

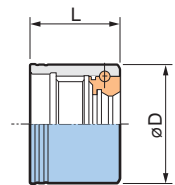
### Regarding the compatibility between DIN collets and Mega ER Grip

The internal taper of the Mega ER Grip tool body has a larger gauge line diameter compared to conventional holders made to the DIN standard. The reason is to increase the length of contact between the collet and holder for improved clamping force.

**As a consequence, only DIN6499 Form B collets can be used with a restricted clamping range of 0.5mm/Ø. Form A collets cannot be used.**

## Accessories

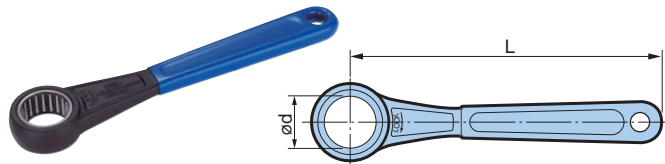
### MEGA ER NUT



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

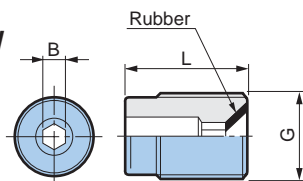
Model	øD	L	Body
MERN16	30	25	MEGA ER16
MERN20	35	26.5	MEGA ER20
MERN25	42	27.5	MEGA ER25
MERN32	50	30.2	MEGA ER32

### MEGA WRENCH



Model	ød	L	Body
MGR30L	30	220	MEGA ER16
MGR35L	35	240	MEGA ER20
MGR42L	42	260	MEGA ER25
MGR50L	50	285	MEGA ER32

### ADJUSTING SCREW

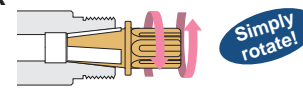


For adjusting the projection length of a cutting tool.

Model	G	L	B	Body
NBA10B	M11	16	3	MEGA ER16
NBA13B	M14	20	4	MEGA ER20
NBA16B	M18	20	4	MEGA ER25
NBA20B	M21	20	4	MEGA ER32

1. Please be aware that the rubber seal in the adjusting screw may be stripped off due to high pressure coolant.

### α TAPER CLEANER



Maintain the accuracy of Mega ER Grip! Easy cleaning of internal collet taper by simply inserting and rotating!

Model	Body
SC-MER16	MEGA ER16
-MER20	MEGA ER20
-MER25	MEGA ER25
-MER32	MEGA ER32



## BIG DAISHOWA SEIKI CO LTD

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JQA-QMA11602  
AWAJI No.1 Factory  
JQA-QM3913  
FA Dept.

CATALOG No.EXm166-1-1211-1  
Subject to technical changes by further developments.



High Precision Collet Chuck System

# MEGA ER GRIP

**NEW**

BIG DAISHOWA SEIKI CO LTD

CATALOG No. EXm166-1



Enhanced high precision collet system outperforms conventional ER collet chucks

**Incredibly low runout will provide dramatic payback by improving machining capability and reducing production costs.**



- Economical
- Power saving
- Reduced cycle time
- Extended tool life

BIG Daishowa supports your "ECO" manufacturing.



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

**The total precision of our collet, nut, and body shatter the common standard of ER collet chucks**

**BIG** **MEGA ER GRIP**  
BIG DAISHOWA

BIG Daishowa Seiki, known as a world leader in tooling systems, has observed and visited many companies of various size for many years. We have learned from those experiences how the choice of tool holders affects production costs on the shop floor. When an inexpensive tool holder is selected based on a small cost saving, a waste in valuable time and money during production results in higher costs in the long term.

The four critical requirements for tool holders are:

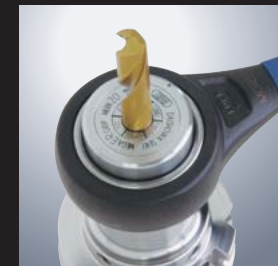
- Clamping force
- Concentricity
- Rigidity
- Balance for high spindle speeds

By using a tool holder with excellent performance in these four areas, considerable cost reduction is achieved due to longer tool life and reduction of down-time due to tool changes. Also, improvements in machining quality, shorter production time, and longer machine tool life from less cutting vibration.

Below is an application for drilling into a steel work piece 15mm deep using a ø3mm diameter carbide drill. 2,300 holes are made with the drill when using a tool holder with 2µm runout accuracy. However, only 800 holes can be drilled with a tool holder that has 15µm runout accuracy.

Comparing these hole-making costs at a shop that drills 350 holes per day for 20 working days per month, it is possible to save about €230 each month.

	Runout Accuracy	
	0.002	0.015
Number of holes drilled	350 holes/day	
Number of working days	20 days/month	
Tool life (holes)	2,300	800
Number of tool changes	3.0	8.8
Unit price of tools	€30.00	
Tool expenses	€91.30	€262.50
Time for replacing a tool	10 minutes	
Machine charge	€60.00/hr	
Expenses for replacing a tool	€30.43	€87.50
Total cost	€121.74	€350.00
Cost difference	€228.26	

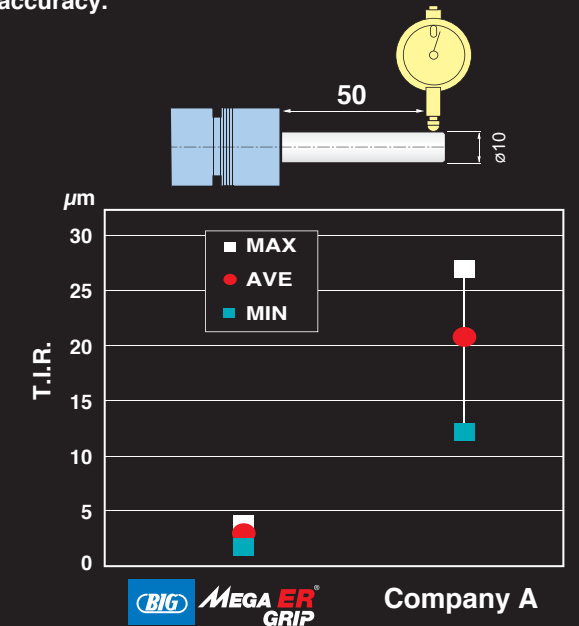


BIG's Mega ER Grip is a high quality ER collet chuck that completely satisfies the 4 requirements for tool holders. Each part of the assembly puts together our high precision production technology and our design creativity for collets, clamping nuts and chuck bodies. The ER collet with a 16° taper was developed in 1960. In 1993 it was adopted as a German DIN standard and in 2003 into an ISO standard. As a result, it has achieved status as the most popular double taper collet world-wide. When it was first introduced to the market 50 years ago, high quality and high performance was measured at a different level due to the common use of high speed steel tools.

In modern times, however, high quality is essential for the latest cutting tools such as coated carbide tools, CBN, PCD, etc.



Compare the test results of runout accuracy between BIG's Mega ER Grip and a common ER supplier. The test consists of measuring the runout accuracy at 50 length on a ø10 test bar clamped with an ER16 collet. Only BIG's Mega ER Grip can successfully maintain stable accuracy.



Every manufacturer needs to recognize all of the challenges and find solutions that will help them in maintaining a competitive edge.

Usually there are many simple and economical solutions to minimize down-time and to run their machining operations effectively and efficiently.

Our challenge is to recognize issues that waste time and to use a solution that will reward us with profit.

We believe that BIG's Mega ER Grip contributes to your company's cost saving without any doubts.



To maintain the accuracy of the product, do not mix collets and nuts manufactured by other companies with the body of BIG's Mega ER Grip. Also, it is not possible to reach the original accuracy if collets and nuts manufactured by BIG are used with other conventional chuck bodies.

High precision collet, nut and body that outperforms standard ER systems. Reliable and stable runout accuracy will also tremendously contribute to improving machining capability and cost reduction.

**BIG** High precision collet chuck system  
BIG DAISHOWA  
Clamping Range:  $\phi 1.9 - \phi 20$

**MEGA ER GRIP**

**BIG-PLUS**  
SPINDLE SYSTEM PAT.  
DUAL CONTACT

BIG Daishowa supports your "ECO" manufacturing.

- Economical
- Power saving
- Reduced cycle time
- Extended tool life

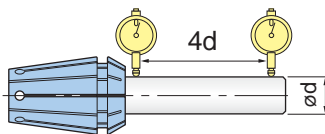


To maintain the accuracy of the system, do not use collets or nuts produced by another company with the chuck body of BIG's Mega ER Grip. Also, it is not possible to reach the original accuracy if collets and nuts made by BIG are used with other conventional chuck bodies.

ERC Collet

The ERC collet with the best runout accuracy in the world

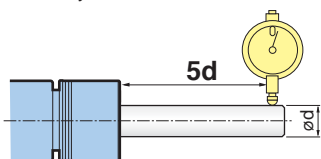
Measurement standards:  
In accordance with  
DIN6499 and ISO15488



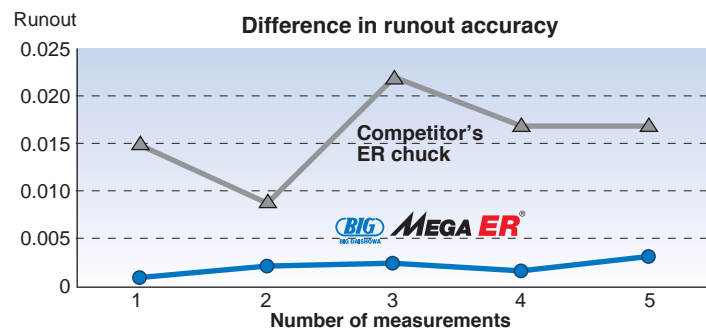
Clamping Range	DIN / ISO		BIG BIG DAISHOWA MEGA ER Within <b>0.003</b>
	Class 1	Class 2	
$\phi 2 - \phi 10$	0.010	0.015	Within <b>0.003</b>
$\phi 10 - \phi 20$	0.015	0.020	

The test bar clamped by Mega ER Grip is measured at 5xd.

BIG's Mega ER Grip can provide repeatable performance by assembling the precision ERC collets with its chuck body and clamping nut, resulting in complete harmony of the tool holder assembly.



Difference in runout accuracy



All collets are inspected twice to guarantee the runout accuracy

In 1987, BIG was the first company in the world to laser mark the collet grade on every collet

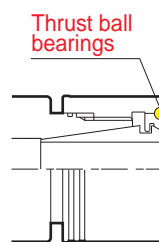
Each ERC collet is inspected twice (0° and 180°) at 5 times diameter to guarantee the runout accuracy. The "AA grade" is marked on only those collets that pass the inspection process for accuracy.



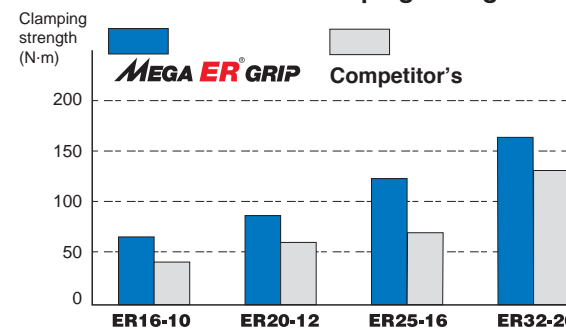
Clamping Nut

High precision nut with built-in thrust ball bearing

The ball bearing tapered raceway inside the nut eliminates any torsion where the collet and nut makes contact. This results in a smooth and stable collapse of the collet around the tool and provides for high accuracy and clamping force. Additionally, the slot-free outer diameter increases the rigidity of the nut itself and also prevents vibrations at high speeds.

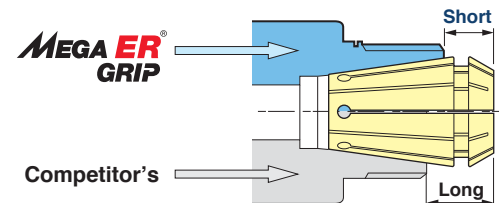


Difference in clamping strength



Tool Body

High rigidity body that increases the contact area of the collet



By increasing the contact length of the internal taper of chuck bodies, the undesired overhang of the collet is reduced. This modification of the standard improves 3 of the most important requirements for the collet chuck (rigidity, runout accuracy, clamping force). (Conventional DIN collets can also be used.)

High precision pre-balanced body

The unbalance of the drive keys in the steep taper and HSK tool shanks is reduced to a minimum by a pre-balancing operation. (Capto® tool shanks are also pre-balanced) The tool shanks also include tapped holes around the periphery so that precision balancing can be performed with balancing screws.

The serial number is marked on each body

Simplification of the nut tightening operation with the Mega Wrench

The one-way clutch of the Mega Wrench tightens the nut firmly and securely by applying even torque to the outside periphery of nut. The ratchet function greatly helps to simplify and speed up the tightening operation of the nut and prevents injury to the hands of the operator.



Precise coolant supply to the cutting edge (Perfect Seal) PAT.



Mega ER Perfect Seal is available for 2 ways of coolant supply: With "Through Tools", coolant is supplied from the coolant holes of the cutter (such as drills) and "Jet Through" directs the coolant around the cutter periphery (such as end mills). Both methods can be adapted with the same Perfect Seal nut according to the desired use.

MAX. COOLANT PRESSURE 7MPa



Sealed nut for center through tools [MEGA ER PERFECT SEAL]

BIG's dual contact "BIG-PLUS" as standard

**BIG-PLUS**  
SPINDLE SYSTEM PAT.  
DUAL CONTACT

All steep taper shanks are produced in accordance with the BIG-PLUS® dual contact system for taper and flange contact for the possibility to obtain much better performance. BIG-PLUS® has obtained world-wide patents in 1992 and it is now adopted by most major machine builders world-wide. Chuck bodies with a wide assortment of projections are available for ER Grip to answer your application problems and maintain optimum tool length.

Manufacturers adopting BIG-PLUS®

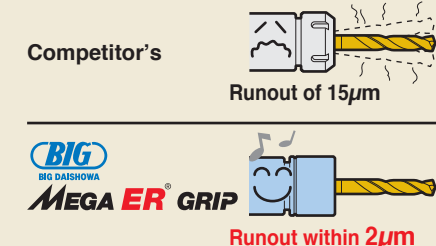
Machine builders **119**  
[As of May, 2011]

BIG-PLUS® is a registered trademark of BIG Daishowa Seiki.



The runout accuracy greatly affects the tool life

The runout accuracy has a great influence on the tool life. The tool life achieved with Mega ER Grip is about 3 times the tool life obtained with conventional collet chucks.



800 holes  
 $\phi 3$ mm carbide drill  
CK45  
12mm depth of cut

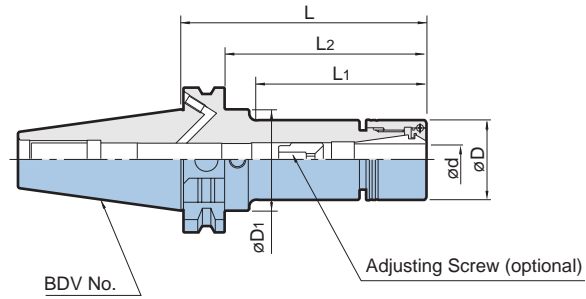
Number of holes improved by **2.9** times

**2,300 holes**

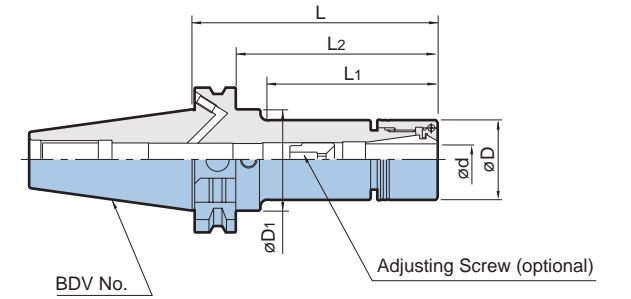
# BDV Shank



Coolant through center or flange



Coolant through center or flange



## BDV40 Shank DIN69871A/B (BIG-PLUS®)



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

Model	ød	øD	øD1	L	L1	L2	H	Nut Model	Max RPM	Weight (kg)
<b>BDV40-MEGAER16- 60</b>	1.9 - 10.0	30	44.7	60	29	41	35 - 45	MERN16	35,000	1.3
				90	57	71			35,000	1.5
				105	72	86			20,000	1.5
				135	102	116			20,000	1.7
				165	132	146			15,000	1.8
<b>-MEGAER20- 60</b>	2.75 - 13.0	35	44.7	60	30	41	42 - 57	MERN20	35,000	1.3
				90	58	71			35,000	1.5
				105	73	86			20,000	1.6
				135	103	116			20,000	1.8
				165	133	146			15,000	2.0
<b>-MEGAER25- 65</b>	2.75 - 16.0	42	44.7	65	35	46	44 - 60	MERN25	30,000	1.4
				90	60	71			30,000	1.6
				105	75	86			20,000	1.8
				135	105	116			20,000	2.0
				165	135	146			15,000	2.3
<b>-MEGAER32- 70</b>	2.75 - 20.0	50	-	70	-	51	50 - 64	MERN32	30,000	1.6
				90	-	71			30,000	1.8
				105	-	86			20,000	2.0
				135	-	116			20,000	2.3
				165	-	146			15,000	2.7

1. Mega ER Nut is included. Adjusting screw, collet and wrench must be ordered separately.
2. "H" indicates the adjustment length with an adjusting screw.
3. Balance screws are not included.
4. Mega ER Grip is not able to use DIN6499 Form-A collets and ESX collets.
5. Weight does not include collet.

## BDV50 Shank DIN69871A/B (BIG-PLUS®)



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

Model	ød	øD	øD1	L	L1	L2	H	Nut Model	Max RPM	Weight (kg)		
<b>BDV50-MEGAER16- 75</b>	1.9 - 10.0	30	70.1	75	39	56	35 - 47	MERN16	20,000	3.8		
				105	69	86			20,000	3.9		
				135	99	116			20,000	4.0		
				165	129	146			16,000	4.2		
				75	39	56			18,000	3.8		
<b>-MEGAER20- 75</b>	2.75 - 13.0	35	70.1	105	69	86	42 - 62	MERN20	18,000	4.0		
				135	99	116			18,000	4.2		
				165	129	146			16,000	4.4		
				75	39	56			17,000	3.9		
				105	69	86			17,000	4.1		
<b>-MEGAER25- 75</b>	2.75 - 16.0	42	70.1	135	99	116	44 - 67	MERN25	17,000	4.4		
				165	129	146			16,000	4.6		
				75	39	56			50 - 66	MERN32	16,000	4.0
				105	69	86			50 - 68		16,000	4.3
				135	99	116			16,000		4.6	
<b>-MEGAER32- 75</b>	2.75 - 20.0	50	70.1	165	129	146	15,000	5.0				

1. Mega ER Nut is included. Adjusting screw, collet and wrench must be ordered separately.
2. "H" indicates the adjustment length with an adjusting screw.
3. Balance screws are not included.
4. Mega ER Grip is not able to use DIN6499 Form-A collets and ESX collets.
5. Weight does not include collet.

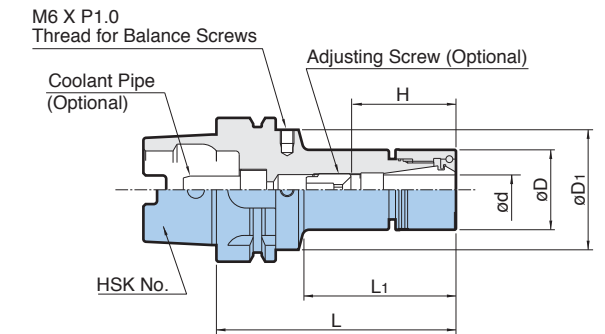
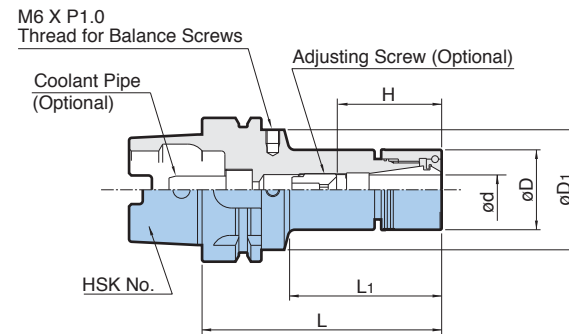
Mega ER Grip	Spare Parts	Accessories							
	Model	Collet	Wrench	Sealing Nut Mega ER Perfect Seal	Adjusting Screw	Rubber	Cleaner		
MEGA ER16	MERN16	ERC16-□	MGR30L	MERPS16-□	NBA10B	M11	16	3	SC-MER16
MEGA ER20	MERN20	ERC20-□	MGR35L	MERPS20-□	NBA13B	M14	20	4	SC-MER20
MEGA ER25	MERN25	ERC25-□	MGR42L	MERPS25-□	NBA16B	M18	20	4	SC-MER25
MEGA ER32	MERN32	ERC32-□	MGR50L	MERPS32-□	NBA20B	M21	20	4	SC-MER32

Mega ER Grip	Spare Parts	Accessories							
	Model	Collet	Wrench	Sealing Nut Mega ER Perfect Seal	Adjusting Screw	Rubber	Cleaner		
MEGA ER16	MERN16	ERC16-□	MGR30L	MERPS16-□	NBA10B	M11	16	3	SC-MER16
MEGA ER20	MERN20	ERC20-□	MGR35L	MERPS20-□	NBA13B	M14	20	4	SC-MER20
MEGA ER25	MERN25	ERC25-□	MGR42L	MERPS25-□	NBA16B	M18	20	4	SC-MER25
MEGA ER32	MERN32	ERC32-□	MGR50L	MERPS32-□	NBA20B	M21	20	4	SC-MER32

**Caution** To maintain the accuracy of the tool assembly, do not use collets and nuts manufactured by another company with the chuck body of BIG's Mega ER Grip. Also, we cannot guarantee the accuracy statement for our collets if they are assembled on the chuck body of another manufacturer.



MAX.  
33,000  
min<sup>-1</sup>



## HSK63 Form A Shank ISO12164&DIN69893

Model	ød	øD	øD1	L	L1	H	Nut Model	Max RPM	Weight (kg)
HSK-A63-MEGA ER16- 70 ※	1.9~10.0	30	52.6	70	32	45	MERN16	33,000	1.0
				90	49	33,000		1.1	
				105	64	25,000		1.1	
				135	94	20,000		1.3	
				165	124	15,000		1.4	
-MEGA ER20- 70 ※	2.75~13.0	35	52.6	70	32	45	MERN20	30,000	1.0
				90	49	63		30,000	1.1
				105	64	42 - 54		25,000	1.2
				135	94	42 - 62		20,000	1.4
				165	124	15,000		1.6	
-MEGA ER25- 70 ※	2.75~16.0	42	52.6	70	32	45	MERN25	30,000	1.1
				90	50	62		25,000	1.2
				105	65	44 - 55		20,000	1.4
				135	95	44 - 67		15,000	1.7
				165	125	10,000		1.9	
-MEGA ER32- 75 ※	2.75~20.0	50	52.6	75	33	50	MERN32	30,000	1.3
				90	47	61		25,000	1.5
				105	62	50 - 54		20,000	1.7
				135	92	50 - 68		15,000	2.0
				165	122	10,000		2.4	

- Mega ER Nut is included. Adjusting screw, collet and wrench must be ordered separately.
- "H" indicates the adjustment length with an adjusting screw.
- Adjusting screws cannot be used with models marked ※.
- Balance screws are not included.
- Coolant pipe must be ordered separately.
- Mega ER Grip is not able to use DIN6499 Form-A collets and ESX collets.
- Weight does not include collet.

Spare Parts		Accessories							
Mega ER Nut	Collet	Wrench	Sealing Nut Mega ER Perfect Seal	Adjusting Screw	Rubber	Cleaner			
Model	Model	Model	Model	Model	G	L	B	Model	Model
MEGA ER16	MERN16	ERC16-□	MGR30L	MERPS16-□	NBA10B	M11	16	3	SC-MER16
MEGA ER20	MERN20	ERC20-□	MGR35L	MERPS20-□	NBA13B	M14	20	4	SC-MER20
MEGA ER25	MERN25	ERC25-□	MGR42L	MERPS25-□	NBA16B	M18	20	4	SC-MER25
MEGA ER32	MERN32	ERC32-□	MGR50L	MERPS32-□	NBA20B	M21	20	4	SC-MER32

**Caution**  
To maintain the accuracy of the tool assembly, do not use collets and nuts manufactured by another company with the chuck body of BIG's Mega ER Grip. Also, we cannot guarantee the accuracy statement for our collets if they are assembled on the chuck body of another manufacturer.

## HSK100 Form A Shank ISO12164&DIN69893

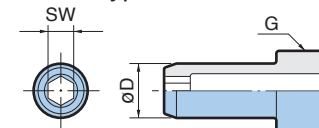
Model	ød	øD	øD1	L	L1	H	Nut Model	Max RPM	Weight (kg)
HSK-A100-MEGA ER16- 75 ※	1.9~10.0	30	85	75	31	46.5	MERN16	20,000	3.3
				105	59	18,000		3.4	
				135	89	14,000		3.6	
				165	119	14,000		3.7	
				165	119	14,000		3.7	
-MEGA ER20- 75 ※	2.75~13.0	35	85	75	31	45	MERN20	18,000	3.4
				105	59	42 - 54		16,000	3.5
				135	89	42 - 62		14,000	3.7
				165	119	14,000		3.9	
				165	119	14,000		3.9	
-MEGA ER25- 75 ※	2.75~16.0	42	85	75	32	44	MERN25	15,000	3.4
				105	59	44 - 50		14,000	3.7
				135	89	44 - 67		13,000	4.0
				165	119	13,000		4.2	
				165	119	13,000		4.2	
-MEGA ER32- 80 ※	2.75~20.0	50	85	80	36	49	MERN32	15,000	3.6
				105	59	71		14,000	3.9
				135	89	50 - 68		13,000	4.3
				135	89	13,000		4.3	
				165	119	13,000		4.7	

- Mega ER Nut is included. Adjusting screw, collet and wrench must be ordered separately.
- "H" indicates the adjustment length with an adjusting screw.
- Adjusting screws cannot be used with models marked ※.
- Balance screws are not included.
- Coolant pipe must be ordered separately.
- Mega ER Grip is not able to use DIN6499 Form-A collets and ESX collets.
- Weight does not include collet.

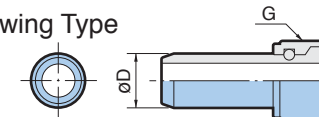
Spare Parts		Accessories							
Mega ER Nut	Collet	Wrench	Sealing Nut Mega ER Perfect Seal	Adjusting Screw	Rubber	Cleaner			
Model	Model	Model	Model	Model	G	L	B	Model	Model
MEGA ER16	MERN16	ERC16-□	MGR30L	MERPS16-□	NBA10B	M11	16	3	SC-MER16
MEGA ER20	MERN20	ERC20-□	MGR35L	MERPS20-□	NBA13B	M14	20	4	SC-MER20
MEGA ER25	MERN25	ERC25-□	MGR42L	MERPS25-□	NBA16B	M18	20	4	SC-MER25
MEGA ER32	MERN32	ERC32-□	MGR50L	MERPS32-□	NBA20B	M21	20	4	SC-MER32

### COOLANT PIPE for Form A

- Mono Block Type



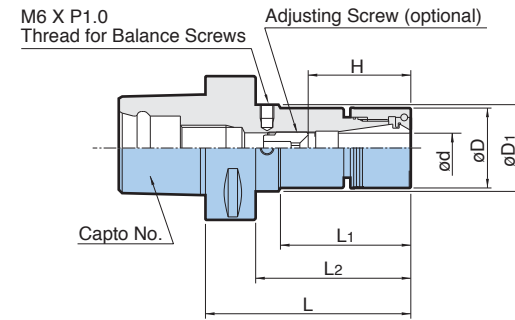
- 1° Swing Type



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

Model	øD	G	SW (mm)
HSK 63-CP	12	M18 x P1	6
100-CP	16	M24 x P1.5	8

Model	øD	G	Wrench (optional)
HSK 63-CPM	12	M18 x P1	CPW 63
100-CPM	16	M24 x P1.5	CPW100



## C4 & C5 Shank BIG Coromant Capto®

Model	ød	øD	øD1	L	L1	L2	H	Nut Model	Weight (kg)
<b>C4-MEGAER16- 50</b> ※	1.9 - 10.0	30	-	50	-	30	44	MERN16	0.4
<b>- 75</b>			35	75	42	50	35 - 47		0.6
<b>-MEGAER20- 50</b> ※	2.75 - 13.0	35	-	50	-	30	44	MERN20	0.5
<b>- 75</b> ※			38	75	43	55	69		0.7
<b>-MEGAER25- 50</b> ※	2.75 - 16.0	42	-	50	-	31	45	MERN25	0.6
<b>- 75</b> ※			75	-	57	69	0.8		
<b>C5-MEGAER16- 60</b> ※	1.9 - 10.0	30	35	60	28	40	53	MERN16	0.7
<b>- 90</b>				90	57	70	35 - 47		0.9
<b>-105</b>				105	72	85			1.0
<b>-135</b>				135	102	115	1.2		
<b>-MEGAER20- 60</b> ※	2.75 - 13.0	35	38	60	29.5	40	53	MERN20	0.8
<b>- 90</b>				90	58	70	0.9		
<b>-105</b>				105	73	85	42 - 62		1.0
<b>-135</b>				135	103	115	1.3		
<b>-MEGAER25- 65</b> ※	2.75 - 16.0	42	-	65	-	45	58	MERN25	0.9
<b>- 90</b>				90	-	68	44 - 58		1.1
<b>-105</b>				105	-	85	44 - 67		1.2
<b>-135</b>				135	-	115	1.5		
<b>-MEGAER32- 70</b> ※	2.75 - 20.0	50	-	70	-	50	63	MERN32	1.0
<b>- 90</b>				90	-	70	50 - 59		1.2
<b>-105</b>				105	-	85	50 - 68		1.4
<b>-135</b>				135	-	115	1.8		

1. Mega ER Nut is included. Adjusting screw, collet and wrench must be ordered separately.
2. "H" indicates the adjustment length with an adjusting screw.
3. Adjusting screws cannot be used with models marked ※.

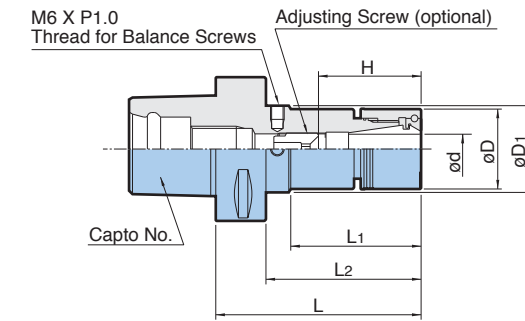
4. Balance screws are not included.
5. Mega ER Grip is not able to use DIN6499 Form-A collets and ESX collets.
6. Weight does not include collet.



BIG Coromant Capto is a licensed product from Sandvik Coromant Sweden. Products described herein are fully compatible.

Spare Parts		Accessories						
Mega ER Nut	Model	Collet	Wrench	Sealing Nut Mega ER Perfect Seal	Adjusting Screw	Rubber	Cleaner	
MEGA ER16	MERN16	ERC16-□	MGR30L	MERPS16-□	NBA10B	M11 16 3	SC-MER16	
MEGA ER20	MERN20	ERC20-□	MGR35L	MERPS20-□	NBA13B	M14 20 4	SC-MER20	
MEGA ER25	MERN25	ERC25-□	MGR42L	MERPS25-□	NBA16B	M18 20 4	SC-MER25	
MEGA ER32	MERN32	ERC32-□	MGR50L	MERPS32-□	NBA20B	M21 20 4	SC-MER32	

**Caution** To maintain the accuracy of the tool assembly, do not use collets and nuts manufactured by another company with the chuck body of BIG's Mega ER Grip. Also, we cannot guarantee the accuracy statement for our collets if they are assembled on the chuck body of another manufacturer.



## C6 & C8 Shank BIG Coromant Capto®

Model	ød	øD	øD1	L	L1	L2	H	Nut Model	Weight (kg)
<b>C6-MEGAER16- 60</b> ※	1.9 - 10.0	30	35	60	28	38	51	MERN16	1.3
<b>- 90</b>				90	55	68	35 - 47		1.4
<b>-105</b>				105	70	83			1.5
<b>-135</b>				135	100	113	1.6		
<b>-MEGAER20- 65</b> ※	2.75 - 13.0	35	38	65	29.5	43	56	MERN20	1.3
<b>- 90</b>				90	56	68	42 - 58		1.5
<b>-105</b>				105	71	83	42 - 62		1.6
<b>-135</b>				135	101	113			1.7
<b>-MEGAER25- 65</b> ※	2.75 - 16.0	42	-	65	-	43	56	MERN25	1.4
<b>- 90</b>				90	-	68	44 - 59		1.6
<b>-105</b>				105	-	83	44 - 67		1.7
<b>-135</b>				135	-	113			2.0
<b>-MEGAER32- 70</b> ※	2.75 - 20.0	50	-	70	-	48	64	MERN32	1.5
<b>- 90</b>				90	-	68	50 - 59		1.8
<b>-105</b>				105	-	83	50 - 68		1.9
<b>-135</b>				135	-	113			2.3
<b>-165</b>	165	-	143	2.6					
<b>C8-MEGAER16- 75</b>	1.9 - 10.0	30	35	75	32	45	35 - 47	MERN16	2.6
<b>-105</b>				105	62	75			2.8
<b>-135</b>				135	92	105			2.9
<b>-165</b>				165	122	135			3.0
<b>-MEGAER20- 75</b>	2.75 - 13.0	35	38	75	33	45	42 - 52	MERN20	2.7
<b>-105</b>				105	63	75	42 - 62		3.1
<b>-135</b>				135	93	105			3.4
<b>-165</b>				165	123	135	3.6		
<b>-MEGAER25- 75</b> ※	2.75 - 16.0	42	-	75	-	45	75	MERN25	2.8
<b>-105</b>				105	-	75	44 - 67		3.1
<b>-135</b>				135	-	105			3.3
<b>-165</b>				165	-	135	3.6		
<b>-MEGAER32- 75</b> ※	2.75 - 20.0	50	-	75	-	45	75	MERN32	3.0
<b>-105</b>				105	-	75	50 - 68		3.3
<b>-135</b>				135	-	105			3.7
<b>-165</b>				165	-	135	4.1		

1. Mega ER Nut is included. Adjusting screw, collet and wrench must be ordered separately.
2. "H" indicates the adjustment length with an adjusting screw.
3. Adjusting screws cannot be used with models marked ※.

4. Balance screws are not included.
5. Mega ER Grip is not able to use DIN6499 Form-A collets and ESX collets.
6. Weight does not include collet.



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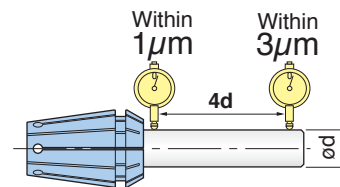
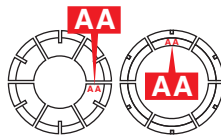
Spare Parts		Accessories						
Mega ER Nut	Model	Collet	Wrench	Sealing Nut Mega ER Perfect Seal	Adjusting Screw	Rubber	Cleaner	
MEGA ER16	MERN16	ERC16-□	MGR30L	MERPS16-□	NBA10B	M11 16 3	SC-MER16	
MEGA ER20	MERN20	ERC20-□	MGR35L	MERPS20-□	NBA13B	M14 20 4	SC-MER20	
MEGA ER25	MERN25	ERC25-□	MGR42L	MERPS25-□	NBA16B	M18 20 4	SC-MER25	
MEGA ER32	MERN32	ERC32-□	MGR50L	MERPS32-□	NBA20B	M21 20 4	SC-MER32	



All collets are inspected twice to guarantee the runout accuracy of "AA" quality

In 1987, BIG was the first company in the world to laser mark the collet grade on every collet

Each ERC collet is inspected twice (0° and 180°) at 5 times diameter to guarantee the runout accuracy. The "AA grade" is marked on only those collets that pass the inspection process for accuracy.



### Collet Concentricity

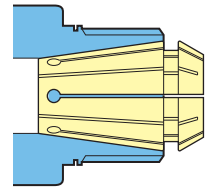
Collet Class	Max. Runout	
	At nose	At end of test bar
AA	Within 1µm	Within 3µm



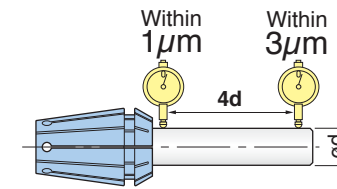
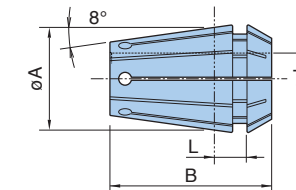
## ERC COLLET FOR END MILLS

"Just fit" collet for end mills

Nominal sizes of collets for the most popular end mill shanks reduces the unsupported overhang of the collet when clamped into the chuck body. This increases the rigidity of the tool assembly in the horizontal direction which is very important to end milling operations. Available in both metric and inch sizes.



Conform to DIN6499 and ISO15488



### Collet Concentricity

Collet Class	Max. Runout	
	At nose	At end of test bar
AA	Within 1µm	Within 3µm

DIN6499 ISO15488

MEGA ER16	
Model	Recommended Clamping Range ød
ERC16-2AA	1.9 - 2.0
-2.1AA	2.0 - 2.1
-2.2AA	2.1 - 2.2
-2.3AA	2.2 - 2.3
-2.4AA	2.3 - 2.4
-2.5AA	2.4 - 2.5
-2.6AA	2.5 - 2.6
-2.7AA	2.6 - 2.7
-2.8AA	2.7 - 2.8
-2.9AA	2.8 - 2.9
-3AA	2.75 - 3.0
-3.25AA	3.0 - 3.25
-3.5AA	3.25 - 3.5
-3.75AA	3.5 - 3.75
-4AA	3.75 - 4.0
-4.25AA	4.0 - 4.25
-4.5AA	4.25 - 4.5
-4.75AA	4.5 - 4.75
-5AA	4.75 - 5.0
-5.25AA	5.0 - 5.25
-5.5AA	5.25 - 5.5
-5.75AA	5.5 - 5.75
-6AA	5.5 - 6.0
-6.5AA	6.0 - 6.5
-7AA	6.5 - 7.0
-7.5AA	7.0 - 7.5
-8AA	7.5 - 8.0
-8.5AA	8.0 - 8.5
-9AA	8.5 - 9.0
-9.5AA	9.0 - 9.5
-10AA	9.5 - 10.0

øA= 16 B= 27.5 L= 6.26

MEGA ER20	
Model	Recommended Clamping Range ød
ERC20-3AA	2.75 - 3.0
-3.25AA	3.0 - 3.25
-3.5AA	3.25 - 3.5
-3.75AA	3.5 - 3.75
-4AA	3.75 - 4.0
-4.25AA	4.0 - 4.25
-4.5AA	4.25 - 4.5
-4.75AA	4.5 - 4.75
-5AA	4.75 - 5.0
-5.25AA	5.0 - 5.25
-5.5AA	5.25 - 5.5
-5.75AA	5.5 - 5.75
-6AA	5.5 - 6.0
-6.5AA	6.0 - 6.5
-7AA	6.5 - 7.0
-7.5AA	7.0 - 7.5
-8AA	7.5 - 8.0
-8.5AA	8.0 - 8.5
-9AA	8.5 - 9.0
-9.5AA	9.0 - 9.5
-10AA	9.5 - 10.0
-10.5AA	10.0 - 10.5
-11AA	10.5 - 11.0
-11.5AA	11.0 - 11.5
-12AA	11.5 - 12.0
-12.5AA	12.0 - 12.5
-13AA	12.5 - 13.0

øA= 20 B= 31.5 L= 6.36

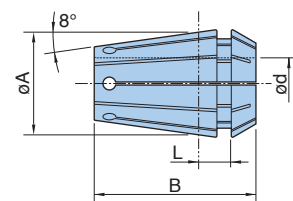
MEGA ER25	
Model	Recommended Clamping Range ød
ERC25-3AA	2.75 - 3.0
-3.25AA	3.0 - 3.25
-3.5AA	3.25 - 3.5
-3.75AA	3.5 - 3.75
-4AA	3.75 - 4.0
-4.25AA	4.0 - 4.25
-4.5AA	4.25 - 4.5
-4.75AA	4.5 - 4.75
-5AA	4.75 - 5.0
-5.25AA	5.0 - 5.25
-5.5AA	5.25 - 5.5
-5.75AA	5.5 - 5.75
-6AA	5.5 - 6.0
-6.5AA	6.0 - 6.5
-7AA	6.5 - 7.0
-7.5AA	7.0 - 7.5
-8AA	7.5 - 8.0
-8.5AA	8.0 - 8.5
-9AA	8.5 - 9.0
-9.5AA	9.0 - 9.5
-10AA	9.5 - 10.0
-10.5AA	10.0 - 10.5
-11AA	10.5 - 11.0
-11.5AA	11.0 - 11.5
-12AA	11.5 - 12.0
-12.5AA	12.0 - 12.5
-13AA	12.5 - 13.0
-13.5AA	13.0 - 13.5
-14AA	13.5 - 14.0
-14.5AA	14.0 - 14.5
-15AA	14.5 - 15.0
-15.5AA	15.0 - 15.5
-16AA	15.5 - 16.0

øA= 25 B= 34 L= 6.66

MEGA ER32	
Model	Recommended Clamping Range ød
ERC32-3AA	2.75 - 3.0
-3.25AA	3.0 - 3.25
-3.5AA	3.25 - 3.5
-3.75AA	3.5 - 3.75
-4AA	3.75 - 4.0
-4.25AA	4.0 - 4.25
-4.5AA	4.25 - 4.5
-4.75AA	4.5 - 4.75
-5AA	4.75 - 5.0
-5.25AA	5.0 - 5.25
-5.5AA	5.25 - 5.5
-5.75AA	5.5 - 5.75
-6AA	5.5 - 6.0
-6.5AA	6.0 - 6.5
-7AA	6.5 - 7.0
-7.5AA	7.0 - 7.5
-8AA	7.5 - 8.0
-8.5AA	8.0 - 8.5
-9AA	8.5 - 9.0
-9.5AA	9.0 - 9.5
-10AA	9.5 - 10.0
-10.5AA	10.0 - 10.5
-11AA	10.5 - 11.0
-11.5AA	11.0 - 11.5
-12AA	11.5 - 12.0
-12.5AA	12.0 - 12.5
-13AA	12.5 - 13.0
-13.5AA	13.0 - 13.5
-14AA	13.5 - 14.0
-14.5AA	14.0 - 14.5
-15AA	14.5 - 15.0
-15.5AA	15.0 - 15.5
-16AA	15.5 - 16.0
-16.5AA	16.0 - 16.5
-17AA	16.5 - 17.0
-17.5AA	17.0 - 17.5
-18AA	17.5 - 18.0
-18.5AA	18.0 - 18.5
-19AA	18.5 - 19.0
-19.5AA	19.0 - 19.5
-20AA	19.5 - 20.0

øA= 32 B= 40 L= 7.16

Conforms to DIN6499 and ISO15488



BIG's ERC collets of BIG have a maximum clamping capacity of 0.5mm/Ø. To obtain the best runout accuracy and rigidity, ERC collets for smaller tools have a reduced clamping range. For best results, users should avoid clamping tools with shank diameters less than the recommended clamping range.

MEGA ER16	
Model	ød
ERC16-3EAA	3
-4EAA	4
-5EAA	5
-6EAA	6
-7EAA	7
-8EAA	8
-9EAA	9
-10EAA	10

øA= 16 B= 27.5 L= 4.48

MEGA ER20	
Model	ød
ERC20-3EAA	3
-4EAA	4
-5EAA	5
-6EAA	6
-7EAA	7
-8EAA	8
-9EAA	9
-10EAA	10
-11EAA	11
-12EAA	12

øA= 20 B= 31.5 L= 4.58

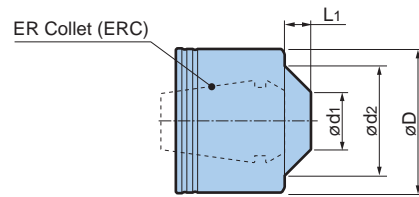
MEGA ER25	
Model	ød
ERC25-3EAA	3
-4EAA	4
-5EAA	5
-6EAA	6
-7EAA	7
-8EAA	8
-9EAA	9
-10EAA	10
-11EAA	11
-12EAA	12
-13EAA	13
-14EAA	14
-15EAA	15
-16EAA	16

øA= 25 B= 34 L= 4.88

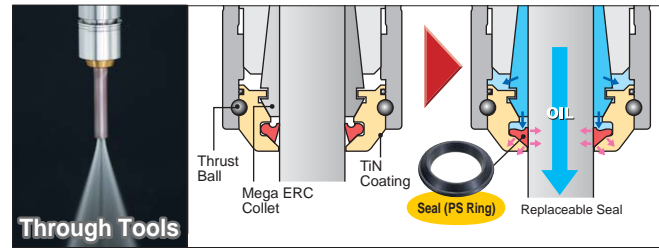
MEGA ER32	
Model	ød
ERC32-3EAA	3
-4EAA	4
-5EAA	5
-6EAA	6
-7EAA	7
-8EAA	8
-9EAA	9
-10EAA	10
-11EAA	11
-12EAA	12
-13EAA	13
-14EAA	14
-15EAA	15
-16EAA	16
-18EAA	18
-20EAA	20

øA= 32 B= 40 L= 5.38

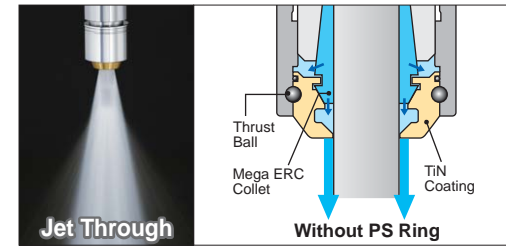
**Caution** To maintain the accuracy of the tool assembly, do not use collets and nuts manufactured by another company with the chuck body of BIG's Mega ER Grip. Also, we cannot guarantee the accuracy statement for our collets if they are assembled on the chuck body of another manufacturer.



Sealed collet nut for coolant-through tools.



Nut for coolant delivery around cutter shank periphery.



Mega ER Perfect Seal Model	øD	ød1	ød2	L1	Cutter Shank Dia.	Collet Model
<b>MERPS16-030035</b>	30	12	22.4	6.4	3 - 3.5	ERC16- 3 - 3.75
-035040					- 3.5 - 4.25	
-040045					- 4 - 4.75	
-045050					- 4.5 - 5.25	
-050055					- 5 - 6	
-055060					- 5.5 - 6.5	
-060065		15	22.4	6.8	6 - 6.5	- 6 - 7
-065070					- 6.5 - 7.5	
-070075		16	22.4	6.8	7 - 7.5	- 7 - 8
-075080					- 7.5 - 8.5	
-080085		17	22.4	6.1	8 - 8.5	- 8 - 9
-085090					- 8.5 - 9.5	
-090095		18	22.4	6.1	9 - 9.5	- 9 - 10
-095100					- 9.5 - 10	
<b>MERPS20-030035</b>	35	12	26.8	6.4	3 - 3.5	ERC20- 3 - 3.75
-035040					- 3.5 - 4.25	
-040045					- 4 - 4.75	
-045050					- 4.5 - 5.25	
-050055					- 5 - 6	
-055060					- 5.5 - 6.5	
-060065		15	26.8	6.8	6 - 6.5	- 6 - 7
-065070					- 6.5 - 7.5	
-070075		16	26.8	6.8	7 - 7.5	- 7 - 8
-075080					- 7.5 - 8.5	
-080085		17	26.8	6.9	8 - 8.5	- 8 - 9
-085090					- 8.5 - 9.5	
-090095		18	26.8	6.9	9 - 9.5	- 9 - 10
-095100					- 9.5 - 10.5	
-100105	19	26.8	6.6	10 - 10.5	-10 - 11	
-105110				-10.5 - 11.5		
-110115	20	26.8	6.6	11 - 11.5	-11 - 12	
-115120				-11.5 - 12.5		
-120125	21	26.8	6.6	12 - 12.5	-12 - 13	
-125130				-12.5 - 13		

1. 1 pc. of PS Ring is included.

Mega ER Perfect Seal Model	øD	ød1	ød2	L1	Cutter Shank Dia.	Collet Model		
<b>MERPS25-030035</b>	42	12	33.5	6.3	3 - 3.5	ERC25- 3 - 3.75		
-035040					- 3.5 - 4.25			
-040045					- 4 - 4.75			
-045050					- 4.5 - 5.25			
-050055					- 5 - 6			
-055060		14		33.5	6.7	5.5 - 6	- 5.5 - 6.5	
-060065						6 - 6.5	- 6 - 7	
-065070						- 6.5 - 7.5		
-070075		16		33.5	6.7	7 - 7.5	- 7 - 8	
-075080						- 7.5 - 8.5		
-080085						- 8 - 9		
-085090		17		33.5	6.8	8 - 8.5	- 8 - 9	
-090095						- 8.5 - 9.5		
-095100						- 9 - 10		
-100105		18		33.5	6.8	9.5 - 10	- 9.5 - 10.5	
-105110						-10 - 11		
-110115						-10.5 - 11.5		
-115120		20		33.5	7.3	11 - 11.5	-11 - 12	
-120125						-11.5 - 12.5		
-125130						-12 - 13		
-130140		21		33.5	7.3	12.5 - 13	-12.5 - 13	
-140150						-13 - 14.5		
-150160						-14 - 15.5		
<b>MERPS32-030035</b>		50		12	41.1	6.2	3 - 3.5	ERC32- 3 - 3.75
-035040							- 3.5 - 4.25	
-040045	- 4 - 4.75							
-045050	- 4.5 - 5.25							
-050055	- 5 - 6							
-055060	14		41.1	6.6		5.5 - 6	- 5.5 - 6.5	
-060065						6 - 6.5	- 6 - 7	
-065070						- 6.5 - 7.5		
-070075	16		41.1	6.6		7 - 7.5	- 7 - 8	
-075080						- 7.5 - 8.5		
-080085						- 8 - 9		
-085090	17		41.1	6.7		8.5 - 9	- 8.5 - 9.5	
-090095						- 9 - 10		
-095100						- 9.5 - 10.5		
-100105	19		41.1	7.2		10 - 10.5	-10 - 11	
-105110						-10.5 - 11.5		
-110115						-11 - 12		
-115120	20		41.1	7.2		11.5 - 12	-11.5 - 12.5	
-120125						-12 - 13		
-125130						-12.5 - 13.5		
-130140	22		41.1	7.3		13 - 14	-13 - 14.5	
-140150						-14 - 15.5		
-150160						-15 - 16.5		
-160170	24		41.1	7.3		16 - 17	-16 - 17.5	
-170180						-17 - 18.5		
-180190		-18 - 19.5						
-190200	28	41.1	7.8	19 - 20	-19 - 20			



• Replaceable seal is installed in the Mega ER Perfect Seal  
Replacement seal is recommended when coolant leaks due to damage of the PS Ring.



1 package contains 5 pcs. (1 size)

Model	Corresponding MERPS Model	Model	Corresponding MERPS Model	Model	Corresponding MERPS Model
PS-0304	MERPS□-030035, 035040	PS-0809	MERPS□-080085, 085090	PS-1314	MERPS□-130140
-0405	-040045, 045050	-0910	-090095, 095100	-1415	-140150
-0506	-050055, 055060	-1011	-100105, 105110	-1516	-150160
-0607	-060065, 065070	-1112	-110115, 115120	-1617	-160170
-0708	-070075, 075080	-1213	-120125, 125130	-1718	-170180
				-1819	-180190
				-1920	-190200