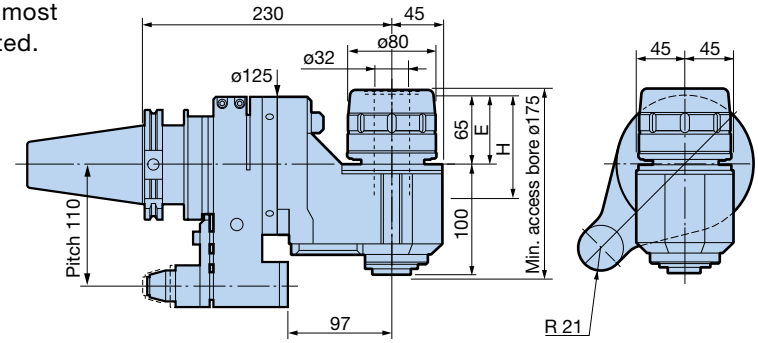
DUAL CONTACT
BIG-PLUS®

Spindle angle
90°

HMC32 Type

[Standard type]

● High-rigidity milling chuck type that allows the most commonly used cylindrical shanks to be mounted.



Max. 3,000 min^{-1}

● Model Description

BDV50 - AG90 / HMC 32 - 230
- 230: L dimension
- 32: Chuck bore
- HMC: Hi-POWER MILLING CHUCK
- AG90: 90° Head type
- BDV50: BIG-PLUS DV No.

BIG-PLUS (BDV Shank) tools can be used on both BIG-PLUS spindles and conventional **DV spindles**.

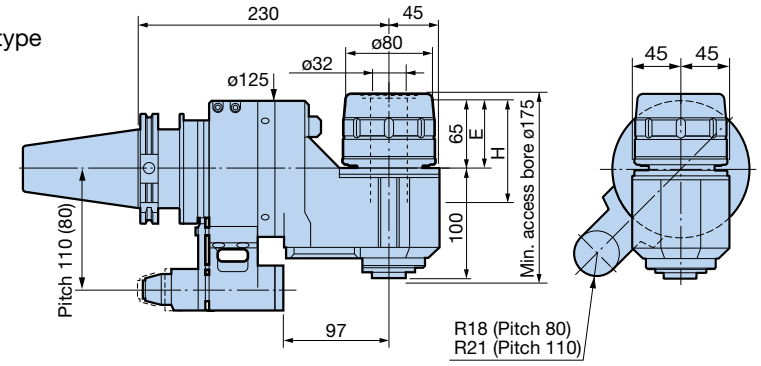
BIG-PLUS BDV SHANK Model	Max. insertion depth H	Min. clamping Length E	Speed Ratio Input:Output	Weight (kg)
BDV50-AG90/HMC32-230	95	65	1:1	16.8 (Pitch 110)

1. **The cutting tool rotates in forward to the machine spindle.**
2. The angles of the Locating Pin to the drive key groove and direction of cutting edge are freely adjustable.
3. A Stop Block is required when mounting on machines. Please order separately.
4. When supplied through the Stop Block, coolant can be ejected from the housing.
5. Automatic tool change may not be available depending on machine tool models.
6. Wrench is included. (Model: **FK80-90**)

Straight Collets G28
Stop Blocks A170

[High rigidity S type]

● About 30% higher rigidity compared to standard type



Max. 3,000 min^{-1}

● Model Description

BBT50 - AG90 / HMC 32 - 230 S
- S: High rigidity S type
- 230: L dimension
- 32: Chuck bore
- HMC: Hi-POWER MILLING CHUCK
- AG90: 90° Head type
- BBT50: BIG-PLUS BT No.

BIG-PLUS (BDV Shank) tools can be used on both BIG-PLUS spindles and conventional **DV spindles**.

BIG-PLUS BDV SHANK Model	Max. insertion depth H	Min. clamping Length E	Speed Ratio Input:Output	Weight (kg)	
				pitch 110	pitch 80
BDV50-AG90/HMC32-230S	95	65	1:1	18.1	17.4

1. **The cutting tool rotates in forward to the machine spindle.**
2. The angles of the Locating Pin to the drive key groove and direction of cutting edge are freely adjustable.
3. A Stop Block is required when mounting on machines. Please order separately.
4. When supplied through the Stop Block, coolant can be ejected from the housing.
5. Automatic tool change may not be available depending on machine tool models.
6. Wrench is included. (Model: **FK80-90**)

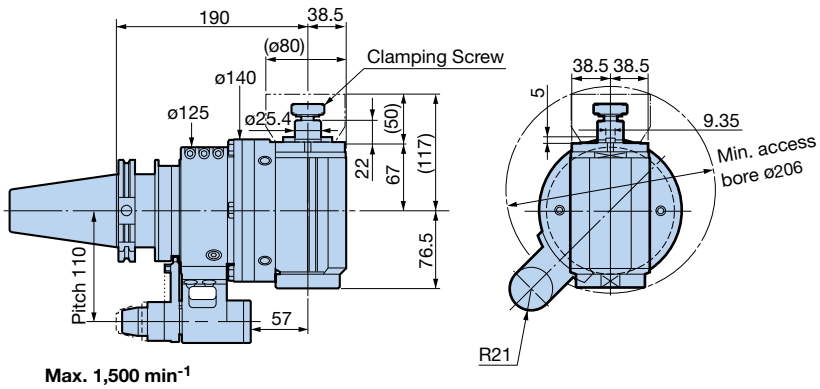
Straight Collets G28
Stop Blocks A170

Face Milling Type

DUAL CONTACT BIG-PLUS®

Spindle angle 90°

- Tool life is improved by high-rigidity bearings and optimum spindle dimensions!
- Series' highest rotation transmission force of 20kw (at 1,500min^{-1})
- 90° indexing mechanism is used to allow index of 90° increments after adjustment. (Indexing accuracy ±5')



Max. 1,500 min^{-1}

BDV50 - AG90 - FMA 25.4 S - 190 S
- BDV50: BIG-PLUS DV No.
- AG90: 90° Head type
- FMA: FACE MILL ARBOR TYPE A
- 25.4: Spigot diameter
- S: Rigid Type
- 190: L dimension
- S: High rigidity S type

BIG-PLUS (BDV Shank) tools can be used on both BIG-PLUS spindles and conventional **DV spindles**.

BIG-PLUS BDV SHANK Model	Speed Ratio Input:Output	Weight (kg)
BDV50-AG90-FMA25.4S-190S	1:1	19.2

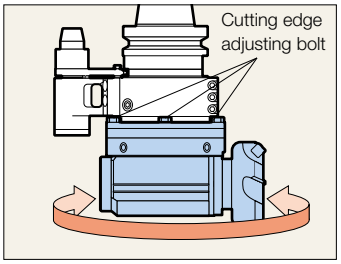
Figures in ( ) indicate dimensions when 80mm diameter and 50mm high face mill cutter is mounted.

1. **The cutting tool rotates in reverse to the machine spindle.**
2. A Stop Block is required when mounting on machines. Please order separately.
3. Coolant cannot be supplied through the Locating Pin.
4. The angles of the Locating Pin to the drive key groove and direction of cutting edge are freely adjustable.
5. Automatic tool change may not be available depending on machine tool models.

Stop Blocks A170

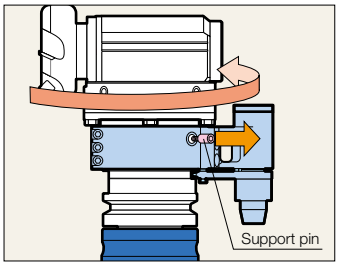
■ Cutting edge direction freely adjustable in 360°

The cutting edge direction can be easily set at any angle through 360 degrees simply by loosening its adjustment bolts (8 positions).



■ Cutting edge direction indexable in 90° increments

Indexing can be done in 90° increments after the cutting edge is adjusted. (Remove the support pin to adjust the cutting edge direction in 90° increments)



⚠ Caution: Be sure to remove from the machine before setting in 90° increments.

ANGLE HEAD AG90 SERIES

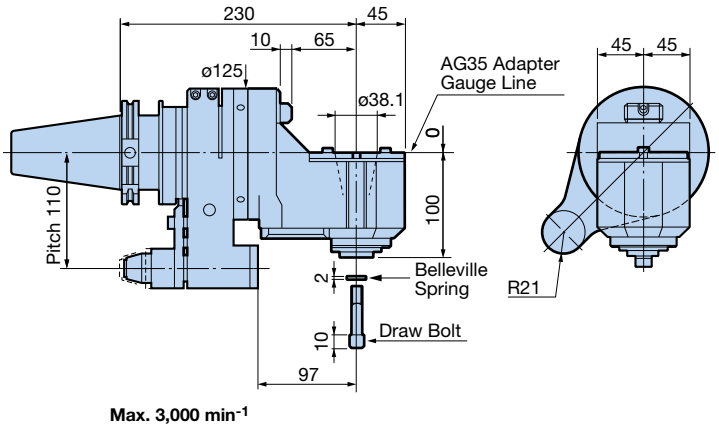
Offset design provides optimum tool projection with each adapter.

DUAL CONTACT
BIG-PLUS®

Spindle angle
90°

BUILD-UP Type

[Standard type]



Max. 3,000 min^{-1}

● Model Description

BDV50 - AG90 / AGH35 - 230
- 230: L dimension
- AGH35: AG35 ADAPTER
- AG90: 90° Head type
- BDV50: BIG-PLUS DV No.

BIG-PLUS (BDV Shank) tools can be used on both BIG-PLUS spindles and conventional **DV spindles**.

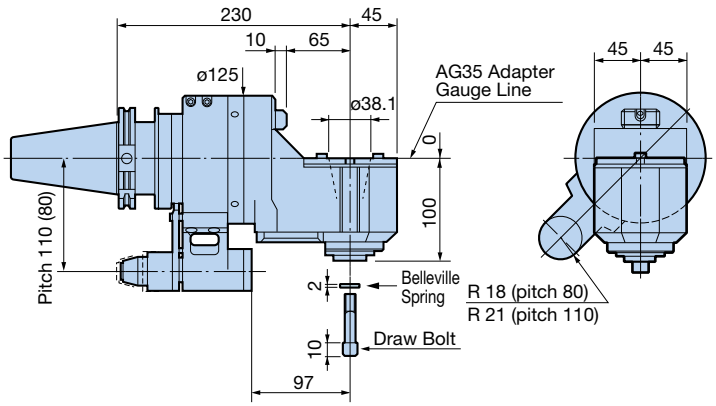
BIG-PLUS BDV SHANK Model	Speed Ratio Input:Output	Weight (kg)
BDV50-AG90/AGH35-230	1:1	15.0 (Pitch 110)

1. **The cutting tool rotates in forward to the machine spindle.**
2. The angles of the Locating Pin to the drive key groove and direction of cutting edge are freely adjustable.
3. A Stop Block is required when mounting on machines. Please order separately.
4. When supplied through the Stop Block, coolant can be ejected from the housing.
5. Automatic tool change may not be available depending on machine tool models.
6. Wrench is included. (Model: **FK80-90**)

Stop Blocks **A170**

[High rigidity S type]

●About 30% higher rigidity compared to standard type



Max. 3,000 min^{-1}

● Model Description

BDV50 - AG90 / AGH35 - 230 - S
- S: High rigidity S type
- 230: L dimension
- AGH35: AG35 ADAPTER
- AG90: 90° Head type
- BDV50: BIG-PLUS DV No.

BIG-PLUS (BDV Shank) tools can be used on both BIG-PLUS spindles and conventional **DV spindles**.

BIG-PLUS BDV SHANK Model	Speed Ratio Input:Output	Weight (kg)	
BDV50-AG90/AGH35-230S	1:1	16.3 (pitch 110)	15.6 (pitch 80)

1. **The cutting tool rotates in forward to the machine spindle.**
2. The angles of the Locating Pin to the drive key groove and direction of cutting edge are freely adjustable.
3. A Stop Block is required when mounting on machines. Please order separately.
4. When supplied through the Stop Block, coolant can be ejected from the housing.
5. Automatic tool change may not be available depending on machine tool models.
6. Wrench is included. (Model: **FK80-90**)

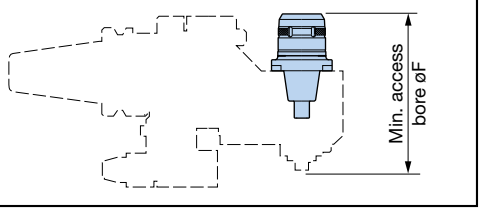
Stop Blocks **A170**

BUILD-UP Type AG35 ADAPTER

●Abundant adapters support various machining applications.

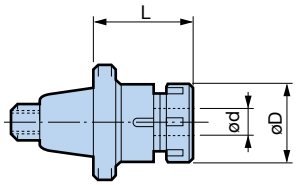
Spindle angle 90°

● Min. access bore when mounted on the Angle Head



●Tap Collet with tension mechanism can also be used to perform tapping.

NEW BABY CHUCK

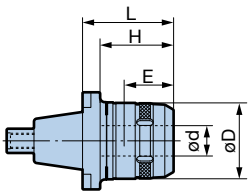


Model	ød	øD	L	øF	Weight (kg)
AG35-NBS10	1.5 - 10	30	47	162	0.6
-NBS13	2.5 - 13	35	54	168	0.7
-NBS16	2.5 - 16	42	54	170	0.8
-NBS20	2.5 - 20	46	54	170	0.9

1. Collet and wrench must be ordered separately. (See wrench **G36**)
2. Adjusting Screw is included.

Collets G7
Tap Collets G17
Insertion Length List A154

NEW Hi-POWER MILLING CHUCK



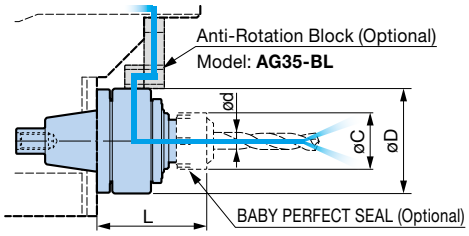
Model	ød	øD	L	øF	H	Min. clamping length E	Weight (kg)
AG35-HMC20S	20	50	60	176	71.5	49	1.5

1. Wrench is included. (Model: **FK45-50L**)

Straight Collets G28

Hi-JET HOLDER

Through Tools

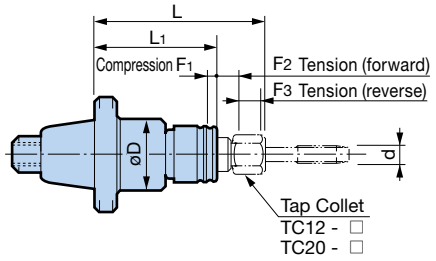


Model	ød	øC	øD	L	øF	Weight (kg)
AG35-ONBS13N	3 - 13	35	65	68	186	1.1
-ONBS20N	3 - 20	46	65	68	188	1.2

1. Baby Perfect Seal nut with sealing mechanism is required. (optional accessory)
2. Collet and wrench must be ordered separately.
3. Anti-rotation block set must be ordered separately. (Model: **AG35-BL**)

Baby Perfect Seal G15
Collets G7
Insertion Length List A154
Wrench G36

AUTO TAPPER B (with Tap Depth Control)

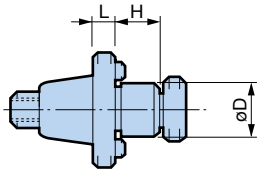


Model	d	øD	L	L_1	F_1	F_2	F_3	Weight (kg)
AG35-ATB12	M3 - M12	40	95	65	0.5	5	4	0.8
-ATB20	M7 - M20	54	125	100		6.5	5	1.5

1. Tap Collet must be ordered separately.

TC Tap Collets A144

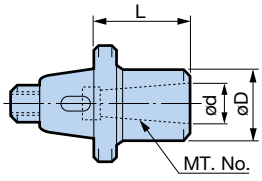
FACE MILL ARBOR



Model	øD	L	H	Weight (kg)
AG35-FMA25.4-20	25.4	20	22	1.0
-30	25.4	30	22	1.0
AG35-FMH22 -30	22	30	18	1.0
-FMH27 -20	27	20	20	1.0

※ Cutter face protrudes by 7.5mm from the 125mm diameter housing with the following combinations; AG35-FMA25.4-20 + 50mm thick tool, AG35-FMA25.4-30/AG35-FMH22-30 + 40mm thick tool and AG35-FMH27-20 + 50mm thick tool.

MORSE TAPER ADAPTER



Model	ød	MT.No.	øD	L	øF	Weight (kg)
AG35-MT1	12.065	1	25	50	164	0.6
-MT2	17.78	2	32	60	175	0.7

ANGLE HEAD AGU SERIES

Clamping diameter: ø2.5 - ø20

The cutting edge angle can be freely adjusted, making it ideal for machining the corners of molds in deep areas.

- The original 1° indexing mechanism allows easy angle adjustment.
- Robust clamping mechanism allows secure endmilling.

DUAL CONTACT BIG-PLUS®

Spindle angle 0° - 90°

Universal Type

Indexing mechanism in 1° increments

Accurate angle adjustment is possible simply by tightening the angle setting pin.

The spindle angle can be adjusted in the range of 0° to 90°

The 1° angle indexing mechanism allows the angle to be easily set. (Indexing accuracy ±5')

- Model Description

BDV40 - AGU / NBS 13 - 280

- 280: L dimension
- 13: Maximum clamping diameter
- NBS: NEW BABY CHUCK System
- AGU: Universal Type
- BDV40: BIG-PLUS DV No.

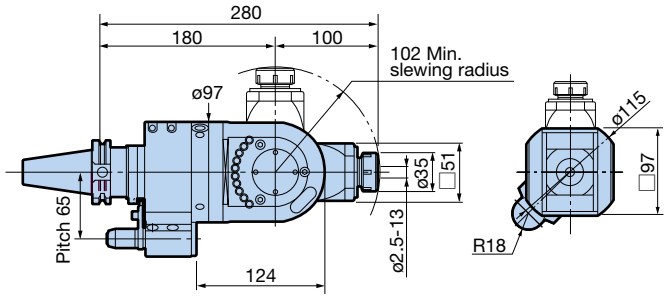


Fig. 1 **Max. 6,000min-1**

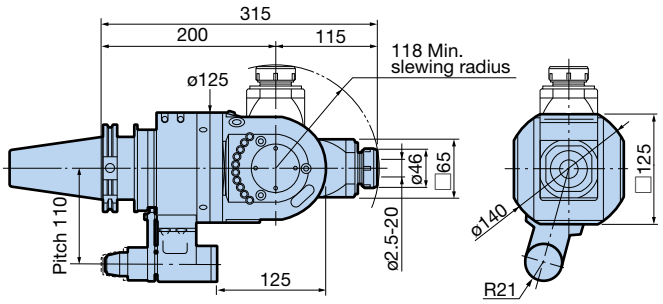


Fig. 2 **Max. 4,000min-1**

BIG-PLUS (BDV Shank) tools can be used on both BIG-PLUS spindles and conventional **DV spindles**.

BIG-PLUS BDV SHANK Model	Fig.	Collet Model	Speed Ratio Input:Output	Weight (kg)
BDV40-AGU/NBS13-280	1	NBC13	1:1	9.7
BDV50-AGU/NBS20-315	2	NBC20		20.8

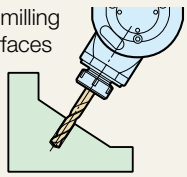
1. **The cutting tool rotates in reverse to the machine spindle.**
2. Nut and wrench are included. Collet is not included.
3. The angles of the Locating Pin to the drive key groove and direction of cutting edge are freely adjustable.
4. A Stop Block is required when mounting on machines. Please order separately.
5. Automatic tool change may not be available depending on machine tool models

- Tap Collet with tension mechanism can also be used to perform tapping.

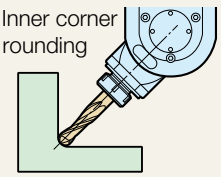
Collets G7
Tap Collets G17
Insertion Length List B20
Stop Blocks A170

Machining examples Easy angle setup

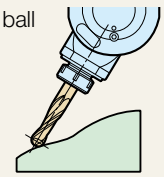
- Drilling or endmilling on angled surfaces



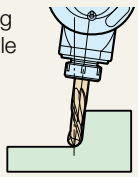
- Inner corner rounding



- Profiling with ball endmill



- Machining draft angle of molds



The ultra-precision spindle enables challenging micromachining!

Ceramic ball bearing type
RBX Series

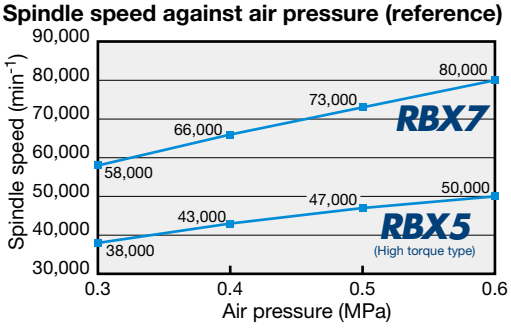
Machine spindle rotation **zero**

DUAL CONTACT BIG-PLUS®

Max. **80,000min⁻¹**

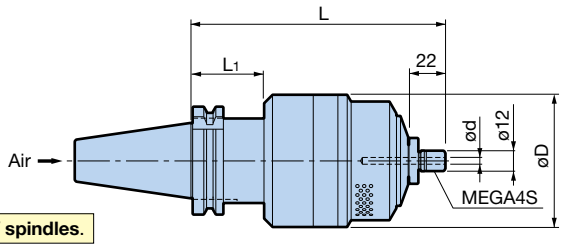
	RBX5	RBX7
Operating spindle speed (min⁻¹)	40,000 - 50,000	60,000 - 80,000
Clamping diameter	ø0.45 - 4.05mm (MEGA4S)	
Spindle nose runout accuracy	Within 1 μm	
Air pressure	0.3 - 0.6MPa	
Air flow rate	300L/min [ANR] (at 0.6MPa)	

Spindle speed against air pressure (reference)



[Center Through Type]

ATC compatible



BIG-PLUS (BDV Shank) tools can be used on both BIG-PLUS spindles and conventional **DV spindles**.

BIG-PLUS BDV SHANK Model	Operating spindle speed (min⁻¹)	Clamping diameter ød	Usable tool diameter	L	L1	øD	Weight (kg)
BDV40-RBX5C-4S-150	40,000 - 50,000	0.45 - 4.05	ø1.5 or smaller	150	43	96	4.1
-RBX7C-4S-150	60,000 - 80,000		ø1.0 or smaller			78	3.1
BDV50-RBX5C-4S-145	40,000 - 50,000	0.45 - 4.05	ø1.5 or smaller	145	38	96	6.8
-RBX7C-4S-145	60,000 - 80,000		ø1.0 or smaller			78	5.8

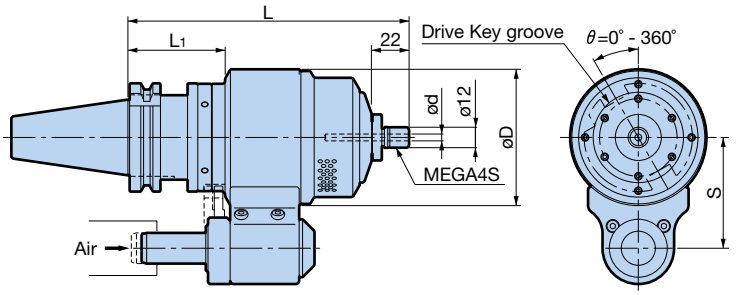
1. Nut, exclusive wrench (RBX5, 7 → **XW27**) and Mega Wrench (**MGR12**) are included. Collet is not included. Please order separately.
2. Air filter regulator (XF1) is required. A178

Micro Collets G4

Caution
- Clean air is an essential condition for the use of this product. Therefore, coolant should never be supplied through the spindle of the machine using the Air Turbine Spindle.

[Side Through Type]

ATC compatible



BIG-PLUS (BDV Shank) tools can be used on both BIG-PLUS spindles and conventional **DV spindles**.

BIG-PLUS BDV SHANK Model	Operating spindle speed (min⁻¹)	Usable tool diameter	L	L1	øD	S	Weight (kg)
BDV40-RBX5-4S-165-65	40,000 - 50,000	ø1.5 or smaller	165	57	96	65	5.0
-RBX7-4S-165-65	60,000 - 80,000	ø1.0 or smaller			80		4.0
BDV50-RBX5-4S-170-80	40,000 - 50,000	ø1.5 or smaller	170	62	100	80	9.7
-RBX7-4S-170-80	60,000 - 80,000	ø1.0 or smaller					8.7

1. Nut, exclusive wrench (RBX5, 7 → **XW27**) and Mega Wrench (**MGR12**) are included. Collet is not included. Please order separately.
2. Air filter regulator (XF1) is required. A178
3. A Stop Block is required when mounting on machines. Please order separately.

Micro Collets G4
Stop Blocks A170

HIGH SPINDLE

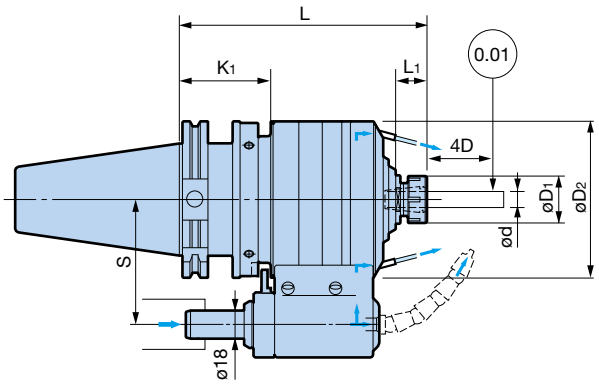
Accelerates the machine spindle. Improves productivity for machines with low spindle speeds.

- BIG's gear drive with a long track record is used for the drive system. High torque and low heat generation are achieved.

DUAL CONTACT
BIG-PLUS®

Max. 20,000min^{-1}

GTG Type



BIG-PLUS (BDV Shank) tools can be used on both BIG-PLUS spindles and conventional **DV spindles**.

Please contact our agent when using neat oil coolant that may cause fire, or grinding or machining materials that generate powdery chips such as carbide.

BIG-PLUS BDV SHANK Model	ød	L	L1	øD1	øD2	K1	S	Collet Model	Speed ratio	Max. (min^{-1})	Weight (kg)
BDV40-GTG5-10-155	1.5 - 10	155	20	30	80	58	65	NBC10	4.67	20,000	5.0
BDV50-GTG6-10-163	1.5 - 10	163	20	30	100	63	80	NBC10	5.67	20,000	9.0
-GTG4-16-182	2.5 - 16	182	25.5	42	110	63	80	NBC16	3.80	15,000	10.8

1. The allowable torque is a calculated value of the drive system, and not the actual torque in cutting.
2. The maximum diameter when using an endmill is ø8 (GTG5, GTG6) and ø12 (GTG4).
3. A Stop Block is required when mounting on machines.
4. For continuous rotation of over 30 minutes, the spindle speed should be set within 80% of the maximum speed.
5. Nut, wrench, and exclusive spanner are included.

Collets G7
Stop Blocks A170

Body Model	Included Collet Model (1 pc)
GTG5-10	NBC10-10AA
GTG6-10	NBC10-10AA
GTG4-16	NBC16-16AA

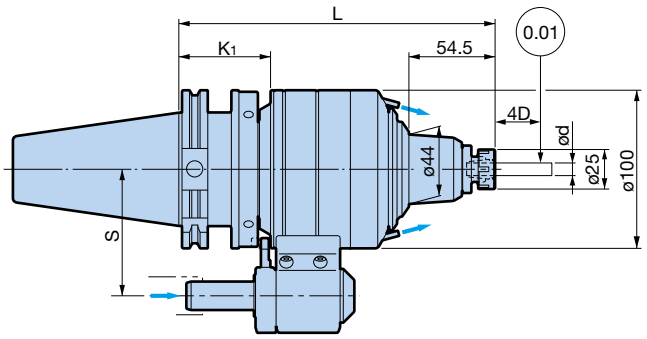
GTX Type

Max. 24,000min^{-1}

- Bending rigidity is significantly improved.
- Long nose design ideal for mold machining.

Ideal for mold machining!

Speed Ratio: 5.67



BIG-PLUS (BDV Shank) tools can be used on both BIG-PLUS spindles and conventional **DV spindles**.

BIG-PLUS BDV SHANK Model	ød	L	K1	S	Collet Model	Max. speed (30 min) min^{-1}	Continuous speed min^{-1}	Weight (kg)
BDV50-GTX6-8-205	0.5 - 8	205	62	80	NBC8	24,000	20,000	9.5

1. The allowable torque is a calculated value of the drive system, and not the actual torque in cutting.
2. The maximum clamping diameter when using a drill is ø4mm.
3. A Stop Block is required when mounting on machines.
4. For continuous operation of over 30 minutes, the continuous speed is recommended.
5. Collet is not included. Please order separately.
6. Nut, wrench, and exclusive spanner are included.

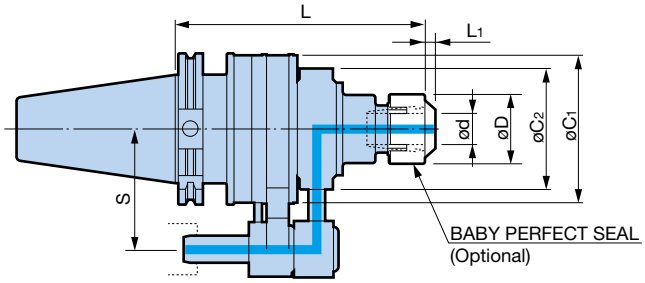
Stop Blocks A170
Collets G7

Unique separate sealing structure extends life.

- Independent bearing and sealing sections eliminate infiltration of coolant into bearings.
- The seal replacement system allows maintenance and thus helps reduce costs.

NEW BABY CHUCK Type

Not BIG-PLUS (DUAL CONTACT) specification



DV SHANK Model	Clamping diameter ød	øD	L	øC1	øC2	S	Collet Model	Max. (min-1)	Merit Set	Weight (kg)
DV40-ONBS13N-165	3 - 13	35	165	81.6	73	65	NBC13	10,000	MES-40	4.0
-ONBS16N-165	3 - 16	42			80		NBC16	8,000	MES-50	4.3
-ONBS20N-165	3 - 20	46					NBC20	8,000		4.3
DV50-ONBS13N-165	3 - 13	35	165	99.6	80	80	NBC13	8,000	MES-50	7.3
-ONBS16N-165	3 - 16	42					NBC16			7.3
-ONBS20N-165	3 - 20	46					NBC20			7.5

1. Max. coolant pressure is 2MPa.
2. Wrench, nut (BPS), collet and Adjusting Screw are sold separately. Order together with a Baby Perfect Seal of appropriate size.
3. For L1, refer to the Baby Perfect Seal G15
4. A Stop Block is required when mounting on machines. Please order separately.

Stop Blocks A170

Using neat oil coolant carries a risk of fire due to excessive heat generation or ignition of the holder.

Optional Accessories

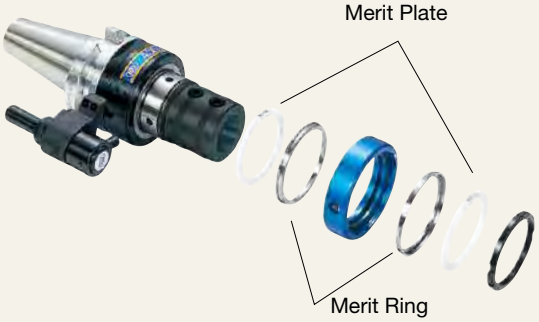
Collet	BABY PERFECT SEAL	Adjusting Screw
 G7	 G15	 G23

Maintenance parts for seal

Merit Set

If excessive coolant leak occurs while using the Hi-JET holder due to wear of the seal, purchase the seal replacement part “Merit Set”.
The model name is indicated in the dimension table for each Hi-JET Holder type.

<Merit Set contents>
- Merit Ring
- Merit Plate
- O-rings for Merit Case, 2 pcs each

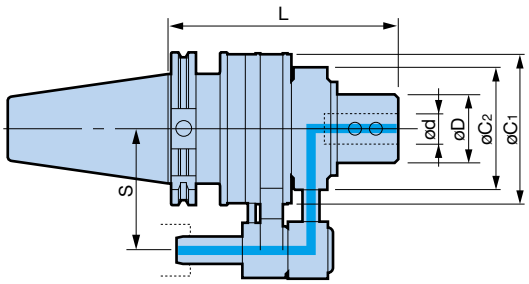


1. Merit Set replacement at BIG is also available. Please feel free to contact us.

SIDE LOCK TYPE

●For cylindrical shank oil hole drills.

Not BIG-PLUS (DUAL CONTACT) specification



DV SHANK Model	ød	øD	L	øC1	øC2	S	Max. (min-1)	Merit Set	Weight (kg)
DV40-OSL16N-150	16	48	150	81.6	80	65	8,000	MES-50	4.4
-OSL20N-150	20				80				4.3
-OSL25N-165	25		165						4.4
-OSL32N-165	32	58		99.6	98		6,000	MES-65	5.7
DV50-OSL16N-150	16	48	150	99.6	80	80	8,000	MES-50	7.5
-OSL20N-150	20				80				7.4
-OSL25N-165	25		165						7.5
-OSL32N-165	32	58			98		6,000	MES-65	7.9
-OSL40N-165	40	64							8.0
-OSL50N-185	50	84	185	129.6	121		4,000	MES-90	11.9

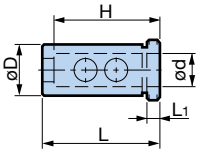
1. Max. coolant pressure is 2MPa.
2. A Stop Block is required when mounting on machines. Please order separately.

Using neat oil coolant carries a risk of fire due to excessive heat generation or ignition of the holder.

Stop Blocks A170

For Side Lock type

SL Sleeve



Model	ød	øD	L	L1	H
OSL25-16	16	25	62	5.5	48
-20	20				50
OSL32-16	16	32	66	5.5	48
-20	20				50
-25	25				56

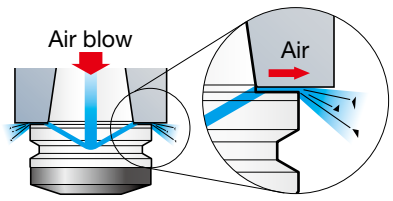
Model	ød	øD	L	L1	H
OSL40-16	16	40	76	5.5	48
-20	20				50
-25	25				56
-32	32				60

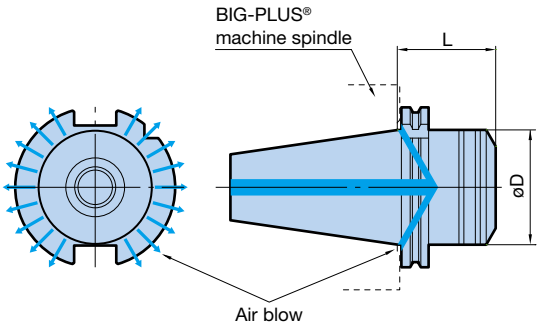
BIG-PLUS SPINDLE

FLANGE FACE CLEANER

Cleans the spindle flange face of BIG-PLUS machines.

● Removes oil and chips on the spindle flange face.





Model	øD	L
SDV40-ASC-40T	45	40
SDV50-ASC-60T	70	60

1. When the Flange Face Cleaner is mounted on the BIG-PLUS machine tool spindle, a 1mm gap exists between the flanges of the spindle and the cleaner.