



For High Speed Cutting

MEGA CHUCK SERIES

BIG-PLUS STANDARD TOOLHOLDERS

BIG DAISHOWA SEIKI CO LTD

CATALOG No. **EXi 4-2**



High speed tooling optimizes new and improved machining capability for finish, accuracy and increased production.



HIGH SPEED MACHINING

All components are specifically designed to be ideal for high speed cutting.

Patented; Japan, USA, Canada, Germany, UK, France, Italy, Taiwan, and South Korea



A wide variety of toolholders, collets and accessories that covers all high speed and precise cutting applications.

BIG Mega Chuck Series is developed based on superior technology of the New Baby Chuck and Hi-Power Milling Chuck. High speed (max. 40,000 r.p.m.) and precise cutting is achieved with a total series of chucks and accessories that are newly designed.

Patented; Japan, USA, Canada, Germany, UK,
France, Italy, Taiwan, and South Korea

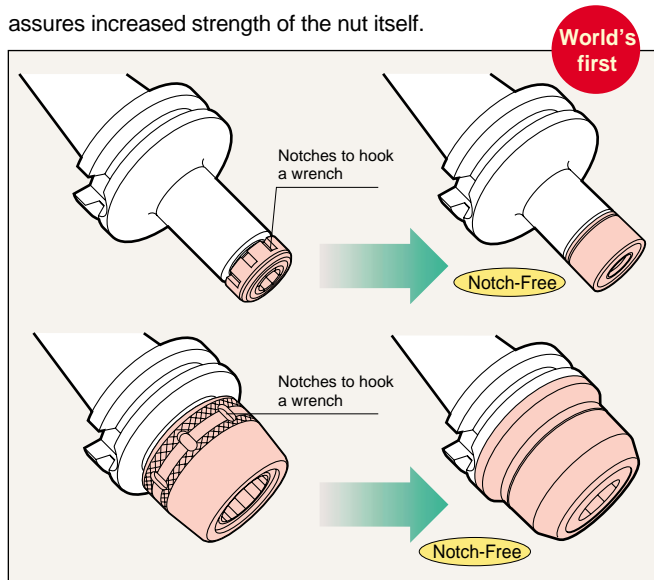
BIG-PLUS
SPINDLE SYSTEM PAT.
DUAL CONTACT
US Patent No. 5,352,073



MEGA CHUCK SERIES

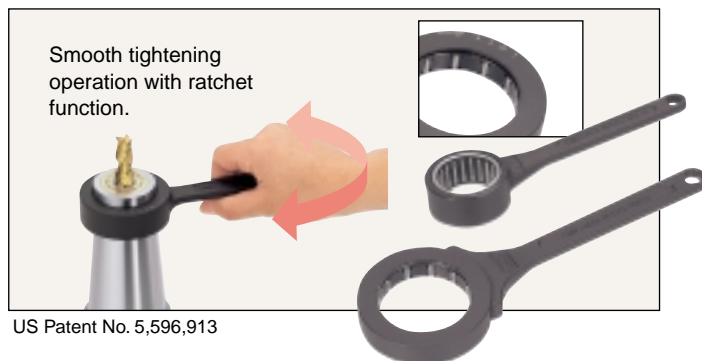
ORIGINAL DESIGN OF NOTCH-FREE NUT PREVENTS VIBRATION AND NOISE

Vibration at high speeds is eliminated by a notch-free nut which offer superior balance and concentricity. This ideal nut design not only eliminates whistling noise and coolant splattering, but also assures increased strength of the nut itself.



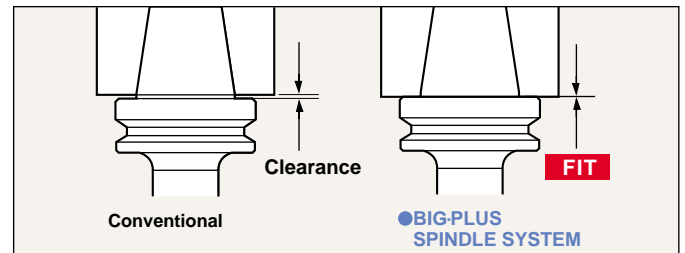
EASY AND FIRM CLAMPING WITH THE MEGA WRENCH

Mega Wrench has unique design of one way clutch system with a roller bearing and a ratchet function and is capable of safely and evenly applying force on the entire nut periphery.

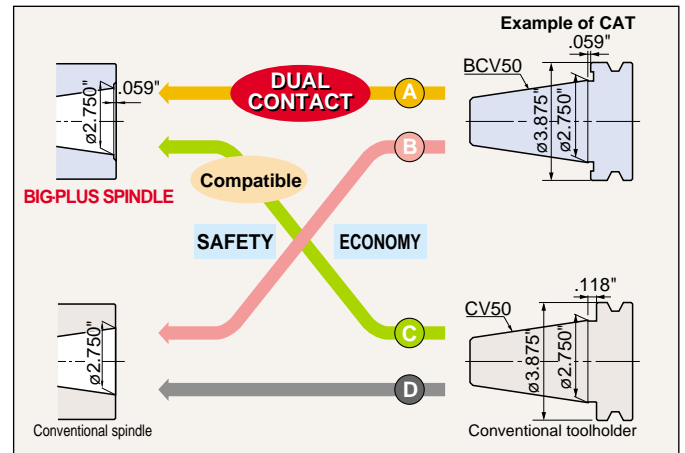


BIG-PLUS SPINDLE SYSTEM IS ADOPTED AS STANDARD

Dual Contact Spindle System assures the highest rigidity possible in high speed and difficult hard metal machining applications. Known as BIG-PLUS, this system offers simultaneous dual contact between the machine spindle and toolholder flange as well as the machine spindle taper and the toolholder taper shank.



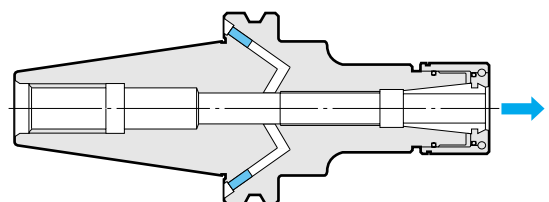
Perfect interchangeability with toolholders used in existing machining centers



- To benefit from all the technical advantages which the BIG-PLUS Spindle System offers, both a BIG-PLUS HOLDER and a BIG-PLUS SPINDLE are required.
- From B to D, dual contact cannot be achieved.

BIG-PLUS CAT SHANKS WITH COOLANT BORES IN ACCORDANCE TO DIN 69871/FORM B

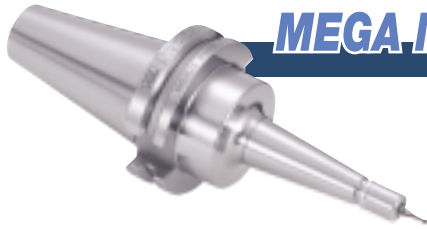
MEGA CHUCK SERIES can supply coolant through both of center and flange. (Exception: MEGA MICRO CHUCK)





MEGA E CHUCK

Four types of MEGA CHUCK series cutting with drills and endmills. Depending on applications, ideal enhance cutting performance.



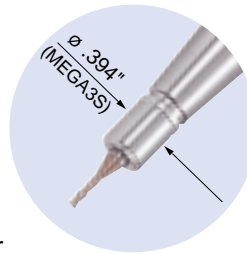
MEGA MICRO CHUCK PAT.

MAX. 40,000 r.p.m.

P5

Clamping Range : \pm .018" - \pm .238"

For micro drills & endmills



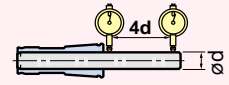
MEGA MICRO COLLET

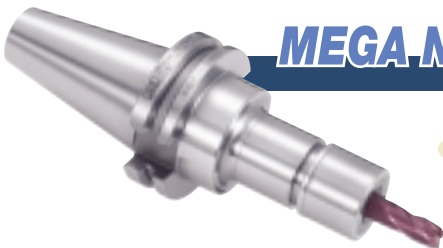
Interval of clamping dia. is .004".

Just fitting for micro cutting tools.

"Taper Type" For Micro End Milling

Super slim and taper type of Mega Micro Chuck is suitable for micro endmills.

Collet Class	T.I.R.		.00004" .00012" 
	At nose	At end of test bar	
AA	.00004"	.00012"	



MEGA NEW BABY CHUCK PAT.

MAX. 40,000 r.p.m.

P7

Clamping Range : \pm .010" - \pm .787"

For endmills, drills, taps, reamers, etc.

The chuck designed for high speed cutting utilizes ultra precise New Baby Collets that guarantee .00004" T.I.R. at the collet nose.

Highest runout as small as .00004" T.I.R. at the collet nose

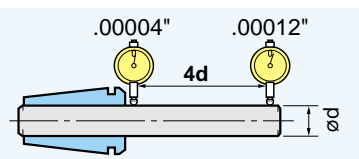
New baby collets are designed with long time of experience and know-how about production, heat treatment and so on. They are all inspected twice with a strict quality control.

For High Pressure Coolant Supply

● Ideal products for cutting tools with coolant holes.

Unique design of sealed nut prevents coolant from leaking from a collet even at high pressure coolant.

NEW BABY COLLET



Collet Class	T.I.R.	
	At nose	At end of test bar
AA	.00004"	.00012"

MEGA PERFECT SEAL PAT.

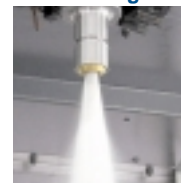
MAX. COOLANT PRESSURE 1,000 p.s.i.



2way coolant Through Tools



Jet Through

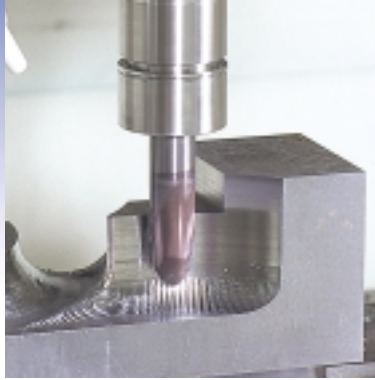


US Patent No. 5,975,817

optimises high speed and precise

chuck can be selected to

Patented: Japan, USA, Canada, Germany, UK, France, Italy, Taiwan, and South Korea



MEGA NEW BABY CHUCK



MAX. 40,000 r.p.m.

P13

Clamping Range : $\varnothing 1/8'' - \varnothing 1/2''$

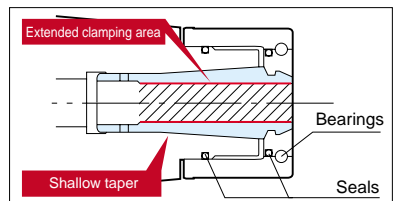
Collet chuck designed exclusively for endmills with low T.I.R. and high rigidity.

High Clamping Force

Clamping force is an important element for endmilling with a collet chuck. Long clamping length of collet in the MEGA E series provides a powerful clamping force. The shallow taper of collet improves concentricity and stabilize cutting performance.



MEGA E COLLET

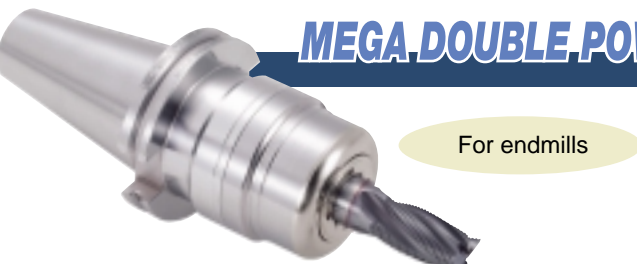


Collet Class	T.I.R.		.00004" .00012"
	At nose	At end of test bar	
AA	.00004"	.00012"	

Slit-Through Coolant

Coolant is securely directed to cutting tool through slits in a collet, even at high spindle speeds. Tool life and surface finish is improved as a result of efficient chip evacuation. Rubber seals are provided within the nut and body in order to prevent coolant leakage.

MAX. COOLANT PRESSURE 1,000 P.S.I.



MEGA DOUBLE POWER CHUCK PAT.

MAX. 30,000 r.p.m.

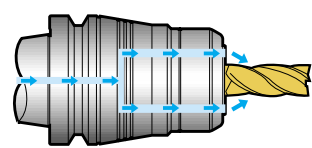
P16

Clamping Range : $\varnothing 5/8'' - \varnothing 1-1/2''$

Flange contacting nut and simultaneous taper and flange fit assure highest rigidity.

Effective Coolant Supply

MEGA D coolant is effectively supplied on the periphery of a cutting tool.



TYPE DS

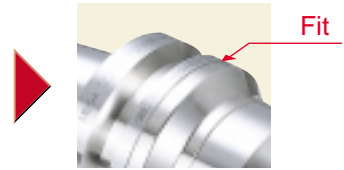
- ¥ For improved surface finish
- ¥ Extended tool life
- ¥ Smoother chip evacuation
- ¥ Cooling & lubricating of tools

Coolant-through Nozzles



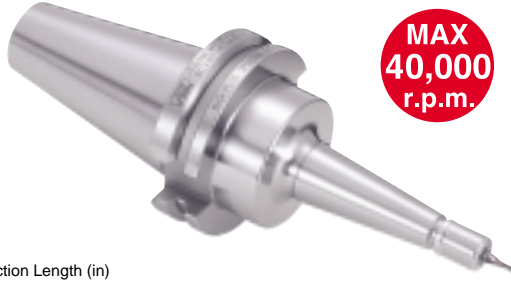
Complete fit of nut and body achieves high rigidity as a integral body.

In the case of a conventional milling chuck, an inner taper of nut contacts only with body when tightened. However, there is still a gap between nut and body. Large fit diameter of nut provides higher rigidity as if the chuck and nut were an integral body. This superior rigidity assures heavy cutting without chatter.



Clamping Range : \varnothing .018" – \varnothing .238"

MEGA MICRO CHUCK PAT.



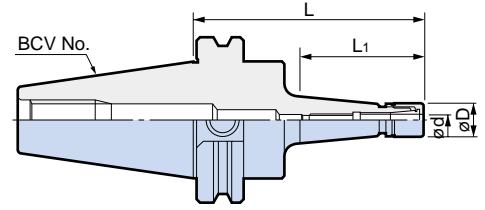
MAX
40,000
r.p.m.

A slim nut and taper design prevents interference in applications with micro drills and endmills.

● Model Description

B | **CV40** - **MEGA** | **3** | **S** - **2.5** | **T**

- L= projection Length (in)
- Micro Chuck
- Mega Chuck Series
- CAT Shank No.
- BIG PLUS System



CAT SHANK BCV40 ASME B5.50-1994

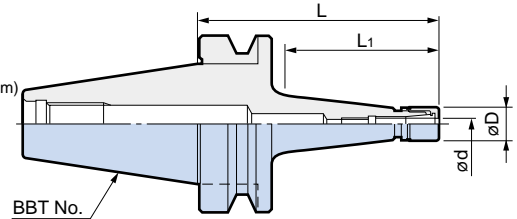
Model	$\varnothing d$	$\varnothing D$	L	L1	Collet	Nut	Wrench	Max. r.p.m.	Weight (lbs)
BCV40-MEGA 3S-2.5T	.018 - .128	.394	2.50	1.01	NBC3S- □	MGN3S	MGR10	35,000	2.18
-4T			4.00	2.38				25,000	2.36
-MEGA 4S-2.5T	.019 - .159	.472	2.50	1.01	NBC4S- □	MGN4S	MGR12	35,000	2.21
-4T			4.00	2.38				25,000	2.38
-MEGA 6S-2.5T	.019 - .238	.551	2.50	1.01	NBC6S- □	MGN6S	MGR14	35,000	2.23
-4T			4.00	2.38				25,000	2.43



● Model Description

B | **BT30** - **MEGA** | **3** | **S** - **45** | **T**

- L= projection length (mm)
- Micro Chuck
- Mega Chuck Series
- BT Shank No.
- BIG PLUS System



BT SHANK BBT30/40 MAS403

Model	$\varnothing d$	$\varnothing D$	L	L1	Collet	Nut	Wrench	Max. r.p.m.	Weight (lbs)
BBT30-MEGA3S- 45T	.018- .128	.394	1.77	.79	NBC3S- □	MGN3S	MGR10	40,000	.84
- 75T			2.95	1.85				40,000	.93
-105T			4.13	3.03				30,000	1.08
-MEGA4S- 60T	.018- .159	.472	2.36	1.26	NBC4S- □	MGN4S	MGR12	40,000	.88
- 75T			2.95	1.85				40,000	.95
- 90T			3.54	2.44				35,000	1.01
-105T			4.13	3.03				30,000	1.10
-120T			4.72	3.62				25,000	1.21
-MEGA6S- 60T	.018- .238	.551	2.36	1.26	NBC6S- □	MGN6S	MGR14	40,000	.90
- 75T			2.95	1.85				40,000	.97
- 90T			3.54	2.44				35,000	1.04
-105T			4.13	3.03				30,000	1.15
-120T			4.72	3.62				25,000	1.28
BBT40-MEGA4S- 60T	.018- .128	.394	2.36	1.06	NBC3S- □	MGN3S	MGR10	35,000	2.18
- 90T			3.54	2.24				28,000	2.29
-120T			4.72	3.42				22,000	2.47
-MEGA4S- 60T	.018- .159	.472	2.36	1.06	NBC4S- □	MGN4S	MGR12	35,000	2.21
- 75T			2.95	1.65				32,000	2.25
- 90T			3.54	2.24				28,000	2.32
-105T			4.13	2.83				25,000	2.38
-120T			4.72	3.42				22,000	2.49
-135T	5.31	4.01	20,000	2.65					
-MEGA6S- 60T	.018- .238	.551	2.36	1.06	NBC6S- □	MGN6S	MGR14	35,000	2.23
- 75T			2.95	1.65				32,000	2.27
- 90T			3.54	2.24				28,000	2.34
-105T			4.13	2.83				25,000	2.43
-120T			4.72	3.42				22,000	2.54
-135T	5.31	4.01	20,000	2.69					

1. Mega Nut is included. Collet and wrench must be ordered separately.
2. Weight does not include collet.

3. The "MAX" allowable spindle speed listed in the table is directly influenced by the rigidity of the machine and balance of cutting tool. Therefore, the max. allowable speed may not always be achievable.

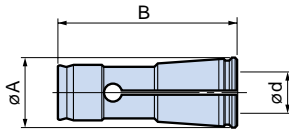
4. BIG-PLUS toolholders can be used in machining centers with conventional spindles.



MEGA MICRO COLLET

ULTRA SMALL HIGH PRECISION COLLET

Interval of clamping dia. is .004". Taper and straight design achieves .00004" T.I.R. at the collet nose.



- Model Description
- NBC 3 S - 0.5 AA**
- Micro Chuck
 - Body Size
 - New Baby Collet

MEGA3S	
Model	Clamping Range ϕd
NBC3S-0.5 AA	.018 - .022
-0.6 AA	.022 - .026
-0.7 AA	.026 - .030
-0.8 AA	.030 - .033
-0.9 AA	.033 - .037
-1.0 AA	.037 - .041
-1.1 AA	.041 - .045
-1.2 AA	.045 - .049
-1.3 AA	.049 - .053
-1.4 AA	.053 - .057
-1.5 AA	.057 - .061
-1.6 AA	.061 - .065
-1.7 AA	.065 - .069
-1.8 AA	.069 - .073
-1.9 AA	.073 - .077
-2.0 AA	.077 - .081
-2.1 AA	.081 - .085
-2.2 AA	.085 - .089
-2.3 AA	.089 - .093
-2.4 AA	.093 - .096
-2.5 AA	.096 - .100
-2.6 AA	.100 - .104
-2.7 AA	.104 - .108
-2.8 AA	.108 - .112
-2.9 AA	.112 - .116
-3.0 AA	.116 - .120
-3.1 AA	.120 - .124
-3.175 AA	.123 - .127
-3.2 AA	.124 - .128

$\phi A = .239$ $B = .740$

MEGA4S	
Model	Clamping Range ϕd
NBC4S-0.5 AA	.018 - .022
-0.6 AA	.022 - .026
-0.7 AA	.026 - .030
-0.8 AA	.030 - .033
-0.9 AA	.033 - .037
-1.0 AA	.037 - .041
-1.1 AA	.041 - .045
-1.2 AA	.045 - .049
-1.3 AA	.049 - .053
-1.4 AA	.053 - .057
-1.5 AA	.057 - .061
-1.6 AA	.061 - .065
-1.7 AA	.065 - .069
-1.8 AA	.069 - .073
-1.9 AA	.073 - .077
-2.0 AA	.077 - .081
-2.1 AA	.081 - .085
-2.2 AA	.085 - .089
-2.3 AA	.089 - .093
-2.4 AA	.093 - .096
-2.5 AA	.096 - .100
-2.6 AA	.100 - .104
-2.7 AA	.104 - .108
-2.8 AA	.108 - .112
-2.9 AA	.112 - .116
-3.0 AA	.116 - .120
-3.1 AA	.120 - .124
-3.175 AA	.123 - .127
-3.2 AA	.124 - .128
-3.3 AA	.128 - .132
-3.4 AA	.132 - .136
-3.5 AA	.136 - .140
-3.6 AA	.140 - .144
-3.7 AA	.144 - .148
-3.8 AA	.148 - .152
-3.9 AA	.152 - .156
-4.0 AA	.156 - .159

$\phi A = .291$ $B = .886$

MEGA6S			
Model	Clamping Range ϕd	Model	Clamping Range ϕd
NBC6S-0.5 AA	.018 - .022	NBC6S-4.1 AA	.159 - .163
-0.6 AA	.022 - .026	-4.2 AA	.163 - .167
-0.7 AA	.026 - .030	-4.3 AA	.167 - .171
-0.8 AA	.030 - .033	-4.4 AA	.171 - .175
-0.9 AA	.033 - .037	-4.5 AA	.175 - .179
-1.0 AA	.037 - .041	-4.6 AA	.179 - .183
-1.1 AA	.041 - .045	-4.7 AA	.183 - .187
-1.2 AA	.045 - .049	-4.7625 AA	.186 - .189
-1.3 AA	.049 - .053	-4.8 AA	.187 - .191
-1.4 AA	.053 - .057	-4.9 AA	.191 - .195
-1.5 AA	.057 - .061	-5.0 AA	.195 - .199
-1.6 AA	.061 - .065	-5.1 AA	.199 - .203
-1.7 AA	.065 - .069	-5.2 AA	.203 - .207
-1.8 AA	.069 - .073	-5.3 AA	.207 - .211
-1.9 AA	.073 - .077	-5.4 AA	.211 - .215
-2.0 AA	.077 - .081	-5.5 AA	.215 - .219
-2.1 AA	.081 - .085	-5.6 AA	.219 - .222
-2.2 AA	.085 - .089	-5.7 AA	.222 - .226
-2.3 AA	.089 - .093	-5.8 AA	.226 - .230
-2.4 AA	.093 - .096	-5.9 AA	.230 - .234
-2.5 AA	.096 - .100	-6.0 AA	.234 - .238
-2.6 AA	.100 - .104		
-2.7 AA	.104 - .108		
-2.8 AA	.108 - .112		
-2.9 AA	.112 - .116		
-3.0 AA	.116 - .120		
-3.1 AA	.120 - .124		
-3.175 AA	.123 - .127		
-3.2 AA	.124 - .128		
-3.3 AA	.128 - .132		
-3.4 AA	.132 - .136		
-3.5 AA	.136 - .140		
-3.6 AA	.140 - .144		
-3.7 AA	.144 - .148		
-3.8 AA	.148 - .152		
-3.9 AA	.152 - .156		
-4.0 AA	.156 - .159		

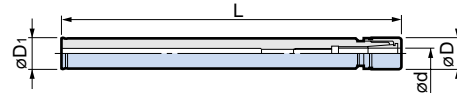
$\phi A = .370$ $B = .965$

Clamping Range : $\phi .018'' - .238''$

STRAIGHT SHANK TYPE



- Model Description
- ST .375 - MEGA 3 S - 120**
- L=Length (mm)
 - Micro Chuck
 - Mega Chuck Series
 - Cylindrical Shank Size (inch)



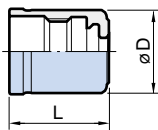
Model	ϕd	ϕD	ϕD_1	L	Collet	Nut	Wrench	Weight (lbs)
ST .375-MEGA 3S-120	.018 - .128	.394	.375	4.724	NBC3S-d	MGN3S	MGR10	.06
ST .500-MEGA 4S-130	.018 - .159	.472	.500	5.118	NBC4S-d	MGN4S	MGR12	.12
-160				6.299				.15
ST .625-MEGA 6S-160	.018 - .238	.551	.625	6.299	NBC6S-d	MGN6S	MGR14	.23
-200				7.874				.27

1. Mega Nut is included. Collet and Wrench are optional.

2. Weights do not include a collet.

MEGA NUT

Notch-free nut prevents vibration and whistling noise at high speed rotation.



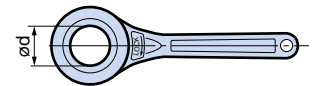
- Model Description
- MGN 3 S**
- Micro chuck
 - Body Size
 - Mega nut

Model	ϕD	L	Body	Wrench
MGN3S	.394	.51	MEGA3S	MGR10
MGN4S	.472	.57	MEGA4S	MGR12
MGN6S	.551	.67	MEGA6S	MGR14

1. Nut is included as standard accessory with Mega Micro Chuck.

MEGA WRENCH PAT.

The wrench with one-way clutch system distributes tightening force evenly on the entire surface of nut. The ratchet function easily tightens and loosens a nut.



- Model Description
- MGR 10**
- Inner dia. of wrench (mm)
 - Mega Wrench

Model	ϕd	Nut
MGR10	.394	MGN3S
MGR12	.472	MGN4S
MGR14	.551	MGN6S

US Patent No. 5,596,913

Clamping Range : $\phi.010'' - \phi.787''$

MEGA NEW BABY CHUCK PAT.

Coolant-Through Hole



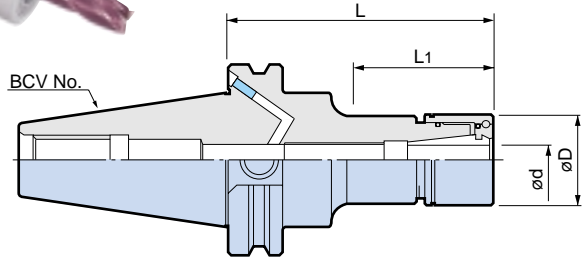
MAX
40,000
r.p.m.

The chuck designed for high speed cutting utilizes ultra precise New Baby Collets that guarantee .00004" T.I.R. at the collet nose.

● Model Description

B **CV40** - **MEGA** **6** **N** - **2.5**

- L= projection length (in)
- New Baby Chuck
- Max. Capacity(mm)
- Mega Chuck Series
- CV Shank No.
- BIG PLUS System



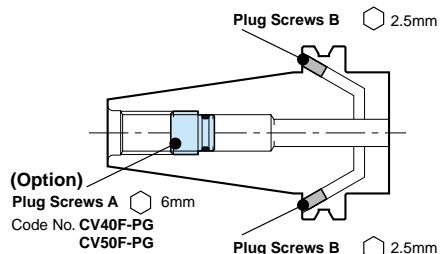
CAT SHANK BCV40 ASME B5.50-1994

Coolant Bores in Accordance to DIN69871/Form B*

Model	ϕd	ϕD	L	L1	Collet	Nut	Wrench	Max. r.p.m.	Weight (lbs)
BCV40-MEGA 6N-2.5	.010 - .236	.787	2.50	1.04	NBC 6-□	MGN 6	MGR20	35,000	2.32
			4.00	2.22				30,000	2.54
			5.00	3.22				20,000	2.65
			6.00	4.22				15,000	2.76
-MEGA 8N-2.5	.020 - .315	.984	2.50	1.04	NBC 8-□	MGN 8	MGR25	35,000	2.43
			4.00	2.30				30,000	2.65
			5.00	3.30				20,000	2.87
			6.00	4.30				15,000	3.09
-MEGA10N-2.5	.059 - .394	1.181	2.50	1.05	NBC10-□	MGN10	MGR30	35,000	2.54
			4.00	2.38				25,000	2.98
			5.00	3.38				20,000	3.20
			6.00	4.38				15,000	3.53
-MEGA13N-2.5	.098 - .512	1.387	2.50	1.17	NBC13-□	MGN13	MGR35	30,000	2.65
			4.00	2.46				25,000	3.20
			5.00	3.46				20,000	3.53
			6.00	4.46				15,000	3.97
-MEGA16N-2.5	.098 - .630	1.654	2.50	1.18	NBC16-□	MGN16	MGR42	30,000	2.87
			4.00	2.62				20,000	3.64
			5.00	3.62				15,000	4.19
			6.00	4.62				12,000	4.74
-MEGA20N-2.5	.098 - .787	1.811	2.50	1.75	NBC20-□	MGN20	MGR46	30,000	2.98
			4.00	3.25				20,000	3.97
			5.00	4.25				15,000	4.63
			6.00	5.25				12,000	5.29

1. Mega New Baby Nut is included. Collet and wrench must be ordered separately.
2. Weight does not include collet.
3. Designed to be capable of supplying coolant through spindle and flange.
4. The "MAX" allowable spindle speed listed in the table is directly influenced by the rigidity of the machine and balance of cutting tool. Therefore, the max. allowable speed may not always be achievable.
5. BIG-PLUS toolholders can be used in machining centers with conventional spindles.
- 6.* Bores on Form B are sealed with set screws on delivery.

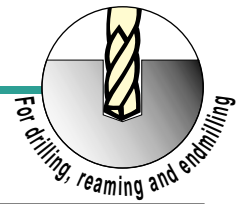
● Plug Screw for Flange through coolant



This Plug Screw A(option) prevents coolant leakage through retention knobs.

Bores on form B are sealed with Plug Screw B.

*Remove 2 pcs Plug Screws B from end face of flange.
*Failure to use the Plug Screw "A" or other sealing method may result in coolant contamination of the spindle and lead to premature failure or accidents.



CAT SHANK **BCV50** ASME B5.50-1994

Model	ød	øD	L	L1	Collet	Nut	Wrench	Max. r.p.m.	Weight (lbs)
BCV50-MEGA 6N-3.5	.010 - .236	.787	3.50	1.72	NBC 6-□	MGN 6	MGR20	20,000	6.95
-5			5.00	3.03				20,000	7.06
-6			6.00	4.03				15,000	7.28
-MEGA 8N-3.5	.020 - .315	.984	3.50	1.72	NBC 8-□	MGN 8	MGR25	20,000	7.06
-5			5.00	3.03				20,000	7.39
-6			6.00	4.03				15,000	7.61
-MEGA10N-3.5	.059 - .394	1.181	3.50	1.72	NBC10-□	MGN10	MGR30	20,000	7.28
-5			5.00	3.03				20,000	7.72
-6			6.00	4.03				15,000	7.94
-8			8.00	6.03				12,000	8.60
-MEGA13N-3.5	.098 - .512	1.378	3.50	1.72	NBC13-□	MGN13	MGR35	18,000	7.50
-5			5.00	3.22				18,000	8.05
-6			6.00	4.03				16,000	8.49
-8			8.00	6.03				12,000	9.26
-MEGA16N-3.5	.098 - .630	1.654	3.50	1.72	NBC16-□	MGN16	MGR42	17,000	7.83
-5			5.00	3.22				17,000	8.71
-6			6.00	4.22				16,000	9.26
-8			8.00	6.22				13,000	10.36
-MEGA20N-3.5	.098 - .787	1.811	3.50	1.80	NBC20-□	MGN20	MGR46	16,000	8.05
-5			5.00	3.22				16,000	9.04
-6			6.00	4.22				15,000	9.70
-8			8.00	6.22				13,000	11.03

1. Mega New Baby Nut is included. Collet and wrench must be ordered separately.
2. Weight does not include collet.
3. Designed to be capable of supplying coolant through spindle or flange.
4. The "MAX" allowable spindle speed listed in the table is directly influenced by the rigidity of the machine and balance of cutting tool. Therefore, the max. allowable speed may not always be achievable.
5. BIG-PLUS toolholders can be used in machining centers with conventional spindles.

For ADJUSTING SCREW P10

For NEW BABY COLLET P11

For COLLET REMOVER P10

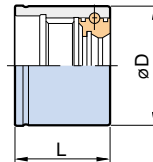
For MEGA PERFECT SEAL P12

MEGA NUT

A notch-free nut prevents vibration and noise. Steel ball in the thrust bearing are retained by a mechanism inside the nut designed for high speed operation.



● Model Description
MGN 6
● Body Size
● Mega Nut



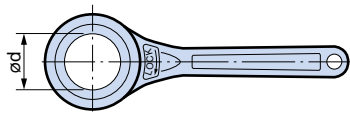
Model	øD	L	Body	Wrench
MGN 6	.787	.807	MEGA 6N	MGR20
MGN 8	.984	.906	MEGA 8N	MGR25
MGN10	1.181	.945	MEGA10N	MGR30
MGN13	1.378	1.063	MEGA13N	MGR35
MGN16	1.654	1.063	MEGA16N	MGR42
MGN20	1.811	1.063	MEGA20N	MGR46

MEGA WRENCH PAT.

The wrench with one-way clutch system distributes tightening force evenly on the entire surface of nut. The ratchet function easily tightens and loosens a nut.



● Model Description
MGR 20
● Inner dia. of wrench(mm)
● Mega Wrench



Model	ød	Nut
MGR20	.787	MGN 6 • MPS 6
MGR25	.984	MGN 8 • MPS 8
MGR30	1.181	MGN10 • MPS10
MGR35	1.378	MGN13 • MPS13
MGR42	1.654	MGN16 • MPS16
MGR46	1.811	MGN20 • MPS20

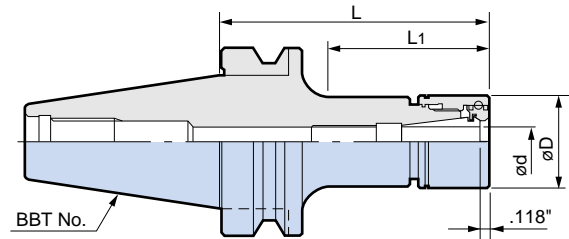
US Patent No. 5,596,913



● Model Description

B | **BT30** - **MEGA** | **6** | **N** - **60**

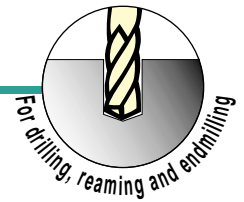
- BT Shank No.
- BIG PLUS System
- Mega Chuck Series
- New Baby Chuck
- Max. Capacity(mm)
- L= projection length (mm)



BT SHANK BBT30/40 MAS403

Model	ød	øD	L	L1	Collet	Nut	Wrench	Max. r.p.m.	Weight (lbs)
BBT30-MEGA 6N- 60	.010 - .236	.787	2.36	1.26	NBC 6- □	MGN 6	MGR20	40,000	1.04
- 75			2.95	1.85				35,000	1.10
- 90			3.54	2.44				30,000	1.17
-105			4.13	3.03				20,000	1.23
-120			4.72	3.62				18,000	1.30
-MEGA 8N- 60	.020 - .315	.984	2.36	1.34	NBC 8- □	MGN 8	MGR25	40,000	1.12
- 75			2.95	1.93				35,000	1.23
- 90			3.54	2.52				30,000	1.35
-105			4.13	3.11				20,000	1.48
-120			4.72	3.70				18,000	1.59
MEGA10N- 60	.059 - .394	1.181	2.36	1.34	NBC10- □	MGN10	MGR30	40,000	1.19
- 75			2.95	1.93				30,000	1.35
- 90			3.54	2.52				25,000	1.50
-105			4.13	3.11				18,000	1.65
-120			4.72	3.70				15,000	1.81
-MEGA13N- 60	.098 - .512	1.378	2.36	1.34	NBC13- □	MGN13	MGR35	40,000	1.19
- 75			2.95	1.93				30,000	1.39
- 90			3.54	2.52				25,000	1.59
-105			4.13	3.11				18,000	1.81
-120			4.72	3.70				15,000	2.01
MEGA16N- 60	.098 - .630	1.654	2.36	1.42	NBC16- □	MGN16	MGR42	35,000	1.46
- 75			2.95	2.01				25,000	1.79
- 90			3.54	2.60				20,000	2.09
-105			4.13	3.19				18,000	2.43
MEGA20N- 60	.098 - .787	1.811	2.36	—	NBC20- □	MGN20	MGR46	30,000	1.57
- 75			2.95	—				20,000	1.90
- 90			3.54	—				15,000	2.21
-105			4.13	—				13,000	2.54
BBT40-MEGA 6N- 60	.010 - .236	.787	2.36	0.91	NBC 6- □	MGN 6	MGR20	35,000	2.21
- 75			2.95	1.50				35,000	2.32
- 90			3.54	2.09				35,000	2.43
-105			4.13	2.68				20,000	2.51
-120			4.72	3.27				20,000	2.60
-135			5.31	3.86				20,000	2.65
-165			6.50	5.04				14,000	2.65
-200			7.87	6.42				9,000	2.87
-MEGA 8N- 60	.020 - .315	.984	2.36	1.06	NBC 8- □	MGN 8	MGR25	35,000	2.21
- 75			2.95	1.65				35,000	2.32
- 90			3.54	2.24				35,000	2.43
-105			4.13	2.83				20,000	2.51
-120			4.72	3.43				20,000	2.60
-135			5.31	4.02				20,000	2.87
-165			6.50	5.20				14,000	2.87
-200			7.87	6.57				9,000	3.09

1. Mega New Baby Nut is included. Collet and wrench must be ordered separately. 4. The "MAX" allowable spindle speed listed in the table is directly influenced by the rigidity of the machine and balance of cutting tool. Therefore, the max. allowable speed may not always be achievable.
 2. Weight does not include collet. 5. BIG-PLUS toolholders can be used in machining centers with conventional spindles.
 3. Designed to be capable of supplying coolant through spindle.



BT SHANK BBT40

MAS403

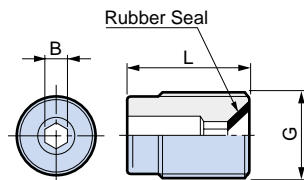
Model	ød	øD	L	L ₁	Collet	Nut	Wrench	Max. r.p.m.	Weight (lbs)
BBT40-MEGA10N- 60	.059 - .394	1.181	2.36	1.02	NBC10- □	MGN10	MGR30	35,000	2.43
- 75			2.95	1.65				35,000	2.54
- 90			3.54	2.24				35,000	2.65
-105			4.13	2.83				20,000	2.80
-120			4.72	3.43				20,000	2.95
-135			5.31	4.02				20,000	3.09
-165			6.50	5.20				15,000	3.31
-200			7.87	6.57				10,000	3.75
-MEGA13N- 60			.098 - .512	1.378				2.36	1.22
- 75	2.95	1.57			35,000	2.65			
- 90	3.54	2.17			35,000	2.87			
-105	4.13	2.76			20,000	3.09			
-120	4.72	3.35			20,000	3.31			
-135	5.31	3.94			20,000	3.53			
-165	6.50	5.12			15,000	3.97			
-200	7.87	6.50			10,000	4.41			
-MEGA16N- 60	.098 - .630	1.654			2.36	1.22	NBC16- □	MGN16	MGR42
- 75			2.95	1.57	30,000	2.87			
- 90			3.54	2.17	30,000	3.09			
-105			4.13	2.76	20,000	3.53			
-120			4.72	3.35	20,000	3.75			
-135			5.31	3.94	20,000	3.97			
-165			6.50	5.12	15,000	4.41			
-200			7.87	6.50	10,000	5.07			
-MEGA20N- 60			.098 - .787	1.811	2.36	1.18			
- 75	2.95	1.65			30,000	2.76			
- 90	3.54	2.24			30,000	3.09			
-105	4.13	2.83			20,000	3.53			
-120	4.72	3.43			20,000	3.97			
-135	5.31	4.02			20,000	4.19			
-165	6.50	5.20			15,000	4.63			
-200	7.87	6.57			10,000	5.51			

1. Mega New Baby Nut is included. Collet and wrench must be ordered separately.
2. Weight does not include collet.
3. Designed to be capable of supplying coolant through spindle.
4. The "MAX" allowable spindle speed listed in the table is directly influenced by the rigidity of the machine and balance of cutting tool. Therefore, the max. allowable speed may not always be achievable.
5. BIG-PLUS toolholders can be used in machining centers with conventional spindles.



ADJUSTING SCREW

For adjusting projection length of a cutting tool



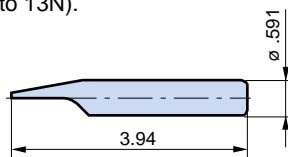
Model	G	L	B (mm)	Body
NBA 6B	M 7	.47	2	MEGA 6N
NBA 8B	M 9	.51	2.5	MEGA 8N
NBA10B	M11	.63	3	MEGA10N
NBA13B	M14	.79	4	MEGA13N
NBA16B	M18	.79	4	MEGA16N
NBA20B	M21	.79	4	MEGA20N

COLLET REMOVER

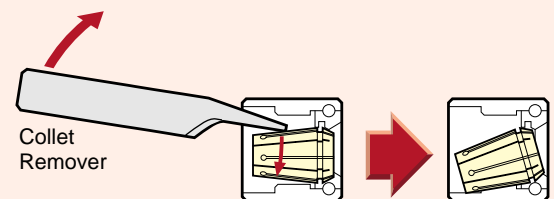
Collet Remover eases removal of a collet from a nut and is especially helpful for small collet series (MEGA6N to 13N).



MODEL : **NBJ**



● How to use

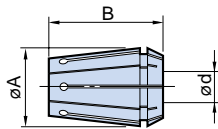


MEGA NEW BABY CHUCK PAT.

NEW BABY COLLET



(BIG) New Baby Collet is world renowned for its unmatched accuracy and precision. It offers runout accuracy of .00004" T.I.R. at the collet nose.



Model Description

- NBC 6 - 0.5 AA**
- Max. Capacity (mm)
- Body Size
- New Baby Collet

Collet Class	T.I.R.	
	At nose	At end of test bar
CLASS AA	.00004"	.00012"

- Collapsibility is .010" for NBC 6 and .020" for NBC 8 to NBC20.
- For best performance, cutting tool shanks should be cylindrical without flats and be as long as the clamping section of the collet bore.

MEGA6N	
Model	Clamping Range ød
NBC 6-0.5 AA	.015 - .019
-0.75AA	.019 - .029
-1 AA	.029 - .039
-1.25AA	.039 - .049
-1.5 AA	.049 - .059
-1.75AA	.059 - .068
-2 AA	.068 - .078
-2.25AA	.078 - .088
-2.5 AA	.088 - .098
-2.75AA	.098 - .108
-3 AA	.108 - .118
-3.175AA	.115 - .125
-3.25AA	.118 - .127
-3.5 AA	.127 - .137
-3.75AA	.137 - .147
-4 AA	.147 - .157
-4.25AA	.157 - .167
-4.5 AA	.167 - .177
-4.75AA	.177 - .187
-5 AA	.187 - .196
-5.25AA	.196 - .206
-5.5 AA	.206 - .216
-5.75AA	.216 - .226
-6 AA	.226 - .236

øA= .37 B= .55

MEGA13N	
Model	Clamping Range ød
NBC13- 3 AA	.098 - .118
- 3.175AA	.115 - .125
- 3.5 AA	.118 - .137
- 4 AA	.137 - .157
- 4.5 AA	.157 - .177
- 5 AA	.177 - .196
- 5.5 AA	.196 - .216
- 6 AA	.216 - .236
- 6.5 AA	.236 - .255
- 7 AA	.255 - .275
- 7.5 AA	.275 - .295
- 8 AA	.295 - .315
- 8.5 AA	.315 - .334
- 9 AA	.334 - .354
- 9.5 AA	.354 - .374
-10 AA	.374 - .393
-10.5 AA	.393 - .413
-11 AA	.413 - .433
-11.5 AA	.433 - .452
-12 AA	.452 - .472
-12.5 AA	.472 - .492
-13 AA	.492 - .511

øA= .80 B= 1.22

MEGA8N	
Model	Clamping Range ød
NBC 8-1 AA	.019 - .039
-1.5 AA	.039 - .059
-2 AA	.059 - .078
-2.5 AA	.078 - .098
-3 AA	.098 - .118
-3.175AA	.115 - .125
-3.5 AA	.118 - .137
-4 AA	.137 - .157
-4.5 AA	.157 - .177
-5 AA	.177 - .196
-5.5 AA	.196 - .216
-6 AA	.216 - .236
-6.5 AA	.236 - .255
-7 AA	.255 - .275
-7.5 AA	.275 - .295
-8 AA	.295 - .315

øA= .49 B= .70

MEGA16N	
Model	Clamping Range ød
NBC16- 3 AA	.098 - .118
- 3.5AA	.118 - .137
- 4 AA	.137 - .157
- 4.5AA	.157 - .177
- 5 AA	.177 - .196
- 5.5AA	.196 - .216
- 6 AA	.216 - .236
- 6.5AA	.236 - .255
- 7 AA	.255 - .275
- 7.5AA	.275 - .295
- 8 AA	.295 - .315
- 8.5AA	.315 - .334
- 9 AA	.334 - .354
- 9.5AA	.354 - .374
-10 AA	.374 - .393
-10.5AA	.393 - .413
-11 AA	.413 - .433
-11.5AA	.433 - .452
-12 AA	.452 - .472
-12.5AA	.472 - .492
-13 AA	.492 - .511
-13.5AA	.511 - .531
-14 AA	.531 - .551
-14.5AA	.551 - .570
-15 AA	.570 - .590
-15.5AA	.590 - .610
-16 AA	.610 - .629

øA= 1.00 B= 1.37

MEGA10N	
Model	Clamping Range ød
NBC10- 2 AA	.059 - .078
- 2.5 AA	.078 - .098
- 3 AA	.098 - .118
- 3.175AA	.115 - .125
- 3.5 AA	.118 - .137
- 4 AA	.137 - .157
- 4.5 AA	.157 - .177
- 5 AA	.177 - .196
- 5.5 AA	.196 - .216
- 6 AA	.216 - .236
- 6.5 AA	.236 - .255
- 7 AA	.255 - .275
- 7.5 AA	.275 - .295
- 8 AA	.295 - .315
- 8.5 AA	.315 - .334
- 9 AA	.334 - .354
- 9.5 AA	.354 - .374
-10 AA	.374 - .393

øA= .64 B= 1.06

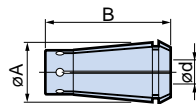
MEGA20N	
Model	Clamping Range ød
NBC20- 3 AA	.098 - .118
- 3.5AA	.118 - .137
- 4 AA	.137 - .157
- 4.5AA	.157 - .177
- 5 AA	.177 - .196
- 5.5AA	.196 - .216
- 6 AA	.216 - .236
- 6.5AA	.236 - .255
- 7 AA	.255 - .275
- 7.5AA	.275 - .295
- 8 AA	.295 - .315
- 8.5AA	.315 - .334
- 9 AA	.334 - .354
- 9.5AA	.354 - .374
-10 AA	.374 - .393
-10.5AA	.393 - .413
-11 AA	.413 - .433
-11.5AA	.433 - .452
-12 AA	.452 - .472
-12.5AA	.472 - .492
-13 AA	.492 - .511
-13.5AA	.511 - .531
-14 AA	.531 - .551
-14.5AA	.551 - .570
-15 AA	.570 - .590
-15.5AA	.590 - .610
-16 AA	.610 - .629
-16.5AA	.629 - .649
-17 AA	.649 - .669
-17.5AA	.669 - .689
-18 AA	.689 - .708
-18.5AA	.708 - .728
-19 AA	.728 - .748
-19.5AA	.748 - .767
-20 AA	.767 - .787

øA= 1.12 B= 1.49

NEW BABY COLLET



For ENDMILL



- The tolerance of the cutting tool shank must be within h7.

MEGA6N	
Model	Clamping Range ød
NBC 6- 1/8E AA	.125
-3/16E AA	.187

øA= .36 B= .67

MEGA13N	
Model	Clamping Range ød
NBC13-1/8E AA	.125
-3/16E AA	.187
-1/4E AA	.250
-3/8E AA	.375
-1/2E AA	.500

øA= .78 B=1.5

MEGA8N	
Model	Clamping Range ød
NBC 8-1/8 E AA	.125
-3/16E AA	.187
-1/4 E AA	.250

øA= .47 B= .78

MEGA16N	
Model	Clamping Range ød
NBC16-1/8E AA	.125
-3/16E AA	.187
-1/4E AA	.250
-3/8E AA	.375
-1/2E AA	.500
-5/8E AA	.625

øA= .98 B=1.65

MEGA10N	
Model	Clamping Range ød
NBC10-1/8E AA	.125
-3/16E AA	.187
-1/4E AA	.250
-3/8E AA	.375

øA= .62 B=1.26

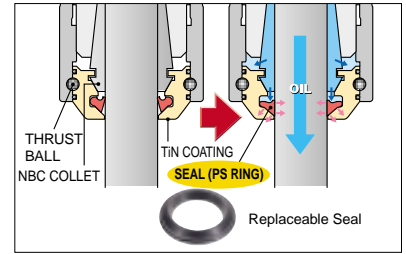
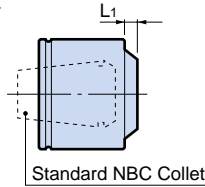
MEGA20N	
Model	Clamping Range ød
NBC20-1/8E AA	.125
-3/16E AA	.187
-1/4E AA	.250
-3/8E AA	.375
-1/2E AA	.500
-5/8E AA	.625
-3/4E AA	.750

øA=1.10 B=1.77

MEGA PERFECT SEAL PAT. US Patent No. 5,975,817



MAX. COOLANT PRESSURE
1,000 P.S.I.



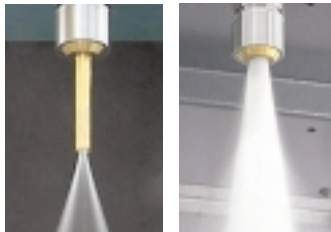
Reliable coolant supply to the tool tip!

Unique design increases sealing performance with higher coolant pressure to create a "perfect seal".

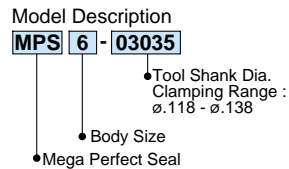
Remove the PS Ring, to supply coolant to the cutting tool periphery.

2way coolant

Through Tools Jet Through



With PS RING Without PS RING



Model	Cutter Shank Dia.	L1	Collet Model	Model	Cutter Shank Dia.	L1	Collet Model		
MPS 6-03035	.118 - .138	.091	NBC 6-3 - 3.75	MPS16-03035	.118 - .138	.157	NBC16-3 - 4		
-0304	.118 - .157		-3 - 4.25	-0304	.118 - .157		-3 - 4.5		
-04045	.157 - .177		-4 - 4.75	-04045	.157 - .177		-4 - 5		
-0405	.157 - .197		-4 - 5.25	-0405	.157 - .197		-4 - 5.5		
-05055	.197 - .217		-5 - 5.75	-05055	.197 - .217		-5 - 6		
-0506	.197 - .236		-5 - 6	-0506	.197 - .236		-5 - 6.5		
MPS 8-03035	.118 - .138	.154	NBC 8-3 - 4	-06065	.236 - .256	.169	-6 - 7		
-0304	.118 - .157		-3 - 4.5	-0607	.236 - .276		-6 - 7.5		
-04045	.157 - .177		-4 - 5	-07075	.276 - .295		-7 - 8		
-0405	.157 - .197		-4 - 5.5	-0708	.276 - .315		-7 - 8.5		
-05055	.197 - .217		-5 - 6	-08085	.315 - .335		-8 - 9		
-0506	.197 - .236		-5 - 6.5	-09095	.354 - .374		-9 - 10		
-06065	.236 - .256	.134	-6 - 7	-0910	.354 - .394	.181	-9 - 10.5		
-0607	.236 - .276		-6 - 7.5	-10105	.394 - .413		-10 - 11		
-07075	.276 - .295		-7 - 8	-1011	.394 - .433		-10 - 11.5		
-0708	.276 - .315		-7 - 8	-11115	.433 - .453		-11 - 12		
MPS10-03035	.118 - .138		.154	NBC10-3 - 4	-1112		.433 - .472	.161	-11 - 12.5
-0304	.118 - .157			-3 - 4.5	-12125		.472 - .492		-12 - 13
-04045	.157 - .177	-4 - 5		-1213	.472 - .512	-12 - 13.5			
-0405	.157 - .197	-4 - 5.5		-1314	.512 - .551	-13 - 14.5			
-05055	.197 - .217	-5 - 6		-1415	.551 - .591	-14 - 15.5			
-0506	.197 - .236	-5 - 6.5		-1516	.591 - .630	-15 - 16			
-06065	.236 - .256	.169	-6 - 7	MPS20-03035	.118 - .138	.157	NBC20-3 - 4		
-0607	.236 - .276		-6 - 7.5	-0304	.118 - .157		-3 - 4.5		
-07075	.276 - .295		-7 - 8	-04045	.157 - .177		-4 - 5		
-0708	.276 - .315		-7 - 8.5	-0405	.157 - .197		-4 - 5.5		
-08085	.315 - .335		-8 - 9	-05055	.197 - .217		-5 - 6		
-0809	.315 - .354		-8 - 9.5	-0506	.197 - .236		-5 - 6.5		
-09095	.354 - .374	.138	-9 - 10	-06065	.236 - .256	.169	-6 - 7		
-0910	.354 - .394		-9 - 10	-0607	.236 - .276		-6 - 7.5		
MPS13-03035	.118 - .138		.169	NBC13-3 - 4	-07075		.276 - .295	-7 - 8	
-0304	.118 - .157			-3 - 4.5	-0708		.276 - .315	-7 - 8.5	
-04045	.157 - .177			-4 - 5	-08085		.315 - .335	-8 - 9	
-0405	.157 - .197			-4 - 5.5	-0809		.315 - .354	-8 - 9.5	
-05055	.197 - .217	-5 - 6		-09095	.354 - .374	-9 - 10			
-0506	.197 - .236	-5 - 6.5		-0910	.354 - .394	-9 - 10.5			
-06065	.236 - .256	.181	-6 - 7	-10105	.394 - .413	.201	-10 - 11		
-0607	.236 - .276		-6 - 7.5	-1011	.394 - .433		-10 - 11.5		
-07075	.276 - .295		-7 - 8	-11115	.433 - .453		-11 - 12		
-0708	.276 - .315		-7 - 8.5	-1112	.433 - .472		-11 - 12.5		
-08085	.315 - .335		-8 - 9	-12125	.472 - .492		-12 - 13		
-0809	.315 - .354		-8 - 9.5	-1213	.472 - .512		-12 - 13.5		
-09095	.354 - .374	.193	-9 - 10	-1314	.512 - .551	.205	-13 - 14.5		
-0910	.354 - .394		-9 - 10.5	-1415	.551 - .591		-14 - 15.5		
-10105	.394 - .413		-10 - 11	-1516	.591 - .630		-15 - 16.5		
-1011	.394 - .433		-10 - 11.5	-1617	.630 - .669		-16 - 17.5		
-11115	.433 - .453		.165	-11 - 12	-1718		.669 - .709	-17 - 18.5	
-1112	.433 - .472			-11 - 12.5	-1819		.709 - .748	-18 - 19.5	
-12125	.472 - .492	-12 - 13		-1920	.748 - .787	-19 - 20			
-1213	.472 - .512	-12 - 13							

• 1 pce. of PS Ring is included.

PS RING

• Replaceable seal used in MEGA PERFECT SEAL

(Spare seal is recommended when coolant leaks due to damage of PS Ring.)



1 package contains 5 pcs. (1 size).

Model	MPS Model	Model	MPS Model	Model	MPS Model
PS-0304	MPS□-03035,0304	PS-0809	MPS□-08085,0809	PS-1314	MPS□-1314
0405	04045,0405	0910	09095,0910	1415	1415
0506	05055,0506	1011	10105,1011	1516	1516
0607	06065,0607	1112	11115,1112	1617	1617
0708	07075,0708	1213	12125,1213	1718	1718
				1819	1819
				1920	1920

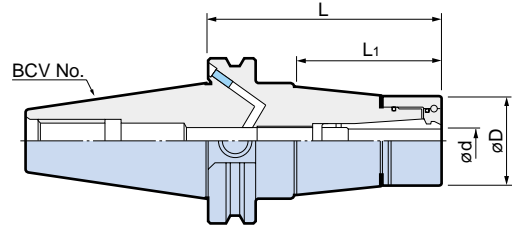
Clamping Range : $\varnothing 1/8'' - \varnothing 1/2''$
MEGA E CHUCK PAT.

Coolant-Through Hole



MAX
40,000
r.p.m.

Mega E Chuck utilizes advanced technology of New Baby Collet Chucks for powerful and precise high speed endmilling.



Coolant Bores in Accordance to DIN69871/Form B※

Plug Screw for Flange through coolant

For details of plug screws, please refer to **P7**

● Model Description

B | **CV40** - **MEGA** | **6** | **E** - **3**

- L= projection length (inch)
- Mega E Chuck
- Mega Chuck Series
- CAT Shank No.
- BIG PLUS System

CAT SHANK BCV40/50 ASME B5.50-1994

Model	ød	øD	L	L1	Collet Model	Nut	Wrench	Max. r.p.m.	Weight (lbs)
BCV40-MEGA 6E-3	.125 - .250	.984	3.00	1.50	MEC 6-d	MEN 6	MGR25	35,000	2.54
-4			4.00	2.42				29,000	2.98
-5			5.00	3.54				29,000	3.42
-6			6.00	4.54				20,000	3.75
-MEGA 8E-3			3.00	1.50				MEC 8-d	MEN 8
-4	4.00	2.54	29,000	3.20					
-5	5.00	3.58	29,000	3.64					
-6	6.00	4.58	20,000	4.30					
-MEGA10E-3	.125 - .375	1.378	3.00	1.54	MEC10-d	MEN10	MGR35		
-4			4.00	2.58				29,000	3.42
-5			5.00	3.58				29,000	3.86
-6			6.00	4.58				22,000	4.52
-8			8.00	6.62				16,000	5.18
-MEGA13E-3	.125 - .500	1.654	3.00	1.62	MEC13-d	MEN13	MGR42	30,000	3.20
-4			4.00	2.62				29,000	3.75
-5			5.00	3.62				29,000	4.30
-6			6.00	4.62				22,000	4.85
-8			8.00	6.62				16,000	6.06
BCV50-MEGA 6E-4	.125 - .250	.984	4.00	2.42	MEC 6-d	MEN 6	MGR25	20,000	7.39
-5			5.00	3.42				20,000	7.83
-6			6.00	4.42				14,000	8.38
-MEGA 8E-4	.125 - .250	1.181	4.00	2.22	MEC 8-d	MEN 8	MGR30	20,000	7.72
-5			5.00	3.22				20,000	8.27
-6			6.00	4.22				16,000	9.04
-MEGA10E-4	.125 - .375	1.378	4.00	2.22	MEC10-d	MEN10	MGR35	20,000	8.05
-5			5.00	3.22				20,000	8.60
-6			6.00	4.22				16,000	9.59
-8			8.00	6.50				13,000	11.91
-MEGA13E-4	.125 - .500	1.654	4.00	2.42	MEC13-d	MEN13	MGR42	18,000	8.49
-5			5.00	3.42				18,000	9.26
-6			6.00	4.42				16,000	10.58
-8			8.00	6.50				12,000	12.79

1. Mega E Nut is included. Collet and wrench must be ordered separately.
 2. Weight does not include collet.
 3. Designed to be capable of supplying coolant through spindle or flange.

4. The "MAX" allowable spindle speed listed in the table is directly influenced by the rigidity of the machine and balance of cutting tool. Therefore, the max. allowable speed may not always be achievable.
 5. BIG-PLUS toolholders can be used in machining centers with conventional spindles.
 6. ※Bores on Form B are sealed with set screws on delivery.

For MEGA E COLLET **P15**

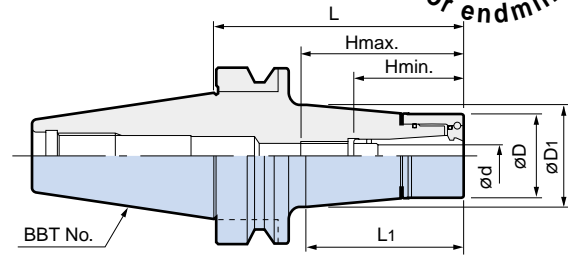
For MEGA WRENCH **P15**

For MEGA E NUT **P15**

For ADJUSTING SCREW **P15**



● Model Description
B | **BT30** - **MEGA** | **6** | **E** - **50**
 ● L=projection length (mm)
 ● Mega E Chuck
 ● Mega Chuck Series
 ● BT Shank No.
 ● BIG PLUS System



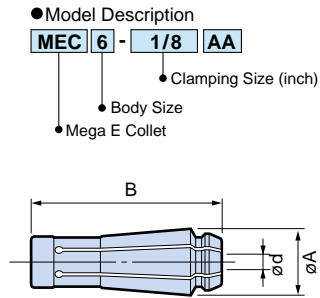
BT SHANK BBT30/40

MAS403

Model	ød	øD	øD1	L	L1	H		Collet Model	Nut	Wrench	Max. r.p.m.	Weight (lbs)
						max.	min.					
BBT30-MEGA 6E- 50	.125 - .250	.984	1.01	1.97	0.98	1.46	2.17	MEC 6-□	MEN 6	MGR25	40,000	0.53
- 75			1.18	2.95	1.93						35,000	0.64
- 90			1.28	3.54	2.52						25,000	0.72
-105			1.38	4.13	3.11						25,000	0.82
-MEGA 8E- 50	.125 - .250	1.181	1.20	1.97	0.98	1.65	2.40	MEC 8-□	MEN 8	MGR30	40,000	0.56
- 75			1.36	2.95	1.93						35,000	0.71
- 90			1.47	3.54	2.56						25,000	0.83
-105			1.58	4.13	3.15						25,000	0.96
-MEGA 10E- 50	.125 - .375	1.378	1.39	1.97	0.98	1.89	2.76	MEC10-□	MEN10	MGR35	39,000	0.60
- 75			1.56	2.95	1.97						35,000	0.80
- 90			1.61	3.54	2.58						25,000	0.93
-105			1.62	4.13	3.19						25,000	1.06
-MEGA 13E- 50	.125 - .500	1.654	1.67	1.97	1.08	1.97	2.87	MEC13-□	MEN13	MGR42	38,000	0.65
- 75			1.65	2.95	2.01						34,000	0.90
- 90			1.65	3.54	2.60						25,000	1.05
-105			1.65	4.13	3.19						25,000	1.20
BBT40-MEGA 6E- 60	.125 - .250	.984	1.03	2.36	1.10	1.46	2.17	MEC 6-□	MEN 6	MGR25	30,000	1.08
- 75			1.13	2.95	1.65						30,000	1.14
- 90			1.23	3.54	2.24						30,000	1.21
-105			1.33	4.13	2.83						29,000	1.29
-120			1.44	4.72	3.43						29,000	1.41
-135			1.54	5.31	3.98						27,000	1.53
-165			1.75	6.50	5.16						20,000	1.85
-200			2.00	7.87	6.57						15,000	2.32
-MEGA 8E- 60	.125 - .250	1.181	1.22	2.36	1.10	1.65	2.40	MEC 8-□	MEN 8	MGR30	30,000	1.13
- 75			1.31	2.95	1.65						30,000	1.21
- 90			1.42	3.54	2.24						30,000	1.30
-105			1.52	4.13	2.83						29,000	1.46
-120			1.63	4.72	3.43						29,000	1.61
-135			1.73	5.31	4.02						27,000	1.76
-165			1.93	6.50	5.20						20,000	2.10
-200			2.20	7.87	6.69						15,000	2.53
-MEGA 10E- 60	.125 - .375	1.378	1.42	2.36	1.14	1.89	2.76	MEC10-□	MEN10	MGR35	30,000	1.23
- 75			1.51	2.95	1.65						30,000	1.34
- 90			1.61	3.54	2.24						30,000	1.46
-105			1.72	4.13	2.83						29,000	1.61
-120			1.82	4.72	3.43						29,000	1.78
-135			1.92	5.31	4.02						27,000	1.98
-165			2.14	6.50	5.28						22,000	2.37
-200			2.19	7.87	6.69						16,000	3.07
-MEGA 13E- 60	.125 - .500	1.654	1.68	2.36	1.14	1.97	2.95	MEC13-□	MEN13	MGR42	30,000	1.29
- 75			1.77	2.95	1.65						30,000	1.45
- 90			1.89	3.54	2.32						30,000	1.63
-105			1.99	4.13	2.91						29,000	1.84
-120			2.10	4.72	3.54						29,000	2.07
-135			2.20	5.31	4.13						26,000	2.34
-165			2.26	6.50	5.31						22,000	2.80
-200			2.46	7.87	6.69						16,000	3.61

1. Mega E Nut is included. Collet and wrench must be ordered separately.
 2. Weight does not include collet.
 3. Designed to be capable of supplying coolant through spindle.
 4. The "MAX" allowable spindle speed listed in the table is directly influenced by the rigidity of the machine and balance of cutting tool. Therefore, the max. allowable speed may not always be achievable.
 5. BIG-PLUS toolholders can be used in machining centers with conventional spindles.

MEGA E COLLET



MEGA 6E	
Model	ød
MEC 6-1/8 AA	.125
-3/16AA	.187
-1/4 AA	.250

øA= .44 B= 1.37

MEGA 8E	
Model	ød
MEC 8-1/8 AA	.125
-3/16AA	.187
-1/4 AA	.250

øA= .55 B= 1.55

MEGA 10E	
Model	ød
MEC10-1/8 AA	.125
-3/16AA	.187
-1/4 AA	.250
-5/16AA	.312
-3/8 AA	.375

øA= .67 B= 1.79

MEGA 13E	
Model	ød
MEC13-1/8 AA	.125
-3/16AA	.187
-1/4 AA	.250
-5/16AA	.312
-3/8 AA	.375
-7/16AA	.437
- 1/2 AA	.500

øA= .81 B= 1.88

- Use only a cutting tool shank with exactly the same diameter as collet bore diameter.
- The tolerance of the cutting tool shank must be within h7.

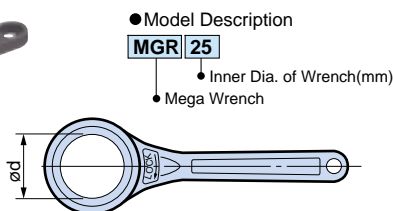
MEGA E NUT



Model	Nut Outer DIA.	Body
MEN 6	.984	MEGA 6E
MEN 8	1.181	MEGA 8E
MEN10	1.378	MEGA10E
MEN13	1.654	MEGA13E

MEGA WRENCH PAT.

The wrench with one-way clutch system distributes tightening force evenly on the entire surface of nut. The ratchet function easily tightens and loosens a nut.



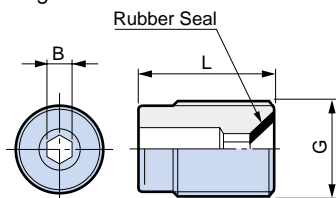
Model	ød	Nut
MGR25	.984	MEN 6
MGR30	1.181	MEN 8
MGR35	1.378	MEN10
MGR42	1.654	MEN13

- ★ Tightening torque is achieved only by using genuine BIG wrenches.
- ★ Please be aware of different sizes of suitable MEGA WRENCH between MEGA E CHUCK and MEGA NEW BABY CHUCK.

US Patent No. 5,596,913

ADJUSTING SCREW

For adjusting projection length of a cutting tool.

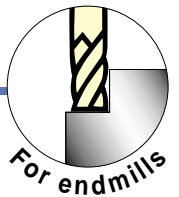


Model	G	L	B (mm)	Body
NBA 6B	M 7	.47	2	MEGA 6E
NBA 8B	M 9	.51	2.5	MEGA 8E
NBA10B	M11	.63	3	MEGA10E
NBA13B	M14	.79	4	MEGA13E

Clamping Range : $\varnothing 5/8'' - \varnothing 1-1/2''$
MEGA DOUBLE POWER CHUCK PAT.

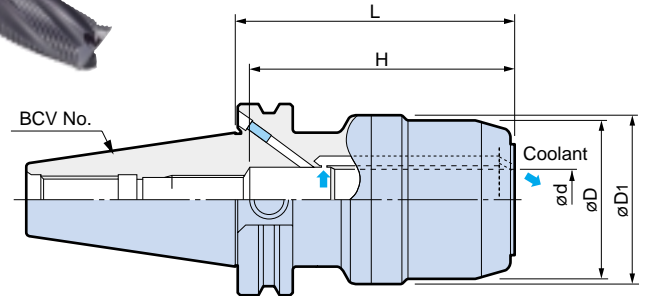
Coolant-Through Hole

BIG-PLUS
 SPINDLE SYSTEM PAT.
 DUAL CONTACT
 US Patent No. 5,352,073



MAX
30,000
 r.p.m.

Simultaneous fit is achieved on the nut as well as the taper shank to obtain rigidity close to an integral body.



Coolant bores in accordance to DIN69871/Form B ※

Plug Screw for Flange through coolant

For details of plug screws, please refer to **P7**

● Model Description

B | **CV40** - **MEGA** | **.625** | **DS** - **3.5**

- L= projection length (in)
- Duple Power Chuck
- Clamping Size (in)
- Mega Chuck Series
- CAT Shank No.
- BIG PLUS System

CAT SHANK BCV40/50 ASME B5.50-1994

Model	$\varnothing d$	$\varnothing D$	$\varnothing D_1$	L	H	Wrench	Max. r.p.m.	Weight (lbs)
BCV40-MEGA .625DS-3.5	.625	1.81	2.17	3.59	2.88	MGR46	30,000	3.31
-MEGA .750DS-3.5	.750	2.17	2.19	3.59	3.44	MGR55	30,000	3.97
-MEGA1.000DS-3.5	1.000	2.44	2.47	3.59	3.44	MGR62	27,000	4.41
-MEGA1.250DS-4	1.250	2.76	2.47	4.09	3.63	MGR70	26,000	5.07
BCV50-MEGA .625DS-4	.625	1.81	2.48	4.09	2.88	MGR46	21,000	8.82
-6				6.09			19,000	10.80
-MEGA .750DS-4	.750	2.36	2.72	4.09	3.44	MGR60	20,000	9.92
-6				6.09			17,000	13.01
-MEGA1.000DS-4	1.000	2.76	3.03	4.09	3.63	MGR70	20,000	10.58
-6				6.09			17,000	14.33
-MEGA1.250DS-4	1.250	3.15	3.39	4.09	4.22	MGR80	20,000	11.25
-6				6.09			15,000	15.88
-MEGA1.500DS-4.5	1.500	3.90	3.93	4.50	4.29	MGR99	15,000	14.55

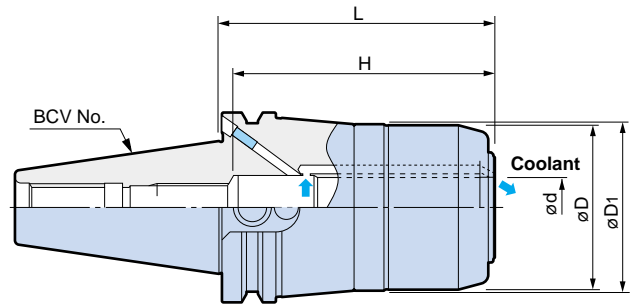
1. Wrench must be ordered separately.
2. BIG-PLUS toolholders can be used in machining centers with conventional spindles.
3. The "MAX" allowable spindle speed listed in the table is directly influenced by the rigidity of the machine and balance of cutting tool. Therefore, the max. allowable speed may not always be achievable.
4. ※Bores on Form B are sealed with set screws on delivery.

For STRAIGHT COLLET **P17**

For MEGA WRENCH **P18**



Note: This type does not conform to ASME B5.50-1994 standard for safe zone. Interference with tool changer may occur.



● Model Description

B | **CV40** | **H** | **-MEGA** | **.625** | **DS** | **- 3.5**

- L= projection length (in)
- Duple Power Chuck
- Clamping Size (in)
- Mega Chuck Series
- High power type
- CAT Shank No.
- BIG PLUS System

Coolant bores in accordance to DIN69871/Form B ※

Plug Screw for Flange through coolant

For details of plug screws, please refer to **P7**

CAT SHANK BCV40H/50H ASME B5.50-1994

Model	ød	øD	øD1	L	H	Wrench	Max. r.p.m.	Weight (lbs)
BCV40H-MEGA .625DS-3.5	.625	1.81	2.17	3.59	2.88	MGR46	30,000	3.31
-MEGA .750DS-3.5	.750	2.17	2.19	3.59	3.44	MGR55	30,000	3.97
-MEGA1.000DS-3.5	1.000	2.44	2.47	3.59	3.44	MGR62	27,000	4.41
-MEGA1.250DS-4	1.250	2.76	2.79	4.09	3.63	MGR70	26,000	5.07
BCV50H-MEGA .750DS-4	.750	2.36	2.72	4.09	3.44	MGR60	20,000	9.92
-6				6.09			17,000	13.01
-MEGA1.000DS-4	1.000	2.76	3.03	4.09	3.63	MGR70	20,000	10.58
-6				6.09			17,000	14.33
-MEGA1.250DS-4	1.250	3.15	3.39	4.09	4.22	MGR80	20,000	11.25
-6				6.09			15,000	15.88
-MEGA1.500DS-4.5	1.500	3.90	3.93	4.59	4.29	MGR99	15,000	14.55

1. Wrench must be ordered separately.

2. BIG-PLUS toolholders can be used in machining centers with conventional spindles.

3. The "MAX" allowable spindle speed listed in the table is directly influenced by the rigidity of the machine and balance of cutting tool.

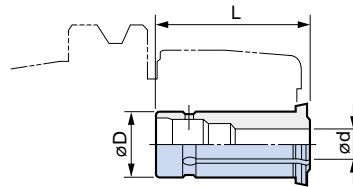
Therefore, the max. allowable speed may not always be achievable.

4. ※ Bores on Form B are sealed with set screws on delivery.

MEGA DOUBLE POWER CHUCK ACCESSORIES

STRAIGHT COLLET (Type "C")

- Reduction sleeve for smaller diameter cutters.



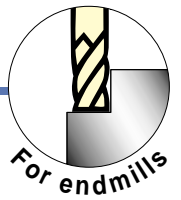
● Model Description

C | **.75** | **- 1/4**

- Inner dia (in)
- Outer dia (in)
- Collet type

Model	ød	øD	L
C.75 - 1/4	.250	.750	2.36
- 5/16	.312		
- 3/8	.375		
- 7/16	.437		
- 1/2	.500		
- 9/16	.562		
- 5/8	.625	1.000	2.70
C1.00 - 1/4	.250		
- 3/8	.375		
- 1/2	.500		
- 5/8	.625		
- 3/4	.750		

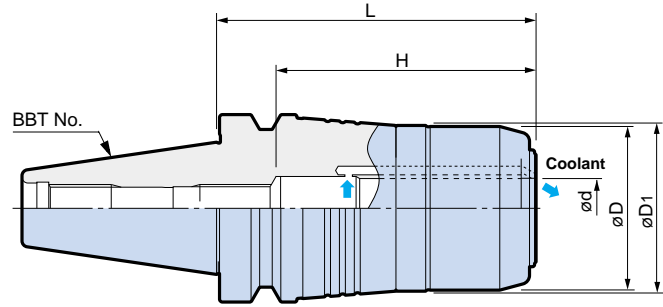
Model	ød	øD	L
C1.25 - 1/4	.250	1.250	2.91
- 5/16	.312		
- 3/8	.375		
- 7/16	.437		
- 1/2	.500		
- 9/16	.562		
- 5/8	.625		
-11/16	.687		
- 3/4	.750		
-13/16	.812		
- 7/8	.875		
-15/16	.937		
-1	1.000		



● Model Description

B | **BT30** - **MEGA** | **.750** | **DS** - **3.5**

- L= projection length (in)
- Mega Chuck Series
- BT Shank No.
- BIG PLUS System
- Duple Power Chuck
- Clamping Size (in)

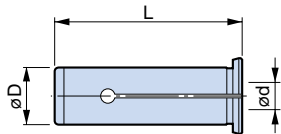


BBT SHANK BBT30/40/50 MAS403

Model	ød	øD	øD1	L	H	Wrench	Max. r.p.m.	Weight (lbs)
BBT30-MEGA .750DS-3.5	.750	2.16	2.19	3.59	3.34	MGR55	30,000	3.23
BBT40-MEGA .625DS-3	.625	1.81	2.17	3.09	2.88	MGR46	30,000	3.53
-5				5.09			25,000	6.17
-MEGA .750DS-3	.750	2.17	2.19	3.09	3.44	MGR55	30,000	3.75
-5				5.09			25,000	5.95
-MEGA1.000DS-3.5	1.000	2.44	2.47	3.59	3.44	MGR62	27,000	4.41
-5				5.09			24,000	6.61
-MEGA1.250DS-3.5	1.250	2.76	2.79	3.59	3.32	MGR70	26,000	4.63
-5				5.09			22,000	6.84
BBT50-MEGA .750DS-4	.750	2.36	2.72	4.09	3.44	MGR55	20,000	9.95
-MEGA1.000DS-4	1.000	2.76	3.03	4.09	3.63	MGR62	20,000	10.60
-MEGA1.250DS-4	1.250	3.15	3.39	4.09	4.22	MGR70	20,000	11.30
-MEGA1.500DS-4.5	1.500	3.90	3.93	4.59	4.29	MGR99	15,000	14.60

1. Wrench must be ordered separately.
2. BIG-PLUS toolholders can be used in machining centers with conventional spindles.
3. The "MAX" allowable spindle speed listed in the table is directly influenced by the rigidity of the machine and balance of cutting tool. Therefore, the max. allowable speed may not always be achievable.

■ **OIL HOLE STRAIGHT COLLET (Type "OCA")**



● Model Description

OCA | **1.25** - **5/8**

- Inner dia (in)
- Outer dia (in)
- Oil Hole Collet

Model	ød	øD	L
OCA1.25 - 5/8	.625	1.250	3.09
-3/4	.750		
-7/8	.875		
- 1	1.000		

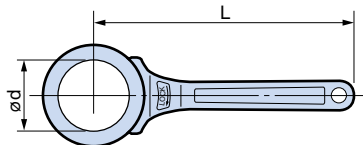
■ **MEGA WRENCH PAT.**



● Model Description

MGR | **46**

- Inner dia. of wrench (mm)
- Mega Wrench



US Patent No. 5,596,913

Model	ød	L	Body
MGR46	1.81	7.087	MEGA .625DS
MGR55	2.17	7.874	BBT30-MEGA .750DS
			BCV40□ / BBT40-MEGA .750DS
MGR60	2.36	9.055	BBT50-MEGA .750DS
			BCV50□ MEGA .750DS
MGR62	2.44	9.055	BCV40□ / BBT40-MEGA1.000DS
			BBT50-MEGA1.000DS
MGR70	2.76	9.843	BCV40□ / BBT40-MEGA1.250DS
			BCV50□ MEGA1.000DS
MGR80	3.15	11.024	BBT50-MEGA1.250DS
			BCV50□ MEGA1.250DS
MGR99	3.90	11.614	BCV50□ MEGA1.500DS
			BBT50-MEGA1.500DS

SIMULTANEOUS TAPER & FLANGE FIT



BIG-PLUS
SPINDLE SYSTEM PAT.

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

Patented : JAPAN, U.S.A., CANADA, GERMANY, U.K.,
FRANCE, ITALY, TAIWAN & SOUTH KOREA
US Patent No. 5,352,073

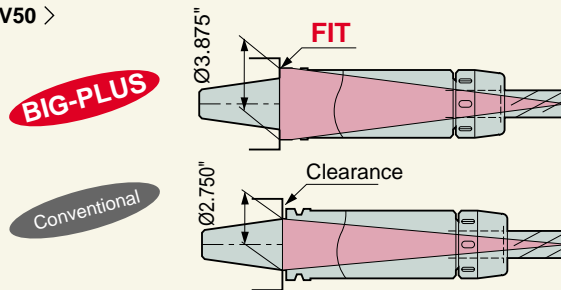
BIG-PLUS Spindle System offers simultaneous fit between face and taper of a machine spindle and toolholder. This system is based on the most currently available standards for MAS403, DIN69871 and ASME B5.50-1994.

For BIG PLUS SPINDLE SYSTEM, please refer to Catalog



INCREASED FIT DIAMETER (Example of CAT)

< CV50 >



	Conventional	BIG-PLUS
CV 50	Ø2.750"	f13.875"
CV 40	Ø1.750"	f12.500"

BIG KAISER[®]
PRECISION TOOLING INC.

641 Fargo Avenue Elk Grove Village, IL 60007
Tel: 847.228.7660 Fax: 847.228.0881
www.bigkaiser.com bigkaiser@bigkaiser.com