



COUPLING  
LOCKING ELEMENT  
LOCKNUT  
GRINDING LOCKNUT



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DURIMITEC Co., Ltd. Is committed to fulfilling its responsibilities as a parts specialist based on years of accumulated experience and accumulated technology.

DURIMITEC Co., Ltd will do our best to be the leader of machine tool parts industry.

We promise to be a company that creates change with new thoughts and mind.





**COUPLING** 

Contents >>>

|              |              |            |           |
|--------------|--------------|------------|-----------|
| 014 DRB      | 024 DJC      | 036 DRS    | 050 DRFC  |
| 015 DRBS     | 026 DJCS     | 036 DRW    | 052 DRACL |
| 016 DRB-SUS  | 027 DRJT     | 036 DRA    | 054 DRJCL |
| 017 DRBS-SUS | 030 DRG      | 042 DHDA-A | 056 DRSS  |
| 020 DOH      | 030 DRG-C    | 044 DHDA-B | 057 DRSD  |
| 020 DOH-S    | 030 DRG-W    | 046 DHDA-T |           |
| 020 DOH-SS   | 031 DRGL-C   |            |           |
| 021 DOH-C    | 031 DRL-C    |            |           |
| 021 DOHS-C   | 031 DRL-V    |            |           |
| 021 DOH-SC   | 032 DRN      |            |           |
|              | 033 DRJ, DRP |            |           |



**LOCKNUT** 

|          |               |
|----------|---------------|
| 092 KZM  | 100 KSNT      |
| 093 KZMV | 101 ZMVT      |
| 094 KAN  | 102 DCN, DCNL |
| 096 KSN  | 104 AN        |
| 097 KSNA | 105 DN        |
| 098 KZMT |               |
| 099 KZMF |               |



**LOCKING ELEMENT** 

|             |            |            |           |
|-------------|------------|------------|-----------|
| 064 DR200   | 072 DR110  | 077 DR133B | 083 MAD   |
| 068 DR300   | 073 DR120  | 078 DR134S | 084 MAS   |
| 069 DR300C  | 074 DR132  | 079 DR400  | 085 MASUS |
| 070 DR300F  | 075 DR133  | 080 DR500  | 086 DRAP  |
| 071 DR300EF | 076 DR132A | 081 DR603  | 087 DRMC  |



**GRINDING LOCKNUT** 

|          |           |             |
|----------|-----------|-------------|
| 110 ZMG  | 116 UZMG  | 122 UBG-N-A |
| 111 ZMVG | 117 UZMVG | 123 UBG-N-B |
| 112 ZMFG | 118 UZMFG | 125 UBG-N-C |
|          | 119 UKANG | 126 UBG-N-D |
|          |           | 127 UBG-N-E |



\* The contests in the Catalogue will be changed without separate notice in advance in accordance with product improvement policies.

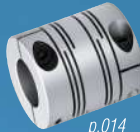
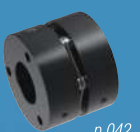
# COUPLING



Durimatec’s coupling is function to connect the axis and axis. Connecting the shaft to the shaft is not an easy task, so the coupling can play a role in determining the application and selecting the coupling.

DURIMATEC has many kinds of couplings, various ways to fix the shaft, and it is thoroughly managed through excellent technology and strict quality inspection.

In addition, it offers various services such as material change, so it is optimized to select the coupling suitable for the application.

|                                                                                      |  |                                                                                       |  |                                                                                       |  |                                                                                       |  |                                                                                       |  |                                                                                       |  |                                                                                       |  |
|--------------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------|--|
| Slit type >>>                                                                        |  | DRB                                                                                   |  | DRBS                                                                                  |  | DRB-SUS                                                                               |  | DRBS-SUS                                                                              |  |                                                                                       |  |                                                                                       |  |
|                                                                                      |  |    |  |    |  |    |  |    |  |                                                                                       |  |                                                                                       |  |
|                                                                                      |  | p.014                                                                                 |  | p.015                                                                                 |  | p.016                                                                                 |  | p.017                                                                                 |  |                                                                                       |  |                                                                                       |  |
| Oldham type >>>                                                                      |  | DOH                                                                                   |  | DOH-S                                                                                 |  | DOH-SS                                                                                |  | DOH-C                                                                                 |  | DOHS-C                                                                                |  | DOH-SC                                                                                |  |
|                                                                                      |  |    |  |    |  |    |  |    |  |    |  |    |  |
|                                                                                      |  | p.020                                                                                 |  | p.020                                                                                 |  | p.020                                                                                 |  | p.021                                                                                 |  | p.021                                                                                 |  | p.021                                                                                 |  |
|                                                                                      |  |                                                                                       |  | Jaw type >>>                                                                          |  | DJC                                                                                   |  | DJCS                                                                                  |  | DRJT                                                                                  |  |                                                                                       |  |
|                                                                                      |  |                                                                                       |  |                                                                                       |  |    |  |    |  |    |  |                                                                                       |  |
|                                                                                      |  |                                                                                       |  |                                                                                       |  | p.024                                                                                 |  | p.026                                                                                 |  | p.027                                                                                 |  |                                                                                       |  |
| DRG-C                                                                                |  | DRG-W                                                                                 |  | DRGL-C                                                                                |  | DRL-C                                                                                 |  | DRL-V                                                                                 |  | DRN                                                                                   |  | DRJ/DRP                                                                               |  |
|  |  |   |  |   |  |   |  |   |  |   |  |   |  |
| p.030                                                                                |  | p.030                                                                                 |  | p.030                                                                                 |  | p.031                                                                                 |  | p.031                                                                                 |  | p.032                                                                                 |  | p.033                                                                                 |  |
| Disk type >>>                                                                        |  | DRS                                                                                   |  | DRW                                                                                   |  | DRA                                                                                   |  | DHDA-A                                                                                |  | DHDA-B                                                                                |  | DHDA-T                                                                                |  |
|                                                                                      |  |  |  |  |  |  |  |  |  |  |  |  |  |
|                                                                                      |  | p.036                                                                                 |  | p.036                                                                                 |  | p.036                                                                                 |  | p.042                                                                                 |  | p.044                                                                                 |  | p.046                                                                                 |  |
|                                                                                      |  |                                                                                       |  |                                                                                       |  |                                                                                       |  | Flexible type >>>                                                                     |  | DRFC                                                                                  |  |                                                                                       |  |
|                                                                                      |  |                                                                                       |  |                                                                                       |  |                                                                                       |  |                                                                                       |  |  |  | p.050                                                                                 |  |
| Connecting Shaft >>>                                                                 |  | DRACL                                                                                 |  | DRJCL                                                                                 |  |                                                                                       |  |                                                                                       |  |                                                                                       |  |                                                                                       |  |
|                                                                                      |  |  |  |  |  |                                                                                       |  |                                                                                       |  |                                                                                       |  |                                                                                       |  |
|                                                                                      |  | p.052                                                                                 |  | p.054                                                                                 |  |                                                                                       |  |                                                                                       |  |                                                                                       |  |                                                                                       |  |
| Set collars >>>                                                                      |  | DRSS                                                                                  |  | DRSD                                                                                  |  |                                                                                       |  |                                                                                       |  |                                                                                       |  |                                                                                       |  |
|                                                                                      |  |  |  |  |  |                                                                                       |  |                                                                                       |  |                                                                                       |  |                                                                                       |  |
|                                                                                      |  | p.056                                                                                 |  | p.057                                                                                 |  |                                                                                       |  |                                                                                       |  |                                                                                       |  |                                                                                       |  |



COUPLING Technical data

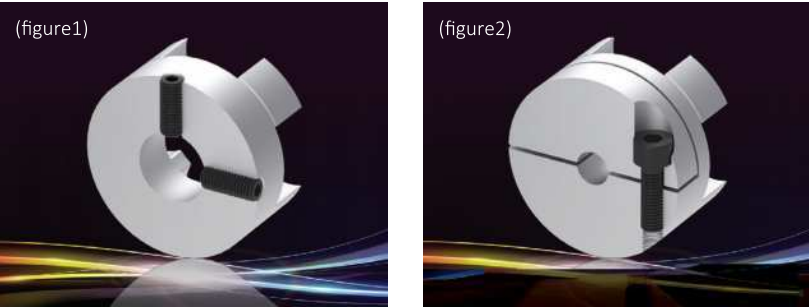
Features

The coupling is used to transfer some power by connecting the drive shaft with the driven shaft.  
It consists of corrosion-resistant aluminum alloy(Duralumin) with light weight and high stiffness, so a revolution system with a small inertia can be driven..  
It includes DRB, DRBS, DOH, DOHS, DJC, DJCS, DRJT, DRG, DRGL and etc.  
Other than DRN, DRJ and DRP.

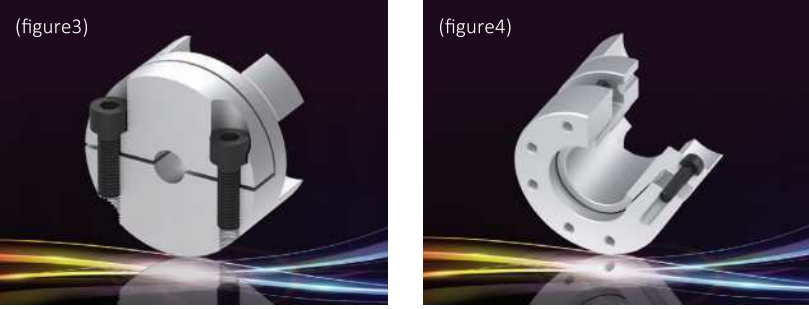
How to fix the axis

The coupling has a choice of ways to lock the axle. You can choose the best type for your application and environment.  
Based on which type can be optimized, different types or the diameter can be chosen depending on the shaft where the input and output are located.  
All the type can supply key way except taper type.

Set screw type (figure1)  
One bolt side clamp type (figure2)



Two bolt side clamp type (figure3)  
Taper type (figure4)



How to select the coupling

Verify usage

There are features and advantages for each type of coupling, so please select it according to your application.  
Type of motor : Servo Motor, Stepping Motor, General wide use Motor, Encoder  
For special conditions and special environment : Clean room, Anti-corrosive, High temperature

Select Size : Torque check

The following functional expression is required in having the coupling selected.  
-  $T(\text{torque}) [\text{N}\cdot\text{m}] = 9550 \times P(\text{power}) [\text{kW}] / \text{Rev. N} [\text{min}^{-1}]$

Selection coefficient K by a fluctuation in the power

In case there is a fluctuation in the power transmitted, according to its type, the coupling must be selected with a larger capacity of transfer torque than the value by multiplied by coefficient K.  
- No fluctuation to Less fluctuation:  $K=1.0\sim1.5$   
- Intermediate fluctuation to More fluctuation  $K=2.0\sim2.3$

COUPLING Technical data

How to select the coupling

Power conversion efficiency, transmission efficiency  $\eta$

More power is required on the supplied side according to the efficiency when the power is recognized on the consumed side.  
The selected power contributes to the choice of the coupling with a larger capacity of transfer torque than the power on the supplied side.  
For example, in case of the conventional gear driving, larger power can be required due to the low efficiency in transmission.  
-  $\text{Power Output (PO)} [\text{kW}] = \text{Coefficient K} \times \text{Power Consumption (PS)} [\text{kW}] / \text{Efficiency } \eta$   
Efficiency  $\eta : \eta < 1.0$

The coupling can be generally chosen as torque value specified in the common transfer torque>The supplied power.  
However, when the servo motor generates much larger torque values to accelerate or decelerate during starting or stopping, the coupling can be selected as a maximum transfer torque larger than the maximum startup torque multiplied by 1.5 on the moter.  
- The maximum transfer torque on the coupling > The maximum startup torque on the servo motor $\times 1.5$   
※ The coupling can be selected as a larger value between the common transfer torque and the maximum transferring torque given.

How to select the Inner Diameter

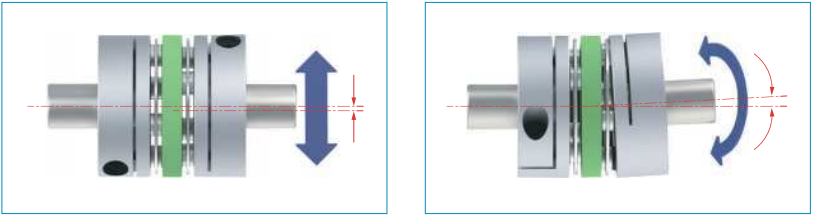
Check the size of the shaft if it is within the standard inner diameter range. For non-standard inner diameter, please contact the office.  
Coupling should be selected in consideration of various other conditions.

Revolutions

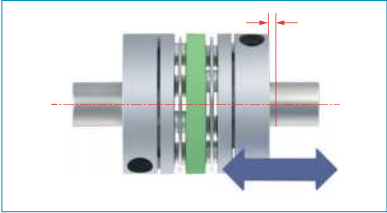
It is recommended that the rev. be applied lower than the maximum rev. as described in the table showing the model No. of each page on the catalog.

Adjustment of alignment

The coupling permits misalignment, but if it exceeds the allowable value, vibration and noise will occur and the lifetime will be reduced. For eccentricity, declination and endplay(axial variation), in the catalog  
※ Caution, especially when used in areas requiring high speed rotation.



2-axis eccentricity - Less than the maximum allowable eccentricity must be applied  
2-declination - Less than the maximum allowable declination must be applied



axial fluctuations - Less than the maximum allowable fluctuations must be applied

※ Be sure that there is any coupling type which will not meet above requirements.

COUPLING Technical data

Other requirements

**Torsional rigidity(the spring constant)**  
No. of frequency division for a feed screw can be calculated with the rigidity both on the coupling and the shaft.  
Rigid kt coupled with the axis on a feed screw connected in Series.  
-  $1/kt = 1/ks + 1/kc$  ks : Rigidity on the axis of a screw[N·m/rad]  
kc : Rigidity on the coupling[N·m/rad]  
J i : Inertia on the input axis[N·m<sup>2</sup>]  
J o : Inertia on the axial force[N·m<sup>2</sup>]

No. of frequency division (Fd) can be calculated from this kt and, Ji and Jo on the input and output axes as the following steps.  
-  $Fd = 0.5 \cdot (1 / \pi) \cdot \{9.8 \cdot kt \cdot (1 / Ji + 1 / Jo)\}^{-2}$

**Moment of Inertia**  
Moment of Inertia, a kind of inertia of revolving body, indicates the levels of difficulty when a moving torque(T) is loaded  
On the revolving body.  
Most of the Duri couplings are designed with a light-weighted compact body, so a value mentioned can be ignored in the process of power transmission, but be sure that values must be checked as described in the table showing each type on the catalog when calculating startup torques for multiple usage or the entire precise vibrations.

Precautions when using

If the coupling is subjected to a strong impact from the outside, the assembly accuracy can not be maintained and there is a possibility of damage during use.

**Attach**  
Check that the Tightening screw and set screw are loosened and remove foreign matter and oil on the inner surface of the shaft and coupling. (Wipe out the oil using a degreasing agent and use it.)  
When inserting the coupling into the shaft, the length at which the shaft is inserted into the coupling is up to the length of the hub. If it is short or long, it may cause slip and interference. In particular, be careful when attaching the coupling to the motor shaft and then inserting the coupling on the opposite shaft, which may inadvertently apply excessive compressive force. Make sure that the coupling smoothly moves in the axial and rotational directions with the tightening screw or set screw loosened. If it does not move smoothly, adjust the centering of the two axes again. This method is recommended as a simple confirmation method of the left and right concentricity. However, if this is not possible, check the degree of assembly by controlling the machine parts quality and other methods.  
Check the action of force such as compression or tension in the axial direction and tighten the tightening screw or set screw.  
When tightening the tightening screw or set screw, tighten it within the specified torque range with a calibrated torque wrench.

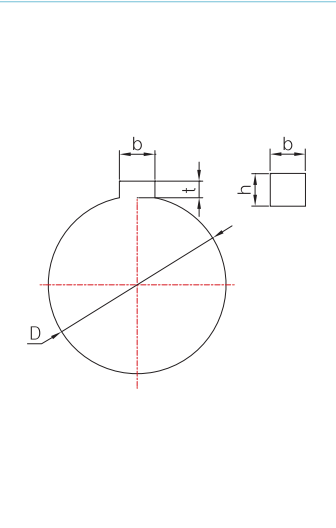
**Disassemble**  
Make sure that no torque and axial loads are applied to the coupling. Torque may be applied to the coupling, especially when the safety brake device is in operation. Please check before disassemble it.  
Loosen all tightening screw or set screws.  
The fastening to the shaft will not be released until it is fully loosened.

COUPLING Technical data

For key way machining

key way machining is available upon request. However, basically, it is designed to transmit torque by frictional engagement by clamping mechanism. Therefore, do not exceed the allowable torque of coupling.  
Also, please note the following points before applying them.  
The key must be used less than or equal to the key way width. If the key is pressed in, it may be damaged during attachment or operation.  
Please contact the office if you need the position of the key way  
When applying a JS9 tolerance, it is possible to compress the coupling when attaching it to the shaft by means of a tight fit. Be careful not to apply compression.  
When applying a JS9 tolerance, it is possible to compress the coupling when attaching it to the shaft by means of a tight fit. Be careful not to apply compression.  
If a fixing screw is added on the key way, the clamp function will be lowered, and there is a danger that the fixing screw will loosen in the torque range to be used and in the reverse operation. Also, it is not recommended because the structure of the hub may deteriorate in strength and the coupling may be damaged.

Key way size



| Shaft diameter<br>(φ)D | Key way            |           |                    |           | Key   |
|------------------------|--------------------|-----------|--------------------|-----------|-------|
|                        | b (mm)             |           | t (mm)             |           | b×h   |
|                        | Reference standard | Tolerance | Reference standard | Tolerance |       |
| 6～8                    | 2                  | ±0.0125   | 1.0                | +0.1<br>0 | 2×2   |
| 8～10                   | 3                  |           | 1.4                |           | 3×3   |
| 10～12                  | 4                  | ±0.0150   | 1.8                |           | 4×4   |
| 12～17                  | 5                  |           | 2.3                |           | 5×5   |
| 17～22                  | 6                  |           | 2.8                |           | 6×6   |
| 22～30                  | 8                  | ±0.0180   | 3.3                | +0.2<br>0 | 8×7   |
| 30～38                  | 10                 |           |                    |           | 10×8  |
| 38～44                  | 12                 | 12×8      |                    |           |       |
| 44～50                  | 14                 | ±0.0215   | 3.8                |           | 14×9  |
| 50～58                  | 16                 |           | 4.3                |           | 16×10 |
| 58～65                  | 18                 |           | 4.4                | 18×11     |       |

Offering Options

- Many of the DURI couplings are custom-built and offer a wide range of optional services to provide a wide range of specifications.
- Key way processing
  - Additional machining of inner diameter
  - Bolt material change
  - Body material change
  - Specification of total length
  - Hub section tap processing
  - Change both hub combinations
  - Combination of options
  - Special orders can be made



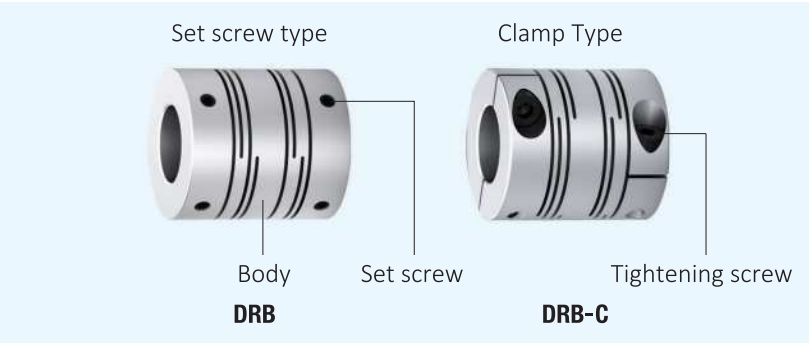


Features

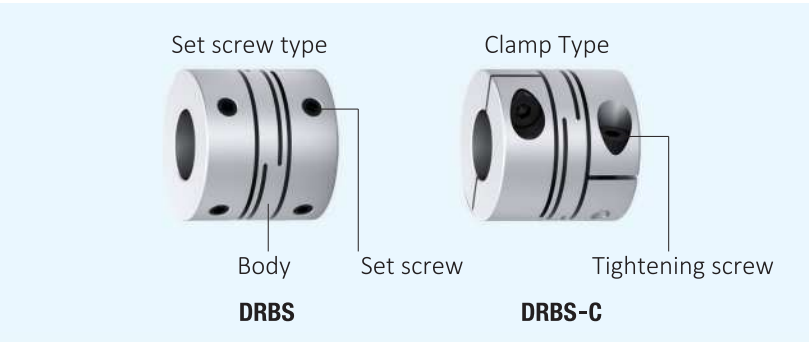
- Completely integrated coupling with slit type and Zero backlash.
- Forward and reverse are the same features and torsional rigidity is outstanding.
- Outstanding Oil-resistance and Anti-chemical.
- The plate spring formed with slit absorbs Eccentricity, declination and end play.
- using aluminum alloy with high stiffness(Duralumin).

Structure (fastening type) and material

DRB Standard



DRBS-Compact type



- Body : Aluminum alloy with high stiffness
- Body Surface treatment : Alumite process
- Set screw : SCM435
- Tightening Screw : SCM435

Structure (fastening type) and material

DRB-SUS Standard

Applicable to special environments where water resistance and corrosion resistance are required.

DRBS-SUS Compact type

Applicable to special environments where water resistance and corrosion resistance are required.

Structure (fastening type) and material

- Body : Stainless steel
- Set screw : Stainless steel
- Tightening screw : Stainless steel

Relief Type

It is easy to assemble with a structure that is not affected by shaft by processing the inside wide.

Usage

- Servo Motor
- Stepping Motor
- General wide use Motor
- Encoder
- Others

Order Method (Order Example)

| DRB        | 25   | C              | 8                   | 10                  |
|------------|------|----------------|---------------------|---------------------|
| Product NO | Size | Fastening type | Inner diameter : D1 | Inner diameter : D2 |

| DRB        | 25   | C              | SUS      | 8                   | 10                  |
|------------|------|----------------|----------|---------------------|---------------------|
| Product NO | Size | Fastening type | Material | Inner diameter : D1 | Inner diameter : D2 |

Set screw type



DRB-SUS

Clamp Type



DRB-C-SUS

Set screw type

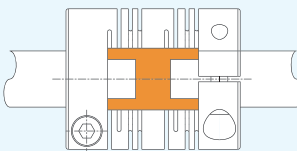


DRBS-SUS

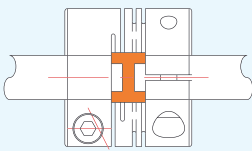
Clamp Type



DRBS-C-SUS

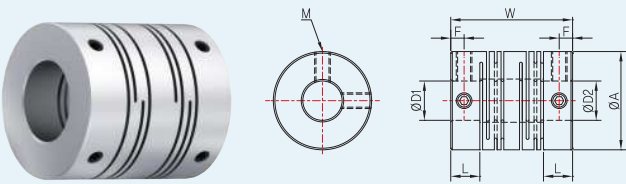


DRB

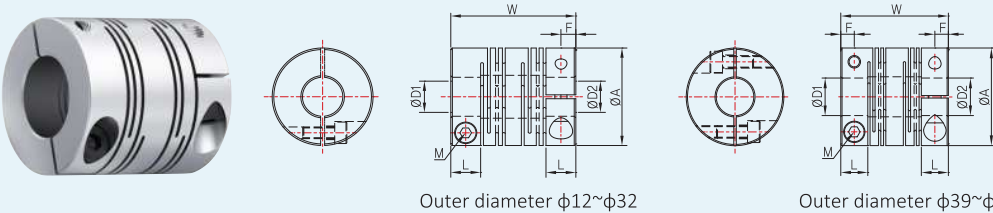


DRBS

Set screw type : DRB



Clamp Type : DRB-C



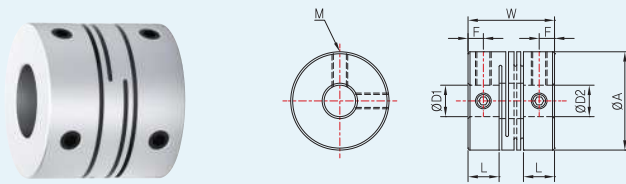
| Product NO. | Dimension(mm) |      |    |      | Tightening Screw |        | Rated Torque | Max. Torque | Max. RPM          | Moment of inertia      | Torsional Stiffness | Angle | Paralle | End play | Mass |
|-------------|---------------|------|----|------|------------------|--------|--------------|-------------|-------------------|------------------------|---------------------|-------|---------|----------|------|
|             |               |      |    |      | Size             | Torque |              |             |                   |                        |                     |       |         |          |      |
|             | A             | L    | W  | F    | M                | N · m  | N · m        | N · m       | min <sup>-1</sup> | kg · m <sup>2</sup>    | N · m/rad           | °     | mm      | ± mm     | g    |
| DRB-8       | 8             | 3.5  | 14 | 1.7  | M2               | 0.3    | 0.1          | 0.2         | 78,000            | 1.2 × 10 <sup>-8</sup> | 25                  | 2.5   | 0.10    | 0.2      | 1.4  |
| DRB-12      | 12            | 4.5  | 19 | 1.9  | M2.5             | 0.5    | 0.4          | 0.8         | 52,000            | 8.8 × 10 <sup>-8</sup> | 45                  | 2.5   | 0.10    | 0.3      | 3.7  |
| DRB-16      | 16            | 6.1  | 22 | 2.3  | M3               | 0.7    | 0.5          | 1           | 39,000            | 2.8 × 10 <sup>-7</sup> | 80                  | 2.5   | 0.15    | 0.4      | 8    |
| DRB-19      | 19            | 6.1  | 23 | 2.8  | M3               | 0.7    | 1            | 2           | 31,000            | 6.5 × 10 <sup>-7</sup> | 170                 | 2.5   | 0.15    | 0.4      | 11   |
| DRB-22      | 22            | 7.2  | 26 | 3.25 | M4               | 1.7    | 1.5          | 3           | 27,000            | 1.4 × 10 <sup>-6</sup> | 220                 | 2.5   | 0.15    | 0.4      | 18   |
| DRB-25      | 25            | 7.4  | 31 | 3.4  | M4               | 1.7    | 2            | 4           | 25,000            | 3.4 × 10 <sup>-6</sup> | 380                 | 2.5   | 0.2     | 0.5      | 27   |
| DRB-32      | 32            | 9.4  | 39 | 4.7  | M5               | 4      | 4            | 8           | 19,000            | 9.4 × 10 <sup>-6</sup> | 500                 | 2.5   | 0.25    | 0.5      | 55   |
| DRB-39      | 39            | 16   | 56 | 6.8  | M5               | 4      | 8            | 16          | 15,000            | 2.8 × 10 <sup>-5</sup> | 700                 | 2.5   | 0.25    | 0.5      | 130  |
| DRB-49      | 49            | 20   | 70 | 9.5  | M6               | 7      | 16           | 32          | 12,000            | 1.0 × 10 <sup>-4</sup> | 1,800               | 2.5   | 0.25    | 0.5      | 280  |
| DRB-60      | 60            | 19   | 88 | 9    | M8               | 15     | 32           | 64          | 10,000            | 3.0 × 10 <sup>-4</sup> | 3,100               | 2.5   | 0.3     | 0.5      | 480  |
| DRB-12C     | 12            | 5    | 19 | 2.5  | M2               | 0.5    | 0.4          | 0.8         | 52,000            | 7.8 × 10 <sup>-8</sup> | 45                  | 2.5   | 0.1     | 0.3      | 4    |
| DRB-16C     | 16            | 6.1  | 22 | 3.05 | M2.5             | 1      | 0.5          | 1           | 39,000            | 3.1 × 10 <sup>-7</sup> | 80                  | 2.5   | 0.15    | 0.4      | 8.5  |
| DRB-19C     | 19            | 6.1  | 23 | 3.05 | M2.5             | 1      | 1            | 2           | 31,000            | 6.5 × 10 <sup>-7</sup> | 170                 | 2.5   | 0.15    | 0.4      | 12   |
| DRB-22C     | 22            | 7.2  | 26 | 3.6  | M3               | 2      | 1.5          | 3           | 27,000            | 1.4 × 10 <sup>-6</sup> | 220                 | 2.5   | 0.15    | 0.4      | 19   |
| DRB-25C     | 25            | 7.4  | 31 | 3.7  | M3               | 2      | 2            | 4           | 25,000            | 3.4 × 10 <sup>-6</sup> | 380                 | 2.5   | 0.2     | 0.5      | 28   |
| DRB-32C     | 32            | 9.4  | 39 | 4.7  | M4               | 4      | 4            | 8           | 19,000            | 9.1 × 10 <sup>-6</sup> | 500                 | 2.5   | 0.25    | 0.5      | 58   |
| DRBL-32C    | 32            | 9.4  | 44 | 4.7  | M4               | 4      | 4            | 8           | 17,000            | 1.1 × 10 <sup>-5</sup> | 500                 | 2.5   | 0.25    | 0.5      | 75   |
| DRB-39C     | 39            | 10.8 | 43 | 5.4  | M5               | 8      | 8            | 16          | 15,000            | 2.1 × 10 <sup>-5</sup> | 700                 | 2.5   | 0.25    | 0.5      | 100  |
| DRBL-39C    | 39            | 13.6 | 56 | 6.8  | M5               | 8      | 8            | 16          | 13,000            | 3.1 × 10 <sup>-5</sup> | 700                 | 2.5   | 0.25    | 0.5      | 140  |
| DRB-49C     | 49            | 15   | 63 | 7.5  | M6               | 13     | 16           | 32          | 12,000            | 9.4 × 10 <sup>-5</sup> | 1,800               | 2.5   | 0.25    | 0.5      | 240  |
| DRBL-49C    | 49            | 15   | 70 | 7.5  | M6               | 13     | 16           | 32          | 11,000            | 1.0 × 10 <sup>-4</sup> | 1,800               | 2.5   | 0.25    | 0.5      | 260  |
| DRB-60C     | 60            | 19   | 76 | 9.35 | M8               | 30     | 32           | 64          | 10,000            | 2.5 × 10 <sup>-4</sup> | 3,100               | 2.5   | 0.3     | 0.5      | 410  |
| DRBL-60C    | 60            | 19   | 88 | 9.35 | M8               | 30     | 32           | 64          | 7,000             | 3.0 × 10 <sup>-4</sup> | 3,100               | 2.5   | 0.3     | 0.5      | 490  |

- \* The coupling torque may be limited by the retention force of the shaft fastening part, so check the ‘Standard inner diameter’.
- \* The Max. RPM did not take into account the dynamic balance.
- \* Mass and moment of inertia are calculated based on maximum inner diameter.
- \* Please contact us for other dimension allowances.

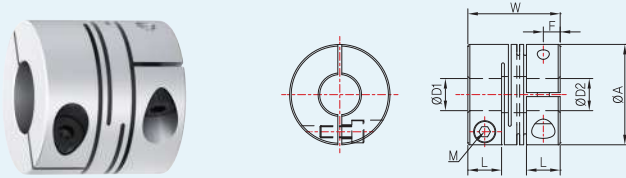
| Product NO. | Standard Inner Diameter(D1,D2)(mm) |   |   |   |   |      |   |       |    |    |    |    |    |    |    |    |
|-------------|------------------------------------|---|---|---|---|------|---|-------|----|----|----|----|----|----|----|----|
|             | 2                                  | 3 | 4 | 5 | 6 | 6.35 | 8 | 9.525 | 10 | 11 | 12 | 14 | 15 | 16 | 18 | 19 |
| DRB-8       | ●                                  | ● |   |   |   |      |   |       |    |    |    |    |    |    |    |    |
| DRB-12□     |                                    | ● | ● | ● |   |      |   |       |    |    |    |    |    |    |    |    |
| DRB-16□     |                                    | ● | ● | ● | ● |      |   |       |    |    |    |    |    |    |    |    |
| DRB-19□     |                                    |   | ● | ● | ● | ●    | ● |       |    |    |    |    |    |    |    |    |
| DRB-22□     |                                    |   |   | ● | ● | ●    | ● | ●     | ●  |    |    |    |    |    |    |    |
| DRB-25□     |                                    |   |   | ● | ● | ●    | ● | ●     | ●  | ●  | ●  |    |    |    |    |    |
| DRB□-32□    |                                    |   |   |   | ● | ●    | ● | ●     | ●  | ●  | ●  | ●  | ●  |    |    |    |
| DRB□-39□    |                                    |   |   |   |   |      |   |       | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |
| DRB□-49□    |                                    |   |   |   |   |      |   |       |    |    | ●  | ●  | ●  | ●  | ●  | ●  |
| DRB□-60□    |                                    |   |   |   |   |      |   |       |    |    |    | ●  | ●  | ●  | ●  | ●  |

- \* We encourage h7 for tolerance of attachment axis.
- \* The inner diameter of ● marked is the standard diameter.
- \* For non-standard inner diameters other than the above table, it is available separately. Please contact us.
- \* We can supply with Key way.

Set screw type : DRBS



Clamp Type : DRBS-C



| Product NO. | Dimension(mm) |      |    |     | Tightening Screw |        | Rated Torque | Max. Torque | Max. RPM          | Moment of inertia      | Torsional Stiffness | Angle | Paralle | End play | Mass |
|-------------|---------------|------|----|-----|------------------|--------|--------------|-------------|-------------------|------------------------|---------------------|-------|---------|----------|------|
|             |               |      |    |     | Size             | Torque |              |             |                   |                        |                     |       |         |          |      |
|             | A             | L    | W  | F   | M                | N · m  | N · m        | N · m       | min <sup>-1</sup> | kg · m <sup>2</sup>    | N · m/rad           | °     | mm      | ± mm     | g    |
| DRBS-8      | 8             | 3.4  | 10 | 1.7 | M2               | 0.3    | 0.1          | 0.2         | 78,000            | 1.0 × 10 <sup>-8</sup> | 25                  | 1     | 0       | 0.1      | 1    |
| DRBS-12     | 12.7          | 4.5  | 13 | 2.2 | M2.5             | 0.5    | 0.4          | 0.8         | 52,000            | 7.4 × 10 <sup>-8</sup> | 80                  | 1     | 0       | 0.15     | 3.4  |
| DRBS-16     | 16            | 5.0  | 14 | 2.5 | M3               | 0.7    | 0.5          | 1           | 39,000            | 2.9 × 10 <sup>-7</sup> | 180                 | 1     | 0       | 0.2      | 6    |
| DRBS-19     | 19            | 6.31 | 17 | 3.1 | M3               | 0.7    | 1            | 2           | 31,000            | 5.0 × 10 <sup>-7</sup> | 200                 | 1     | 0       | 0.2      | 10   |
| DRBS-22     | 22            | 6.9  | 19 | 3.4 | M4               | 1.7    | 1.5          | 3           | 27,000            | 1.1 × 10 <sup>-6</sup> | 350                 | 1     | 0       | 0.2      | 14   |
| DRBS-25     | 25            | 7.9  | 22 | 3.9 | M4               | 1.7    | 2            | 4           | 25,000            | 2.5 × 10 <sup>-6</sup> | 780                 | 1     | 0       | 0.2      | 22   |
| DRBS-32     | 32            | 10.5 | 29 | 5.2 | M5               | 4      | 4            | 8           | 19,000            | 7.5 × 10 <sup>-6</sup> | 1,100               | 1     | 0       | 0.2      | 45   |
| DRBS-12C    | 12.7          | 5    | 14 | 2.5 | M2               | 0.5    | 0.4          | 0.8         | 52,000            | 7.4 × 10 <sup>-8</sup> | 80                  | 1     | 0       | 0.15     | 3.8  |
| DRBS-16C    | 16            | 6    | 16 | 3.0 | M2.5             | 1      | 0.5          | 1           | 39,000            | 2.9 × 10 <sup>-7</sup> | 180                 | 1     | 0       | 0.2      | 6.5  |
| DRBS-19C    | 19            | 6.31 | 17 | 3.1 | M2.5             | 1      | 1            | 2           | 31,000            | 5.0 × 10 <sup>-7</sup> | 200                 | 1     | 0       | 0.2      | 10   |
| DRBS-22C    | 22            | 7.4  | 20 | 3.7 | M3               | 2      | 1.5          | 3           | 27,000            | 1.1 × 10 <sup>-6</sup> | 350                 | 1     | 0       | 0.2      | 15   |
| DRBS-25C    | 25            | 8.4  | 23 | 4.2 | M3               | 2      | 2            | 4           | 25,000            | 2.5 × 10 <sup>-6</sup> | 780                 | 1     | 0       | 0.2      | 25   |
| DRBS-32C    | 32            | 11   | 30 | 5.5 | M4               | 4      | 4            | 8           | 19,000            | 7.5 × 10 <sup>-6</sup> | 1,100               | 1     | 0       | 0.2      | 50   |

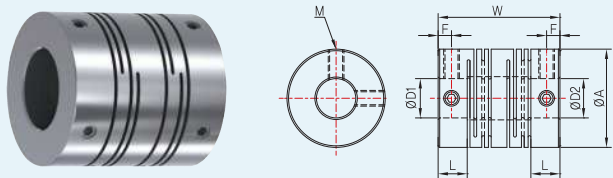
- \* The coupling torque may be limited by the retention force of the shaft fastening part, so check the ‘Standard inner diameter’.
- \* The Max. RPM did not take into account the dynamic balance.
- \* Mass and moment of inertia are calculated based on maximum inner diameter.
- \* Please contact us for other dimension allowances.

| Product NO. | Standard Inner Diameter(D1,D2)(mm) |   |   |   |   |      |   |       |    |    |    |    |    |
|-------------|------------------------------------|---|---|---|---|------|---|-------|----|----|----|----|----|
|             | 2                                  | 3 | 4 | 5 | 6 | 6.35 | 8 | 9.525 | 10 | 11 | 12 | 14 | 15 |
| DRBS-8      | ●                                  | ● |   |   |   |      |   |       |    |    |    |    |    |
| DRBS-12□    |                                    | ● | ● | ● |   |      |   |       |    |    |    |    |    |
| DRBS-16□    |                                    | ● | ● | ● | ● |      |   |       |    |    |    |    |    |
| DRBS-19□    |                                    |   | ● | ● | ● | ●    | ● |       |    |    |    |    |    |
| DRBS-22□    |                                    |   |   | ● | ● | ●    | ● | ●     | ●  |    |    |    |    |
| DRBS-25□    |                                    |   |   | ● | ● | ●    | ● | ●     | ●  | ●  | ●  | ●  |    |
| DRBS-32□    |                                    |   |   |   | ● | ●    | ● | ●     | ●  | ●  | ●  | ●  | ●  |

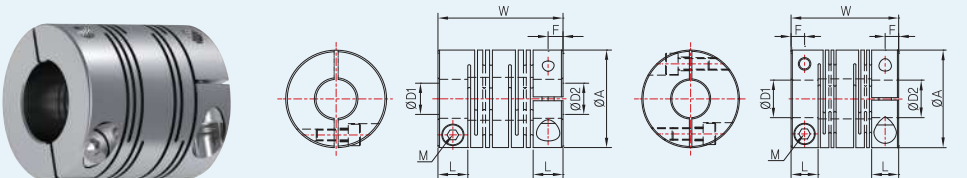
- \* We encourage h7 for tolerance of attachment axis.
- \* The inner diameter of ● marked is the standard diameter.
- \* For non-standard inner diameters other than the above table, it is available separately. Please contact us.
- \* We can supply with Key way.



Set screw type : DRB-SUS



Clamp Type : DRB-C-SUS



Outer diameter φ12~φ32

Outer diameter φ39~φ60

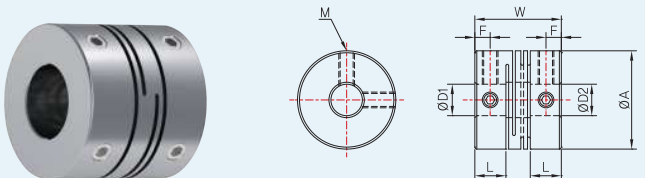
| Product NO.  | Dimension(mm) |      |    |      | Tightening Screw |        | Rated Torque | Max. Torque | Max. RPM          | Moment of inertia      | Torsional Stiffness | Angle | Paralle | End play | Mass  |
|--------------|---------------|------|----|------|------------------|--------|--------------|-------------|-------------------|------------------------|---------------------|-------|---------|----------|-------|
|              |               |      |    |      | Size             | Torque |              |             |                   |                        |                     |       |         |          |       |
|              | A             | L    | W  | F    | M                | N · m  | N · m        | N · m       | min <sup>-1</sup> | kg · m <sup>2</sup>    | N · m/rad           | °     | mm      | ± mm     | g     |
| DRB-8 SUS    | 8             | 3.5  | 14 | 1.7  | M2               | 0.3    | 0.2          | 0.4         | 78,000            | 3.1 × 10 <sup>-8</sup> | 50                  | 2.5   | 0.10    | 0.2      | 4     |
| DRB-12 SUS   | 12            | 4.5  | 19 | 1.9  | M2.5             | 0.5    | 0.3          | 0.6         | 52,000            | 2.1 × 10 <sup>-7</sup> | 65                  | 2.5   | 0.10    | 0.3      | 12    |
| DRB-16 SUS   | 16            | 6.1  | 22 | 2.3  | M3               | 0.7    | 0.5          | 1           | 39,000            | 8.4 × 10 <sup>-7</sup> | 85                  | 2.5   | 0.15    | 0.3      | 21    |
| DRB-19 SUS   | 19            | 6.1  | 23 | 2.8  | M3               | 0.7    | 1            | 2           | 31,000            | 2.4 × 10 <sup>-6</sup> | 250                 | 2.5   | 0.15    | 0.3      | 38    |
| DRB-22 SUS   | 22            | 7.2  | 26 | 3.25 | M4               | 1.7    | 1.6          | 3.2         | 27,000            | 3.8 × 10 <sup>-6</sup> | 300                 | 2.5   | 0.15    | 0.4      | 50    |
| DRB-25 SUS   | 25            | 7.4  | 31 | 3.4  | M4               | 1.7    | 2.1          | 4.2         | 25,000            | 6.8 × 10 <sup>-6</sup> | 350                 | 2.5   | 0.2     | 0.4      | 71    |
| DRB-32 SUS   | 32            | 9.4  | 39 | 4.7  | M5               | 4      | 3.8          | 7.6         | 19,000            | 2.6 × 10 <sup>-5</sup> | 850                 | 2.5   | 0.25    | 0.5      | 160   |
| DRB-39 SUS   | 39            | 16   | 56 | 6.8  | M5               | 4      | 8            | 16          | 15,000            | 8.7 × 10 <sup>-5</sup> | 1,000               | 2.5   | 0.25    | 0.5      | 350   |
| DRB-49 SUS   | 49            | 20   | 70 | 9.5  | M6               | 7      | 16           | 32          | 12,000            | 2.7 × 10 <sup>-4</sup> | 1,400               | 2.5   | 0.25    | 0.5      | 700   |
| DRB-60 SUS   | 60            | 19   | 88 | 9    | M8               | 15     | 35           | 70          | 10,000            | 8.4 × 10 <sup>-4</sup> | 1,800               | 2.5   | 0.3     | 0.5      | 1,300 |
| DRB-12C SUS  | 12            | 5    | 19 | 2.5  | M2               | 0.5    | 0.3          | 0.6         | 52,000            | 2.2 × 10 <sup>-7</sup> | 65                  | 2.5   | 0.1     | 0.2      | 12    |
| DRB-16C SUS  | 16            | 6.1  | 22 | 3.05 | M2.5             | 1      | 0.5          | 1           | 39,000            | 9.0 × 10 <sup>-7</sup> | 85                  | 2.5   | 0.15    | 0.3      | 25    |
| DRB-19C SUS  | 19            | 6.1  | 23 | 3.05 | M2.5             | 1      | 1            | 2           | 31,000            | 2.5 × 10 <sup>-6</sup> | 250                 | 2.5   | 0.15    | 0.3      | 32    |
| DRB-22C SUS  | 22            | 7.2  | 26 | 3.6  | M3               | 1.5    | 1.6          | 3.2         | 27,000            | 3.8 × 10 <sup>-6</sup> | 300                 | 2.5   | 0.15    | 0.4      | 43    |
| DRB-25C SUS  | 25            | 7.4  | 31 | 3.7  | M3               | 1.5    | 2.1          | 4.2         | 25,000            | 7.1 × 10 <sup>-6</sup> | 350                 | 2.5   | 0.2     | 0.4      | 78    |
| DRB-32C SUS  | 32            | 9.4  | 39 | 4.7  | M4               | 2.5    | 3.8          | 7.6         | 19,000            | 2.7 × 10 <sup>-5</sup> | 850                 | 2.5   | 0.25    | 0.5      | 170   |
| DRB-39C SUS  | 39            | 10.8 | 43 | 5.4  | M5               | 4      | 8            | 16          | 15,000            | 6.1 × 10 <sup>-5</sup> | 1,200               | 2.5   | 0.25    | 0.5      | 280   |
| DRBL-39C SUS | 39            | 13.6 | 56 | 6.8  | M5               | 4      | 8            | 16          | 13,000            | 9.0 × 10 <sup>-5</sup> | 1,000               | 2.5   | 0.25    | 0.5      | 370   |
| DRB-49C SUS  | 49            | 15   | 63 | 7.5  | M6               | 8      | 16           | 32          | 12,000            | 2.7 × 10 <sup>-5</sup> | 1,600               | 2.5   | 0.25    | 0.5      | 670   |
| DRBL-49C SUS | 49            | 15   | 70 | 7.5  | M6               | 8      | 16           | 32          | 11,000            | 2.8 × 10 <sup>-4</sup> | 1,400               | 2.5   | 0.25    | 0.5      | 750   |
| DRB-60C SUS  | 60            | 19   | 76 | 9.35 | M8               | 16     | 35           | 70          | 10,000            | 7.2 × 10 <sup>-4</sup> | 2,000               | 2.5   | 0.3     | 0.5      | 1,150 |
| DRBL-60C SUS | 60            | 19   | 88 | 9.35 | M8               | 16     | 35           | 70          | 7,000             | 8.8 × 10 <sup>-4</sup> | 1,800               | 2.5   | 0.3     | 0.5      | 1,400 |

- \* The coupling torque may be limited by the retention force of the shaft fastening part, so check the 'Standard inner diameter'.
- \* The Max. RPM did not take into account the dynamic balance.
- \* Mass and moment of inertia are calculated based on maximum inner diameter.
- \* Please contact us for other dimension allowances.

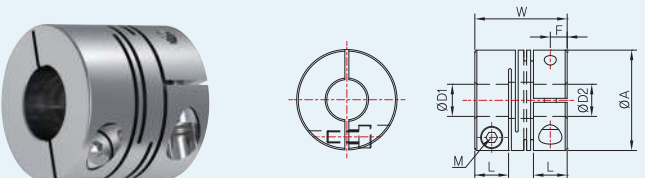
| Product NO. | Standard Inner Diameter(D1,D2)(mm) |   |   |   |   |      |   |       |    |    |    |    |    |    |    |    |
|-------------|------------------------------------|---|---|---|---|------|---|-------|----|----|----|----|----|----|----|----|
|             | 2                                  | 3 | 4 | 5 | 6 | 6.35 | 8 | 9.525 | 10 | 11 | 12 | 14 | 15 | 16 | 18 | 19 |
| DRB-8SUS    | ●                                  | ● |   |   |   |      |   |       |    |    |    |    |    |    |    |    |
| DRB-12□SUS  |                                    | ● | ● | ● |   |      |   |       |    |    |    |    |    |    |    |    |
| DRB-16□SUS  |                                    | ● | ● | ● | ● |      |   |       |    |    |    |    |    |    |    |    |
| DRB-19□SUS  |                                    |   | ● | ● | ● | ●    | ● |       |    |    |    |    |    |    |    |    |
| DRB-22□SUS  |                                    |   |   | ● | ● | ●    | ● | ●     | ●  |    |    |    |    |    |    |    |
| DRB-25□SUS  |                                    |   |   | ● | ● | ●    | ● | ●     | ●  | ●  | ●  |    |    |    |    |    |
| DRB□-32□SUS |                                    |   |   |   | ● | ●    | ● | ●     | ●  | ●  | ●  | ●  | ●  |    |    |    |
| DRB□-39□SUS |                                    |   |   |   |   |      |   | ●     | ●  | ●  | ●  | ●  | ●  | ●  |    |    |
| DRB□-49□SUS |                                    |   |   |   |   |      |   |       | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |
| DRB□-60□SUS |                                    |   |   |   |   |      |   |       |    |    | ●  | ●  | ●  | ●  | ●  | ●  |

- \* We encourage h7 for tolerance of attachment axis.
- \* The inner diameter of ● marked is the standard diameter.
- \* For non-standard inner diameters other than the above table, it is available separately. Please contact us.
- \* We can supply with Key way.

Set screw type : DRBS-SUS



Clamp Type : DRBS-C-SUS



| Product NO.  | Dimension(mm) |      |    |     | Tightening Screw |        | Rated Torque | Max. Torque | Max. RPM          | Moment of inertia      | Torsional Stiffness | Angle | Paralle | End play | Mass |
|--------------|---------------|------|----|-----|------------------|--------|--------------|-------------|-------------------|------------------------|---------------------|-------|---------|----------|------|
|              |               |      |    |     | Size             | Torque |              |             |                   |                        |                     |       |         |          |      |
|              | A             | L    | W  | F   | M                | N · m  | N · m        | N · m       | min <sup>-1</sup> | kg · m <sup>2</sup>    | N · m/rad           | °     | mm      | ± mm     | g    |
| DRBS-8 SUS   | 8             | 3.4  | 10 | 1.7 | M2               | 0.3    | 0.2          | 0.4         | 78,000            | 2.4 × 10 <sup>-8</sup> | 49                  | 1     | 0       | 0.1      | 2.7  |
| DRBS-12 SUS  | 12.7          | 4.5  | 13 | 2.2 | M2.5             | 0.5    | 0.3          | 0.6         | 52,000            | 1.8 × 10 <sup>-7</sup> | 140                 | 1     | 0       | 0.1      | 7.8  |
| DRBS-16 SUS  | 16            | 5.0  | 14 | 2.5 | M3               | 0.7    | 0.5          | 1           | 39,000            | 7.2 × 10 <sup>-7</sup> | 240                 | 1     | 0       | 1        | 18   |
| DRBS-19 SUS  | 19            | 6.31 | 17 | 3.1 | M3               | 0.7    | 0.9          | 1.8         | 31,000            | 2.1 × 10 <sup>-7</sup> | 300                 | 1     | 0       | 0.1      | 30   |
| DRBS-22 SUS  | 22            | 6.9  | 19 | 3.4 | M4               | 1.7    | 1.6          | 3.2         | 27,000            | 2.0 × 10 <sup>-6</sup> | 350                 | 1     | 0       | 0.1      | 39   |
| DRBS-25 SUS  | 25            | 7.9  | 22 | 3.9 | M4               | 1.7    | 2            | 4           | 25,000            | 6.1 × 10 <sup>-6</sup> | 720                 | 1     | 0       | 0.2      | 63   |
| DRBS-32 SUS  | 32            | 10.5 | 29 | 5.2 | M5               | 4      | 3.8          | 7.6         | 19,000            | 2.1 × 10 <sup>-5</sup> | 1,300               | 1     | 0       | 0.2      | 130  |
| DRBS-12C SUS | 12.7          | 5    | 14 | 2.5 | M2               | 0.5    | 0.3          | 0.6         | 52,000            | 1.8 × 10 <sup>-7</sup> | 140                 | 1     | 0       | 0.1      | 10   |
| DRBS-16C SUS | 16            | 6    | 16 | 3.0 | M2.5             | 1      | 0.5          | 1           | 39,000            | 7.8 × 10 <sup>-7</sup> | 240                 | 1     | 0       | 0.1      | 20   |
| DRBS-19C SUS | 19            | 6.31 | 17 | 3.1 | M2.5             | 1      | 0.9          | 1.8         | 31,000            | 1.5 × 10 <sup>-6</sup> | 300                 | 1     | 0       | 0.1      | 32   |
| DRBS-22C SUS | 22            | 7.4  | 20 | 3.7 | M3               | 1.5    | 1.6          | 3.2         | 27,000            | 2.1 × 10 <sup>-6</sup> | 350                 | 1     | 0       | 0.1      | 40   |
| DRBS-25C SUS | 25            | 8.4  | 23 | 4.2 | M3               | 1.5    | 2.1          | 4.2         | 25,000            | 6.3 × 10 <sup>-6</sup> | 720                 | 1     | 0       | 0.2      | 70   |
| DRBS-32C SUS | 32            | 11   | 30 | 5.5 | M4               | 2.5    | 3.8          | 7.6         | 19,000            | 2.2 × 10 <sup>-5</sup> | 1,300               | 1     | 0       | 0.2      | 140  |

- \* The coupling torque may be limited by the retention force of the shaft fastening part, so check the 'Standard inner diameter'.
- \* The Max. RPM did not take into account the dynamic balance.
- \* Mass and moment of inertia are calculated based on maximum inner diameter.
- \* Please contact us for other dimension allowances.

| Product NO. | Standard Inner Diameter(D1,D2)(mm) |   |   |   |   |      |   |       |    |    |    |    |
|-------------|------------------------------------|---|---|---|---|------|---|-------|----|----|----|----|
|             | 2                                  | 3 | 4 | 5 | 6 | 6.35 | 8 | 9.525 | 10 | 11 | 12 | 14 |
| DRBS-8SUS   | ●                                  | ● |   |   |   |      |   |       |    |    |    |    |
| DRBS-12□SUS |                                    | ● | ● | ● |   |      |   |       |    |    |    |    |
| DRBS-16□SUS |                                    | ● | ● | ● | ● |      |   |       |    |    |    |    |
| DRBS-19□SUS |                                    |   | ● | ● | ● | ●    | ● |       |    |    |    |    |
| DRBS-22□SUS |                                    |   |   | ● | ● | ●    | ● | ●     | ●  |    |    |    |
| DRBS-25□SUS |                                    |   |   | ● | ● | ●    | ● | ●     | ●  | ●  | ●  |    |
| DRBS-32□SUS |                                    |   |   |   | ● | ●    | ● | ●     | ●  | ●  | ●  | ●  |

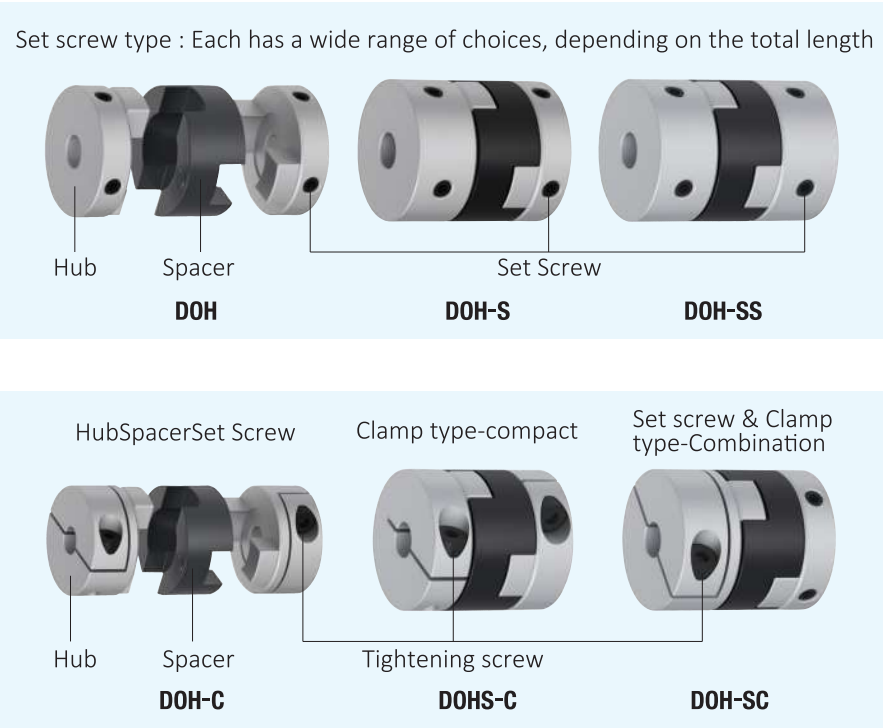
- \* We encourage h7 for tolerance of attachment axis
- \* The inner diameter of ● marked is the standard diameter.
- \* For non-standard inner diameters other than the above table, it is available separately. Please contact us.
- \* We can supply with Key way.



Features

- Bigger eccentricity and declination allowed as hub and space are slipped.
- Less shaft load caused by misalignment, so reduce to force to the shaft.
- Absorbs the angularity which is easy for spacer Protrusion.
- It absorbs vibration and has electrical insulation.
- It is easy to assemble. (easy replacement)
- Usable temperature is -20°C~80°C.

Structure (fastening type) and material

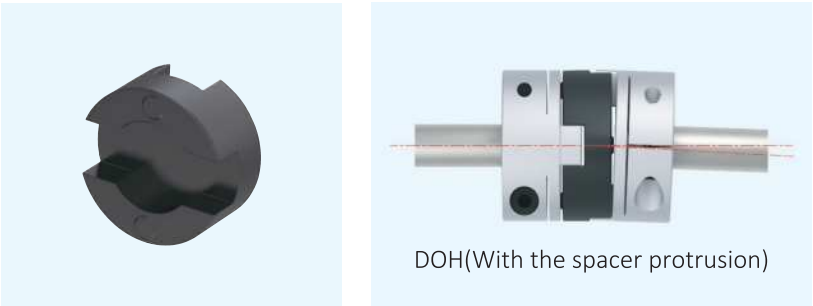


- Hub : Aluminum alloy with high stiffness
- Hub surface treatment: Alumite process
- Set Screw : SCM435
- Tightening screw : SCM435
- Spacer : Polyactel

Advantage of Spacer

Spacer protrusion

As the existing time Oldham type coupling without the spacer protrusion interferes outside diameter by spacer and hub, the error of angularity is less and a bending moment is occurred in the shaft. However, DOH type absorbs the angularity which is easy as protrusion and has no bending moment. It lessens the shaft load allowing the error of angularity with large protrusion of the space without problem.



Penetrate

If you request penetrate the space during order, it is possible. However, there is a size that can not penetrate the shaft according to the inner diameter, so be sure to check the standard inner diameter when requested.



Usage

- Servo Motor
- Stepping Motor
- General wide use Motor
- Encoder
- Others

Order Method (Order Example)

| DOH        | 25   | C              | 8                   | 10                  |
|------------|------|----------------|---------------------|---------------------|
| Product NO | Size | Fastening type | Inner diameter : D1 | Inner diameter : D2 |

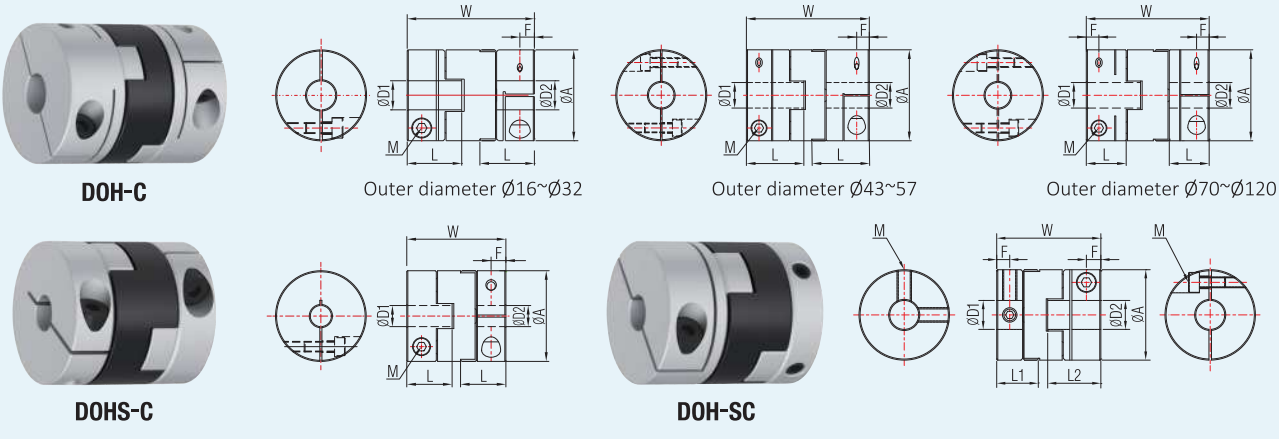
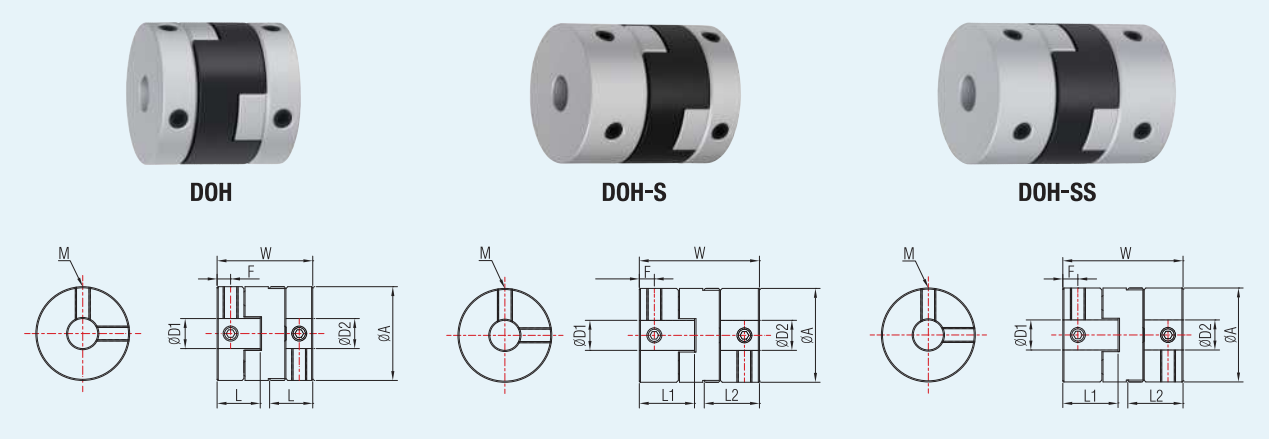


DOH Set screw type

DOH Clamp type

COUPLING

COUPLING



| Product NO. | Dimension(mm) |      |      |      | Tightening Screw |        | Rated Torque | Max. Torque | Max. RPM | Moment of inertia | Torsional Stiffness  | Angle   | Paralle | End play | Mass |     |
|-------------|---------------|------|------|------|------------------|--------|--------------|-------------|----------|-------------------|----------------------|---------|---------|----------|------|-----|
|             |               |      |      |      | Size             | Torque |              |             |          |                   |                      |         |         |          |      |     |
|             | A             | L    |      | W    | F                | M      | N · m        | N · m       | N · m    | min <sup>-1</sup> | kg · m <sup>2</sup>  | N·m/rad | °       | mm       | mm   | g   |
| L1          | L2            |      |      |      |                  |        |              |             |          |                   |                      |         |         |          |      |     |
| DOH-16      | 16            | 8.1  |      | 18   | 2.5              | M3     | 0.7          | 1           | 2        | 39,000            | 2.4×10 <sup>-7</sup> | 65      | 2       | 1        | 0.1  | 8   |
| DOH-20      | 20            | 9    |      | 20   | 2.7              | M4     | 1.7          | 1.5         | 3        | 31,000            | 8.1×10 <sup>-7</sup> | 120     | 2       | 1.5      | 0.1  | 14  |
| DOH-25      | 25            | 11.5 |      | 25.5 | 3.6              | M4     | 1.7          | 2.5         | 5        | 25,000            | 1.8×10 <sup>-6</sup> | 200     | 2       | 2        | 0.1  | 27  |
| DOH-32      | 32            | 14.5 |      | 32   | 4                | M5     | 4            | 7           | 14       | 19,000            | 3.0×10 <sup>-6</sup> | 620     | 2       | 2.5      | 0.2  | 48  |
| DOH-43      | 43            | 24   |      | 52   | 8.25             | M5     | 4            | 15          | 30       | 15,000            | 3.9×10 <sup>-5</sup> | 1,200   | 2       | 3        | 0.2  | 140 |
| DOH-53      | 53            | 27   |      | 58   | 9.75             | M6     | 7            | 25          | 50       | 12,000            | 6.7×10 <sup>-5</sup> | 1,400   | 2       | 3.5      | 0.2  | 250 |
| DOH-57      | 57            | 36   |      | 77   | 13.5             | M8     | 15           | 36          | 72       | 10,000            | 2.2×10 <sup>-4</sup> | 2,600   | 2       | 4        | 0.2  | 350 |
| DOH-70      | 73            | 37   |      | 77   | 12.5             | M8     | 15           | 65          | 130      | 7,000             | 4.5×10 <sup>-4</sup> | 4,800   | 2       | 4        | 0.2  | 550 |
| DOH-16S     | 16            | 8.1  | 10.9 | 20.8 | 2.5/3.9          | M3     | 0.7          | 1           | 2        | 39,000            | 2.7×10 <sup>-7</sup> | 65      | 2       | 1        | 0.1  | 10  |
| DOH-20S     | 20            | 9    | 11.7 | 22.8 | 2.7/4            | M4     | 1.7          | 1.5         | 3        | 31,000            | 9.0×10 <sup>-7</sup> | 120     | 2       | 1.5      | 0.1  | 14  |
| DOH-25S     | 25            | 11.5 | 14.7 | 28.8 | 3.6/5.2          | M4     | 1.7          | 2.5         | 5        | 25,000            | 2.6×10 <sup>-6</sup> | 200     | 2       | 2        | 0.1  | 23  |
| DOH-32S     | 32            | 14.5 | 21   | 38.5 | 4/7.25           | M5     | 4            | 7           | 14       | 19,000            | 1.1×10 <sup>-5</sup> | 620     | 2       | 2.5      | 0.2  | 41  |
| DOH-16SS    | 16            | 10.9 |      | 23.6 | 3.9              | M3     | 0.7          | 1           | 2        | 39,000            | 2.3×10 <sup>-7</sup> | 65      | 2       | 1        | 0.1  | 8   |
| DOH-20SS    | 20            | 11.7 |      | 25.5 | 4                | M4     | 1.7          | 1.5         | 3        | 31,000            | 8.9×10 <sup>-7</sup> | 120     | 2       | 1.5      | 0.1  | 14  |
| DOH-25SS    | 25            | 14.7 |      | 32   | 5.2              | M4     | 1.7          | 2.5         | 5        | 25,000            | 1.8×10 <sup>-6</sup> | 200     | 2       | 2        | 0.1  | 23  |
| DOH-32SS    | 32            | 21   |      | 45   | 7.25             | M5     | 4            | 7           | 14       | 19,000            | 9.5×10 <sup>-6</sup> | 620     | 2       | 2.5      | 0.2  | 41  |

- \* DOH16 has one set screw in the hub.
- \* The coupling torque may be limited by the retention force of the shaft fastening part, so check the ‘Standard inner diameter’.
- \* The Max. RPM did not take into account the dynamic balance.
- \* Mass and moment of inertia are calculated based on maximum inner diameter.
- \* Please contact us for other dimension allowances.

| Product NO. | Dimension(mm) |       |       |      |         | Tightening Screw |        | Rated Torque | Max. Torque | Max. RPM             | Moment of inertia    | Torsional Stiffness | Angle | Paralle | End play | Mass |
|-------------|---------------|-------|-------|------|---------|------------------|--------|--------------|-------------|----------------------|----------------------|---------------------|-------|---------|----------|------|
|             |               |       |       |      |         | Size             | Torque |              |             |                      |                      |                     |       |         |          |      |
|             | A             | L     |       | W    | F       | M                | N · m  | N · m        | N · m       | min <sup>-1</sup>    | kg · m <sup>2</sup>  | N·m/rad             | °     | mm      | mm       | g    |
| L1          | L2            |       |       |      |         |                  |        |              |             |                      |                      |                     |       |         |          |      |
| DOH-16C     | 16            | 10.9  | 23.6  | 2.9  | M2.5    | 1                | 1      | 2            | 39,000      | 3.7×10 <sup>-7</sup> | 65                   | 2                   | 1     | 0.1     | 9        |      |
| DOH-20C     | 20            | 11.7  | 25.5  | 3.2  | M2.5    | 1                | 1.5    | 3            | 31,000      | 9.3×10 <sup>-7</sup> | 120                  | 2                   | 1.5   | 0.1     | 16       |      |
| DOH-25C     | 25            | 14.7  | 32    | 4    | M3      | 2                | 2.5    | 5            | 25,000      | 3.3×10 <sup>-6</sup> | 200                  | 2                   | 2     | 0.1     | 30       |      |
| DOH-32C     | 32            | 21    | 45    | 5.4  | M4      | 4                | 7      | 14           | 19,000      | 1.4×10 <sup>-5</sup> | 620                  | 2                   | 2.5   | 0.2     | 60       |      |
| DOH-43C     | 43            | 24    | 52    | 6.2  | M5      | 8                | 15     | 30           | 15,000      | 4.3×10 <sup>-5</sup> | 1,200                | 2                   | 3     | 0.2     | 150      |      |
| DOH-53C     | 53            | 27    | 58    | 7    | M5      | 8                | 25     | 50           | 12,000      | 1.2×10 <sup>-4</sup> | 1,400                | 2                   | 3.5   | 0.2     | 250      |      |
| DOH-57C     | 57            | 36    | 77    | 7.9  | M6      | 13               | 36     | 72           | 10,000      | 1.8×10 <sup>-4</sup> | 2,600                | 2                   | 3.5   | 0.2     | 315      |      |
| DOH-70C     | 73            | 28    | 83    | 10   | M8      | 30               | 65     | 130          | 7,000       | 5.4×10 <sup>-4</sup> | 2,000                | 2                   | 3.5   | 0.2     | 670      |      |
| DOH-90C     | 88            | 33.85 | 98.7  | 13   | M10     | 50               | 105    | 210          | 5,000       | 1.2×10 <sup>-3</sup> | 2,500                | 2                   | 4     | 0.35    | 1,240    |      |
| DOH-120C    | 118           | 40.5  | 138.7 | 13.5 | M12     | 90               | 200    | 400          | 4,000       | 6.5×10 <sup>-3</sup> | 6,300                | 2                   | 4.5   | 0.4     | 2,600    |      |
| DOHS-12C    | 12            | 7     | 14.9  | 2.5  | M2      | 0.5              | 0.2    | 0.4          | 52,000      | 7.1×10 <sup>-8</sup> | 9                    | 2                   | 0.6   | 0.1     | 3        |      |
| DOHS-16C    | 16            | 9.5   | 20.8  | 3.2  | M2.5    | 1                | 1      | 2            | 39,000      | 3.2×10 <sup>-7</sup> | 65                   | 2                   | 1     | 0.1     | 8        |      |
| DOHS-20C    | 20            | 10.2  | 22.5  | 3.3  | M2.5    | 1                | 1.5    | 3            | 31,000      | 8.2×10 <sup>-7</sup> | 120                  | 2                   | 1.5   | 0.1     | 14       |      |
| DOHS-25C    | 25            | 12.2  | 27    | 3.9  | M3      | 2                | 2.5    | 5            | 25,000      | 2.6×10 <sup>-6</sup> | 200                  | 2                   | 2     | 0.1     | 25       |      |
| DOHS-32C    | 32            | 16    | 35    | 4.75 | M4      | 4                | 7      | 14           | 19,000      | 8.3×10 <sup>-6</sup> | 620                  | 2                   | 2.5   | 0.2     | 48       |      |
| DOHS-43C    | 43            | 21.5  | 47    | 7    | M5      | 8                | 15     | 30           | 15,000      | 2.0×10 <sup>-5</sup> | 1,200                | 2                   | 3     | 0.2     | 120      |      |
| DOHS-53C    | 53            | 24.5  | 53    | 8.5  | M5      | 8                | 25     | 50           | 12,000      | 9.6×10 <sup>-5</sup> | 1,400                | 2                   | 3.2   | 0.2     | 215      |      |
| DOHS-57C    | 57            | 25    | 55    | 8    | M6      | 13               | 36     | 72           | 10,000      | 1.3×10 <sup>-4</sup> | 2,600                | 2                   | 4     | 0.2     | 235      |      |
| DOHS-70C    | 73            | 37    | 77    | 12.5 | M8      | 30               | 65     | 130          | 7,000       | 4.5×10 <sup>-4</sup> | 4,800                | 2                   | 4     | 0.2     | 450      |      |
| DOH-16SC    | 16            | 8.1   | 10.9  | 20.8 | 2.5/2.9 | M3/M2.5          | 0.7/1  | 1            | 2           | 39,000               | 2.9×10 <sup>-7</sup> | 65                  | 2     | 1       | 0.1      | 7.5  |
| DOH-20SC    | 20            | 9     | 11.7  | 22.8 | 2.7/3.2 | M4/M2.5          | 1.7/1  | 1.5          | 3           | 31,000               | 9.0×10 <sup>-7</sup> | 120                 | 2     | 1.5     | 0.1      | 15.5 |
| DOH-25SC    | 25            | 11.5  | 14.7  | 28.8 | 3.6/4   | M4/M3            | 1.7/2  | 2.5          | 5           | 25,000               | 2.6×10 <sup>-6</sup> | 200                 | 2     | 2       | 0.1      | 27   |
| DOH-32SC    | 32            | 14.5  | 21    | 38.5 | 4/5.4   | M5/M4            | 4/4    | 7            | 14          | 19,000               | 1.1×10 <sup>-5</sup> | 620                 | 2     | 2.5     | 0.2      | 70   |

- \* The coupling torque may be limited by the retention force of the shaft fastening part, so check the ‘Standard inner diameter’.
- \* The Max. RPM did not take into account the dynamic balance.
- \* Mass and moment of inertia are calculated based on maximum inner diameter.
- \* Please contact us for other dimension allowances.

| Product NO. | Standard Inner Diameter(D1,D2)(mm) |   |   |   |      |   |       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-------------|------------------------------------|---|---|---|------|---|-------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
|             | 3                                  | 4 | 5 | 6 | 6.35 | 8 | 9.525 | 10 | 12 | 14 | 15 | 16 | 18 | 20 | 22 | 24 | 25 | 28 | 30 | 32 | 34 | 35 | 40 |
| DOH-16□     | ●                                  | ● | ● | ● |      |   |       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| DOH-20□     |                                    | ● | ● | ● | ●    | ● |       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| DOH-25□     |                                    |   | ● | ● | ●    | ● | ●     | ●  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| DOH-32□     |                                    |   |   | ● | ●    | ● | ●     | ●  | ●  | ●  | ●  |    |    |    |    |    |    |    |    |    |    |    |    |
| DOH-43□     |                                    |   |   |   |      | ● | ●     | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |    |    |    |    |    |    |    |    |
| DOH-53□     |                                    |   |   |   |      |   |       | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |    |    |    |    |    |
| DOH-57□     |                                    |   |   |   |      |   |       |    |    |    | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |    |    |    |    |
| DOH-70□     |                                    |   |   |   |      |   |       |    |    |    | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ○  |

- \* We encourage h7 for tolerance of attachment axis
- \* The inner diameter of ● and ○ marked box is the standard diameter.
- \* The inner diameter of ○ marked box can not penetrate through the shaft.
- \* For non-standard inner diameters other than the above table, it is available separately. Please contact us.
- \* We can penetrate into spacer.
- \* We can supply with Key way

| Product NO. | Standard Inner Diameter(D1,D2)(mm) |   |   |   |      |   |       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-------------|------------------------------------|---|---|---|------|---|-------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
|             | 3                                  | 4 | 5 | 6 | 6.35 | 8 | 9.525 | 10 | 12 | 14 | 15 | 16 | 18 | 20 | 22 | 24 | 25 | 28 | 30 | 32 | 34 | 35 | 40 | 42 | 45 | 50 | 55 | 60 |
| DOH□-12□    | ●                                  | ● | ● |   |      |   |       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| DOH□-16□    | ●                                  | ● | ● | ● |      |   |       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| DOH□-20□    |                                    | ● | ● | ● | ●    | ● |       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| DOH□-25□    |                                    |   | ● | ● | ●    | ● | ●     | ●  | ●  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| DOH□-32□    |                                    |   |   | ● | ●    | ● | ●     | ●  | ●  | ●  | ●  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| DOH□-43□    |                                    |   |   |   |      | ● | ●     | ●  | ●  | ●  | ●  | ●  | ●  | ●  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| DOH□-53□    |                                    |   |   |   |      |   | ●     | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |    |    |    |    |    |    |    |    |    |    |    |
| DOH□-57□    |                                    |   |   |   |      |   |       | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |    |    |    |    |    |    |    |    |    |
| DOH□-70□    |                                    |   |   |   |      |   |       |    | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ○  |    |    |    |    |    |
| DOH□-90□    |                                    |   |   |   |      |   |       |    |    | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ○  | ○  | ○  |    |    |
| DOH□-120□   |                                    |   |   |   |      |   |       |    |    |    | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ○  | ○  |

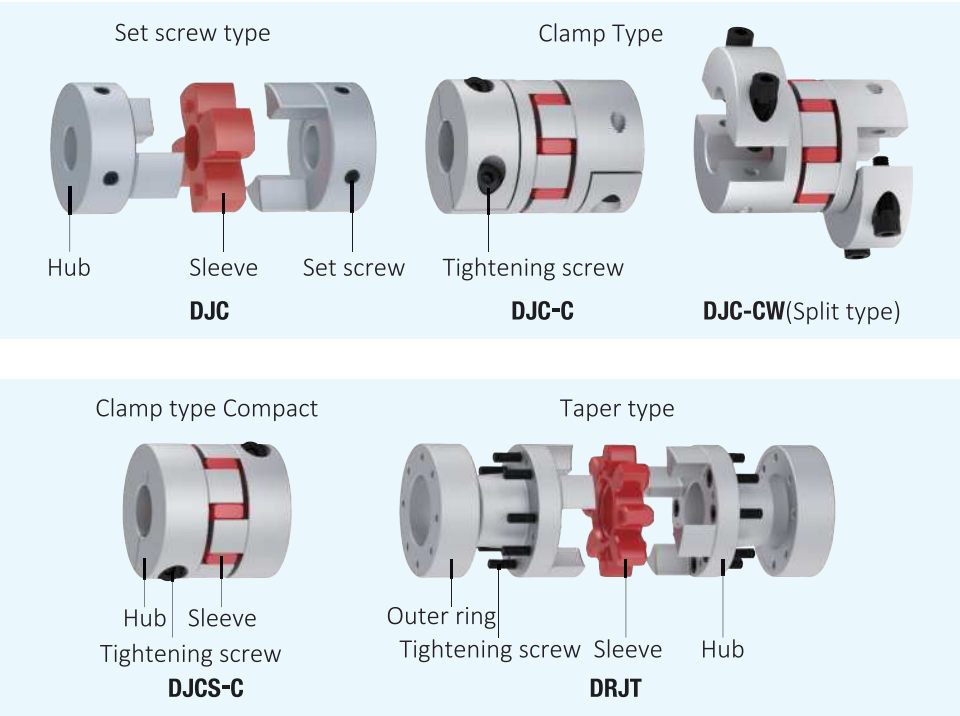
- \* We encourage h7 for tolerance of attachment axis
- \* The inner diameter of ● and ○ marked box is the standard diameter.
- \* The inner diameter of ○ marked box can not penetrate through the shaft.
- \* For non-standard inner diameters other than the above table, it is available separately. Please contact us.
- \* We can penetrate into spacer and can supply with Key way.



Features

- Unique structure as sleeve is pressed into both Hubs.
- Zero backlash available in low torque.
- Outstanding absorbing eccentricity, Declination, Torsional vibration.
- Oil-resistance and electric insulation.
- Forward and reverse are the same.

Structure (fastening type) and material



- Hub : Aluminum alloy with high stiffness
- Hub surface treatment : Alumite process
- Outer ring : Aluminum alloy with high stiffness
- Outer ring surface treatment : Alumite process
- Set screw : SCM435
- Tightening screw : SCM 435
- Sleeve : Polyurethane

Sleeve design

Sleeve type



| Type | Standard | Penetrate | Shore | Material     | Sustainable temperature | Feature                                             |
|------|----------|-----------|-------|--------------|-------------------------|-----------------------------------------------------|
| RD   |          |           | 98-A  | Polyurethane | -30~+90                 | High torque<br>High responsiveness                  |
| YL   |          |           | 92-A  | Polyurethane | -30~+90                 | Flexible and responsive balance type                |
| GR   |          |           | 64-D  | Hytrel       | -50~+120                | High responsiveness<br>High load<br>Heat resistance |

\* Although the sleeve has water resistance and oil resistance, please avoid the extreme attachment because it is a factor of deformation.  
\* Use and storage under direct sunlight may shorten the life of the sleeve.

Usage

- Servo Motor
- Stepping Motor
- General wide use Motor
- Encoder
- Others

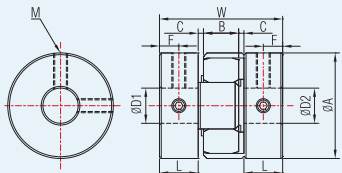
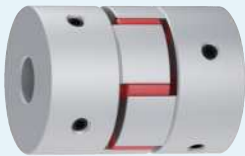
Others

- You can order claps on one side and set screw on the other side.
- Clamp type DJCL-30CRD or bigger size can be ordered Clamp split type.

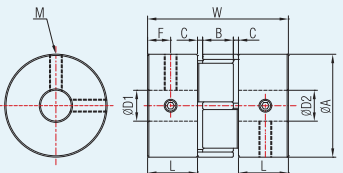
Order Method (Order Example)

| DJC        | 25   | C              | RD          | 8                   | 10                  |
|------------|------|----------------|-------------|---------------------|---------------------|
| Product NO | Size | Fastening type | Sleeve type | Inner diameter : D1 | Inner diameter : D2 |
| DJCS       | 25   | C              | RD          | 8                   | 10                  |
| Product NO | Size | Fastening type | Sleeve type | Inner diameter : D1 | Inner diameter : D2 |
| DRJT       | 55   | A              | RD          | 15                  | 20                  |
| Product NO | Size | Material       | Sleeve type | Inner diameter : D1 | Inner diameter : D2 |

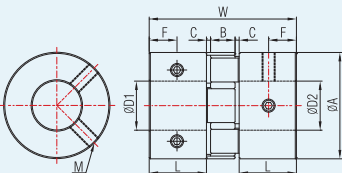
Set screw type : DJC



Outer diameter Ø14~Ø30



Outer diameter Ø40



Outer diameter Ø55~Ø100

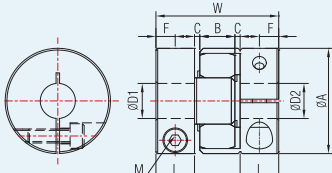
| Product NO. | Dimension(mm) |      |      |    |      |      | Tightening Screw |       | Rated Torque | Max. Torque | Max. RPM | Moment of inertia      | Torsional Stiffness | Angle | Paralle | End play  | Mass  |
|-------------|---------------|------|------|----|------|------|------------------|-------|--------------|-------------|----------|------------------------|---------------------|-------|---------|-----------|-------|
|             | A             | L    | W    | B  | C    | F    | M                | N · m |              |             |          |                        |                     |       |         |           |       |
| DJC-14RD    | 14            | 7    | 22   | 6  | 1    | 3.5  | M3               | 0.7   | 2            | 4           | 45,000   | 2.1 × 10 <sup>-7</sup> | 30                  | 1     | 0.1     | +0.6<br>0 | 7     |
| DJC-20RD    | 20            | 10   | 30   | 8  | 1    | 5    | M3               | 0.7   | 5            | 10          | 31,000   | 1.0 × 10 <sup>-6</sup> | 65                  | 1     | 0.1     | +0.8<br>0 | 18    |
| DJC-25RD    | 25            | 10   | 31.5 | 9  | 1.25 | 5    | M4               | 1.7   | 10           | 20          | 25,000   | 2.4 × 10 <sup>-6</sup> | 220                 | 1     | 0.1     | +1.0<br>0 | 25    |
| DJC-30RD    | 30            | 11   | 35   | 10 | 1.5  | 5.5  | M4               | 1.7   | 14           | 28          | 21,000   | 5.9 × 10 <sup>-6</sup> | 220                 | 1     | 0.1     | +1.0<br>0 | 46    |
| DJCL-30RD   | 30            | 15.5 | 44   | 10 | 1.5  | 7.75 | M4               | 1.7   | 14           | 28          | 20,000   | 7.2 × 10 <sup>-6</sup> | 220                 | 1     | 0.1     | +1.0<br>0 | 53    |
| DJC-40RD    | 40            | 19.5 | 55   | 12 | 2    | 9.75 | M5               | 4     | 18           | 36          | 15,000   | 3.1 × 10 <sup>-5</sup> | 2,000               | 1     | 0.1     | +1.0<br>0 | 125   |
| DJCL-40RD   | 40            | 25   | 66   | 12 | 2    | 11.5 | M5               | 4     | 18           | 36          | 14,000   | 4.0 × 10 <sup>-5</sup> | 2,000               | 1     | 0.1     | +1.0<br>0 | 150   |
| DJC-55RD    | 55            | 30   | 78   | 14 | 2    | 15   | M6               | 7     | 60           | 120         | 11,000   | 1.7 × 10 <sup>-4</sup> | 4,000               | 1     | 0.1     | +1.4<br>0 | 320   |
| DJC-65RD    | 65            | 35   | 90   | 15 | 2.5  | 17.5 | M8               | 15    | 160          | 320         | 9,000    | 3.9 × 10 <sup>-4</sup> | 8,000               | 1     | 0.1     | +1.5<br>0 | 550   |
| DJC-80RD    | 80            | 45   | 114  | 18 | 3    | 22.5 | M8               | 15    | 325          | 650         | 7,000    | 1.1 × 10 <sup>-3</sup> | 20,000              | 1     | 0.1     | +1.5<br>0 | 1,000 |
| DJC-95RD    | 95            | 50   | 126  | 20 | 3    | 25   | M8               | 15    | 450          | 900         | 6,000    | 2.3 × 10 <sup>-3</sup> | 30,000              | 1     | 0.1     | +2.0<br>0 | 1,500 |
| DJC-100RD   | 104           | 56   | 140  | 21 | 3.5  | 28   | M10              | 25    | 600          | 1,200       | 6,000    | 4.8 × 10 <sup>-3</sup> | 40,000              | 1     | 0.1     | +2.0<br>0 | 2,550 |

- \* The coupling torque may be limited by the retention force of the shaft fastening part, so check the ‘Standard inner diameter’.
- \* The Max. RPM did not take into account the dynamic balance.
- \* Mass and moment of inertia are calculated based on maximum inner diameter.
- \* Please contact us for other dimension allowances.

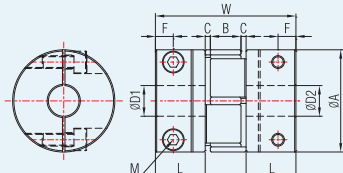
| Product NO. | Standard Inner Diameter(D1,D2)(mm) |   |     |   |   |      |   |   |       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-------------|------------------------------------|---|-----|---|---|------|---|---|-------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
|             | 3                                  | 4 | 4.5 | 5 | 6 | 6.35 | 7 | 8 | 9.525 | 10 | 11 | 12 | 14 | 15 | 16 | 18 | 19 | 20 | 22 | 24 | 25 | 26 | 28 | 30 | 32 | 35 | 38 | 40 | 45 | 50 | 60 |
| DJC-14RD    | ●                                  | ● | ●   | ● |   |      |   |   |       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| DJC-20RD    |                                    | ● | ●   | ● | ● | ●    | ● | ● |       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| DJC-25RD    |                                    |   |     | ● | ● | ●    | ● | ● | ●     | ●  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| DJC□-30RD   |                                    |   |     |   | ● | ●    | ● | ● | ●     | ●  | ●  | ●  | ●  | ●  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| DJC□-40RD   |                                    |   |     |   |   |      | ● | ● | ●     | ●  | ●  | ●  | ●  | ●  | ●  | ●  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| DJC-55RD    |                                    |   |     |   |   |      |   | ● | ●     | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |
| DJC-65RD    |                                    |   |     |   |   |      |   |   | ●     | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |
| DJC-80RD    |                                    |   |     |   |   |      |   |   |       | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |
| DJC-95RD    |                                    |   |     |   |   |      |   |   |       |    | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |
| DJC-100RD   |                                    |   |     |   |   |      |   |   |       |    |    | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |

- \* We encourage h7 for tolerance of attachment axis
- \* The inner diameter of ● marked is the standard diameter.
- \* For non-standard inner diameters other than the above table, it is available separately. Please contact us.
- \* We can penetrate the sleeve.
- \* We can supply with Key way.

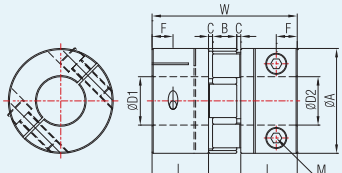
Clamp type : DJC-C



Outer diameter Ø14~Ø30



Outer diameter Ø40



Outer diameter Ø55~Ø100

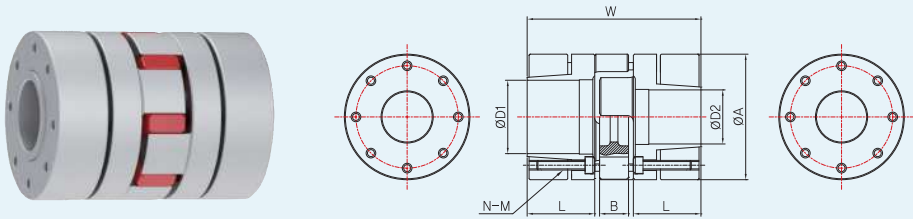
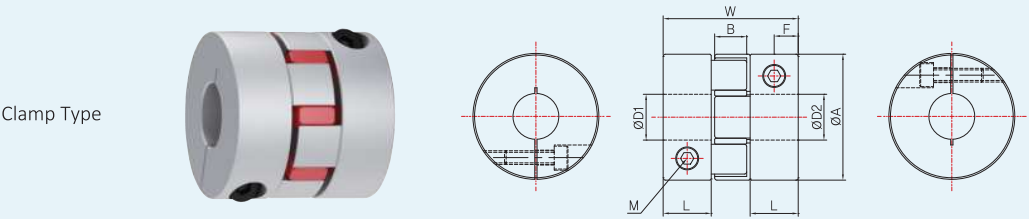
| Product NO. | Dimension(mm) |      |      |    |      |      | Tightening Screw |       | Rated Torque | Max. Torque | Max. RPM | Moment of inertia      | Torsional Stiffness | Angle | Paralle | End play  | Mass  |
|-------------|---------------|------|------|----|------|------|------------------|-------|--------------|-------------|----------|------------------------|---------------------|-------|---------|-----------|-------|
|             | A             | L    | W    | B  | C    | F    | M                | N · m |              |             |          |                        |                     |       |         |           |       |
| DJC-14CRD   | 14            | 7    | 22   | 6  | 1    | 3.5  | M2               | 0.5   | 2            | 4           | 45,000   | 1.6 × 10 <sup>-7</sup> | 30                  | 1     | 0.1     | +0.6<br>0 | 6     |
| DJC-20CRD   | 20            | 10   | 30   | 8  | 1    | 5    | M2.5             | 1     | 5            | 10          | 31,000   | 1.1 × 10 <sup>-6</sup> | 65                  | 1     | 0.1     | +0.8<br>0 | 19    |
| DJC-25CRD   | 25            | 10   | 31.5 | 9  | 1.25 | 5    | M3               | 2     | 10           | 20          | 25,000   | 2.4 × 10 <sup>-6</sup> | 220                 | 1     | 0.1     | +1.0<br>0 | 25    |
| DJC-30CRD   | 30            | 11   | 35   | 10 | 1.5  | 5.5  | M4               | 4     | 14           | 28          | 21,000   | 6.2 × 10 <sup>-6</sup> | 220                 | 1     | 0.1     | +1.0<br>0 | 50    |
| DJCL-30CRD  | 30            | 15.5 | 44   | 10 | 1.5  | 5.5  | M4               | 4     | 14           | 28          | 20,000   | 7.5 × 10 <sup>-6</sup> | 220                 | 1     | 0.1     | +1.0<br>0 | 55    |
| DJC-40CRD   | 40            | 19.5 | 55   | 12 | 2    | 7    | M5               | 8     | 18           | 36          | 15,000   | 3.1 × 10 <sup>-5</sup> | 2,000               | 1     | 0.1     | +1.0<br>0 | 135   |
| DJCL-40CRD  | 40            | 25   | 66   | 12 | 2    | 8.5  | M5               | 8     | 18           | 36          | 14,000   | 3.9 × 10 <sup>-5</sup> | 2,000               | 1     | 0.1     | +1.0<br>0 | 160   |
| DJC-55CRD   | 55            | 30   | 78   | 14 | 2    | 10.5 | M6               | 13    | 60           | 120         | 11,000   | 1.6 × 10 <sup>-4</sup> | 4,000               | 1     | 0.1     | +1.4<br>0 | 330   |
| DJC-65CRD   | 65            | 35   | 90   | 15 | 2.5  | 13   | M8               | 30    | 160          | 320         | 9,000    | 3.8 × 10 <sup>-4</sup> | 8,000               | 1     | 0.1     | +1.5<br>0 | 560   |
| DJC-80CRD   | 80            | 45   | 114  | 18 | 3    | 15   | M10              | 50    | 325          | 650         | 7,000    | 1.1 × 10 <sup>-3</sup> | 20,000              | 1     | 0.1     | +1.5<br>0 | 1,050 |
| DJC-95CRD   | 95            | 50   | 126  | 20 | 3    | 18   | M10              | 50    | 450          | 900         | 6,000    | 2.3 × 10 <sup>-3</sup> | 30,000              | 1     | 0.1     | +2.0<br>0 | 1,600 |
| DJC-100CRD  | 104           | 56   | 140  | 21 | 3.5  | 20   | M12              | 90    | 600          | 1,200       | 6,000    | 4.6 × 10 <sup>-3</sup> | 40,000              | 1     | 0.1     | +2.0<br>0 | 2,550 |

- \* The coupling torque may be limited by the retention force of the shaft fastening part, so check the ‘Standard inner diameter’.
- \* The Max. RPM did not take into account the dynamic balance.
- \* Mass and moment of inertia are calculated based on maximum inner diameter.
- \* Please contact us for other dimension allowances.

| Product NO. | Standard Inner Diameter(D1,D2)(mm) |   |     |   |   |      |   |   |       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-------------|------------------------------------|---|-----|---|---|------|---|---|-------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
|             | 3                                  | 4 | 4.5 | 5 | 6 | 6.35 | 7 | 8 | 9.525 | 10 | 11 | 12 | 14 | 15 | 16 | 18 | 19 | 20 | 22 | 24 | 25 | 26 | 28 | 30 | 32 | 35 | 38 | 40 | 45 | 50 | 60 |
| DJC-14CRD   | ●                                  | ● | ●   | ● |   |      |   |   |       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| DJC-20CRD   |                                    | ● | ●   | ● | ● | ●    | ● | ● |       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| DJC-25CRD   |                                    |   |     | ● | ● | ●    | ● | ● | ●     | ●  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| DJC□-30CRD  |                                    |   |     |   | ● | ●    | ● | ● | ●     | ●  | ●  | ●  | ●  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| DJC□-40CRD  |                                    |   |     |   |   |      | ● | ● | ●     | ●  | ●  | ●  | ●  | ●  | ●  | ●  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| DJC-55CRD   |                                    |   |     |   |   |      |   | ● | ●     | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |
| DJC-65CRD   |                                    |   |     |   |   |      |   |   |       |    |    | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |
| DJC-80CRD   |                                    |   |     |   |   |      |   |   |       |    |    |    |    | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |
| DJC-95CRD   |                                    |   |     |   |   |      |   |   |       |    |    |    |    |    |    |    |    |    | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |
| DJC-100CRD  |                                    |   |     |   |   |      |   |   |       |    |    |    |    |    |    |    |    |    | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |

- \* We encourage h7 for tolerance of attachment axis
- \* The inner diameter of ● marked is the standard diameter.
- \* For non-standard inner diameters other than the above table, it is available separately. Please contact us.
- \* We can penetrate the sleeve.
- \* We can supply with Key way.





| Product NO. | Dimension(mm) |      |    |    |      | Tightening Screw |       | Rated Torque | Max. Torque | Max. RPM | Moment of inertia       | Torsional Stiffness | Angle | Paralle | End play  | Mass  |
|-------------|---------------|------|----|----|------|------------------|-------|--------------|-------------|----------|-------------------------|---------------------|-------|---------|-----------|-------|
|             | A             | L    | W  | B  | F    | M                | N · m |              |             |          |                         |                     |       |         |           |       |
| DJCS-55CRD  | 55            | 20.5 | 59 | 14 | 10.5 | M6               | 13    | 60           | 120         | 11,000   | 1.3 × 10 <sup>-4</sup>  | 4,000               | 1     | 0.1     | +1.4<br>0 | 280   |
| DJCS-65CRD  | 65            | 22   | 64 | 15 | 11   | M8               | 30    | 160          | 320         | 9,000    | 2.6 × 10 <sup>-4</sup>  | 8,000               | 1     | 0.1     | +1.5<br>0 | 400   |
| DJCS-80CRD  | 80            | 32   | 88 | 18 | 16   | M10              | 50    | 320          | 640         | 7,000    | 8.7 × 10 <sup>-4</sup>  | 20,000              | 1     | 0.1     | +1.5<br>0 | 860   |
| DJCS-95CRD  | 95            | 33   | 92 | 20 | 16.5 | M10              | 50    | 450          | 900         | 6,000    | 1.68 × 10 <sup>-3</sup> | 30,000              | 1     | 0.1     | +2.0<br>0 | 1,190 |
| DJCS-100CRD | 104           | 34   | 96 | 21 | 17.5 | M12              | 90    | 600          | 1,200       | 5,000    | 3.1 × 10 <sup>-3</sup>  | 40,000              | 1     | 0.1     | +2.0<br>0 | 1,700 |

\* The coupling torque may be limited by the retention force of the shaft fastening part, so check the ‘Standard inner diameter’.

\* The Max. RPM did not take into account the dynamic balance.

\* Mass and moment of inertia are calculated based on maximum inner diameter.

\* Please contact us for other dimension allowances.

| Product NO. | Standard Inner Diameter(D1,D2)(mm) |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-------------|------------------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
|             | 12                                 | 14 | 15 | 16 | 18 | 19 | 20 | 22 | 24 | 25 | 26 | 28 | 30 | 32 | 35 | 40 | 45 | 50 | 55 | 60 |
| DJCS-55CRD  | ●                                  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |    |    |    |    |    |    |    |    |
| DJCS-65CRD  |                                    |    | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |    |    |    |    |    |
| DJCS-80CRD  |                                    |    |    | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |    |    |    |
| DJCS-95CRD  |                                    |    |    |    |    |    | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |    |    |
| DJCS-100CRD |                                    |    |    |    |    |    | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |

\* We encourage h7 for tolerance of attachment axis

\* The inner diameter of ● marked is the standard diameter.

\* For non-standard inner diameters other than the above table, it is available separately. Please contact us.

\* We can penetrate the sleeve.

\* We can supply with Key way.

Features

- It is outstanding in transferring high torques, and optimized for spindling machines.
- Low moment of inertia due to high rigidity aluminum material.
- Excellent for high speed rotation with small moment of inertia.
- It also absorbs vibration generated by eccentricity and declination when rotating.
- It has excellent balancing and electric insulation.

Usage

- Machine tool main axis and feed axis, Spindle

| Product NO. | Dimension(mm) |          |     |      |     |    | Tightening Screw |       |     | Sleeve type | Sleeve torque      |                   | Max. RPM | Moment of inertia       | Torsional Stiffness | Angle | Paralle | End play     | Mass  |
|-------------|---------------|----------|-----|------|-----|----|------------------|-------|-----|-------------|--------------------|-------------------|----------|-------------------------|---------------------|-------|---------|--------------|-------|
|             | D1 (N/n)      | D2 (N/n) | A   | L    | W   | B  | M                | N · m | Qty |             | Rated Torque N · m | Max. Torque N · m |          |                         |                     |       |         |              |       |
| DRJT-30A    | 6             | 14       | 30  | 18.5 | 50  | 10 | M3               | 1.34  | 4   | RD          | 12.5               | 25                | 32,000   | 0.85 × 10 <sup>-5</sup> | 171.9               | 0.09  | 0.9     | +1.0<br>-0.5 | 0.069 |
| DRJT-40A    | 10            | 20       | 40  | 25   | 66  | 12 | M4               | 3     | 6   | RD          | 21                 | 42                | 24,000   | 3.94 × 10 <sup>-5</sup> | 1,512               | 0.06  | 0.9     | +1.2<br>-0.5 | 0.161 |
| DRJT-55A    | 14            | 28       | 55  | 30   | 78  | 14 | M5               | 6     | 4   | RD          | 60                 | 120               | 17,000   | 1.63 × 10 <sup>-4</sup> | 3,640               | 0.10  | 0.9     | +1.4<br>-0.5 | 0.344 |
| DRJT-65A    | 16            | 38       | 65  | 35   | 90  | 15 | M5               | 6     | 8   | RD          | 160                | 320               | 15,000   | 3.55 × 10 <sup>-4</sup> | 6,410               | 0.11  | 0.9     | +1.5<br>-0.7 | 0.510 |
| DRJT-80A    | 20            | 48       | 80  | 45   | 114 | 18 | M6               | 10    | 8   | RD          | 325                | 650               | 12,000   | 1.07 × 10 <sup>-3</sup> | 11,800              | 0.12  | 0.9     | +1.8<br>-0.7 | 1.030 |
| DRJT-95A    | 28            | 50       | 95  | 50   | 126 | 20 | M8               | 25    | 4   | RD          | 450                | 900               | 10,000   | 2.32 × 10 <sup>-3</sup> | 21,594              | 0.14  | 0.9     | +2.0<br>-1.0 | 1.630 |
| DRJT-100A   | 30            | 55       | 104 | 56   | 140 | 21 | M10              | 49    | 4   | RD          | 525                | 1,050             | 9,100    | 3.90 × 10 <sup>-3</sup> | 25,759              | 0.16  | 0.9     | +2.0<br>-1.0 | 2.222 |

\* The coupling torque may be limited by the retention force of the shaft fastening part, so check the ‘Standard inner diameter’.

\* The Max. RPM did not take into account the dynamic balance.

\* Mass and moment of inertia are calculated based on maximum inner diameter.

\* Please contact us for other dimension allowances.

| Product NO. | Standard Inner Diameter(D1,D2)(mm) |   |   |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |
|-------------|------------------------------------|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--|
|             | 6                                  | 8 | 9 | 10 | 11 | 14 | 15 | 16 | 19 | 20 | 24 | 25 | 28 | 30 | 32 | 35 | 38 | 40 | 42 | 45 | 48 | 50 | 55 |  |
| DRJT-30A    | ●                                  | ● | ● | ●  | ●  | ●  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |
| DRJT-40A    |                                    |   |   | ●  | ●  | ●  | ●  | ●  | ●  | ●  |    |    |    |    |    |    |    |    |    |    |    |    |    |  |
| DRJT-55A    |                                    |   |   |    |    | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |    |    |    |    |    |    |    |    |    |    |  |
| DRJT-65A    |                                    |   |   |    |    |    |    | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |    |    |    |    |    |    |  |
| DRJT-80A    |                                    |   |   |    |    |    |    |    |    | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |    |    |  |
| DRJT-95A    |                                    |   |   |    |    |    |    |    |    |    |    |    | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |    |  |
| DRJT-100A   |                                    |   |   |    |    |    |    |    |    |    |    |    |    |    | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |  |

\* We encourage h7 for tolerance of attachment axis

\* The inner diameter of ● marked is the standard diameter.

\* For non-standard inner diameters other than the above table, it is available separately. Please contact us.

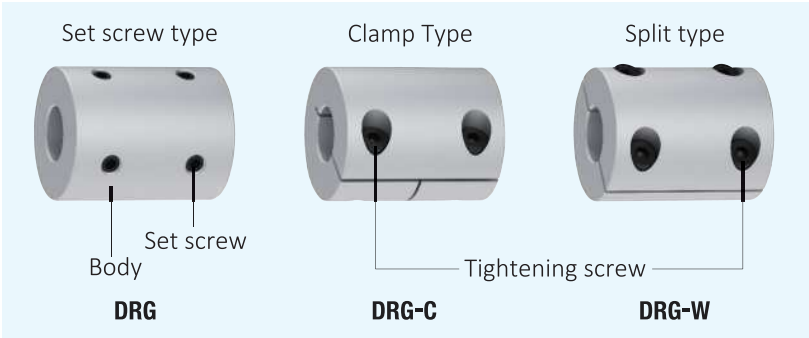


Features

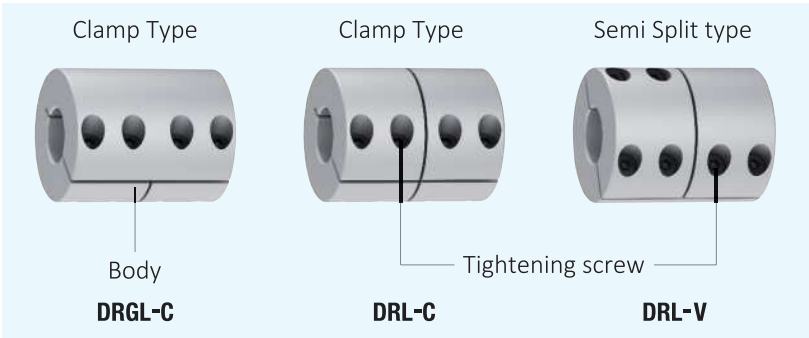
- Rigid coupling.
- Light weight, extremely low inertia, high responsiveness.
- Zero Backlash.
- Outstanding Oil-resistance and Anti-chemical.
- Do not allow eccentricity, Declination and End play.

Structure (fastening type) and material

Standard type



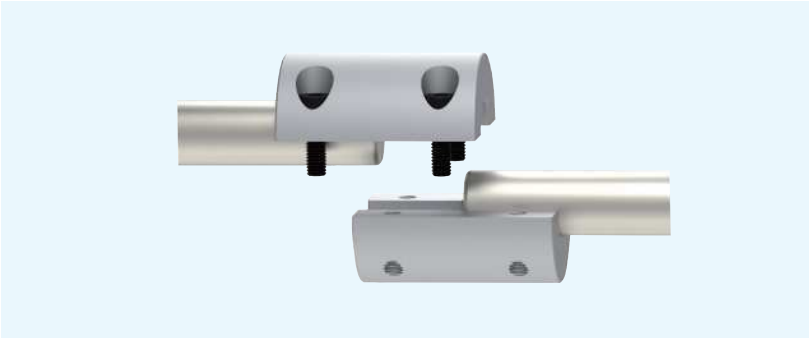
Long type



- Body : Aluminum alloy with high stiffness
- Body surface treatment : Alumite process
- Set screw : SCM435
- Tightening Screw : SCM435

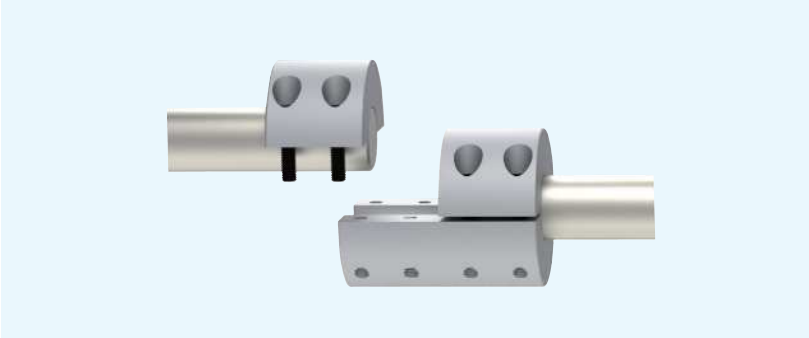
DRG-W type(Split type)

- DRG-W is fully separated type, making it easier to attach or disassemble the shaft.



DRL-V type(Semi-split type)

- Because DRL-V is semi-split type, it is easy to attach and disassemble the shaft.



Usage

- Servo Motor
- Stepping Motor
- General wide use Motor
- Encoder
- Others

Others

- Bolt material can be changed
- Body material can be changed. ( Can be changed stainless steel)
- Tap processing is possible on the section.



Stainless steel products

Order Method  
(Order Example)

| DRG        | 25   | C              | 5                   | 8                   |
|------------|------|----------------|---------------------|---------------------|
| Product NO | Size | Fastening type | Inner diameter : D1 | Inner diameter : D2 |

Set screw type : DRG

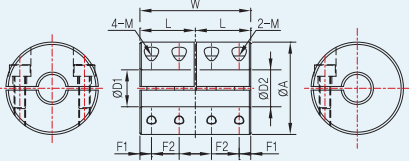
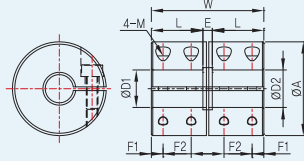
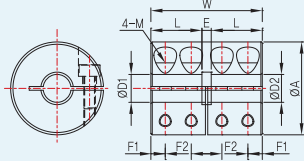
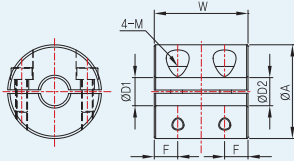
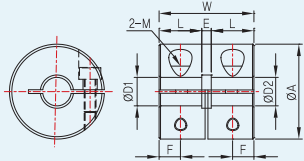
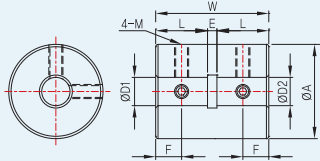
Clamp type : DRG-C

Split type : DRG-W

Clamp type : DRGL-C

Clamp type : DRL-C

Semi split type : DRL-V



| Product NO. | Dimension(mm) |      |    |       |   | Tightening Screw |        | Rated Torque | Max. Torque | Max. RPM          | Moment of inertia      | Mass |
|-------------|---------------|------|----|-------|---|------------------|--------|--------------|-------------|-------------------|------------------------|------|
|             |               |      |    |       |   | Size             | Torque |              |             |                   |                        |      |
|             | A             | L    | W  | F     | E | M                | N · m  | N · m        | N · m       | min <sup>-1</sup> | kg · m <sup>2</sup>    | g    |
| DRG-16      | 16            | 10.5 | 23 | 5.25  | 2 | M3               | 0.7    | 1            | 2           | 39,000            | 4.4 × 10 <sup>-7</sup> | 11   |
| DRG-20      | 20            | 11   | 24 | 5.5   | 2 | M3               | 0.7    | 1.5          | 3           | 31,000            | 9.7 × 10 <sup>-7</sup> | 20   |
| DRG-20L     | 20            | 14   | 30 | 7     | 2 | M3               | 0.7    | 2.5          | 5           | 31,000            | 1.3 × 10 <sup>-6</sup> | 23   |
| DRG-25      | 25            | 16.5 | 35 | 8.25  | 2 | M4               | 1.7    | 4.5          | 9           | 25,000            | 3.9 × 10 <sup>-6</sup> | 40   |
| DRG-32      | 32            | 19   | 40 | 9.5   | 2 | M5               | 4      | 10           | 20          | 19,000            | 1.2 × 10 <sup>-5</sup> | 71   |
| DRG-40      | 40            | 21   | 44 | 10.5  | 2 | M5               | 4      | 20           | 40          | 15,000            | 2.8 × 10 <sup>-5</sup> | 120  |
| DRG-43      | 43            | 25   | 52 | 12.5  | 2 | M6               | 7      | 23           | 46          | 13,000            | 4.6 × 10 <sup>-5</sup> | 170  |
| DRG-50      | 50            | 25.5 | 53 | 12    | 2 | M6               | 7      | 25           | 70          | 12,000            | 8.4 × 10 <sup>-5</sup> | 214  |
| DRG-53      | 53            | 32   | 66 | 16    | 2 | M8               | 15     | 28           | 56          | 10,000            | 1.4 × 10 <sup>-4</sup> | 360  |
| DRG-65      | 65            | 31.5 | 65 | 12    | 2 | M8               | 15     | 35           | 70          | 9,000             | 2.9 × 10 <sup>-4</sup> | 450  |
| DRG-16C     | 16            | 7    | 16 | 3.5   | 2 | M2.5             | 1      | 1            | 2           | 39,000            | 3.0 × 10 <sup>-7</sup> | 8    |
| DRG-20C     | 20            | 9    | 20 | 4.5   | 2 | M2.5             | 1      | 2.5          | 5           | 31,000            | 8.7 × 10 <sup>-7</sup> | 15   |
| DRG-25C     | 25            | 11.5 | 25 | 5.75  | 2 | M3               | 2      | 4.5          | 9           | 25,000            | 2.7 × 10 <sup>-6</sup> | 29   |
| DRG-32C     | 32            | 15   | 32 | 7.5   | 2 | M4               | 4      | 10           | 20          | 19,000            | 7.1 × 10 <sup>-6</sup> | 50   |
| DRG-40C     | 40            | 21   | 44 | 10.5  | 2 | M5               | 8      | 20           | 40          | 15,000            | 2.4 × 10 <sup>-5</sup> | 120  |
| DRG-43C     | 43            | 19.5 | 41 | 9.75  | 2 | M5               | 8      | 23           | 46          | 13,000            | 3.3 × 10 <sup>-5</sup> | 130  |
| DRG-50C     | 50            | 26.5 | 55 | 13.25 | 2 | M6               | 13     | 25           | 50          | 12,000            | 7.0 × 10 <sup>-5</sup> | 140  |
| DRG-53C     | 53            | 24.5 | 51 | 12.25 | 2 | M6               | 13     | 28           | 56          | 10,000            | 9.2 × 10 <sup>-5</sup> | 260  |
| DRG-65C     | 65            | 31.5 | 65 | 16    | 2 | M8               | 16     | 35           | 70          | 9,000             | 2.8 × 10 <sup>-4</sup> | 446  |
| DRG-16W     | 16            | -    | 16 | 4     | - | M2.5             | 1      | 1            | 2           | 39,000            | 3.2 × 10 <sup>-7</sup> | 8.8  |
| DRG-20W     | 20            | -    | 20 | 5     | - | M2.5             | 1      | 2.5          | 5           | 31,000            | 8.7 × 10 <sup>-7</sup> | 15   |
| DRG-25W     | 25            | -    | 25 | 6     | - | M3               | 2      | 4.5          | 9           | 25,000            | 2.7 × 10 <sup>-6</sup> | 29   |
| DRG-32W     | 32            | -    | 32 | 8     | - | M4               | 4      | 10           | 20          | 19,000            | 9.3 × 10 <sup>-6</sup> | 61   |
| DRG-40W     | 40            | -    | 40 | 9.5   | - | M5               | 8      | 20           | 40          | 15,000            | 2.3 × 10 <sup>-5</sup> | 100  |
| DRG-50W     | 50            | -    | 50 | 12    | - | M6               | 13     | 25           | 50          | 12,000            | 7.1 × 10 <sup>-5</sup> | 190  |
| DRG-65W     | 65            | -    | 65 | 16    | - | M8               | 16     | 35           | 70          | 9,000             | 2.7 × 10 <sup>-4</sup> | 430  |

- \* The coupling torque may be limited by the retention force of the shaft fastening part, so check the ‘Standard inner diameter’.
- \* The Max. RPM did not take into account the dynamic balance.
- \* Mass and moment of inertia are calculated based on maximum inner diameter.
- \* Please contact us for other dimension allowances.

| Product NO. | Standard Inner Diameter(D1,D2)(mm) |   |   |   |   |    |    |    |    |    |    |    |    |    |    |    |    |
|-------------|------------------------------------|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|
|             | 3                                  | 4 | 5 | 6 | 8 | 10 | 11 | 12 | 14 | 15 | 16 | 18 | 20 | 22 | 24 | 25 | 30 |
| DRG-16      | ●                                  | ● | ● | ● |   |    |    |    |    |    |    |    |    |    |    |    |    |
| DRG-20      |                                    | ● | ● | ● | ● | ●  |    |    |    |    |    |    |    |    |    |    |    |
| DRG-25      |                                    |   | ● | ● | ● | ●  | ●  | ●  |    |    |    |    |    |    |    |    |    |
| DRG-32      |                                    |   |   | ● | ● | ●  | ●  | ●  | ●  | ●  |    |    |    |    |    |    |    |
| DRG-40      |                                    |   |   |   | ● | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |    |    |    |    |
| DRG-43      |                                    |   |   |   |   | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |    |    |    |
| DRG-50      |                                    |   |   |   |   |    | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |    |    |
| DRG-53      |                                    |   |   |   |   |    |    | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |    |
| DRG-65      |                                    |   |   |   |   |    |    |    | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |
| DRG-16W     |                                    | ● |   | ● |   |    |    |    |    |    |    |    |    |    |    |    |    |
| DRG-20W     |                                    |   |   | ● | ● |    |    |    |    |    |    |    |    |    |    |    |    |
| DRG-25W     |                                    |   |   |   | ● | ●  |    |    |    |    |    |    |    |    |    |    |    |
| DRG-32W     |                                    |   |   |   |   | ●  | ●  | ●  | ●  |    |    |    |    |    |    |    |    |
| DRG-40W     |                                    |   |   |   |   |    |    |    | ●  | ●  | ●  | ●  |    |    |    |    |    |
| DRG-50W     |                                    |   |   |   |   |    |    |    |    |    | ●  | ●  | ●  |    |    |    |    |
| DRG-65W     |                                    |   |   |   |   |    |    |    |    |    |    |    | ●  | ●  | ●  | ●  | ●  |

- \* We encourage h7 for tolerance of attachment axis
- \* The inner diameter of ● marked is the standard diameter.
- \* For non-standard inner diameters other than the above table, it is available separately. Please contact us.
- \* We can supply with Key way.

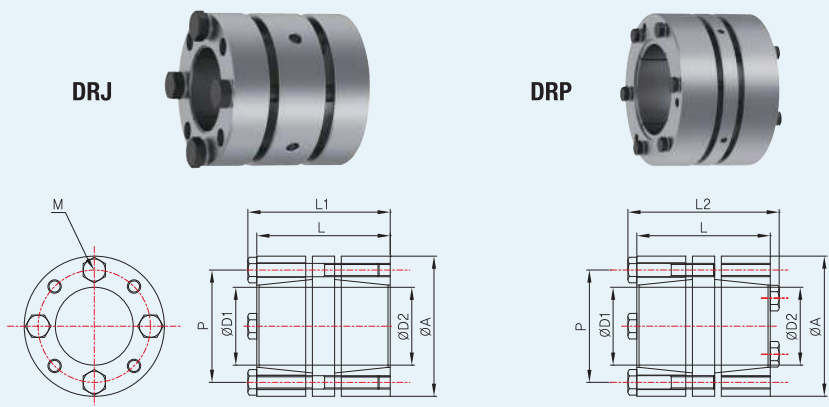
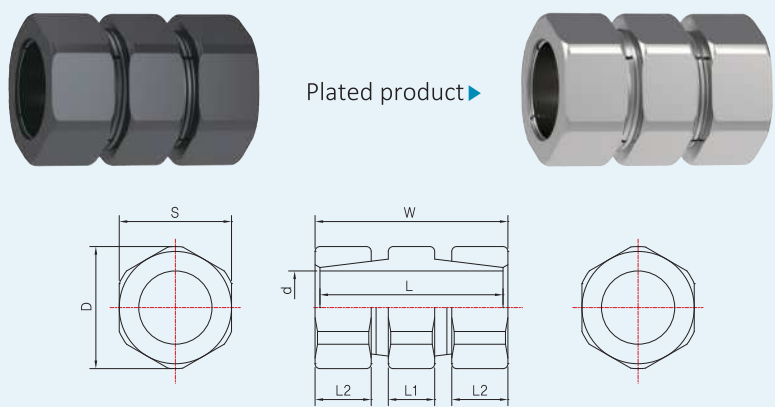
| Product NO. | Dimension(mm) |       |      |     |      |   | Tightening Screw |        | Rated Torque | Max. Torque | Max. RPM          | Moment of inertia      | Mass |
|-------------|---------------|-------|------|-----|------|---|------------------|--------|--------------|-------------|-------------------|------------------------|------|
|             |               |       |      |     |      |   | Size             | Torque |              |             |                   |                        |      |
|             | A             | L     | W    | F1  | F2   | E | M                | N · m  | N · m        | N · m       | min <sup>-1</sup> | kg · m <sup>2</sup>    | g    |
| DRGL-16C    | 16            | 10.25 | 22.5 | 3   | 5.4  | 2 | M2.5             | 1      | 1            | 2           | 39,000            | 3.4 × 10 <sup>-7</sup> | 10   |
| DRGL-20C    | 20            | 11    | 24   | 3.1 | 5.6  | 2 | M2.5             | 1      | 2.5          | 5           | 31,000            | 9.2 × 10 <sup>-7</sup> | 18   |
| DRGL-25C    | 25            | 16.5  | 35   | 4.7 | 7.6  | 2 | M3               | 2      | 4.5          | 9           | 25,000            | 3.4 × 10 <sup>-6</sup> | 38   |
| DRGL-32C    | 32            | 19    | 40   | 5.3 | 9.1  | 2 | M4               | 4      | 10           | 20          | 19,000            | 1.0 × 10 <sup>-5</sup> | 70   |
| DRGL-43C    | 43            | 25    | 52   | 7   | 11.5 | 2 | M5               | 8      | 23           | 46          | 13,000            | 4.2 × 10 <sup>-5</sup> | 160  |
| DRGL-53C    | 53            | 32    | 66   | 9   | 14.5 | 2 | M6               | 13     | 28           | 56          | 10,000            | 1.2 × 10 <sup>-4</sup> | 300  |
| DRL-16C     | 16            | 10    | 22   | 2.5 | 5.5  | 2 | M2               | 0.5    | 1            | 2           | 39,000            | 3.4 × 10 <sup>-7</sup> | 10   |
| DRL-20C     | 20            | 11    | 24   | 2.5 | 6    | 2 | M2               | 0.5    | 2.5          | 5           | 31,000            | 9.2 × 10 <sup>-7</sup> | 18   |
| DRL-25C     | 25            | 17    | 36   | 4.5 | 9    | 2 | M2.5             | 1      | 4.5          | 9           | 25,000            | 3.4 × 10 <sup>-6</sup> | 38   |
| DRL-32C     | 32            | 19    | 40   | 4   | 10   | 2 | M3               | 2      | 10           | 20          | 19,000            | 1.0 × 10 <sup>-5</sup> | 70   |
| DRL-16V     | 16            | 11    | 22   | 2.5 | 5.5  | - | M2               | 0.5    | 1            | 2           | 39,000            | 3.5 × 10 <sup>-7</sup> | 10   |
| DRL-20V     | 20            | 12    | 24   | 2.5 | 6    | - | M2               | 0.5    | 2.5          | 5           | 31,000            | 9.5 × 10 <sup>-7</sup> | 18   |
| DRL-25V     | 25            | 18    | 36   | 4.5 | 9    | - | M2.5             | 1      | 4.5          | 9           | 25,000            | 3.4 × 10 <sup>-6</sup> | 38   |
| DRL-32V     | 32            | 20    | 40   | 4   | 10   | - | M3               | 2      | 10           | 20          | 19,000            | 1.0 × 10 <sup>-5</sup> | 70   |

- \* The coupling torque may be limited by the retention force of the shaft fastening part, so check the ‘Standard inner diameter’.
- \* The Max. RPM did not take into account the dynamic balance.
- \* Mass and moment of inertia are calculated based on maximum inner diameter.
- \* Please contact us for other dimension allowances.

| Product NO. | Standard Inner Diameter(D1,D2)(mm) |   |   |   |   |    |    |    |    |    |    |    |    |    |    |
|-------------|------------------------------------|---|---|---|---|----|----|----|----|----|----|----|----|----|----|
|             | 3                                  | 4 | 5 | 6 | 8 | 10 | 11 | 12 | 14 | 15 | 16 | 18 | 20 | 22 | 24 |
| DR L-16     | ●                                  | ● | ● | ● |   |    |    |    |    |    |    |    |    |    |    |
| DR L-20     |                                    | ● | ● | ● | ● | ●  |    |    |    |    |    |    |    |    |    |
| DR L-25     |                                    |   | ● | ● | ● | ●  | ●  | ●  |    |    |    |    |    |    |    |
| DR L-32     |                                    |   |   | ● | ● | ●  | ●  | ●  | ●  | ●  |    |    |    |    |    |
| DR L-43     |                                    |   |   |   | ● | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |
| DR L-53     |                                    |   |   |   |   | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |

- \* We encourage h7 for tolerance of attachment axis
- \* The inner diameter of ● marked is the standard diameter.
- \* For non-standard inner diameters other than the above table, it is available separately. Please contact us.
- \* We can supply with Key way.

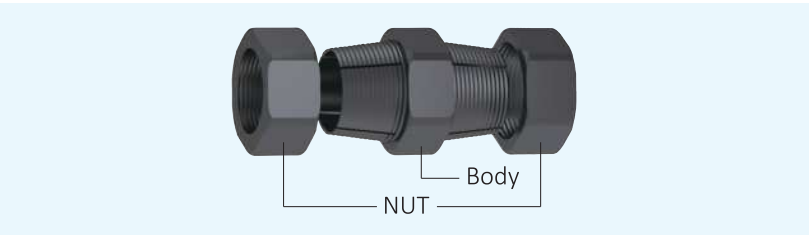




Features

- Rigid coupling with simple tightening according to nut tightening.
- It is a coupling of high transmission torque and high thrust load.
- Plated products reduce torque or allowable load by 30%.

Structure (fastening type) and material



- Body : S45C, SUS304(Special order production type)
- Body surface treatment : Phosphate Manganese coatings, Electroless nickel plating, Special order production type.

Order Method (Order Example)

| DRN        | 10                 |
|------------|--------------------|
| Product NO | Inner diameter : d |

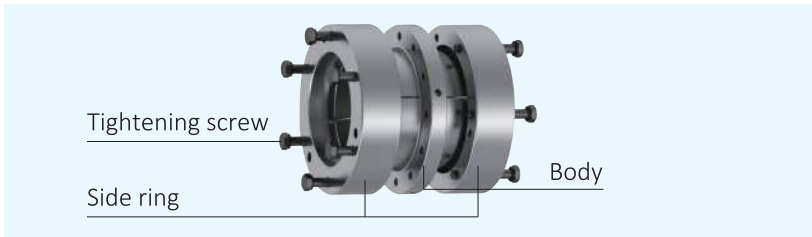
| Product NO. | Dimension(mm) |      |     |      |      |      | Allowable Torque | Allowable Thrust | Tightening torque | Moment of inertia       | Mass |
|-------------|---------------|------|-----|------|------|------|------------------|------------------|-------------------|-------------------------|------|
| d           | S             | D    | L1  | L2   | L    | W    | N · m            | N                | N · m             | kg · m <sup>2</sup>     | g    |
| DRN-6       | 12            | 13   | 5.5 | 5.5  | 20.5 | 21.5 | 7.8              | 833              | 11.8              | 4.24 × 10 <sup>-8</sup> | 13   |
| DRN-7       | 14            | 15   | 5.5 | 5.5  | 20.5 | 21.9 | 8.8              | 981              | 12.7              | 5.25 × 10 <sup>-7</sup> | 17.5 |
| DRN-8       | 14            | 15   | 6   | 6    | 21   | 23   | 9.8              | 1,128            | 13.7              | 8.25 × 10 <sup>-7</sup> | 18   |
| DRN-9       | 17            | 18.5 | 6.5 | 7    | 23.5 | 25.5 | 11.8             | 1,520            | 15.7              | 1.98 × 10 <sup>-6</sup> | 30   |
| DRN-10      | 17            | 18.5 | 7   | 7.5  | 25.4 | 27.4 | 15.7             | 1,804            | 19.6              | 2.08 × 10 <sup>-6</sup> | 30   |
| DRN-11      | 19            | 21   | 8   | 9    | 29   | 31   | 19.6             | 1,912            | 24.5              | 3.75 × 10 <sup>-6</sup> | 43   |
| DRN-12      | 19            | 21   | 8   | 9    | 30   | 32   | 37.3             | 2,010            | 29.4              | 3.75 × 10 <sup>-6</sup> | 41   |
| DRN-14      | 22            | 24.6 | 9   | 10   | 34   | 36   | 41.2             | 2,442            | 34.3              | 7.50 × 10 <sup>-6</sup> | 60   |
| DRN-15      | 23            | 25   | 9.5 | 11.5 | 37.5 | 39.5 | 49               | 2,942            | 39.2              | 1.00 × 10 <sup>-6</sup> | 75   |
| DRN-16      | 24            | 26   | 10  | 12   | 39   | 41   | 54.9             | 3,275            | 49                | 1.45 × 10 <sup>-5</sup> | 100  |
| DRN-17      | 26            | 28.5 | 11  | 12.5 | 41   | 43   | 60.8             | 3,687            | 53.9              | 1.93 × 10 <sup>-5</sup> | 115  |
| DRN-18      | 27            | 30   | 12  | 12.5 | 43   | 45   | 68.6             | 3,942            | 58.8              | 2.48 × 10 <sup>-5</sup> | 130  |
| DRN-19      | 29            | 32   | 12  | 13.5 | 45   | 47   | 75.5             | 4,364            | 63.7              | 3.25 × 10 <sup>-5</sup> | 150  |
| DRN-20      | 30            | 32.5 | 13  | 14.5 | 48   | 50   | 88.2             | 4,952            | 68.6              | 3.50 × 10 <sup>-5</sup> | 160  |
| DRN-22      | 32            | 35   | 14  | 15   | 50   | 52   | 103              | 5,491            | 78.4              | 5.00 × 10 <sup>-5</sup> | 190  |
| DRN-24      | 35            | 38.5 | 14  | 16   | 52   | 54   | 123              | 6,080            | 83.3              | 7.25 × 10 <sup>-5</sup> | 230  |
| DRN-25      | 36            | 40   | 15  | 17   | 55   | 57   | 157              | 7,159            | 88.2              | 9.00 × 10 <sup>-5</sup> | 260  |
| DRN-30      | 41            | 45   | 17  | 17   | 63   | 65   | 177              | 11,768           | 127               | 8.75 × 10 <sup>-5</sup> | 350  |
| DRN-35      | 46            | 51   | 19  | 19   | 69   | 71   | 206              | 11,768           | 167               | 1.55 × 10 <sup>-4</sup> | 480  |

\* Please contact us for other dimension allowances.

Features

- High stiffness rigid coupling.
- High torque, high-response coupling.
- Suitable for servo motor.
- Excellent torsional rigidity.
- It is friction-tight with only tightening screw, so no key is needed.

Structure (fastening type) and material



- Body : S45C
- Side ring : S45C
- Tightening screw : SCM435

Order Method (Order Example)

| DRJ/DRP    | 63   | 30                  | 30                  |
|------------|------|---------------------|---------------------|
| Product NO | Size | Inner diameter : D1 | Inner diameter : D2 |

| Product NO. | Dimension(mm) |    |    |     |                         |      |      | Torque | Thrust | Moment of inertia       | Tightening Screw |       | Max. RPM          | Mass |    |
|-------------|---------------|----|----|-----|-------------------------|------|------|--------|--------|-------------------------|------------------|-------|-------------------|------|----|
|             | A             | D1 | D1 | L   | L1                      | L2   | P    | N · m  | kN     | kg · m <sup>2</sup>     | N × M            | N · m | min <sup>-1</sup> | kg   |    |
| 53-16-16    | 53            | 16 | 16 | 56  | 60                      | 64   | 41   | 78.5   | 9.8    | 3.08 × 10 <sup>-4</sup> | 4 × M6           | 17.7  | 14,500            | 0.80 |    |
| 53-20-16    |               | 20 | 20 |     |                         |      |      | 98.1   |        | 3.05 × 10 <sup>-4</sup> |                  |       |                   | 0.76 |    |
| 53-20-20    |               | 22 | 20 |     |                         |      |      | 118    |        | 2.90 × 10 <sup>-4</sup> |                  |       |                   | 0.77 |    |
| 53-22-20    |               |    | 22 |     |                         |      |      |        |        | 0.72                    |                  |       |                   |      |    |
| 53-22-22    | 58            | 25 | 22 | 58  | 62                      | 66   | 45   | 98.2   | 9.8    | 4.18 × 10 <sup>-4</sup> | 4 × M6           | 17.7  | 12,500            | 0.87 |    |
| 58-25-20    |               |    | 22 |     |                         |      |      | 118    |        | 4.13 × 10 <sup>-4</sup> |                  |       |                   | 0.86 |    |
| 58-25-22    |               |    | 25 |     |                         |      |      | 127    |        | 0.84                    |                  |       |                   |      |    |
| 58-25-25    |               |    | 25 |     |                         |      |      | 157    |        | 6.18 × 10 <sup>-4</sup> |                  |       |                   | 1.05 |    |
| 63-30-25    | 63            | 30 | 25 | 60  | 64                      | 68   | 50.5 | 186    | 11.8   | 6.10 × 10 <sup>-4</sup> | 4 × M6           | 17.7  | 12,000            | 1.01 |    |
| 63-30-30    |               |    | 30 |     |                         |      |      | 157    |        | 8.70 × 10 <sup>-4</sup> |                  |       |                   | 1.14 |    |
| 68-35-25    | 68            | 35 | 28 | 60  | 64                      | 68   | 56   | 177    | 11.8   | 8.75 × 10 <sup>-4</sup> | 4 × M6           | 17.7  | 10,000            | 1.11 |    |
| 68-35-28    |               |    | 30 |     |                         |      |      | 186    |        | 8.78 × 10 <sup>-4</sup> |                  |       |                   | 1.17 |    |
| 68-35-30    |               |    | 32 |     |                         |      |      | 206    |        | 6 × M6                  |                  |       |                   | 1.15 |    |
| 68-35-32    |               |    | 35 |     |                         |      |      | 226    |        | 4 × M6                  |                  |       |                   | 1.12 |    |
| 68-35-35    |               |    | 35 |     |                         |      |      | 226    |        | 8.80 × 10 <sup>-4</sup> | 1.12             |       |                   |      |    |
| 73-35-38    |               |    | 73 |     |                         |      |      | 35     |        | 38                      | 70               |       |                   | 74   | 78 |
| 73-38-42    | 38            | 42 |    | 245 | 1.40 × 10 <sup>-3</sup> | 1.53 |      |        |        |                         |                  |       |                   |      |    |
| 73-42-42    | 42            | 42 |    | 275 | 1.66 × 10 <sup>-3</sup> | 1.41 |      |        |        |                         |                  |       |                   |      |    |
| 78-48-48    | 78            | 48 | 48 | 70  | 74                      | 78   | 66   | 461    | 18.7   | 1.85 × 10 <sup>-3</sup> | 6 × M6           | 17.7  | 8,000             | 1.50 |    |

\* The Max. RPM did not take into account the dynamic balance.

\* Please contact us for other dimension allowances.

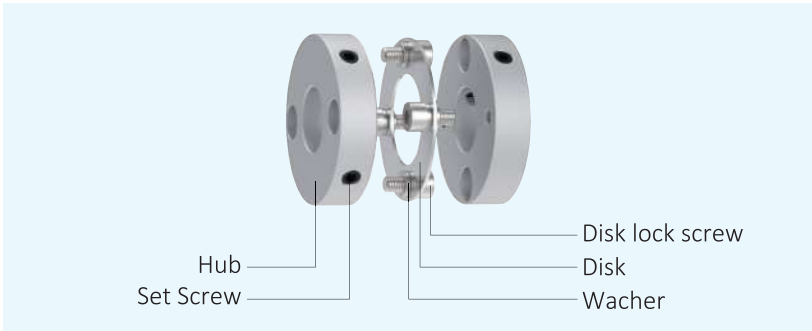


Features

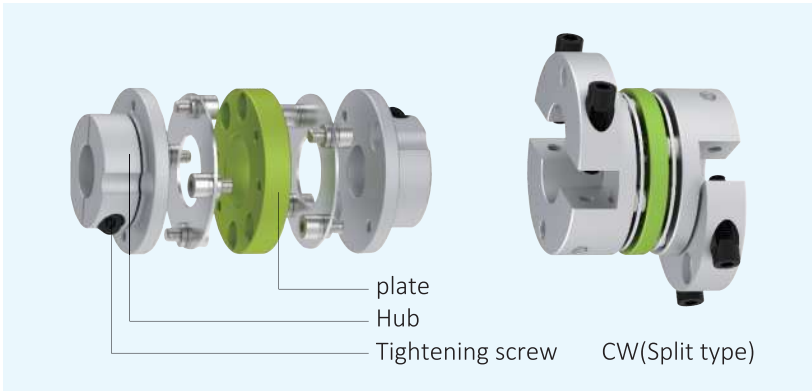
- Disk type flexible coupling.
- Zero Backlash
- Stainless disks allow eccentricity, declination and end play.
- Forward and reverse are the same features.
- Outstanding Oil-resistance and Anti-chemical.
- A variety of sizes are available.

Structure (fastening type) and material

Set screw type



Clamp type



- Hub : Aluminum alloy with high stiffness
- Hub surface treatment of hub : Alumite process
- Set screw : SCM435
- Tightening screw : SCM435
- Disk : Stainless steel
- Washer : Stainless steel
- Plate : Aluminum alloy with high stiffness
- Plate surface treatment of plate : Alumite process
- Disk lock screw : SCM435

Circular disk application

Coupling combination system

- Apply circular disk pack for high responsiveness and low noise.



| Type | Shape |  | Feature                                                                                                                                                                                                             |
|------|-------|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DRS  |       |  | <ul style="list-style-type: none"><li>- One single disk pack type</li><li>- Excellent torsional rigidity and excellent response</li><li>- Ideal for high-speed and high-precision positional environment.</li></ul> |
| DRW  |       |  | <ul style="list-style-type: none"><li>- Two disk packs type with plate.</li><li>- Allow greater eccentricity, declination and endplay than single type.</li><li>- High flexible function</li></ul>                  |
| DRA  |       |  | <ul style="list-style-type: none"><li>- Two disk packs with plate, double type for distance.</li><li>- Plate is longer than DRW type so it can transmit power at distant point.</li></ul>                           |

Usage

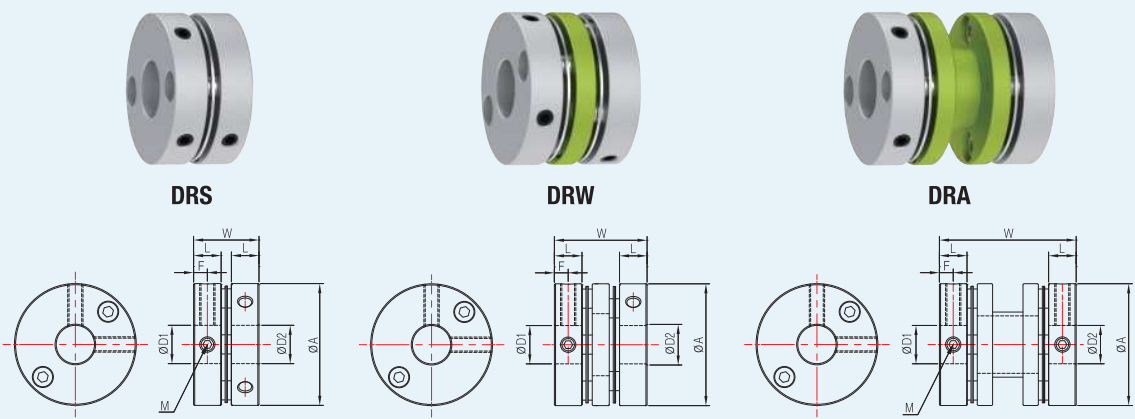
- Servo Motor
- Stepping Motor
- General wide use Motor
- Encoder
- Others

Others

- Do not re-assemble after disassemble randomly.
- You can order different types of hubs.
- You can specify the number of disks.

Order Method (Order Example)

| DRW        | 31   | C              | 8                   | 10                  |
|------------|------|----------------|---------------------|---------------------|
| Product NO | Size | Fastening type | Inner diameter : D1 | Inner diameter : D2 |

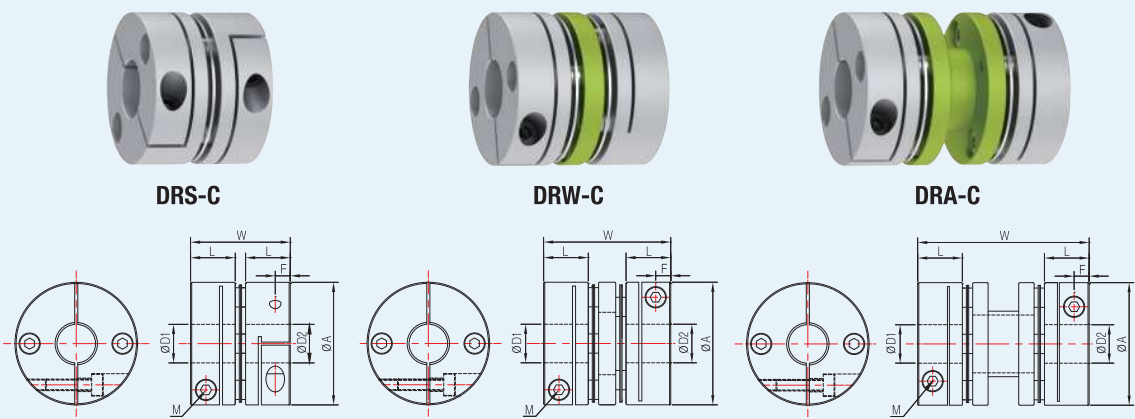


| Product NO. | Dimension(mm) |     |      |      | Tightening Screw |        | Rated Torque | Max. Torque | Max. RPM          | Moment of inertia    | Torsional Stiffness | Angle | Paralle | End play | Mass |
|-------------|---------------|-----|------|------|------------------|--------|--------------|-------------|-------------------|----------------------|---------------------|-------|---------|----------|------|
|             |               |     |      |      | Size             | Torque |              |             |                   |                      |                     |       |         |          |      |
|             | A             | L   | W    | F    | M                | N · m  | N · m        | N · m       | min <sup>-1</sup> | kg · m <sup>2</sup>  | N · m/rad           | °     | mm      | ± mm     | g    |
| DRS-16      | 16            | 5.1 | 11.9 | 2.55 | M2.5             | 0.5    | 0.6          | 1.2         | 30,000            | $1.8 \times 10^{-7}$ | 270                 | 0.5   | 0.02    | 0.1      | 5    |
| DRW-16      | 16            | 5.1 | 15.6 | 2.55 | M2.5             | 0.5    | 0.6          | 1.2         | 30,000            | $2.2 \times 10^{-7}$ | 200                 | 2     | 0.05    | 0.2      | 6    |
| DRWL-16     | 16            | 5.1 | 17.6 | 2.55 | M2.5             | 0.5    | 0.6          | 1.2         | 30,000            | $2.6 \times 10^{-7}$ | 200                 | 2     | 0.05    | 0.2      | 7    |
| DRS-19      | 19            | 6.1 | 13.9 | 3.05 | M3               | 0.7    | 1            | 2           | 20,000            | $3.0 \times 10^{-7}$ | 600                 | 1     | 0.02    | 0.1      | 6    |
| DRW-19      | 19            | 6.1 | 17.8 | 3.05 | M3               | 0.7    | 1            | 2           | 20,000            | $5.3 \times 10^{-7}$ | 450                 | 2     | 0.05    | 0.2      | 10   |
| DRWL-19     | 19            | 6.1 | 20.8 | 3.05 | M3               | 0.7    | 1            | 2           | 20,000            | $5.8 \times 10^{-7}$ | 450                 | 2     | 0.05    | 0.2      | 11   |
| DRS-22      | 22            | 6.2 | 14.8 | 3.1  | M4               | 1.7    | 1.3          | 2.6         | 20,000            | $6.9 \times 10^{-7}$ | 600                 | 1     | 0.02    | 0.2      | 10   |
| DRW-22      | 22            | 6.2 | 19.9 | 3.1  | M4               | 1.7    | 1.3          | 2.6         | 20,000            | $1.0 \times 10^{-6}$ | 500                 | 2     | 0.12    | 0.2      | 16   |
| DRWL-22     | 22            | 6.2 | 21.5 | 3.1  | M4               | 1.7    | 1.3          | 2.6         | 20,000            | $1.1 \times 10^{-6}$ | 500                 | 2     | 0.12    | 0.2      | 17   |
| DRA-22      | 22            | 6.2 | 27.5 | 3.65 | M4               | 1.7    | 1.3          | 2.6         | 20,000            | $1.3 \times 10^{-6}$ | 500                 | 2     | 0.12    | 0.2      | 18   |
| DRS-26      | 26            | 7.3 | 17   | 3.65 | M4               | 1.7    | 2            | 4           | 20,000            | $2.0 \times 10^{-6}$ | 1,300               | 1     | 0.02    | 0.2      | 20   |
| DRW-26      | 26            | 7.3 | 25.3 | 3.65 | M4               | 1.7    | 2            | 4           | 20,000            | $2.3 \times 10^{-6}$ | 800                 | 2     | 0.15    | 0.2      | 28   |
| DRA-26      | 26            | 7.3 | 31.2 | 3.65 | M4               | 1.7    | 2            | 4           | 20,000            | $3.2 \times 10^{-6}$ | 800                 | 2     | 0.15    | 0.2      | 32   |
| DRS-31      | 31.8          | 7.2 | 17.1 | 3.6  | M4               | 1.7    | 3            | 6           | 15,000            | $4.4 \times 10^{-6}$ | 1,700               | 1     | 0.02    | 0.2      | 30   |
| DRW-31      | 31.8          | 7.2 | 24.2 | 3.6  | M4               | 1.7    | 3            | 6           | 15,000            | $4.3 \times 10^{-6}$ | 1,300               | 2     | 0.15    | 0.2      | 30   |
| DRWL-31     | 31.8          | 7.2 | 29.2 | 3.6  | M4               | 1.7    | 3            | 6           | 15,000            | $5.5 \times 10^{-6}$ | 1,300               | 2     | 0.15    | 0.2      | 38   |
| DRA-31      | 31.8          | 7.2 | 35.7 | 3.6  | M4               | 1.7    | 3            | 6           | 15,000            | $5.5 \times 10^{-6}$ | 1,300               | 2     | 0.15    | 0.2      | 38   |

- \* The coupling torque may be limited by the retention force of the shaft fastening part, so check the 'Standard inner diameter'.
- \* The Max. RPM did not take into account the dynamic balance.
- \* Mass and moment of inertia are calculated based on maximum inner diameter.
- \* Please contact us for other dimension allowances.

| Product NO. | Standard Inner Diameter(D1,D2)(mm) |   |     |   |   |      |   |   |   |       |    |    |    |      |    |    |
|-------------|------------------------------------|---|-----|---|---|------|---|---|---|-------|----|----|----|------|----|----|
|             | 3                                  | 4 | 4.5 | 5 | 6 | 6.35 | 7 | 8 | 9 | 9.525 | 10 | 11 | 12 | 12.7 | 14 | 15 |
| DR□-16      | ●                                  | ● | ●   | ● |   |      |   |   |   |       |    |    |    |      |    |    |
| DR□-19      | ●                                  | ● | ●   | ● | ● |      |   |   |   |       |    |    |    |      |    |    |
| DR□-22      |                                    | ● | ●   | ● | ● | ●    | ● | ● |   |       |    |    |    |      |    |    |
| DR□-26      |                                    |   |     | ● | ● | ●    | ● | ● | ● | ●     | ●  |    |    |      |    |    |
| DR□-31      |                                    |   |     | ● | ● | ●    | ● | ● | ● | ●     | ●  | ●  | ●  | ●    | ●  | ○  |

- \* We encourage h7 for tolerance of attachment axis
- \* The inner diameter of ● marked is the standard diameter.
- \* The axis penetration is impossible on the ○ marked because of the inner diameter of the disk.
- \* Inner diameter 8 of DRA26 is not allowed to pass through the shaft.
- \* For non-standard inner diameters other than the above table, it is available separately. Please contact us.
- \* We can supply with Key way.



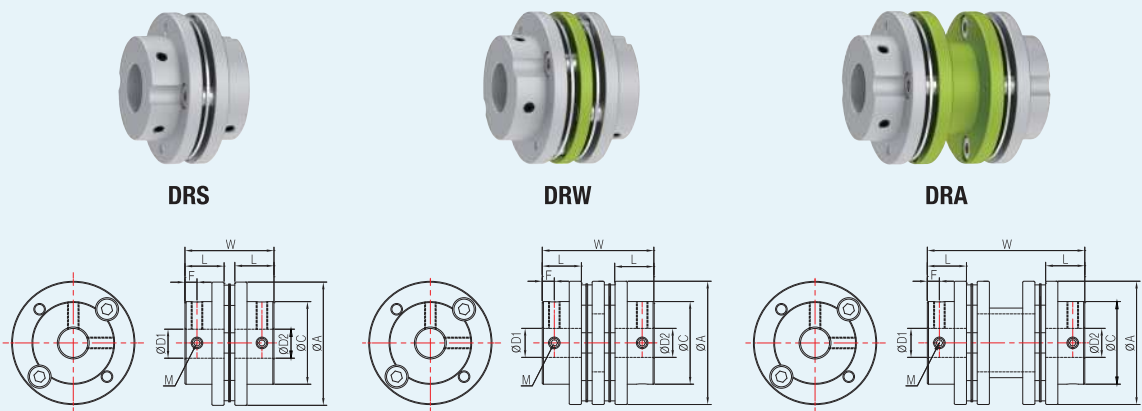
| Product NO. | Dimension(mm) |      |      |      | Tightening Screw |        | Rated Torque | Max. Torque | Max. RPM          | Moment of inertia    | Torsional Stiffness | Angle | Paralle | End play | Mass |
|-------------|---------------|------|------|------|------------------|--------|--------------|-------------|-------------------|----------------------|---------------------|-------|---------|----------|------|
|             |               |      |      |      | Size             | Torque |              |             |                   |                      |                     |       |         |          |      |
|             | A             | L    | W    | F    | M                | N · m  | N · m        | N · m       | min <sup>-1</sup> | kg · m <sup>2</sup>  | N · m/rad           | °     | mm      | ± mm     | g    |
| DRS-16C     | 16            | 7.8  | 17.3 | 2.65 | M2               | 0.5    | 0.6          | 1.2         | 30,000            | $2.6 \times 10^{-7}$ | 270                 | 0.5   | 0.02    | 0.1      | 7    |
| DRW-16C     | 16            | 7.8  | 21   | 2.65 | M2               | 0.5    | 0.6          | 1.2         | 30,000            | $3.3 \times 10^{-7}$ | 200                 | 2     | 0.05    | 0.2      | 9    |
| DRWL-16C    | 16            | 7.8  | 23   | 2.65 | M2               | 0.5    | 0.6          | 1.2         | 30,000            | $3.7 \times 10^{-7}$ | 200                 | 2     | 0.05    | 0.2      | 10   |
| DRS-19C     | 19            | 8.7  | 19.1 | 3.05 | M2.5             | 1      | 1            | 2           | 20,000            | $4.0 \times 10^{-7}$ | 600                 | 1     | 0.02    | 0.1      | 8    |
| DRW-19C     | 19            | 8.7  | 23   | 3.05 | M2.5             | 1      | 1            | 2           | 20,000            | $7.4 \times 10^{-7}$ | 450                 | 2     | 0.05    | 0.2      | 14   |
| DRWL-19C    | 19            | 8.7  | 26   | 3.05 | M2.5             | 1      | 1            | 2           | 20,000            | $7.9 \times 10^{-7}$ | 450                 | 2     | 0.05    | 0.2      | 15   |
| DRS-22C     | 22            | 8.7  | 19.8 | 2.9  | M2.5             | 1      | 1.3          | 2.6         | 20,000            | $1.0 \times 10^{-6}$ | 600                 | 1     | 0.02    | 0.2      | 15   |
| DRW-22C     | 22            | 8.7  | 24.9 | 2.9  | M2.5             | 1      | 1.3          | 2.6         | 20,000            | $1.3 \times 10^{-6}$ | 500                 | 2     | 0.12    | 0.2      | 18   |
| DRWL-22C    | 22            | 8.7  | 26.5 | 2.9  | M2.5             | 1      | 1.3          | 2.6         | 20,000            | $1.4 \times 10^{-6}$ | 500                 | 2     | 0.12    | 0.2      | 19   |
| DRA-22C     | 22            | 8.7  | 32.5 | 2.9  | M2.5             | 1      | 1.3          | 2.6         | 20,000            | $1.5 \times 10^{-6}$ | 500                 | 2     | 0.12    | 0.2      | 20   |
| DRS-26C     | 26            | 10.7 | 23.8 | 3.4  | M3               | 2      | 2            | 4           | 20,000            | $2.4 \times 10^{-6}$ | 1,300               | 1     | 0.02    | 0.2      | 15   |
| DRW-26C     | 26            | 10.7 | 32   | 3.4  | M3               | 2      | 2            | 4           | 20,000            | $3.4 \times 10^{-6}$ | 500                 | 2     | 0.15    | 0.2      | 34   |
| DRA-26C     | 26            | 10.7 | 38   | 3.4  | M3               | 2      | 2            | 4           | 20,000            | $3.9 \times 10^{-6}$ | 800                 | 2     | 0.15    | 0.2      | 39   |
| DRS-31C     | 31.8          | 11.6 | 25.9 | 3.9  | M3               | 2      | 3            | 6           | 15,000            | $5.8 \times 10^{-6}$ | 1,700               | 1     | 0.02    | 0.2      | 40   |
| DRW-31C     | 31.8          | 11.6 | 33   | 3.9  | M3               | 2      | 3            | 6           | 15,000            | $7.5 \times 10^{-6}$ | 1,300               | 2     | 0.15    | 0.2      | 52   |
| DRWL-31C    | 31.8          | 11.6 | 38   | 3.9  | M3               | 2      | 3            | 6           | 15,000            | $8.8 \times 10^{-6}$ | 1,300               | 2     | 0.15    | 0.2      | 60   |
| DRA-31C     | 31.8          | 11.6 | 44.5 | 3.9  | M3               | 2      | 3            | 6           | 15,000            | $8.8 \times 10^{-6}$ | 1,300               | 2     | 0.15    | 0.2      | 60   |
| DRS-39C     | 39            | 13.6 | 30.9 | 4.45 | M4               | 4      | 6            | 12          | 10,000            | $1.6 \times 10^{-5}$ | 2,300               | 1     | 0.02    | 0.6      | 70   |
| DRW-39C     | 39            | 13.6 | 38.6 | 4.45 | M4               | 4      | 6            | 12          | 10,000            | $2.1 \times 10^{-5}$ | 1,800               | 2     | 0.15    | 0.6      | 95   |
| DRWL-39C    | 39            | 13.6 | 44   | 4.45 | M4               | 4      | 6            | 12          | 10,000            | $2.4 \times 10^{-5}$ | 1,800               | 2     | 0.15    | 0.6      | 110  |
| DRA-39C     | 39            | 13.6 | 56   | 4.45 | M4               | 4      | 6            | 12          | 10,000            | $3.0 \times 10^{-5}$ | 1,800               | 2     | 0.15    | 0.6      | 120  |
| DRSC-42C    | 42.5          | 13.6 | 30.9 | 4.75 | M4               | 4      | 8            | 16          | 10,000            | $3.2 \times 10^{-5}$ | 3,500               | 2     | 0.02    | 0.6      | 95   |
| DRWC-42C    | 42.5          | 13.6 | 45.2 | 4.75 | M4               | 4      | 8            | 16          | 10,000            | $3.3 \times 10^{-5}$ | 3,500               | 2     | 0.15    | 0.6      | 120  |
| DRSC-47C    | 47            | 16.5 | 37   | 4.75 | M4               | 4      | 13           | 26          | 10,000            | $5.4 \times 10^{-5}$ | 6,000               | 2     | 0.02    | 0.6      | 140  |
| DRWC-47C    | 47            | 16.5 | 49.1 | 4.75 | M4               | 4      | 13           | 26          | 10,000            | $5.5 \times 10^{-5}$ | 6,000               | 2     | 0.15    | 0.6      | 160  |

- \* The coupling torque may be limited by the retention force of the shaft fastening part, so check the 'Standard inner diameter'.
- \* The Max. RPM did not take into account the dynamic balance.
- \* Mass and moment of inertia are calculated based on maximum inner diameter.
- \* Please contact us for other dimension allowances.

| Product NO. | Standard Inner Diameter(D1,D2)(mm) |   |     |   |   |      |   |   |   |       |    |    |    |      |    |    |        |    |    |    |    |    |
|-------------|------------------------------------|---|-----|---|---|------|---|---|---|-------|----|----|----|------|----|----|--------|----|----|----|----|----|
|             | 3                                  | 4 | 4.5 | 5 | 6 | 6.35 | 7 | 8 | 9 | 9.525 | 10 | 11 | 12 | 12.7 | 14 | 15 | 15.875 | 16 | 17 | 18 | 19 | 20 |
| DR□-16C     | ●                                  | ● | ●   | ● |   |      |   |   |   |       |    |    |    |      |    |    |        |    |    |    |    |    |
| DR□-19C     | ●                                  | ● | ●   | ● | ● |      |   |   |   |       |    |    |    |      |    |    |        |    |    |    |    |    |
| DR□-22C     |                                    | ● | ●   | ● | ● | ●    | ● | ● |   |       |    |    |    |      |    |    |        |    |    |    |    |    |
| DR□-26C     |                                    |   |     | ● | ● | ●    | ● | ● | ● | ●     | ●  |    |    |      |    |    |        |    |    |    |    |    |
| DR□-31C     |                                    |   |     | ● | ● | ●    | ● | ● | ● | ●     | ●  | ●  | ●  | ●    | ●  | ●  | ○      |    |    |    |    |    |
| DR□-39C     |                                    |   |     |   | ● | ●    | ● | ● | ● | ●     | ●  | ●  | ●  | ●    | ●  | ●  | ●      | ●  | ●  |    |    |    |
| DR□-42C     |                                    |   |     |   | ● | ●    | ● | ● | ● | ●     | ●  | ●  | ●  | ●    | ●  | ●  | ●      | ●  | ●  | ●  | ○  | ○  |
| DR□-47C     |                                    |   |     |   |   |      |   | ● | ● | ●     | ●  | ●  | ●  | ●    | ●  | ●  | ●      | ●  | ●  | ●  | ●  | ●  |

- \* We encourage h7 for tolerance of attachment axis
- \* The inner diameter of ● marked is the standard diameter.
- \* The axis penetration is impossible on the ○ marked because of the inner diameter of the disk.
- \* Inner diameter 8 of DRA26C is not allowed to pass through the shaft.
- \* For non-standard inner diameters other than the above table, it is available separately. Please contact us.
- \* We can supply with Key way.





| Product NO. | Dimension(mm) |      |      |      |      | Tightening Screw |        | Rated Torque | Max. Torque | Max. RPM          | Moment of inertia      | Torsional Stiffness | Angle | Paralle | End play | Mass |
|-------------|---------------|------|------|------|------|------------------|--------|--------------|-------------|-------------------|------------------------|---------------------|-------|---------|----------|------|
|             |               |      |      |      |      | Size             | Torque |              |             |                   |                        |                     |       |         |          |      |
|             | A             | C    | L    | W    | F    | M                | N · m  | N · m        | N · m       | min <sup>-1</sup> | kg · m <sup>2</sup>    | N · m/rad           | °     | mm      | ± mm     | g    |
| DRS-42      | 42.5          | 28.5 | 13.5 | 30.7 | 4.15 | M4               | 1.7    | 8            | 16          | 10,000            | 1.7 × 10 <sup>-5</sup> | 6,000               | 1     | 0.02    | 0.3      | 65   |
| DRWA-42     | 42.5          | 28.5 | 13.5 | 38.4 | 4.15 | M4               | 1.7    | 8            | 16          | 10,000            | 2.1 × 10 <sup>-5</sup> | 3,500               | 2     | 0.3     | 0.6      | 84   |
| DRWB-42     | 42.5          | 28.5 | 13.5 | 44.9 | 4.15 | M4               | 1.7    | 8            | 16          | 10,000            | 2.4 × 10 <sup>-5</sup> | 3,500               | 2     | 0.3     | 0.6      | 94   |
| DRAA-42     | 42.5          | 28.5 | 13.5 | 49.3 | 4.15 | M4               | 1.7    | 8            | 16          | 10,000            | 2.7 × 10 <sup>-5</sup> | 3,500               | 2     | 0.3     | 0.6      | 105  |
| DRAB-42     | 42.5          | 28.5 | 13.5 | 57.7 | 4.15 | M4               | 1.7    | 8            | 16          | 10,000            | 2.8 × 10 <sup>-5</sup> | 3,500               | 2     | 0.3     | 0.6      | 110  |
| DRAC-42     | 42.5          | 28.5 | 13.5 | 67.1 | 4.15 | M4               | 1.7    | 8            | 16          | 10,000            | 2.9 × 10 <sup>-5</sup> | 3,500               | 2     | 0.3     | 0.6      | 115  |
| DRS-47      | 47            | 32.3 | 14   | 32   | 4.6  | M5               | 4      | 13           | 26          | 10,000            | 2.7 × 10 <sup>-5</sup> | 6,000               | 1     | 0.02    | 0.3      | 91   |
| DRWA-47     | 47            | 32.3 | 14   | 40   | 4.6  | M5               | 4      | 13           | 26          | 10,000            | 3.4 × 10 <sup>-5</sup> | 4,000               | 2     | 0.3     | 0.6      | 115  |
| DRWB-47     | 47            | 32.3 | 14   | 44.1 | 4.6  | M5               | 4      | 13           | 26          | 10,000            | 3.6 × 10 <sup>-5</sup> | 4,000               | 2     | 0.3     | 0.6      | 120  |
| DRAA-47     | 47            | 32.3 | 14   | 57   | 4.6  | M5               | 4      | 13           | 26          | 10,000            | 4.2 × 10 <sup>-5</sup> | 4,000               | 2     | 0.3     | 0.6      | 140  |
| DRAB-47     | 47            | 32.3 | 14   | 83   | 4.6  | M5               | 4      | 13           | 26          | 10,000            | 4.7 × 10 <sup>-5</sup> | 4,000               | 2     | 0.3     | 0.6      | 160  |
| DRS-54      | 54            | 38   | 19   | 42.6 | 6.5  | M5               | 4      | 23           | 46          | 10,000            | 4.9 × 10 <sup>-5</sup> | 13,000              | 1     | 0.02    | 0.3      | 130  |
| DRW-54      | 54            | 38   | 19   | 55.1 | 6.5  | M5               | 4      | 23           | 46          | 10,000            | 6.7 × 10 <sup>-5</sup> | 9,000               | 2     | 0.3     | 0.8      | 177  |
| DRAA-54     | 54            | 38   | 19   | 70   | 6.5  | M5               | 4      | 23           | 46          | 10,000            | 9.0 × 10 <sup>-5</sup> | 9,000               | 2     | 0.3     | 0.8      | 230  |
| DRAB-54     | 54            | 38   | 19   | 84   | 6.5  | M5               | 4      | 23           | 46          | 10,000            | 1.1 × 10 <sup>-4</sup> | 9,000               | 2     | 0.3     | 0.8      | 250  |
| DRS-64      | 64            | 47.5 | 26   | 56.9 | 8.8  | M8               | 15     | 32           | 64          | 10,000            | 1.8 × 10 <sup>-4</sup> | 20,000              | 1     | 0.02    | 0.4      | 292  |
| DRW-64      | 64            | 47.5 | 26   | 74   | 8.8  | M8               | 15     | 32           | 64          | 10,000            | 2.2 × 10 <sup>-4</sup> | 13,000              | 2     | 0.3     | 0.8      | 373  |
| DRA-64      | 64            | 47.5 | 26   | 89.2 | 8.8  | M8               | 15     | 32           | 64          | 10,000            | 2.7 × 10 <sup>-4</sup> | 13,000              | 2     | 0.3     | 0.8      | 450  |

\* The coupling torque may be limited by the retention force of the shaft fastening part, so check the 'Standard inner diameter'.

\* The Max. RPM did not take into account the dynamic balance.

\* Mass and moment of inertia are calculated based on maximum inner diameter.

\* Please contact us for other dimension allowances.

| Product NO. | Standard Inner Diameter(D1,D2)(mm) |      |   |   |   |       |    |    |    |      |    |    |        |    |    |    |    |    |    |    |
|-------------|------------------------------------|------|---|---|---|-------|----|----|----|------|----|----|--------|----|----|----|----|----|----|----|
|             | 6                                  | 6.35 | 7 | 8 | 9 | 9.525 | 10 | 11 | 12 | 12.7 | 14 | 15 | 15.875 | 16 | 18 | 19 | 20 | 21 | 22 | 24 |
| DR□-42      | ●                                  | ●    | ● | ● | ● | ●     | ●  | ●  | ●  | ●    | ●  | ●  | ●      | ●  | ●  | ●  | ●  | ●  | ●  | ●  |
| DR□-47      |                                    |      |   | ● | ● | ●     | ●  | ●  | ●  | ●    | ●  | ●  | ●      | ●  | ●  | ●  | ●  | ●  | ●  | ●  |
| DR□-54      |                                    |      |   |   |   |       | ●  | ●  | ●  | ●    | ●  | ●  | ●      | ●  | ●  | ●  | ●  | ●  | ●  | ●  |
| DR□-64      |                                    |      |   |   |   |       |    |    | ●  | ●    | ●  | ●  | ●      | ●  | ●  | ●  | ●  | ●  | ●  | ○  |

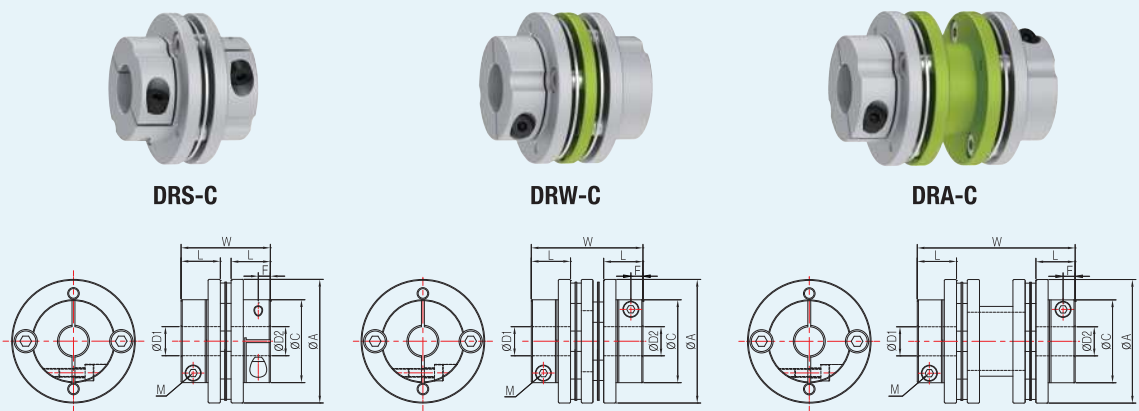
\* We encourage h7 for tolerance of attachment axis

\* The inner diameter of ● marked is the standard diameter.

\* The axis penetration is impossible on the ○ marked because of the inner diameter of the disk.

\* For non-standard inner diameters other than the above table, it is available separately. Please contact us.

\* We can supply with Key way.



| Product NO. | Dimension(mm) |      |      |      |      | Tightening Screw |        | Rated Torque | Max. Torque | Max. RPM          | Moment of inertia      | Torsional Stiffness | Angle | Paralle | End play | Mass |
|-------------|---------------|------|------|------|------|------------------|--------|--------------|-------------|-------------------|------------------------|---------------------|-------|---------|----------|------|
|             |               |      |      |      |      | Size             | Torque |              |             |                   |                        |                     |       |         |          |      |
|             | A             | C    | L    | W    | F    | M                | N · m  | N · m        | N · m       | min <sup>-1</sup> | kg · m <sup>2</sup>    | N · m/rad           | °     | mm      | ± mm     | g    |
| DRS-42C     | 42.5          | 28.5 | 13.5 | 30.7 | 4.15 | M3               | 2      | 8            | 16          | 10,000            | 1.7 × 10 <sup>-5</sup> | 6,000               | 1     | 0.02    | 0.3      | 65   |
| DRWA-42C    | 42.5          | 28.5 | 13.5 | 38.4 | 4.15 | M3               | 2      | 8            | 16          | 10,000            | 2.1 × 10 <sup>-5</sup> | 3,500               | 2     | 0.3     | 0.6      | 84   |
| DRWB-42C    | 42.5          | 28.5 | 13.5 | 44.9 | 4.15 | M3               | 2      | 8            | 16          | 10,000            | 2.4 × 10 <sup>-5</sup> | 3,500               | 2     | 0.3     | 0.6      | 94   |
| DRAA-42C    | 42.5          | 28.5 | 13.5 | 49.3 | 4.15 | M3               | 2      | 8            | 16          | 10,000            | 2.7 × 10 <sup>-5</sup> | 3,500               | 2     | 0.3     | 0.6      | 105  |
| DRAB-42C    | 42.5          | 28.5 | 13.5 | 57.7 | 4.15 | M3               | 2      | 8            | 16          | 10,000            | 2.8 × 10 <sup>-5</sup> | 3,500               | 2     | 0.3     | 0.6      | 110  |
| DRAC-42C    | 42.5          | 28.5 | 13.5 | 67.1 | 4.15 | M3               | 2      | 8            | 16          | 10,000            | 2.9 × 10 <sup>-5</sup> | 3,500               | 2     | 0.3     | 0.6      | 115  |
| DRS-47C     | 47            | 32.3 | 17   | 38   | 5.4  | M4               | 4      | 13           | 26          | 10,000            | 3.2 × 10 <sup>-5</sup> | 6,000               | 1     | 0.02    | 0.3      | 108  |
| DRWA-47C    | 47            | 32.3 | 17   | 46   | 5.4  | M4               | 4      | 13           | 26          | 10,000            | 3.6 × 10 <sup>-5</sup> | 4,000               | 2     | 0.3     | 0.6      | 120  |
| DRWB-47C    | 47            | 32.3 | 17   | 50.1 | 5.4  | M4               | 4      | 13           | 26          | 10,000            | 3.9 × 10 <sup>-5</sup> | 4,000               | 2     | 0.3     | 0.6      | 132  |
| DRAA-47C    | 47            | 32.3 | 17   | 63   | 5.4  | M4               | 4      | 13           | 26          | 10,000            | 4.5 × 10 <sup>-5</sup> | 4,000               | 2     | 0.3     | 0.6      | 152  |
| DRAB-47C    | 47            | 32.3 | 17   | 89   | 5.4  | M4               | 4      | 13           | 26          | 10,000            | 5.1 × 10 <sup>-5</sup> | 4,000               | 2     | 0.3     | 0.6      | 172  |
| DRS-54C     | 54            | 38   | 21.5 | 47.6 | 6.85 | M5               | 8      | 23           | 46          | 10,000            | 5.5 × 10 <sup>-5</sup> | 13,000              | 1     | 0.02    | 0.3      | 145  |
| DRWA-54C    | 54            | 38   | 21.5 | 60.1 | 6.85 | M5               | 8      | 23           | 46          | 10,000            | 7.2 × 10 <sup>-5</sup> | 9,000               | 2     | 0.3     | 0.8      | 192  |
| DRAA-54C    | 54            | 38   | 21.5 | 75   | 6.85 | M5               | 8      | 23           | 46          | 10,000            | 9.0 × 10 <sup>-5</sup> | 9,000               | 2     | 0.3     | 0.8      | 240  |
| DRAB-54C    | 54            | 38   | 21.5 | 88.9 | 6.85 | M5               | 8      | 23           | 46          | 10,000            | 1.1 × 10 <sup>-4</sup> | 9,000               | 2     | 0.3     | 0.8      | 266  |
| DRS-64C     | 64            | 47.5 | 26   | 56.9 | 7.8  | M6               | 13     | 32           | 64          | 10,000            | 1.8 × 10 <sup>-4</sup> | 20,000              | 1     | 0.02    | 0.4      | 292  |
| DRW-64C     | 64            | 47.5 | 26   | 74   | 7.8  | M6               | 13     | 32           | 64          | 10,000            | 2.2 × 10 <sup>-4</sup> | 13,000              | 2     | 0.3     | 0.8      | 373  |
| DRA-64C     | 64            | 47.5 | 26   | 89.2 | 7.8  | M6               | 13     | 32           | 64          | 10,000            | 2.7 × 10 <sup>-4</sup> | 13,000              | 2     | 0.3     | 0.8      | 450  |

\* The coupling torque may be limited by the retention force of the shaft fastening part, so check the 'Standard inner diameter'.

\* The Max. RPM did not take into account the dynamic balance.

\* Mass and moment of inertia are calculated based on maximum inner diameter.

\* Please contact us for other dimension allowances.

| Product NO. | Standard Inner Diameter(D1,D2)(mm) |      |   |   |   |       |    |    |    |      |    |    |        |    |    |    |    |    |    |    |
|-------------|------------------------------------|------|---|---|---|-------|----|----|----|------|----|----|--------|----|----|----|----|----|----|----|
|             | 6                                  | 6.35 | 7 | 8 | 9 | 9.525 | 10 | 11 | 12 | 12.7 | 14 | 15 | 15.875 | 16 | 18 | 19 | 20 | 21 | 22 | 24 |
| DR□-42C     | ●                                  | ●    | ● | ● | ● | ●     | ●  | ●  | ●  | ●    | ●  | ●  | ●      | ●  | ●  | ●  | ●  | ●  | ●  | ●  |
| DR□-47C     |                                    |      |   | ● | ● | ●     | ●  | ●  | ●  | ●    | ●  | ●  | ●      | ●  | ●  | ●  | ●  | ●  | ●  | ●  |
| DR□-54C     |                                    |      |   |   |   |       | ●  | ●  | ●  | ●    | ●  | ●  | ●      | ●  | ●  | ●  | ●  | ●  | ●  | ●  |
| DR□-64C     |                                    |      |   |   |   |       |    |    | ●  | ●    | ●  | ●  | ●      | ●  | ●  | ●  | ●  | ●  | ●  | ●  |

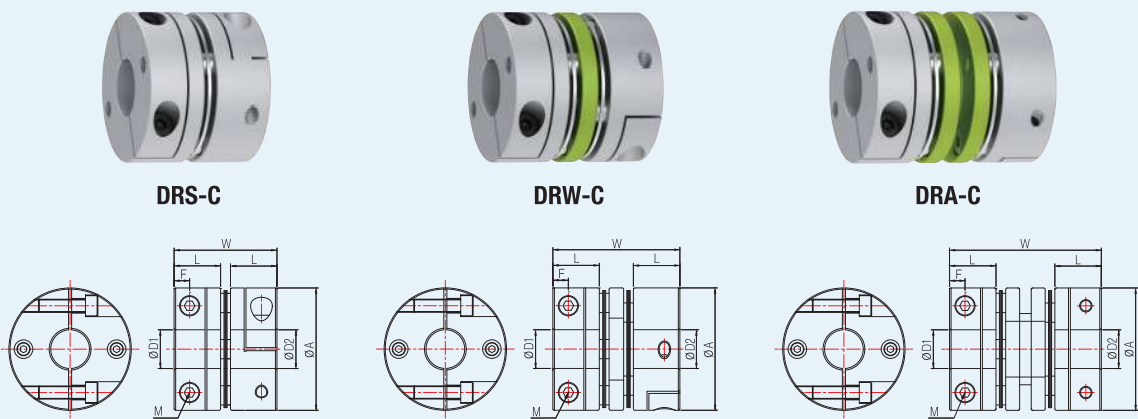
\* We encourage h7 for tolerance of attachment axis

\* The inner diameter of ● marked is the standard diameter.

\* The axis penetration is impossible on the ○ marked because of the inner diameter of the disk.

\* For non-standard inner diameters other than the above table, it is available separately. Please contact us.

\* We can supply with Key way.



| Product NO. | Dimension(mm) |      |       |     | Tightening Screw |        | Rated Torque | Max. Torque | Max. RPM          | Moment of inertia    | Torsional Stiffness | Angle | Paralle | End play | Mass  |
|-------------|---------------|------|-------|-----|------------------|--------|--------------|-------------|-------------------|----------------------|---------------------|-------|---------|----------|-------|
|             |               |      |       |     | Size             | Torque |              |             |                   |                      |                     |       |         |          |       |
|             | A             | L    | W     | F   | M                | N · m  | N · m        | N · m       | min <sup>-1</sup> | kg · m <sup>2</sup>  | N · m/rad           | °     | mm      | ± mm     | g     |
| DRSC-54C    | 54            | 19   | 42.6  | 6   | M5               | 8      | 23           | 46          | 10,000            | $9.8 \times 10^{-5}$ | 11,000              | 1     | 0.02    | 0.8      | 200   |
| DRWB-54C    | 54            | 19   | 52.1  | 6   | M5               | 8      | 23           | 46          | 10,000            | $1.1 \times 10^{-4}$ | 9,000               | 2     | 0.3     | 0.8      | 250   |
| DRWC-54C    | 54            | 19   | 58    | 6   | M5               | 8      | 23           | 46          | 10,000            | $1.2 \times 10^{-4}$ | 9,000               | 2     | 0.3     | 0.8      | 280   |
| DRSC-64C    | 64            | 26   | 56.84 | 7.8 | M6               | 13     | 32           | 64          | 10,000            | $2.3 \times 10^{-4}$ | 20,000              | 1     | 0.02    | 0.4      | 368   |
| DRWB-64C    | 64            | 26   | 74    | 7.8 | M6               | 13     | 32           | 64          | 10,000            | $3.0 \times 10^{-4}$ | 13,000              | 2     | 0.3     | 0.8      | 478   |
| DRWC-64C    | 64            | 26   | 84    | 7.8 | M6               | 13     | 32           | 64          | 10,000            | $3.5 \times 10^{-4}$ | 13,000              | 2     | 0.3     | 0.8      | 546   |
| DRS-80C     | 79            | 30   | 66.4  | 10  | M8               | 30     | 75           | 150         | 10,000            | $7.5 \times 10^{-4}$ | 40,000              | 1     | 0.02    | 1.2      | 800   |
| DRW-80C     | 79            | 30   | 82    | 10  | M8               | 30     | 75           | 150         | 10,000            | $8.4 \times 10^{-4}$ | 34,000              | 2     | 0.5     | 1.2      | 900   |
| DRA-80C     | 79            | 30   | 98    | 10  | M8               | 30     | 75           | 150         | 10,000            | $8.5 \times 10^{-4}$ | 34,000              | 2     | 0.5     | 1.2      | 1,000 |
| DRS-90C     | 94.5          | 30.4 | 68.2  | 9.3 | M8               | 30     | 150          | 300         | 10,000            | $1.2 \times 10^{-3}$ | 60,000              | 1     | 0.02    | 1.4      | 930   |
| DRW-90C     | 94.5          | 30.4 | 98    | 9.3 | M8               | 30     | 150          | 300         | 10,000            | $1.8 \times 10^{-3}$ | 38,000              | 2     | 0.5     | 1.4      | 1,350 |
| DRS-100C    | 104.5         | 30.6 | 71    | 9.5 | M8               | 30     | 220          | 440         | 10,000            | $2.2 \times 10^{-3}$ | 70,000              | 1     | 0.02    | 1.4      | 1,300 |
| DRW-100C    | 104.5         | 30.6 | 102.5 | 9.5 | M8               | 30     | 220          | 440         | 10,000            | $2.9 \times 10^{-3}$ | 50,000              | 2     | 0.5     | 1.4      | 1,700 |

\* The coupling torque may be limited by the retention force of the shaft fastening part, so check the 'Standard inner diameter'.

\* The Max. RPM did not take into account the dynamic balance.

\* Mass and moment of inertia are calculated based on maximum inner diameter.

\* Please contact us for other dimension allowances.

| Product NO. | Standard Inner Diameter(D1,D2)(mm) |    |    |      |    |    |        |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-------------|------------------------------------|----|----|------|----|----|--------|----|----|----|----|----|----|----|----|----|----|----|----|----|
|             | 10                                 | 11 | 12 | 12.7 | 14 | 15 | 15.875 | 16 | 18 | 19 | 20 | 21 | 22 | 24 | 25 | 26 | 28 | 30 | 32 | 35 |
| DR□-54C     | ●                                  | ●  | ●  | ●    | ●  | ●  | ●      | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ○  |    |    |    |    |    |
| DR□-64C     |                                    |    | ●  | ●    | ●  | ●  | ●      | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ○  | ○  |    |
| DR□-80C     |                                    |    |    |      |    | ●  | ●      | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |
| DR□-90C     |                                    |    |    |      |    |    |        |    |    | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |
| DR□-100C    |                                    |    |    |      |    |    |        |    |    | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |

\* We encourage h7 for tolerance of attachment axis

\* The inner diameter of ● marked is the standard diameter.

\* The axis penetration is impossible on the ○ marked because of the inner diameter of the disk.

\* For non-standard inner diameters other than the above table, it is available separately. Please contact us.

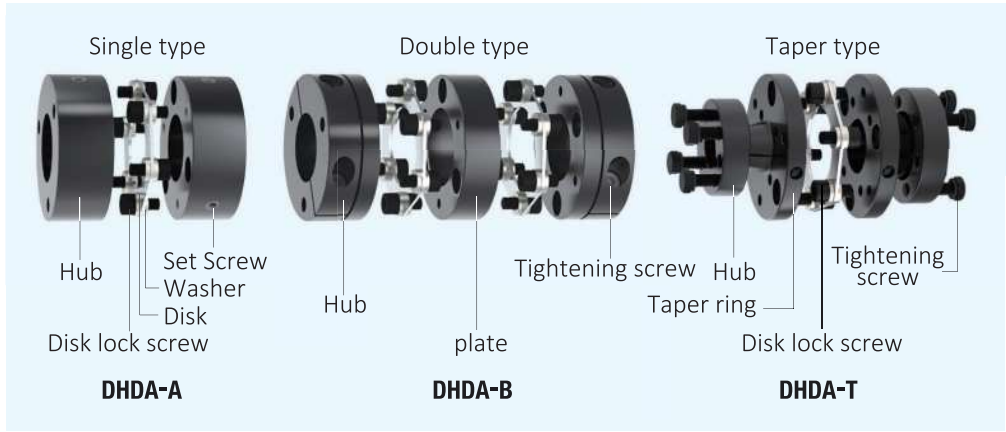
\* We can supply with Key way.



Features

- High-rigidity power coupling with hexagonal disk pack.
- High-rigidity aluminum material, low inertia and zero backlash.
- Suitable for high speed rotation.
- It is assembled by using exclusive jig so it ensures high concentricity.
- It is possible to specify the entire length, and offers various options such as key way processing.

Structure (fastening type) and material



- Hub : Aluminum alloy with high stiffness
- Tightening screw : SCM435
- Disk: Stainless steel
- Disk lock screw : SCM435
- Plate & Taper ring Surface treatment of plate : Alumite process
- Hub surface treatment of hub : Alumite process
- Set screw : SCM435
- Washer : Steel
- Plate & Taper ring : Aluminum alloy with high stiffness

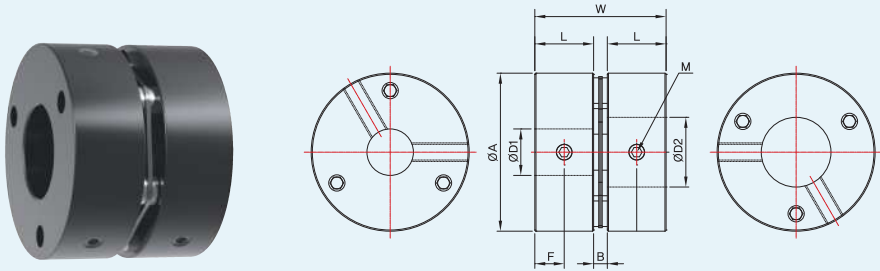
Usage

- CNC Lathes
- Machining center
- Robot
- Semiconductor manufacturing equipment
- Others

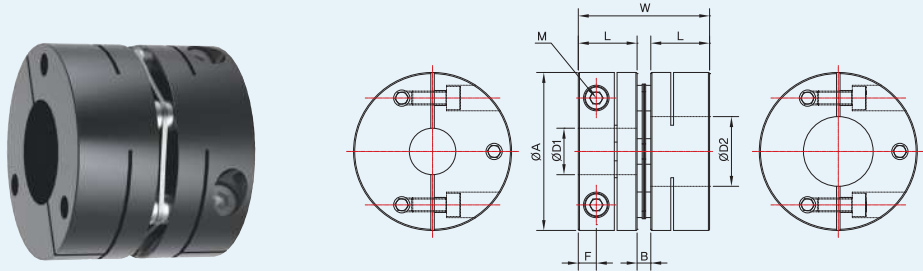
Order Method (Order Example)

| DHDA       | 58   | A               | S                       | S                       | 14                  | 15                  |
|------------|------|-----------------|-------------------------|-------------------------|---------------------|---------------------|
| Product NO | Size | Connection type | Hub fastening type : D1 | Hub fastening type : D2 | Inner diameter : D1 | Inner diameter : D2 |

Set screw type



Clamp type



| Product NO. | Dimension(mm) |       |      |      |       | Tightening Screw |       | Allowable Torque | Max. RPM | Moment of inertia       | Torsional Stiffness | Paralle | Angle | End play | Mass  |
|-------------|---------------|-------|------|------|-------|------------------|-------|------------------|----------|-------------------------|---------------------|---------|-------|----------|-------|
|             | A             | L     | W    | B    | F     | M                | N · m |                  |          |                         |                     |         |       |          |       |
| DHDA-58A-S  | 58            | 19.4  | 44.2 | 5.4  | 9.7   | M6               | 7     | 60               | 10,000   | 0.13 × 10 <sup>-3</sup> | 104,000             | 0.02    | 1     | 0.3      | 258   |
| DHDA-68A-S  | 68            | 25.3  | 56.5 | 5.9  | 12.65 | M8               | 15    | 90               | 10,000   | 0.31 × 10 <sup>-3</sup> | 240,000             | 0.02    | 1     | 0.5      | 445   |
| DHDA-78A-S  | 78            | 30    | 67.7 | 7.7  | 15    | M8               | 15    | 200              | 10,000   | 0.67 × 10 <sup>-3</sup> | 310,000             | 0.02    | 1     | 0.5      | 736   |
| DHDA-88A-S  | 88            | 30.8  | 69.9 | 8.3  | 15.4  | M8               | 15    | 250              | 10,000   | 1.08 × 10 <sup>-3</sup> | 520,000             | 0.02    | 1     | 0.6      | 895   |
| DHDA-98A-S  | 98            | 32.65 | 75.5 | 10.2 | 16.3  | M10              | 30    | 450              | 10,000   | 1.86 × 10 <sup>-3</sup> | 740,000             | 0.02    | 1     | 0.65     | 1,255 |
| DHDA-108A-S | 108           | 33.75 | 77.7 | 10.2 | 16.85 | M10              | 30    | 500              | 10,000   | 2.68 × 10 <sup>-3</sup> | 860,000             | 0.02    | 1     | 0.7      | 1,423 |

\* Mass and moment of inertia are calculated based on maximum inner diameter.  
\* Please contact us for other dimension allowances.

| Product NO. | Dimension(mm) |       |      |      |      | Tightening Screw |       | Allowable Torque | Max. RPM | Moment of inertia       | Torsional Stiffness | Paralle | Angle | End play | Mass  |
|-------------|---------------|-------|------|------|------|------------------|-------|------------------|----------|-------------------------|---------------------|---------|-------|----------|-------|
|             | A             | L     | W    | B    | F    | M                | N · m |                  |          |                         |                     |         |       |          |       |
| DHDA-58A-C  | 58            | 19.4  | 44.2 | 5.4  | 6.5  | M6               | 13    | 60               | 10,000   | 0.12 × 10 <sup>-3</sup> | 104,000             | 0.02    | 1     | 0.3      | 246   |
| DHDA-68A-C  | 68            | 25.3  | 56.5 | 5.9  | 7.75 | M6               | 13    | 90               | 10,000   | 0.29 × 10 <sup>-3</sup> | 240,000             | 0.02    | 1     | 0.5      | 415   |
| DHDA-78A-C  | 78            | 30    | 67.7 | 7.7  | 9.5  | M8               | 30    | 200              | 10,000   | 0.64 × 10 <sup>-3</sup> | 310,000             | 0.02    | 1     | 0.5      | 703   |
| DHDA-88A-C  | 88            | 30.8  | 69.9 | 8.3  | 9.5  | M8               | 30    | 250              | 10,000   | 1.02 × 10 <sup>-3</sup> | 520,000             | 0.02    | 1     | 0.6      | 859   |
| DHDA-98A-C  | 98            | 32.65 | 75.5 | 10.2 | 10   | M10              | 50    | 450              | 10,000   | 1.79 × 10 <sup>-3</sup> | 740,000             | 0.02    | 1     | 0.65     | 1,233 |
| DHDA-108A-C | 108           | 33.75 | 77.7 | 10.2 | 10.5 | M10              | 50    | 500              | 10,000   | 2.56 × 10 <sup>-3</sup> | 860,000             | 0.02    | 1     | 0.7      | 1,377 |

\* Mass and moment of inertia are calculated based on maximum inner diameter.  
\* Please contact us for other dimension allowances.

| Product NO. | Standard Inner Diameter(D1,D2)(mm) |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-------------|------------------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
|             | 10                                 | 12 | 14 | 15 | 16 | 18 | 20 | 22 | 24 | 25 | 26 | 28 | 30 | 32 | 35 | 40 | 42 | 45 | 48 | 50 |
| DHDA-58A-S  | ●                                  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |
| DHDA-68A-S  |                                    |    |    | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |
| DHDA-78A-S  |                                    |    |    |    |    | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |
| DHDA-88A-S  |                                    |    |    |    |    |    | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |
| DHDA-98A-S  |                                    |    |    |    |    |    |    | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |
| DHDA-108A-S |                                    |    |    |    |    |    |    |    | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |

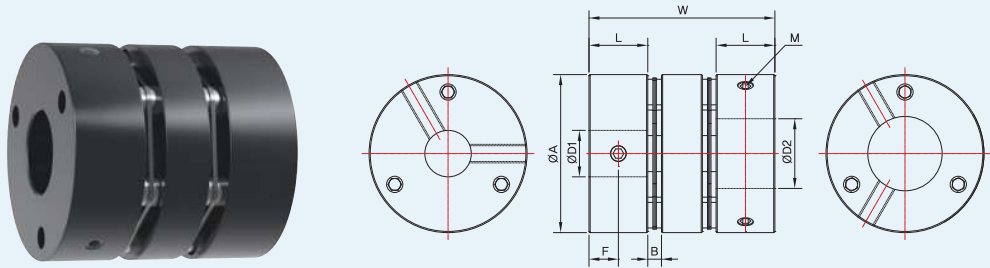
\* We encourage h7 for tolerance of attachment axis  
\* The inner diameter of ● marked is the standard diameter.  
\* For non-standard inner diameters other than the above table, it is available separately. Please contact us.  
\* We can supply with Key way  
\* You can order with one side is clamp type and another side is Set screw type.

| Product NO. | Standard Inner Diameter(D1,D2)(mm) |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-------------|------------------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
|             | 10                                 | 12 | 14 | 15 | 16 | 18 | 20 | 22 | 24 | 25 | 26 | 28 | 30 | 32 | 35 | 40 | 42 | 45 | 48 | 50 |
| DHDA-58A-C  | ●                                  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |
| DHDA-68A-C  |                                    |    |    | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |
| DHDA-78A-C  |                                    |    |    |    |    | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |
| DHDA-88A-C  |                                    |    |    |    |    |    | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |
| DHDA-98A-C  |                                    |    |    |    |    |    |    | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |
| DHDA-108A-C |                                    |    |    |    |    |    |    |    | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |

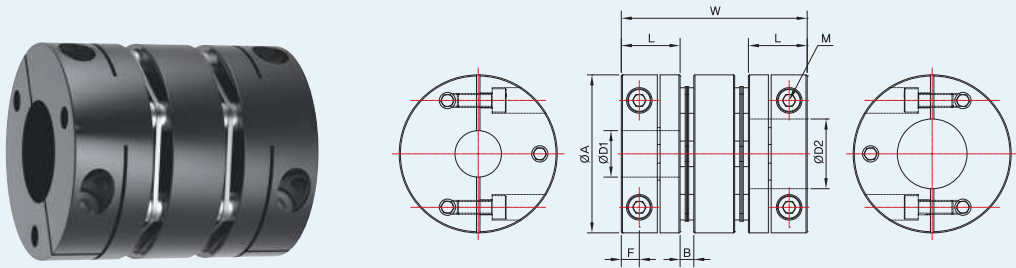
\* We encourage h7 for tolerance of attachment axis  
\* The inner diameter marked with ● are supported as the standard diameter.  
\* For non-standard inner diameters other than the above table, it is available separately. Please contact us.  
\* We can supply with Key way  
\* You can order with one side is clamp type and another side is Set screw type.



Set screw type



Clamp type



| Product NO. | Dimension(mm) |       |       |      |       | Tightening Screw |       | Allowable Torque | Max. RPM | Moment of inertia       | Torsional Stiffness | Paralle | Angle | End play | Mass  |
|-------------|---------------|-------|-------|------|-------|------------------|-------|------------------|----------|-------------------------|---------------------|---------|-------|----------|-------|
|             | A             | L     | W     | B    | F     | M                | N · m |                  |          |                         |                     |         |       |          |       |
| DHDA-58B-S  | 58            | 19.4  | 62    | 5.4  | 9.7   | M6               | 7     | 60               | 10,000   | 0.18 × 10 <sup>-3</sup> | 52,000              | 0.2     | 2     | 0.6      | 356   |
| DHDA-68B-S  | 68            | 25.3  | 80    | 5.9  | 12.65 | M8               | 15    | 90               | 10,000   | 0.43 × 10 <sup>-3</sup> | 120,000             | 0.25    | 2     | 1        | 615   |
| DHDA-78B-S  | 78            | 30    | 94    | 7.7  | 15    | M8               | 15    | 200              | 10,000   | 0.94 × 10 <sup>-3</sup> | 155,000             | 0.31    | 2     | 1        | 1,025 |
| DHDA-88B-S  | 88            | 30.8  | 99.8  | 8.3  | 15.4  | M8               | 15    | 250              | 10,000   | 1.55 × 10 <sup>-3</sup> | 260,000             | 0.32    | 2     | 1.2      | 1,271 |
| DHDA-98B-S  | 98            | 32.65 | 108.5 | 10.2 | 16.3  | M10              | 30    | 450              | 10,000   | 2.71 × 10 <sup>-3</sup> | 370,000             | 0.32    | 2     | 1.31     | 1,824 |
| DHDA-108B-S | 108           | 33.75 | 111   | 10.2 | 16.85 | M10              | 30    | 500              | 10,000   | 3.89 × 10 <sup>-3</sup> | 430,000             | 0.34    | 2     | 1.4      | 2,067 |

\* Mass and moment of inertia are calculated based on maximum inner diameter.  
\* Please contact us for other dimension allowances.

| Product NO. | Dimension(mm) |       |       |      |      | Tightening Screw |       | Allowable Torque | Max. RPM | Moment of inertia       | Torsional Stiffness | Paralle | Angle | End play | Mass  |
|-------------|---------------|-------|-------|------|------|------------------|-------|------------------|----------|-------------------------|---------------------|---------|-------|----------|-------|
|             | A             | L     | W     | B    | F    | M                | N · m |                  |          |                         |                     |         |       |          |       |
| DHDA-58B-C  | 58            | 19.4  | 62    | 5.4  | 6.5  | M6               | 13    | 60               | 10,000   | 0.17 × 10 <sup>-3</sup> | 52,000              | 0.2     | 2     | 0.6      | 344   |
| DHDA-68B-C  | 68            | 25.3  | 80    | 5.9  | 7.75 | M6               | 13    | 90               | 10,000   | 0.41 × 10 <sup>-3</sup> | 120,000             | 0.25    | 2     | 1        | 587   |
| DHDA-78B-C  | 78            | 30    | 94    | 7.7  | 9.5  | M8               | 30    | 200              | 10,000   | 0.90 × 10 <sup>-3</sup> | 155,000             | 0.31    | 2     | 1        | 992   |
| DHDA-88B-C  | 88            | 30.8  | 99.8  | 8.3  | 9.5  | M8               | 30    | 250              | 10,000   | 1.50 × 10 <sup>-3</sup> | 260,000             | 0.32    | 2     | 1.2      | 1,235 |
| DHDA-98B-C  | 98            | 32.65 | 108.5 | 10.2 | 10   | M10              | 50    | 450              | 10,000   | 2.65 × 10 <sup>-3</sup> | 370,000             | 0.32    | 2     | 1.3      | 1,803 |
| DHDA-108B-C | 108           | 33.75 | 111   | 10.2 | 10.5 | M10              | 50    | 500              | 10,000   | 3.76 × 10 <sup>-3</sup> | 430,000             | 0.34    | 2     | 1.4      | 2,021 |

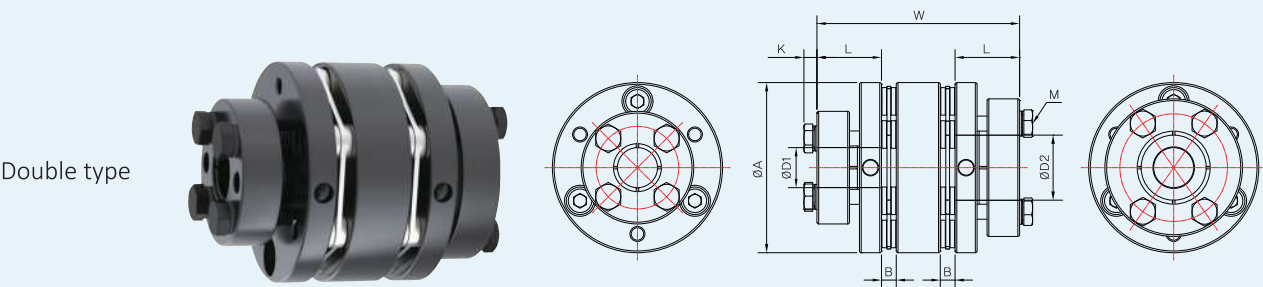
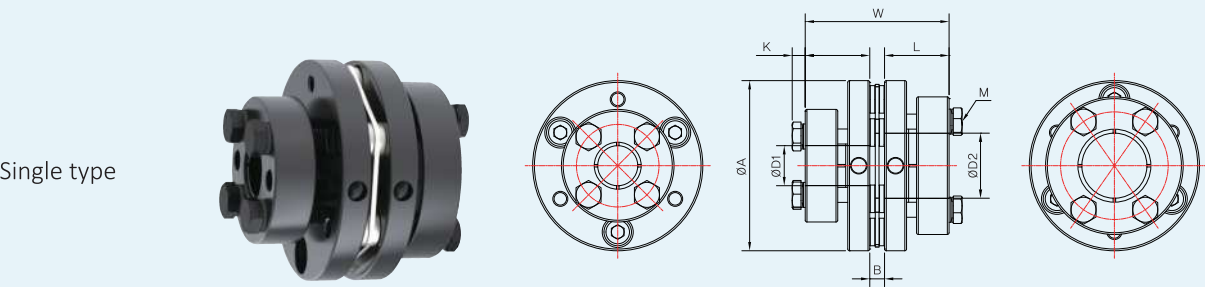
\* Mass and moment of inertia are calculated based on maximum inner diameter.  
\* Please contact us for other dimension allowances.

| Product NO. | Standard Inner Diameter(D1,D2)(mm) |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-------------|------------------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
|             | 10                                 | 12 | 14 | 15 | 16 | 18 | 20 | 22 | 24 | 25 | 26 | 28 | 30 | 32 | 35 | 40 | 42 | 45 | 48 | 50 |
| DHDA-58B-S  | ●                                  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |
| DHDA-68B-S  |                                    |    |    | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |
| DHDA-78B-S  |                                    |    |    |    |    | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |
| DHDA-88B-S  |                                    |    |    |    |    |    | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |
| DHDA-98B-S  |                                    |    |    |    |    |    |    | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |
| DHDA-108B-S |                                    |    |    |    |    |    |    |    | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |

\* We encourage h7 for tolerance of attachment axis  
\* The inner diameter marked with ● are supported as the standard diameter.  
\* For non-standard inner diameters other than the above table, it is available separately. Please contact us.  
\* We can supply with Key way  
\* You can order with one side is clamp type and another side is Set screw type.

| Product NO. | Standard Inner Diameter(D1,D2)(mm) |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-------------|------------------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
|             | 10                                 | 12 | 14 | 15 | 16 | 18 | 20 | 22 | 24 | 25 | 26 | 28 | 30 | 32 | 35 | 40 | 42 | 45 | 48 | 50 |
| DHDA-58B-C  | ●                                  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |
| DHDA-68B-C  |                                    |    |    | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |
| DHDA-78B-C  |                                    |    |    |    |    | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |
| DHDA-88B-C  |                                    |    |    |    |    |    | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |
| DHDA-98B-C  |                                    |    |    |    |    |    |    | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |
| DHDA-108B-C |                                    |    |    |    |    |    |    |    | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |

\* We encourage h7 for tolerance of attachment axis  
\* The inner diameter marked with ● are supported as the standard diameter.  
\* For non-standard inner diameters other than the above table, it is available separately. Please contact us.  
\* We can supply with Key way  
\* You can order with one side is clamp type and another side is Set screw type.



| Product NO. | Dimension(mm) |      |      |      |     | Tightening Screw |       | Allowable Torque | Max. RPM | Moment of inertia       | Torsional Stiffness | Paralle | Angle | End play | Mass  |
|-------------|---------------|------|------|------|-----|------------------|-------|------------------|----------|-------------------------|---------------------|---------|-------|----------|-------|
|             | A             | L    | W    | B    | K   | M                | N · m |                  |          |                         |                     |         |       |          |       |
| DHDA-58A-T  | 58            | 20.1 | 45.6 | 5.4  | 4.6 | M5               | 8     | 60               | 15,000   | 0.11 × 10 <sup>-3</sup> | 104,000             | 0.02    | 1     | 0.3      | 236   |
| DHDA-68A-T  | 68            | 25.8 | 57.5 | 5.9  | 5.2 | M6               | 13    | 90               | 15,000   | 0.28 × 10 <sup>-3</sup> | 240,000             | 0.02    | 1     | 0.5      | 419   |
| DHDA-78A-T  | 78            | 30.8 | 69.3 | 7.7  | 5.2 | M6               | 13    | 200              | 14,000   | 0.50 × 10 <sup>-3</sup> | 310,000             | 0.02    | 1     | 0.5      | 618   |
| DHDA-88A-T  | 88            | 30.8 | 69.9 | 8.3  | 5.2 | M6               | 13    | 250              | 14,000   | 1.81 × 10 <sup>-3</sup> | 520,000             | 0.02    | 1     | 0.6      | 733   |
| DHDA-98A-T  | 98            | 30.8 | 71.8 | 10.2 | 5.2 | M6               | 13    | 450              | 13,000   | 1.37 × 10 <sup>-3</sup> | 740,000             | 0.02    | 1     | 0.65     | 1,030 |
| DHDA-108A-T | 108           | 30.8 | 71.8 | 10.2 | 5.2 | M6               | 13    | 500              | 13,000   | 2.09 × 10 <sup>-3</sup> | 860,000             | 0.02    | 1     | 0.7      | 1,184 |

\* Mass and moment of inertia are calculated based on maximum inner diameter.  
\* Please contact us for other dimension allowances.

| Product NO. | Dimension(mm) |      |       |      |     | Tightening Screw |       | Allowable Torque | Max. RPM | Moment of inertia       | Torsional Stiffness | Paralle | Angle | End play | Mass  |
|-------------|---------------|------|-------|------|-----|------------------|-------|------------------|----------|-------------------------|---------------------|---------|-------|----------|-------|
|             | A             | L    | W     | B    | K   | M                | N · m |                  |          |                         |                     |         |       |          |       |
| DHDA-58B-T  | 58            | 20.1 | 63.4  | 5.4  | 4.6 | M5               | 8     | 60               | 15,000   | 0.16 × 10 <sup>-3</sup> | 52,000              | 0.2     | 2     | 0.6      | 333   |
| DHDA-68B-T  | 68            | 25.8 | 81    | 5.9  | 5.2 | M6               | 13    | 90               | 15,000   | 0.40 × 10 <sup>-3</sup> | 120,000             | 0.25    | 2     | 1        | 591   |
| DHDA-78B-T  | 78            | 30.8 | 95.6  | 7.7  | 5.2 | M6               | 13    | 200              | 14,000   | 0.77 × 10 <sup>-3</sup> | 155,000             | 0.31    | 2     | 1        | 908   |
| DHDA-88B-T  | 88            | 30.8 | 99.8  | 8.3  | 5.2 | M6               | 13    | 250              | 14,000   | 1.28 × 10 <sup>-3</sup> | 260,000             | 0.32    | 2     | 1.2      | 1,110 |
| DHDA-98B-T  | 98            | 30.8 | 104.8 | 10.2 | 5.2 | M6               | 13    | 450              | 13,000   | 2.23 × 10 <sup>-3</sup> | 370,000             | 0.38    | 2     | 1.3      | 1,610 |
| DHDA-108B-T | 108           | 30.8 | 105.1 | 10.2 | 5.2 | M6               | 13    | 500              | 13,000   | 3.29 × 10 <sup>-3</sup> | 430,000             | 0.38    | 2     | 1.4      | 1,826 |

\* Mass and moment of inertia are calculated based on maximum inner diameter.  
\* Please contact us for other dimension allowances.

| Product NO. | Standard Inner Diameter(D1,D2)(mm) |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-------------|------------------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
|             | 10                                 | 12 | 14 | 15 | 16 | 18 | 20 | 22 | 24 | 25 | 26 | 28 | 30 | 32 | 35 | 36 | 40 | 42 | 45 | 48 |
| DHDA-58A-T  | ●                                  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |    |    |    |    |    |    |    |    |    |    |
| DHDA-68A-T  |                                    |    |    | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |    |    |    |    |    |    |
| DHDA-78A-T  |                                    |    |    |    |    | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |    |    |    |    |    |
| DHDA-88A-T  |                                    |    |    |    |    |    | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |    |
| DHDA-98A-T  |                                    |    |    |    |    |    |    | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |
| DHDA-108A-T |                                    |    |    |    |    |    |    |    | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |

\* We encourage h7 for tolerance of attachment axis  
\* The inner diameter marked with ● are supported as the standard diameter.  
\* For non-standard inner diameters other than the above table, it is available separately. Please contact us.  
\* You can order with one side is clamp type and another side is Set screw type.

| Product NO. | Standard Inner Diameter(D1,D2)(mm) |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|-------------|------------------------------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
|             | 10                                 | 12 | 14 | 15 | 16 | 18 | 20 | 22 | 24 | 25 | 26 | 28 | 30 | 32 | 35 | 36 | 40 | 42 | 45 | 48 |
| DHDA-58B-T  | ●                                  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |    |    |    |    |    |    |    |    |    |    |
| DHDA-68B-T  |                                    |    |    | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |    |    |    |    |    |    |
| DHDA-78B-T  |                                    |    |    |    |    | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |    |    |    |    |
| DHDA-88B-T  |                                    |    |    |    |    |    | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |    |
| DHDA-98B-T  |                                    |    |    |    |    |    |    | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |
| DHDA-108B-T |                                    |    |    |    |    |    |    |    | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |

\* We encourage h7 for tolerance of attachment axis  
\* The inner diameter marked with ● are supported as the standard diameter.  
\* For non-standard inner diameters other than the above table, it is available separately. Please contact us.  
\* You can order with one side is clamp type and another side is Set screw type.

DISK COUPLING Technology Data

Precautions when using



Figure1



Figure2(The wrong method)



Figure3(The Correct method)

- The concentricity of the left and right internal diameters of the coupling is precisely assembled using a dedicated jig. If strong impact is applied to the coupling from outside, assembly precision may not be maintained and there is a possibility of damage during use. Please pay enough attention.
- 1) The operating temperature range is -30 °C ~ + 100 °C . Although it has water resistance and oil resistance, use at extreme temperature is a factor of deformation and please avoid.
  - 2) Since the disk is made of thin stainless steel plate, handle it carefully to avoid damage.
  - 3) Be sure to observe the tolerances of parallel, angular and axial.
  - 4) Be sure to fasten the clamping bolt or set screw with the specified torque.

Mounting

- 1) Make sure that the clamping bolt or set screw is loosened and remove foreign matter and oil on the inner surface of the shaft and coupling. (Please wipe off the oil component by using degreasing agent etc.)
- 2) Compressed to disk pack when inserting coupling. Do not apply excessive force such as tensile. Be especially careful when inserting a coupling on the motor side and then inserting the coupling on the mating shaft, which may result in inadequate compressive force.
- 3) Make sure that the coupling smoothly moves in the axial and rotational directions with the clamping bolt or set screw loosened. If it does not move smoothly, adjust the centering of the two axes again. Although this method is recommended as a simple confirmation method of the left and right concentricity, if the confirmation method like this is not possible, check the degree of assembly by the management of the machine parts quality and other methods.
- 4) The relative use axis is a circular axis principle, but when using a key shape axis other than a circular axis, pay attention to the axis attachment position as shown below. Depending on the mounting position of the shaft, the coupling body may be damaged and shaft gripping force may be reduced. To meet the coupling performance sufficiently, we recommend using it on a circular shaft. (Figures2 and 3)
- 5) The length at which the shaft is inserted into the coupling is up to the length of the hub (dimension table L). Do not interfere with the Disk plate and other axes.
- 6) After confirming the action of force such as compression or tension in the axial direction, tighten the tightening screw or set screw. When fastening the tightening screw or set screw, tighten it within the specified torque range with a calibrated torque wrench.

Disassembly

- 1) Check that the torque and axial load are not applied to the coupling. Torque may be applied to the coupling, especially when the safety brake device is in operation. Please check before dismantling.
- 2) Loosen all clamping bolts or set screws.
- 3) The fastening to the shaft will be released until it is fully released.

DISK COUPLING Technology Data

Precautions when using



Circular disk pack



Rectangle disk pack



Hexagon disk pack

The key way machining

- The keyway machining is available upon request. It is designed to transmit the torque by the frictional engagement by the clamp mechanism, the allowable torque of the coupling, Do not use it in excess. Please also note the following points before using
- 1) The key must be less than or equal to the keyway width. When the key is used as a press-in, when attaching or during operation. It may be damaged.
  - 2) Please contact us for the position of the keyway machining.
  - 3) When adopting Js9 class tolerance, it is possible to tighten the coupling when assembling to the shaft. Be careful not to apply compression.
  - 4) If the fitting of the key and the keyway is set too loosely, rattling may occur and dust may be generated, Also, be careful not to lose the key.
  - 5) If a set screw is added to the keyway, the clamp function will be lowered. There is a risk of loose set screws. Also, it is not recommended because the structure of the hub may deteriorate and the coupling may be damaged.

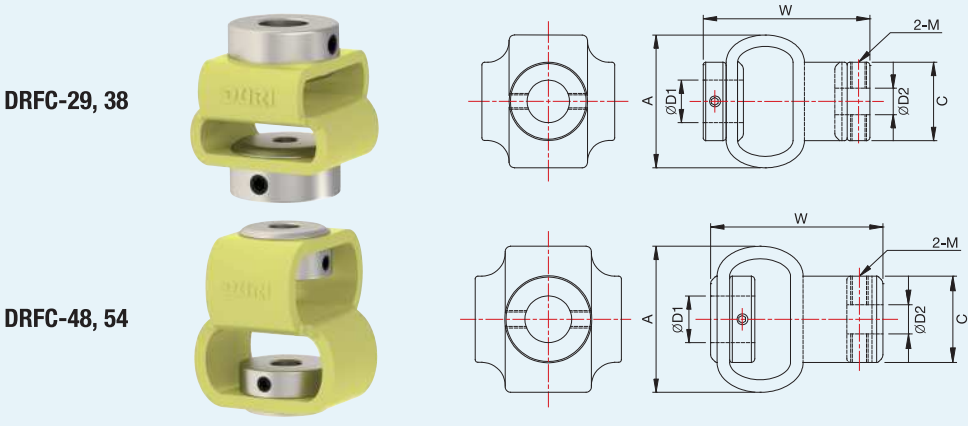
Precautions for ball screw system

The servo motor may oscillate according to the gain adjustment of the servo motor. The oscillation of the servomotor is mainly caused by the natural frequency of the entire ball screw system and the problem of the electric control system. This problem is caused by adjustment of the whole system such as torsional stiffness and inertia of coupling and ball screw, and by adjusting the torsional natural frequency of the mechanical system or adjusting it by the electric control tuning function of the servo motor (filter function).

Difference in rigidity according to disk shape

DURI disk coupling has a circular shape, a square shape, and a hexagon shape  
The DHDA Series employs hexagonal disks. Since the hub coupling is coupled to the disk via disk, the hexagonal disks that deliver the torque with six bolts are used to provide high torsional rigidity, while the flexibility is somewhat higher Please refer to the selection.





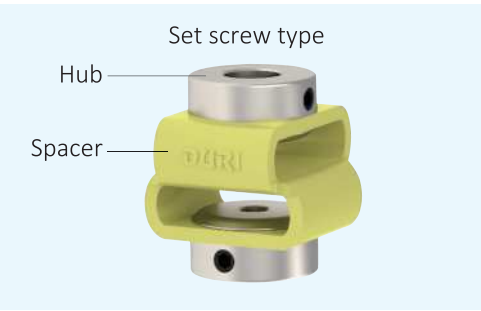
Features

- Integrated flexible coupling
- Absorbs excellently large eccentricity, declination and end play
- Absorbs shock and vibration.
- Low moment of inertia.

Usage

- Stepping Motor
- General wide use Motor
- Others

Structure (fastening type) and material



- Hub : S45C
- Hub surface treatment : nickel plating
- Spacer : Polyurethane

Order Method (Order Example)

| DRFC       | 38   | 8                   | 12                  |
|------------|------|---------------------|---------------------|
| Product NO | Size | Inner diameter : D1 | Inner diameter : D2 |

| Product NO. | Dimension(mm) |    |      | Tightening Screw |        | Max. RPM | Allowable Torque | Angle | Paralle | End play | Mass |
|-------------|---------------|----|------|------------------|--------|----------|------------------|-------|---------|----------|------|
|             | A             | W  | C    | Size             | Torque |          |                  |       |         |          |      |
| DRFC-29     | 25            | 28 | 18   | M4               | 1.7    | 3,000    | 0.35             | 10    | 2       | 1.5      | 20   |
| DRFC-38     | 32            | 35 | 22.5 | M4               | 1.7    | 3,000    | 1.35             | 10    | 2.5     | 2        | 40   |
| DRFC-48     | 43            | 50 | 26   | M5               | 4      | 3,000    | 1.8              | 12    | 2.5     | 2        | 60   |
| DRFC-54     | 50            | 59 | 29.5 | M6               | 7      | 3,000    | 4.5              | 12    | 3       | 2        | 140  |

\* The coupling torque may be limited by the retention force of the shaft fastening part, so check the 'Standard inner diameter'.

\* The Max. RPM did not take into account the dynamic balance.

\* Mass and moment of inertia are calculated based on maximum inner diameter.

\* Please contact us for other dimension allowances.

| Product NO. | Standard Inner Diameter(D1,D2)(mm) |   |   |   |    |    |    |    |    |   |
|-------------|------------------------------------|---|---|---|----|----|----|----|----|---|
|             | 4                                  | 5 | 6 | 8 | 10 | 12 | 14 | 15 | 16 |   |
| DRFC-29     | ●                                  | ● | ● | ● | ●  |    |    |    |    |   |
| DRFC-38     |                                    |   | ● | ● | ●  | ●  |    |    |    |   |
| DRFC-48     |                                    |   |   | ● | ●  | ●  | ●  |    |    |   |
| DRFC-54     |                                    |   |   |   | ●  | ●  | ●  | ●  | ●  | ● |

\* We encourage h7 for tolerance of attachment axis

\* The inner diameter of ● marked is the standard diameter.

CONNECTING SHAFT COUPLING

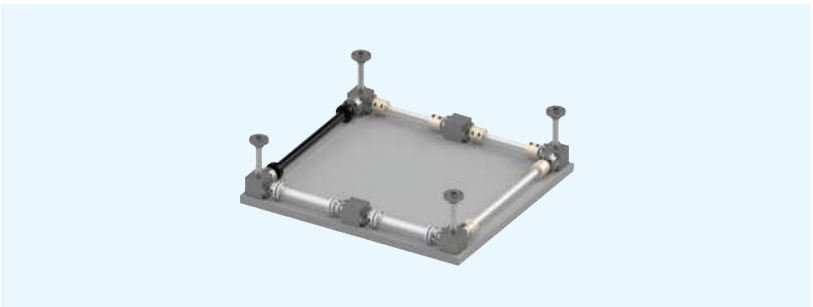


Features

- The balancing is excellent.
- Increase the convenience and save the cost through the use this shaft.
- In case of clamp type, it is possible to supply split type.
- In case of split type, it is easy to assemble and disassemble.
- There are many kinds such as Disk or Jaw.
- We can supply it with the length which client request.

※ Please ask to our company about delivery time.

Application





Features

- Due to aluminum alloy with high stiffness, moment of inertia is low.
- Increase the convenience and save cost through the use of this shaft.
- In case of clamp type, it is possible to supply as split type
- In case of split type, it is easy to assemble and disassemble.
- We can supply it with the length which client request.

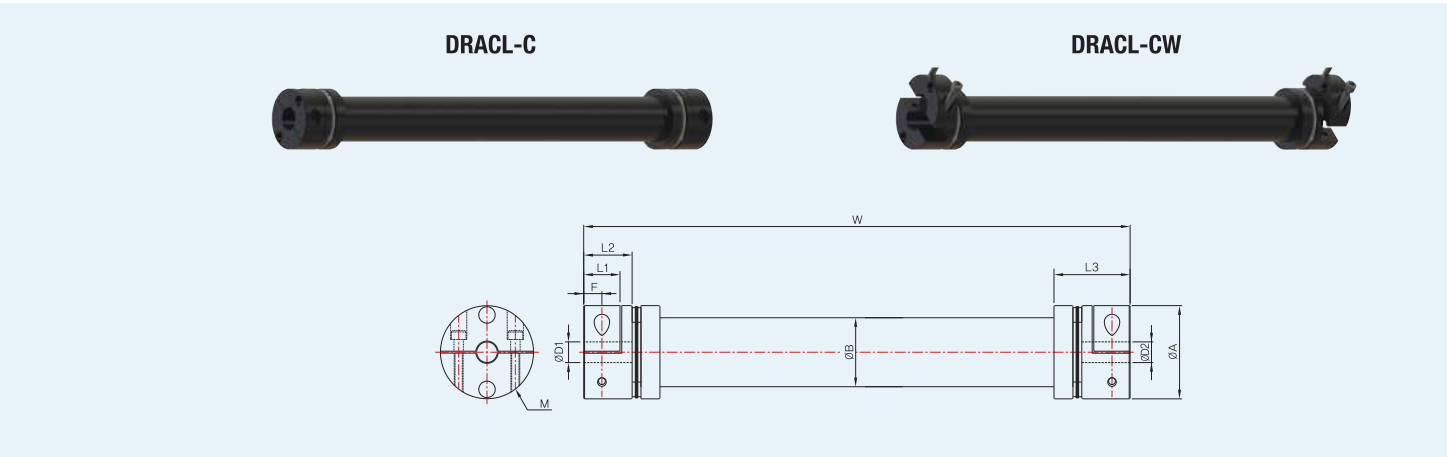
Structure (fastening type) and material



- Hub : Aluminum alloy with high stiffness
- Connecting shaft : Aluminum alloy with high stiffness
- Hub & Connecting shaft surface treatment : Alumite process
- Disk : Stainless steel
- Washer : Stainless steel
- Tightening screw : SCM435

Order Method (Order Example)

| DRACL      | 54   | C              | 15                  | 20                  | W1,000       |
|------------|------|----------------|---------------------|---------------------|--------------|
| Product NO | Size | Fastening type | Inner diameter : D1 | Inner diameter : D2 | Total length |



| Product NO. | Dimension(mm) |    |      |    |      |       | W   |       | Tightening Screw |        | Rated Torque | Max. Torque | Max. RPM | Moment of inertia    |                       | Torsional Stiffness |           | Angle | Paralle | End play |
|-------------|---------------|----|------|----|------|-------|-----|-------|------------------|--------|--------------|-------------|----------|----------------------|-----------------------|---------------------|-----------|-------|---------|----------|
|             |               |    |      |    |      |       |     |       |                  |        |              |             |          |                      |                       |                     |           |       |         |          |
|             | A             | B  | F    | L1 | L2   | L3    | Mix | Max   | Size             | Torque | N · m        | N · m       | N · m    | kg · m <sup>2</sup>  | kg · m <sup>2</sup>   | N · m/rad           | N · m/rad | °     | mm/m    | mm       |
| DRACL-31C   | 31.8          | 30 | 5.5  | 11 | 15.5 | 27.78 | 88  | 2,000 | M4               | 4      | 4            | 8           | 1,500    | 8.8×10 <sup>-6</sup> | 1.36×10 <sup>-4</sup> | 1,300               | 1,380     | 2     | 0.15    | 0.2      |
| DRACL-42C   | 42.5          | 40 | 8.5  | 17 | 24   | 38.3  | 113 | 2,000 | M5               | 8      | 10           | 20          | 1,500    | 2.9×10 <sup>-5</sup> | 3.43×10 <sup>-4</sup> | 3,500               | 3,800     | 2     | 0.3     | 0.6      |
| DRACL-54C   | 54            | 40 | 10.5 | 21 | 28   | 44.14 | 131 | 2,000 | M6               | 13     | 30           | 60          | 1,500    | 9.8×10 <sup>-5</sup> | 3.43×10 <sup>-4</sup> | 11,000              | 3,800     | 2     | 0.5     | 1.2      |
| DRACL-64C   | 64            | 55 | 13   | 26 | 35   | 52.44 | 154 | 2,000 | M8               | 30     | 42           | 84          | 1,500    | 1.1×10 <sup>-4</sup> | 1.23×10 <sup>-3</sup> | 13,000              | 11,150    | 2     | 0.5     | 1.6      |
| DRACL-80C   | 79            | 55 | 15   | 30 | 40   | 61    | 175 | 2,000 | M10              | 50     | 98           | 196         | 1,500    | 8.5×10 <sup>-4</sup> | 1.23×10 <sup>-3</sup> | 34,000              | 11,150    | 2     | 0.5     | 2.0      |
| DRACL-90C   | 94.5          | 78 | 18   | 36 | 48.5 | 72.7  | 202 | 1,400 | M10              | 50     | 200          | 400         | 1,500    | 1.8×10 <sup>-3</sup> | 5.07×10 <sup>-3</sup> | 38,000              | 37,840    | 2     | 0.5     | 2.0      |
| DRACL-100C  | 104.5         | 78 | 20   | 40 | 51.6 | 78    | 217 | 1,400 | M10              | 50     | 265          | 530         | 1,500    | 2.9×10 <sup>-3</sup> | 5.07×10 <sup>-2</sup> | 50,000              | 37,840    | 2     | 0.5     | 2.0      |

\* The coupling torque may be limited by the retention force of the shaft fastening part, so check the 'Standard inner diameter'.

\* The Max. RPM did not take into account the dynamic balance.

\* Mass and moment of inertia are calculated based on maximum inner diameter.

\* Please contact us for other dimension allowances.

| Product NO. | Standard Inner Diameter(D1,D2)(mm) |   |      |   |   |   |       |    |    |    |      |    |    |        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |
|-------------|------------------------------------|---|------|---|---|---|-------|----|----|----|------|----|----|--------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|---|
|             | 5                                  | 6 | 6.35 | 7 | 8 | 9 | 9.525 | 10 | 11 | 12 | 12.7 | 14 | 15 | 15.875 | 16 | 17 | 18 | 19 | 20 | 22 | 24 | 25 | 26 | 28 | 30 | 32 | 35 | 40 | 42 | 45 | 50 |   |
| DRACL-31C   | ●                                  | ● | ●    | ● | ● | ● | ●     | ●  | ●  | ●  | ●    | ●  |    |        |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |   |
| DRACL-42C   |                                    | ● | ●    | ● | ● | ● | ●     | ●  | ●  | ●  | ●    | ●  | ●  | ●      | ●  | ●  | ●  | ●  | ●  | ●  |    |    |    |    |    |    |    |    |    |    |    |   |
| DRACL-54C   |                                    |   |      |   |   |   |       |    | ●  | ●  | ●    | ●  | ●  | ●      | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |    |    |    |    |    |    |    |   |
| DRACL-64C   |                                    |   |      |   |   |   |       |    |    |    | ●    | ●  | ●  | ●      | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |    |    |    |   |
| DRACL-80C   |                                    |   |      |   |   |   |       |    |    |    |      |    | ●  | ●      | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |   |
| DRACL-90C   |                                    |   |      |   |   |   |       |    |    |    |      |    |    |        |    |    |    |    |    | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ● |
| DRACL-100C  |                                    |   |      |   |   |   |       |    |    |    |      |    |    |        |    |    |    |    |    | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ● |

\* We encourage h7 for tolerance of attachment axis

\* The inner diameter of ● marked is the standard diameter.

\* For non-standard inner diameters other than the above table, it is available separately. Please contact us.

\* We can supply with Key way.



Features

- Due to aluminum alloy with high stiffness, moment of inertia is low.
- Increase the convenience and save cost through the use of this shaft.
- In case of clamp type, it is possible to supply as split type
- In case of split type, it is easy to assemble and disassemble.
- We can supply it with the length which client request.

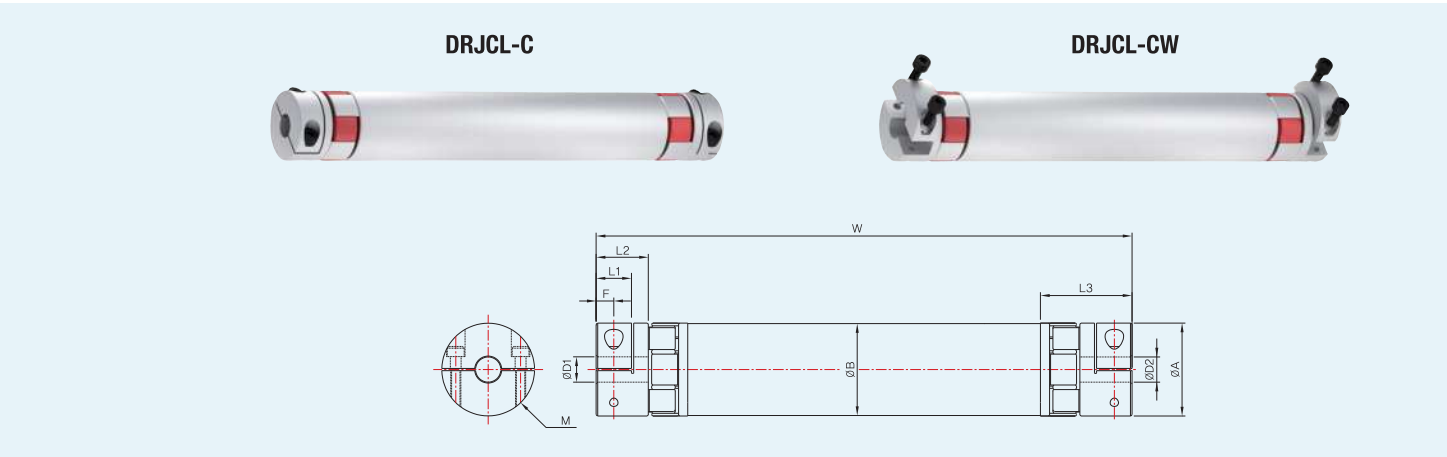
Structure (fastening type) and material



- Hub: Aluminum alloy with high stiffness
- Connecting shaft : Aluminum alloy with high stiffness
- Hub & Connecting shaft surface treatment: Aluminite process
- Sleeve : Polyurethane
- Tightening screw : SCM435

Order Method (Order Example)

| DRJCL      | 55   | C              | RD          | 15                  | 20                  | W1,000       |
|------------|------|----------------|-------------|---------------------|---------------------|--------------|
| Product NO | Size | Fastening type | Sleeve type | Inner diameter : D1 | Inner diameter : D2 | Total length |



| Product NO.   | Dimension(mm) |    |      |    |      |     | W   |       | Tightening Screw |        | Rated Torque | Max. Torque | Max. RPM          | Moment of inertia    |                       | Torsional Stiffness |         | Angle | Parallel | End play |
|---------------|---------------|----|------|----|------|-----|-----|-------|------------------|--------|--------------|-------------|-------------------|----------------------|-----------------------|---------------------|---------|-------|----------|----------|
|               |               |    |      |    |      |     | Mix | Max   | Size             | Torque |              |             |                   | Coupling             | Pipe/m                | Coupling            | Pipe/m  |       |          |          |
|               | A             | B  | F    | L1 | L2   | L3  | mm  | mm    | M                | N·m    | N·m          | N·m         | min <sup>-1</sup> | kg·m <sup>2</sup>    | kg·m <sup>2</sup>     | N·m/rad             | N·m/rad | °     | mm/m     | mm       |
| DRJCL-30C RD  | 30            | 30 | 5.5  | 11 | 15.5 | 33  | 98  | 2,000 | M4               | 4      | 14           | 28          | 1,500             | 7.5×10 <sup>-6</sup> | 1.36×10 <sup>-4</sup> | 220                 | 1,380   | 2     | 5        | ±1.0     |
| DRJCL-40C RD  | 40            | 40 | 8.5  | 17 | 25   | 47  | 130 | 2,000 | M5               | 8      | 18           | 36          | 1,500             | 3.9×10 <sup>-5</sup> | 3.43×10 <sup>-4</sup> | 2,000               | 3,800   | 2     | 5        | ±1.0     |
| DRJCL-55C RD  | 55            | 55 | 10.5 | 21 | 30   | 54  | 175 | 2,000 | M6               | 13     | 60           | 120         | 1,500             | 1.6×10 <sup>-4</sup> | 1.23×10 <sup>-3</sup> | 4,000               | 11,150  | 2     | 5        | ±1.0     |
| DRJCL-65C RD  | 65            | 55 | 13   | 26 | 35   | 63  | 200 | 2,000 | M8               | 30     | 180          | 360         | 1,500             | 3.8×10 <sup>-4</sup> | 1.23×10 <sup>-3</sup> | 8,000               | 11,150  | 2     | 5        | ±1.0     |
| DRJCL-80C RD  | 80            | 55 | 15   | 30 | 40   | 84  | 245 | 2,000 | M10              | 50     | 325          | 650         | 1,500             | 1.0×10 <sup>-3</sup> | 1.23×10 <sup>-3</sup> | 20,000              | 11,150  | 2     | 5        | ±1.0     |
| DRJCL-95C RD  | 95            | 78 | 18   | 36 | 50   | 92  | 270 | 1,400 | M10              | 50     | 450          | 900         | 1,500             | 2.8×10 <sup>-3</sup> | 5.07×10 <sup>-3</sup> | 30,000              | 37,840  | 2     | 5        | ±1.0     |
| DRJCL-100C RD | 104           | 78 | 20   | 40 | 56   | 101 | 300 | 1,400 | M12              | 90     | 600          | 1,200       | 1,500             | 4.6×10 <sup>-3</sup> | 5.07×10 <sup>-2</sup> | 40,000              | 37,840  | 2     | 5        | ±1.0     |

\* The coupling torque may be limited by the retention force of the shaft fastening part, so check the 'Standard inner diameter'.

\* The Max. RPM did not take into account the dynamic balance.

\* Mass and moment of inertia are calculated based on maximum inner diameter.

\* Please contact us for other dimension allowances.

| Product NO.   | Standard Inner Diameter(D1,D2)(mm) |   |       |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
|---------------|------------------------------------|---|-------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
|               | 7                                  | 8 | 9.525 | 10 | 11 | 12 | 14 | 15 | 16 | 18 | 19 | 20 | 22 | 24 | 25 | 26 | 28 | 30 | 32 | 35 | 40 | 45 | 50 | 55 | 60 |
| DRJCL-30C□RD  | ●                                  | ● | ●     | ●  | ●  | ●  | ●  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| DRJCL-40C□RD  |                                    | ● | ●     | ●  | ●  | ●  | ●  | ●  | ●  | ●  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |
| DRJCL-55C□RD  |                                    |   |       |    |    | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |    |    |    |    |    |    |    |    |
| DRJCL-65C□RD  |                                    |   |       |    |    |    |    | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |    |    |    |    |    |
| DRJCL-80C□RD  |                                    |   |       |    |    |    |    |    |    |    |    | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |    |    |    |
| DRJCL-95C□RD  |                                    |   |       |    |    |    |    |    |    |    |    |    | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |
| DRJCL-100C□RD |                                    |   |       |    |    |    |    |    |    |    |    |    |    |    | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  | ●  |

\* We encourage h7 for tolerance of attachment axis

\* The inner diameter of ● marked is the standard diameter.

\* For non-standard inner diameters other than the above table, it is available separately. Please contact us.

\* We can supply with Key way.

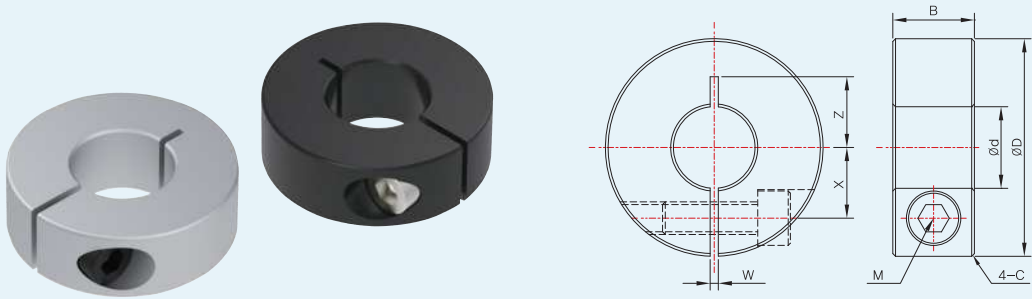


DRSS-Set Collars

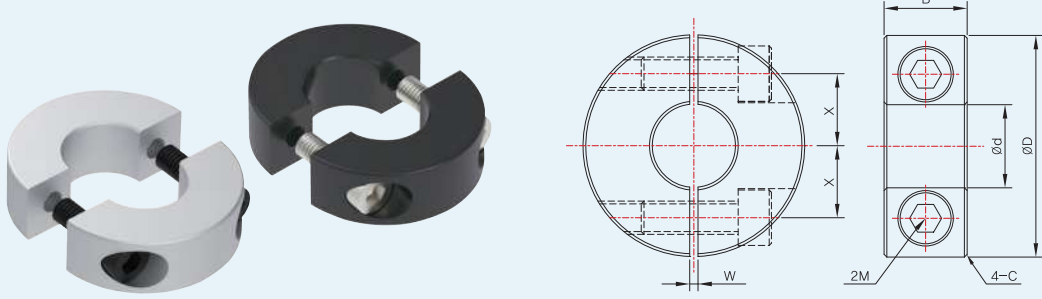
DRSD-Set Collars

COUPLING

Slit type



Split type



COUPLING

Structure (fastening type) and material

| Product NO. | Material                           | Surface treatment          |
|-------------|------------------------------------|----------------------------|
| DRSS        | Aluminum alloy with high stiffness | White Alumite Process      |
| DRSS-B      | Aluminum alloy with high stiffness | Black Alumite Process      |
| DRSS-S      | S45C                               | Black Phosphate Coating    |
| DRSS-N      | S45C                               | Electroless Nickel Plating |
| DRSS-SUS    | SUS304                             |                            |

Order Method (Order Example)

| DRSS       | 10 | 12 |
|------------|----|----|
| Product NO | d  | B  |

| Product NO. | Dimension(mm) |    |    |     |      |     | Tightening screw |
|-------------|---------------|----|----|-----|------|-----|------------------|
|             | d             | D  | B  | W   | X    | Z   | M                |
| DRSS        | 4             | 18 | 8  | 1   | 5    | 3.5 | M3               |
|             | 5             | 20 | 8  | 1   | 6    | 6   | M3               |
|             | 6             | 20 | 8  | 1   | 6    | 6.5 | M3               |
|             | 8             | 25 | 10 | 1.5 | 8    | 9   | M4               |
|             | 10            | 35 | 15 | 1.5 | 10   | 12  | M6               |
|             | 12            | 35 | 15 | 1.5 | 11   | 12  | M6               |
|             | 13            | 35 | 15 | 1.5 | 11.5 | 12  | M6               |
|             | 15            | 40 | 15 | 1.5 | 13   | 13  | M6               |
|             | 16            | 40 | 15 | 1.5 | 13   | 13  | M6               |
|             | 17            | 40 | 15 | 1.5 | 13   | 13  | M6               |
| DRSS-B      | 15            | 40 | 15 | 1.5 | 13   | 13  | M6               |
| DRSS-S      | 16            | 40 | 15 | 1.5 | 13   | 13  | M6               |
| DRSS-N      | 17            | 40 | 15 | 1.5 | 13   | 13  | M6               |
| DRSS-SUS    | 18            | 45 | 15 | 1.5 | 15   | 15  | M6               |
|             | 20            | 45 | 15 | 1.5 | 15   | 15  | M6               |
|             | 25            | 50 | 15 | 1.5 | 18   | 18  | M6               |
|             | 30            | 55 | 15 | 1.5 | 20   | 18  | M6               |
|             | 35            | 60 | 15 | 2   | 23   | 21  | M6               |
|             | 40            | 70 | 18 | 2   | 26   | 23  | M8               |
|             | 50            | 85 | 22 | 3   | 32   | 28  | M10              |

\* Please contact us for other dimension allowances.

Structure (fastening type) and material

| Product NO. | Material                           | Surface treatment          |
|-------------|------------------------------------|----------------------------|
| DRSD        | Aluminum alloy with high stiffness | White Alumite Process      |
| DRSD-B      | Aluminum alloy with high stiffness | Black Alumite Process      |
| DRSD-S      | S45C                               | Black Phosphate Coating    |
| DRSD-N      | S45C                               | Electroless Nickel Plating |
| DRSD-SUS    | SUS304                             |                            |

Order Method (Order Example)

| DRSD       | 10 | 12 |
|------------|----|----|
| Product NO | d  | B  |

| Product NO.                                    | Dimension(mm) |    |    |     |     | Tightening screw |
|------------------------------------------------|---------------|----|----|-----|-----|------------------|
|                                                | d             | D  | B  | W   | X   | M                |
| DRSD<br>DRSD-B<br>DRSD-S<br>DRSD-N<br>DRSD-SUS | 4             | 18 | 8  | 1   | 5   | M3               |
|                                                | 5             | 20 | 8  | 1   | 6   | M3               |
|                                                | 6             | 20 | 8  | 1   | 6   | M3               |
|                                                | 8             | 25 | 10 | 1.5 | 8   | M4               |
|                                                | 10            | 35 | 15 | 1.5 | 10  | M6               |
|                                                | 12            | 35 | 15 | 1.5 | 11  | M6               |
|                                                | 13            | 35 | 15 | 1.5 | 11  | M6               |
|                                                | 15            | 40 | 15 | 1.5 | 13  | M6               |
|                                                | 16            | 40 | 15 | 1.5 | 13  | M6               |
|                                                | 17            | 40 | 15 | 1.5 | 13  | M6               |
|                                                | 18            | 45 | 15 | 1.5 | 15  | M6               |
|                                                | 20            | 45 | 15 | 1.5 | 15  | M6               |
|                                                | 25            | 50 | 15 | 1.5 | 18  | M6               |
|                                                | 30            | 55 | 15 | 1.5 | 20  | M6               |
|                                                | 35            | 60 | 15 | 2   | 23  | M6               |
| 40                                             | 70            | 18 | 2  | 26  | M8  |                  |
| 50                                             | 85            | 22 | 3  | 32  | M10 |                  |

\* Please contact us for other dimension allowances.

# LOCKING ELEMENT



The Locking element of Durimatec Co., Ltd. Is a power transmission component by surface pressure and it is used instead of KEY type power system.

Therefore, there is no need to process the key way on the shaft and hub, which has the advantage of greatly improving the workability of the designer as well as the manufacturing site.

Our locking elements are available in a variety of sizes, ranging from third-party products and general purpose low-end models to special-size locking elements.

|                                                                                                               |  |                                                                                                               |  |                                                                                                               |  |
|---------------------------------------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------------------------------|--|
| <b>DR200</b>                                                                                                  |  | <b>DR300</b>                                                                                                  |  | <b>DR300C</b>                                                                                                 |  |
| <br><small>p.064</small>   |  | <br><small>p.068</small>   |  | <br><small>p.069</small>   |  |
| <b>DR300F</b>                                                                                                 |  | <b>DR300EF</b>                                                                                                |  | <b>DR110</b>                                                                                                  |  |
| <br><small>p.070</small>   |  | <br><small>p.071</small>   |  | <br><small>p.072</small>   |  |
| <br><small>p.073</small>   |  | <b>DR132</b>                                                                                                  |  | <b>DR133</b>                                                                                                  |  |
| <br><small>p.074</small>   |  | <br><small>p.075</small>   |  | <br><small>p.076</small>   |  |
| <br><small>p.077</small>   |  | <br><small>p.078</small>   |  | <b>DR400</b>                                                                                                  |  |
| <br><small>p.079</small>  |  | <br><small>p.080</small>  |  | <br><small>p.081</small>  |  |
| <b>MAD</b>                                                                                                    |  | <b>MAS</b>                                                                                                    |  | <b>MASUS</b>                                                                                                  |  |
| <br><small>p.083</small> |  | <br><small>p.084</small> |  | <br><small>p.085</small> |  |
| <b>DRAP</b>                                                                                                   |  | <b>DRMC</b>                                                                                                   |  | <br><small>p.086</small> |  |
| <br><small>p.087</small> |  |                                                                                                               |  |                                                                                                               |  |

## Features

The Duri Locking Element is available for key-free power transmission on the axis and hub. Absence of key way helps improve more strength on its parts and provide higher efficiency with the power.

The Locking Element can be used to tighten each part against the force on the axis (FA). The Locking Element is available for tightening the moving axes and sprocket wheels, the moving axes and gears, and for transmitting the power against the moving torques (MT).

It can be used as a rigid coupling by making a direct contact between axes.

General cautions in using the Locking Element

For individual caution, see the page of each model No.

For transfer thrust values, it is illustrated how to clamp the lock with a torque used as a standard bolt. Values for the maximum usable torque can be used less than the ones indicated depending on each model No.

If higher transmission or transfer torques are required, the bolts to be used can be tightened less than the maximum torque, but increased pressure allows for selecting the materials used for the shaft and the hub.

If the materials used exceed the yield point, make sure to check how the pressure works in order to prevent the worst skids from giving any damage to the machine.

Check to see if pressures on the yield point are described on the pages of the catalog.

It is recommended that materials to be used be treated with heat for user's safety.

If impact load is given to the product, the safety factor can be calculated at 3~5 times.

If the shaft or the hub has not enough pressure, low transfer may result in skidding or the ring being fixed on the shaft, so make sure to check how the pressure works.

## Assembling

## Disassembling

## Reusing

Power Conversion Efficiency  
Transmission Efficiency  $\eta$

$$\text{Torque } T[\text{N}\cdot\text{m}] = 9550 \cdot K \times P_o[\text{kW}] / N[\text{min}^{-1}]$$

The following expression shows the power, torque and revolution No. on the moving shaft.

Force of Trust:  $F_t(N)$

$$Fr[N] = K \cdot Ft[N]$$

K : Selection coefficient depending on the power fluctuation

Used for calculation when working on combined loads.

If combined loads (force of thrust + revolving torque) are given to the Power Lock, the following expression will be applied to select the Lock, which has a larger capacity of transfer torque than this value after changing them into combined torque (Mh).

$$Mh = \sqrt{T^2 + \left(\frac{Fr \cdot d}{2}\right)^2} \text{ [N}\cdot\text{m]}$$

d: diameter

the maximum inner diameter  
on the hollow axis.

If the Power Lock is used on the hollow axis, the value of inner diameter can be obtained from the following expression, which is more than the diameter on the hollow axis.

$$\text{domax} \leq d \cdot \sqrt{\frac{\sigma_{0,2} - (2 \cdot P_s \cdot C)}{\sigma_{0,2}}} - \text{dbolt} \text{ [mm]}$$

domax: the maximum inner diameter on the shaft.

d: the diameter

Ps: Pressure on the side of the axis

$\sigma_{0.2}$ : the yield point by which the materials are selected (see the table for yield strength)

C: Application constant (see the table for application constants on the next page)

dbolt: the diameter of a bolt(if not used on the axis, dbolt = 0)



LOCKING ELEMENT Technical data

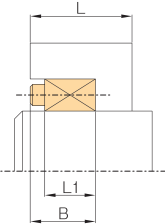
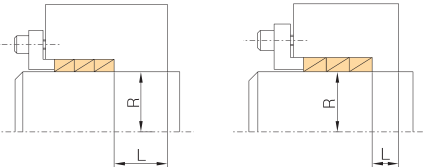
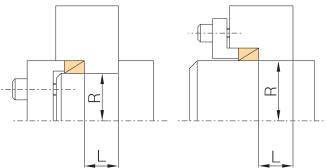
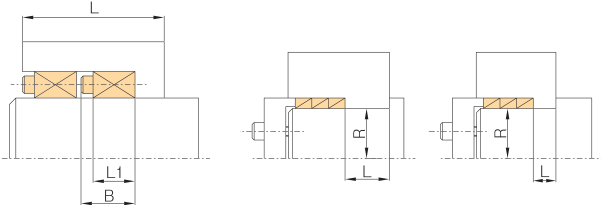
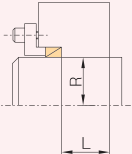
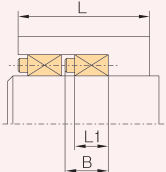
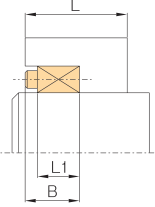
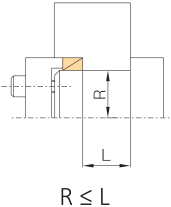
Calculating the minimum diameter on the hub

- Be sure that the outer diameter must be larger than the value above calculated.

- Min. diameter on the hub>  $D \cdot \sqrt{\frac{\sigma 0.2 + (C \cdot Ph)}{\sigma 0.2 - (C \cdot Ph)}} + dbolt [mm]$

- σ0.2 : the yield point by which the material is selected
- Ph : Pressure on the hub
- C : Application constant
- Dbolt : the nominal diameter of a bolt

※ Note) if there is any hole on the bolt of a hub, dbolt is applied. If not, dbolt is equal to 0.

| Application constant | 2-type shape can be illustrated based on the following condition.                                  |                                                                                                                     |
|----------------------|----------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|
|                      | If a single row is required                                                                        | If a multi row is required                                                                                          |
| C = 1.0              | <br>B ≤ L ≤ 2·L1 |                                  |
|                      | <br>L < R       | <br>L < n·b+L1 n:Singular max 3 |
| C = 0.8              | <br>R ≤ L       | <br>n·b+L1 ≤ L n:Singular max 3 |
| C = 0.6              | <br>B+L1 ≤ L    | <br>R ≤ L                        |

LOCKING ELEMENT Technical data

The yield point (yield strength) is set to σ0.2.

| The yield point σ0.2. |         |    | Material symbol |                   | Designation                            |
|-----------------------|---------|----|-----------------|-------------------|----------------------------------------|
| Mpa[N/mm²]            | Kgf/mm² |    |                 |                   |                                        |
| 100-200               | 119     | 12 | FC200           | Standard material | Standard material                      |
|                       | 147     | 15 | FC250           | Standard material | Standard material                      |
|                       | 175     | 18 | FC300           | Standard material | Standard material                      |
|                       |         |    | SC360           | Standard material | Carbon cast steel                      |
|                       |         |    | SS330           | Standard material | Rolled steel for general               |
| 200-300               | 196     | 20 | A2017-T4        |                   | Duralumin                              |
|                       | 203     | 21 | FC350           | Standard material | Gray cast iron                         |
|                       | 205     | 21 | SC410           | Standard material | Carbon cast steel                      |
|                       |         |    | SUS304          | Standard material | Stainless                              |
|                       | 206     | 21 | S10C            | Standard material | Carbon steel for machine structure use |
|                       |         |    | <b>SS400</b>    | Standard material | Rolled steel for general               |
|                       |         |    | <b>S15C</b>     | Standard material | Carbon steel for machine structure use |
|                       | 225     | 23 | SC450           | Standard material | Carbon cast steel                      |
|                       |         |    | FCD400          | Standard material | Nodular graphite cast iron             |
|                       |         |    | <b>S20C</b>     | Standard material | Carbon steel for machine structure use |
|                       |         |    | SC480           | Standard material | Carbon cast steel                      |
|                       |         |    | SS490           | Standard material | Rolled steel for general               |
|                       | 265     | 27 | <b>S25C</b>     | Standard material | Carbon steel for machine structure use |
|                       | 274     | 28 | <b>S30C</b>     | Standard material | Carbon steel for machine structure use |
|                       | 280     | 29 | FCD450          | Standard material | Nodular graphite cast iron             |
| 300-400               | 290     | 30 | A2024-T4        |                   | Super duralumin                        |
|                       | 294     | 30 | <b>S35C</b>     | Standard material | Carbon steel for machine structure use |
|                       | 320     | 33 | FCD500          | Standard material | Nodular graphite cast iron             |
|                       | 325     | 33 | <b>S40C</b>     | Standard material | Carbon steel for machine structure use |
|                       | 343     | 35 | <b>S45C</b>     | Standard material | Carbon steel for machine structure use |
|                       | 365     | 37 | <b>S50C</b>     | Standard material | Carbon steel for machine structure use |
|                       |         |    | FCD600          | Standard material | Nodular graphite cast iron             |
|                       | 370     | 38 | <b>S55C</b>     | Standard material | Carbon steel for machine structure use |
| 400~                  | 420     | 43 | FCD700          | Standard material | Nodular graphite cast iron             |

The materials can be selected based on the point by which each pressure on the side is bearable by checking the pressure given to the shaft and hub by transmission power and torques. This value can be applied to calculate the minimum diameter on the hub and the maximum diameter on the axis hole.

SS400, S15C~S55C are written in bold type.

Standard materials listed in the table show that the materials used are not treated with heat. Be careful not to have some metals with low yield strength even in the process of heat or surface treatment.

The products made of cast iron have no yield strength with them, so 70% of their tensile strength can be replaced with what a diameter on the hub has been calculated.

Duralumin extension (-T4), Treated with heat, has hardened for 4days, stored at room temperature.

Possible actions for bolt clamping and torques (DIN912 excluded)

| Strength class<br>(Size X Pitch) | Max tightening force |         |         | Max tightening Torque |       |       |
|----------------------------------|----------------------|---------|---------|-----------------------|-------|-------|
|                                  | 8.8                  | 10.9    | 12.9    | 8.8                   | 10.9  | 12.9  |
|                                  | N                    | N       | N       | N · m                 | N · m | N · m |
| M2.5 × 0.45                      | 1,500                | 2,140   | 2,570   | 0.7                   | 1.0   | 1.2   |
| M3 × 0.5                         | 2,230                | 3,180   | 3,820   | 1.3                   | 1.8   | 2.2   |
| M4 × 0.7                         | 3,900                | 5,450   | 6,550   | 2.9                   | 4.1   | 4.9   |
| M5 × 0.8                         | 6,350                | 8,950   | 10,700  | 6.0                   | 8.5   | 10    |
| M6 × 1                           | 9,000                | 12,600  | 15,100  | 10                    | 14    | 17    |
| M8 × 1.25                        | 16,500               | 23,200  | 27,900  | 25                    | 35    | 41    |
| M10 × 1.5                        | 26,200               | 36,900  | 44,300  | 49                    | 69    | 83    |
| M12 × 1.75                       | 38,300               | 54,000  | 64,500  | 86                    | 120   | 145   |
| M14 × 2                          | 52,500               | 74,000  | 88,500  | 135                   | 190   | 230   |
| M16 × 2                          | 73,000               | 102,000 | 123,000 | 210                   | 295   | 355   |
| M18 × 2.5                        | 88,000               | 124,000 | 148,000 | 290                   | 405   | 485   |
| M20 × 2.5                        | 114,000              | 160,000 | 192,000 | 410                   | 580   | 690   |



Features

The product has a potential for high torque transmission.  
It has a hub stationary on the axis when assembled.  
It is easy to mount and disassemble in adjusting its axial direction.  
It can be disassembled by slightly loosening the bolts, but special bolts can facilitate the disassembly when there is some rust on the surface.

Specifications

Surface roughness : Rt max 16/μm  
Processing tolerance(Max) : Shaft h11, Hub H11

Usage

It can be widely used. Pulley, Gear, Flywheel, Lever, Cam etc.

How to use

The process of assembling or disassembling must be done based on how to use the product as described in the document.  
Basically, degreasing cannot be allowed because it leads to low transmission torque.  
Though DR200 can be used on a multi row, check the strength of the hub and combine torques in compliance with the standard.  
Also, transmission torques will not be multiplied in proportion to what the sheets are used. Take attention.  
If it uses a double row: Transmission torque X 1.9  
If it uses a triple row : Transmission torque X 2.7  
Especially, If DR200 is combined with a double row, DR400 type(up to 100mm in size) can be recommended.

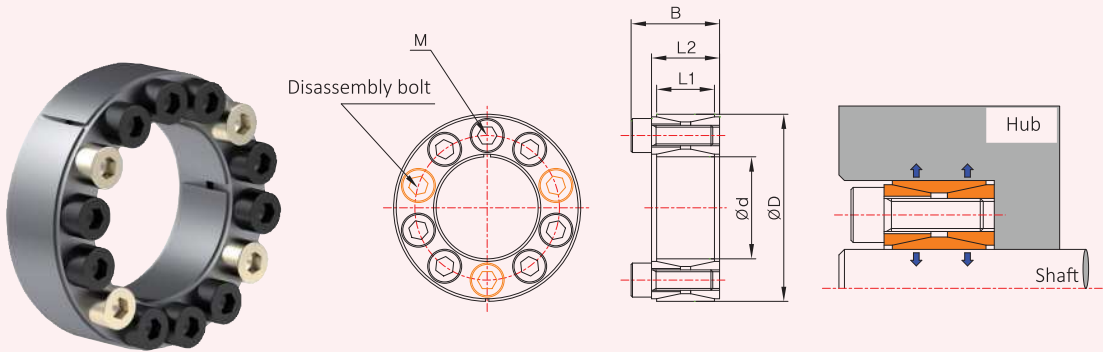
Cautions

Adjustments can be made such as interlocking with the hub (for example, h7 on the shaft/H7 on the hub side).  
It is recommended that the hub and the axis be treated with heat.  
Lack of axial strength can result in low transmission torque and the ring being fixed on the shaft.  
Be careful not to have the product deformed and its bolts sagged after being assembled and disassembled.  
The deformation or sagging will make it become obsolete, so it must be replaced with New one.

Order Method  
(Order Example)

| DR200      | 20                 | 47                 |
|------------|--------------------|--------------------|
| Product NO | Inner diameter : d | Outer Diameter : D |

\* DR200 : Standard product  
\* DR200N : Electroless nickel plating product.  
\* DR200B : Black oxide film product



DR300 (Slits not found) & DR300C (Slits found)

DR300F



Features

Absence of key grooves on the hub and shaft helps improve more strength on its parts.  
This can save energy and space for high torque transmission.  
Much more transmission can be obtained regardless of how large the product is.  
Easy adjustment of axial direction can improve operator's work efficiency. DR300& DR300C have common types compatible with other products. D R300F can be used without any flange designed.  
If DR300(C) is combined on a multi row, DR300EF type (adjustable) can be recommended.

Specifications

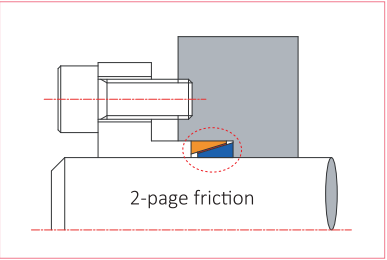
Surface roughness : Rt max 16μm  
Processing tolerance(Max) : d 40mm below, Shaft h6, hub H7  
d 42mm Above, Shaft h8, Hub H8

Usage

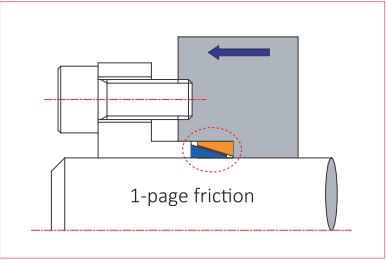
Pump, Cam, Sprocket, Pulley, etc.

Cautions

Adjustments can be made such as interlocking with the hub (for example, h7 on the shaft / H7 on the hub side).  
There are 2 types in terms of axial direction when assembled, whose features must be fully understood.  
If the hub moves with the product assembled, there must be enough space in front or back of the hub.  
If there is no or insufficient space, the product can be difficult to disassemble or it can have low transmission torque.  
It is recommended that the hub and the axis be treated with heat.  
Lack of axial strength can result in low transmission torque and the ring being fixed on the shaft.  
Be sure than larger screw holes must be placed on the flange than the bolts used to assemble the product.  
The bolts can be selected, small in size and many in number, but less than the standard torque.  
DR300F can be applied on the flange as follows.  
Though DR300F can be used on a multi row, check the strength of a hub, clamped torques and bearing pressure more closely.  
Also, transmission torques will not be multiplied in proportion to what the sheets are used. Take care.



Transmission is applied the same as on the catalog. the hub unmovable(Feature 1)



the hub movable(Feature 2)

Features

DR300F is a DR300type(DR300, DR300C) and optimized standard coupling.  
It need not be designed again when using a DR300 type.  
The diameter on the other side φ10~ φ100  
Tolerance for diameters on the axis and the hub can be set depending on each type.

Specifications

Surface roughness : Rt max 16μm  
Processing tolerance(Max) : d 40mm below, Shaft h6, hub H7  
d 42mm Above, Shaft h8, Hub H8

DR300EF



Features

DR300EF is suitable for thin parts with a narrow outer diameter on the hub.  
It can have space-saving, high torque transmission and adjustable attributes.  
With its inner race integrated with the flange and its bolts annexed, the product has the same inner and outer diameters with DR300C.  
The outer diameter on the hub can apply to the DR300 and 300C. Unlike them, it has an adjustable attribute, so the boss can apply to thin parts.  
It has a good capacity of transmission, and DR300 being compatible with R300C in the inner and outer diameter offers DR300EF another usage on a multi row.

Specifications

Surface roughness : Rt max 16μm  
Processing tolerance : Shaft h8, Hub H8

Usage

Pump, Cam, Sprocket, Pulley, etc.

Cautions

the hub is movable despite its space-saving, high torque transmission and adjustable attributes.

How to use

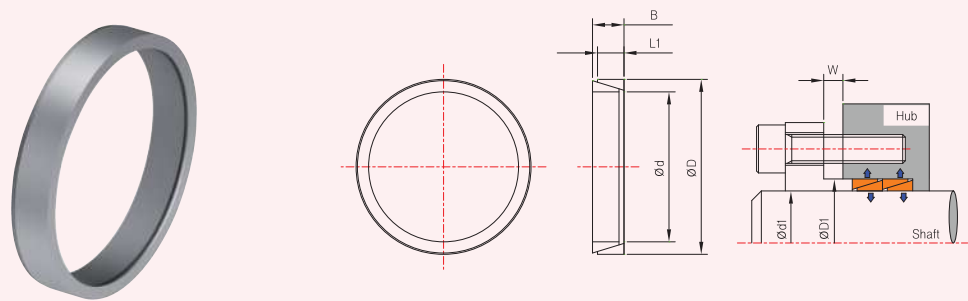
if you want to know how to assemble and disassemble the product properly, refer to the relevant pages.



DR300 (Slits not found)

DR300C (Slits found)

LOCKING ELEMENT



Features

DR300 has a sealing effect because there are no slits found. Absence of slits requires initial clamping force until interlocked with the hub.

Order Method (Order Example)

| DR300      | 20                 | 25                 |
|------------|--------------------|--------------------|
| Product NO | Inner diameter : d | Outer Diameter : D |

| DR300/DR300C<br>(d x D) | Dimension(mm) |      | Mass  | Scale when using multi            |       |       |       |
|-------------------------|---------------|------|-------|-----------------------------------|-------|-------|-------|
|                         |               |      |       | ×1,0                              | ×1,55 | ×1,85 | ×2,02 |
|                         | L1            | B    |       | W(Gap) when using multi Dimension |       |       |       |
| mm                      | mm            | mm   | kg    | Row1                              | Row2  | Row3  | Row4  |
| 5×8                     | 3.7           | 4.5  | 0.002 | 2.5                               | 2.5   | 3.0   | 4.0   |
| 6×9                     | 3.7           | 4.5  | 0.002 | 2.5                               | 2.5   | 3.0   | 4.0   |
| 7×10                    | 3.7           | 4.5  | 0.002 | 2.5                               | 2.5   | 3.0   | 4.0   |
| 8×11                    | 3.7           | 4.5  | 0.002 | 2.5                               | 2.5   | 3.0   | 4.0   |
| 9×12                    | 3.7           | 4.5  | 0.002 | 2.5                               | 2.5   | 3.0   | 4.0   |
| 10×13                   | 3.7           | 4.5  | 0.002 | 2.5                               | 2.5   | 3.0   | 4.0   |
| 11×14                   | 3.7           | 4.5  | 0.002 | 2.5                               | 2.5   | 3.0   | 4.0   |
| 12×15                   | 3.7           | 4.5  | 0.002 | 2.5                               | 2.5   | 3.0   | 4.0   |
| 13×16                   | 3.7           | 4.5  | 0.002 | 2.5                               | 2.5   | 3.0   | 4.0   |
| 14×18                   | 5.3           | 6.3  | 0.005 | 3.5                               | 3.5   | 4.5   | 5.5   |
| 15×19                   | 5.3           | 6.3  | 0.005 | 3.5                               | 3.5   | 4.5   | 5.5   |
| 16×20                   | 5.3           | 6.3  | 0.006 | 3.5                               | 3.5   | 4.5   | 5.5   |
| 17×21                   | 5.3           | 6.3  | 0.006 | 3.5                               | 3.5   | 4.5   | 5.5   |
| 18×22                   | 5.3           | 6.3  | 0.007 | 3.5                               | 3.5   | 4.5   | 5.5   |
| 19×24                   | 5.3           | 6.3  | 0.007 | 3.5                               | 3.5   | 4.5   | 5.5   |
| 20×25                   | 5.3           | 6.3  | 0.009 | 3.5                               | 3.5   | 4.5   | 5.5   |
| 22×26                   | 5.3           | 6.3  | 0.007 | 3.5                               | 3.5   | 4.5   | 5.5   |
| 24×28                   | 5.3           | 6.3  | 0.008 | 3.5                               | 3.5   | 4.5   | 5.5   |
| 25×30                   | 5.3           | 6.3  | 0.009 | 3.5                               | 3.5   | 4.5   | 5.5   |
| 28×32                   | 5.3           | 6.3  | 0.010 | 3.5                               | 3.5   | 4.5   | 5.5   |
| 30×35                   | 5.3           | 6.3  | 0.011 | 3.5                               | 3.5   | 4.5   | 5.5   |
| 32×36                   | 5.3           | 6.3  | 0.011 | 3.5                               | 3.5   | 4.5   | 5.5   |
| 35×40                   | 6.0           | 7.0  | 0.016 | 3.5                               | 3.5   | 4.5   | 5.5   |
| 36×42                   | 6.0           | 7.0  | 0.019 | 3.5                               | 3.5   | 4.5   | 5.5   |
| 38×44                   | 6.0           | 7.0  | 0.021 | 3.5                               | 3.5   | 4.5   | 5.5   |
| 40×45                   | 6.6           | 8.0  | 0.021 | 3.5                               | 4.5   | 5.5   | 6.5   |
| 42×48                   | 6.6           | 8.0  | 0.026 | 3.5                               | 4.5   | 5.5   | 6.5   |
| 45×52                   | 8.6           | 10.0 | 0.045 | 3.5                               | 4.5   | 5.5   | 6.5   |
| 48×55                   | 8.6           | 10.0 | 0.043 | 3.5                               | 4.5   | 5.5   | 6.5   |
| 50×57                   | 8.6           | 10.0 | 0.045 | 3.5                               | 4.5   | 5.5   | 6.5   |
| 55×62                   | 8.6           | 10.0 | 0.049 | 3.5                               | 4.5   | 5.5   | 6.5   |
| 56×64                   | 10.4          | 12.0 | 0.070 | 3.5                               | 4.5   | 5.5   | 7.0   |
| 60×68                   | 10.4          | 12.0 | 0.070 | 3.5                               | 4.5   | 5.5   | 7.0   |
| 63×71                   | 10.4          | 12.0 | 0.080 | 3.5                               | 4.5   | 5.5   | 7.0   |
| 65×73                   | 10.4          | 12.0 | 0.090 | 3.5                               | 4.5   | 5.5   | 7.0   |
| 70×79                   | 12.2          | 14.0 | 0.115 | 3.5                               | 5.0   | 6.5   | 7.5   |
| 71×80                   | 12.2          | 14.0 | 0.11  | 3.5                               | 5.0   | 6.5   | 7.5   |
| 75×84                   | 12.2          | 14.0 | 0.12  | 3.5                               | 5.0   | 6.5   | 7.5   |
| 80×91                   | 15.0          | 17.0 | 0.21  | 4.0                               | 6.0   | 6.5   | 8.0   |
| 85×96                   | 15.0          | 17.0 | 0.21  | 4.0                               | 6.0   | 6.5   | 8.0   |
| 90×101                  | 15.0          | 17.0 | 0.22  | 4.0                               | 6.0   | 6.5   | 8.0   |
| 95×106                  | 15.0          | 17.0 | 0.23  | 4.0                               | 6.0   | 6.5   | 8.0   |
| 100×114                 | 18.7          | 21.0 | 0.39  | 5.0                               | 6.0   | 7.0   | 9.0   |

Features

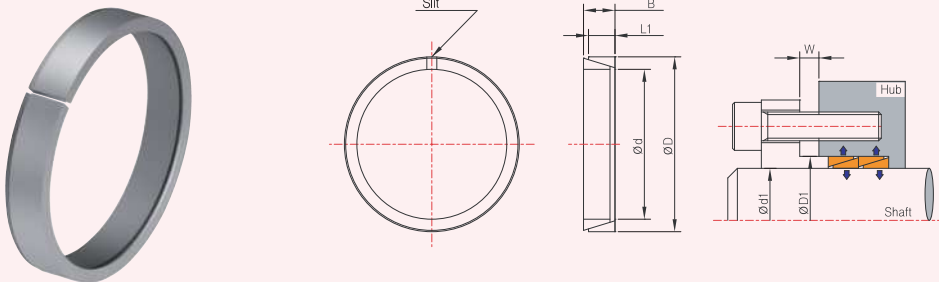
DR300C has any slit found, so initial clamping force is not required and its bolts are clamped.

Order Method (Order Example)

| DR300C     | 20                 | 25                 |
|------------|--------------------|--------------------|
| Product NO | Inner diameter : d | Outer Diameter : D |

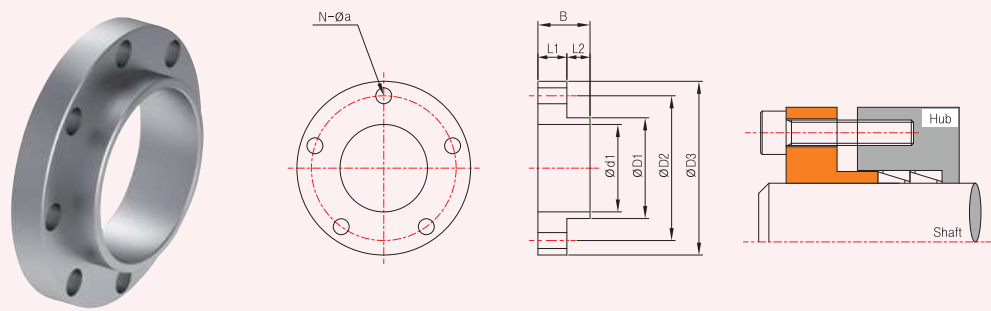
| DR300/DR300C<br>(d x D) | DR300          |                   |          |        |                  |     | DR300C            |          |        |                  |     |
|-------------------------|----------------|-------------------|----------|--------|------------------|-----|-------------------|----------|--------|------------------|-----|
|                         | Pre load force | Tightening torque | Transfer |        | Surface pressure |     | Tightening torque | Transfer |        | Surface pressure |     |
|                         |                |                   | Thrust   | Torque | Shaft            | Hub |                   | Thrust   | Torque | Shaft            | Hub |
| mm                      | N              | N · m             | kN       | N · m  | Mpa              | Mpa | N · m             | kN       | N · m  | Mpa              | Mpa |
| 5×8                     | 9,780          | 2.5               | 0.8      | 2      | 113              | 71  | 1.0               | 1.2      | 3      | 169              | 105 |
| 6×9                     | 8,910          | 2.5               | 1.0      | 3      | 117              | 78  | 1.0               | 1.2      | 4      | 140              | 94  |
| 7×10                    | 8,310          | 2.5               | 1.1      | 4      | 114              | 80  | 1.2               | 1.4      | 5      | 144              | 101 |
| 8×11                    | 8,040          | 2.5               | 1.2      | 5      | 105              | 76  | 1.2               | 1.4      | 6      | 126              | 92  |
| 9×12                    | 7,650          | 3                 | 1.8      | 8      | 147              | 110 | 2.0               | 2.4      | 11     | 187              | 140 |
| 10×13                   | 7,000          | 3                 | 2.0      | 10     | 142              | 110 | 2.0               | 2.4      | 12     | 168              | 130 |
| 11×14                   | 7,000          | 3                 | 2.0      | 11     | 130              | 102 | 2.0               | 2.4      | 13     | 153              | 120 |
| 12×15                   | 7,000          | 3                 | 2.0      | 12     | 119              | 95  | 2.0               | 2.4      | 14     | 140              | 112 |
| 13×16                   | 6,500          | 3                 | 2.1      | 14     | 116              | 94  | 2.5               | 2.9      | 19     | 162              | 132 |
| 14×18                   | 11,000         | 6                 | 3.2      | 23     | 115              | 90  | 4.1               | 3.9      | 27     | 138              | 107 |
| 15×19                   | 10,800         | 6                 | 3.3      | 25     | 109              | 86  | 4.1               | 3.9      | 29     | 129              | 102 |
| 16×20                   | 10,000         | 6                 | 3.4      | 28     | 108              | 86  | 4.1               | 3.9      | 31     | 121              | 97  |
| 17×21                   | 9,600          | 6                 | 3.5      | 30     | 104              | 84  | 4.1               | 3.9      | 33     | 114              | 92  |
| 18×22                   | 9,150          | 6                 | 3.6      | 33     | 101              | 83  | 4.1               | 3.9      | 35     | 107              | 88  |
| 19×24                   | 12,500         | 10                | 5.2      | 50     | 138              | 109 | 9                 | 7.0      | 67     | 185              | 147 |
| 20×25                   | 12,000         | 10                | 5.3      | 53     | 133              | 107 | 9                 | 7.0      | 70     | 176              | 141 |
| 22×26                   | 9,000          | 10                | 6.0      | 66     | 136              | 115 | 9                 | 7.0      | 77     | 160              | 135 |
| 24×28                   | 8,400          | 10                | 6.1      | 73     | 128              | 109 | 9                 | 7.0      | 84     | 147              | 126 |
| 25×30                   | 10,000         | 10                | 5.8      | 72     | 116              | 96  | 9                 | 7.0      | 88     | 141              | 117 |
| 28×32                   | 7,500          | 10                | 6.3      | 88     | 113              | 99  | 9                 | 7.0      | 98     | 126              | 110 |
| 30×35                   | 8,600          | 10                | 6.1      | 91     | 101              | 87  | 9                 | 7.0      | 105    | 117              | 101 |
| 32×36                   | 7,900          | 10                | 8.2      | 132    | 129              | 114 | 9                 | 8.8      | 141    | 137              | 122 |
| 35×40                   | 10,000         | 10                | 9.8      | 171    | 123              | 108 | 9                 | 11       | 185    | 133              | 117 |
| 36×42                   | 11,700         | 10                | 9.4      | 169    | 115              | 99  | 9                 | 11       | 190    | 130              | 111 |
| 38×44                   | 11,000         | 10                | 9.5      | 181    | 111              | 96  | 9                 | 11       | 200    | 123              | 106 |
| 40×45                   | 13,900         | 25                | 12       | 238    | 120              | 106 | 24                | 14       | 287    | 144              | 128 |
| 42×48                   | 15,550         | 25                | 12       | 242    | 110              | 97  | 24                | 14       | 302    | 137              | 120 |
| 45×52                   | 28,300         | 25                | 16       | 365    | 111              | 96  | 24                | 22       | 485    | 148              | 128 |
| 48×55                   | 24,700         | 25                | 24       | 588    | 157              | 137 | 24                | 29       | 690    | 185              | 161 |
| 50×57                   | 23,600         | 25                | 25       | 618    | 153              | 134 | 24                | 29       | 718    | 177              | 155 |
| 55×62                   | 21,700         | 25                | 25       | 692    | 141              | 125 | 24                | 29       | 790    | 161              | 143 |
| 56×64                   | 29,500         | 50                | 29       | 804    | 131              | 114 | 50                | 35       | 986    | 160              | 140 |
| 60×68                   | 27,500         | 50                | 29       | 875    | 124              | 109 | 50                | 35       | 1,056  | 150              | 132 |
| 63×71                   | 26,500         | 50                | 29       | 926    | 119              | 106 | 50                | 35       | 1,109  | 143              | 126 |
| 65×73                   | 25,500         | 50                | 30       | 962    | 116              | 103 | 50                | 35       | 1,144  | 138              | 123 |
| 70×79                   | 31,000         | 50                | 40       | 1,404  | 125              | 110 | 50                | 47       | 1,643  | 146              | 129 |
| 71×80                   | 31,000         | 50                | 40       | 1,425  | 123              | 109 | 50                | 47       | 1,667  | 144              | 128 |
| 75×84                   | 34,700         | 50                | 39       | 1,474  | 114              | 102 | 50                | 47       | 1,760  | 136              | 122 |
| 80×91                   | 48,000         | 50                | 48       | 2,214  | 106              | 94  | 50                | 59       | 2,347  | 130              | 114 |
| 85×96                   | 45,500         | 50                | 60       | 2,568  | 126              | 111 | 50                | 70       | 2,993  | 147              | 130 |
| 90×101                  | 43,600         | 50                | 61       | 2,737  | 120              | 107 | 50                | 70       | 3,169  | 138              | 123 |
| 95×106                  | 41,300         | 50                | 61       | 3,059  | 114              | 102 | 50                | 70       | 3,345  | 131              | 117 |
| 100×114                 | 61,000         | 90                | 92       | 4,611  | 131              | 115 | 100               | 117      | 5,869  | 166              | 146 |

LOCKING ELEMENT



DR300F

LOCKING ELEMENT



**Features** No need extra design because of the standardized product. Specifications.

**Usage** Applicable to DR300 and DR300C type.

**Specifications** Surface roughness : Rt max 16μm  
Processing tolerance(Max) : d 40mm below, Shaft h6, hub H7  
d 42mm Above, Shaft h8, Hub H8

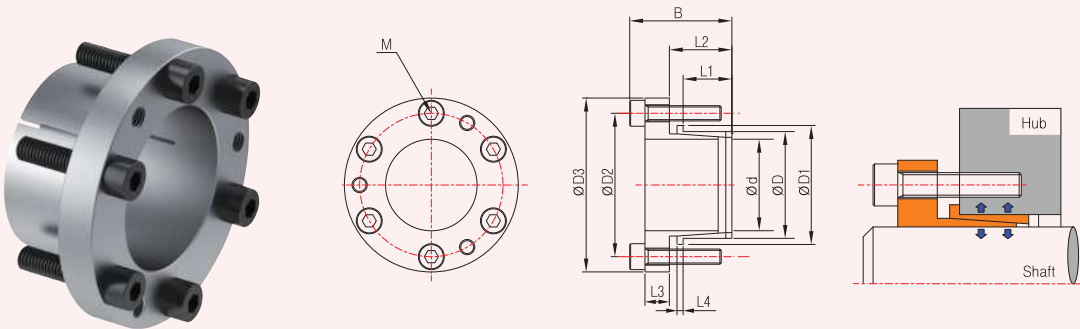
**Order Method (Order Example)**

| DR300F     | 20                 | 25                 |
|------------|--------------------|--------------------|
| Product NO | Inner diameter : d | Outer Diameter : D |

| DR300F(d x D) | Application<br>DR300/DR300C<br>(d x D) | Dimension(mm) |       |     |     |    |    |    |      |     | Tightening screw(DIN912/12.9) |          | Mass |
|---------------|----------------------------------------|---------------|-------|-----|-----|----|----|----|------|-----|-------------------------------|----------|------|
|               |                                        | d1            | D1    | D2  | D3  | L1 | L2 | B  | N-øa |     | Size                          | Quantity |      |
| mm            | mm                                     | mm            | mm    | mm  | mm  | mm | mm | mm | N    | mm  | M                             | Qty      | kg   |
| 10×13         | 10×13                                  | 10.2          | 12.8  | 28  | 36  | 8  | 5  | 13 | 3    | 4.4 | M4                            | 3        | 0.06 |
| 11×14         | 11×14                                  | 11.2          | 13.8  | 28  | 36  | 8  | 5  | 13 | 3    | 4.4 | M4                            | 3        | 0.06 |
| 12×15         | 12×15                                  | 12.2          | 14.8  | 28  | 36  | 8  | 5  | 13 | 3    | 4.4 | M4                            | 3        | 0.06 |
| 13×16         | 13×16                                  | 13.2          | 15.8  | 28  | 36  | 8  | 5  | 13 | 3    | 4.4 | M4                            | 3        | 0.06 |
| 14×18         | 14×18                                  | 14.2          | 17.8  | 35  | 45  | 10 | 8  | 18 | 3    | 5.5 | M5                            | 3        | 0.12 |
| 15×19         | 15×19                                  | 15.2          | 18.8  | 35  | 45  | 10 | 8  | 18 | 3    | 5.5 | M5                            | 3        | 0.12 |
| 16×20         | 16×20                                  | 16.2          | 19.8  | 35  | 45  | 10 | 8  | 18 | 3    | 5.5 | M5                            | 3        | 0.12 |
| 17×21         | 17×21                                  | 17.2          | 20.8  | 35  | 45  | 10 | 8  | 18 | 3    | 5.5 | M5                            | 3        | 0.12 |
| 18×22         | 18×22                                  | 18.2          | 21.8  | 35  | 45  | 10 | 8  | 18 | 3    | 5.5 | M5                            | 3        | 0.12 |
| 19×24         | 19×24                                  | 19.2          | 23.8  | 40  | 50  | 10 | 8  | 18 | 4    | 5.5 | M5                            | 4        | 0.14 |
| 20×25         | 20×25                                  | 20.2          | 24.8  | 40  | 50  | 10 | 8  | 18 | 4    | 5.5 | M5                            | 4        | 0.14 |
| 22×26         | 22×26                                  | 22.2          | 25.8  | 40  | 50  | 10 | 8  | 18 | 4    | 5.5 | M5                            | 4        | 0.14 |
| 24×28         | 24×28                                  | 24.2          | 27.8  | 45  | 55  | 10 | 8  | 18 | 4    | 5.5 | M5                            | 4        | 0.16 |
| 25×30         | 25×30                                  | 25.2          | 29.8  | 45  | 55  | 10 | 8  | 18 | 4    | 5.5 | M5                            | 4        | 0.16 |
| 28×32         | 28×32                                  | 28.2          | 31.8  | 45  | 55  | 10 | 8  | 18 | 4    | 5.5 | M5                            | 4        | 0.18 |
| 30×35         | 30×35                                  | 30.2          | 34.8  | 50  | 60  | 10 | 8  | 18 | 5    | 5.5 | M5                            | 5        | 0.18 |
| 32×36         | 32×36                                  | 32.2          | 35.8  | 50  | 60  | 10 | 8  | 18 | 5    | 5.5 | M5                            | 5        | 0.19 |
| 35×40         | 35×40                                  | 35.2          | 39.8  | 58  | 68  | 10 | 8  | 18 | 6    | 5.5 | M5                            | 6        | 0.23 |
| 36×42         | 36×42                                  | 36.2          | 41.8  | 58  | 68  | 10 | 8  | 18 | 6    | 5.5 | M5                            | 6        | 0.23 |
| 38×44         | 38×44                                  | 38.2          | 43.8  | 58  | 68  | 10 | 8  | 18 | 6    | 5.5 | M5                            | 6        | 0.27 |
| 40×45         | 40×45                                  | 40.2          | 44.8  | 62  | 74  | 12 | 10 | 22 | 6    | 6.6 | M6                            | 6        | 0.31 |
| 42×48         | 42×48                                  | 42.2          | 47.8  | 62  | 74  | 12 | 10 | 22 | 6    | 6.6 | M6                            | 6        | 0.35 |
| 45×52         | 45×52                                  | 45.2          | 51.8  | 70  | 82  | 12 | 10 | 22 | 8    | 6.6 | M6                            | 8        | 0.36 |
| 48×55         | 48×55                                  | 48.2          | 54.8  | 70  | 82  | 12 | 10 | 22 | 8    | 6.6 | M6                            | 8        | 0.37 |
| 50×57         | 50×57                                  | 50.2          | 56.8  | 70  | 82  | 12 | 10 | 22 | 8    | 8.8 | M8                            | 8        | 0.38 |
| 55×62         | 55×62                                  | 55.2          | 61.8  | 78  | 90  | 12 | 10 | 22 | 8    | 8.8 | M8                            | 8        | 0.42 |
| 56×64         | 56×64                                  | 56.2          | 63.8  | 86  | 102 | 16 | 10 | 26 | 6    | 8.8 | M8                            | 6        | 0.73 |
| 60×68         | 60×68                                  | 60.2          | 67.8  | 86  | 102 | 16 | 10 | 26 | 6    | 8.8 | M8                            | 6        | 0.77 |
| 63×71         | 63×71                                  | 63.2          | 70.8  | 92  | 108 | 16 | 10 | 26 | 6    | 8.8 | M8                            | 6        | 0.82 |
| 65×73         | 65×73                                  | 65.2          | 72.8  | 92  | 108 | 16 | 10 | 26 | 6    | 8.8 | M8                            | 6        | 0.85 |
| 70×79         | 70×79                                  | 70.3          | 78.7  | 98  | 114 | 16 | 12 | 28 | 8    | 8.8 | M8                            | 8        | 0.90 |
| 71×80         | 71×80                                  | 71.3          | 79.7  | 98  | 114 | 16 | 12 | 28 | 8    | 8.8 | M8                            | 8        | 0.90 |
| 75×84         | 75×84                                  | 75.3          | 83.7  | 104 | 120 | 16 | 12 | 28 | 8    | 8.8 | M8                            | 8        | 0.96 |
| 80×91         | 80×91                                  | 80.3          | 90.7  | 110 | 130 | 20 | 12 | 32 | 10   | 11  | M10                           | 10       | 1.45 |
| 85×96         | 85×96                                  | 85.3          | 95.7  | 116 | 136 | 20 | 12 | 32 | 12   | 11  | M10                           | 12       | 1.53 |
| 90×101        | 90×101                                 | 90.3          | 100.7 | 120 | 140 | 20 | 12 | 32 | 12   | 11  | M10                           | 12       | 1.56 |
| 95×106        | 95×106                                 | 95.3          | 105.7 | 126 | 146 | 20 | 12 | 32 | 12   | 11  | M10                           | 12       | 1.7  |
| 100×114       | 100×114                                | 100.3         | 113.7 | 134 | 154 | 20 | 12 | 32 | 12   | 13  | M12                           | 12       | 1.9  |

DR300EF

LOCKING ELEMENT



**Features** Same inside and outside diameter as that of DR300 and DR300C type.  
Centering function is available.

**Specifications** Surface roughness : Rt max 16μm  
Processing tolerance : Shaft h8, Hub H8

**Usage** Pump, Cam, Sprocket, Pulley, etc.

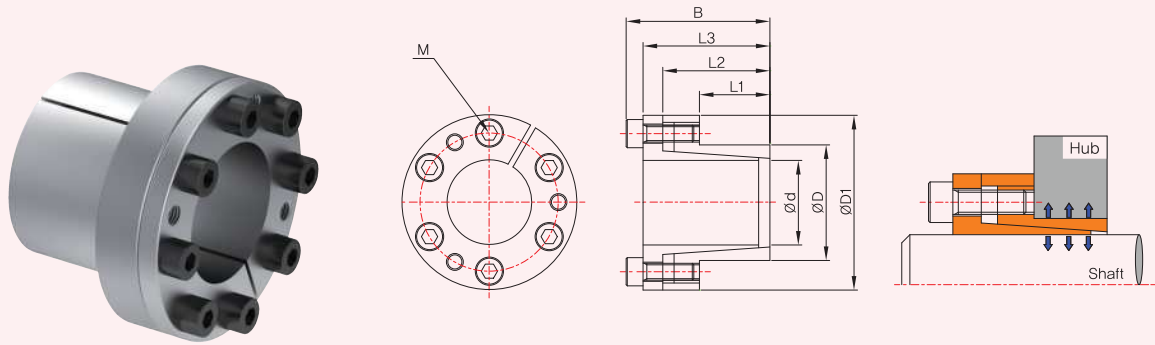
**Order Method (Order Example)**

| DR300EF    | 20                 | 25                 |
|------------|--------------------|--------------------|
| Product NO | Inner diameter : d | Outer Diameter : D |

| DR300EF(d x D) | Dimension(mm) |     |      |      |      |    |     |      | Tightening screw(DIN912/12.9) |          |        | Transfer |        | Surface pressure |     | Mass  |
|----------------|---------------|-----|------|------|------|----|-----|------|-------------------------------|----------|--------|----------|--------|------------------|-----|-------|
|                | D1            | D2  | D3   | L1   | L2   | L3 | L4  | B    | Size                          | Quantity | Torque | Thrust   | Torque | Shaft            | Hub |       |
| mm             | mm            | mm  | mm   | mm   | mm   | mm | mm  | mm   | M                             | Qty      | N · m  | kN       | N · m  | Mpa              | Mpa | kg    |
| 5×8            | 8             | 15  | 21.5 | 7    | 9.5  | 4  | -   | 16.5 | M3                            | 3        | 1.9    | 1.69     | 5      | 200              | 134 | 0.013 |
| 6×9            | 9             | 16  | 22.5 | 7    | 9.5  | 4  | -   | 16.5 | M3                            | 3        | 1.9    | 1.87     | 6      | 195              | 132 | 0.015 |
| 8×11           | 11            | 18  | 24.5 | 7    | 9.5  | 4  | -   | 16.5 | M3                            | 3        | 1.9    | 2.12     | 9      | 190              | 123 | 0.017 |
| 10×13          | 16            | 22  | 30   | 11.5 | 14.5 | 5  | 1.5 | 23.5 | M4                            | 3        | 4.0    | 7.79     | 39     | 292              | 224 | 0.04  |
| 11×14          | 17            | 23  | 31   | 11.5 | 14.5 | 5  | 1.5 | 23.5 | M4                            | 3        | 4.0    | 7.79     | 43     | 266              | 209 | 0.04  |
| 12×15          | 18            | 24  | 32   | 11.5 | 14.5 | 5  | 1.5 | 23.5 | M4                            | 3        | 4.0    | 7.79     | 47     | 243              | 195 | 0.04  |
| 14×18          | 22            | 27  | 35   | 16.0 | 20.0 | 6  | 2.0 | 30.0 | M4                            | 4        | 4.0    | 10.40    | 73     | 209              | 163 | 0.06  |
| 15×19          | 23            | 28  | 36   | 16.0 | 20.0 | 6  | 2.0 | 30.0 | M4                            | 4        | 4.0    | 10.40    | 78     | 195              | 154 | 0.07  |
| 16×20          | 24            | 29  | 37   | 16.0 | 20.0 | 7  | 2.0 | 31.0 | M4                            | 6        | 4.0    | 15.60    | 124    | 273              | 219 | 0.08  |
| 17×21          | 25            | 30  | 38   | 16.0 | 20.0 | 7  | 2.0 | 31.0 | M4                            | 6        | 4.0    | 15.60    | 132    | 258              | 209 | 0.08  |
| 18×22          | 26            | 33  | 43   | 16.0 | 20.0 | 7  | 2.0 | 32.0 | M5                            | 4        | 8.3    | 17.10    | 154    | 267              | 218 | 0.10  |
| 19×24          | 28            | 35  | 45   | 16.0 | 20.0 | 7  | 2.0 | 32.0 | M5                            | 4        | 8.3    | 17.10    | 163    | 252              | 200 | 0.11  |
| 20×25          | 29            | 36  | 46   | 16.0 | 20.0 | 7  | 2.0 | 32.0 | M5                            | 4        | 8.3    | 17.10    | 171    | 240              | 192 | 0.12  |
| 22×26          | 30            | 38  | 48   | 16.0 | 20.0 | 7  | 2.0 | 32.0 | M5                            | 4        | 8.3    | 17.10    | 186    | 218              | 184 | 0.12  |
| 24×28          | 32            | 40  | 50   | 16.0 | 20.0 | 7  | 2.0 | 32.0 | M5                            | 4        | 8.3    | 17.10    | 206    | 200              | 172 | 0.12  |
| 25×30          | 34            | 42  | 52   | 16.0 | 20.0 | 7  | 2.0 | 32.0 | M5                            | 4        | 8.3    | 17.10    | 216    | 192              | 160 | 0.16  |
| 28×32          | 36            | 44  | 54   | 16.0 | 20.5 | 8  | 2.0 | 33.5 | M5                            | 6        | 8.3    | 25.60    | 353    | 257              | 224 | 0.16  |
| 30×35          | 39            | 47  | 57   | 16.0 | 20.5 | 8  | 2.0 | 33.5 | M5                            | 6        | 8.3    | 25.60    | 382    | 240              | 206 | 0.19  |
| 32×36          | 41            | 49  | 59   | 16.0 | 21.0 | 9  | 2.5 | 35.0 | M5                            | 6        | 8.3    | 25.60    | 412    | 224              | 200 | 0.20  |
| 35×40          | 45            | 53  | 63   | 17.5 | 22.5 | 9  | 2.5 | 36.5 | M5                            | 6        | 8.3    | 25.60    | 451    | 178              | 157 | 0.23  |
| 38×44          | 49            | 58  | 70   | 17.5 | 23.0 | 10 | 2.5 | 39.0 | M6                            | 6        | 13.7   | 36.10    | 686    | 231              | 200 | 0.33  |
| 40×45          | 50            | 59  | 71   | 20.0 | 25.5 | 10 | 2.5 | 41.5 | M6                            | 6        | 13.7   | 36.10    | 725    | 180              | 161 | 0.33  |
| 42×48          | 53            | 62  | 74   | 20.0 | 25.5 | 11 | 2.5 | 42.5 | M6                            | 8        | 13.7   | 48.00    | 1,010  | 229              | 201 | 0.40  |
| 45×52          | 58            | 69  | 84   | 25.0 | 31.5 | 13 | 3.0 | 52.5 | M8                            | 6        | 34.3   | 66.30    | 1,490  | 244              | 211 | 0.65  |
| 48×55          | 61            | 72  | 87   | 25.0 | 31.5 | 13 | 3.0 | 52.5 | M8                            | 6        | 34.3   | 66.30    | 1,600  | 228              | 199 | 0.68  |
| 50×57          | 63            | 74  | 89   | 25.0 | 31.5 | 13 | 3.0 | 52.5 | M8                            | 6        | 34.3   | 66.30    | 1,660  | 220              | 192 | 0.69  |
| 55×62          | 68            | 79  | 94   | 25.0 | 31.5 | 13 | 3.0 | 52.5 | M8                            | 6        | 34.3   | 66.30    | 1,820  | 199              | 176 | 0.74  |
| 60×68          | 75            | 86  | 101  | 27.0 | 34.0 | 13 | 3.5 | 55.0 | M8                            | 6        | 34.3   | 66.30    | 1,990  | 164              | 144 | 0.86  |
| 65×73          | 80            | 91  | 106  | 27.0 | 34.0 | 15 | 3.5 | 57.0 | M8                            | 8        | 34.3   | 88.50    | 2,870  | 201              | 179 | 1.10  |
| 70×79          | 86            | 97  | 112  | 31.0 | 38.0 | 15 | 3.5 | 61.0 | M8                            | 8        | 34.3   | 88.50    | 3,100  | 177              | 158 | 1.20  |
| 75×84          | 91            | 102 | 117  | 31.0 | 38.5 | 16 | 3.5 | 62.5 | M8                            | 10       | 34.3   | 111      | 4,150  | 207              | 185 | 1.30  |
| 80×91          | 99            | 110 | 125  | 34.0 | 42.0 | 17 | 4.0 | 67.0 | M8                            | 10       | 34.3   | 111      | 4,420  | 176              | 155 | 1.70  |
| 85×96          | 104           | 118 | 137  | 34.0 | 42.5 | 19 | 4.0 | 71.5 | M10                           | 8        | 67.6   | 141      | 5,980  | 212              | 187 | 2.20  |
| 90×101         | 109           | 123 | 142  | 34.0 | 42.5 | 19 | 4.0 | 71.5 | M10                           | 8        | 67.6   | 141      | 6,330  | 200              | 179 | 2.30  |
| 95×106         | 114           | 128 | 147  | 34.0 | 42.5 | 19 | 4.0 | 71.5 | M10                           | 8        | 67.6   | 141      | 6,680  | 189              | 170 | 2.40  |
| 100×114        | 122           | 136 | 155  | 42.0 | 50.5 | 20 | 4.0 | 80.5 | M10                           | 10       | 67.6   | 176      | 8,790  | 165              | 144 | 3     |

DR110

LOCKING ELEMENT



**Features**

Small diameter hub can be fitted.  
Centering function is available.  
It has a hub stationary on the axis when assembled.

**Specifications**

Surface roughness : Rt max 16/μm  
Processing tolerance : Shaft h8, Hub H8

**Usage**

Pulley with small hub outer diameter, Sprocket, Gear etc.

**Order Method  
(Order Example)**

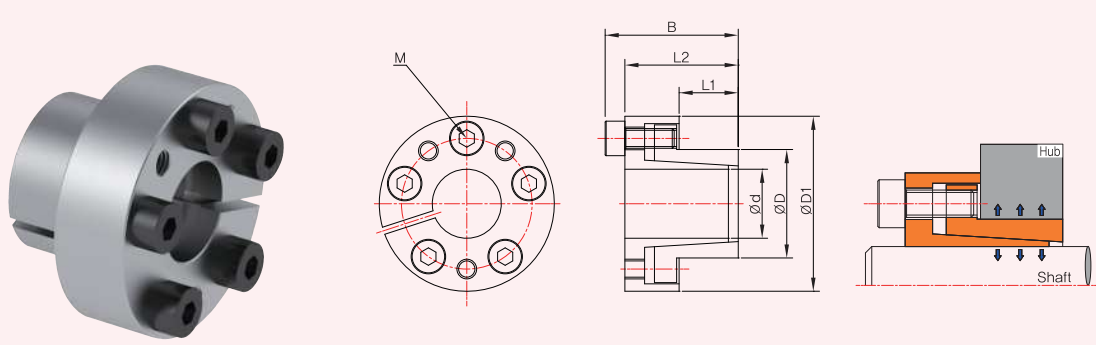
| DR110      | 20                 | 28                 |
|------------|--------------------|--------------------|
| Product NO | Inner diameter : d | Outer Diameter : D |

\* DR110 : Standard product  
\* DR110N : Electroless nickel plating product

| DR110(d x D) | Dimension(mm) |    |      |    |     | Tightening screw(DIN912/12.9) |          |        | Transfer |        | Surface pressure |     | Mass |
|--------------|---------------|----|------|----|-----|-------------------------------|----------|--------|----------|--------|------------------|-----|------|
|              | D1            | L1 | L2   | L3 | B   | Size                          | Quantity | Torque | Thrust   | Torque | Shaft            | Hub |      |
| mm           | mm            | mm | mm   | mm | mm  | M                             | Qty      | N · m  | kN       | N · m  | Mpa              | Mpa | kg   |
| 6×14         | 25            | 10 | 18.5 | 21 | 24  | M3                            | 3        | 2      | 4        | 12     | 185              | 80  | 0.04 |
| 7×15         | 27            | 12 | 22   | 25 | 29  | M4                            | 3        | 5      | 7        | 25     | 235              | 110 | 0.06 |
| 8×15         | 27            | 12 | 22   | 25 | 29  | M4                            | 3        | 5      | 7        | 29     | 205              | 110 | 0.05 |
| 9×16         | 28            | 14 | 23   | 26 | 30  | M4                            | 4        | 5      | 10       | 44     | 205              | 115 | 0.06 |
| 10×16        | 28            | 14 | 23   | 26 | 30  | M4                            | 4        | 5      | 10       | 49     | 185              | 115 | 0.06 |
| 11×18        | 32            | 14 | 23   | 26 | 30  | M4                            | 4        | 5      | 10       | 53     | 170              | 105 | 0.07 |
| 12×18        | 32            | 14 | 23   | 26 | 30  | M4                            | 4        | 5      | 10       | 58     | 160              | 105 | 0.07 |
| 13×23        | 38            | 14 | 23   | 26 | 30  | M4                            | 4        | 5      | 10       | 63     | 140              | 80  | 0.11 |
| 14×23        | 38            | 14 | 23   | 26 | 30  | M4                            | 4        | 5      | 10       | 68     | 130              | 80  | 0.11 |
| 15×24        | 45            | 16 | 29   | 36 | 42  | M6                            | 3        | 17     | 17       | 127    | 185              | 115 | 0.22 |
| 16×24        | 45            | 16 | 29   | 36 | 42  | M6                            | 3        | 17     | 17       | 136    | 175              | 115 | 0.22 |
| 17×26        | 47            | 18 | 31   | 38 | 44  | M6                            | 4        | 17     | 22       | 180    | 190              | 125 | 0.25 |
| 18×26        | 47            | 18 | 31   | 38 | 44  | M6                            | 4        | 17     | 22       | 200    | 180              | 125 | 0.24 |
| 19×27        | 49            | 18 | 31   | 38 | 44  | M6                            | 4        | 17     | 22       | 210    | 170              | 120 | 0.26 |
| 20×28        | 50            | 18 | 31   | 38 | 44  | M6                            | 4        | 17     | 22       | 220    | 160              | 115 | 0.27 |
| 22×32        | 54            | 25 | 38   | 45 | 51  | M6                            | 4        | 17     | 22       | 250    | 115              | 80  | 0.34 |
| 24×34        | 56            | 25 | 38   | 45 | 51  | M6                            | 4        | 17     | 22       | 270    | 105              | 75  | 0.36 |
| 25×34        | 56            | 25 | 38   | 45 | 51  | M6                            | 4        | 17     | 22       | 280    | 100              | 75  | 0.35 |
| 28×39        | 61            | 25 | 38   | 45 | 51  | M6                            | 6        | 17     | 33       | 465    | 135              | 97  | 0.48 |
| 30×41        | 62            | 25 | 38   | 45 | 51  | M6                            | 6        | 17     | 33       | 510    | 127              | 90  | 0.48 |
| 32×43        | 65            | 25 | 38   | 45 | 51  | M6                            | 6        | 17     | 33       | 540    | 120              | 90  | 0.47 |
| 35×47        | 69            | 32 | 45   | 52 | 58  | M6                            | 8        | 17     | 45       | 790    | 105              | 80  | 0.58 |
| 38×50        | 72            | 32 | 45   | 52 | 58  | M6                            | 8        | 17     | 45       | 860    | 100              | 75  | 0.61 |
| 40×53        | 75            | 32 | 45   | 52 | 58  | M6                            | 8        | 17     | 45       | 900    | 95               | 70  | 0.68 |
| 42×55        | 78            | 32 | 45   | 52 | 58  | M6                            | 8        | 17     | 45       | 950    | 90               | 70  | 0.78 |
| 45×59        | 86            | 45 | 62   | 70 | 78  | M8                            | 8        | 41     | 84       | 1,890  | 110              | 85  | 1.20 |
| 48×62        | 87            | 45 | 62   | 70 | 78  | M8                            | 8        | 41     | 84       | 2,010  | 105              | 82  | 1.20 |
| 50×65        | 92            | 45 | 62   | 70 | 78  | M8                            | 8        | 41     | 84       | 2,100  | 100              | 75  | 1.40 |
| 55×71        | 98            | 55 | 72   | 80 | 88  | M8                            | 9        | 41     | 91       | 2,600  | 85               | 65  | 1.60 |
| 60×77        | 104           | 55 | 72   | 80 | 88  | M8                            | 9        | 41     | 91       | 2,840  | 75               | 60  | 1.80 |
| 65×84        | 111           | 55 | 72   | 80 | 88  | M8                            | 9        | 41     | 91       | 3,070  | 70               | 55  | 2.10 |
| 70×90        | 119           | 65 | 86   | 96 | 106 | M10                           | 9        | 83     | 150      | 5,250  | 90               | 70  | 3.00 |
| 75×95        | 126           | 65 | 86   | 96 | 106 | M10                           | 9        | 83     | 150      | 5,600  | 80               | 65  | 3.00 |
| 80×100       | 131           | 65 | 86   | 96 | 106 | M10                           | 12       | 83     | 200      | 8,020  | 100              | 80  | 3.50 |
| 85×106       | 137           | 65 | 86   | 96 | 106 | M10                           | 12       | 83     | 200      | 8,500  | 95               | 75  | 3.60 |
| 90×112       | 144           | 65 | 86   | 96 | 106 | M10                           | 12       | 83     | 200      | 9,000  | 90               | 75  | 3.90 |
| 95×120       | 149           | 65 | 86   | 96 | 106 | M10                           | 14       | 83     | 230      | 11,000 | 100              | 80  | 4.40 |
| 100×125      | 154           | 65 | 86   | 96 | 106 | M10                           | 18       | 83     | 300      | 15,000 | 120              | 95  | 4.6  |

DR120

LOCKING ELEMENT



**Features**

Unlike the DR110, The inner ring and the spacer are integrated.  
It has centering function and there in no axial movement of the hub  
Simple installation.

**Specifications**

Surface roughness : Rt max 16/μm  
Processing tolerance : Shaft h8, Hub H8

**Usage**

Pulley with small hub outer diameter, Sprocket, Gear etc.

**Order Method  
(Order Example)**

| DR120      | 20                 | 28                 |
|------------|--------------------|--------------------|
| Product NO | Inner diameter : d | Outer Diameter : D |

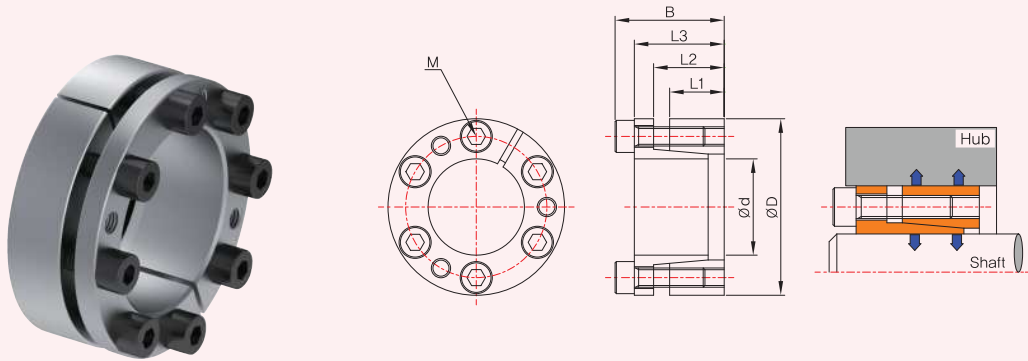
\* DR120 : Standard product  
\* DR120N : Electroless nickel plating product

| DR120(d x D) | Dimension(mm) |    |      |      | Tightening screw(DIN912/12.9) |          |                   | Torque |        | Surface pressure |     | Mass  |
|--------------|---------------|----|------|------|-------------------------------|----------|-------------------|--------|--------|------------------|-----|-------|
|              | D1            | L1 | L2   | B    | Size                          | Quantity | Tightening torque | Thrust | Torque | Shaft            | Hub |       |
| mm           | mm            | mm | mm   | mm   | M                             | Qty      | N · m             | kN     | N · m  | Mpa              | Mpa | kg    |
| 5×12         | 23            | 10 | 19   | 22   | M3                            | 4        | 1.7               | 3.45   | 9      | 188              | 99  | 0.036 |
| 6×12         | 23            | 10 | 19   | 22   | M3                            | 4        | 1.7               | 3.45   | 11     | 156              | 99  | 0.034 |
| 8×15         | 28            | 12 | 23   | 27   | M4                            | 4        | 4                 | 6.09   | 25     | 174              | 116 | 0.061 |
| 10×18        | 31.5          | 12 | 23   | 27   | M4                            | 5        | 4                 | 8.71   | 44     | 193              | 134 | 0.078 |
| 11×18        | 31.5          | 12 | 23   | 27   | M4                            | 5        | 4                 | 8.71   | 48     | 176              | 134 | 0.075 |
| 12×20        | 33.5          | 12 | 23   | 27   | M4                            | 5        | 4                 | 8.71   | 53     | 161              | 121 | 0.086 |
| 14×22        | 35.5          | 12 | 23   | 27   | M4                            | 5        | 4                 | 8.71   | 61     | 138              | 110 | 0.094 |
| 15×23        | 38.5          | 14 | 27   | 32   | M5                            | 4        | 8                 | 15.3   | 115    | 178              | 150 | 0.135 |
| 16×24        | 39.5          | 14 | 27   | 32   | M5                            | 4        | 8                 | 15.3   | 123    | 167              | 144 | 0.140 |
| 17×25        | 40.5          | 14 | 27   | 32   | M5                            | 4        | 8                 | 15.3   | 131    | 158              | 138 | 0.146 |
| 18×26        | 46            | 14 | 30   | 36   | M6                            | 4        | 14                | 23.2   | 210    | 195              | 198 | 0.221 |
| 19×27        | 47            | 14 | 30   | 36   | M6                            | 4        | 14                | 23.2   | 221    | 185              | 191 | 0.228 |
| 20×28        | 48            | 14 | 30   | 36   | M6                            | 4        | 14                | 23.2   | 233    | 176              | 184 | 0.235 |
| 22×32        | 52            | 16 | 32   | 38   | M6                            | 4        | 14                | 23.2   | 256    | 146              | 141 | 0.287 |
| 24×34        | 54            | 16 | 32   | 38   | M6                            | 4        | 14                | 23.2   | 279    | 134              | 133 | 0.302 |
| 25×34        | 54            | 16 | 32   | 38   | M6                            | 4        | 14                | 23.2   | 291    | 128              | 133 | 0.293 |
| 28×39        | 59            | 20 | 36   | 42   | M6                            | 6        | 14                | 34.8   | 488    | 146              | 139 | 0.378 |
| 30×41        | 61            | 20 | 36   | 42   | M6                            | 6        | 14                | 34.8   | 523    | 136              | 132 | 0.396 |
| 32×43        | 63            | 20 | 36   | 42   | M6                            | 6        | 14                | 34.8   | 558    | 128              | 126 | 0.414 |
| 35×47        | 67            | 22 | 38   | 44   | M6                            | 8        | 14                | 46.4   | 813    | 145              | 140 | 0.484 |
| 38×50        | 70            | 22 | 38   | 44   | M6                            | 8        | 14                | 46.4   | 883    | 133              | 131 | 0.512 |
| 40×53        | 73            | 22 | 38   | 44   | M6                            | 8        | 14                | 46.4   | 929    | 127              | 124 | 0.560 |
| 42×55        | 75            | 22 | 38   | 44   | M6                            | 8        | 14                | 46.4   | 976    | 121              | 119 | 0.580 |
| 45×59        | 84            | 30 | 50.5 | 58.5 | M8                            | 8        | 34                | 84.5   | 1,910  | 160              | 148 | 0.962 |
| 48×62        | 87            | 30 | 50.5 | 58.5 | M8                            | 8        | 34                | 84.5   | 2,040  | 150              | 141 | 1.000 |
| 50×65        | 90            | 30 | 50.5 | 58.5 | M8                            | 8        | 34                | 84.5   | 2,120  | 144              | 135 | 1.090 |



DR132

LOCKING ELEMENT



Features

- It has a shaft on the hub movable when assembled.
- It has a good capacity of transmission.
- Centering function is available

Usage

Pump, Cam, Sprocket, Pulley, etc.

Specifications

- Surface roughness : Rt max 16 $\mu$ m
- Processing tolerance : Shaft h8, Hub H8

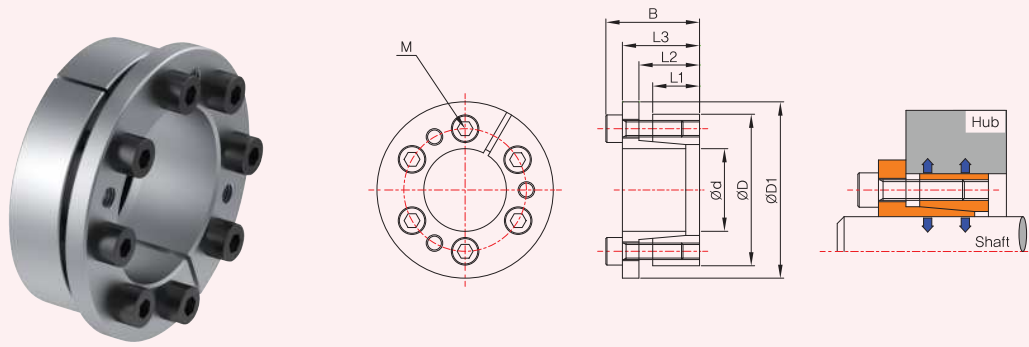
Order Method  
(Order Example)

| DR132      | 25                 | 50                 |
|------------|--------------------|--------------------|
| Product NO | Inner diameter : d | Outer Diameter : D |

| DR132/DR133<br>(d x D)<br>mm | Dimension(mm)       |          |          |          |         | Tightening screw(DIN912/12.9) |                 |                                  |                                  |
|------------------------------|---------------------|----------|----------|----------|---------|-------------------------------|-----------------|----------------------------------|----------------------------------|
|                              | D1(DR133only)<br>mm | L1<br>mm | L2<br>mm | L3<br>mm | B<br>mm | Size<br>M                     | Quantity<br>Qty | DR132 Tightening torque<br>N · m | DR133 Tightening torque<br>N · m |
| 18×47                        | 56                  | 17       | 22       | 28       | 34      | M6                            | 5               | 14                               | 17                               |
| 19×47                        | 56                  | 17       | 22       | 28       | 34      | M6                            | 5               | 14                               | 17                               |
| 20×47                        | 56                  | 17       | 22       | 28       | 34      | M6                            | 5               | 14                               | 17                               |
| 22×47                        | 56                  | 17       | 22       | 28       | 34      | M6                            | 5               | 14                               | 17                               |
| 24×50                        | 59                  | 17       | 22       | 28       | 34      | M6                            | 5               | 14                               | 17                               |
| 25×50                        | 59                  | 17       | 22       | 28       | 34      | M6                            | 6               | 14                               | 17                               |
| 28×55                        | 64                  | 17       | 22       | 28       | 34      | M6                            | 6               | 14                               | 17                               |
| 30×55                        | 64                  | 17       | 22       | 28       | 34      | M6                            | 6               | 14                               | 17                               |
| 32×60                        | 69                  | 17       | 22       | 28       | 34      | M6                            | 8               | 14                               | 17                               |
| 35×60                        | 69                  | 17       | 22       | 28       | 34      | M6                            | 8               | 14                               | 17                               |
| 38×65                        | 74                  | 17       | 22       | 28       | 34      | M6                            | 8               | 14                               | 17                               |
| 40×65                        | 74                  | 17       | 22       | 28       | 34      | M6                            | 8               | 14                               | 17                               |
| 42×75                        | 84                  | 20       | 25       | 33       | 41      | M8                            | 7               | 35                               | 41                               |
| 45×75                        | 84                  | 20       | 25       | 33       | 41      | M8                            | 7               | 35                               | 41                               |
| 48×80                        | 89                  | 20       | 25       | 33       | 41      | M8                            | 7               | 35                               | 41                               |
| 50×80                        | 89                  | 20       | 25       | 33       | 41      | M8                            | 7               | 35                               | 41                               |
| 55×85                        | 94                  | 20       | 25       | 33       | 41      | M8                            | 8               | 35                               | 41                               |
| 60×90                        | 99                  | 20       | 25       | 33       | 41      | M8                            | 8               | 35                               | 41                               |
| 65×95                        | 104                 | 20       | 25       | 33       | 41      | M8                            | 9               | 35                               | 41                               |
| 70×110                       | 119                 | 24       | 30       | 40       | 50      | M10                           | 8               | 70                               | 83                               |
| 75×115                       | 124                 | 24       | 30       | 40       | 50      | M10                           | 8               | 70                               | 83                               |
| 80×120                       | 129                 | 24       | 30       | 40       | 50      | M10                           | 8               | 70                               | 83                               |
| 85×125                       | 134                 | 24       | 30       | 40       | 50      | M10                           | 9               | 70                               | 83                               |
| 90×130                       | 139                 | 24       | 30       | 40       | 50      | M10                           | 9               | 70                               | 83                               |
| 95×135                       | 144                 | 24       | 30       | 40       | 50      | M10                           | 10              | 70                               | 83                               |
| 100×145                      | 154                 | 26       | 32       | 44       | 56      | M12                           | 8               | 125                              | 145                              |

DR133

LOCKING ELEMENT



Features

- It has a shaft on the hub unmovable when assembled.
- It has a good capacity of transmission.
- Centering function is available

Usage

Pump, Cam, Sprocket, Pulley, etc.

Specifications

- Surface roughness : Rt max 16 $\mu$ m
- Processing tolerance : Shaft h8, Hub H8

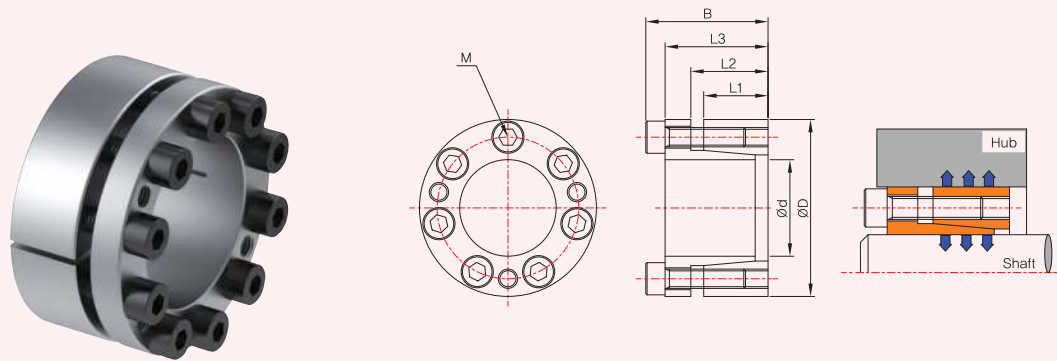
Order Method  
(Order Example)

| DR133      | 25                 | 50                 |
|------------|--------------------|--------------------|
| Product NO | Inner diameter : d | Outer Diameter : D |

| DR132/DR133<br>(d x D)<br>mm | DR132                 |                          |                                  |                                |            | DR133                 |                          |                                  |                                |            |
|------------------------------|-----------------------|--------------------------|----------------------------------|--------------------------------|------------|-----------------------|--------------------------|----------------------------------|--------------------------------|------------|
|                              | Transfer Thrust<br>kN | Transfer Torque<br>N · m | Surface pressure<br>Shaft<br>Mpa | Surface pressure<br>Hub<br>Mpa | Mass<br>kg | Transfer Thrust<br>kN | Transfer Torque<br>N · m | Surface pressure<br>Shaft<br>Mpa | Surface pressure<br>Hub<br>Mpa | Mass<br>kg |
| 18×47                        | 38                    | 380                      | 295                              | 125                            | 0.3        | 28                    | 280                      | 220                              | 95                             | 0.3        |
| 19×47                        | 38                    | 380                      | 295                              | 125                            | 0.3        | 28                    | 280                      | 220                              | 95                             | 0.3        |
| 20×47                        | 38                    | 380                      | 295                              | 125                            | 0.3        | 28                    | 280                      | 220                              | 95                             | 0.3        |
| 22×47                        | 38                    | 410                      | 270                              | 125                            | 0.3        | 28                    | 300                      | 200                              | 95                             | 0.3        |
| 24×50                        | 38                    | 450                      | 245                              | 120                            | 0.3        | 28                    | 330                      | 180                              | 90                             | 0.3        |
| 25×50                        | 46                    | 570                      | 285                              | 140                            | 0.3        | 34                    | 420                      | 210                              | 105                            | 0.3        |
| 28×55                        | 46                    | 630                      | 255                              | 130                            | 0.4        | 34                    | 470                      | 190                              | 95                             | 0.4        |
| 30×55                        | 46                    | 660                      | 235                              | 130                            | 0.3        | 34                    | 500                      | 175                              | 95                             | 0.4        |
| 32×60                        | 60                    | 970                      | 295                              | 155                            | 0.4        | 45                    | 720                      | 220                              | 115                            | 0.4        |
| 35×60                        | 60                    | 1,060                    | 270                              | 155                            | 0.4        | 45                    | 790                      | 200                              | 115                            | 0.4        |
| 38×65                        | 60                    | 1,150                    | 250                              | 145                            | 0.4        | 45                    | 850                      | 185                              | 105                            | 0.5        |
| 40×65                        | 60                    | 1,210                    | 235                              | 145                            | 0.4        | 45                    | 900                      | 175                              | 105                            | 0.5        |
| 42×75                        | 98                    | 1,050                    | 300                              | 170                            | 0.8        | 73                    | 1,530                    | 225                              | 125                            | 0.8        |
| 45×75                        | 98                    | 2,200                    | 290                              | 170                            | 0.6        | 73                    | 1,650                    | 215                              | 125                            | 0.7        |
| 48×80                        | 98                    | 2,350                    | 270                              | 160                            | 0.8        | 73                    | 1,760                    | 200                              | 120                            | 0.8        |
| 50×80                        | 98                    | 2,450                    | 260                              | 160                            | 0.8        | 73                    | 1,830                    | 195                              | 120                            | 0.8        |
| 55×85                        | 112                   | 3,080                    | 270                              | 175                            | 0.8        | 83                    | 2,300                    | 200                              | 130                            | 0.9        |
| 60×90                        | 112                   | 3,360                    | 245                              | 165                            | 0.8        | 83                    | 2,510                    | 185                              | 125                            | 0.9        |
| 65×95                        | 126                   | 4,090                    | 255                              | 175                            | 0.9        | 94                    | 3,060                    | 190                              | 130                            | 1.0        |
| 70×110                       | 179                   | 6,300                    | 280                              | 180                            | 1.8        | 133                   | 4,670                    | 210                              | 135                            | 1.9        |
| 75×115                       | 179                   | 6,700                    | 260                              | 170                            | 1.8        | 133                   | 5,000                    | 195                              | 125                            | 2.0        |
| 80×120                       | 179                   | 7,150                    | 250                              | 170                            | 1.8        | 133                   | 5,300                    | 185                              | 125                            | 2.0        |
| 85×125                       | 200                   | 8,500                    | 260                              | 180                            | 2          | 148                   | 6,300                    | 195                              | 135                            | 2.0        |
| 90×130                       | 200                   | 9,100                    | 250                              | 170                            | 2.1        | 148                   | 6,750                    | 185                              | 130                            | 2.2        |
| 95×135                       | 224                   | 10,600                   | 260                              | 180                            | 2.1        | 166                   | 7,900                    | 195                              | 135                            | 2.3        |
| 100×145                      | 268                   | 13,400                   | 270                              | 190                            | 2.8        | 194                   | 9,700                    | 200                              | 140                            | 3.0        |

DR132A

LOCKING ELEMENT



Features

Available when the hub is moved to the shaft direction to some extent.  
Centering function is available.

Specifications

Surface roughness : Rt max 16μm  
Processing tolerance : Shaft h9, Hub H9

Usage

Pump, Cam, Sprocket, Pulley, etc.

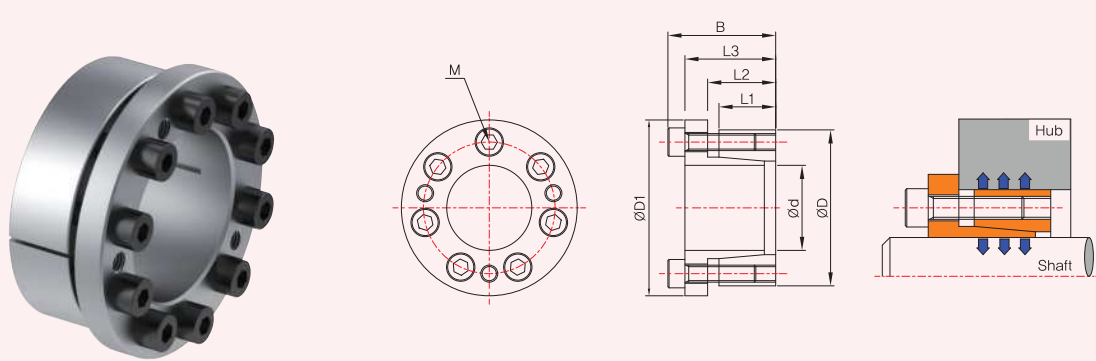
Order Method  
(Order Example)

| DR132A     | 25                 | 50                 |
|------------|--------------------|--------------------|
| Product NO | Inner diameter : d | Outer Diameter : D |

| DR132A(d x D) | Dimension(mm) |    |    |    | Tightening screw(DIN912/12.9) |          |                   | Transfer |        | Surface pressure |     | Mass |
|---------------|---------------|----|----|----|-------------------------------|----------|-------------------|----------|--------|------------------|-----|------|
|               | L1            | L2 | L3 | B  | Size                          | Quantity | Tightening torque | Thrust   | Torque | Shaft            | Hub |      |
| mm            | mm            | mm | mm | mm | M                             | Qty      | N · m             | kN       | N · m  | Mpa              | Mpa | kg   |
| 18×47         | 20            | 24 | 32 | 38 | M6                            | 6        | 16                | 31       | 295    | 299              | 97  | 0.33 |
| 19×47         | 20            | 24 | 32 | 38 | M6                            | 6        | 16                | 31       | 295    | 299              | 97  | 0.33 |
| 20×47         | 20            | 24 | 32 | 38 | M6                            | 6        | 16                | 31       | 305    | 283              | 97  | 0.32 |
| 22×47         | 20            | 24 | 32 | 38 | M6                            | 6        | 16                | 31       | 334    | 257              | 97  | 0.30 |
| 24×50         | 20            | 24 | 32 | 38 | M6                            | 7        | 16                | 39       | 461    | 295              | 113 | 0.35 |
| 25×50         | 20            | 24 | 32 | 38 | M6                            | 7        | 16                | 39       | 481    | 283              | 113 | 0.35 |
| 28×55         | 20            | 24 | 32 | 38 | M6                            | 7        | 16                | 39       | 540    | 253              | 103 | 0.40 |
| 30×55         | 20            | 24 | 32 | 38 | M6                            | 7        | 16                | 39       | 579    | 236              | 103 | 0.38 |
| 32×60         | 20            | 24 | 32 | 38 | M6                            | 9        | 16                | 46       | 736    | 265              | 113 | 0.45 |
| 35×60         | 20            | 24 | 32 | 38 | M6                            | 9        | 16                | 46       | 805    | 243              | 113 | 0.44 |
| 38×65         | 20            | 24 | 32 | 38 | M6                            | 9        | 16                | 46       | 873    | 223              | 104 | 0.50 |
| 40×65         | 20            | 24 | 32 | 38 | M6                            | 9        | 16                | 46       | 913    | 212              | 104 | 0.47 |
| 42×75         | 24            | 29 | 40 | 48 | M8                            | 9        | 39                | 85       | 1,776  | 313              | 140 | 0.90 |
| 45×75         | 24            | 29 | 40 | 48 | M8                            | 9        | 39                | 85       | 1,933  | 293              | 140 | 0.80 |
| 48×80         | 24            | 29 | 40 | 48 | M8                            | 9        | 39                | 85       | 2,031  | 274              | 131 | 0.90 |
| 50×80         | 24            | 29 | 40 | 48 | M8                            | 9        | 39                | 85       | 2,119  | 263              | 131 | 0.90 |
| 55×85         | 24            | 29 | 40 | 48 | M8                            | 10       | 39                | 99       | 2,718  | 279              | 144 | 0.90 |
| 60×90         | 24            | 29 | 40 | 48 | M8                            | 10       | 39                | 99       | 2,963  | 256              | 136 | 1.00 |
| 65×95         | 24            | 29 | 40 | 48 | M8                            | 12       | 39                | 113      | 3,669  | 270              | 147 | 1.10 |
| 70×110        | 30            | 37 | 52 | 62 | M10                           | 10       | 74                | 155      | 5,435  | 285              | 140 | 2.00 |
| 75×115        | 30            | 37 | 52 | 62 | M10                           | 10       | 74                | 155      | 5,828  | 265              | 133 | 2.20 |
| 80×120        | 30            | 37 | 52 | 62 | M10                           | 10       | 74                | 155      | 6,210  | 250              | 128 | 2.30 |
| 85×125        | 30            | 37 | 52 | 62 | M10                           | 12       | 74                | 177      | 7,544  | 268              | 141 | 2.40 |
| 90×130        | 30            | 37 | 52 | 62 | M10                           | 12       | 74                | 177      | 7,986  | 254              | 135 | 2.50 |
| 95×135        | 30            | 37 | 52 | 62 | M10                           | 14       | 74                | 246      | 10,536 | 300              | 162 | 2.70 |
| 100×145       | 39            | 46 | 64 | 74 | M10                           | 15       | 74                | 246      | 11,086 | 206              | 116 | 4.00 |

DR133B

LOCKING ELEMENT



Features

Precise position can be decided as the hub is not moved to the shaft direction.  
Centering function is available.

Specifications

Surface roughness : Rt max 16μm  
Processing tolerance : Shaft h9, Hub H9

Usage

Pump, Cam, Sprocket, Pulley, etc.

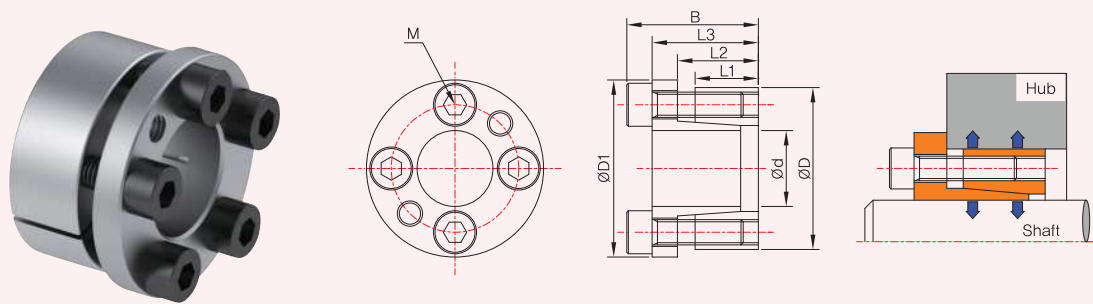
Order Method  
(Order Example)

| DR133B     | 25                 | 50                 |
|------------|--------------------|--------------------|
| Product NO | Inner diameter : d | Outer Diameter : D |

| DR133B(d x D) | Dimension(mm) |    |    |    |    | Tightening screw(DIN912/12.9) |          |                   | Transfer |        | Surface pressure |     | Mass |
|---------------|---------------|----|----|----|----|-------------------------------|----------|-------------------|----------|--------|------------------|-----|------|
|               | D1            | L1 | L2 | L3 | B  | Size                          | Quantity | Tightening torque | Thrust   | Torque | Shaft            | Hub |      |
| mm            | mm            | mm | mm | mm | mm | M                             | Qty      | N · m             | kN       | N · m  | Mpa              | Mpa | kg   |
| 19×47         | 53            | 20 | 24 | 32 | 38 | M6                            | 6        | 16                | 30       | 285    | 285              | 93  | 0.36 |
| 20×47         | 53            | 20 | 24 | 32 | 38 | M6                            | 6        | 16                | 30       | 295    | 270              | 93  | 0.36 |
| 22×47         | 53            | 20 | 24 | 32 | 38 | M6                            | 6        | 16                | 30       | 324    | 246              | 93  | 0.34 |
| 24×50         | 56            | 20 | 24 | 32 | 38 | M6                            | 7        | 16                | 34       | 412    | 262              | 101 | 0.38 |
| 25×50         | 56            | 20 | 24 | 32 | 38 | M6                            | 7        | 16                | 34       | 432    | 253              | 101 | 0.37 |
| 28×55         | 62            | 20 | 24 | 32 | 38 | M6                            | 7        | 16                | 34       | 471    | 225              | 93  | 0.44 |
| 30×55         | 62            | 20 | 24 | 32 | 38 | M6                            | 7        | 16                | 34       | 511    | 210              | 93  | 0.43 |
| 32×60         | 68            | 20 | 24 | 32 | 38 | M6                            | 9        | 16                | 44       | 697    | 253              | 108 | 0.51 |
| 35×60         | 68            | 20 | 24 | 32 | 38 | M6                            | 9        | 16                | 44       | 766    | 232              | 108 | 0.48 |
| 38×65         | 73            | 20 | 24 | 32 | 38 | M6                            | 9        | 16                | 44       | 834    | 213              | 98  | 0.55 |
| 40×65         | 73            | 20 | 24 | 32 | 38 | M6                            | 9        | 16                | 44       | 883    | 202              | 100 | 0.52 |
| 42×75         | 83            | 24 | 29 | 40 | 48 | M8                            | 9        | 39                | 81       | 1,698  | 299              | 133 | 0.96 |
| 45×75         | 83            | 24 | 29 | 40 | 48 | M8                            | 9        | 39                | 81       | 1,815  | 279              | 133 | 0.90 |
| 48×80         | 88            | 24 | 29 | 40 | 48 | M8                            | 9        | 39                | 81       | 1,943  | 262              | 125 | 1.01 |
| 50×80         | 88            | 24 | 29 | 40 | 48 | M8                            | 9        | 39                | 81       | 2,021  | 252              | 125 | 0.95 |
| 55×85         | 94            | 24 | 29 | 40 | 48 | M8                            | 10       | 39                | 90       | 2,473  | 253              | 130 | 1.06 |
| 60×90         | 99            | 24 | 29 | 40 | 48 | M8                            | 10       | 39                | 90       | 2,698  | 233              | 123 | 1.13 |
| 65×95         | 104           | 24 | 29 | 40 | 48 | M8                            | 12       | 39                | 108      | 3,503  | 258              | 140 | 1.22 |
| 70×110        | 119           | 30 | 37 | 52 | 62 | M10                           | 10       | 74                | 142      | 4,945  | 259              | 127 | 2.28 |
| 75×115        | 124           | 30 | 37 | 52 | 62 | M10                           | 10       | 74                | 142      | 5,298  | 242              | 121 | 2.40 |
| 80×120        | 129           | 30 | 37 | 52 | 62 | M10                           | 10       | 74                | 142      | 5,641  | 226              | 116 | 2.52 |
| 85×125        | 134           | 30 | 37 | 52 | 62 | M10                           | 12       | 74                | 167      | 7,201  | 255              | 134 | 2.66 |
| 90×130        | 139           | 30 | 37 | 52 | 62 | M10                           | 12       | 74                | 167      | 7,603  | 242              | 128 | 2.78 |
| 95×135        | 144           | 30 | 37 | 52 | 62 | M10                           | 14       | 74                | 197      | 9,369  | 267              | 144 | 2.98 |
| 100×145       | 154           | 39 | 46 | 64 | 74 | M10                           | 15       | 74                | 206      | 10,595 | 196              | 111 | 4.3  |

DR134S

LOCKING ELEMENT



Features

Light weight and compact size  
Centering function is available.  
Fitting and disassembly is easy

Specifications

Surface roughness : Rt max 16/μm  
Processing tolerance : Shaft h8, Hub H8

Usage

Pump, Cam, Sprocket, Pulley, etc.

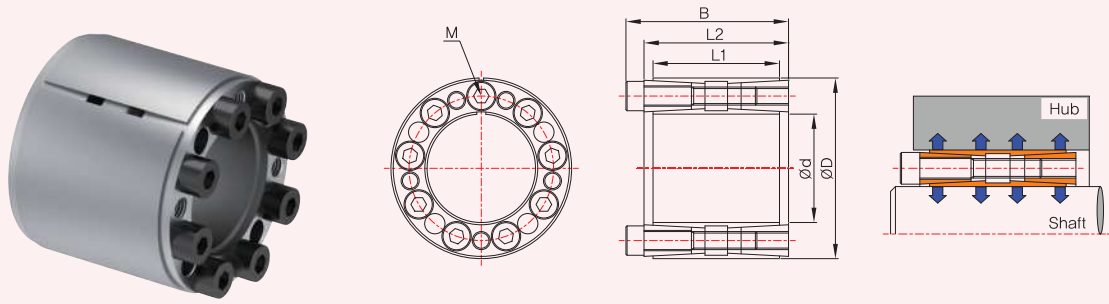
Order Method  
(Order Example)

| DR134S     | 13                 | 27                 |
|------------|--------------------|--------------------|
| Product NO | Inner diameter : d | Outer Diameter : D |

| DR134S(d x D) | Dimension(mm) |      |    |    |    | Tightening screw(DIN912/12.9) |          |                   | Transfer |        | Surface pressure |     | Mass |
|---------------|---------------|------|----|----|----|-------------------------------|----------|-------------------|----------|--------|------------------|-----|------|
|               | D1            | L1   | L2 | L3 | B  | Size                          | Quantity | Tightening torque | Thrust   | Torque | Shaft            | Hub |      |
| mm            | mm            | mm   | mm | mm | mm | M                             | Qty      | N · m             | kN       | N · m  | Mpa              | Mpa | kg   |
| 8×22          | 25            | 10   | 13 | 17 | 21 | M4                            | 3        | 4                 | 5        | 18     | 274              | 70  | 0.05 |
| 9×23          | 26            | 10   | 13 | 17 | 21 | M4                            | 3        | 4                 | 5        | 21     | 244              | 67  | 0.05 |
| 10×24         | 27            | 10   | 13 | 17 | 21 | M4                            | 4        | 4                 | 6        | 30     | 295              | 86  | 0.05 |
| 11×25         | 28            | 10   | 13 | 17 | 21 | M4                            | 4        | 4                 | 6        | 34     | 265              | 83  | 0.06 |
| 12×26         | 29            | 10   | 13 | 17 | 21 | M4                            | 5        | 4                 | 8        | 47     | 304              | 99  | 0.06 |
| 13×27         | 30            | 10   | 13 | 17 | 21 | M4                            | 5        | 4                 | 8        | 50     | 281              | 96  | 0.06 |
| 14×31         | 34            | 12.5 | 16 | 21 | 26 | M5                            | 4        | 8                 | 10       | 69     | 261              | 86  | 0.10 |
| 15×32         | 35            | 12.5 | 16 | 21 | 26 | M5                            | 4        | 8                 | 10       | 74     | 243              | 83  | 0.11 |
| 16×33         | 36            | 12.5 | 16 | 21 | 26 | M5                            | 4        | 8                 | 10       | 79     | 228              | 80  | 0.11 |
| 17×34         | 37            | 12.5 | 16 | 21 | 26 | M5                            | 5        | 8                 | 13       | 104    | 268              | 98  | 0.12 |
| 18×35         | 38            | 12.5 | 16 | 21 | 26 | M5                            | 5        | 8                 | 13       | 108    | 253              | 95  | 0.12 |
| 19×35         | 38            | 12.5 | 16 | 21 | 26 | M5                            | 5        | 8                 | 13       | 108    | 253              | 95  | 0.12 |

DR400

LOCKING ELEMENT



Features

It is a kind of power lock with high transmission torque.  
It has the same inner and outer dimension with DR200 type.  
It can be replaced when using 2 DR200 types in a row.  
Centering function is available  
It has a shaft on the hub unmovable when assembled.

Specifications

Surface roughness : Rt max 16/μm  
Processing tolerance : Shaft h8, Hub H8

Order Method  
(Order Example)

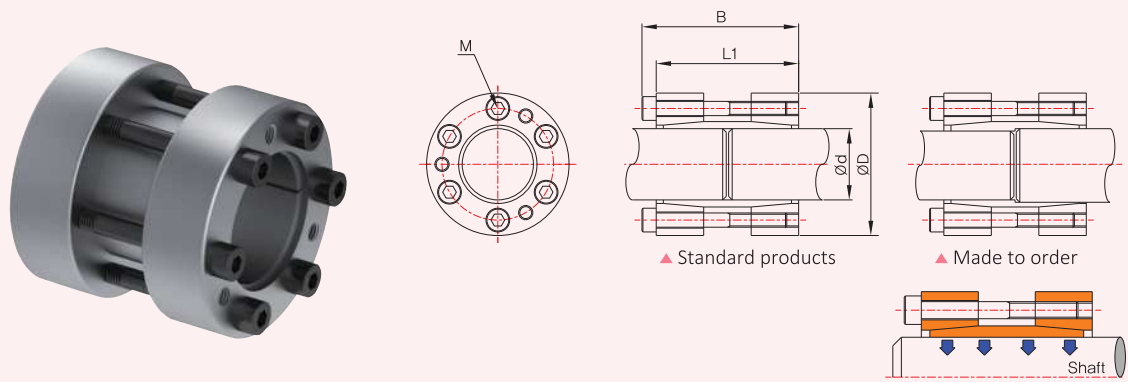
| DR400      | 50                 | 80                 |
|------------|--------------------|--------------------|
| Product NO | Inner diameter : d | Outer Diameter : D |

| DR400(d x D) | Dimension(mm) |     |     | Tightening screw(DIN912/12.9) |          |                   | Transfer |        | Surface pressure |     | Mass |
|--------------|---------------|-----|-----|-------------------------------|----------|-------------------|----------|--------|------------------|-----|------|
|              | L1            | L2  | B   | Size                          | Quantity | Tightening torque | Thrust   | Torque | Shaft            | Hub |      |
| mm           | mm            | mm  | mm  | M                             | Qty      | N · m             | kN       | N · m  | Mpa              | Mpa | kg   |
| 19×47        | 39            | 45  | 51  | M6                            | 6        | 17                | 41       | 496    | 185              | 110 | 0.40 |
| 20×47        | 39            | 45  | 51  | M6                            | 6        | 17                | 41       | 522    | 185              | 110 | 0.40 |
| 22×47        | 39            | 45  | 51  | M6                            | 6        | 17                | 41       | 339    | 185              | 110 | 0.40 |
| 24×50        | 39            | 45  | 51  | M6                            | 6        | 17                | 55       | 841    | 185              | 110 | 0.50 |
| 25×50        | 39            | 45  | 51  | M6                            | 6        | 17                | 54       | 900    | 185              | 110 | 0.50 |
| 28×55        | 39            | 45  | 51  | M6                            | 8        | 17                | 55       | 1,000  | 185              | 110 | 0.60 |
| 30×55        | 39            | 45  | 51  | M6                            | 8        | 17                | 53       | 1,100  | 185              | 110 | 0.60 |
| 32×60        | 39            | 45  | 51  | M6                            | 8        | 17                | 80       | 1,350  | 185              | 110 | 0.60 |
| 35×60        | 39            | 45  | 51  | M6                            | 8        | 17                | 80       | 1,600  | 185              | 110 | 0.60 |
| 38×65        | 39            | 45  | 51  | M6                            | 8        | 17                | 90       | 2,171  | 185              | 110 | 0.70 |
| 40×65        | 39            | 45  | 51  | M6                            | 8        | 17                | 120      | 2,400  | 185              | 110 | 0.70 |
| 42×75        | 39            | 45  | 53  | M8                            | 8        | 41                | 155      | 3,250  | 185              | 110 | 1.00 |
| 45×75        | 39            | 45  | 53  | M8                            | 8        | 41                | 174      | 3,900  | 183              | 110 | 0.90 |
| 45×75L       | 56            | 64  | 72  | M8                            | 8        | 41                | 174      | 4,150  | 185              | 105 | 1.30 |
| 48×80        | 56            | 64  | 72  | M8                            | 8        | 41                | 174      | 4,150  | 170              | 105 | 1.50 |
| 50×80        | 56            | 64  | 72  | M8                            | 8        | 41                | 174      | 4,300  | 165              | 105 | 1.40 |
| 55×85        | 56            | 64  | 72  | M8                            | 8        | 41                | 174      | 4,800  | 150              | 95  | 1.50 |
| 60×90        | 56            | 64  | 72  | M8                            | 10       | 41                | 213      | 6,400  | 170              | 110 | 1.50 |
| 65×95        | 56            | 64  | 72  | M8                            | 10       | 41                | 213      | 6,900  | 155              | 105 | 1.60 |
| 70×110       | 70            | 78  | 88  | M10                           | 10       | 83                | 338      | 11,800 | 185              | 115 | 3.00 |
| 75×115       | 70            | 78  | 88  | M10                           | 10       | 83                | 338      | 12,700 | 170              | 110 | 3.10 |
| 80×120       | 70            | 78  | 88  | M10                           | 12       | 83                | 369      | 14,700 | 172              | 115 | 3.50 |
| 85×125       | 70            | 78  | 88  | M10                           | 12       | 83                | 400      | 15,700 | 165              | 110 | 3.50 |
| 90×130       | 70            | 78  | 88  | M10                           | 12       | 83                | 400      | 18,100 | 170              | 115 | 3.80 |
| 95×135       | 70            | 78  | 88  | M10                           | 12       | 83                | 400      | 19,000 | 160              | 110 | 4.00 |
| 100×145      | 90            | 100 | 112 | M12                           | 12       | 145               | 538      | 26,900 | 160              | 110 | 5.96 |



DR500

LOCKING ELEMENT



**Features**

Fitting and disassembly is easy.  
It has a high transmission and transfer torque.  
One diameter can be interlocked with another diameter. (Customized)

**Usage**

It is available as rigid coupling for connecting both shaft.

**Specifications**

Surface roughness : Rt max 16 $\mu$ m  
Processing tolerance(Max): Shaft h8

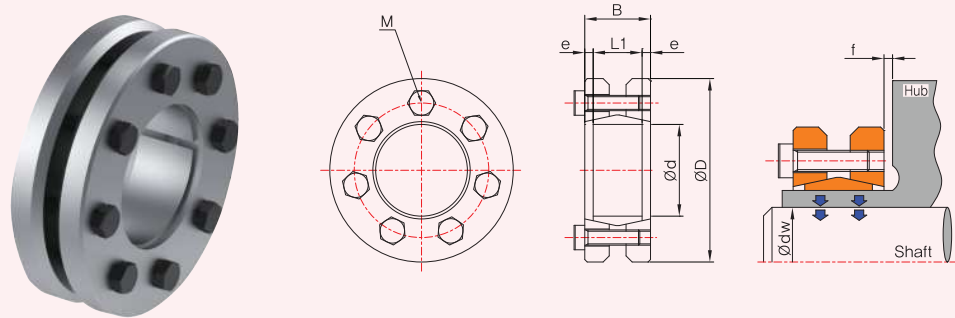
**Order Method  
(Order Example)**

| DR500      | 50                 | 90                 |
|------------|--------------------|--------------------|
| Product NO | Inner diameter : d | Outer Diameter : D |

| DR500(d x D) | Dimension(mm) |     | Tightening screw(DIN912/12.9) |          |                   | Transfer |        | Mass |
|--------------|---------------|-----|-------------------------------|----------|-------------------|----------|--------|------|
|              | L1            | B   | Size                          | Quantity | Tightening torque | Thrust   | Torque |      |
| mm           | mm            | mm  | M                             | Qty      | N · m             | kN       | N · m  | kg   |
| 15 × 45      | 50            | 56  | M6                            | 4        | 17                | 23       | 180    | 0.4  |
| 16 × 45      | 50            | 56  | M6                            | 4        | 17                | 23       | 190    | 0.4  |
| 17 × 45      | 50            | 56  | M6                            | 4        | 17                | 24       | 200    | 0.4  |
| 18 × 50      | 50            | 56  | M6                            | 4        | 17                | 24       | 220    | 0.5  |
| 19 × 50      | 50            | 56  | M6                            | 4        | 17                | 24       | 230    | 0.5  |
| 20 × 50      | 50            | 56  | M6                            | 4        | 17                | 24       | 240    | 0.5  |
| 22 × 55      | 60            | 66  | M6                            | 4        | 17                | 24       | 260    | 0.7  |
| 24 × 55      | 60            | 66  | M6                            | 4        | 17                | 24       | 290    | 0.7  |
| 25 × 55      | 60            | 66  | M6                            | 6        | 17                | 36       | 450    | 0.8  |
| 28 × 60      | 60            | 66  | M6                            | 6        | 17                | 36       | 510    | 0.9  |
| 30 × 60      | 60            | 66  | M6                            | 6        | 17                | 36       | 550    | 0.8  |
| 32 × 65      | 60            | 66  | M6                            | 6        | 17                | 36       | 580    | 0.8  |
| 35 × 75      | 75            | 83  | M8                            | 4        | 41                | 45       | 790    | 1.3  |
| 38 × 75      | 75            | 83  | M8                            | 4        | 41                | 45       | 850    | 1.3  |
| 40 × 75      | 75            | 83  | M8                            | 4        | 41                | 45       | 900    | 1.3  |
| 42 × 78      | 75            | 83  | M8                            | 4        | 41                | 45       | 950    | 1.4  |
| 45 × 85      | 85            | 93  | M8                            | 6        | 41                | 67       | 1,520  | 2.3  |
| 48 × 90      | 85            | 93  | M8                            | 6        | 41                | 67       | 1,620  | 2.3  |
| 50 × 90      | 85            | 93  | M8                            | 6        | 41                | 67       | 1,690  | 2.5  |
| 55 × 95      | 85            | 93  | M8                            | 8        | 41                | 90       | 2,470  | 2.4  |
| 60 × 100     | 85            | 93  | M8                            | 8        | 41                | 90       | 2,710  | 3.0  |
| 65 × 105     | 85            | 93  | M8                            | 8        | 41                | 90       | 2,930  | 3.3  |
| 70 × 115     | 100           | 110 | M10                           | 6        | 83                | 107      | 3,370  | 4.1  |
| 75 × 120     | 100           | 110 | M10                           | 6        | 83                | 107      | 4,030  | 4.8  |
| 80 × 125     | 100           | 110 | M10                           | 8        | 83                | 107      | 4,300  | 5.2  |
| 85 × 130     | 100           | 110 | M10                           | 8        | 84                | 120      | 4,500  | 5.5  |
| 90 × 135     | 100           | 110 | M10                           | 8        | 84                | 120      | 4,900  | 7.0  |
| 95 × 140     | 120           | 132 | M10                           | 8        | 84                | 120      | 5,200  | 7.5  |
| 100 × 150    | 120           | 132 | M12                           | 8        | 145               | 120      | 5,530  | 7.8  |

DR603

LOCKING ELEMENT



**Features**

Large transmissible torque is available.  
Fitting and disassembly is easy.  
Assemble to the outer diameter of the hub.

**Specifications**

Surface roughness: Rt max 16 $\mu$ m  
Processing tolerance(Max): shaft Od h6,  
Hub Id H7, Hub Od H6

**Order Method  
(Order Example)**

| DR603      | 30                 | 60                 |
|------------|--------------------|--------------------|
| Product NO | Inner diameter : d | Outer Diameter : D |

| DR603(d x D) | Applicable shaft | Dimension(mm) |    |      |    | Tightening screw(DIN931/10.9) |          |                   | Transfer |        | Surface pressure | Mass |
|--------------|------------------|---------------|----|------|----|-------------------------------|----------|-------------------|----------|--------|------------------|------|
|              | dw               | B             | L1 | e    | f  | Size                          | Quantity | Tightening torque | Thrust   | Torque | Mpa              | kg   |
| mm           | mm               | mm            | mm | mm   | mm | M                             | Qty      | N · m             | kN       | N · m  |                  |      |
| 14 × 38      | 11               | 11.0          | 7  | 2.00 | 2  | M5                            | 4        | 4                 | 6        | 30     | 186              | 0.1  |
|              | 12               |               |    |      |    |                               |          |                   | 9        | 50     |                  |      |
| 16 × 41      | 13               | 15.0          | 11 | 2.00 | 2  | M5                            | 5        | 4                 | 10       | 70     | 130              | 0.1  |
|              | 14               |               |    |      |    |                               |          |                   | 13       | 90     |                  |      |
| 24 × 50      | 19               | 19.5          | 14 | 2.75 | 3  | M5                            | 6        | 4                 | 25       | 170    | 286              | 0.2  |
|              | 20               |               |    |      |    |                               |          |                   | 27       | 210    |                  |      |
| 30 × 60      | 21               | 21.5          | 16 | 2.75 | 3  | M5                            | 7        | 4                 | 29       | 250    | 233              | 0.3  |
|              | 24               |               |    |      |    |                               |          |                   | 31       | 340    |                  |      |
| 36 × 72      | 26               | 23.5          | 18 | 2.75 | 4  | M6                            | 5        | 12                | 33       | 380    | 307              | 0.4  |
|              | 28               |               |    |      |    |                               |          |                   | 50       | 440    |                  |      |
| 44 × 80      | 30               | 25.5          | 20 | 2.75 | 5  | M6                            | 7        | 12                | 58       | 570    | 317              | 0.6  |
|              | 31               |               |    |      |    |                               |          |                   | 58       | 630    |                  |      |
| 50 × 90      | 32               | 27.5          | 22 | 2.75 | 5  | M6                            | 8        | 12                | 64       | 620    | 289              | 0.8  |
|              | 35               |               |    |      |    |                               |          |                   | 74       | 780    |                  |      |
| 55 × 100     | 36               | 30.5          | 23 | 3.75 | 5  | M6                            | 8        | 12                | 77       | 860    | 252              | 1.1  |
|              | 38               |               |    |      |    |                               |          |                   | 79       | 940    |                  |      |
| 62 × 110     | 40               | 30.5          | 23 | 3.75 | 6  | M6                            | 10       | 12                | 86       | 1,160  | 279              | 1.3  |
|              | 42               |               |    |      |    |                               |          |                   | 92       | 1,380  |                  |      |
| 68 × 115     | 42               | 30.5          | 23 | 3.75 | 6  | M6                            | 10       | 12                | 79       | 1,160  | 255              | 1.4  |
|              | 45               |               |    |      |    |                               |          |                   | 88       | 1,520  |                  |      |
| 75 × 138     | 48               | 32.5          | 25 | 3.75 | 8  | M8                            | 7        | 30                | 97       | 1,880  | 273              | 1.7  |
|              | 50               |               |    |      |    |                               |          |                   | 100      | 1,850  |                  |      |
| 80 × 145     | 52               | 32.5          | 25 | 3.75 | 8  | M8                            | 7        | 30                | 111      | 2,200  | 256              | 1.9  |
|              | 55               |               |    |      |    |                               |          |                   | 117      | 2,400  |                  |      |
| 85 × 155     | 60               | 39.0          | 30 | 4.50 | 8  | M8                            | 10       | 30                | 97       | 2,000  | 285              | 3.5  |
|              | 65               |               |    |      |    |                               |          |                   | 106      | 2,500  |                  |      |
| 90 × 155     | 60               | 39.0          | 30 | 4.50 | 10 | M8                            | 10       | 30                | 120      | 3,150  | 271              | 3.3  |
|              | 65               |               |    |      |    |                               |          |                   | 119      | 2,500  |                  |      |
| 100 × 170    | 65               | 44.0          | 34 | 5.00 | 10 | M8                            | 12       | 30                | 137      | 3,200  | 258              | 4.7  |
|              | 70               |               |    |      |    |                               |          |                   | 155      | 3,950  |                  |      |
|              | 75               |               |    |      |    |                               |          |                   | 124      | 3,200  |                  |      |
|              | 80               |               |    |      |    |                               |          |                   | 140      | 3,900  |                  |      |

Features

MAD Series is equipped with a small and compact size. In particular, the moment of inertia is small, so is suitable for high-speed rotating body.

MAS, MASUS, DRAP type is same shape as MAD which standard type.

MAS is the type which the electroless nickel plating treatment to body and rust-inhibitive type.

MASUS is ideal for machine requiring waterproofness, anti-corrosive and food machine because it employs all stainless bolts as body and bolts.

DRAP's the body was used aluminum alloy.

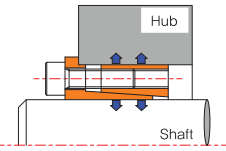
DRMC type has the boss which can be pressed directly bearing inner ring, so it can be reduced part quantity and enables the assembly process.



**MAD**

- Body material No. : S45C
- Size range : 5 X 16~85 X 112
- Centering function is available.
- Surface roughness : Rt max 16μm
- Processing tolerance (Max) : Shaft h7, hub H7

- Bolt material: SCM435
- Transfer torque range : 7~4,400 N·m
- It has a hub stationary on the axis when assembled.

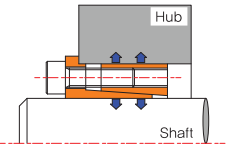




**MAS**

- Body material No. : MAD type which plated.
- Size range : 5 X 16~50 X 72
- Centering function is available.
- Surface roughness : Rt max 16μm
- Processing tolerance(Max) : Shaft h7, Hub H7

- Bolt material: SCM 435 which plated
- Transfer torque range : 5~1,362 N·m
- It has a hub stationary on the axis when assembled.

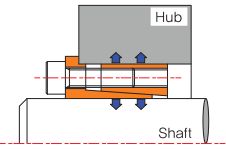




**MASUS**

- Body material No. : MAD Type which all Stainless steel.
- Size range : 5 X 16~50 X 72
- Centering function is available.
- Surface roughness : Rt max 16μm
- Processing tolerance (Max) : Shaft h7, hub H7

- Bolt material: SUS304
- Transfer torque range : 2~754 N·m
- It has a hub stationary on the axis when assembled.

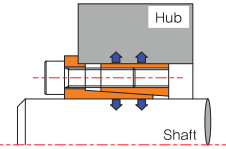




**DRAP**

- Body material No. : MAD Type which Aluminum alloy.
- Size range : 5 X 16~35 X 57
- Centering function is available.
- Surface roughness : Rt max 16μm
- Processing tolerance (Max) : shaft h7, Hub H7

- Bolt material: SCM435
- Transfer torque range : 5~548 N·m
- It has a hub stationary on the axis when assembled.

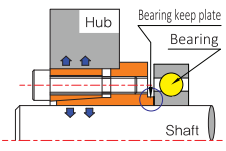




**DRMC**

- It can be assembled with being pressed directly bearing inner ring, so it can be reduced the assembly process time.
- Body material No. : Aluminum alloy.
- Size range : 4 X 15~35X56
- Centering function is available.
- Surface roughness : Rt max 16μm

- Bolt material: SCM435
- Transfer torque range: 2~230 N·m
- It has hub stationary on the axis when assembled.
- Processing tolerance (Max) : Shaft h7, Hub H7



Features

MAD is available for the shaft with a narrow diameter

Centering function is available.

Decision on position is free.

It has a shaft on the hub unmovable when assembled.

Safe and precise fitting system

Specifications

Surface roughness : Rt max 16μm

Processing tolerance(Max) : Shaft h7, Hub H7

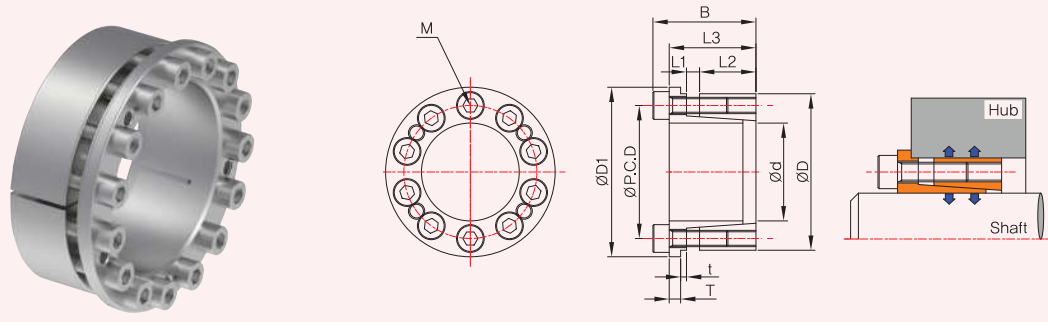
Usage

Pump, Cam, Sprocket, Pulley, etc.

Order Method  
(Order Example)

| MAD        | 25                 | 43                 |
|------------|--------------------|--------------------|
| Product NO | Inner diameter : d | Outer Diameter : D |

| MAD(d x D) | Dimension(mm) |        |     |     |     |      |      |      | Tightening screw(DIN912/12.9) |          |                   | Transfer |        | Surface pressure |     | Mass  | Moment of inertia     |
|------------|---------------|--------|-----|-----|-----|------|------|------|-------------------------------|----------|-------------------|----------|--------|------------------|-----|-------|-----------------------|
|            | D1            | P.C.D  | t   | T   | L1  | L2   | L3   | B    | Size                          | Quantity | Tightening torque | Thrust   | Torque | Shaft            | Hub |       |                       |
| mm         | mm            | mm     | mm  | mm  | mm  | mm   | mm   | mm   | M                             | Qty      | N·m               | kN       | N·m    | Mpa              | Mpa | kg    | kg·m <sup>2</sup>     |
| 5×16       | 18.5          | 11.7   | 1.2 | 1.8 | 2.0 | 8.0  | 13.0 | 16.0 | M3                            | 4        | 1.9               | 2.80     | 7      | 249              | 81  | 0.018 | 6.27×10 <sup>-7</sup> |
| 6×19       | 21.5          | 14.0   | 1.3 | 2.0 | 2.0 | 9.0  | 14.3 | 18.3 | M4                            | 4        | 3.9               | 4.67     | 14     | 318              | 102 | 0.026 | 1.36×10 <sup>-6</sup> |
| 6.35×20    | 22.5          | 14.35  | 1.3 | 2.0 | 2.0 | 9.0  | 14.3 | 18.3 | M4                            | 4        | 3.9               | 4.67     | 14     | 301              | 97  | 0.029 | 1.66×10 <sup>-6</sup> |
| 8×21       | 23.5          | 15.40  | 1.3 | 2.0 | 2.0 | 9.3  | 14.6 | 18.6 | M4                            | 4        | 3.9               | 5.60     | 22     | 239              | 107 | 0.035 | 2.03×10 <sup>-6</sup> |
| 10×23      | 25.5          | 17.50  | 1.3 | 2.0 | 2.0 | 9.5  | 14.8 | 18.8 | M4                            | 4        | 3.9               | 5.60     | 25     | 186              | 96  | 0.040 | 2.92×10 <sup>-6</sup> |
| 11×24      | 26.5          | 18.40  | 1.3 | 2.0 | 3.0 | 9.5  | 15.8 | 19.8 | M4                            | 4        | 3.9               | 5.60     | 30     | 170              | 92  | 0.045 | 3.45×10 <sup>-6</sup> |
| 12×26      | 28.5          | 20.20  | 1.5 | 2.5 | 3.5 | 10.5 | 18.0 | 22.0 | M4                            | 6        | 3.9               | 8.41     | 50     | 233              | 115 | 0.053 | 5.37×10 <sup>-6</sup> |
| 14×28      | 30.5          | 22.20  | 1.5 | 2.5 | 3.5 | 10.5 | 18.0 | 22.0 | M4                            | 6        | 3.9               | 9.46     | 65     | 225              | 120 | 0.061 | 7.07×10 <sup>-6</sup> |
| 15×29      | 31.5          | 23.20  | 1.5 | 2.5 | 3.5 | 11.5 | 19.0 | 23.0 | M4                            | 6        | 3.9               | 9.46     | 70     | 186              | 106 | 0.066 | 8.58×10 <sup>-6</sup> |
| 16×30      | 33.0          | 24.20  | 1.6 | 2.5 | 3.5 | 12.0 | 19.6 | 23.6 | M4                            | 6        | 3.9               | 9.46     | 75     | 166              | 98  | 0.075 | 1.02×10 <sup>-5</sup> |
| 17×31      | 33.5          | 25.20  | 1.6 | 2.5 | 3.5 | 12.5 | 20.1 | 24.1 | M4                            | 8        | 3.9               | 12.60    | 110    | 197              | 121 | 0.075 | 1.17×10 <sup>-5</sup> |
| 18×32      | 34.5          | 26.20  | 1.6 | 2.5 | 3.5 | 12.5 | 20.1 | 24.1 | M4                            | 8        | 3.9               | 12.60    | 115    | 186              | 118 | 0.080 | 1.31×10 <sup>-5</sup> |
| 19×33      | 35.5          | 27.20  | 1.6 | 2.5 | 3.5 | 12.5 | 20.1 | 24.1 | M4                            | 8        | 3.9               | 12.60    | 120    | 177              | 114 | 0.081 | 1.46×10 <sup>-5</sup> |
| 20×38      | 42.0          | 30.80  | 1.8 | 3.0 | 4.0 | 15.3 | 24.1 | 29.1 | M5                            | 8        | 8.8               | 21.60    | 220    | 234              | 139 | 0.144 | 3.70×10 <sup>-5</sup> |
| 22×40      | 44.0          | 32.80  | 1.8 | 3.0 | 4.0 | 15.3 | 24.1 | 29.1 | M5                            | 8        | 8.8               | 26.00    | 290    | 256              | 159 | 0.165 | 4.42×10 <sup>-5</sup> |
| 24×42      | 46.0          | 34.80  | 1.8 | 3.0 | 4.0 | 16.3 | 25.1 | 30.1 | M5                            | 8        | 8.8               | 26.00    | 320    | 217              | 142 | 0.180 | 5.46×10 <sup>-5</sup> |
| 25×43      | 47.0          | 35.80  | 1.8 | 3.0 | 4.0 | 17.3 | 26.1 | 31.1 | M5                            | 8        | 8.8               | 27.20    | 350    | 216              | 137 | 0.188 | 6.15×10 <sup>-5</sup> |
| 28×46      | 50.0          | 38.80  | 1.8 | 3.5 | 4.0 | 17.3 | 26.6 | 31.6 | M5                            | 10       | 8.8               | 27.00    | 380    | 192              | 127 | 0.195 | 8.15×10 <sup>-5</sup> |
| 30×48      | 52.0          | 40.80  | 1.8 | 3.5 | 4.0 | 17.3 | 26.6 | 31.6 | M5                            | 10       | 8.8               | 27.00    | 410    | 179              | 122 | 0.208 | 9.45×10 <sup>-5</sup> |
| 32×50      | 54.0          | 42.80  | 1.8 | 3.5 | 4.0 | 18.3 | 27.6 | 32.6 | M5                            | 10       | 8.8               | 27.00    | 440    | 156              | 110 | 0.219 | 1.14×10 <sup>-4</sup> |
| 35×57      | 62.0          | 48.40  | 2.0 | 4.0 | 4.5 | 19.5 | 30.0 | 36.0 | M6                            | 8        | 15.7              | 41.10    | 720    | 204              | 138 | 0.325 | 2.12×10 <sup>-4</sup> |
| 38×60      | 65.0          | 51.40  | 2.0 | 4.0 | 4.5 | 20.0 | 30.5 | 36.5 | M6                            | 10       | 15.7              | 40.20    | 770    | 178              | 125 | 0.362 | 2.62×10 <sup>-4</sup> |
| 40×62      | 67.0          | 53.40  | 2.0 | 4.0 | 4.5 | 20.5 | 31.0 | 37.0 | M6                            | 10       | 15.7              | 40.20    | 810    | 164              | 118 | 0.380 | 3.00×10 <sup>-4</sup> |
| 42×64      | 69.0          | 55.40  | 2.0 | 4.0 | 4.5 | 20.5 | 31.0 | 37.0 | M6                            | 10       | 15.7              | 40.20    | 850    | 156              | 114 | 0.405 | 3.32×10 <sup>-4</sup> |
| 45×67      | 72.0          | 58.40  | 2.0 | 4.0 | 4.5 | 21.0 | 31.5 | 37.5 | M6                            | 10       | 15.7              | 52.90    | 1,200  | 186              | 140 | 0.435 | 3.95×10 <sup>-4</sup> |
| 48×70      | 75.0          | 61.40  | 2.0 | 4.5 | 4.5 | 21.0 | 32.0 | 38.0 | M6                            | 12       | 15.7              | 48.20    | 1,200  | 159              | 123 | 0.460 | 4.75×10 <sup>-4</sup> |
| 50×72      | 77.0          | 63.40  | 2.0 | 4.5 | 4.5 | 21.5 | 32.5 | 38.5 | M6                            | 14       | 15.7              | 56.30    | 1,500  | 173              | 136 | 0.485 | 5.35×10 <sup>-4</sup> |
| 55×77      | 83.0          | 68.40  | 2.0 | 4.5 | 4.5 | 21.5 | 32.5 | 38.5 | M6                            | 14       | 15.7              | 56.30    | 1,600  | 158              | 127 | 0.520 | 6.80×10 <sup>-4</sup> |
| 60×82      | 87.0          | 73.40  | 2.0 | 5.0 | 4.5 | 22.0 | 33.5 | 39.5 | M6                            | 15       | 15.7              | 60.30    | 1,900  | 150              | 125 | 0.560 | 8.61×10 <sup>-4</sup> |
| 65×87      | 92.0          | 78.40  | 2.0 | 5.0 | 4.5 | 22.0 | 33.5 | 39.5 | M6                            | 15       | 15.7              | 60.30    | 2,000  | 139              | 118 | 0.610 | 1.05×10 <sup>-3</sup> |
| 70×97      | 103           | 86.20  | 2.0 | 5.0 | 5.1 | 24.0 | 36.1 | 44.1 | M8                            | 14       | 37.3              | 94.80    | 3,400  | 187              | 152 | 0.845 | 1.86×10 <sup>-3</sup> |
| 75×102     | 108           | 91.20  | 2.0 | 5.0 | 5.1 | 24.0 | 36.1 | 44.1 | M8                            | 15       | 37.3              | 101.50   | 3,900  | 187              | 155 | 0.932 | 2.22×10 <sup>-3</sup> |
| 80×107     | 113           | 96.20  | 2.0 | 5.0 | 5.1 | 25.0 | 37.1 | 45.1 | M8                            | 15       | 37.3              | 101.50   | 4,100  | 166              | 142 | 1.100 | 2.27×10 <sup>-3</sup> |
| 85×112     | 118           | 101.20 | 2.0 | 5.0 | 5.1 | 25.0 | 37.1 | 45.1 | M8                            | 15       | 37.3              | 101.50   | 4,400  | 157              | 135 | 1.270 | 3.10×10 <sup>-3</sup> |



Features

MAS is available for the shaft with a narrow diameter  
Type of rust protection as plated body and bolt  
Centering function is available.  
Decision on position is free.  
It has a shaft on the hub unmovable when assembled.  
Safe and precise fitting system

Specifications

Surface roughness : Rt max 16µm  
Processing tolerance(Max) : Shaft h7,  
Hub H7

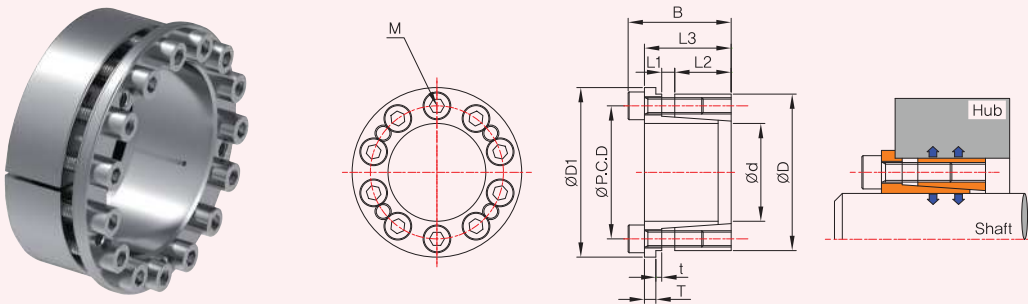
Usage

Pump, Cam, Sprocket, Pulley, etc.

Order Method  
(Order Example)

| MAS        | 25                 | 43                 |
|------------|--------------------|--------------------|
| Product NO | Inner diameter : d | Outer Diameter : D |

| MAS(d x D) | Dimension(mm) |       |     |     |     |      |      |      | Tightening screw |          |                   | Transfer |        | Surface pressure |     | Mass  | Moment of inertia       |
|------------|---------------|-------|-----|-----|-----|------|------|------|------------------|----------|-------------------|----------|--------|------------------|-----|-------|-------------------------|
|            | D1            | P.C.D | t   | T   | L1  | L2   | L3   | B    | Size             | Quantity | Tightening torque | Thrust   | Torque | Shaft            | Hub |       |                         |
| mm         | mm            | mm    | mm  | mm  | mm  | mm   | mm   | mm   | M                | Qty      | N · m             | kN       | N · m  | Mpa              | Mpa | kg    | kg · m <sup>2</sup>     |
| 5×16       | 18.5          | 11.7  | 1.2 | 1.8 | 2.0 | 8.0  | 13.0 | 16.0 | M3               | 4        | 1.9               | 2.1      | 5      | 254              | 67  | 0.018 | 6.27 × 10 <sup>-7</sup> |
| 6×19       | 21.5          | 14.0  | 1.3 | 2.0 | 2.0 | 9.0  | 14.3 | 18.3 | M4               | 4        | 3.9               | 3.5      | 10     | 323              | 84  | 0.026 | 1.36 × 10 <sup>-6</sup> |
| 6.35×20    | 22.5          | 14.35 | 1.3 | 2.0 | 2.0 | 9.0  | 14.3 | 18.3 | M4               | 4        | 3.9               | 3.5      | 10     | 307              | 79  | 0.029 | 1.66 × 10 <sup>-6</sup> |
| 8×21       | 23.5          | 15.40 | 1.3 | 2.0 | 2.0 | 9.3  | 14.6 | 18.6 | M4               | 4        | 3.9               | 4.1      | 17     | 244              | 92  | 0.035 | 2.03 × 10 <sup>-6</sup> |
| 10×23      | 25.5          | 17.50 | 1.3 | 2.0 | 2.0 | 9.5  | 14.8 | 18.8 | M4               | 4        | 3.9               | 3.9      | 20     | 192              | 77  | 0.040 | 2.92 × 10 <sup>-6</sup> |
| 11×24      | 26.5          | 18.40 | 1.3 | 2.0 | 3.0 | 9.5  | 15.8 | 19.8 | M4               | 4        | 3.9               | 4.0      | 23     | 174              | 73  | 0.045 | 3.45 × 10 <sup>-6</sup> |
| 12×26      | 28.5          | 20.20 | 1.5 | 2.5 | 3.5 | 10.5 | 18.0 | 22.0 | M4               | 6        | 3.9               | 5.9      | 37     | 239              | 91  | 0.053 | 5.37 × 10 <sup>-6</sup> |
| 14×28      | 30.5          | 22.20 | 1.5 | 2.5 | 3.5 | 10.5 | 18.0 | 22.0 | M4               | 6        | 3.9               | 7.2      | 51     | 204              | 84  | 0.061 | 7.07 × 10 <sup>-6</sup> |
| 15×29      | 31.5          | 23.20 | 1.5 | 2.5 | 3.5 | 11.5 | 19.0 | 23.0 | M4               | 6        | 3.9               | 7.2      | 55     | 205              | 90  | 0.066 | 8.58 × 10 <sup>-6</sup> |
| 16×30      | 33.0          | 24.20 | 1.6 | 2.5 | 3.5 | 12.0 | 19.6 | 23.6 | M4               | 6        | 3.9               | 7.3      | 59     | 193              | 87  | 0.075 | 1.02 × 10 <sup>-5</sup> |
| 17×31      | 33.5          | 25.20 | 1.6 | 2.5 | 3.5 | 12.5 | 20.1 | 24.1 | M4               | 8        | 3.9               | 8.9      | 77     | 205              | 97  | 0.075 | 1.17 × 10 <sup>-5</sup> |
| 18×32      | 34.5          | 26.20 | 1.6 | 2.5 | 3.5 | 12.5 | 20.1 | 24.1 | M4               | 8        | 3.9               | 8.9      | 81     | 166              | 93  | 0.080 | 1.31 × 10 <sup>-5</sup> |
| 19×33      | 35.5          | 27.20 | 1.6 | 2.5 | 3.5 | 12.5 | 20.1 | 24.1 | M4               | 8        | 3.9               | 8.9      | 86     | 184              | 91  | 0.081 | 1.46 × 10 <sup>-5</sup> |
| 20×38      | 42.0          | 30.80 | 1.8 | 3.0 | 4.0 | 15.3 | 24.1 | 29.1 | M5               | 8        | 8.8               | 18.3     | 183    | 213              | 97  | 0.144 | 3.70 × 10 <sup>-5</sup> |
| 22×40      | 44.0          | 32.80 | 1.8 | 3.0 | 4.0 | 15.3 | 24.1 | 29.1 | M5               | 8        | 8.8               | 18.3     | 201    | 193              | 92  | 0.165 | 4.42 × 10 <sup>-5</sup> |
| 24×42      | 46.0          | 34.80 | 1.8 | 3.0 | 4.0 | 16.3 | 25.1 | 30.1 | M5               | 8        | 8.8               | 21.0     | 252    | 121              | 105 | 0.180 | 5.46 × 10 <sup>-5</sup> |
| 25×43      | 47.0          | 35.80 | 1.8 | 3.0 | 4.0 | 17.3 | 26.1 | 31.1 | M5               | 8        | 8.8               | 21.1     | 264    | 212              | 102 | 0.188 | 6.15 × 10 <sup>-5</sup> |
| 28×46      | 50.0          | 38.80 | 1.8 | 3.5 | 4.0 | 17.3 | 26.6 | 31.6 | M5               | 10       | 8.8               | 21.1     | 295    | 212              | 107 | 0.195 | 8.15 × 10 <sup>-5</sup> |
| 30×48      | 52.0          | 40.80 | 1.8 | 3.5 | 4.0 | 17.3 | 26.6 | 31.6 | M5               | 10       | 8.8               | 26.4     | 396    | 198              | 102 | 0.208 | 9.45 × 10 <sup>-5</sup> |
| 32×50      | 54.0          | 42.80 | 1.8 | 3.5 | 4.0 | 18.3 | 27.6 | 32.6 | M5               | 10       | 8.8               | 26.4     | 423    | 192              | 103 | 0.219 | 1.14 × 10 <sup>-4</sup> |
| 35×57      | 62.0          | 48.40 | 2.0 | 4.0 | 4.5 | 19.5 | 30.0 | 36.0 | M6               | 8        | 15.7              | 31.3     | 548    | 207              | 105 | 0.325 | 2.12 × 10 <sup>-4</sup> |
| 38×60      | 65.0          | 51.40 | 2.0 | 4.0 | 4.5 | 20.0 | 30.5 | 36.5 | M6               | 10       | 15.7              | 39.0     | 741    | 208              | 110 | 0.362 | 2.62 × 10 <sup>-4</sup> |
| 40×62      | 67.0          | 53.40 | 2.0 | 4.0 | 4.5 | 20.5 | 31.0 | 37.0 | M6               | 10       | 15.7              | 39.0     | 779    | 202              | 110 | 0.380 | 3.00 × 10 <sup>-4</sup> |
| 42×64      | 69.0          | 55.40 | 2.0 | 4.0 | 4.5 | 20.5 | 31.0 | 37.0 | M6               | 10       | 15.7              | 39.2     | 823    | 192              | 106 | 0.405 | 3.32 × 10 <sup>-4</sup> |
| 45×67      | 72.0          | 58.40 | 2.0 | 4.0 | 4.5 | 21.0 | 31.5 | 37.5 | M6               | 10       | 15.7              | 39.2     | 882    | 184              | 104 | 0.435 | 3.95 × 10 <sup>-4</sup> |
| 48×70      | 75.0          | 61.40 | 2.0 | 4.5 | 4.5 | 21.0 | 32.0 | 38.0 | M6               | 12       | 15.7              | 46.5     | 1,117  | 206              | 118 | 0.460 | 4.75 × 10 <sup>-4</sup> |
| 50×72      | 77.0          | 63.40 | 2.0 | 4.5 | 4.5 | 21.5 | 32.5 | 38.5 | M6               | 14       | 15.7              | 54.4     | 1,362  | 202              | 119 | 0.485 | 5.35 × 10 <sup>-4</sup> |



Features

The standard models from Ø5 to Ø50.  
All stainless for clean room and vacuum environment.  
Prevent the off centering of outer ring by centering function.  
Self-locking function by narrow slope design  
It has a hub stationary on the axis when assembled

Specifications

Surface roughness : Rt max 16µm  
Processing tolerance(Max) : Shaft h7,  
Hub H7

Usage

Pump, Cam, Sprocket, Pulley, etc.

Order Method  
(Order Example)

| MASUS      | 25                 | 43                 |
|------------|--------------------|--------------------|
| Product NO | Inner diameter : d | Outer Diameter : D |

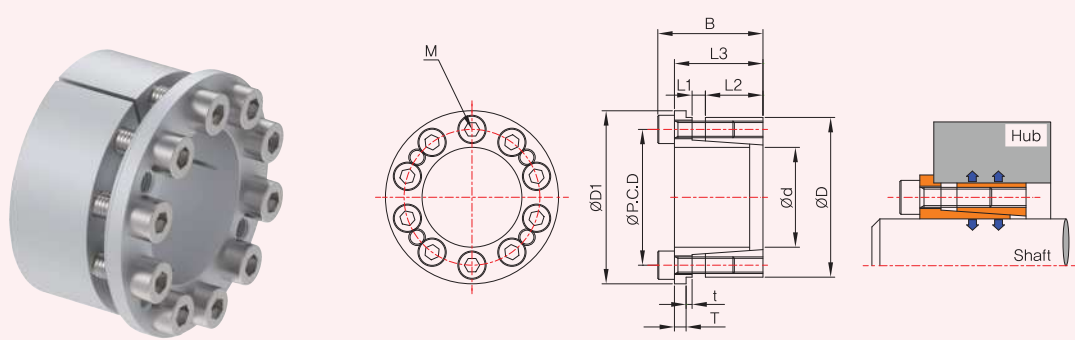
| MASUS(d x D) | Dimension(mm) |       |     |     |     |      |      |      | Tightening screw(DIN912/12.9) |          |                   | Transfer |        | Surface pressure |      | Mass  | Moment of inertia       |
|--------------|---------------|-------|-----|-----|-----|------|------|------|-------------------------------|----------|-------------------|----------|--------|------------------|------|-------|-------------------------|
|              | D1            | P.C.D | t   | T   | L1  | L2   | L3   | B    | Size                          | Quantity | Tightening torque | Thrust   | Torque | Shaft            | Hub  |       |                         |
| mm           | mm            | mm    | mm  | mm  | mm  | mm   | mm   | mm   | M                             | Qty      | N · m             | kN       | N · m  | Mpa              | Mpa  | kg    | kg · m <sup>2</sup>     |
| 5×16         | 18.5          | 11.7  | 1.2 | 1.8 | 2.0 | 8.0  | 13.0 | 16.0 | M3×10                         | 4        | 0.9               | 1.2      | 2.8    | 204              | 42   | 0.018 | 6.27 × 10 <sup>-7</sup> |
| 6×19         | 21.5          | 14.0  | 1.3 | 2.0 | 2.0 | 9.0  | 14.3 | 18.3 | M4×12                         | 4        | 2.7               | 2.6      | 7.8    | 260              | 58   | 0.026 | 1.36 × 10 <sup>-6</sup> |
| 6.35×20      | 22.5          | 14.35 | 1.3 | 2.0 | 2.0 | 9.0  | 14.3 | 18.3 | M4×12                         | 4        | 2.7               | 2.6      | 7.8    | 240              | 53   | 0.029 | 1.66 × 10 <sup>-6</sup> |
| 8×21         | 23.5          | 15.40 | 1.3 | 2.0 | 2.0 | 9.3  | 14.6 | 18.6 | M4×12                         | 4        | 2.7               | 2.7      | 10.7   | 196              | 62.6 | 0.035 | 2.03 × 10 <sup>-6</sup> |
| 10×23        | 25.5          | 17.50 | 1.3 | 2.0 | 2.0 | 9.5  | 14.8 | 18.8 | M4×12                         | 4        | 2.7               | 2.6      | 12.7   | 153              | 55.9 | 0.040 | 2.92 × 10 <sup>-6</sup> |
| 11×24        | 26.5          | 18.40 | 1.3 | 2.0 | 3.0 | 9.5  | 15.8 | 19.8 | M4×12                         | 4        | 2.7               | 2.7      | 14.7   | 139              | 53.6 | 0.045 | 3.45 × 10 <sup>-6</sup> |
| 12×26        | 28.5          | 20.20 | 1.5 | 2.5 | 3.5 | 10.5 | 18.0 | 22.0 | M4×15                         | 6        | 2.7               | 4        | 24.5   | 191              | 67.1 | 0.053 | 5.37 × 10 <sup>-6</sup> |
| 14×28        | 30.5          | 22.20 | 1.5 | 2.5 | 3.5 | 10.5 | 18.0 | 22.0 | M4×15                         | 6        | 2.7               | 4        | 28.4   | 164              | 62.3 | 0.061 | 7.07 × 10 <sup>-6</sup> |
| 15×29        | 31.5          | 23.20 | 1.5 | 2.5 | 3.5 | 11.5 | 19.0 | 23.0 | M4×15                         | 6        | 2.7               | 4        | 30.4   | 136              | 55.0 | 0.066 | 8.58 × 10 <sup>-6</sup> |
| 16×30        | 33.0          | 24.20 | 1.6 | 2.5 | 3.5 | 12.0 | 19.6 | 23.6 | M4×15                         | 6        | 2.7               | 4        | 32.3   | 121              | 50.9 | 0.075 | 1.02 × 10 <sup>-5</sup> |
| 17×31        | 33.5          | 25.20 | 1.6 | 2.5 | 3.5 | 12.5 | 20.1 | 24.1 | M4×15                         | 8        | 2.7               | 5.4      | 46.1   | 144              | 63.1 | 0.075 | 1.17 × 10 <sup>-5</sup> |
| 18×32        | 34.5          | 26.20 | 1.6 | 2.5 | 3.5 | 12.5 | 20.1 | 24.1 | M4×15                         | 8        | 2.7               | 5.4      | 49     | 136              | 61.2 | 0.080 | 1.31 × 10 <sup>-5</sup> |
| 19×33        | 35.5          | 27.20 | 1.6 | 2.5 | 3.5 | 12.5 | 20.1 | 24.1 | M4×15                         | 8        | 2.7               | 5.4      | 51.9   | 129              | 59.2 | 0.081 | 1.46 × 10 <sup>-5</sup> |
| 20×38        | 42.0          | 30.80 | 1.8 | 3.0 | 4.0 | 15.3 | 24.1 | 29.1 | M5×18                         | 8        | 5.6               | 12.2     | 121.6  | 165              | 69.8 | 0.144 | 3.70 × 10 <sup>-5</sup> |
| 22×40        | 44.0          | 32.80 | 1.8 | 3.0 | 4.0 | 15.3 | 24.1 | 29.1 | M5×18                         | 8        | 5.6               | 12.1     | 133.4  | 150              | 66.3 | 0.165 | 4.42 × 10 <sup>-5</sup> |
| 24×42        | 46.0          | 34.80 | 1.8 | 3.0 | 4.0 | 16.3 | 25.1 | 30.1 | M5×18                         | 8        | 5.6               | 12.2     | 146.1  | 128              | 59.2 | 0.180 | 5.46 × 10 <sup>-5</sup> |
| 25×43        | 47.0          | 35.80 | 1.8 | 3.0 | 4.0 | 17.3 | 26.1 | 31.1 | M5×18                         | 8        | 5.6               | 12.2     | 153    | 122              | 54.5 | 0.188 | 6.15 × 10 <sup>-5</sup> |
| 28×46        | 50.0          | 38.80 | 1.8 | 3.5 | 4.0 | 17.3 | 26.6 | 31.6 | M5×18                         | 10       | 5.6               | 15.2     | 213.8  | 136              | 63.7 | 0.195 | 8.15 × 10 <sup>-5</sup> |
| 30×48        | 52.0          | 40.80 | 1.8 | 3.5 | 4.0 | 17.3 | 26.6 | 31.6 | M5×18                         | 10       | 5.6               | 15.3     | 229.5  | 127              | 61.1 | 0.208 | 9.45 × 10 <sup>-5</sup> |
| 32×50        | 54.0          | 42.80 | 1.8 | 3.5 | 4.0 | 18.3 | 27.6 | 32.6 | M5×18                         | 10       | 5.6               | 15.2     | 244.2  | 110              | 55.4 | 0.219 | 1.14 × 10 <sup>-4</sup> |
| 35×57        | 62.0          | 48.40 | 2.0 | 4.0 | 4.5 | 19.5 | 30.0 | 36.0 | M6×20                         | 8        | 9.6               | 17.2     | 301.1  | 107              | 51.4 | 0.325 | 2.12 × 10 <sup>-4</sup> |
| 38×60        | 65.0          | 51.40 | 2.0 | 4.0 | 4.5 | 20.0 | 30.5 | 36.5 | M6×20                         | 10       | 9.6               | 21.5     | 409    | 119              | 59.5 | 0.362 | 2.62 × 10 <sup>-4</sup> |
| 40×62        | 67.0          | 53.40 | 2.0 | 4.0 | 4.5 | 20.5 | 31.0 | 37.0 | M6×20                         | 10       | 9.6               | 21.5     | 430.6  | 110              | 56.2 | 0.380 | 3.00 × 10 <sup>-4</sup> |
| 42×64        | 69.0          | 55.40 | 2.0 | 4.0 | 4.5 | 20.5 | 31.0 | 37.0 | M6×20                         | 10       | 9.6               | 21.5     | 452.2  | 105              | 54.4 | 0.405 | 3.32 × 10 <sup>-4</sup> |
| 45×67        | 72.0          | 58.40 | 2.0 | 4.0 | 4.5 | 21.0 | 31.5 | 37.5 | M6×20                         | 10       | 9.6               | 21.5     | 484.6  | 95               | 50.8 | 0.435 | 3.95 × 10 <sup>-4</sup> |
| 48×70        | 75.0          | 61.40 | 2.0 | 4.5 | 4.5 | 21.0 | 32.0 | 38.0 | M6×20                         | 12       | 9.6               | 25.8     | 620.9  | 107              | 58.4 | 0.460 | 4.75 × 10 <sup>-4</sup> |
| 50×72        | 77.0          | 63.40 | 2.0 | 4.5 | 4.5 | 21.5 | 32.5 | 38.5 | M6×20                         | 14       | 9.6               | 30.1     | 754.3  | 116              | 64.6 | 0.485 | 5.35 × 10 <sup>-4</sup> |



DRAP (Aluminum)

DRMC (Aluminum)

LOCKING ELEMENT



Features

DRAP is available for the shaft with a narrow diameter  
Material is aluminum  
High-speed use as low inertia  
It has a shaft on the hub unmovable when assembled.  
Centering function is available.  
It has a small bearing pressure, but a large transmission.

Specifications

Surface roughness : Rt max 16μm  
Processing tolerance(Max) : Shaft h7,  
Hub H7

Usage

Aluminum pulley, aluminum timing belt, resins gear, etc

Order Method  
(Order Example)

| DRAP       | 25                 | 43                 |
|------------|--------------------|--------------------|
| Product NO | Inner diameter : d | Outer Diameter : D |

| DRAP(d x D) | Dimension(mm) |       |     |     |     |      |      |      | Tightening screw |          |                   | Transfer |        | Surface pressure |     | Mass  | Moment of inertia     |
|-------------|---------------|-------|-----|-----|-----|------|------|------|------------------|----------|-------------------|----------|--------|------------------|-----|-------|-----------------------|
|             | D1            | P.C.D | t   | T   | L1  | L2   | L3   | B    | Size             | Quantity | Tightening torque | Thrust   | Torque | Shaft            | Hub | kg    | kg·m <sup>2</sup>     |
| mm          | mm            | mm    | mm  | mm  | mm  | mm   | mm   | mm   | M                | Qty      | N·m               | kN       | N·m    | Mpa              | Mpa | kg    | kg·m <sup>2</sup>     |
| 5×16        | 18.5          | 11.7  | 1.2 | 1.8 | 2.0 | 8.0  | 13.0 | 16.0 | M3               | 4        | 1.9               | 2.1      | 5      | 210              | 58  | 0.007 | 2.63×10 <sup>-7</sup> |
| 6×19        | 21.5          | 14    | 1.3 | 2.0 | 2.0 | 9.0  | 14.3 | 18.3 | M4               | 4        | 3.9               | 3.5      | 10     | 275              | 77  | 0.010 | 6.13×10 <sup>-7</sup> |
| 6.35×20     | 22.5          | 14.35 | 1.3 | 2.0 | 2.0 | 9.0  | 14.3 | 18.3 | M4               | 4        | 3.9               | 3.5      | 10     | 260              | 73  | 0.011 | 6.16×10 <sup>-7</sup> |
| 8×21        | 23.5          | 15.4  | 1.3 | 2.0 | 2.0 | 9.3  | 14.6 | 18.6 | M4               | 4        | 3.9               | 4.1      | 17     | 213              | 72  | 0.013 | 8.74×10 <sup>-7</sup> |
| 10×23       | 25.5          | 17.5  | 1.3 | 2.0 | 2.0 | 9.5  | 14.8 | 18.8 | M4               | 4        | 3.9               | 3.9      | 20     | 166              | 65  | 0.015 | 1.23×10 <sup>-6</sup> |
| 11×24       | 26.5          | 18.4  | 1.3 | 2.0 | 3.0 | 9.5  | 15.8 | 19.8 | M4               | 4        | 3.9               | 4.0      | 23     | 151              | 62  | 0.017 | 1.44×10 <sup>-6</sup> |
| 12×26       | 28.5          | 20.2  | 1.5 | 2.5 | 3.5 | 10.5 | 18.0 | 22.0 | M4               | 6        | 3.9               | 5.9      | 37     | 186              | 78  | 0.020 | 2.38×10 <sup>-6</sup> |
| 14×28       | 30.5          | 22.2  | 1.5 | 2.5 | 3.5 | 10.5 | 18.0 | 22.0 | M4               | 6        | 3.9               | 7.2      | 51     | 159              | 72  | 0.023 | 3.08×10 <sup>-6</sup> |
| 15×29       | 31.5          | 23.2  | 1.5 | 2.5 | 3.5 | 11.5 | 19.0 | 23.0 | M4               | 6        | 3.9               | 7.2      | 55     | 135              | 64  | 0.025 | 3.66×10 <sup>-6</sup> |
| 16×30       | 33.0          | 24.2  | 1.6 | 2.5 | 3.5 | 12.0 | 19.6 | 23.6 | M4               | 6        | 3.9               | 7.3      | 59     | 120              | 59  | 0.028 | 4.28×10 <sup>-6</sup> |
| 17×31       | 33.5          | 25.2  | 1.6 | 2.5 | 3.5 | 12.5 | 20.1 | 24.1 | M4               | 8        | 3.9               | 8.9      | 77     | 145              | 73  | 0.028 | 5.13×10 <sup>-6</sup> |
| 18×32       | 34.5          | 26.2  | 1.6 | 2.5 | 3.5 | 12.5 | 20.1 | 24.1 | M4               | 8        | 3.9               | 8.9      | 81     | 136              | 71  | 0.030 | 5.71×10 <sup>-6</sup> |
| 19×33       | 35.5          | 27.2  | 1.6 | 2.5 | 3.5 | 12.5 | 20.1 | 24.1 | M4               | 8        | 3.9               | 8.9      | 86     | 129              | 68  | 0.031 | 7.20×10 <sup>-6</sup> |
| 20×38       | 42.0          | 30.8  | 1.8 | 3.0 | 4.0 | 15.3 | 24.1 | 29.1 | M5               | 8        | 8.8               | 18.3     | 183    | 194              | 95  | 0.053 | 1.55×10 <sup>-5</sup> |
| 22×40       | 44.0          | 32.8  | 1.8 | 3.0 | 4.0 | 15.3 | 24.1 | 29.1 | M5               | 8        | 8.8               | 18.3     | 201    | 179              | 92  | 0.060 | 1.84×10 <sup>-5</sup> |
| 24×42       | 46.0          | 34.8  | 1.8 | 3.0 | 4.0 | 16.3 | 25.1 | 30.1 | M5               | 8        | 8.8               | 21.0     | 252    | 155              | 83  | 0.065 | 2.23×10 <sup>-5</sup> |
| 25×43       | 47.0          | 35.8  | 1.8 | 3.0 | 4.0 | 17.3 | 26.1 | 31.1 | M5               | 8        | 8.8               | 21.1     | 264    | 136              | 74  | 0.068 | 2.49×10 <sup>-5</sup> |
| 28×46       | 50.0          | 38.8  | 1.8 | 3.5 | 4.0 | 17.3 | 26.6 | 31.6 | M5               | 10       | 8.8               | 21.1     | 295    | 152              | 87  | 0.071 | 3.36×10 <sup>-5</sup> |
| 30×48       | 52.0          | 40.8  | 1.8 | 3.5 | 4.0 | 17.3 | 26.6 | 31.6 | M5               | 10       | 8.8               | 26.4     | 396    | 142              | 83  | 0.076 | 3.86×10 <sup>-5</sup> |
| 32×50       | 54.0          | 42.8  | 1.8 | 3.5 | 4.0 | 18.3 | 27.6 | 32.6 | M5               | 10       | 8.8               | 26.4     | 423    | 125              | 76  | 0.080 | 4.60×10 <sup>-5</sup> |
| 35×57       | 62.0          | 48.4  | 2.0 | 4.0 | 4.5 | 19.5 | 30.0 | 36.0 | M6               | 8        | 15.7              | 31.3     | 548    | 136              | 79  | 0.117 | 8.46×10 <sup>-5</sup> |

Features

DRMC is available for the shaft with a narrow diameter  
Material is aluminum  
High-speed use as low inertia  
Decision on position is free.  
It has a shaft on the hub unmovable when assembled.  
As fewer bolts, desorption time is shortened.  
Bearing pressure plate is designed on the body  
The surface pressure is small, but it has a large transfer force.  
Centering function is available.

Specifications

Surface roughness : Rt max 16μm  
Processing tolerance(Max) : Shaft h7,  
Hub H7

Usage

Aluminum pulley, aluminum timing belt, resins gear, etc

Cautions

If the bearing needs initial clamping force, another tool is required.

Order Method  
(Order Example)

| DRMC       | 25                 | 42                 |
|------------|--------------------|--------------------|
| Product NO | Inner diameter : d | Outer Diameter : D |

| DRMC(d x D) | Dimension(mm) |      |       |      |      |    |      | Tightening screw |          |                   | Transfer |        | Surface pressure |     | Mass  | Moment of inertia     |
|-------------|---------------|------|-------|------|------|----|------|------------------|----------|-------------------|----------|--------|------------------|-----|-------|-----------------------|
|             | d1            | d2   | P.C.D | L1   | L2   | L3 | B    | Size             | Quantity | Tightening torque | Thrust   | Torque | Shaft            | Hub | kg    | kg·m <sup>2</sup>     |
| mm          | mm            | mm   | mm    | mm   | mm   | mm | mm   | M                | Qty      | N·m               | kN       | N·m    | Mpa              | Mpa | kg    | kg·m <sup>2</sup>     |
| 4×15        | 6.5           | 17.5 | 10.1  | 6.5  | 9    | 13 | 15.5 | M2.5×12          | 4        | 0.9               | 1.00     | 2.0    | 151              | 37  | 0.006 | 1.99×10 <sup>-7</sup> |
| 4.5×16      | 7.5           | 19   | 11.1  | 6.5  | 9    | 13 | 15.5 | M2.5×12          | 4        | 0.9               | 1.00     | 2.2    | 134              | 35  | 0.006 | 1.99×10 <sup>-7</sup> |
| 5×16        | 7.5           | 19   | 11.1  | 6.5  | 9    | 13 | 15.5 | M2.5×12          | 4        | 0.9               | 1.00     | 2.5    | 121              | 35  | 0.007 | 2.65×10 <sup>-7</sup> |
| 6×17        | 8.5           | 20   | 12.1  | 6.5  | 9    | 13 | 15.5 | M2.5×12          | 4        | 0.9               | 1.33     | 4.0    | 151              | 49  | 0.008 | 3.31×10 <sup>-7</sup> |
| 8×19        | 11            | 22   | 14.1  | 7.5  | 10   | 15 | 17.5 | M2.5×14          | 4        | 0.9               | 1.51     | 6.0    | 129              | 51  | 0.011 | 5.95×10 <sup>-7</sup> |
| 10×21       | 13            | 24   | 16.1  | 7.5  | 10   | 15 | 17.5 | M2.5×14          | 4        | 0.9               | 1.63     | 8      | 104              | 46  | 0.012 | 8.52×10 <sup>-7</sup> |
| 11×22       | 14            | 25   | 17.1  | 8    | 11   | 17 | 19.5 | M2.5×14          | 4        | 0.9               | 1.66     | 9      | 88               | 41  | 0.014 | 1.08×10 <sup>-6</sup> |
| 12×24       | 15            | 27   | 19.2  | 9    | 12   | 18 | 20.5 | M2.5×15          | 5        | 0.9               | 1.99     | 12     | 89               | 42  | 0.017 | 1.62×10 <sup>-6</sup> |
| 14×26       | 17            | 29   | 21.2  | 9    | 12   | 18 | 20.5 | M2.5×15          | 6        | 0.9               | 2.56     | 18     | 91               | 47  | 0.019 | 2.16×10 <sup>-6</sup> |
| 15×28       | 18.5          | 31   | 22.2  | 9.5  | 13   | 20 | 23   | M3×18            | 4        | 1.5               | 3.34     | 25     | 79               | 38  | 0.024 | 3.18×10 <sup>-6</sup> |
| 16×29       | 19.5          | 32   | 23.2  | 9.5  | 13   | 20 | 23   | M3×18            | 4        | 1.5               | 3.34     | 26     | 74               | 37  | 0.025 | 3.50×10 <sup>-6</sup> |
| 17×30       | 20.5          | 33   | 24    | 10   | 14   | 21 | 24   | M3×18            | 4        | 1.5               | 3.18     | 27     | 66               | 34  | 0.028 | 4.23×10 <sup>-6</sup> |
| 18×31       | 21.5          | 34   | 25    | 10   | 14   | 21 | 24   | M3×18            | 5        | 1.5               | 3.23     | 29     | 78               | 41  | 0.029 | 4.75×10 <sup>-6</sup> |
| 19×32       | 22.5          | 35   | 26    | 10   | 14   | 21 | 24   | M3×18            | 5        | 1.5               | 3.50     | 33     | 74               | 40  | 0.030 | 5.32×10 <sup>-6</sup> |
| 20×37       | 24            | 40   | 29.4  | 12   | 16   | 24 | 28   | M4×20            | 4        | 3.5               | 5.47     | 54     | 92               | 46  | 0.047 | 1.06×10 <sup>-5</sup> |
| 22×39       | 26            | 42   | 31.4  | 12   | 16   | 24 | 28   | M4×20            | 4        | 3.5               | 5.94     | 65     | 83               | 43  | 0.052 | 1.33×10 <sup>-5</sup> |
| 24×41       | 28            | 45   | 33.3  | 13   | 18   | 26 | 30   | M4×22            | 5        | 3.5               | 7.07     | 85     | 84               | 46  | 0.057 | 1.67×10 <sup>-5</sup> |
| 25×42       | 29            | 46   | 34.3  | 13.5 | 19   | 28 | 32   | M4×22            | 6        | 3.5               | 8.77     | 110    | 97               | 53  | 0.067 | 2.08×10 <sup>-5</sup> |
| 28×45       | 32            | 49   | 37.3  | 13.5 | 19   | 28 | 32   | M4×22            | 7        | 3.5               | 8.91     | 125    | 101              | 57  | 0.073 | 2.65×10 <sup>-5</sup> |
| 30×50       | 34.5          | 55   | 40.8  | 14.5 | 20   | 30 | 35   | M5×25            | 5        | 7.0               | 12.08    | 180    | 99               | 56  | 0.101 | 4.46×10 <sup>-5</sup> |
| 32×53       | 36.5          | 58   | 43.3  | 14.5 | 20   | 30 | 35   | M5×25            | 6        | 7.0               | 13.13    | 210    | 104              | 59  | 0.112 | 5.55×10 <sup>-5</sup> |
| 35×56       | 40            | 62   | 46.4  | 16   | 22.5 | 33 | 38   | M5×28            | 6        | 7.0               | 13.13    | 230    | 92               | 54  | 0.134 | 7.61×10 <sup>-5</sup> |

LOCKING ELEMENT

# LOCKNUT



Locknut of DURIMITEC is used to fix mechanical parts such as bearings to the rotating body. The thread rating and the perpendicularity of the bearing cross-section are important for proper securing and should not be loosened.

Our Locknuts are produced in compliance with ISO standards, and excellent in screw accuracy and perpendicularity.

They range from general nuts to vibration-resistant locknuts with anti-loosening functions. In addition, our products have confirmed the accuracy of the locknuts to maintain strict quality control.



LOCKNUT Technical data

Features

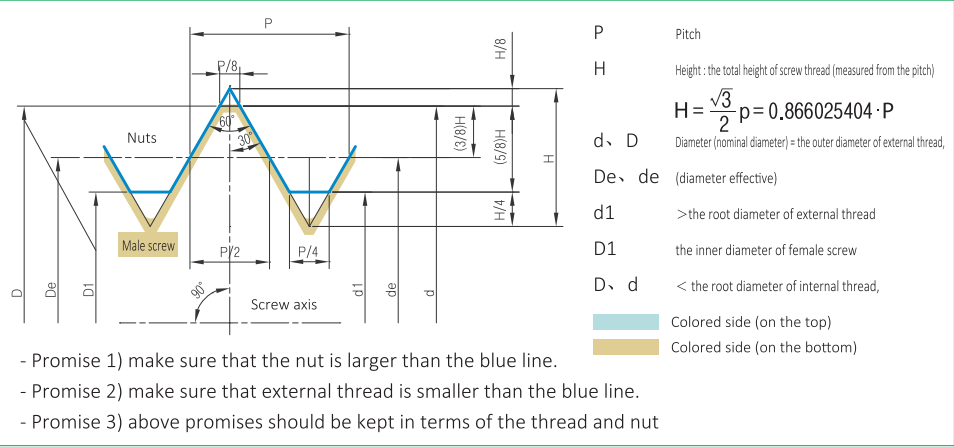
It can be used to clamp the main axis for the machine tool, and the ball screw support bearing for high precision, compatible with other common nuts.  
Our product can be safely used against green procurements such as RoHS and JIG24, which have fully met the standard. Also, Lock Nut can be produced in the process of checking precision on each product for improved quality control.  
Loose stopping nut(KAN) has a high precision and a good vibration proof.

Specifications

- Material : brass pin : C3604(environmentally supplied), - Main body : S45C, - Set screw : SCM435
- Hardness : HRC 22~28, - Surface process : black oxide coating, - Thread Accuracy : ISO 4H
- perpendicularity: 0.002~0.007mm
- ※ Any product has no set screw with it.

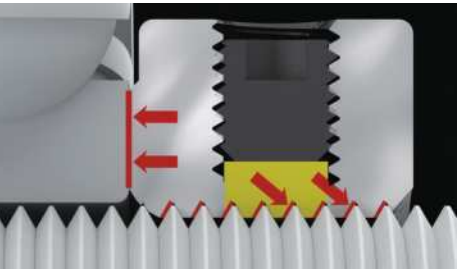
ISO standard

Duri Locknut has been produced according to the ISO standard.  
The shape, dimensions and shape of the threads are automatically determined by the pitch of the screw, not by the nominal diameter.

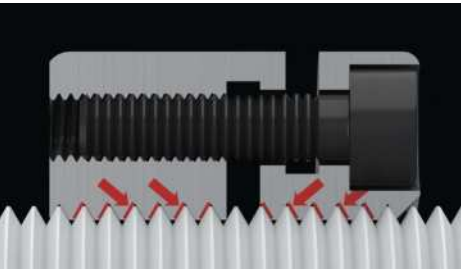


Usage

Type of Nut can be selected according to where it is used, how it is and what is surrounded.  
※ part is action part of friction against loosening



▲ KZM nut etc.  
A large thrust load can be given.  
Balancing is outstanding.



▲ KAN nut etc.  
Neutral fixing is possible with high vibration proof.  
Balancing is outstanding.

About self-locking effect

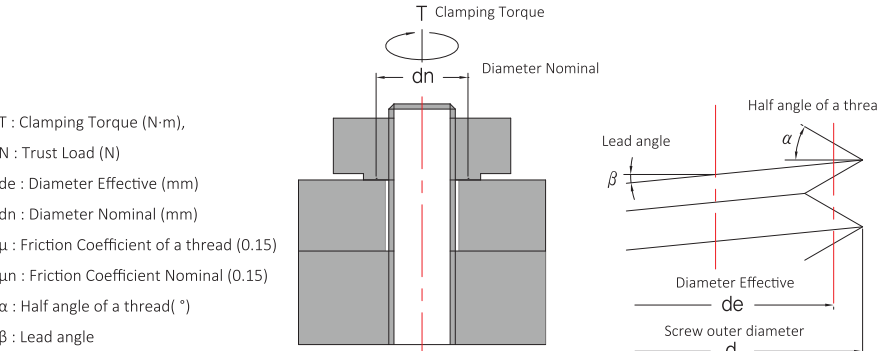
Once the nut is clamped, the material tends to break down. This leads to the loss of its elasticity, or the slits caused by mechanical vibrations result in both weak tension and friction. That's how the loose stopper happens. It's important that the tension is always made to work on the thread for the screw to be tightened.

LOCKNUT Technical data

How to calculate clamping torque and thrust load

The following expression can be applied to calculate the clamping torque and thrust load for the screw

$$T = N \left\{ \frac{de}{2} \left( \frac{\mu}{\cos \alpha} + \tan \beta \right) + \mu n \cdot \frac{dn}{2} \right\} \cdot 10^{-3} \text{ [N} \cdot \text{m]}$$



What makes clamping force in fixing precision bearings

Clamp a spacer or the minimum bearing area on the inner race with the axial force which can generate an internal force of 10~15MPa.  
Clamping force = the minimum area x 10~15MPa  
Note : When the heat shrink fitting is applied, the product can be clamped with a force of 20MP, kept cool at room temperature and then clamped again with the standard torque after being loosened.

About functions of Set Screw

The Screw can adjust any angularity on the section.  
The loose stopping lock of a set screw can work only when it is clamped, and once the machine starts, take care to keep it working.

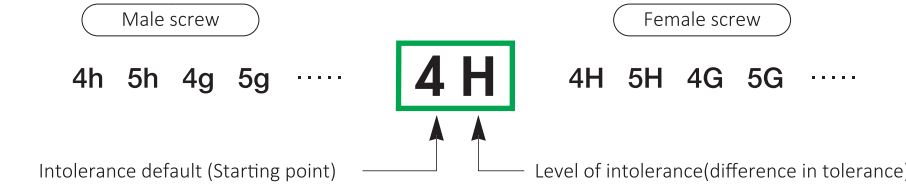
It cannot be replaced with any gauge

Duri Lock Nut has a high precision in designing, but cannot be replaced with any gauge due to its low rigidity and a large wear on the nut. Several replacements may result in a deviation in the diameter effective from the standard.

About Precision Level

The level describes "any slit" between an external thread and a nut, as well as the shape and dimensions. The combined thread with narrow slits in it can have a good level in the precision. A good example includes a combination of external thread 5g and nut 5H, external 4h and Nut 4H.  
Note: combination of 4h and 4H has the smallest slit (or the highest precision level)

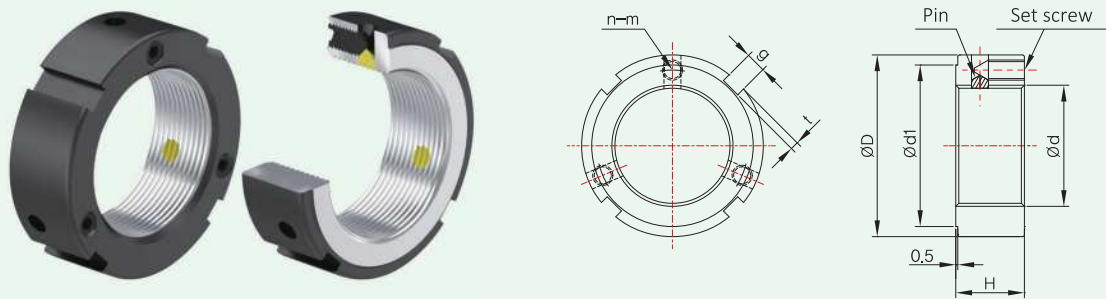
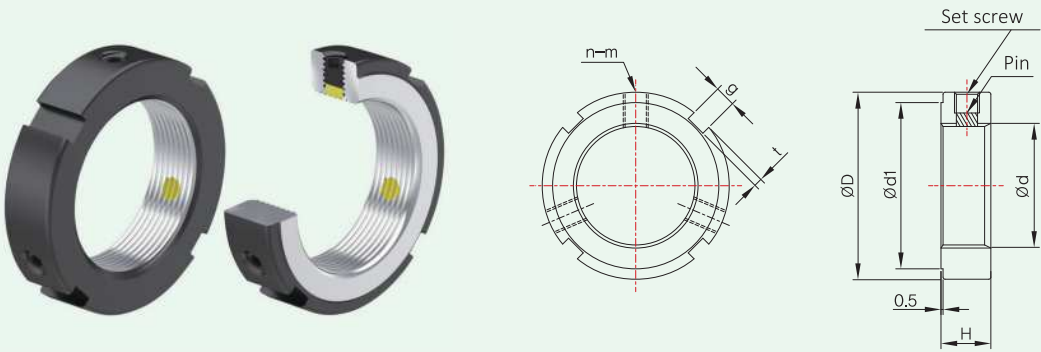
How to refer to the Level



|                     |                                               |                    |                                         |
|---------------------|-----------------------------------------------|--------------------|-----------------------------------------|
| Effective diameter  | If the slit is 0 <<< If there are slits found | Range of tolerance | If they are small <<< If they are large |
| Grade of Male screw | h · · · · · g                                 | Figures            | 4 · · · 5 · · · 6                       |
| Grade of Nut        | H · · · · · G                                 |                    |                                         |

※ A sampling confirmation has been conducted in terms of the level of pitch.  
(Referred to as the deviation precision for each thread)





Usage

- Main Axis of a machine tool, Ball Screw Support  
Bearing Precise spindle, Precise test machine

Specifications

- Material : S45C
- Hardness : HRC 22 - 28
- Surface treatment: Black phosphated coating
- Thread Accuracy : ISO4H
- Perpendicularity : 0.002 ~ 0.007

Order Method  
(Order Example)

| KZM        | 30 | 1.5   |
|------------|----|-------|
| Product NO | d  | Pitch |

Features

- Set screw can be fitted at the shaft direction.

Specifications

- Material : S45C
- Hardness : HRC 22 - 28
- Surface treatment: Black phosphated coating
- Thread Accuracy : ISO4H
- Perpendicularity : 0.002 ~ 0.007

Usage

- Main Axis of a machine tool, Ball Screw Support  
Bearing Precise spindle, Precise test machine

Order Method  
(Order Example)

| KZMV       | 30 | 1.5   |
|------------|----|-------|
| Product NO | d  | Pitch |

| Product NO.<br>d X pitch | Dimension(mm) |         |         |         |          | Set Screw |     | Mass<br>g |
|--------------------------|---------------|---------|---------|---------|----------|-----------|-----|-----------|
|                          | D<br>mm       | H<br>mm | g<br>mm | t<br>mm | d1<br>mm | n-m       | N·m |           |
| KZM8×0.75                | 16            | 8       | 3       | 2       | 11       | 2-M4      | 2   | 4         |
| KZM10×0.75               | 18            | 8       | 3       | 2       | 13       | 2-M4      | 2   | 8         |
| KZM10×1                  | 18            | 8       | 3       | 2       | 13       | 2-M4      | 2   | 8         |
| KZM12×1                  | 22            | 8       | 3       | 2       | 16       | 2-M4      | 2   | 14        |
| KZM15×1                  | 25            | 8       | 3       | 2       | 20       | 2-M4      | 2   | 18        |
| KZM17×1                  | 28            | 10      | 4       | 2       | 23       | 2-M5      | 4.5 | 28        |
| KZM20×1                  | 32            | 10      | 4       | 2       | 26       | 3-M5      | 4.5 | 34        |
| KZM22×1                  | 38            | 10      | 4       | 3       | 27       | 3-M4      | 2   | 52        |
| KZM25×1.5                | 38            | 12      | 5       | 2       | 32       | 3-M6      | 8   | 58        |
| KZM30×1.5                | 45            | 12      | 5       | 2       | 39       | 3-M6      | 8   | 78        |
| KZM35×1.5                | 52            | 12      | 5       | 2       | 46       | 3-M6      | 8   | 104       |
| KZM40×1.5                | 58            | 14      | 6       | 2.5     | 51       | 3-M6      | 8   | 148       |
| KZM45×1.5                | 65            | 14      | 6       | 2.5     | 58       | 3-M6      | 8   | 184       |
| KZM50×1.5                | 70            | 14      | 6       | 2.5     | 63       | 3-M6      | 8   | 200       |
| KZM55×2                  | 75            | 16      | 7       | 3       | 67       | 3-M8      | 18  | 246       |
| KZM60×2                  | 80            | 16      | 7       | 3       | 72       | 3-M8      | 18  | 270       |
| KZM65×2                  | 85            | 16      | 7       | 3       | 77       | 3-M8      | 18  | 290       |
| KZM70×2                  | 92            | 18      | 8       | 3.5     | 83       | 3-M8      | 18  | 398       |
| KZM75×2                  | 98            | 18      | 8       | 3.5     | 89       | 3-M8      | 18  | 434       |
| KZM80×2                  | 105           | 18      | 8       | 3.5     | 96       | 3-M8      | 18  | 504       |
| KZM85×2                  | 110           | 18      | 8       | 3.5     | 101      | 3-M8      | 18  | 532       |
| KZM90×2                  | 120           | 20      | 10      | 4       | 108      | 3-M8      | 18  | 762       |
| KZM95×2                  | 125           | 20      | 10      | 4       | 113      | 3-M8      | 18  | 796       |
| KZM100×2                 | 130           | 20      | 10      | 4       | 118      | 3-M8      | 18  | 836       |
| KZM105×2                 | 140           | 22      | 12      | 5       | 125      | 3-M8      | 18  | 1,130     |
| KZM110×2                 | 145           | 22      | 12      | 5       | 132      | 3-M8      | 18  | 1,172     |
| KZM115×2                 | 150           | 22      | 12      | 5       | 137      | 3-M8      | 18  | 1,270     |
| KZM120×2                 | 155           | 24      | 12      | 5       | 142      | 3-M8      | 18  | 1,390     |
| KZM125×2                 | 160           | 24      | 12      | 5       | 147      | 3-M8      | 18  | 1,450     |
| KZM130×2                 | 165           | 24      | 12      | 5       | 152      | 3-M8      | 18  | 1,500     |
| KZM135×2                 | 175           | 26      | 14      | 6       | 160      | 3-M10     | 35  | 1,930     |
| KZM140×2                 | 180           | 26      | 14      | 6       | 165      | 3-M10     | 35  | 1,950     |
| KZM145×2                 | 190           | 26      | 14      | 6       | 175      | 3-M10     | 35  | 2,380     |
| KZM150×2                 | 195           | 26      | 14      | 6       | 180      | 3-M10     | 35  | 2,440     |
| KZM155×3                 | 200           | 28      | 16      | 7       | 180      | 3-M10     | 35  | 2,760     |
| KZM160×3                 | 210           | 28      | 16      | 7       | 190      | 3-M10     | 35  | 3,160     |
| KZM165×3                 | 210           | 28      | 16      | 7       | 190      | 3-M10     | 35  | 3,300     |
| KZM170×3                 | 220           | 28      | 16      | 7       | 200      | 3-M10     | 35  | 3,315     |
| KZM180×3                 | 230           | 30      | 18      | 8       | 205      | 3-M12     | 60  | 3,690     |
| KZM190×3                 | 240           | 30      | 18      | 8       | 215      | 3-M12     | 60  | 3,880     |
| KZM200×3                 | 250           | 32      | 18      | 8       | 225      | 3-M12     | 60  | 4,370     |

| Product NO.<br>d X pitch | Dimension(mm) |         |         |         |          | Set Screw |     | Mass<br>g |
|--------------------------|---------------|---------|---------|---------|----------|-----------|-----|-----------|
|                          | D<br>mm       | H<br>mm | g<br>mm | t<br>mm | d1<br>mm | n-m       | N·m |           |
| KZMV17×1                 | 28            | 15      | 4       | 2       | 23       | 2-M4      | 2   | 40        |
| KZMV20×1                 | 32            | 15      | 4       | 2       | 26       | 3-M4      | 2   | 56        |
| KZMV25×1.5               | 38            | 17      | 5       | 2       | 32       | 3-M5      | 4.5 | 80        |
| KZMV30×1.5               | 45            | 17      | 5       | 2       | 39       | 3-M5      | 4.5 | 130       |
| KZMV35×1.5               | 52            | 17      | 5       | 2       | 46       | 3-M5      | 4.5 | 170       |
| KZMV40×1.5               | 58            | 19      | 6       | 2.5     | 51       | 3-M6      | 8   | 220       |
| KZMV45×1.5               | 65            | 19      | 6       | 2.5     | 58       | 3-M6      | 8   | 270       |
| KZMV50×1.5               | 70            | 19      | 6       | 2.5     | 63       | 3-M6      | 8   | 310       |
| KZMV55×2                 | 75            | 21      | 7       | 3       | 67       | 3-M6      | 8   | 340       |
| KZMV60×2                 | 80            | 21      | 7       | 3       | 72       | 3-M6      | 8   | 390       |
| KZMV65×2                 | 85            | 21      | 7       | 3       | 77       | 3-M6      | 8   | 430       |
| KZMV70×2                 | 92            | 23      | 8       | 3.5     | 83       | 3-M8      | 18  | 550       |
| KZMV75×2                 | 98            | 23      | 8       | 3.5     | 89       | 3-M8      | 18  | 620       |
| KZMV80×2                 | 105           | 23      | 8       | 3.5     | 96       | 3-M8      | 18  | 710       |
| KZMV85×2                 | 110           | 23      | 8       | 3.5     | 101      | 3-M8      | 18  | 740       |
| KZMV90×2                 | 120           | 25      | 10      | 4       | 108      | 3-M8      | 18  | 1,020     |
| KZMV95×2                 | 125           | 25      | 10      | 4       | 113      | 3-M8      | 18  | 1,080     |
| KZMV100×2                | 130           | 25      | 10      | 4       | 118      | 3-M8      | 18  | 1,100     |
| KZMV105×2                | 140           | 27      | 12      | 5       | 125      | 3-M10     | 35  | 1,480     |
| KZMV110×2                | 145           | 27      | 12      | 5       | 132      | 3-M10     | 35  | 1,570     |
| KZMV115×2                | 150           | 27      | 12      | 5       | 137      | 3-M10     | 35  | 1,600     |
| KZMV120×2                | 155           | 29      | 12      | 5       | 142      | 3-M10     | 35  | 1,760     |
| KZMV125×2                | 160           | 29      | 12      | 5       | 147      | 3-M10     | 35  | 1,820     |
| KZMV130×2                | 165           | 29      | 12      | 5       | 152      | 3-M10     | 35  | 1,890     |
| KZMV135×2                | 175           | 31      | 14      | 6       | 160      | 3-M12     | 60  | 2,400     |
| KZMV140×2                | 180           | 31      | 14      | 6       | 165      | 3-M12     | 60  | 2,470     |
| KZMV145×2                | 190           | 31      | 14      | 6       | 175      | 3-M12     | 60  | 2,960     |
| KZMV150×2                | 195           | 31      | 14      | 6       | 180      | 3-M12     | 60  | 3,020     |
| KZMV155×3                | 200           | 33      | 16      | 7       | 180      | 3-M12     | 60  | 3,320     |
| KZMV160×3                | 210           | 33      | 16      | 7       | 190      | 3-M12     | 60  | 3,880     |
| KZMV165×3                | 210           | 33      | 16      | 7       | 190      | 3-M12     | 60  | 3,960     |
| KZMV170×3                | 220           | 33      | 16      | 7       | 200      | 3-M12     | 60  | 4,010     |
| KZMV180×3                | 230           | 35      | 18      | 8       | 205      | 3-M12     | 60  | 4,400     |
| KZMV190×3                | 240           | 35      | 18      | 8       | 215      | 3-M12     | 60  | 4,770     |
| KZMV200×3                | 250           | 37      | 18      | 8       | 225      | 3-M12     | 60  | 5,200     |



Features

Preload and tension can be adjusted.  
 Most endurable to vibration. Accuracy can be adjusted. Powerful fitting.

Usage

General, precise Bearing, Ball Screw Support Bearing

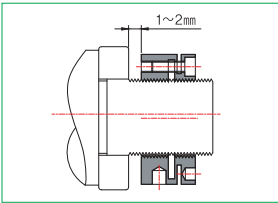
Specifications

- Material : S45C
- Tightening screw : SCM435
- Hardness : HRC 22 - 28
- Surface treatment : Black phosphated coating
- Thread Accuracy : ISO4H
- Perpendicularity: 0.002 ~ 0.007

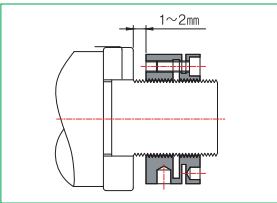
Follow the steps to clamp the KAN Nut

- Clean up the screw of the shaft
- Loosen up each bolt.
- Put the KAN nut into the screw and tighten it to the space of 1~2mm against the other section [see the figure 1]
- Tighten the bolt in the sequence of diagonal uniformly to get rid of any slit between shaft and nut. [see the figure 2]
- Assemble provisionally at the axial force of 3~5 times the actually required axial force. This processing is very important for initial adoption of the nut.
- Tighten the bolts in the sequence of diagonal uniformly with them loosen and then get rid of the space until the nut can be turned.
- Tighten the nut with required axial force.
- Tighten all the bolts with the standard torque in the sequence of diagonal uniformly and then fix them on the shaft. [see the figure 3]
- The shaft cannot be vibrated by adjusting the bolts if necessary. Don't make the bolt too loosened for dimensioning the shaft. Ensure that all the bolts must have a tension when closing the work.

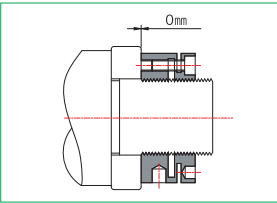
Note : the centrifugal force on the moving shaft results in the KAN nut being loosened.



(Figure 1)



(Figure 2)

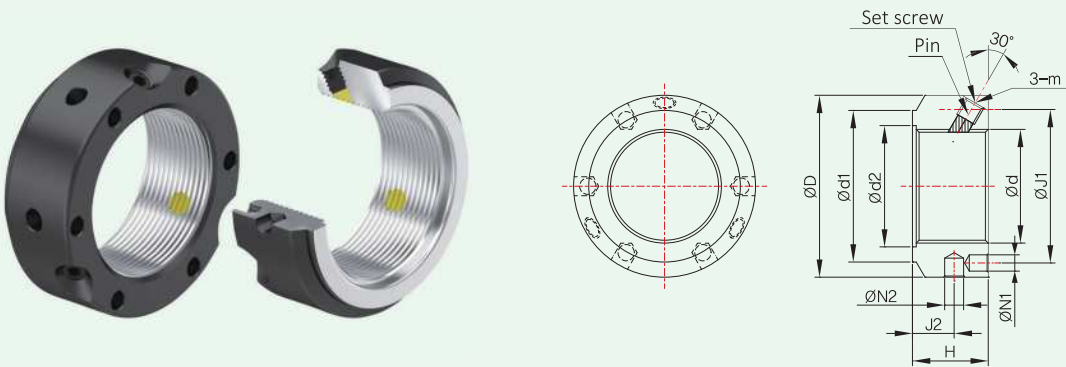


(Figure 3)

Order Method  
(Order Example)

|            |           |            |
|------------|-----------|------------|
| <b>KAN</b> | <b>30</b> | <b>1.5</b> |
| Product NO | d         | Pitch      |

| Product NO. | Dimension(mm) |    |      |     |    |      | Holes | Tightening screw |   |     | Mass  |
|-------------|---------------|----|------|-----|----|------|-------|------------------|---|-----|-------|
|             | D             | d1 | d2   | d3  | H  | C    |       | m                | n | N·m |       |
| d X pitch   | mm            | mm | mm   | mm  | mm | mm   | Qty   |                  |   |     | g     |
| KAN16×1.5   | 34            | 4  | 24.5 | 4.5 | 18 | 5    | 4     | M4×12            | 4 | 3   | 80    |
| KAN18×1.5   | 36            | 4  | 26.5 | 4.5 | 18 | 5    | 4     | M4×12            | 4 | 3   | 87    |
| KAN20×1.5   | 40            | 4  | 30.5 | 4.5 | 18 | 5    | 4     | M4×12            | 4 | 3   | 107   |
| KAN22×1.5   | 40            | 4  | 30.5 | 4.5 | 18 | 5    | 4     | M4×12            | 4 | 3   | 100   |
| KAN24×1.5   | 42            | 4  | 32.5 | 4.5 | 18 | 5    | 4     | M4×12            | 4 | 3   | 107   |
| KAN25×1.5   | 45            | 5  | 36.5 | 4.5 | 20 | 6.5  | 4     | M4×12            | 4 | 3   | 137   |
| KAN28×1.5   | 46            | 5  | 38.5 | 4.5 | 20 | 6.5  | 4     | M4×12            | 4 | 3   | 136   |
| KAN30×1.5   | 48            | 5  | 40.5 | 4.5 | 20 | 6.5  | 4     | M4×12            | 4 | 3   | 141   |
| KAN32×1.5   | 50            | 5  | 42.5 | 4.5 | 22 | 7    | 4     | M4×16            | 4 | 3   | 163   |
| KAN35×1.5   | 53            | 5  | 45.5 | 4.5 | 22 | 7    | 4     | M4×16            | 4 | 3   | 175   |
| KAN38×1.5   | 58            | 5  | 48.5 | 4.5 | 22 | 7    | 4     | M4×16            | 4 | 3   | 212   |
| KAN40×1.5   | 58            | 5  | 50.5 | 4.5 | 22 | 7    | 4     | M4×16            | 4 | 3   | 195   |
| KAN42×1.5   | 60            | 5  | 52.5 | 4.5 | 22 | 7    | 4     | M4×16            | 4 | 3   | 204   |
| KAN45×1.5   | 68            | 6  | 58   | 4.5 | 22 | 6.5  | 6     | M4×16            | 6 | 3   | 288   |
| KAN48×1.5   | 68            | 6  | 59.5 | 4.5 | 25 | 9    | 6     | M4×18            | 6 | 3   | 294   |
| KAN50×1.5   | 70            | 6  | 61.5 | 4.5 | 25 | 9    | 6     | M4×18            | 6 | 3   | 303   |
| KAN52×1.5   | 72            | 6  | 63.5 | 4.5 | 25 | 9    | 6     | M4×18            | 6 | 3   | 314   |
| KAN55×1.5   | 75            | 6  | 66.5 | 4.5 | 25 | 9    | 6     | M4×18            | 6 | 3   | 327   |
| KAN58×1.5   | 82            | 6  | 72.5 | 5.5 | 26 | 9    | 6     | M5×18            | 6 | 6   | 446   |
| KAN60×1.5   | 84            | 6  | 74.5 | 5.5 | 26 | 9    | 6     | M5×18            | 6 | 6   | 479   |
| KAN62×1.5   | 86            | 6  | 76.5 | 5.5 | 28 | 10.5 | 6     | M5×20            | 6 | 6   | 505   |
| KAN65×1.5   | 88            | 6  | 78.5 | 5.5 | 28 | 10.5 | 6     | M5×20            | 6 | 6   | 500   |
| KAN68×1.5   | 95            | 8  | 83   | 5.5 | 28 | 9.5  | 6     | M5×20            | 6 | 6   | 625   |
| KAN70×1.5   | 95            | 8  | 85   | 5.5 | 28 | 9.5  | 6     | M5×20            | 6 | 6   | 536   |
| KAN72×1.5   | 98            | 8  | 86   | 6.5 | 28 | 8.5  | 6     | M6×20            | 6 | 10  | 626   |
| KAN75×1.5   | 100           | 8  | 88   | 6.5 | 28 | 8.5  | 6     | M6×20            | 6 | 10  | 623   |
| KAN80×2.0   | 110           | 8  | 95   | 6.5 | 32 | 11   | 6     | M6×22            | 6 | 10  | 890   |
| KAN85×2.0   | 115           | 8  | 100  | 6.5 | 32 | 11   | 6     | M6×22            | 6 | 10  | 963   |
| KAN90×2.0   | 120           | 8  | 108  | 6.5 | 32 | 11   | 6     | M6×22            | 6 | 10  | 1,020 |
| KAN95×2.0   | 125           | 8  | 113  | 6.5 | 32 | 11   | 6     | M6×22            | 6 | 10  | 1,050 |
| KAN100×2.0  | 130           | 8  | 118  | 6.5 | 32 | 11   | 6     | M6×22            | 6 | 10  | 1,100 |
| KAN105×2.0  | 135           | 8  | 123  | 6.5 | 32 | 11   | 6     | M6×22            | 6 | 10  | 1,150 |
| KAN110×2.0  | 140           | 8  | 128  | 6.5 | 32 | 11   | 6     | M6×22            | 6 | 10  | 1,210 |
| KAN115×2.0  | 145           | 8  | 133  | 6.5 | 36 | 12   | 6     | M6×25            | 6 | 10  | 1,430 |
| KAN120×2.0  | 155           | 8  | 140  | 6.5 | 36 | 12   | 6     | M6×25            | 6 | 10  | 1,740 |
| KAN125×2.0  | 160           | 8  | 148  | 6.5 | 36 | 12   | 6     | M6×25            | 6 | 10  | 1,820 |
| KAN130×3.0  | 165           | 8  | 153  | 6.5 | 36 | 12   | 6     | M6×25            | 6 | 10  | 1,940 |
| KAN140×3.0  | 180           | 10 | 160  | 10  | 38 | 10   | 8     | M6×25            | 8 | 10  | 2,335 |
| KAN150×3.0  | 190           | 10 | 170  | 10  | 38 | 10   | 8     | M6×25            | 8 | 10  | 2,480 |
| KAN160×3.0  | 205           | 10 | 178  | 10  | 40 | 12   | 8     | M8×30            | 8 | 25  | 3,380 |
| KAN170×3.0  | 215           | 10 | 193  | 10  | 40 | 12   | 8     | M8×30            | 8 | 25  | 3,580 |
| KAN180×3.0  | 230           | 10 | 210  | 10  | 40 | 14   | 8     | M8×30            | 8 | 25  | 4,110 |
| KAN190×3.0  | 240           | 10 | 224  | 10  | 40 | 14   | 8     | M8×30            | 8 | 25  | 4,330 |
| KAN200×3.0  | 245           | 10 | 229  | 10  | 40 | 14   | 8     | M8×30            | 8 | 25  | 4,410 |



Features

- KSN can be clamped on each side.

Usage

- Main Axis of a machine tool, Ball Screw Support  
Bearing, Precise spindle, Precise test machine

Usage

- Main Axis of a machine tool, Ball Screw Support  
Bearing, Precise spindle, Precise test machine

Specifications

- Material : S45C
- Hardness : HRC 22 - 28
- Surface treatment: Black phosphated coating
- Thread Accuracy : ISO4H
- Perpendicularity : 0.002 ~ 0.007

Order Method  
(Order Example)

| KSN6       | 30 | 1.5   |
|------------|----|-------|
| Product NO | d  | Pitch |

Specifications

- Material : S45C
- Hardness : HRC 22 - 28
- Surface treatment: Black phosphated coating
- Thread Accuracy : ISO4H
- Perpendicularity : 0.002 ~ 0.007

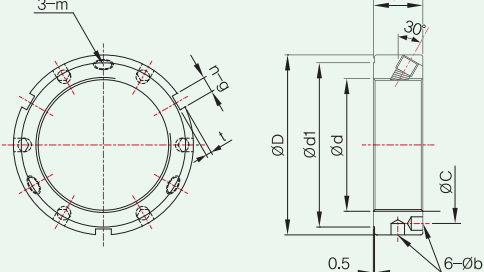
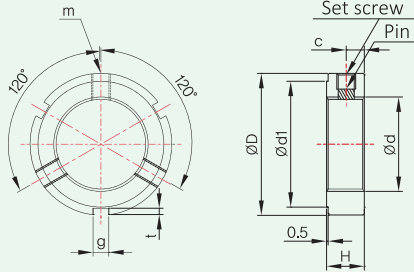
Order Method  
(Order Example)

| KSNA6      | 30 | 1.5   |
|------------|----|-------|
| Product NO | d  | Pitch |

| Product NO. | d X pitch | Dimension(mm) |     |     |     |    |    |     |     | Set Screw |       | Mass  |
|-------------|-----------|---------------|-----|-----|-----|----|----|-----|-----|-----------|-------|-------|
|             |           | D             | d1  | d2  | d3  | H  | g  | t   | M   |           |       |       |
|             |           | mm            | mm  | mm  | mm  | mm | mm | mm  | mm  | m         | N · m | g     |
| KSN0        | M10×0.75  | 28            | 21  | 23  | 11  | 14 | 4  | 2   | 24  | M5        | 4.5   | 45    |
| KSN1        | M12×1     | 30            | 23  | 25  | 13  | 14 | 4  | 2   | 27  | M5        | 4.5   | 50    |
| KSN2        | M15×1     | 33            | 26  | 28  | 16  | 16 | 4  | 2   | 30  | M5        | 4.5   | 75    |
| KSN3        | M17×1     | 37            | 29  | 32  | 18  | 18 | 5  | 2   | 34  | M6        | 8     | 100   |
| KSN4        | M20×1     | 40            | 32  | 35  | 21  | 18 | 5  | 2   | 36  | M6        | 8     | 110   |
| KSN5        | M25×1.5   | 44            | 36  | 39  | 26  | 20 | 5  | 2   | 41  | M6        | 8     | 130   |
| KSN6        | M30×1.5   | 49            | 41  | 44  | 32  | 20 | 5  | 2   | 46  | M6        | 8     | 160   |
| KSN7        | M35×1.5   | 54            | 46  | 49  | 38  | 22 | 5  | 2   | 50  | M6        | 8     | 190   |
| KSN8        | M40×1.5   | 65            | 56  | 59  | 42  | 22 | 6  | 2.5 | 60  | M8        | 18    | 300   |
| KSN9        | M45×1.5   | 70            | 61  | 64  | 48  | 22 | 6  | 2.5 | 65  | M8        | 18    | 330   |
| KSN10       | M50×1.5   | 75            | 65  | 68  | 52  | 25 | 7  | 3   | 70  | M8        | 18    | 400   |
| KSN11       | M55×2     | 85            | 74  | 78  | 58  | 25 | 7  | 3   | 80  | M8        | 18    | 540   |
| KSN12       | M60×2     | 90            | 78  | 82  | 62  | 26 | 8  | 3.5 | 85  | M8        | 18    | 610   |
| KSN13       | M65×2     | 95            | 83  | 87  | 68  | 28 | 8  | 3.5 | 90  | M8        | 18    | 710   |
| KSN14       | M70×2     | 100           | 88  | 92  | 72  | 28 | 8  | 3.5 | 95  | M8        | 18    | 750   |
| KSN15       | M75×2     | 105           | 93  | 97  | 77  | 28 | 8  | 3.5 | 100 | M8        | 18    | 800   |
| KSN16       | M80×2     | 110           | 98  | 100 | 83  | 32 | 8  | 3.5 | 100 | M8        | 18    | 900   |
| KSN17       | M85×2     | 120           | 107 | 110 | 88  | 32 | 10 | 4   | -   | M10       | 35    | 1,150 |
| KSN18       | M90×2     | 125           | 112 | 115 | 93  | 32 | 10 | 4   | -   | M10       | 35    | 1,200 |
| KSN19       | M95×2     | 130           | 117 | 120 | 98  | 32 | 10 | 4   | -   | M10       | 35    | 1,250 |
| KSN20       | M100×2    | 135           | 122 | 125 | 103 | 32 | 10 | 4   | -   | M10       | 35    | 1,300 |
| KSN22       | M110×2    | 145           | 132 | 134 | 112 | 32 | 10 | 4   | -   | M10       | 35    | 1,450 |
| KSN24       | M120×2    | 155           | 142 | 144 | 122 | 32 | 10 | 4   | -   | M10       | 35    | 1,600 |
| KSN26       | M130×2    | 165           | 152 | 154 | 132 | 32 | 12 | 5   | -   | M10       | 35    | 1,700 |
| KSN28       | M140×2    | 175           | 162 | 160 | 142 | 32 | 14 | 6   | -   | M10       | 35    | 1,800 |
| KSN30       | M150×2    | 185           | 172 | 170 | 152 | 32 | 14 | 6   | -   | M10       | 35    | 1,950 |
| KSN32       | M160×3    | 195           | 182 | 180 | 162 | 32 | 14 | 6   | -   | M10       | 35    | 2,100 |
| KSN34       | M170×3    | 205           | 192 | 190 | 172 | 32 | 14 | 6   | -   | M10       | 35    | 2,200 |
| KSN36       | M180×3    | 215           | 200 | 200 | 182 | 32 | 16 | 7   | -   | M10       | 35    | 2,300 |
| KSN38       | M190×3    | 225           | 210 | 210 | 192 | 32 | 16 | 7   | -   | M10       | 35    | 2,400 |
| KSN40       | M200×3    | 235           | 220 | 220 | 202 | 32 | 18 | 8   | -   | M10       | 35    | 2,500 |

| Product NO. | d X pitch | Dimension(mm) |     |     |    |      |    |     |    | Set Screw |       | Mass  |
|-------------|-----------|---------------|-----|-----|----|------|----|-----|----|-----------|-------|-------|
|             |           | D             | d1  | d2  | H  | J1   | J2 | N1  | N2 |           |       |       |
|             |           | mm            | mm  | mm  | mm | mm   | mm | mm  | mm | m         | N · m | g     |
| KSNA4       | M20×1.0   | 38            | 30  | 21  | 18 | 29   | 10 | 4.3 | 4  | M6        | 8     | 100   |
| KSNA5       | M25×1.5   | 42            | 35  | 26  | 20 | 32.5 | 11 | 4.3 | 4  | M6        | 8     | 120   |
| KSNA6       | M30×1.5   | 48            | 40  | 32  | 20 | 40.5 | 11 | 4.3 | 5  | M6        | 8     | 150   |
| KSNA7       | M35×1.5   | 53            | 47  | 38  | 20 | 45.5 | 11 | 4.3 | 5  | M6        | 8     | 180   |
| KSNA8       | M40×1.5   | 58            | 52  | 42  | 22 | 50.5 | 12 | 4.3 | 5  | M6        | 8     | 210   |
| KSNA9       | M45×1.5   | 68            | 58  | 48  | 22 | 58   | 12 | 4.3 | 6  | M6        | 8     | 300   |
| KSNA10      | M50×1.5   | 70            | 63  | 52  | 24 | 61.5 | 13 | 4.3 | 6  | M6        | 8     | 310   |
| KSNA11      | M55×1.5   | 75            | 70  | 58  | 24 | 66.5 | 13 | 4.3 | 6  | M6        | 8     | 350   |
| KSNA12      | M60×1.5   | 84            | 75  | 62  | 24 | 74.5 | 13 | 5.3 | 6  | M8        | 18    | 450   |
| KSNA13      | M65×1.5   | 88            | 80  | 68  | 25 | 78.5 | 13 | 5.3 | 6  | M8        | 18    | 480   |
| KSNA14      | M70×1.5   | 95            | 86  | 72  | 26 | 85   | 14 | 5.3 | 8  | M8        | 18    | 570   |
| KSNA15      | M75×1.5   | 100           | 91  | 77  | 26 | 88   | 13 | 6.4 | 8  | M8        | 18    | 610   |
| KSNA16      | M80×2     | 110           | 97  | 83  | 30 | 95   | 16 | 6.4 | 8  | M8        | 18    | 910   |
| KSNA17      | M85×2     | 115           | 102 | 88  | 32 | 100  | 17 | 6.4 | 8  | M10       | 35    | 1,050 |
| KSNA18      | M90×2     | 120           | 110 | 93  | 32 | 108  | 17 | 6.4 | 8  | M10       | 35    | 1,100 |
| KSNA19      | M95×2     | 125           | 114 | 98  | 32 | 113  | 17 | 6.4 | 8  | M10       | 35    | 1,150 |
| KSNA20      | M100×2    | 130           | 120 | 103 | 32 | 118  | 17 | 6.4 | 8  | M10       | 35    | 1,200 |
| KSNA22      | M110×2    | 140           | 132 | 112 | 32 | 128  | 17 | 6.4 | 8  | M10       | 35    | 1,350 |
| KSNA24      | M120×2    | 155           | 142 | 122 | 32 | 140  | 17 | 6.4 | 8  | M10       | 35    | 1,700 |
| KSNA26      | M130×3    | 165           | 156 | 132 | 32 | 153  | 17 | 6.4 | 8  | M10       | 35    | 1,900 |
| KSNA28      | M140×3    | 180           | 166 | 142 | 32 | 165  | 17 | 6.4 | 10 | M10       | 35    | 2,250 |
| KSNA30      | M150×3    | 190           | 180 | 152 | 32 | 175  | 17 | 6.4 | 10 | M10       | 35    | 2,450 |
| KSNA32      | M160×3    | 205           | 190 | 162 | 32 | 185  | 17 | 8.4 | 10 | M10       | 35    | 2,900 |
| KSNA34      | M170×3    | 215           | 205 | 172 | 32 | 195  | 17 | 8.4 | 10 | M10       | 35    | 3,150 |
| KSNA36      | M180×3    | 230           | 215 | 182 | 32 | 210  | 17 | 8.4 | 10 | M10       | 35    | 3,650 |
| KSNA38      | M190×3    | 240           | 225 | 192 | 32 | 224  | 17 | 8.4 | 10 | M10       | 35    | 3,850 |
| KSNA40      | M200×3    | 245           | 237 | 202 | 32 | 229  | 17 | 8.4 | 10 | M10       | 35    | 3,700 |





Specifications

- Material : S45C
- Hardness : HRC 22 - 28
- Surface treatment: Black phosphated coating
- Thread Accuracy : ISO4H
- Perpendicularity : 0.002 ~ 0.007

Order Method  
(Order Example)

| KZMT       | 30 | 1.5   |
|------------|----|-------|
| Product NO | d  | Pitch |

| Product NO. | Dimension(mm) |    |    |     |     |    | Set Screw |     | Mass  |
|-------------|---------------|----|----|-----|-----|----|-----------|-----|-------|
|             | D             | H  | g  | t   | d1  | C  |           |     |       |
| d X pitch   | mm            | mm | mm | mm  | mm  | mm | m         | N·m | g     |
| KZMT10×1    | 18            | 8  | 3  | 2   | 13  | 4  | M4        | 2   | 10    |
| KZMT12×1    | 22            | 8  | 3  | 2   | 16  | 4  | M4        | 2   | 14    |
| KZMT15×1    | 25            | 8  | 3  | 2   | 20  | 4  | M4        | 2   | 16    |
| KZMT17×1    | 28            | 10 | 4  | 2   | 23  | 5  | M5        | 4.5 | 24    |
| KZMT20×1    | 32            | 10 | 4  | 2   | 26  | 5  | M5        | 4.5 | 34    |
| KZMT25×1.5  | 38            | 12 | 5  | 2   | 32  | 6  | M6        | 8   | 54    |
| KZMT30×1.5  | 45            | 12 | 5  | 2   | 39  | 6  | M6        | 8   | 76    |
| KZMT35×1.5  | 52            | 12 | 5  | 2   | 46  | 6  | M6        | 8   | 102   |
| KZMT40×1.5  | 58            | 14 | 6  | 2.5 | 51  | 7  | M6        | 8   | 144   |
| KZMT45×1.5  | 65            | 14 | 6  | 2.5 | 58  | 7  | M6        | 8   | 180   |
| KZMT50×1.5  | 70            | 14 | 6  | 2.5 | 63  | 7  | M6        | 8   | 196   |
| KZMT55×2    | 75            | 16 | 7  | 3   | 67  | 8  | M8        | 18  | 240   |
| KZMT60×2    | 80            | 16 | 7  | 3   | 72  | 8  | M8        | 18  | 262   |
| KZMT65×2    | 85            | 16 | 7  | 3   | 77  | 8  | M8        | 18  | 282   |
| KZMT70×2    | 92            | 18 | 8  | 3.5 | 83  | 9  | M8        | 18  | 378   |
| KZMT75×2    | 98            | 18 | 8  | 3.5 | 89  | 9  | M8        | 18  | 422   |
| KZMT80×2    | 105           | 18 | 8  | 3.5 | 96  | 9  | M8        | 18  | 492   |
| KZMT85×2    | 110           | 18 | 8  | 3.5 | 101 | 9  | M8        | 18  | 524   |
| KZMT90×2    | 120           | 20 | 10 | 4   | 108 | 10 | M8        | 18  | 750   |
| KZMT95×2    | 125           | 20 | 10 | 4   | 113 | 10 | M8        | 18  | 782   |
| KZMT100×2   | 130           | 20 | 10 | 4   | 118 | 10 | M8        | 18  | 826   |
| KZMT105×2   | 140           | 22 | 12 | 5   | 125 | 11 | M8        | 18  | 1,108 |
| KZMT110×2   | 145           | 22 | 12 | 5   | 132 | 11 | M8        | 18  | 1,164 |
| KZMT120×2   | 155           | 24 | 12 | 5   | 142 | 12 | M8        | 18  | 1,378 |
| KZMT130×2   | 165           | 24 | 12 | 5   | 152 | 12 | M8        | 18  | 1,480 |
| KZMT140×2   | 180           | 26 | 14 | 6   | 165 | 13 | M10       | 35  | 1,958 |
| KZMT150×2   | 195           | 26 | 14 | 6   | 180 | 13 | M10       | 35  | 2,404 |
| KZMT160×3   | 210           | 28 | 16 | 7   | 190 | 14 | M10       | 35  | 3,080 |
| KZMT170×3   | 220           | 28 | 16 | 7   | 200 | 14 | M10       | 35  | 3,256 |
| KZMT180×3   | 230           | 30 | 18 | 8   | 205 | 15 | M12       | 60  | 3,628 |
| KZMT190×3   | 240           | 30 | 18 | 8   | 215 | 15 | M12       | 60  | 3,928 |
| KZMT200×3   | 250           | 32 | 18 | 8   | 225 | 16 | M12       | 60  | 4,330 |

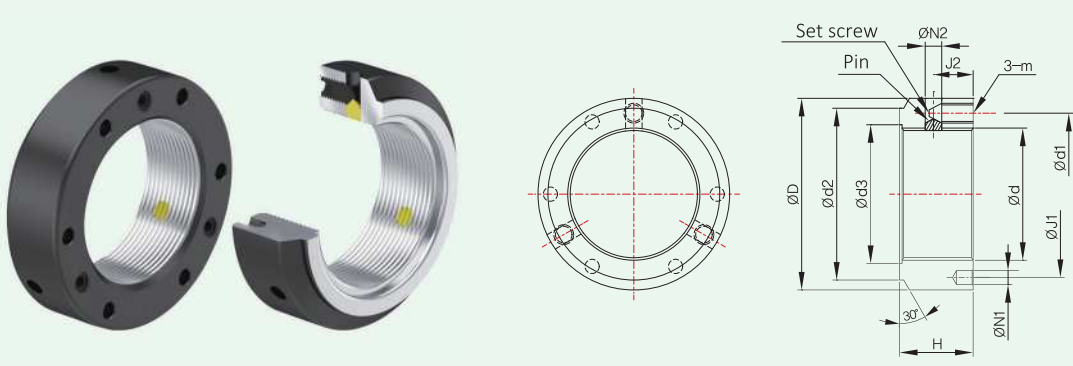
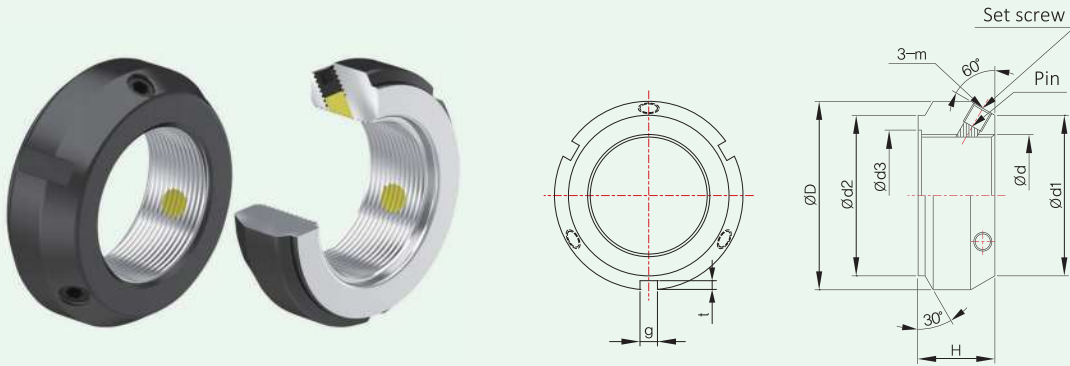
Specifications

- Material : S45C
- Hardness : HRC 22 - 28
- Surface treatment: Black phosphated coating
- Thread Accuracy : ISO4H
- Perpendicularity : 0.002 ~ 0.007

Order Method  
(Order Example)

| KZMF       | 30 | 1.5   |
|------------|----|-------|
| Product NO | d  | Pitch |

| Product NO. | d X pitch | Dimension(mm) |     |    |      |    |     |     | Set Screw |     | Mass  |
|-------------|-----------|---------------|-----|----|------|----|-----|-----|-----------|-----|-------|
|             |           | D             | d1  | H  | n-g  | b  | t   | C   |           |     |       |
|             |           | mm            | mm  | mm | mm   | mm | mm  | mm  | m         | N·m | g     |
| KZMF20      | M20×1     | 38            | 33  | 16 | 3-4  | -  | 2   | -   | M6        | 4.5 | 110   |
| KZMF25      | M25×1.5   | 38            | 33  | 18 | 3-5  | -  | 2   | -   | M6        | 8   | 120   |
| KZMF30      | M30×1.5   | 45            | 40  | 18 | 3-5  | -  | 2   | -   | M6        | 8   | 140   |
| KZMF35      | M35×1.5   | 52            | 47  | 18 | 3-5  | -  | 2   | -   | M8        | 18  | 170   |
| KZMF40      | M40×1.5   | 58            | 52  | 20 | 3-6  | -  | 2.5 | -   | M8        | 18  | 210   |
| KZMF45      | M45×1.5   | 65            | 59  | 20 | 3-6  | -  | 2.5 | -   | M8        | 18  | 300   |
| KZMF50      | M50×1.5   | 70            | 64  | 20 | 3-6  | -  | 2.5 | -   | M8        | 18  | 310   |
| KZMF55      | M55×2     | 75            | 68  | 22 | 3-7  | 6  | 3   | 65  | M8        | 18  | 350   |
| KZMF60      | M60×2     | 80            | 73  | 22 | 3-7  | 6  | 3   | 70  | M8        | 18  | 430   |
| KZMF65      | M65×2     | 85            | 78  | 22 | 3-7  | 6  | 3   | 75  | M8        | 18  | 450   |
| KZMF70      | M70×2     | 92            | 84  | 24 | 3-8  | 6  | 3.5 | 81  | M8        | 18  | 550   |
| KZMF75      | M75×2     | 98            | 90  | 24 | 3-8  | 6  | 3.5 | 87  | M8        | 18  | 590   |
| KZMF80      | M80×2     | 105           | 96  | 24 | 3-8  | 7  | 3.5 | 93  | M8        | 18  | 810   |
| KZMF85      | M85×2     | 110           | 102 | 24 | 6-8  | 7  | 3.5 | 98  | M8        | 18  | 900   |
| KZMF90      | M90×2     | 120           | 108 | 26 | 6-10 | 7  | 4   | 105 | M8        | 18  | 1,100 |
| KZMF95      | M95×2     | 125           | 113 | 26 | 6-10 | 7  | 4   | 110 | M8        | 18  | 1,150 |
| KZMF100     | M100×2    | 130           | 118 | 26 | 6-10 | 7  | 4   | 115 | M8        | 18  | 1,200 |
| KZMF110     | M110×2    | 145           | 132 | 28 | 6-10 | 7  | 4   | 128 | M10       | 35  | 1,350 |
| KZMF120     | M120×2    | 155           | 142 | 30 | 6-12 | 7  | 5   | 138 | M10       | 35  | 1,600 |
| KZMF130     | M130×2    | 165           | 152 | 30 | 6-12 | 7  | 5   | 148 | M10       | 35  | 1,850 |
| KZMF140     | M140×2    | 180           | 165 | 32 | 6-12 | 7  | 5   | 160 | M10       | 35  | 2,450 |
| KZMF150     | M150×2    | 195           | 180 | 32 | 6-12 | 7  | 5   | 173 | M10       | 35  | 2,800 |
| KZMF160     | M160×3    | 210           | 190 | 34 | 6-14 | 8  | 6   | 185 | M10       | 35  | 3,400 |
| KZMF170     | M170×3    | 220           | 200 | 34 | 6-14 | 8  | 6   | 195 | M10       | 35  | 3,500 |
| KZMF180     | M180×3    | 230           | 205 | 36 | 6-16 | 8  | 7   | 205 | M12       | 60  | 3,650 |
| KZMF190     | M190×3    | 240           | 215 | 36 | 6-16 | 8  | 7   | 215 | M12       | 60  | 3,900 |
| KZMF200     | M200×3    | 250           | 225 | 38 | 6-16 | 8  | 7   | 225 | M12       | 60  | 4,400 |



Specifications

- Material : S45C
- Hardness : HRC 22 - 28
- Surface treatment: Black phosphated coating
- Thread Accuracy : ISO4H
- Perpendicularity : 0.002 ~ 0.007

Order Method  
(Order Example)

| KSNT6      | 30 | 1.5   |
|------------|----|-------|
| Product NO | d  | Pitch |

Features

- Set screw can be fitted at the shaft direction.

Specifications

- Material : S45C
- Hardness : HRC 22 - 28
- Surface treatment: Black phosphated coating
- Thread Accuracy : ISO4H
- Perpendicularity : 0.002 ~ 0.007

Order Method  
(Order Example)

| ZMVT6      | 30 | 1.5   |
|------------|----|-------|
| Product NO | d  | Pitch |

| Product NO. | d X pitch | Dimension(mm) |     |     |     |    |    |     | Set Screw |       | Mass  |
|-------------|-----------|---------------|-----|-----|-----|----|----|-----|-----------|-------|-------|
|             |           | D             | d1  | d2  | d3  | H  | g  | t   |           |       |       |
|             |           | mm            | mm  | mm  | mm  | mm | mm | mm  | mm        | N · m | g     |
| KSNT2       | M15×1     | 33            | 26  | 25  | 16  | 16 | 4  | 2.5 | M5        | 4.5   | 85    |
| KSNT3       | M17×1     | 37            | 29  | 30  | 18  | 18 | 5  | 2.5 | M6        | 8     | 110   |
| KSNT4       | M20×1     | 40            | 32  | 32  | 21  | 18 | 5  | 2.5 | M6        | 8     | 120   |
| KSNT5       | M25×1.5   | 44            | 36  | 36  | 26  | 20 | 5  | 2.5 | M6        | 8     | 140   |
| KSNT6       | M30×1.5   | 49            | 41  | 41  | 32  | 20 | 5  | 2.5 | M6        | 8     | 180   |
| KSNT7       | M35×1.5   | 54            | 46  | 46  | 38  | 22 | 5  | 2.5 | M6        | 8     | 210   |
| KSNT8       | M40×1.5   | 65            | 56  | 56  | 42  | 22 | 6  | 3   | M8        | 18    | 330   |
| KSNT9       | M45×1.5   | 70            | 61  | 61  | 48  | 22 | 6  | 3   | M8        | 18    | 370   |
| KSNT10      | M50×1.5   | 75            | 65  | 65  | 52  | 25 | 7  | 3   | M8        | 18    | 450   |
| KSNT11      | M55×2     | 85            | 74  | 75  | 58  | 25 | 7  | 3   | M8        | 18    | 590   |
| KSNT12      | M60×2     | 90            | 78  | 79  | 62  | 26 | 8  | 4   | M8        | 18    | 670   |
| KSNT13      | M65×2     | 95            | 83  | 84  | 68  | 28 | 8  | 4   | M8        | 18    | 780   |
| KSNT14      | M70×2     | 100           | 88  | 89  | 72  | 28 | 8  | 4   | M8        | 18    | 830   |
| KSNT15      | M75×2     | 105           | 93  | 94  | 77  | 28 | 8  | 4   | M8        | 18    | 880   |
| KSNT16      | M80×2     | 110           | 98  | 96  | 83  | 32 | 8  | 4   | M8        | 18    | 990   |
| KSNT17      | M85×2     | 120           | 107 | 106 | 88  | 32 | 10 | 4   | M10       | 35    | 1,270 |
| KSNT18      | M90×2     | 125           | 112 | 111 | 93  | 32 | 10 | 4   | M10       | 35    | 1,320 |
| KSNT19      | M95×2     | 130           | 117 | 116 | 98  | 32 | 10 | 4   | M10       | 35    | 1,380 |
| KSNT20      | M100×2    | 135           | 122 | 121 | 103 | 32 | 10 | 4   | M10       | 35    | 1,430 |
| KSNT22      | M110×2    | 145           | 132 | 130 | 112 | 32 | 10 | 4   | M10       | 35    | 1,600 |
| KSNT24      | M120×2    | 155           | 142 | 140 | 122 | 32 | 10 | 4   | M10       | 35    | 1,760 |
| KSNT26      | M130×2    | 165           | 152 | 150 | 132 | 32 | 12 | 5   | M10       | 35    | 1,870 |
| KSNT28      | M140×2    | 175           | 162 | 160 | 142 | 32 | 14 | 6   | M10       | 35    | 1,980 |
| KSNT30      | M150×2    | 185           | 172 | 170 | 152 | 32 | 14 | 6   | M10       | 35    | 2,150 |
| KSNT32      | M160×2    | 195           | 182 | 180 | 162 | 32 | 14 | 6   | M10       | 35    | 2,350 |
| KSNT34      | M170×2    | 205           | 192 | 190 | 172 | 32 | 14 | 6   | M10       | 35    | 2,550 |
| KSNT36      | M180×2    | 215           | 200 | 200 | 182 | 32 | 16 | 7   | M10       | 35    | 2,640 |
| KSNT38      | M190×2    | 225           | 210 | 210 | 192 | 32 | 16 | 7   | M10       | 35    | 2,750 |
| KSNT40      | M200×2    | 235           | 220 | 220 | 202 | 32 | 18 | 8   | M10       | 35    | 2,850 |

| Product NO. | d X pitch | Dimension(mm) |      |     |     |    |      |    |     |     | Set Screw |       | Mass  |
|-------------|-----------|---------------|------|-----|-----|----|------|----|-----|-----|-----------|-------|-------|
|             |           | D             | d1   | d2  | d3  | H  | J1   | J2 | N1  | N2  |           |       |       |
|             |           | mm            | mm   | mm  | mm  | mm | mm   | mm | mm  | mm  | m         | N · m | g     |
| ZMVT5       | M25×1.5   | 42            | 33.5 | 35  | 26  | 20 | 32.5 | 11 | 4.3 | 5   | M6        | 8     | 120   |
| ZMVT6       | M30×1.5   | 48            | 39   | 40  | 32  | 20 | 40.5 | 11 | 4.3 | 5   | M6        | 8     | 150   |
| ZMVT7       | M35×1.5   | 53            | 44   | 47  | 38  | 20 | 45.5 | 11 | 4.3 | 5   | M6        | 8     | 180   |
| ZMVT8       | M40×1.5   | 58            | 49   | 52  | 42  | 22 | 50.5 | 12 | 4.3 | 5   | M6        | 8     | 210   |
| ZMVT9       | M45×1.5   | 68            | 56.5 | 58  | 48  | 22 | 58   | 12 | 4.3 | 5   | M6        | 8     | 300   |
| ZMVT10      | M50×1.5   | 70            | 60   | 63  | 52  | 24 | 61.5 | 12 | 4.3 | 5   | M6        | 8     | 310   |
| ZMVT11      | M55×1.5   | 75            | 65   | 70  | 58  | 24 | 66.5 | 13 | 4.3 | 5   | M6        | 8     | 350   |
| ZMVT12      | M60×1.5   | 84            | 72   | 75  | 62  | 24 | 74.5 | 13 | 5.3 | 5   | M6        | 8     | 450   |
| ZMVT13      | M65×1.5   | 88            | 76   | 80  | 68  | 25 | 78.5 | 13 | 5.3 | 5   | M6        | 8     | 480   |
| ZMVT14      | M70×1.5   | 95            | 83   | 86  | 72  | 26 | 85   | 14 | 5.3 | 7.9 | M10       | 35    | 570   |
| ZMVT15      | M75×1.5   | 100           | 88   | 91  | 77  | 26 | 88   | 13 | 6.4 | 7.9 | M10       | 35    | 610   |
| ZMVT16      | M80×2     | 110           | 96   | 97  | 83  | 30 | 95   | 16 | 6.4 | 7.9 | M10       | 35    | 910   |
| ZMVT17      | M85×2     | 115           | 100  | 102 | 88  | 32 | 100  | 17 | 6.4 | 9.6 | M12       | 60    | 1,050 |
| ZMVT18      | M90×2     | 120           | 105  | 110 | 93  | 32 | 108  | 17 | 6.4 | 9.6 | M12       | 60    | 1,100 |
| ZMVT19      | M95×2     | 125           | 110  | 114 | 98  | 32 | 113  | 17 | 6.4 | 9.6 | M12       | 60    | 1,150 |
| ZMVT20      | M100×2    | 130           | 115  | 120 | 103 | 32 | 118  | 17 | 6.4 | 9.6 | M12       | 60    | 1,200 |
| ZMVT22      | M110×2    | 140           | 128  | 132 | 112 | 32 | 125  | 17 | 6.4 | 9.6 | M12       | 60    | 1,350 |
| ZMVT24      | M120×2    | 155           | 138  | 142 | 122 | 32 | 140  | 17 | 6.4 | 9.6 | M12       | 60    | 1,700 |
| ZMVT26      | M130×3    | 165           | 148  | 156 | 132 | 32 | 153  | 17 | 6.4 | 9.6 | M12       | 60    | 1,900 |
| ZMVT28      | M140×3    | 180           | 160  | 166 | 142 | 32 | 165  | 17 | 6.4 | 9.6 | M12       | 60    | 2,250 |
| ZMVT30      | M150×3    | 195           | 173  | 180 | 152 | 32 | 175  | 17 | 6.4 | 9.6 | M12       | 60    | 2,450 |
| ZMVT32      | M160×3    | 205           | 182  | 190 | 162 | 32 | 185  | 17 | 8.4 | 9.6 | M12       | 60    | 2,900 |
| ZMVT34      | M170×3    | 215           | 192  | 205 | 172 | 32 | 195  | 17 | 8.4 | 9.6 | M12       | 60    | 3,150 |
| ZMVT36      | M180×3    | 230           | 205  | 215 | 182 | 32 | 210  | 17 | 8.4 | 9.6 | M12       | 60    | 3,650 |
| ZMVT38      | M190×3    | 240           | 215  | 225 | 192 | 32 | 224  | 17 | 8.4 | 9.6 | M12       | 60    | 3,850 |
| ZMVT40      | M200×3    | 245           | 223  | 237 | 202 | 32 | 229  | 17 | 8.4 | 9.6 | M12       | 60    | 3,700 |



Features

Prevailing Torque of DCN is higher than existing Locknut Install and Removal of Locknut body is easier than existing Locknut. Especially, DCN has excellent self- locking feature under vibration and high-speed rotation. DCN can get a relatively large thrust load. It is easy to adjust the run-out. The choice is wide due to the two kinds of thickness.

Specifications

- Material : S45C

- Hardness : HRC 22-28

- Thread Accuracy: ISO 4H
- Set screw Material : SCM435

- Surface treatment : Black phosphated coating

- Perpendicularity : 0.002mm~0.007mm

Usage

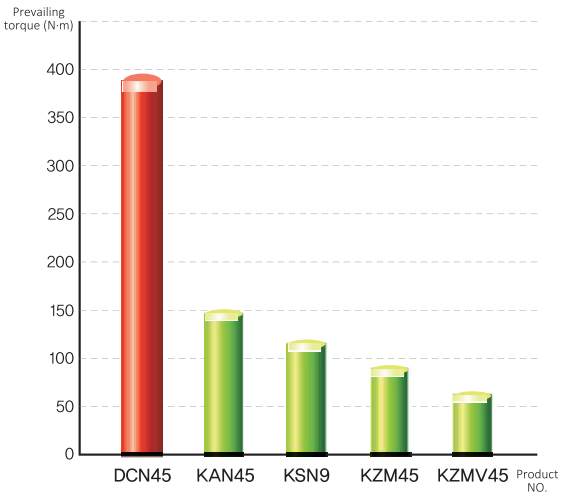
Comparison

▼ DCN45X1.5 Prevailing Torque Comparison

| Product NO.         | Tightening torque(N·m) | Set screw | Prevailing torque (N·m) |
|---------------------|------------------------|-----------|-------------------------|
| DCN45 (M45 × 1.5P)  | 8                      | 3-M6      | 384                     |
| KAN45 (M45 × 1.5P)  | 3                      | 6-M4      | 153                     |
| KSN9 (M45 × 1.5P)   | 8                      | 3-M6      | 123                     |
| KZM45 (M45 × 1.5P)  | 8                      | 3-M6      | 83                      |
| KZMV45 (M45 × 1.5P) | 8                      | 3-M6      | 65                      |

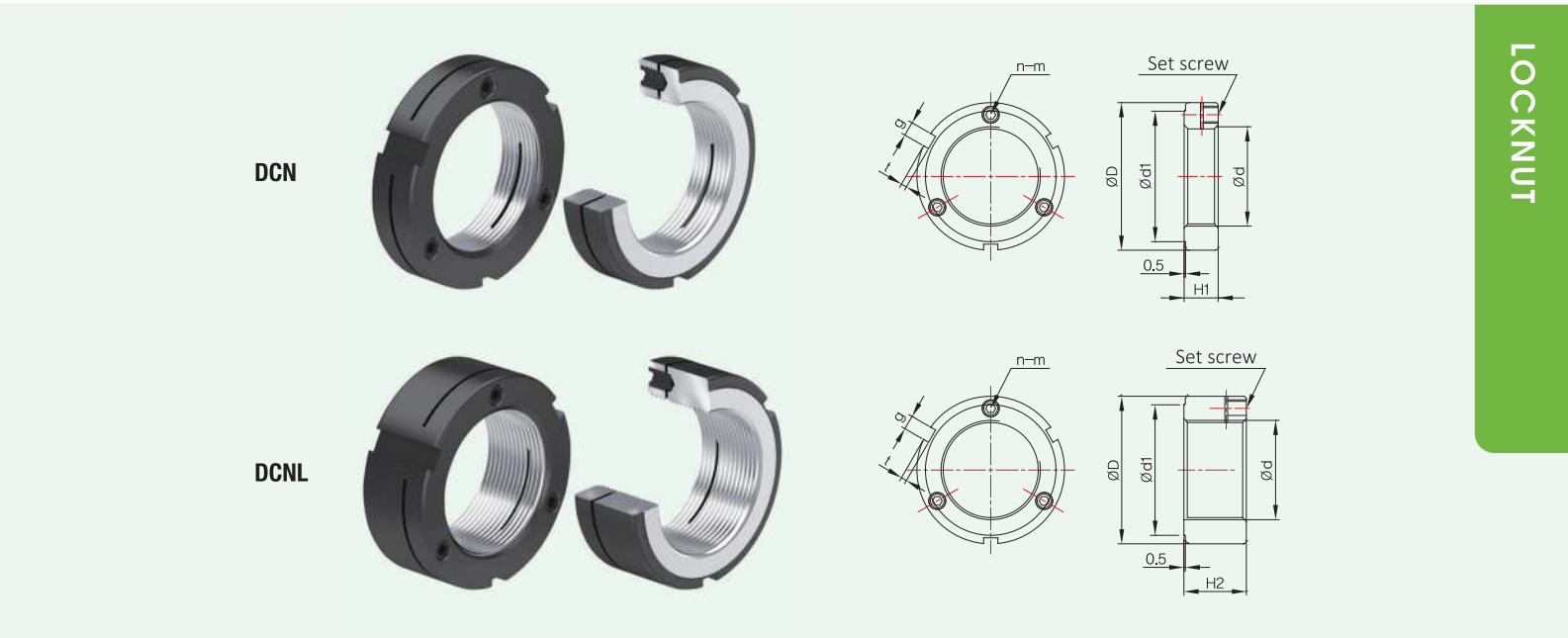
※ KAN is tightened with hexagon wrench bolt.  
Measuring instrument

▼ Prevailing Torque Comparison



Order Method  
(Order Example)

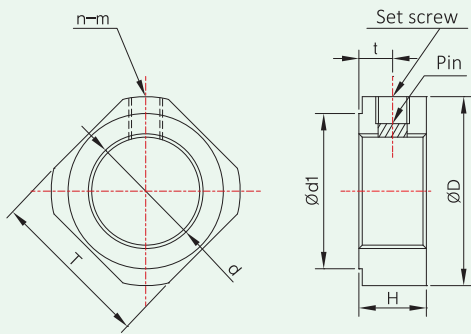
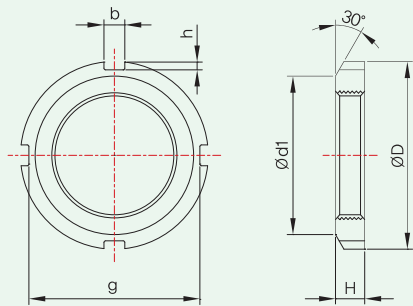
| DCN(L)     | 30 | 1.5   |
|------------|----|-------|
| Product NO | d  | Pitch |



| Product NO.<br>d X pitch | Dimension(mm) |    |    |    |     |     | Set Screw |       | Mass     |           |
|--------------------------|---------------|----|----|----|-----|-----|-----------|-------|----------|-----------|
|                          | D             | H1 | H2 | g  | t   | d1  | n-m       | N · m | DCN<br>g | DCNL<br>g |
| DCN(L)20 × 1             | 32            | 10 | 18 | 4  | 2   | 26  | 3-M5      | 4.5   | 34       | 110       |
| DCN(L)25 × 1.5           | 38            | 12 | 20 | 5  | 2   | 32  | 3-M5      | 4.5   | 58       | 130       |
| DCN(L)30 × 1.5           | 45            | 12 | 20 | 5  | 2   | 39  | 3-M5      | 4.5   | 78       | 160       |
| DCN(L)35 × 1.5           | 52            | 12 | 22 | 5  | 2   | 46  | 3-M6      | 8     | 104      | 190       |
| DCN(L)40 × 1.5           | 58            | 14 | 22 | 6  | 2.5 | 51  | 3-M6      | 8     | 148      | 300       |
| DCN(L)45 × 1.5           | 65            | 14 | 22 | 6  | 2.5 | 58  | 3-M6      | 8     | 184      | 330       |
| DCN(L)50 × 1.5           | 70            | 14 | 25 | 6  | 2.5 | 63  | 3-M6      | 8     | 200      | 400       |
| DCN(L)55 × 2             | 75            | 16 | 25 | 7  | 3   | 67  | 3-M6      | 8     | 246      | 540       |
| DCN(L)60 × 2             | 80            | 16 | 26 | 7  | 3   | 72  | 3-M6      | 8     | 270      | 610       |
| DCN(L)65 × 2             | 85            | 16 | 28 | 7  | 3   | 77  | 3-M6      | 8     | 290      | 710       |
| DCN(L)70 × 2             | 92            | 18 | 28 | 8  | 3.5 | 83  | 3-M8      | 18    | 398      | 750       |
| DCN(L)75 × 2             | 98            | 18 | 28 | 8  | 3.5 | 89  | 3-M8      | 18    | 434      | 800       |
| DCN(L)80 × 2             | 105           | 18 | 32 | 8  | 3.5 | 96  | 3-M8      | 18    | 504      | 900       |
| DCN(L)85 × 2             | 110           | 18 | 32 | 8  | 3.5 | 101 | 3-M8      | 18    | 532      | 1,150     |
| DCN(L)90 × 2             | 120           | 20 | 32 | 10 | 4   | 108 | 3-M8      | 18    | 762      | 1,200     |
| DCN(L)95 × 2             | 125           | 20 | 32 | 10 | 4   | 113 | 3-M8      | 18    | 796      | 1,250     |
| DCN(L)100 × 2            | 130           | 20 | 32 | 10 | 4   | 118 | 3-M8      | 18    | 836      | 1,300     |
| DCN(L)105 × 2            | 140           | 22 | 32 | 12 | 5   | 125 | 3-M10     | 35    | 1,130    | 1,375     |
| DCN(L)110 × 2            | 145           | 22 | 32 | 12 | 5   | 132 | 3-M10     | 35    | 1,172    | 1,450     |
| DCN(L)115 × 2            | 150           | 22 | 32 | 12 | 5   | 137 | 3-M10     | 35    | 1,270    | 1,525     |
| DCN(L)120 × 2            | 155           | 24 | 32 | 12 | 5   | 142 | 3-M10     | 35    | 1,390    | 1,600     |
| DCN(L)125 × 2            | 160           | 24 | 32 | 12 | 5   | 147 | 3-M10     | 35    | 1,450    | 1,650     |
| DCN(L)130 × 2            | 165           | 24 | 32 | 12 | 5   | 152 | 3-M10     | 35    | 1,500    | 1,700     |
| DCN(L)135 × 2            | 175           | 26 | 32 | 14 | 6   | 160 | 3-M12     | 60    | 1,930    | 1,750     |
| DCN(L)140 × 2            | 180           | 26 | 32 | 14 | 6   | 165 | 3-M12     | 60    | 1,950    | 1,800     |
| DCN(L)145 × 2            | 190           | 26 | 32 | 14 | 6   | 175 | 3-M12     | 60    | 2,380    | 1,875     |
| DCN(L)150 × 2            | 195           | 26 | 32 | 14 | 6   | 180 | 3-M12     | 60    | 2,440    | 1,950     |
| DCN(L)155 × 3            | 200           | 28 | 32 | 16 | 7   | 180 | 3-M12     | 60    | 2,760    | 2,025     |
| DCN(L)160 × 3            | 210           | 28 | 32 | 16 | 7   | 190 | 3-M12     | 60    | 3,160    | 2,100     |
| DCN(L)165 × 3            | 210           | 28 | 32 | 16 | 7   | 190 | 3-M12     | 60    | 3,300    | 2,150     |
| DCN(L)170 × 3            | 220           | 28 | 32 | 16 | 7   | 200 | 3-M12     | 60    | 3,315    | 2,200     |
| DCN(L)180 × 3            | 230           | 30 | 32 | 18 | 8   | 205 | 3-M12     | 60    | 3,690    | 2,300     |
| DCN(L)190 × 3            | 240           | 30 | 32 | 18 | 8   | 215 | 3-M12     | 60    | 3,880    | 2,400     |
| DCN(L)200 × 3            | 250           | 32 | 32 | 18 | 8   | 225 | 3-M12     | 60    | 4,370    | 2,500     |

\* From DCN 105×2, it will be produced after order. So please ask to our company about delivery time.





Specifications

- Material : S45C
- Hardness : HRC 22 - 28
- Surface treatment: Black phosphated coating
- Thread Accuracy : ISO4H
- Perpendicularity : 0.002 ~ 0.007

Order Method  
(Order Example)

| AN6        | 30 | 1.5   |
|------------|----|-------|
| Product NO | d  | Pitch |

Specifications

- Material : S45C
- Hardness : HRC 22 - 28
- Surface treatment: Black phosphated coating
- Thread Accuracy : ISO4H
- Perpendicularity : 0.002 ~ 0.007

Order Method  
(Order Example)

| DN         | 30 | 1.5   |
|------------|----|-------|
| Product NO | d  | Pitch |

| Product NO. | d X pitch | Dimension(mm) |     |     |    |     |    | Adapter sleeve | washer |
|-------------|-----------|---------------|-----|-----|----|-----|----|----------------|--------|
|             |           | D             | d1  | g   | b  | h   | H  |                |        |
|             |           | mm            | mm  | mm  | mm | mm  | mm |                |        |
| AN02        | M15×1     | 25            | 21  | 21  | 4  | 2   | 5  | -              | AW02   |
| AN03        | M17×1     | 28            | 24  | 24  | 4  | 2   | 5  | -              | AW03   |
| AN04        | M20×1     | 32            | 26  | 28  | 4  | 2   | 6  | 04             | AW04   |
| AN05        | M25×1.5   | 38            | 32  | 34  | 5  | 2   | 7  | 05             | AW05   |
| AN06        | M30×1.5   | 45            | 38  | 41  | 5  | 2   | 7  | 06             | AW06   |
| AN07        | M35×1.5   | 52            | 44  | 48  | 5  | 2   | 8  | 07             | AW07   |
| AN08        | M40×1.5   | 58            | 50  | 53  | 6  | 2.5 | 9  | 08             | AW08   |
| AN09        | M45×1.5   | 65            | 56  | 60  | 6  | 2.5 | 10 | 09             | AW09   |
| AN10        | M50×1.5   | 70            | 61  | 65  | 6  | 2.5 | 11 | 10             | AW10   |
| AN11        | M55×2     | 75            | 67  | 69  | 7  | 3   | 11 | 11             | AW11   |
| AN12        | M60×2     | 80            | 73  | 74  | 7  | 3   | 11 | 12             | AW12   |
| AN13        | M65×2     | 85            | 79  | 79  | 7  | 3   | 12 | 13             | AW13   |
| AN14        | M70×2     | 92            | 85  | 85  | 8  | 3.5 | 12 | 14             | AW14   |
| AN15        | M75×2     | 98            | 90  | 91  | 8  | 3.5 | 13 | 15             | AW15   |
| AN16        | M80×2     | 105           | 95  | 98  | 8  | 3.5 | 15 | 16             | AW16   |
| AN17        | M85×2     | 110           | 102 | 103 | 8  | 3.5 | 16 | 17             | AW17   |
| AN18        | M90×2     | 120           | 108 | 112 | 10 | 4   | 16 | 18             | AW18   |
| AN19        | M95×2     | 125           | 113 | 117 | 10 | 4   | 17 | 19             | AW19   |
| AN20        | M100×2    | 130           | 120 | 122 | 10 | 4   | 18 | 20             | AW20   |
| AN21        | M105×2    | 140           | 126 | 130 | 12 | 5   | 18 | 21             | AW21   |
| AN22        | M110×2    | 145           | 133 | 135 | 12 | 5   | 19 | 22             | AW22   |
| AN23        | M115×2    | 150           | 137 | 140 | 12 | 5   | 19 | -              | AW23   |
| AN24        | M120×2    | 155           | 138 | 145 | 12 | 5   | 20 | 24             | AW24   |
| AN25        | M125×2    | 160           | 148 | 150 | 12 | 5   | 21 | -              | AW25   |
| AN26        | M130×2    | 165           | 149 | 155 | 12 | 5   | 21 | 26             | AW26   |
| AN27        | M135×2    | 175           | 160 | 163 | 14 | 6   | 22 | -              | AW27   |
| AN28        | M140×2    | 180           | 160 | 168 | 14 | 6   | 22 | 28             | AW28   |
| AN29        | M145×2    | 190           | 172 | 178 | 14 | 6   | 24 | -              | AW29   |
| AN30        | M150×2    | 195           | 171 | 183 | 14 | 6   | 24 | 30             | AW30   |
| AN31        | M155×3    | 200           | 182 | 186 | 16 | 7   | 25 | -              | -      |
| AN32        | M160×3    | 210           | 182 | 196 | 16 | 7   | 25 | 32             | AW32   |
| AN33        | M165×3    | 210           | 193 | 196 | 16 | 7   | 26 | -              | -      |
| AN34        | M170×3    | 220           | 193 | 206 | 16 | 7   | 26 | 34             | AW34   |
| AN36        | M180×3    | 230           | 203 | 214 | 18 | 8   | 27 | 36             | AW36   |
| AN38        | M190×3    | 240           | 214 | 224 | 18 | 8   | 28 | 38             | AW38   |
| AN40        | M200×3    | 250           | 226 | 234 | 18 | 8   | 29 | 40             | AW40   |

| Product NO. | d X pitch | Dimension(mm) |    |      |     |     | Set screw |     | Mass |
|-------------|-----------|---------------|----|------|-----|-----|-----------|-----|------|
|             |           | D             | d1 | T    | t   | H   | n-m       | N-m | g    |
|             |           | mm            | mm | mm   | mm  | mm  |           |     |      |
| DN4         | M4×0.5    | 11.5          | 8  | 10   | 2.8 | 5   | M3        | 0.9 | 2    |
| DN5         | M5×0.5    | 13.5          | 9  | 11   | 2.8 | 5   | M3        | 0.9 | 3    |
| DN6         | M6×0.75   | 14.5          | 10 | 12   | 3.1 | 5.5 | M3        | 0.9 | 4    |
| DN8         | M8×1      | 16            | 13 | 14   | 3.9 | 7.0 | M3        | 0.9 | 8    |
| DN8         | M8×0.75   | 16            | 13 | 14   | 3.9 | 7.0 | M3        | 0.9 | 8    |
| DN10        | M10×1     | 20            | 16 | 17   | 4.5 | 8.0 | M4        | 2   | 12   |
| DN10        | M10×0.75  | 20            | 16 | 17   | 4.5 | 8.0 | M4        | 2   | 12   |
| DN10-S      | M10×1     | 20            | 16 | 17   | 4.5 | 8.0 | 2-M4      | 2   | 12   |
| DN12        | M12×1     | 22            | 18 | 19   | 4.5 | 8.0 | M4        | 2   | 14   |
| DN12-S      | M12×1     | 22            | 18 | 19   | 4.5 | 8.0 | 2-M4      | 2   | 14   |
| DN15        | M15×1     | 25            | 21 | 22   | 4.5 | 8.0 | 2-M4      | 2   | 16   |
| DN17        | M17×1     | 28            | 23 | 24   | 5.4 | 10  | 2-M5      | 4.5 | 24   |
| DN17-S      | M17×1     | 30            | 25 | 24   | 9   | 13  | 2-M5      | 4.5 | 34   |
| DN20        | M20×1     | 32            | 27 | 28   | 5.4 | 10  | 2-M5      | 4.5 | 32   |
| DN20-S      | M20×1     | 35            | 26 | 29.3 | 7   | 11  | 2-M5      | 4.5 | 42   |
| DN25        | M25×1.5   | 38            | 33 | 34   | 6.5 | 12  | 2-M6      | 8   | 52   |
| DN30        | M30×1.5   | 45            | 40 | 41   | 6.5 | 12  | 2-M6      | 8   | 74   |
| DN35        | M35×1.5   | 52            | 47 | 48   | 6.5 | 12  | 2-M6      | 8   | 100  |
| DN40        | M40×1.5   | 58            | 52 | 53   | 8   | 14  | 2-M6      | 8   | 134  |

# GRINDING LOCKNUT

Grinding Locknut Series of DURI are divided into Grinding Locknut, Ultra Grinding Locknut and Ultra Balancing Grinding Locknut depending on the surface to be polished and their shape and function.

DURI's Grinding Locknut Series is more strictly controlled and has a high Thread Accuracy, such as perpendicularity, planarity, and concentricity, compared to Turning Locknuts. Because of this, the Grinding Locknut Series can maintain stable operation without vibration due to high precision even during high-speed rotation. It is the best Locknut that can be used safely with high-speed precision spindle.



Contents

GRINDING LOCKNUT

- 110 ZMG
- 111 ZMVG
- 112 ZMFG

ULTRA GRINDING LOCKNUT

- 116 UZMG
- 117 UZMVG
- 118 UZMFG
- 119 UKANG

ULTRA BALANCING GRINDING LOCKNUT

- 122 UBGN-A
- 123 UBGN-B
- 124 UBGN-C
- 125 UBGN-D
- 126 UBGN-E



# GRINDING LOCKNUT



Precision grinding locknut type of standard shape. DURI Grinding Locknut is applied to the high-precision high-speed spindle or the high-rigidity high-speed-rotation ball screw support bearings.

Right after grinding all of thread area at the same time, connecting face contacting with the bearing are grinded with the same chucking state. So perpendicularity are being strictly followed with very high precision. And Grinding pattern of connecting face express that both the axis of rotation of products processing surface and the axis of the grinding wheel is exactly perpendicular and flatness is very excellent. DURI Grinding Locknuts are manufactured by finely grinding both threads and clamping face at the same time, thereby preventing the bur of the threads. Because it can maintain stable operation without vibration by a high precision even during high-speed-rotation, this is the best locknut for using high-speed high-precision spindle at ease. DURI grinding locknuts is a environment-friendly locknut satisfying the requirements of RoHS, JIG24 etc.

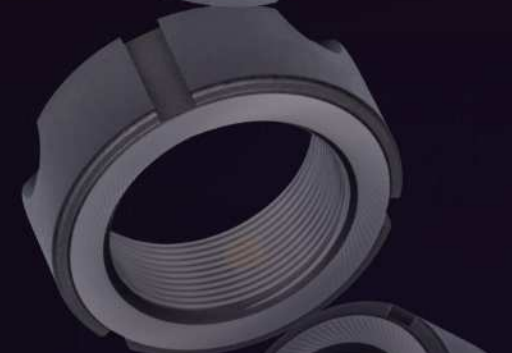
110 ZMG



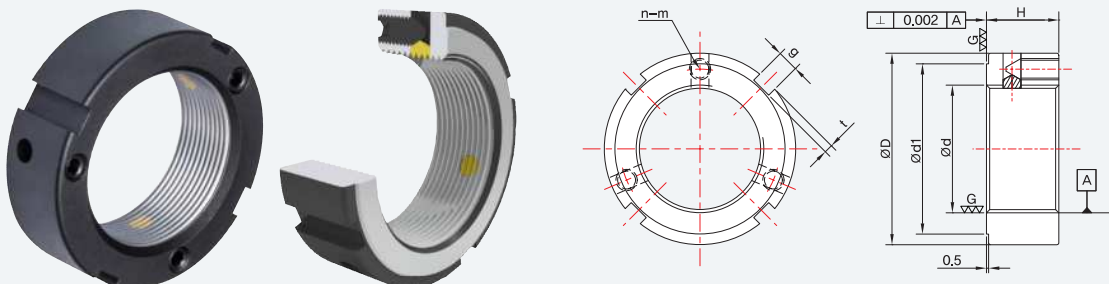
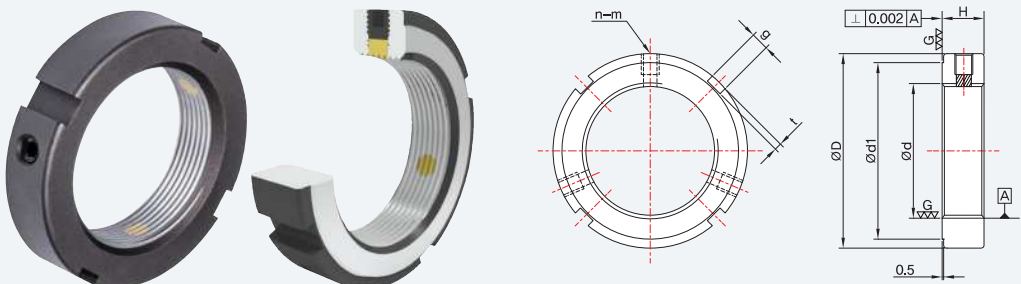
111 ZMVG



112 ZMFG







Features

Due to the thickness comparatively thinner than other types, this type is especially applicable when there are space restrictions.  
This type is a grinding locknut that its clamping face and thread are finely grinded at the same time and the perpendicularity is well managed.

Specifications

- Material : SCM440(42CrMo4)    - Hardness : HRC 28~32    - Thread Accuracy : ISO 4H  
- Perpendicularity: 0.002mm    - Manufacturing Method : High Precision Grinding

Order Method  
(Order Example)

| ZMG        | 30 | 1.5   |
|------------|----|-------|
| Product NO | d  | Pitch |

| Product NO.<br>d X pitch | D<br>mm | H<br>mm | g<br>mm | t<br>mm | d1<br>mm | n-m   | MAX. N · m |
|--------------------------|---------|---------|---------|---------|----------|-------|------------|
| ZMG8×0.75                | 16      | 8       | 3       | 2       | 11       | 2-M4  | 2.0        |
| ZMG10×0.75               | 18      | 8       | 3       | 2       | 13       | 2-M4  | 2.0        |
| ZMG10×1                  | 18      | 8       | 3       | 2       | 13       | 2-M4  | 2.0        |
| ZMG12×1                  | 22      | 8       | 3       | 2       | 16       | 2-M4  | 2.0        |
| ZMG15×1                  | 25      | 8       | 3       | 2       | 20       | 2-M4  | 2.0        |
| ZMG17×1                  | 28      | 10      | 4       | 2       | 23       | 2-M5  | 4.5        |
| ZMG20×1                  | 32      | 10      | 4       | 2       | 26       | 3-M5  | 4.5        |
| ZMG25×1.5                | 38      | 12      | 5       | 2       | 32       | 3-M6  | 8.0        |
| ZMG30×1.5                | 45      | 12      | 5       | 2       | 39       | 3-M6  | 8.0        |
| ZMG35×1.5                | 52      | 12      | 5       | 2       | 46       | 3-M6  | 8.0        |
| ZMG40×1.5                | 58      | 14      | 6       | 2.5     | 51       | 3-M6  | 8.0        |
| ZMG45×1.5                | 65      | 14      | 6       | 2.5     | 58       | 3-M6  | 8.0        |
| ZMG50×1.5                | 70      | 14      | 6       | 2.5     | 63       | 3-M6  | 8.0        |
| ZMG55×2                  | 75      | 16      | 7       | 3       | 67       | 3-M8  | 18.0       |
| ZMG60×2                  | 80      | 16      | 7       | 3       | 72       | 3-M8  | 18.0       |
| ZMG65×2                  | 85      | 16      | 7       | 3       | 77       | 3-M8  | 18.0       |
| ZMG70×2                  | 92      | 18      | 8       | 3.5     | 83       | 3-M8  | 18.0       |
| ZMG75×2                  | 98      | 18      | 8       | 3.5     | 89       | 3-M8  | 18.0       |
| ZMG80×2                  | 105     | 18      | 8       | 3.5     | 96       | 3-M8  | 18.0       |
| ZMG85×2                  | 110     | 18      | 8       | 3.5     | 101      | 3-M8  | 18.0       |
| ZMG90×2                  | 120     | 20      | 10      | 4       | 108      | 3-M8  | 18.0       |
| ZMG95×2                  | 125     | 20      | 10      | 4       | 113      | 3-M8  | 18.0       |
| ZMG100×2                 | 130     | 20      | 10      | 4       | 118      | 3-M8  | 18.0       |
| ZMG105×2                 | 140     | 22      | 12      | 5       | 125      | 3-M8  | 18.0       |
| ZMG110×2                 | 145     | 22      | 12      | 5       | 132      | 3-M8  | 18.0       |
| ZMG115×2                 | 150     | 22      | 12      | 5       | 137      | 3-M8  | 18.0       |
| ZMG120×2                 | 155     | 24      | 12      | 5       | 142      | 3-M8  | 18.0       |
| ZMG125×2                 | 160     | 24      | 12      | 5       | 147      | 3-M8  | 18.0       |
| ZMG130×2                 | 165     | 24      | 12      | 5       | 152      | 3-M8  | 18.0       |
| ZMG135×2                 | 175     | 26      | 14      | 6       | 160      | 3-M10 | 35.0       |
| ZMG140×2                 | 180     | 26      | 14      | 6       | 165      | 3-M10 | 35.0       |
| ZMG145×2                 | 190     | 26      | 14      | 6       | 175      | 3-M10 | 35.0       |
| ZMG150×2                 | 195     | 26      | 14      | 6       | 180      | 3-M10 | 35.0       |
| ZMG155×3                 | 200     | 28      | 16      | 7       | 180      | 3-M10 | 35.0       |
| ZMG160×3                 | 210     | 28      | 16      | 7       | 190      | 3-M10 | 35.0       |
| ZMG165×3                 | 210     | 28      | 16      | 7       | 190      | 3-M10 | 35.0       |
| ZMG170×3                 | 220     | 28      | 16      | 7       | 200      | 3-M10 | 35.0       |

Features

This type locks set screws from the axial direction. It is applicable when there are restrictions of side space. This type is a grinding locknut that its clamping face and thread are finely grinded at the same time and the perpendicularity is well managed.

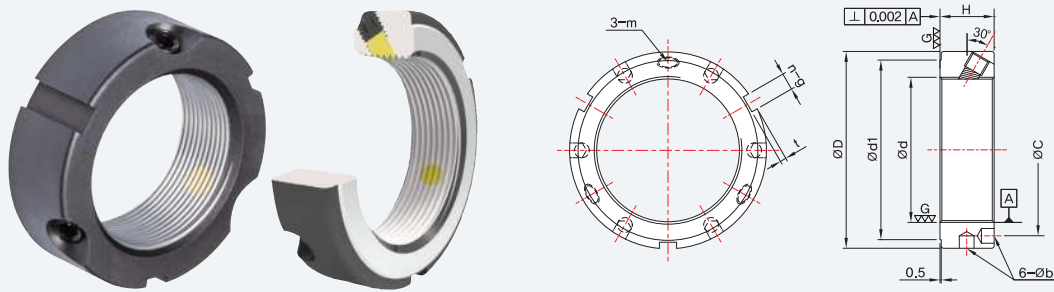
Specifications

- Material : SCM440(42CrMo4)    - Hardness : HRC 28~32    - Thread Accuracy : ISO 4H  
- Perpendicularity: 0.002mm    - Manufacturing Method : High Precision Grinding

Order Method  
(Order Example)

| ZMVG       | 30 | 1.5   |
|------------|----|-------|
| Product NO | d  | Pitch |

| Product NO.<br>d X pitch | D<br>mm | H<br>mm | g<br>mm | t<br>mm | d1<br>mm | n-m   | MAX. N · m |
|--------------------------|---------|---------|---------|---------|----------|-------|------------|
| ZMVG17×1                 | 28      | 15      | 4       | 2       | 23       | 2-M4  | 2.0        |
| ZMVG20×1                 | 32      | 15      | 4       | 2       | 26       | 3-M4  | 2.0        |
| ZMVG25×1.5               | 38      | 17      | 5       | 2       | 32       | 3-M5  | 4.5        |
| ZMVG30×1.5               | 45      | 17      | 5       | 2       | 39       | 3-M5  | 4.5        |
| ZMVG35×1.5               | 52      | 17      | 5       | 2       | 46       | 3-M5  | 4.5        |
| ZMVG40×1.5               | 58      | 19      | 6       | 2.5     | 51       | 3-M6  | 8.0        |
| ZMVG45×1.5               | 65      | 19      | 6       | 2.5     | 58       | 3-M6  | 8.0        |
| ZMVG50×1.5               | 70      | 19      | 6       | 2.5     | 63       | 3-M6  | 8.0        |
| ZMVG55×2                 | 75      | 21      | 7       | 3       | 67       | 3-M6  | 8.0        |
| ZMVG60×2                 | 80      | 21      | 7       | 3       | 72       | 3-M6  | 8.0        |
| ZMVG65×2                 | 85      | 21      | 7       | 3       | 77       | 3-M6  | 8.0        |
| ZMVG70×2                 | 92      | 23      | 8       | 3.5     | 83       | 3-M8  | 18.0       |
| ZMVG75×2                 | 98      | 23      | 8       | 3.5     | 89       | 3-M8  | 18.0       |
| ZMVG80×2                 | 105     | 23      | 8       | 3.5     | 96       | 3-M8  | 18.0       |
| ZMVG85×2                 | 110     | 23      | 8       | 3.5     | 101      | 3-M8  | 18.0       |
| ZMVG90×2                 | 120     | 25      | 10      | 4       | 108      | 3-M8  | 18.0       |
| ZMVG95×2                 | 125     | 25      | 10      | 4       | 113      | 3-M8  | 18.0       |
| ZMVG100×2                | 130     | 25      | 10      | 4       | 118      | 3-M8  | 18.0       |
| ZMVG105×2                | 140     | 27      | 12      | 5       | 125      | 3-M10 | 35.0       |
| ZMVG110×2                | 145     | 27      | 12      | 5       | 132      | 3-M10 | 35.0       |
| ZMVG115×2                | 150     | 27      | 12      | 5       | 137      | 3-M10 | 35.0       |
| ZMVG120×2                | 155     | 29      | 12      | 5       | 142      | 3-M10 | 35.0       |
| ZMVG125×2                | 160     | 29      | 12      | 5       | 147      | 3-M10 | 35.0       |
| ZMVG130×2                | 165     | 29      | 12      | 5       | 152      | 3-M10 | 35.0       |
| ZMVG135×2                | 175     | 31      | 14      | 6       | 160      | 3-M12 | 60.0       |
| ZMVG140×2                | 180     | 31      | 14      | 6       | 165      | 3-M12 | 60.0       |
| ZMVG145×2                | 190     | 31      | 14      | 6       | 175      | 3-M12 | 60.0       |
| ZMVG150×2                | 195     | 31      | 14      | 6       | 180      | 3-M12 | 60.0       |
| ZMVG155×3                | 200     | 33      | 16      | 7       | 180      | 3-M12 | 60.0       |
| ZMVG160×3                | 210     | 33      | 16      | 7       | 190      | 3-M12 | 60.0       |
| ZMVG165×3                | 210     | 33      | 16      | 7       | 190      | 3-M12 | 60.0       |
| ZMVG170×3                | 220     | 33      | 16      | 7       | 200      | 3-M12 | 60.0       |



Features

This type locks set-screws from the diagonal direction. Placing set-screws 60°relative to the radial plane, this type provides stable locking force by preventing loosening. By using the set-screws, it is easy for fitting the concentric. This type is a grinding locknut that its clamping face and thread are finely grinded at the same time and the perpendicularity is well managed.

Specifications

- Material : SCM440(42CrMo4)
- Hardness : HRC 28~32
- Thread Accuracy : ISO 4H
- Perpendicularity: 0.002mm
- Manufacturing Method : High Precision Grinding

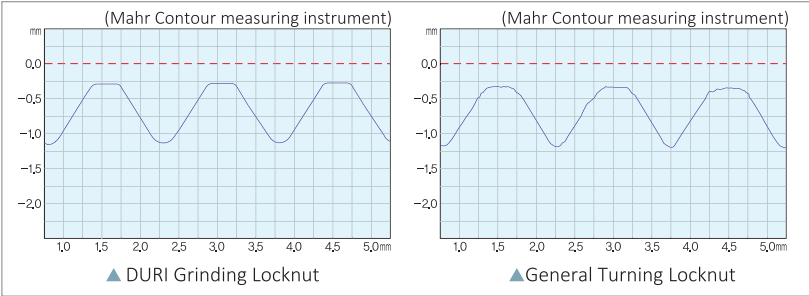
Order Method  
(Order Example)

| ZMFG       | 30 | 1.5   |
|------------|----|-------|
| Product NO | d  | Pitch |

| Product NO.<br>d X pitch | D<br>mm | H<br>mm | d1<br>mm | n-g<br>mm | b<br>mm | t<br>mm | c<br>mm | m   | MAX. N·m |
|--------------------------|---------|---------|----------|-----------|---------|---------|---------|-----|----------|
| ZMFG20×1                 | 38      | 16      | 33       | 3-4       | -       | 2       | -       | M6  | 4.5      |
| ZMFG25×1.5               | 38      | 18      | 33       | 3-5       | -       | 2       | -       | M6  | 8.0      |
| ZMFG30×1.5               | 45      | 18      | 40       | 3-5       | -       | 2       | -       | M6  | 8.0      |
| ZMFG35×1.5               | 52      | 18      | 47       | 3-5       | -       | 2       | -       | M8  | 18.0     |
| ZMFG40×1.5               | 58      | 20      | 52       | 3-6       | -       | 2.5     | -       | M8  | 18.0     |
| ZMFG45×1.5               | 65      | 20      | 59       | 3-6       | -       | 2.5     | -       | M8  | 18.0     |
| ZMFG50×1.5               | 70      | 20      | 64       | 3-6       | -       | 2.5     | -       | M8  | 18.0     |
| ZMFG55×2                 | 75      | 22      | 68       | 3-7       | 6       | 3       | 65      | M8  | 18.0     |
| ZMFG60×2                 | 80      | 22      | 73       | 3-7       | 6       | 3       | 70      | M8  | 18.0     |
| ZMFG65×2                 | 85      | 22      | 78       | 3-7       | 6       | 3       | 75      | M8  | 18.0     |
| ZMFG70×2                 | 92      | 24      | 84       | 3-8       | 6       | 3.5     | 81      | M8  | 18.0     |
| ZMFG75×2                 | 98      | 24      | 90       | 3-8       | 6       | 3.5     | 87      | M8  | 18.0     |
| ZMFG80×2                 | 105     | 24      | 96       | 3-8       | 7       | 3.5     | 93      | M8  | 18.0     |
| ZMFG85×2                 | 110     | 24      | 102      | 6-8       | 7       | 3.5     | 98      | M8  | 18.0     |
| ZMFG90×2                 | 120     | 26      | 108      | 6-10      | 7       | 4       | 105     | M8  | 18.0     |
| ZMFG95×2                 | 125     | 26      | 113      | 6-10      | 7       | 4       | 110     | M8  | 18.0     |
| ZMFG100×2                | 130     | 26      | 118      | 6-10      | 7       | 4       | 115     | M8  | 18.0     |
| ZMFG105×2                | 140     | 28      | 125      | 6-10      | 7       | 4       | 123     | M10 | 35.0     |
| ZMFG110×2                | 145     | 28      | 132      | 6-10      | 7       | 4       | 128     | M10 | 35.0     |
| ZMFG115×2                | 150     | 28      | 137      | 6-10      | 7       | 4       | 133     | M10 | 35.0     |
| ZMFG120×2                | 155     | 30      | 142      | 6-12      | 7       | 5       | 138     | M10 | 35.0     |
| ZMFG125×2                | 160     | 30      | 147      | 6-12      | 7       | 5       | 143     | M10 | 35.0     |
| ZMFG130×2                | 165     | 30      | 152      | 6-12      | 7       | 5       | 148     | M10 | 35.0     |
| ZMFG135×2                | 175     | 32      | 160      | 6-12      | 7       | 5       | 155     | M10 | 35.0     |
| ZMFG140×2                | 180     | 32      | 165      | 6-12      | 7       | 5       | 160     | M10 | 35.0     |
| ZMFG145×2                | 190     | 32      | 175      | 6-12      | 7       | 5       | 168     | M10 | 35.0     |
| ZMFG150×2                | 195     | 32      | 180      | 6-12      | 7       | 5       | 173     | M10 | 35.0     |
| ZMFG155×3                | 200     | 34      | 180      | 6-14      | 8       | 6       | 178     | M10 | 35.0     |
| ZMFG160×3                | 210     | 34      | 190      | 6-14      | 8       | 6       | 185     | M10 | 35.0     |
| ZMFG165×3                | 210     | 34      | 190      | 6-14      | 8       | 6       | 188     | M10 | 35.0     |
| ZMFG170×3                | 220     | 34      | 200      | 6-14      | 8       | 6       | 195     | M10 | 35.0     |

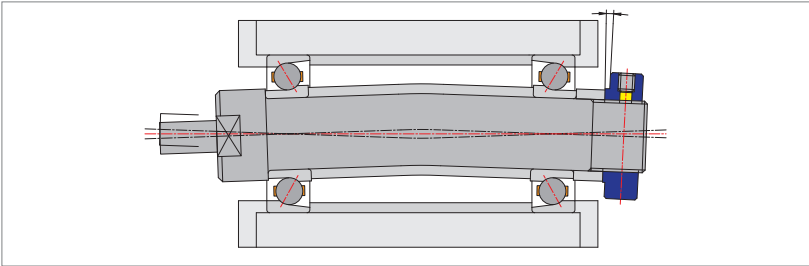
Comparison figure of thread cutting section between General Turning Locknut and DURi Grinding Locknut

DURi Grinding Locknuts are manufactured by finely grinding both threads and clamping face at the same time, thereby preventing the bur of the threads, its clamping face providing excellent surface roughness, perpendicularity and flatness. Therefore, it is suitable where high precision is required.



Shaft Vibration due to Locknut Squareness

The perpendicularity of clamping face against the locknut center is very important. The shaking of the shaft end occurs by the slope of the locknut clamping face. Bearing could be slanted by locknut. When the slant is 0.005mm, the load carrying capacity of the bearing decreases -10%, the radial stiffness -45% and its lifespan Product No. -30%, respectively.

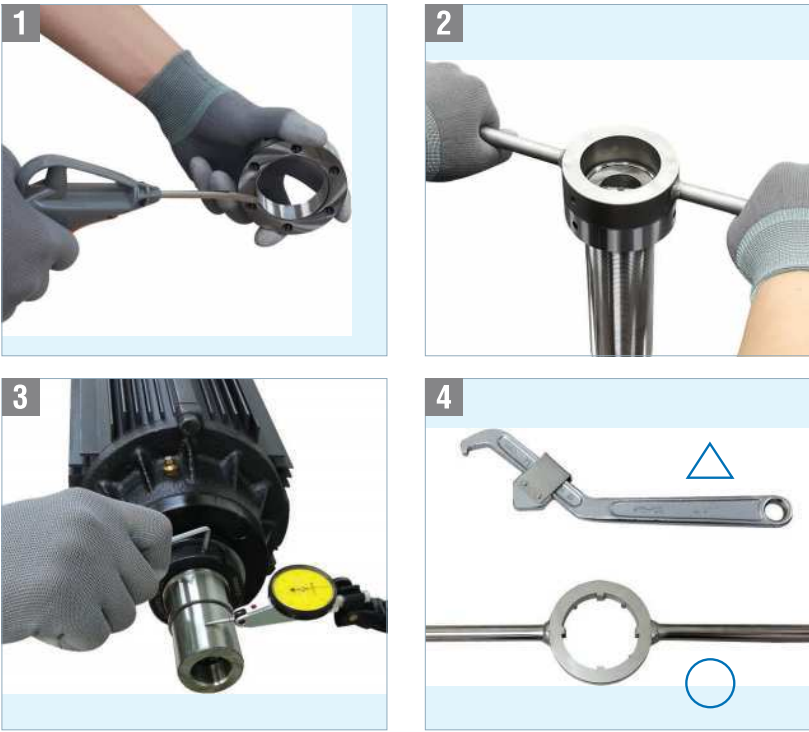


Why use DURi Grinding Locknut

The most important factors where the accuracy is critical, such as bearing assembly of ball screws and spindles, are the fitness between each component and the perpendicularity of the nuts' clamping face. These factors directly affect the lifespan, reliability and quality of the bearings, ball screws or spindles. Our products are specially manufactured to meet customers' needs.

Notes on installation

- 1 Clean the nut and the male screw by an air blow gun. Confirm that the screw part does not have any damage. Apply a little lubricant to the nut and the male screw.
- 2 Using an assembly tool, mount nuts by applying the suitable torque equally to the direction of axis. It can be precisely mounted when clamped by a spinning tool with two levers, as shown in the photograph.
- 3 Tighten all set-screws with the torque less than specified on the catalogue, checking the runout tolerance by applying a gauge at the shaft end. Tighten the nut by the suitable torque again. The suitable torque can be calculated from the load conditions required by each application. For any technical assistance, please contact our service team.
- 4 Please use the correct tool.





# ULTRA GRINDING LOCKNUT



DURI Ultra Grinding Locknut have been developed to meet the demand for machine tool spindles requiring high-speed & high-precision or high-rigidity & high-speed-rotation ball screw support bearings.

Not only thread area and clamping face but also outer skirts and trailing rims are precisely grinded. So the balance is also excellent.

Right after grinding all of thread area at the same time, clamping face contacting with the bearing are grinded with the same chucking state. So perpendicularity are being strictly followed with very high precision.

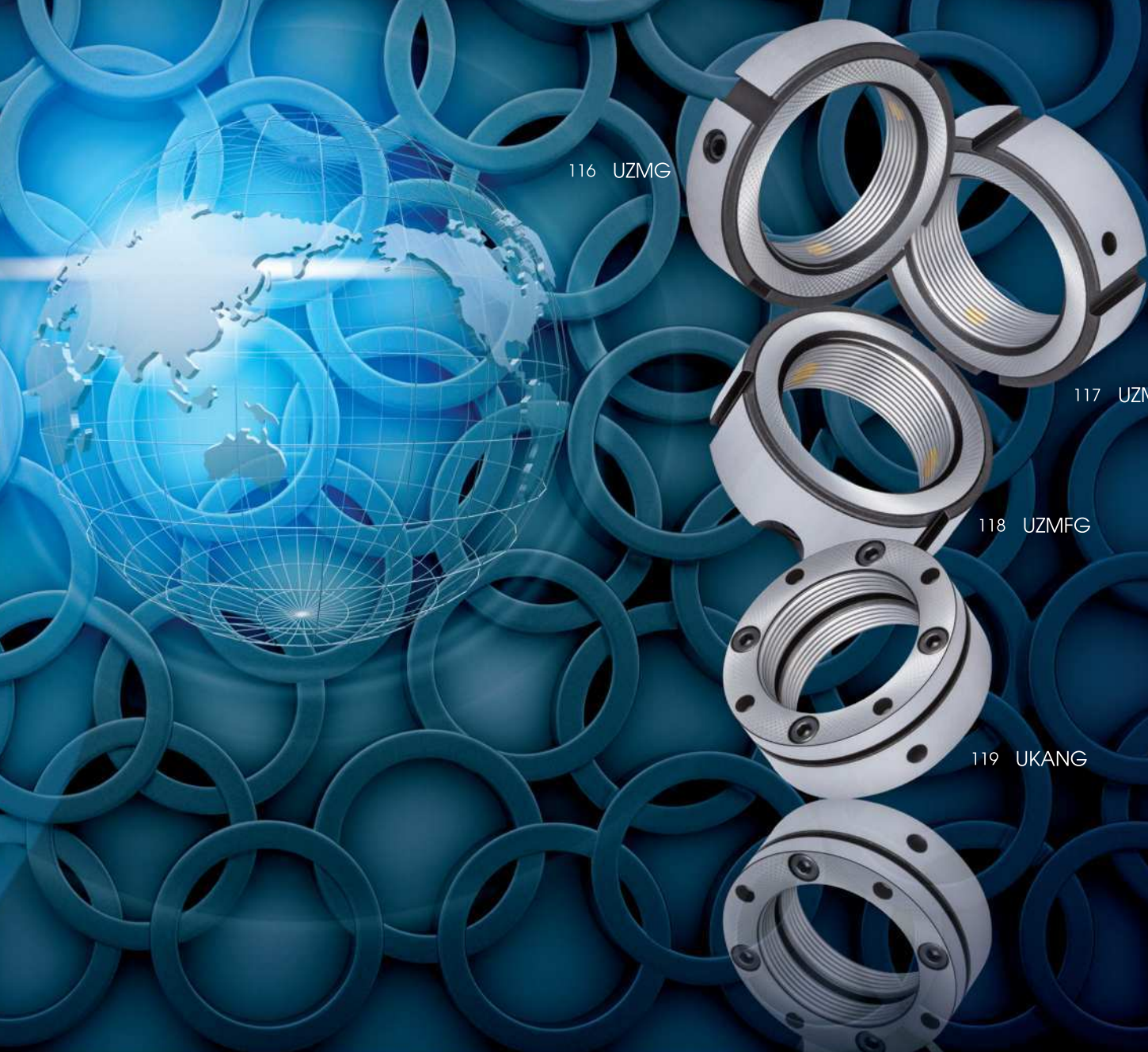
The grinding pattern of clamping face express that both the axis of rotation of products processing surface and the axis of the grinding wheel is exactly perpendicular and flatness is very excellent.

The trailing rim is also precisely grinded based on the clamping face contacting with the bearing. So the perpendicularity is also very excellent.

DURI Ultra Grinding Locknuts are manufactured by finely grinding the flank of all threads at one time, thereby preventing the bur of the threads.

Because it can maintain stable operation without vibration by a high precision even during high-speed-rotation, this is the best locknut for using high-speed & high-precision spindle at ease.

DURI Ultra Grinding Locknuts are environment-friendly locknut satisfying the requirements of RoHS, JIG24 etc.



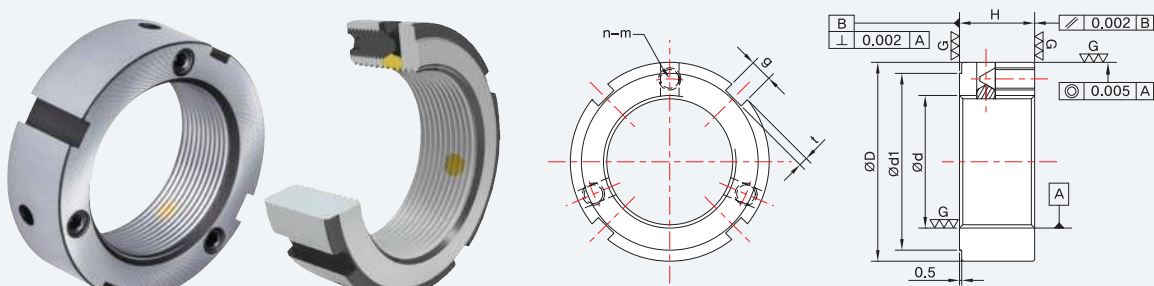
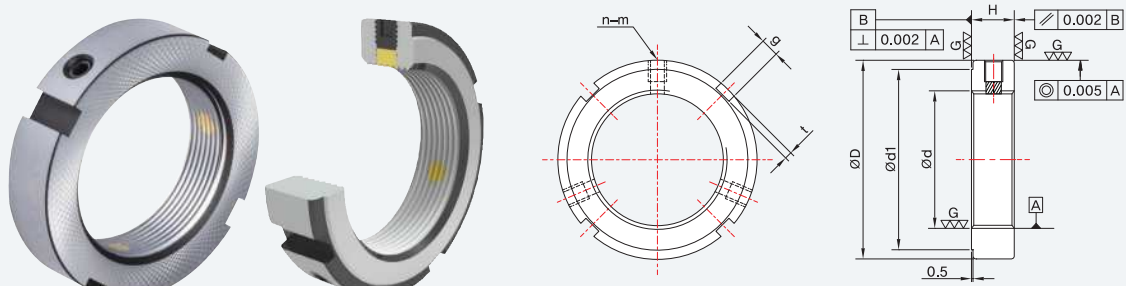
116 UZMG

117 UZMVG

118 UZMFG

119 UKANG





Features

Thickness is comparatively thinner than other products, so this type is especially applicable for use when other types are not usable due to space restrictions.  
Thread area, Clamping face, trailing rims and outer skirts were precision ground to satisfy high precision during high speed rotation.

Specifications

- Material : SCM440(42CrMo4)
- Hardness : HRC 28~32
- Thread Accuracy : ISO 4H
- Perpendicularity : 0.002mm
- Parallelism : 0.002mm
- Concentricity : 0.005mm

Order Method  
(Order Example)

| UZMG       | 30 | 1.5   |
|------------|----|-------|
| Product NO | d  | Pitch |

| Product NO.<br>d X pitch | D<br>mm | H<br>mm | g<br>mm | t<br>mm | d1<br>mm | n-m   | MAX. N · m |
|--------------------------|---------|---------|---------|---------|----------|-------|------------|
| UZMG8×0.75               | 16      | 8       | 3       | 2       | 11       | 2-M4  | 2.0        |
| UZMG10×0.75              | 18      | 8       | 3       | 2       | 13       | 2-M4  | 2.0        |
| UZMG10×1                 | 18      | 8       | 3       | 2       | 13       | 2-M4  | 2.0        |
| UZMG12×1                 | 22      | 8       | 3       | 2       | 16       | 2-M4  | 2.0        |
| UZMG15×1                 | 25      | 8       | 3       | 2       | 20       | 2-M4  | 2.0        |
| UZMG17×1                 | 28      | 10      | 4       | 2       | 23       | 2-M5  | 4.5        |
| UZMG20×1                 | 32      | 10      | 4       | 2       | 26       | 3-M5  | 4.5        |
| UZMG25×1.5               | 38      | 12      | 5       | 2       | 32       | 3-M6  | 8.0        |
| UZMG30×1.5               | 45      | 12      | 5       | 2       | 39       | 3-M6  | 8.0        |
| UZMG35×1.5               | 52      | 12      | 5       | 2       | 46       | 3-M6  | 8.0        |
| UZMG40×1.5               | 58      | 14      | 6       | 2.5     | 51       | 3-M6  | 8.0        |
| UZMG45×1.5               | 65      | 14      | 6       | 2.5     | 58       | 3-M6  | 8.0        |
| UZMG50×1.5               | 70      | 14      | 6       | 2.5     | 63       | 3-M6  | 8.0        |
| UZMG55×2                 | 75      | 16      | 7       | 3       | 67       | 3-M8  | 18.0       |
| UZMG60×2                 | 80      | 16      | 7       | 3       | 72       | 3-M8  | 18.0       |
| UZMG65×2                 | 85      | 16      | 7       | 3       | 77       | 3-M8  | 18.0       |
| UZMG70×2                 | 92      | 18      | 8       | 3.5     | 83       | 3-M8  | 18.0       |
| UZMG75×2                 | 98      | 18      | 8       | 3.5     | 89       | 3-M8  | 18.0       |
| UZMG80×2                 | 105     | 18      | 8       | 3.5     | 96       | 3-M8  | 18.0       |
| UZMG85×2                 | 110     | 18      | 8       | 3.5     | 101      | 3-M8  | 18.0       |
| UZMG90×2                 | 120     | 20      | 10      | 4       | 108      | 3-M8  | 18.0       |
| UZMG95×2                 | 125     | 20      | 10      | 4       | 113      | 3-M8  | 18.0       |
| UZMG100×2                | 130     | 20      | 10      | 4       | 118      | 3-M8  | 18.0       |
| UZMG105×2                | 140     | 22      | 12      | 5       | 125      | 3-M8  | 18.0       |
| UZMG110×2                | 145     | 22      | 12      | 5       | 132      | 3-M8  | 18.0       |
| UZMG115×2                | 150     | 22      | 12      | 5       | 137      | 3-M8  | 18.0       |
| UZMG120×2                | 155     | 24      | 12      | 5       | 142      | 3-M8  | 18.0       |
| UZMG125×2                | 160     | 24      | 12      | 5       | 147      | 3-M8  | 18.0       |
| UZMG130×2                | 165     | 24      | 12      | 5       | 152      | 3-M8  | 18.0       |
| UZMG135×2                | 175     | 26      | 14      | 6       | 160      | 3-M10 | 35.0       |
| UZMG140×2                | 180     | 26      | 14      | 6       | 165      | 3-M10 | 35.0       |
| UZMG145×2                | 190     | 26      | 14      | 6       | 175      | 3-M10 | 35.0       |
| UZMG150×2                | 195     | 26      | 14      | 6       | 180      | 3-M10 | 35.0       |
| UZMG155×3                | 200     | 28      | 16      | 7       | 180      | 3-M10 | 35.0       |
| UZMG160×3                | 210     | 28      | 16      | 7       | 190      | 3-M10 | 35.0       |
| UZMG165×3                | 210     | 28      | 16      | 7       | 190      | 3-M10 | 35.0       |
| UZMG170×3                | 220     | 28      | 16      | 7       | 200      | 3-M10 | 35.0       |

Features

Locking the set screw in the axial direction.  
This type is applicable for use where is restrictions of side space.  
Thread area, Clamping face, trailing rims and outer skirts were precision ground to satisfy high precision during high speed rotation.

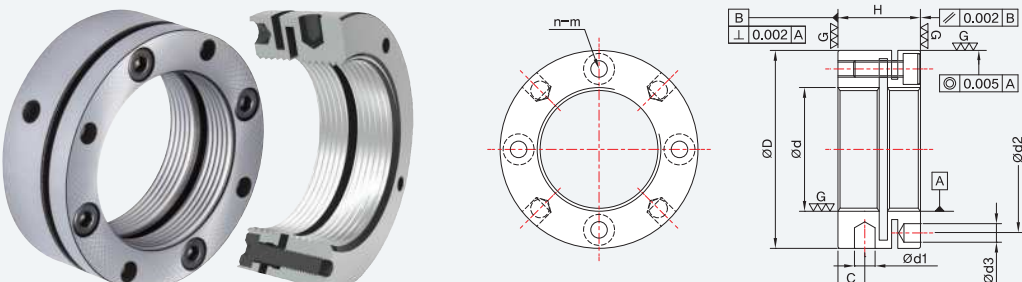
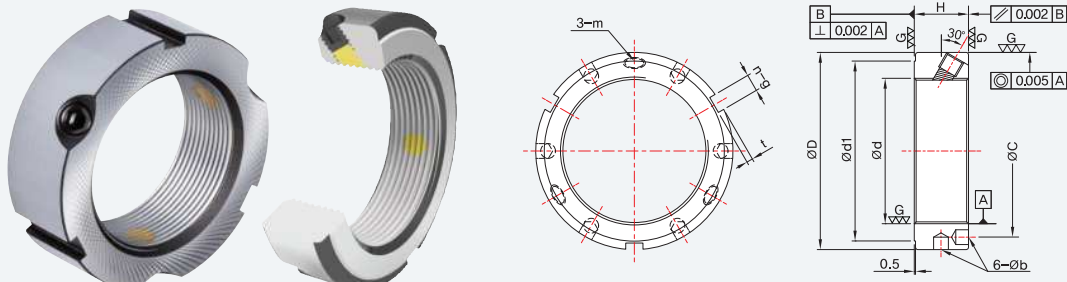
Specifications

- Material : SCM440(42CrMo4)
- Hardness : HRC 28~32
- Thread Accuracy : ISO 4H
- Perpendicularity : 0.002mm
- Parallelism : 0.002mm
- Concentricity : 0.005mm

Order Method  
(Order Example)

| UZMVG      | 30 | 1.5   |
|------------|----|-------|
| Product NO | d  | Pitch |

| Product NO.<br>d X pitch | D<br>mm | H<br>mm | g<br>mm | t<br>mm | d1<br>mm | n-m   | MAX. N · m |
|--------------------------|---------|---------|---------|---------|----------|-------|------------|
| UZMVG17×1                | 28      | 15      | 4       | 2       | 23       | 2-M4  | 2.0        |
| UZMVG20×1                | 32      | 15      | 4       | 2       | 26       | 3-M4  | 2.0        |
| UZMVG25×1.5              | 38      | 17      | 5       | 2       | 32       | 3-M5  | 4.5        |
| UZMVG30×1.5              | 45      | 17      | 5       | 2       | 39       | 3-M5  | 4.5        |
| UZMVG35×1.5              | 52      | 17      | 5       | 2       | 46       | 3-M5  | 4.5        |
| UZMVG40×1.5              | 58      | 19      | 6       | 2.5     | 51       | 3-M6  | 8.0        |
| UZMVG45×1.5              | 65      | 19      | 6       | 2.5     | 58       | 3-M6  | 8.0        |
| UZMVG50×1.5              | 70      | 19      | 6       | 2.5     | 63       | 3-M6  | 8.0        |
| UZMVG55×2                | 75      | 21      | 7       | 3       | 67       | 3-M6  | 8.0        |
| UZMVG60×2                | 80      | 21      | 7       | 3       | 72       | 3-M6  | 8.0        |
| UZMVG65×2                | 85      | 21      | 7       | 3       | 77       | 3-M6  | 8.0        |
| UZMVG70×2                | 92      | 23      | 8       | 3.5     | 83       | 3-M8  | 18.0       |
| UZMVG75×2                | 98      | 23      | 8       | 3.5     | 89       | 3-M8  | 18.0       |
| UZMVG80×2                | 105     | 23      | 8       | 3.5     | 96       | 3-M8  | 18.0       |
| UZMVG85×2                | 110     | 23      | 8       | 3.5     | 101      | 3-M8  | 18.0       |
| UZMVG90×2                | 120     | 25      | 10      | 4       | 108      | 3-M8  | 18.0       |
| UZMVG95×2                | 125     | 25      | 10      | 4       | 113      | 3-M8  | 18.0       |
| UZMVG100×2               | 130     | 25      | 10      | 4       | 118      | 3-M8  | 18.0       |
| UZMVG105×2               | 140     | 27      | 12      | 5       | 125      | 3-M10 | 35.0       |
| UZMVG110×2               | 145     | 27      | 12      | 5       | 132      | 3-M10 | 35.0       |
| UZMVG115×2               | 150     | 27      | 12      | 5       | 137      | 3-M10 | 35.0       |
| UZMVG120×2               | 155     | 29      | 12      | 5       | 142      | 3-M10 | 35.0       |
| UZMVG125×2               | 160     | 29      | 12      | 5       | 147      | 3-M10 | 35.0       |
| UZMVG130×2               | 165     | 29      | 12      | 5       | 152      | 3-M10 | 35.0       |
| UZMVG135×2               | 175     | 31      | 14      | 6       | 160      | 3-M12 | 60.0       |
| UZMVG140×2               | 180     | 31      | 14      | 6       | 165      | 3-M12 | 60.0       |
| UZMVG145×2               | 190     | 31      | 14      | 6       | 175      | 3-M12 | 60.0       |
| UZMVG150×2               | 195     | 31      | 14      | 6       | 180      | 3-M12 | 60.0       |
| UZMVG155×3               | 200     | 33      | 16      | 7       | 180      | 3-M12 | 60.0       |
| UZMVG160×3               | 210     | 33      | 16      | 7       | 190      | 3-M12 | 60.0       |
| UZMVG165×3               | 210     | 33      | 16      | 7       | 190      | 3-M12 | 60.0       |
| UZMVG170×3               | 220     | 33      | 16      | 7       | 200      | 3-M12 | 60.0       |



Features

Locking the set screw in diagonal side.  
Designed with a set screw 60° relative to an axis, so you can get a stable locking force to prevent loosening.  
Using the set screw, it is easy for fitting the concentric.  
Thread area, Clamping face, trailing rims and outer skirts were precision ground to satisfy high precision during high speed rotation.

Specifications

- Material : SCM440(42CrMo4)
- Hardness : HRC 28~32
- Thread Accuracy : ISO 4H
- Perpendicularity : 0.002mm
- Parallelism : 0.002mm
- Concentricity : 0.005mm

Order Method  
(Order Example)

| UZMFG      | 30 | 1.5   |
|------------|----|-------|
| Product NO | d  | Pitch |

| Product NO. | D   | H  | d1  | n-g  | b  | t   | c   | m   | MAX. N·m |
|-------------|-----|----|-----|------|----|-----|-----|-----|----------|
| d X pitch   | mm  | mm | mm  | mm   | mm | mm  | mm  |     |          |
| UZMFG20×1   | 38  | 16 | 33  | 3-4  | -  | 2   | -   | M6  | 4.5      |
| UZMFG25×1.5 | 38  | 18 | 33  | 3-5  | -  | 2   | -   | M6  | 8.0      |
| UZMFG30×1.5 | 45  | 18 | 40  | 3-5  | -  | 2   | -   | M6  | 8.0      |
| UZMFG35×1.5 | 52  | 18 | 47  | 3-5  | -  | 2   | -   | M8  | 18.0     |
| UZMFG40×1.5 | 58  | 20 | 52  | 3-6  | -  | 2.5 | -   | M8  | 18.0     |
| UZMFG45×1.5 | 65  | 20 | 59  | 3-6  | -  | 2.5 | -   | M8  | 18.0     |
| UZMFG50×1.5 | 70  | 20 | 64  | 3-6  | -  | 2.5 | -   | M8  | 18.0     |
| UZMFG55×2   | 75  | 22 | 68  | 3-7  | 6  | 3   | 65  | M8  | 18.0     |
| UZMFG60×2   | 80  | 22 | 73  | 3-7  | 6  | 3   | 70  | M8  | 18.0     |
| UZMFG65×2   | 85  | 22 | 78  | 3-7  | 6  | 3   | 75  | M8  | 18.0     |
| UZMFG70×2   | 92  | 24 | 84  | 3-8  | 6  | 3.5 | 81  | M8  | 18.0     |
| UZMFG75×2   | 98  | 24 | 90  | 3-8  | 6  | 3.5 | 87  | M8  | 18.0     |
| UZMFG80×2   | 105 | 24 | 96  | 3-8  | 7  | 3.5 | 93  | M8  | 18.0     |
| UZMFG85×2   | 110 | 24 | 102 | 6-8  | 7  | 3.5 | 98  | M8  | 18.0     |
| UZMFG90×2   | 120 | 26 | 108 | 6-10 | 7  | 4   | 105 | M8  | 18.0     |
| UZMFG95×2   | 125 | 26 | 113 | 6-10 | 7  | 4   | 110 | M8  | 18.0     |
| UZMFG100×2  | 130 | 26 | 118 | 6-10 | 7  | 4   | 115 | M8  | 18.0     |
| UZMFG105×2  | 140 | 28 | 125 | 6-10 | 7  | 4   | 123 | M10 | 35.0     |
| UZMFG110×2  | 145 | 28 | 132 | 6-10 | 7  | 4   | 128 | M10 | 35.0     |
| UZMFG115×2  | 150 | 28 | 137 | 6-10 | 7  | 4   | 133 | M10 | 35.0     |
| UZMFG120×2  | 155 | 30 | 142 | 6-12 | 7  | 5   | 138 | M10 | 35.0     |
| UZMFG125×2  | 160 | 30 | 147 | 6-12 | 7  | 5   | 143 | M10 | 35.0     |
| UZMFG130×2  | 165 | 30 | 152 | 6-12 | 7  | 5   | 148 | M10 | 35.0     |
| UZMFG135×2  | 175 | 32 | 160 | 6-12 | 7  | 5   | 155 | M10 | 35.0     |
| UZMFG140×2  | 180 | 32 | 165 | 6-12 | 7  | 5   | 160 | M10 | 35.0     |
| UZMFG145×2  | 190 | 32 | 175 | 6-12 | 7  | 5   | 168 | M10 | 35.0     |
| UZMFG150×2  | 195 | 32 | 180 | 6-12 | 7  | 5   | 173 | M10 | 35.0     |
| UZMFG155×3  | 200 | 34 | 180 | 6-14 | 8  | 6   | 178 | M10 | 35.0     |
| UZMFG160×3  | 210 | 34 | 190 | 6-14 | 8  | 6   | 185 | M10 | 35.0     |
| UZMFG165×3  | 210 | 34 | 190 | 6-14 | 8  | 6   | 188 | M10 | 35.0     |
| UZMFG170×3  | 220 | 34 | 200 | 6-14 | 8  | 6   | 195 | M10 | 35.0     |

Features

The locking force of this type is higher than other products due to locking male thread using the elasticity of the nut main body by force.  
Highly resistant to vibration and it also can be locked by neutral.  
Accuracy is very good and it is easy to fitting the concentric.  
Thread area, Clamping face, trailing rims and outer skirts were precision ground to satisfy high precision during high speed rotation.

Specifications

- Material : SCM440(42CrMo4)
- Hardness : HRC 28~32
- Thread Accuracy : ISO 4H
- Perpendicularity : 0.002mm
- Parallelism : 0.002mm
- Concentricity : 0.005mm

Order Method  
(Order Example)

| UKANG      | 30 | 1.5   |
|------------|----|-------|
| Product NO | d  | Pitch |

| Product NO. | D   | H  | d1 | d2   | d3  | c    | Holes | n-m     | MAX. N·m |
|-------------|-----|----|----|------|-----|------|-------|---------|----------|
| d X pitch   | mm  | mm | mm | mm   | mm  | mm   |       |         |          |
| UKANG20×1.5 | 40  | 18 | 4  | 30.5 | 4.5 | 5    | 4     | 4-M4×12 | 3.0      |
| UKANG22×1.5 | 40  | 18 | 4  | 30.5 | 4.5 | 5    | 4     | 4-M4×12 | 3.0      |
| UKANG24×1.5 | 42  | 18 | 4  | 32.5 | 4.5 | 5    | 4     | 4-M4×12 | 3.0      |
| UKANG25×1.5 | 45  | 20 | 5  | 36.5 | 4.5 | 6.5  | 4     | 4-M4×12 | 3.0      |
| UKANG28×1.5 | 46  | 20 | 5  | 38.5 | 4.5 | 6.5  | 4     | 4-M4×12 | 3.0      |
| UKANG30×1.5 | 48  | 20 | 5  | 40.5 | 4.5 | 6.5  | 4     | 4-M4×12 | 3.0      |
| UKANG32×1.5 | 50  | 22 | 5  | 42.5 | 4.5 | 7    | 4     | 4-M4×16 | 3.0      |
| UKANG35×1.5 | 53  | 22 | 5  | 45.5 | 4.5 | 7    | 4     | 4-M4×16 | 3.0      |
| UKANG38×1.5 | 58  | 22 | 5  | 48.5 | 4.5 | 7    | 4     | 4-M4×16 | 3.0      |
| UKANG40×1.5 | 58  | 22 | 5  | 50.5 | 4.5 | 7    | 4     | 4-M4×16 | 3.0      |
| UKANG42×1.5 | 60  | 22 | 5  | 52.5 | 4.5 | 7    | 4     | 4-M4×16 | 3.0      |
| UKANG45×1.5 | 68  | 22 | 6  | 58   | 4.5 | 6.5  | 6     | 6-M4×16 | 3.0      |
| UKANG48×1.5 | 68  | 25 | 6  | 59.5 | 4.5 | 9    | 6     | 6-M4×18 | 3.0      |
| UKANG50×1.5 | 70  | 25 | 6  | 61.5 | 4.5 | 9    | 6     | 6-M4×18 | 3.0      |
| UKANG52×1.5 | 72  | 25 | 6  | 63.5 | 4.5 | 9    | 6     | 6-M4×18 | 3.0      |
| UKANG55×1.5 | 75  | 25 | 6  | 66.5 | 4.5 | 9    | 6     | 6-M4×18 | 3.0      |
| UKANG58×1.5 | 82  | 26 | 6  | 72.5 | 5.5 | 9    | 6     | 6-M5×18 | 6.0      |
| UKANG60×1.5 | 84  | 26 | 6  | 74.5 | 5.5 | 9    | 6     | 6-M5×18 | 6.0      |
| UKANG62×1.5 | 86  | 28 | 6  | 76.5 | 5.5 | 10.5 | 6     | 6-M5×20 | 6.0      |
| UKANG65×1.5 | 88  | 28 | 6  | 78.5 | 5.5 | 10.5 | 6     | 6-M5×20 | 6.0      |
| UKANG68×1.5 | 95  | 28 | 8  | 83   | 5.5 | 9.5  | 6     | 6-M5×20 | 6.0      |
| UKANG70×1.5 | 95  | 28 | 8  | 85   | 5.5 | 9.5  | 6     | 6-M5×20 | 6.0      |
| UKANG72×1.5 | 98  | 28 | 8  | 86   | 6.5 | 8.5  | 6     | 6-M6×20 | 10.0     |
| UKANG75×1.5 | 100 | 28 | 8  | 88   | 6.5 | 8.5  | 6     | 6-M6×20 | 10.0     |
| UKANG80×2   | 110 | 32 | 8  | 95   | 6.5 | 11   | 6     | 6-M6×22 | 10.0     |
| UKANG85×2   | 115 | 32 | 8  | 100  | 6.5 | 11   | 6     | 6-M6×22 | 10.0     |
| UKANG90×2   | 120 | 32 | 8  | 108  | 6.5 | 11   | 6     | 6-M6×22 | 10.0     |
| UKANG95×2   | 125 | 32 | 8  | 113  | 6.5 | 11   | 6     | 6-M6×22 | 10.0     |
| UKANG100×2  | 130 | 32 | 8  | 118  | 6.5 | 11   | 6     | 6-M6×22 | 10.0     |
| UKANG105×2  | 135 | 32 | 8  | 123  | 6.5 | 11   | 6     | 6-M6×22 | 10.0     |
| UKANG110×2  | 140 | 32 | 8  | 128  | 6.5 | 11   | 6     | 6-M6×22 | 10.0     |
| UKANG115×2  | 145 | 36 | 8  | 133  | 6.5 | 12   | 6     | 6-M6×25 | 10.0     |
| UKANG120×2  | 155 | 36 | 8  | 140  | 6.5 | 12   | 6     | 6-M6×25 | 10.0     |
| UKANG125×2  | 160 | 36 | 8  | 148  | 6.5 | 12   | 6     | 6-M6×25 | 10.0     |
| UKANG130×3  | 165 | 36 | 8  | 153  | 6.5 | 12   | 6     | 6-M6×25 | 10.0     |
| UKANG140×3  | 180 | 38 | 10 | 160  | 10  | 10   | 8     | 8-M6×25 | 10.0     |
| UKANG150×3  | 190 | 38 | 10 | 170  | 10  | 10   | 8     | 8-M6×25 | 10.0     |
| UKANG160×3  | 205 | 40 | 10 | 178  | 10  | 12   | 8     | 8-M8×30 | 25.0     |
| UKANG170×3  | 215 | 40 | 10 | 193  | 10  | 12   | 8     | 8-M8×30 | 25.0     |



# ULTRA BALANCING GRINDING LOCKNUT



DURI Ultra Balancing Grinding Locknut have been developed and optimized to direct drive spindle with built-in motor in order to meet the request of ultra-high-speed & ultra-high-precision spindle manufacturer.

The thread area, clamping face, outer skirts and trailing rims are precisely grinded.

The balance adjusting screw holes are provided in the circumference, so it is the structure that can facilitate the balance adjustment of the main spindle.

Right after grinding all of thread area at the same time, clamping face contacting with the bearing are grinded with the same chucking state.

So perpendicularity are being strictly followed with very high precision.

The grinding pattern of clamping face express that both the axis of rotation of products processing surface and the axis of the grinding wheel is exactly perpendicular and flatness is very excellent.

The trailing rim is also precisely grinded based on the clamping face contacting with the bearing. So the perpendicularity is also very excellent.

DURI Ultra Balancing Grinding Locknuts are manufactured by finely grinding the flank of all threads at one time, thereby preventing the bur of the threads.

Because it can maintain stable operation without vibration by a high precision even during high-speed-rotation, this is the best locknut for using high-speed & high-precision spindle at ease.

Set screws for adjusting the alignment are composed of 3 or 6 depending on the type.

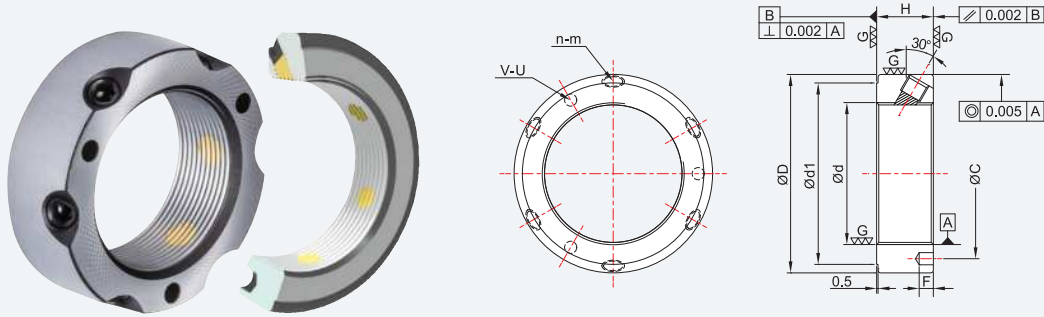
DURI Ultra Balancing Grinding Locknuts are a environment-friendly locknut satisfying the requirements of RoHS, JIG24 etc.





UBGN-A

GRINDING LOCKNUT



Features

Designed with a set screw 60° relative to an axis, so it is easy to fit concentric. Due to the 6 set screw, loosening torque is superior to the existing locknut with only 3 set screws. Inner threads, outer skirts, Clamping face and trailing rims are all precision ground, so enhanced accuracy.

Specifications

- Material : SCM440(42CrMo4)
- Hardness : HRC 48~52
- Thread Accuracy : ISO 4H
- Perpendicularity : 0.002mm
- Parallelism : 0.002mm
- Concentricity : 0.005mm

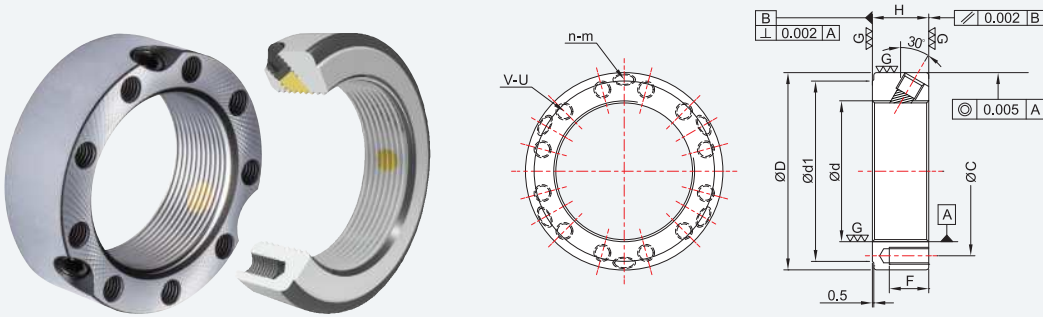
Order Method  
(Order Example)

| UBGN-A     | 30 | 1.5   |
|------------|----|-------|
| Product NO | d  | Pitch |

| Product NO.<br>d X pitch | D<br>mm | H<br>mm | d1<br>mm | V-U    | C<br>mm | F<br>mm | n-m   | MAX. N · m |
|--------------------------|---------|---------|----------|--------|---------|---------|-------|------------|
| UBGN-A 20×1              | 38      | 16      | 33       | 3-∅4.3 | 26      | 5       | 6-M5  | 4.5        |
| UBGN-A 20×1.5            | 38      | 16      | 33       | 3-∅4.3 | 26      | 5       | 6-M6  | 8.0        |
| UBGN-A 25×1.5            | 38      | 18      | 33       | 3-∅4.3 | 32      | 5       | 6-M6  | 8.0        |
| UBGN-A 30×1.5            | 45      | 18      | 40       | 3-∅4.3 | 38      | 5       | 6-M6  | 8.0        |
| UBGN-A 35×1.5            | 52      | 18      | 47       | 3-∅4.3 | 44      | 5       | 6-M8  | 18.0       |
| UBGN-A 40×1.5            | 58      | 20      | 52       | 3-∅4.3 | 50      | 5       | 6-M8  | 18.0       |
| UBGN-A 45×1.5            | 65      | 20      | 59       | 3-∅4.3 | 56      | 5       | 6-M8  | 18.0       |
| UBGN-A 50×1.5            | 70      | 20      | 64       | 3-∅4.3 | 60      | 5       | 6-M8  | 18.0       |
| UBGN-A 55×2              | 75      | 22      | 68       | 3-∅4.3 | 66      | 5       | 6-M8  | 18.0       |
| UBGN-A 60×2              | 80      | 22      | 73       | 3-∅5.3 | 70      | 6       | 6-M8  | 18.0       |
| UBGN-A 65×2              | 85      | 22      | 78       | 3-∅5.3 | 76      | 6       | 6-M8  | 18.0       |
| UBGN-A 70×2              | 92      | 24      | 84       | 3-∅5.3 | 82      | 6       | 6-M8  | 18.0       |
| UBGN-A 75×2              | 98      | 24      | 90       | 3-∅5.3 | 86      | 6       | 6-M8  | 18.0       |
| UBGN-A 80×2              | 105     | 24      | 96       | 3-∅5.3 | 92      | 6       | 6-M8  | 18.0       |
| UBGN-A 85×2              | 110     | 24      | 102      | 3-∅6.4 | 98      | 7       | 6-M8  | 18.0       |
| UBGN-A 90×2              | 120     | 26      | 108      | 3-∅6.4 | 106     | 7       | 6-M8  | 18.0       |
| UBGN-A 95×2              | 125     | 26      | 113      | 3-∅6.4 | 110     | 7       | 6-M8  | 18.0       |
| UBGN-A 100×2             | 130     | 26      | 118      | 3-∅6.4 | 116     | 7       | 6-M8  | 18.0       |
| UBGN-A 105×2             | 140     | 28      | 125      | 3-∅6.4 | 122     | 7       | 6-M10 | 35.0       |
| UBGN-A 110×2             | 145     | 28      | 132      | 3-∅6.4 | 128     | 7       | 6-M10 | 35.0       |
| UBGN-A 115×2             | 150     | 28      | 137      | 3-∅6.4 | 132     | 7       | 6-M10 | 35.0       |
| UBGN-A 120×2             | 155     | 30      | 142      | 3-∅6.4 | 138     | 7       | 6-M10 | 35.0       |
| UBGN-A 125×2             | 160     | 30      | 147      | 3-∅6.4 | 142     | 7       | 6-M10 | 35.0       |
| UBGN-A 130×2             | 165     | 30      | 152      | 3-∅6.4 | 148     | 7       | 6-M10 | 35.0       |
| UBGN-A 135×2             | 175     | 32      | 160      | 3-∅6.4 | 156     | 7       | 6-M10 | 35.0       |
| UBGN-A 140×2             | 180     | 32      | 165      | 3-∅6.4 | 160     | 7       | 6-M10 | 35.0       |
| UBGN-A 145×2             | 190     | 32      | 175      | 3-∅6.4 | 168     | 7       | 6-M10 | 35.0       |
| UBGN-A 150×2             | 195     | 32      | 180      | 3-∅6.4 | 172     | 7       | 6-M10 | 35.0       |

UBGN-B

GRINDING LOCKNUT



Features

Designed with a set screw 60° relative to an axis, so it is easy to fit concentric and loosening torque is relatively superior. In case of this type, balancing adjustment tap-hole was placed on the back of locknut to axle direction. Inner threads, outer skirts, Clamping face and trailing rims are all precision ground, so enhanced accuracy.

Specifications

- Material : SCM440(42CrMo4)
- Hardness : HRC 48~52
- Thread Accuracy : ISO 4H
- Perpendicularity : 0.002mm
- Parallelism : 0.002mm
- Concentricity : 0.005mm

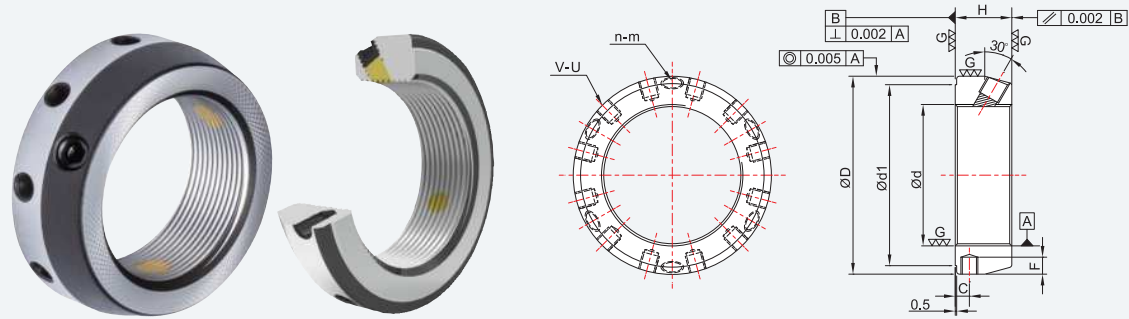
Order Method  
(Order Example)

| UBGN-B     | 30 | 1.5   |
|------------|----|-------|
| Product NO | d  | Pitch |

| Product NO.<br>d X pitch | D<br>mm | H<br>mm | d1<br>mm | V-U   | C<br>mm | F<br>mm | n-m   | MAX. N · m |
|--------------------------|---------|---------|----------|-------|---------|---------|-------|------------|
| UBGN-B 20×1              | 38      | 16      | 33       | 6-M4  | 26      | 10      | 3-M5  | 4.5        |
| UBGN-B 20×1.5            | 38      | 16      | 33       | 6-M4  | 26      | 10      | 3-M6  | 8.0        |
| UBGN-B 25×1.5            | 38      | 18      | 33       | 6-M4  | 32      | 12      | 3-M6  | 8.0        |
| UBGN-B 30×1.5            | 45      | 18      | 40       | 9-M4  | 38      | 12      | 3-M6  | 8.0        |
| UBGN-B 35×1.5            | 52      | 18      | 47       | 9-M4  | 44      | 12      | 3-M8  | 18.0       |
| UBGN-B 40×1.5            | 58      | 20      | 52       | 9-M5  | 50      | 14      | 3-M8  | 18.0       |
| UBGN-B 45×1.5            | 65      | 20      | 59       | 9-M5  | 56      | 14      | 3-M8  | 18.0       |
| UBGN-B 50×1.5            | 70      | 20      | 64       | 12-M5 | 60      | 14      | 6-M8  | 18.0       |
| UBGN-B 55×2              | 75      | 22      | 68       | 12-M5 | 66      | 16      | 6-M8  | 18.0       |
| UBGN-B 60×2              | 80      | 22      | 73       | 12-M5 | 70      | 16      | 6-M8  | 18.0       |
| UBGN-B 65×2              | 85      | 22      | 78       | 12-M5 | 76      | 16      | 6-M8  | 18.0       |
| UBGN-B 70×2              | 92      | 24      | 84       | 12-M5 | 82      | 18      | 6-M8  | 18.0       |
| UBGN-B 75×2              | 98      | 24      | 90       | 12-M5 | 86      | 18      | 6-M8  | 18.0       |
| UBGN-B 80×2              | 105     | 24      | 96       | 12-M5 | 92      | 18      | 6-M8  | 18.0       |
| UBGN-B 85×2              | 110     | 24      | 102      | 12-M5 | 98      | 18      | 6-M8  | 18.0       |
| UBGN-B 90×2              | 120     | 26      | 108      | 12-M5 | 106     | 20      | 6-M8  | 18.0       |
| UBGN-B 95×2              | 125     | 26      | 113      | 12-M5 | 110     | 20      | 6-M8  | 18.0       |
| UBGN-B 100×2             | 130     | 26      | 118      | 12-M6 | 116     | 20      | 6-M8  | 18.0       |
| UBGN-B 105×2             | 140     | 28      | 125      | 12-M6 | 122     | 22      | 6-M10 | 35.0       |
| UBGN-B 110×2             | 145     | 28      | 132      | 12-M6 | 128     | 22      | 6-M10 | 35.0       |
| UBGN-B 115×2             | 150     | 28      | 137      | 12-M6 | 132     | 22      | 6-M10 | 35.0       |
| UBGN-B 120×2             | 155     | 30      | 142      | 12-M6 | 138     | 24      | 6-M10 | 35.0       |
| UBGN-B 125×2             | 160     | 30      | 147      | 12-M6 | 142     | 24      | 6-M10 | 35.0       |
| UBGN-B 130×2             | 165     | 30      | 152      | 12-M6 | 148     | 24      | 6-M10 | 35.0       |
| UBGN-B 135×2             | 175     | 32      | 160      | 12-M6 | 156     | 26      | 6-M10 | 35.0       |
| UBGN-B 140×2             | 180     | 32      | 165      | 12-M6 | 160     | 26      | 6-M10 | 35.0       |
| UBGN-B 145×2             | 190     | 32      | 175      | 12-M6 | 168     | 26      | 6-M10 | 35.0       |
| UBGN-B 150×2             | 195     | 32      | 180      | 12-M6 | 172     | 26      | 6-M10 | 35.0       |

UBGN-C

GRINDING LOCKNUT



Features

Designed with a set screw 60° relative to an axis, so it is easy to fit concentric and loosening torque is relatively superior. In case of this type, balancing adjustment tap-hole was placed on the outer skirts of locknut to axle direction. Inner threads, outer skirts, Clamping face and trailing rims are all precision ground, so enhanced accuracy.

Specifications

- Material : SCM440(42CrMo4)
- Hardness : HRC 48~52
- Thread Accuracy : ISO 4H
- Perpendicularity : 0.002mm
- Parallelism : 0.002mm
- Concentricity : 0.005mm

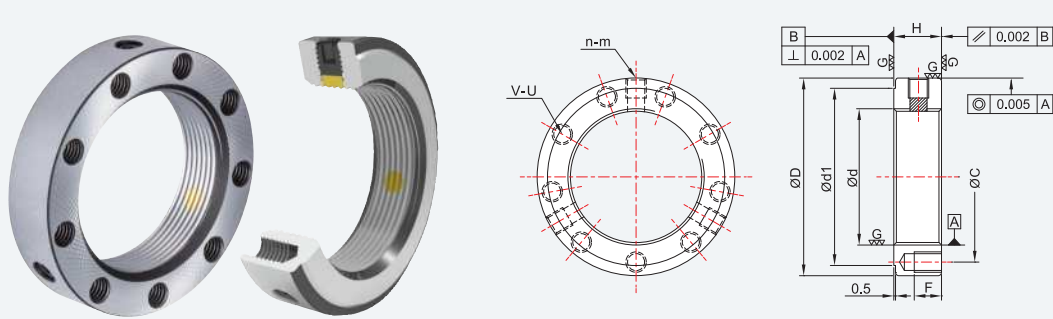
Order Method  
(Order Example)

| UBGN-C     | 30 | 1.5   |
|------------|----|-------|
| Product NO | d  | Pitch |

| Product NO.<br>d X pitch | D<br>mm | H<br>mm | d1<br>mm | V-U   | C<br>mm | F<br>mm | n-m   | MAX. N · m |
|--------------------------|---------|---------|----------|-------|---------|---------|-------|------------|
| UBGN-C 20×1              | 38      | 16      | 33       | 6-M4  | 4       | 5       | 3-M5  | 4.5        |
| UBGN-C 20×1.5            | 38      | 16      | 33       | 6-M4  | 4       | 5       | 3-M6  | 8.0        |
| UBGN-C 25×1.5            | 38      | 18      | 33       | 6-M4  | 4.5     | 4       | 3-M6  | 8.0        |
| UBGN-C 30×1.5            | 45      | 18      | 40       | 9-M4  | 4.5     | 5       | 3-M6  | 8.0        |
| UBGN-C 35×1.5            | 52      | 18      | 47       | 9-M4  | 4.5     | 5       | 3-M8  | 18.0       |
| UBGN-C 40×1.5            | 58      | 20      | 52       | 9-M5  | 5       | 5       | 3-M8  | 18.0       |
| UBGN-C 45×1.5            | 65      | 20      | 59       | 9-M5  | 5       | 6       | 3-M8  | 18.0       |
| UBGN-C 50×1.5            | 70      | 20      | 64       | 12-M5 | 5       | 6       | 6-M8  | 18.0       |
| UBGN-C 55×2              | 75      | 22      | 68       | 12-M5 | 5.5     | 6       | 6-M8  | 18.0       |
| UBGN-C 60×2              | 80      | 22      | 73       | 12-M5 | 5.5     | 6       | 6-M8  | 18.0       |
| UBGN-C 65×2              | 85      | 22      | 78       | 12-M5 | 5.5     | 6       | 6-M8  | 18.0       |
| UBGN-C 70×2              | 92      | 24      | 84       | 12-M5 | 6       | 7       | 6-M8  | 18.0       |
| UBGN-C 75×2              | 98      | 24      | 90       | 12-M5 | 6       | 7       | 6-M8  | 18.0       |
| UBGN-C 80×2              | 105     | 24      | 96       | 12-M5 | 6       | 8       | 6-M8  | 18.0       |
| UBGN-C 85×2              | 110     | 24      | 102      | 12-M5 | 6       | 8       | 6-M8  | 18.0       |
| UBGN-C 90×2              | 120     | 26      | 108      | 12-M5 | 6.5     | 9       | 6-M8  | 18.0       |
| UBGN-C 95×2              | 125     | 26      | 113      | 12-M5 | 6.5     | 9       | 6-M8  | 18.0       |
| UBGN-C 100×2             | 130     | 26      | 118      | 12-M6 | 6.5     | 9       | 6-M8  | 18.0       |
| UBGN-C 105×2             | 140     | 28      | 125      | 12-M6 | 7       | 11      | 6-M10 | 35.0       |
| UBGN-C 110×2             | 145     | 28      | 132      | 12-M6 | 7       | 11      | 6-M10 | 35.0       |
| UBGN-C 115×2             | 150     | 28      | 137      | 12-M6 | 7       | 11      | 6-M10 | 35.0       |
| UBGN-C 120×2             | 155     | 30      | 142      | 12-M6 | 7.5     | 11      | 6-M10 | 35.0       |
| UBGN-C 125×2             | 160     | 30      | 147      | 12-M6 | 7.5     | 11      | 6-M10 | 35.0       |
| UBGN-C 130×2             | 165     | 30      | 152      | 12-M6 | 7.5     | 11      | 6-M10 | 35.0       |
| UBGN-C 135×2             | 175     | 32      | 160      | 12-M6 | 8       | 14      | 6-M10 | 35.0       |
| UBGN-C 140×2             | 180     | 32      | 165      | 12-M6 | 8       | 14      | 6-M10 | 35.0       |
| UBGN-C 145×2             | 190     | 32      | 175      | 12-M6 | 8       | 16      | 6-M10 | 35.0       |
| UBGN-C 150×2             | 195     | 32      | 180      | 12-M6 | 8       | 16      | 6-M10 | 35.0       |

UBGN-D

GRINDING LOCKNUT



Features

This type is suitable for assembly with restricted or narrow space due to be thinner than A, B and C type. In case of this type, balancing adjustment tap-hole was placed on the back of locknut to axle direction. Inner threads, outer skirts, Clamping face and trailing rims are all precision ground, so enhanced accuracy.

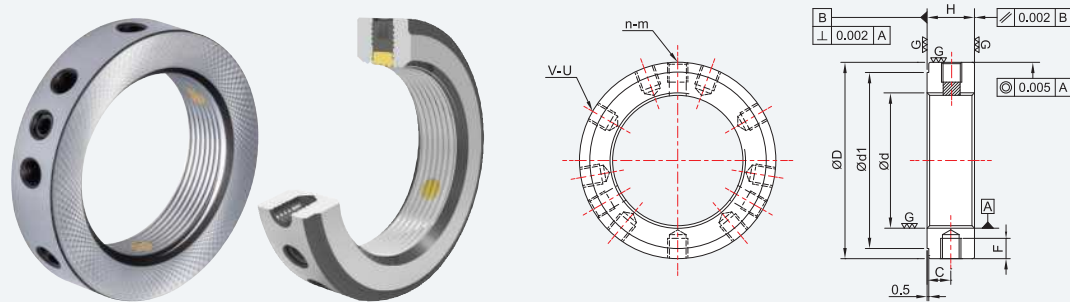
Specifications

- Material : SCM440(42CrMo4)
- Hardness : HRC 48~52
- Thread Accuracy : ISO 4H
- Perpendicularity : 0.002mm
- Parallelism : 0.002mm
- Concentricity : 0.005mm

Order Method  
(Order Example)

| UBGN-D     | 30 | 1.5   |
|------------|----|-------|
| Product NO | d  | Pitch |

| Product NO.<br>d X pitch | D<br>mm | H<br>mm | d1<br>mm | V-U   | C<br>mm | F<br>mm | n-m   | MAX. N · m |
|--------------------------|---------|---------|----------|-------|---------|---------|-------|------------|
| UBGN-D 20×1              | 32      | 10      | 27       | 6-M4  | 26      | 5       | 3-M5  | 4.5        |
| UBGN-D 20×1.5            | 32      | 10      | 27       | 6-M4  | 26      | 5       | 3-M5  | 4.5        |
| UBGN-D 25×1.5            | 38      | 12      | 33       | 6-M4  | 32      | 6       | 3-M6  | 8.0        |
| UBGN-D 30×1.5            | 45      | 12      | 40       | 9-M4  | 38      | 6       | 3-M6  | 8.0        |
| UBGN-D 35×1.5            | 52      | 12      | 47       | 9-M4  | 44      | 6       | 3-M6  | 8.0        |
| UBGN-D 40×1.5            | 58      | 14      | 52       | 9-M5  | 50      | 8       | 3-M6  | 8.0        |
| UBGN-D 45×1.5            | 65      | 14      | 59       | 9-M5  | 56      | 8       | 3-M6  | 8.0        |
| UBGN-D 50×1.5            | 70      | 14      | 64       | 12-M5 | 60      | 8       | 6-M8  | 18.0       |
| UBGN-D 55×2              | 75      | 16      | 68       | 12-M5 | 66      | 10      | 6-M8  | 18.0       |
| UBGN-D 60×2              | 80      | 16      | 73       | 12-M5 | 70      | 10      | 6-M8  | 18.0       |
| UBGN-D 65×2              | 85      | 16      | 78       | 12-M5 | 76      | 10      | 6-M8  | 18.0       |
| UBGN-D 70×2              | 92      | 18      | 84       | 12-M5 | 82      | 12      | 6-M8  | 18.0       |
| UBGN-D 75×2              | 98      | 18      | 90       | 12-M5 | 86      | 12      | 6-M8  | 18.0       |
| UBGN-D 80×2              | 105     | 18      | 96       | 12-M5 | 92      | 12      | 6-M8  | 18.0       |
| UBGN-D 85×2              | 110     | 18      | 102      | 12-M5 | 98      | 12      | 6-M8  | 18.0       |
| UBGN-D 90×2              | 120     | 20      | 108      | 12-M5 | 106     | 14      | 6-M8  | 18.0       |
| UBGN-D 95×2              | 125     | 20      | 113      | 12-M5 | 110     | 14      | 6-M8  | 18.0       |
| UBGN-D 100×2             | 130     | 20      | 118      | 12-M6 | 116     | 14      | 6-M8  | 18.0       |
| UBGN-D 105×2             | 140     | 22      | 125      | 12-M6 | 122     | 16      | 6-M8  | 18.0       |
| UBGN-D 110×2             | 145     | 22      | 132      | 12-M6 | 128     | 16      | 6-M8  | 18.0       |
| UBGN-D 115×2             | 150     | 22      | 137      | 12-M6 | 132     | 16      | 6-M8  | 18.0       |
| UBGN-D 120×2             | 155     | 24      | 142      | 12-M6 | 138     | 18      | 6-M8  | 18.0       |
| UBGN-D 125×2             | 160     | 24      | 147      | 12-M6 | 142     | 18      | 6-M8  | 18.0       |
| UBGN-D 130×2             | 165     | 24      | 152      | 12-M6 | 148     | 18      | 6-M8  | 18.0       |
| UBGN-D 135×2             | 175     | 26      | 160      | 12-M6 | 156     | 20      | 6-M10 | 35.0       |
| UBGN-D 140×2             | 180     | 26      | 165      | 12-M6 | 160     | 20      | 6-M10 | 35.0       |
| UBGN-D 145×2             | 190     | 26      | 175      | 12-M6 | 168     | 20      | 6-M10 | 35.0       |
| UBGN-D 150×2             | 195     | 26      | 180      | 12-M6 | 172     | 20      | 6-M10 | 35.0       |



Features

This type is suitable for assembly with restricted or narrow space due to be thinner than A, B and C type. In case of this type, balancing adjustment tap-hole was placed on the outer skirts of locknut to axle direction. Inner threads, outer skirts, Clamping face and trailing rims are all precision ground, so enhanced accuracy.

Specifications

- Material : SCM440(42CrMo4)
- Hardness : HRC 48~52
- Thread Accuracy : ISO 4H
- Perpendicularity : 0.002mm
- Parallelism : 0.002mm
- Concentricity : 0.005mm

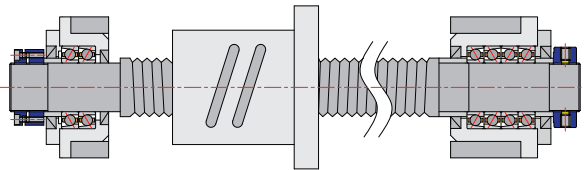
Order Method  
(Order Example)

| UBGN-E     | 30 | 1.5   |
|------------|----|-------|
| Product NO | d  | Pitch |

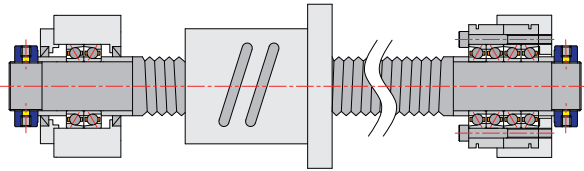
| Product NO.<br>d X pitch | D<br>mm | H<br>mm | d1<br>mm | V-U   | C<br>mm | F<br>mm | n-m   | MAX. N · m |
|--------------------------|---------|---------|----------|-------|---------|---------|-------|------------|
| UBGN-E 20×1              | 32      | 10      | 27       | 6-M4  | 5       | 3       | 3-M5  | 4.5        |
| UBGN-E 20×1.5            | 32      | 10      | 27       | 6-M4  | 5       | 3       | 3-M5  | 4.5        |
| UBGN-E 25×1.5            | 38      | 12      | 33       | 6-M4  | 6       | 3       | 3-M6  | 8.0        |
| UBGN-E 30×1.5            | 45      | 12      | 40       | 6-M4  | 6       | 4       | 3-M6  | 8.0        |
| UBGN-E 35×1.5            | 52      | 12      | 47       | 9-M4  | 6       | 4       | 3-M6  | 8.0        |
| UBGN-E 40×1.5            | 58      | 14      | 52       | 9-M5  | 7       | 5       | 3-M6  | 8.0        |
| UBGN-E 45×1.5            | 65      | 14      | 59       | 9-M5  | 7       | 6       | 3-M6  | 8.0        |
| UBGN-E 50×1.5            | 70      | 14      | 64       | 12-M5 | 7       | 6       | 6-M8  | 18.0       |
| UBGN-E 55×2              | 75      | 16      | 68       | 12-M5 | 8       | 6       | 6-M8  | 18.0       |
| UBGN-E 60×2              | 80      | 16      | 73       | 12-M5 | 8       | 6       | 6-M8  | 18.0       |
| UBGN-E 65×2              | 85      | 16      | 78       | 12-M5 | 8       | 6       | 6-M8  | 18.0       |
| UBGN-E 70×2              | 92      | 18      | 84       | 12-M5 | 9       | 6       | 6-M8  | 18.0       |
| UBGN-E 75×2              | 98      | 18      | 90       | 12-M5 | 9       | 6       | 6-M8  | 18.0       |
| UBGN-E 80×2              | 105     | 18      | 96       | 12-M5 | 9       | 8       | 6-M8  | 18.0       |
| UBGN-E 85×2              | 110     | 18      | 102      | 12-M5 | 9       | 8       | 6-M8  | 18.0       |
| UBGN-E 90×2              | 120     | 20      | 108      | 12-M5 | 10      | 9       | 6-M8  | 18.0       |
| UBGN-E 95×2              | 125     | 20      | 113      | 12-M5 | 10      | 9       | 6-M8  | 18.0       |
| UBGN-E 100×2             | 130     | 20      | 118      | 12-M6 | 10      | 9       | 6-M8  | 18.0       |
| UBGN-E 105×2             | 140     | 22      | 125      | 12-M6 | 11      | 11      | 6-M8  | 18.0       |
| UBGN-E 110×2             | 145     | 22      | 132      | 12-M6 | 11      | 11      | 6-M8  | 18.0       |
| UBGN-E 115×2             | 150     | 22      | 137      | 12-M6 | 11      | 11      | 6-M8  | 18.0       |
| UBGN-E 120×2             | 155     | 24      | 142      | 12-M6 | 12      | 11      | 6-M8  | 18.0       |
| UBGN-E 125×2             | 160     | 24      | 147      | 12-M6 | 12      | 11      | 6-M8  | 18.0       |
| UBGN-E 130×2             | 165     | 24      | 152      | 12-M6 | 12      | 11      | 6-M8  | 18.0       |
| UBGN-E 135×2             | 175     | 26      | 160      | 12-M6 | 13      | 14      | 6-M10 | 35.0       |
| UBGN-E 140×2             | 180     | 26      | 165      | 12-M6 | 13      | 14      | 6-M10 | 35.0       |
| UBGN-E 145×2             | 190     | 26      | 175      | 12-M6 | 13      | 16      | 6-M10 | 35.0       |
| UBGN-E 150×2             | 195     | 26      | 180      | 12-M6 | 13      | 16      | 6-M10 | 35.0       |

ULTRA BALANCING GRINDING LOCKNUT Technical data

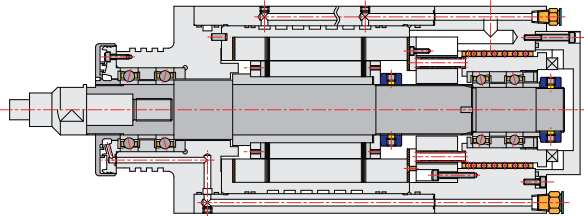
Ball Screw Tension



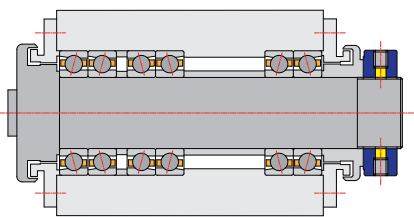
Ball Screw Fixing



High Frequency Spindle



Belt Driven Spindle





History

- 1999.01 Establishment DURI Trade Company
- 2000.01 Establishment DURI's First Factory
- 2004.05 Establishment of DURI's R&D Center
- 2004.06 Establishment DURI's Second Factory
- 2005.01 Change to DURII Mitec Co., Ltd. For Corporate Body
- 2007.06 Relocation First and Second Factory (The Current point)
- 2009.04 Optain ISO 9001/14001
- 2012.01 Trademark Registration of DURI Mitec (40-0906438)
- 2012.09 Design Registration of Coupling (30-0661997)
- 2012.11 Patent Registration of Precision Locknut (10-1202803)
- 2013.04 RoHS Certification-Locknut
- 2013.05 RoHS Certification-Locking Element, Coupling
- 2013.05 Parts and Material Company Certification
- 2013.07 INNO-BIZ Certification
- 2013.08 Open Chang-Won Office (Domestic)
- 2013.11 Selection of Military Service Designated Companies
- 2014.08 Localized Successes of Coupling for Machine Tool
- 2014.10 Release of Grinding Locknut for the First time in Korea
- 2016.01 Establishment China Shanghai Office
- 2016.03 Establishment Japan Osaka Branch Office
- 2016.06 Patent Registration of Integrated Flexible Coupling (10-1628789)
- 2013.09 Awards Presidential Citation for Developing Outstanding Capital Goods
- 2016.10 Design Registration Connector of Coupling for Power Transmission (30-0875978)
- 2016.10 Design Registration Coupling for Power Transmission (30-0875980)
- 2016.10 Design Registration Connector of Coupling for Power Transmission (30-0879347)
- 2018.11 Application for Power Transmission Coupling Design

Award and Certification

