

SINCE 1999
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COUPLING · LOCKING ELEMENT · LOCKNUT



Micro Technology



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LOCKING ELEMENT
LOCKNUT

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Durimitec Catalog_ENG 20170220



INNOBIZ
Innovation Association

Coupling Locking Element Locknut



Release New Products Every Year Through Endless Challenge and Continuous Research and Development.

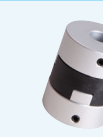
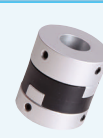
DURI is Professional Manufacturer of Automation and Machine Tool Parts, Through Endless Efforts, Passion, Superior Technology and Strict Quality Control, We are Moving Target Developing Each Day at a Top in the World Market Beyond Domestic.

In Addition, We are Responding Quickly and Flexibly to the Needs of Customers in Order to Realize the Value of the More Memorable Experience Beyond Satisfaction.

DURI is Going to Become Growing Corporation Along Together.



COUPLING

Type	Slit Type					Oldham Type
Model	Features	DRB	DRBS	DRB-SUS	DRBS-SUS	DOH
						
Page	07	10	12	14	15	16
Type	Oldham Type				Jaw Type	
Model	DOH-SC	DOHS-C	DOH-S	DOH-SS	DJC	DJCS
						
Page	16	18	18	18	20	22
Type	Jaw Type		Rigid Type			
Model	DRJT	DRG	DRG-C	DRG-W	DRGL-C	DRL-C
						
Page	23	24	24	24	26	26
Type	Rigid Type		Disk Type			Power Type
Model	DRL-V	DRN	DRS	DRW	DRA	DRJ/DRP
						
Page	26	28	29	29	29	35
Type	Cross Joint Type	Flexible Type	Connecting Shaft		Set Collars	
Model	DRCJ	DRFC	DRACL	DRJCL	DRSS	DRSD
						
Page	36	38	42	44	46	47

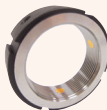
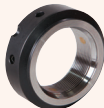
LOCKING ELEMENT

Type		Locking Element				
Model	Features	DR200	DR300	DR300C	DR300F	DR300EF
						
Page	49	54	58	59	60	61

LOCKING ELEMENT

Locking Element							
Type	Model	DR110	DR132	DR133	DR132A	DR133B	DR134S
							
Page		62	64	65	66	67	68
Type	Locking Element						
Model	DR400	DR500	DR603	MAD	MAS	MASUS	
							
Page	69	70	71	73	74	75	
Type	Locking Element						
Model	DRAP	DRMC					
							
Page	76	77					

LOCKNUT

Precision Locknut							
Type	Model	Features	KZM	KZMT	DCN	KZMV	KZMF
							
Page	79		82	83	84	86	87
Precision Locknut							
Type	Model	KAN	KSN	KSNT	KSNA	ZMVT	AN
							
Page	88		90	91	92	93	94
Precision Locknut							
Type	Model	DN					
							
Page	95						
The Contents in the Catalog will be Changed without Separate Notice in advance in Accordance with product Improvement Policies.							

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COUPLING



Duri Couplings Features

The coupling is used to transfer some power by connecting the drive shaft with the driven shaft.

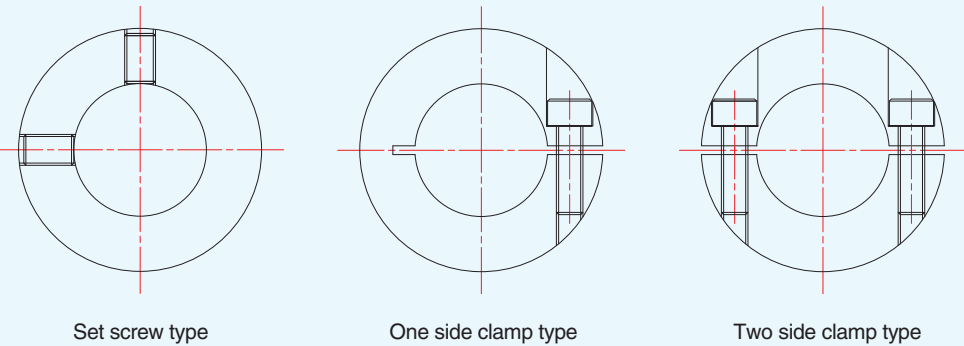
The coupling is providing a wide range of choices in how to tighten the shaft. It consists of corrosion-resistant aluminum alloy(Duralumin) with light weight and high stiffness, so a revolution system with a small inertia can be driven. It includes DRB, DRBS, DOH, DOHS, DJC, DJCS, DRJT, DRG, DRGL and etc. other than DRN, DRJ and DRP.

There are 3types in how to tighten the shaft.
There are one set screw type and 2 clamp types in how to tighten the shaft.
One of them can be Optional.

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.

Coupling Line Up Contents

Type	Slit Type				Oldham Type		
Model	DRB	DRBS	DRB-SUS	DRBS-SUS	DOH	DOH-SC	DOHS-C
Page	10	12	14	15	16	16	18
Type	Oldham Type		Jaw Type		Rigid Type		
Model	DOH-S	DOH-SS	DJC	DJCS	DRJT	DRG	DRG-C
Page	18	18	20	22	23	24	24
Type	Rigid Type				Disk Type		
Model	DRG-W	DRGL-C	DRL-C	DRL-V	DRN	DRS	DRW
Page	24	26	26	26	28	29	29
Type	Disk Type	Power Type	Cross Joint Type	Flexible Type	Connecting Shaft	Set Collars	
Model	DRA	DRJ/DRP	DRCJ	DRFC	DRACL/DRJCL	DRSS	DRSD
Page	29	35	36	38	42/44	46	47



How to select the coupling

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 : $K = 1.0 \sim 1.5$

Intermediate fluctuation to More fluctuation $K = 2.0 \sim 2.3$

Power conversion efficiency, transmission efficiency η

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.

$$\text{Power Output(PO)} [\text{kW}] = \text{Coefficient K} \times \text{Power Consumption (PS)} [\text{kW}] / \text{Efficiency } \eta$$

The coupling can be generally chosen as torque value specified in the common transfer torque > the supplied power.

Note:

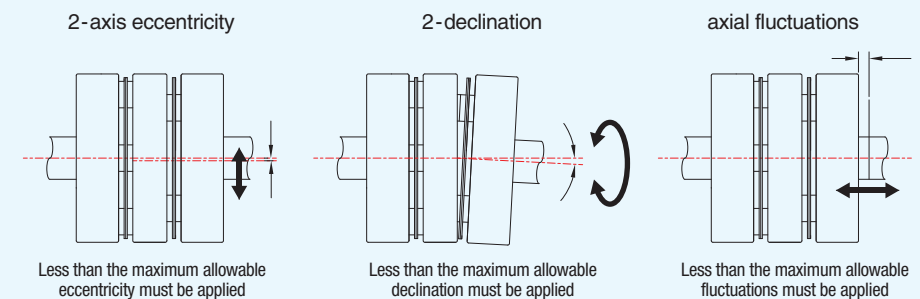
When the servo motor generates much larger torque values to accelerate or decelerate during starting or stopping, the coupling can be selected as a maximum transfer torque larger than the maximum startup torque multiplied by 1.5 on the motor.

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.

Other requirements

Besides the power chosen, the coupling includes the eccentricity, declination and the end play between 2 contacting shafts, as well as the rev. No. being used. 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.



Be sure that there is any coupling type which will not meet above 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 k_t coupled with the axis on a feed screw connected in series.

$$1/k_t = 1/k_s + 1/k_c \quad k_s : \text{Rigidity on the axis of a screw}$$

k_c : Rigidity on the coupling

J_i : Inertia on the input axis

J_o : Inertia on the axial force

No. of frequency division (F_d) can be calculated from this k_t and, J_i and J_o on the input and output axes as the following steps.

$$F_d = 0.5 \cdot (1/\pi) \cdot \{9.8 \cdot k_t \cdot (1/J_i + 1/J_o)\}^{-2}$$

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.

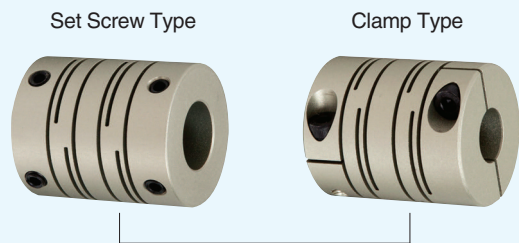
Most of the Duri Couplings are designed with a light-weighted compact body, so any value mentioned can be ignored in the process of power transmission, but be sure that values must be checked as described in the table showing each type on the catalog when calculating startup torques for multiple usage or the entire precise vibrations.



Features

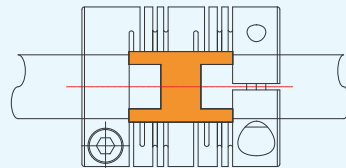
- Completely integrated coupling with slit Type and Zero backlash.
- Forward and reverse are the same features and torsional rigidity is outstanding.
- Outstanding Oil-resistance and Anti-chemical.
- The plate spring formed with slit absorbs Eccentricity, declination and end play.
- A wide variety of choices in size.
- Using aluminum alloy with high stiffness (duralumin).

Structure & material

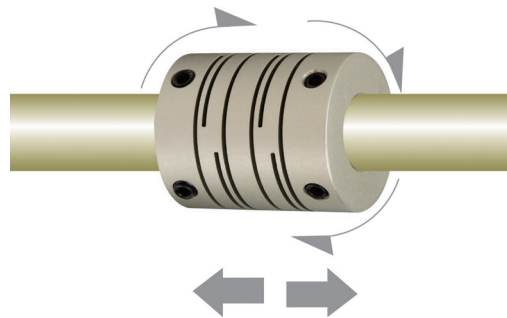


Material : Aluminum alloy with high stiffness
Surface treatment : Alumite process

Relief Type



Assembling is easy due to the unique structure regardless of the shaft because of the wide processing inside.



Usage

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

Others

- All products are included set screw and Cap screw.
- We can supply nonstandard Inner Diameter.
- We encourage h7 for tolerance of Inner Diameter.
- We can supply with Key seat.

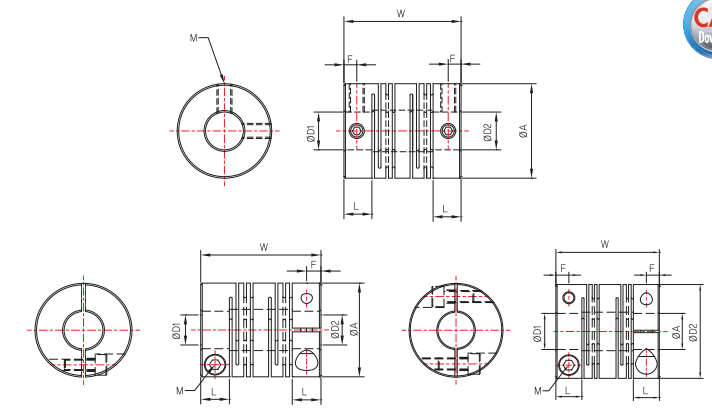
Order method

DRB-25C-Ø8×Ø10
Product No. D1 D2

Set Screw Type



Clamp Type



Outer diameter Ø12~Ø32

Outer diameter Ø39~Ø60

Product NO.	Dimension(mm)				Tightening Screw		Rated Torque N · m	Max. Torque N · m	Max. RPM min ⁻¹	Moment of Inertia kg · m ²	Torsional Stiffness N · m/rad	Angle °	Parallel mm	End Play ± mm	Mass g
	A	L	W	F	Size M	Torque N · m									
DRB-8	8	3.5	14	1.7	M2	0.3	0.1	0.2	78,000	1.2×10 ⁻⁸	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 ⁻⁸	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 ⁻⁷	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 ⁻⁷	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 ⁻⁶	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 ⁻⁶	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 ⁻⁶	500	2.5	0.25	0.5	55
DRB-39	39	16	56	6.8	M5	4	8	16	15,000	2.8×10 ⁻⁵	700	2.5	0.25	0.5	130
DRB-49	49	20	70	9.5	M6	7	16	32	12,000	1.0×10 ⁻⁴	1,800	2.5	0.25	0.5	280
DRB-60	60	19	88	9	M8	15	32	64	10,000	3.0×10 ⁻⁴	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 ⁻⁸	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 ⁻⁷	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 ⁻⁷	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 ⁻⁶	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 ⁻⁶	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 ⁻⁶	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 ⁻⁵	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 ⁻⁵	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 ⁻⁵	700	2.5	0.25	0.5	140
DRB-49C	49	15	63	7.5	M6	13	16	32	12,000	9.4×10 ⁻⁵	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 ⁻⁴	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 ⁻⁴	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 ⁻⁴	3,100	2.5	0.3	0.5	490

Mass and Moment of inertia are measured with max bore size.

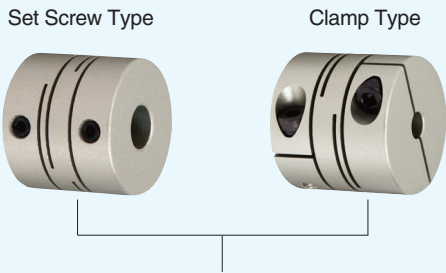
Product NO.	Standard Inner diameter (D1, D2) (mm)																			
	2	3	4	5	6	6.35	8	9.525	10	11	12	14	15	16	18	19	20	22	24	25
DRB-8	•	•																		
DRB-12□		•	•	•																
DRB-16□		•	•	•	•	•	•													
DRB-19□			•	•	•	•	•	•	•											
DRB-22□				•	•	•	•	•	•	•										
DRB-25□				•	•	•	•	•	•	•	•									
DRB-32□					•	•	•	•	•	•	•	•								
DRB-39□									•	•	•	•	•	•	•	•	•			
DRB-49□										•	•	•	•	•	•	•	•	•	•	
DRB-60□													•	•	•	•	•	•	•	•



Features

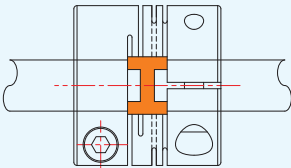
- Completely integrated coupling with Compact type.
- Zero backlash.
- The plate spring formed with slit absorbs Declination and end play.
- Don't allow eccentricity.
- Forward and reverse are the same features and Torsional rigidity is outstanding.
- Maintenance free and Outstanding Oil-resistance and anti-chemical.

Structure & material



Material : Aluminum alloy with high stiffness
Surface treatment : Alumite process

Relief Type



Usage

- Servo motor
- Stepping motor
- General wide use motor
- Encoder

Others

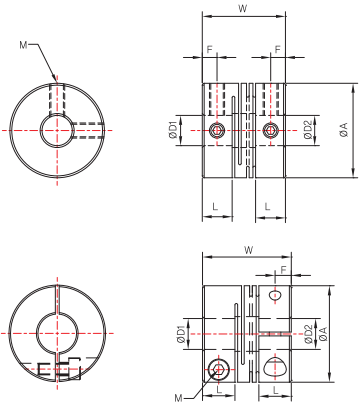
- All products are included set screw and cap screw.
- We can supply nonstandard Inner Diameter.
- We encourage h7 for tolerance of Inner Diameter.
- We can supply with key seat.



Set Screw Type



Clamp Type



Product NO.	Dimension(mm)				Tightening Screw		Rated Torque	Max. Torque	Max. RPM	Moment of Inertia	Torsional Stiffness	Angle	Parallel	End Play	Mass
					Size	Torque									
	A	L	W	F	M	N · m	N · m	N · m	min ⁻¹	kg · m ²	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 ⁻⁸	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 ⁻⁸	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 ⁻⁷	180	1	0	0.2	6
DRBS-19	19	6.31	17	3.1	M3	0.7	1	2	31,000	5.0×10 ⁻⁷	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 ⁻⁶	350	1	0	0.2	14
DRBS-25	25	7.9	22	3.9	M4	1.7	2	4	25,000	2.5×10 ⁻⁶	780	1	0	0.2	22
DRBS-32	32	10.5	29	5.2	M5	4	4	8	19,000	7.5×10 ⁻⁶	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 ⁻⁸	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 ⁻⁷	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 ⁻⁷	200	1	0	0.2	10
DRBS-22C	22	7.4	20	3.7	M3	2	1.5	3	27,000	1.1×10 ⁻⁶	350	1	0	0.2	15
DRBS-25C	25	8.4	23	4.2	M3	2	2	4	25,000	2.5×10 ⁻⁶	780	1	0	0.2	25
DRBS-32C	32	11	30	5.5	M4	4	4	8	19,000	7.5×10 ⁻⁶	1,100	1	0	0.2	50

Mass and Moment of inertia are measured with max bore size.

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

DRB-SUS (Stainless steel Type)

Order method

DRB-25C SUS-Ø8×Ø10
Product No. D1 D2

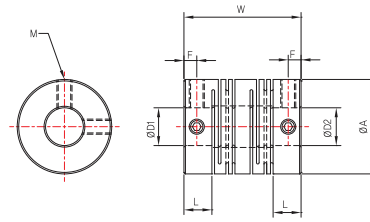
Set Screw Type



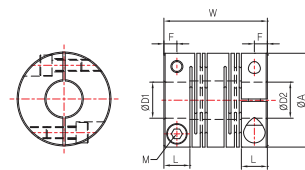
Clamp Type

Features

Body and bolts material is all Stainless steel. This is ideal for special environment Requiring waterproofness, anti-corrosive



Outer diameter Ø12~Ø32



Outer diameter Ø39~Ø60

Product NO.	Dimension(mm)				Tightening Screw		Rated Torque	Max. Torque	Max. RPM	Moment of Inertia	Torsional Stiffness	Angle	Parallel	End Play	Mass
					Size	Torque									
	A	L	W	F	M	N · m	N · m	N · m	min ⁻¹	kg · m ²	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 ⁻⁸	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 ⁻⁷	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 ⁻⁷	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 ⁻⁶	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 ⁻⁶	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 ⁻⁶	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 ⁻⁵	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 ⁻⁵	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 ⁻⁴	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 ⁻⁴	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 ⁻⁷	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 ⁻⁷	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 ⁻⁶	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 ⁻⁶	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 ⁻⁶	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 ⁻⁵	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 ⁻⁵	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 ⁻⁵	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 ⁻⁵	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 ⁻⁴	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 ⁻⁴	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 ⁻⁴	1,800	2.5	0.3	0.5	1,400

Mass and Moment of inertia are measured with max bore size.

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	20	22	24	25
DRB-8 SUS	●	●																		
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													●	●	●	●	●	●	●	●

DRBS-SUS (Stainless steel Type)

Order method

DRBS-25C SUS-Ø8×Ø10
Product No. D1 D2

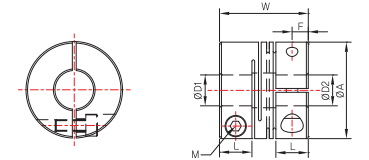
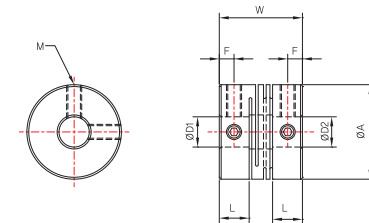
Set Screw Type



Clamp Type

Features

Body and bolts material is all Stainless steel. This is ideal for special environment Requiring waterproofness, anti-corrosive



Product NO.	Dimension(mm)				Tightening Screw		Rated Torque	Max. Torque	Max. RPM	Moment of Inertia	Torsional Stiffness	Angle	Parallel	End Play	Mass
					Size	Torque									
	A	L	W	F	M	N · m	N · m	N · m	min ⁻¹	kg · m ²	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 ⁻⁸	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 ⁻⁷	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 ⁻⁷	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 ⁻⁷	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 ⁻⁶	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 ⁻⁶	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 ⁻⁵	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 ⁻⁷	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 ⁻⁷	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 ⁻⁶	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 ⁻⁶	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 ⁻⁶	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 ⁻⁵	1,300	1	0	0.2	140

Mass and Moment of inertia are measured with max bore size.

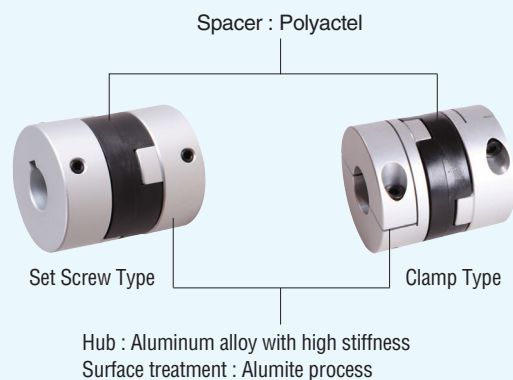
Product NO.	Standard Inner diameter (D1, D2) (mm)														
	2	3	4	5	6	6.35	8	9.525	10	11	12	14	15		
DRBS-8 SUS	•	•													
DRBS-12 SUS		•	•	•											
DRBS-16 SUS		•	•	•	•										
DRBS-19 SUS			•	•	•	•	•								
DRBS-22 SUS				•	•	•	•	•	•						
DRBS-25 SUS				•	•	•	•	•	•	•	•				
DRBS-32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



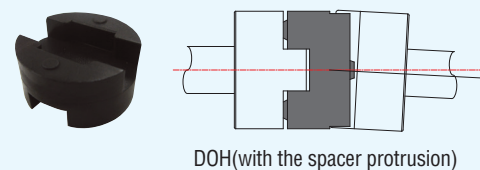
Features

- 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.
- Absorption vibration and electric insulation.
- It is easy to assemble. (Easy replacement)
- Usable temperature is -20°C~80°C

Structure & material



Advantage of Spacer



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.

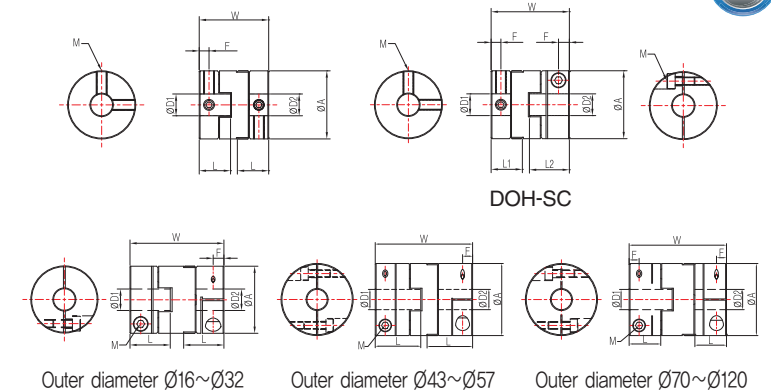
Usage

- Servo motor
- Stepping motor
- General wide use motor
- Encoder

Others

- All products are included set screw and cap screw.
- We can supply nonstandard Inner Diameter and key seat.
- We encourage h7 for tolerance of Inner Diameter.
- We can penetrate into spacer.

Order method

DOH-20C-Ø6×Ø8
Product No. D1 D2

Product NO.	Dimension(mm)					Tightening Screw		Rated Torque	Max. Torque	Max. RPM	Moment of Inertia	Torsional Stiffness	Angle	Parallel	End Play	Mass
						Size	Torque									
	A	L		W	F	M	N · m									
L1	L2															
DOH-16	16	8.1		18	2.5	M3	0.7	1	2	39,000	2.4×10 ⁻⁷	65	2	1	0.1	8
DOH-20	20	9		20	2.7	M4	1.7	1.5	3	31,000	8.1×10 ⁻⁷	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 ⁻⁶	200	2	2	0.1	27
DOH-32	32	14.5		32	4	M5	4	7	14	19,000	3.0×10 ⁻⁶	620	2	2.5	0.2	48
DOH-43	43	24		52	8.25	M5	4	15	30	15,000	3.9×10 ⁻⁵	1,200	2	3	0.2	140
DOH-53	53	27		58	9.75	M6	7	25	50	12,000	6.7×10 ⁻⁵	1,400	2	3.5	0.2	250
DOH-57	57	36		77	13.5	M8	15	36	72	10,000	2.2×10 ⁻⁴	2,600	2	4	0.2	350
DOH-70	73	37		77	12.5	M8	15	65	130	7,000	4.5×10 ⁻⁴	4,800	2	4	0.2	550
DOH-16C	16	10.9		23.6	2.9	M2.5	1	1	2	39,000	3.7×10 ⁻⁷	65	2	1.0	0.1	9
DOH-20C	20	11.7		25.5	3.2	M2.5	1	1.5	3	31,000	9.3×10 ⁻⁷	120	2	1.5	0.1	16
DOH-25C	25	14.7		32	4	M3	2	2.5	5	25,000	3.3×10 ⁻⁶	200	2	2	0.1	30
DOH-32C	32	21		45	5.4	M4	4	7	14	19,000	1.4×10 ⁻⁵	620	2	2.5	0.2	60
DOH-43C	43	24		52	6.2	M5	8	15	30	15,000	4.3×10 ⁻⁵	1,200	2	3	0.2	150
DOH-53C	53	27		58	7	M5	8	25	50	12,000	1.2×10 ⁻⁴	1,400	2	3.5	0.2	250
DOH-57C	57	36		77	7.9	M6	13	36	72	10,000	1.8×10 ⁻⁴	2,600	2	3.5	0.2	315
DOH-70C	73	28		83	10	M8	30	65	130	7,000	5.4×10 ⁻⁴	2,000	2	3.5	0.2	670
DOH-90C	88	33.5		98.7	13	M10	50	105	210	5,000	1.2×10 ⁻³	2,500	2	4	0.35	1,240
DOH-120C	118	40.5		138.7	18	M12	90	200	400	4,000	6.5×10 ⁻³	6,300	2	4.5	0.4	2,600
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 ⁻⁷	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 ⁻⁷	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 ⁻⁶	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 ⁻⁵	620	2	2.5	0.2	70

Set screw is one in the hub of 16-DOH

Mass and Moment of inertia are measured with max bore size.

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-16□	●	●	●	●	●																								
DOH-20□		●	●	●	●	●	●	●																					
DOH-25□			●	●	●	●	●	●	●																				
DOH-32□				●	●	●	●	●	●	●	●	●	●																
DOH-43□						●	●	●	●	●	●	●	●	●															
DOH-53□								●	●	●	●	●	●	●	●	●	●												
DOH-57□											●	●	●	●	●	●	●	●	○		○								
DOH-70□												●	●	●	●	●	●	●	●	●	●	●	●	○					
DOH-90□											●	●	●	●	●	●	●	●	●	●	●	●	●	●	○	○	○		
DOH-120□																	●	●	●	●	●	●	●	●	●	●	●	●	

○ : Axis penetration is impossible.

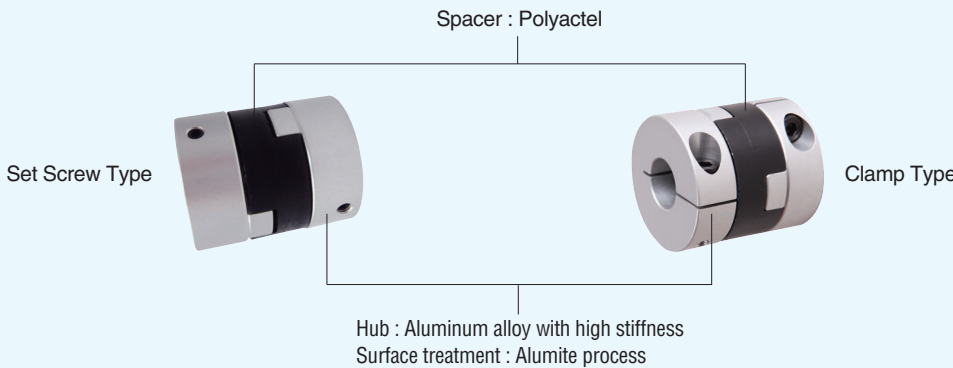
DOHS-C | DOH-S | DOH-SS



Features

- Compact type with the hole length is short.
- 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 protrusion.
- Absorption vibration and electric insulation.
- It is easy to assemble (easy replacement).
- Usable temperature is -20°C~80°C

Structure & material



Usage

- Servo motor
- Stepping motor
- General wide use motor
- Encoder

Others

- All products are included set screw and cap screw.
- We can supply nonstandard Inner Diameter and key seat.
- We encourage h7 for tolerance of Inner Diameter.
- We can penetrate into spacer.

Order method DOHS-25C-Ø8×Ø10
Product No. D1 D2



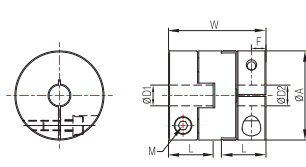
DOHS-C



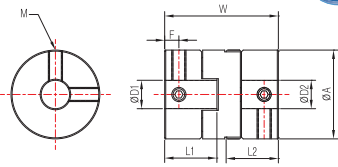
DOH-S



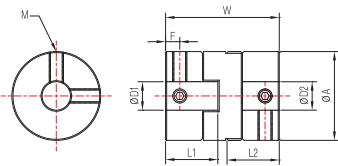
DOH-SS



DOHS-C



DOH-S



DOH-SS

Product NO.	Dimension(mm)				Tightening Screw		Rated Torque	Max. Torque	Max. RPM	Moment of Inertia	Torsional Stiffness	Angle	Parallel	End Play	Mass	
					Size	Torque										
	A	L		W	F	M	N · m	N · m	N · m	min ⁻¹	kg · m ²	N·m/rad	°	mm	mm	g
L1	L2															
DOHS-12C	12	7		14.9	2.5	M2	0.5	0.2	0.4	52,000	7.1×10 ⁻⁸	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 ⁻⁷	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 ⁻⁷	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 ⁻⁶	200	2	2	0.1	25
DOHS-32C	32	16		35	4.75	M4	4	7	14	19,000	8.3×10 ⁻⁶	620	2	2.5	0.2	48
DOHS-43C	43	21.5		47	7	M5	8	15	30	15,000	2.0×10 ⁻⁵	1,200	2	3	0.2	120
DOHS-53C	53	24.5		53	8.5	M5	8	25	50	12,000	9.6×10 ⁻⁵	1,400	2	3.2	0.2	215
DOHS-57C	57	25		55	8	M6	13	36	72	10,000	1.3×10 ⁻⁴	2,600	2	4	0.2	235
DOHS-70C	73	37		77	12.5	M8	30	65	130	7,000	4.5×10 ⁻⁴	4,800	2	4	0.2	450
DOH-16S	16	8.1	10.9	20.8	2.5/3.9	M3	0.7	1	2	39,000	2.7×10 ⁻⁷	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 ⁻⁷	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 ⁻⁶	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 ⁻⁵	620	2	2.5	0.2	41
DOH-16SS	16	10.9	10.9	23.6	3.9	M3	0.7	1	2	39,000	2.3×10 ⁻⁷	65	2	1	0.1	8
DOH-20SS	20	11.7	11.7	25.5	4	M4	1.7	1.5	3	31,000	8.9×10 ⁻⁷	120	2	1.5	0.1	14
DOH-25SS	25	14.7	14.7	32	5.2	M4	1.7	2.5	5	25,000	1.8×10 ⁻⁶	200	2	2	0.1	23
DOH-32SS	32	21	21	45	7.25	M5	4	7	14	19,000	9.5×10 ⁻⁶	620	2	2.5	0.2	41

Mass and Moment of inertia are measured with max bore size.

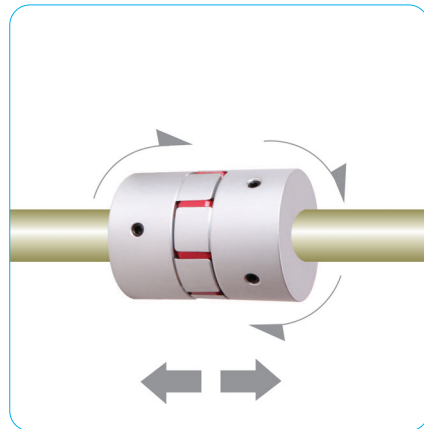
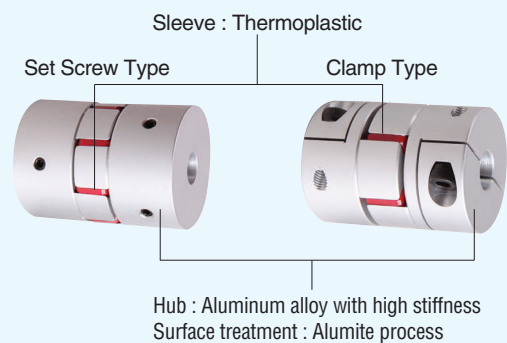
Product NO.	Standard Inner diameter(D1, D2) (mm)																							
	3	4	5	6	6.35	8	9.525	10	12	14	15	16	18	19	20	22	24	25	25.4	28	30	32	35	
DOH□-12□	●	●	●																					
DOH□-16□	●	●	●	●																				
DOH□-20□		●	●	●	●	●																		
DOH□-25□			●	●	●	●	●	●																
DOH□-32□				●	●	●	●	●	●	●														
DOH□-43□						●	●		●	●	●	●	●	●	●									
DOH□-53□								●	●	●	●	●	●	●	●	●	●	●						
DOH□-57□											●	●	●	●	●	●	●	●	●	●				
DOH□-70□												●	●	●	●	●	●	●	●	●	●	●	●	



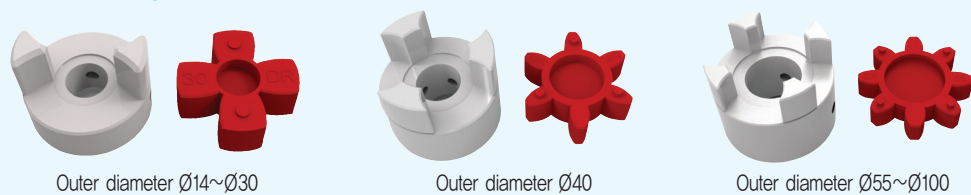
Features

- Unique structure as sleeve is pressed into Both Hub.
- Zero backlash available in low torque.
- Outstanding absorbing eccentricity, declination, Torsional vibration.
- Oil-resistance and electric insulation.
- Forward and reverse are the same.
- Usable temperature : -30°C~90°C
- Various inner diameter for standardization.

Structure & material



Sleeve Design



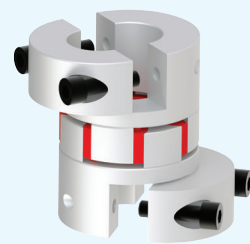
Usage

- Servo motor, - Stepping motor, - General wide use motor, - Encoder

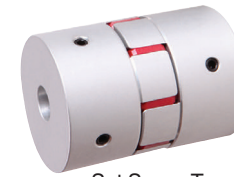
Others

- All products are included set screw and cap screw.
- We can supply nonstandard Inner Diameter and key seat.
- We encourage h7 for tolerance of Inner Diameter.
- You can order DJC with one side is clamp type and another side is Set screw type.
- You can order clamp split type when outer diameter size is over DJCL 30CRD.

Clamp split type



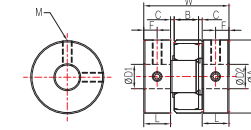
Order method

DJC-25CRD-Ø8×Ø10
Product No. D1 D2

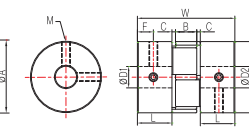
Set Screw Type



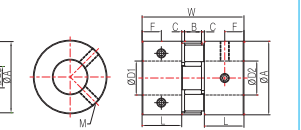
Clamp Type



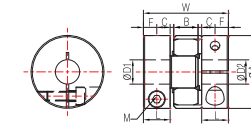
Outer diameter Ø14~Ø30



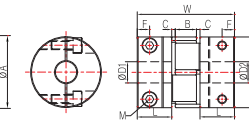
Outer diameter Ø40



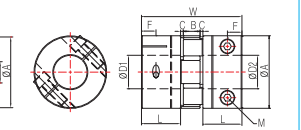
Outer diameter Ø55~Ø100



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	Parallel	End Play	Mass
	A	L	W	B	C	F	Size	Torque									
DJC-14RD	14	7	22	6	1	3.5	M3	0.7	2	4	45,000	2.1×10 ⁻⁷	30	1	0.1	+0.6 0	7
DJC-20RD	20	10	30	8	1	5	M3	0.7	5	10	31,000	1.0×10 ⁻⁶	65	1	0.1	+0.8 0	18
DJC-25RD	25	10	31.5	9	1.25	5	M4	1.7	10	20	25,000	2.4×10 ⁻⁶	220	1	0.1	+1.0 0	25
DJC-30RD	30	11	35	10	1.5	5.5	M4	1.7	14	28	21,000	5.9×10 ⁻⁶	220	1	0.1	+1.0 0	46
DJCL-30RD	30	15.5	44	10	1.5	7.75	M4	1.7	14	28	20,000	7.2×10 ⁻⁶	220	1	0.1	+1.0 0	53
DJC-40RD	40	19.5	55	12	2	9.75	M5	4	18	36	15,000	3.1×10 ⁻⁵	2,000	1	0.1	+1.0 0	125
DJCL-40RD	40	25	66	12	2	11.5	M5	4	18	36	14,000	4.0×10 ⁻⁵	2,000	1	0.1	+1.0 0	150
DJC-55RD	55	30	78	14	2	15	M6	7	60	120	11,000	1.7×10 ⁻⁴	4,000	1	0.1	+1.4 0	320
DJC-65RD	65	35	90	15	2.5	17.5	M8	15	180	360	9,000	3.9×10 ⁻⁴	8,000	1	0.1	+1.5 0	550
DJC-80RD	80	45	114	18	3	22.5	M8	15	325	650	7,000	1.1×10 ⁻³	20,000	1	0.1	+1.5 0	1,000
DJC-95RD	95	50	126	20	3	25	M8	15	450	900	6,000	2.3×10 ⁻³	30,000	1	0.1	+2.0 0	1,500
DJC-100RD	104	56	140	21	3.5	28	M10	25	600	1,200	6,000	4.8×10 ⁻³	40,000	1	0.1	+2.0 0	2,550
DJC-14CRD	14	7	22	6	1	3.5	M2	0.5	2	4	45,000	1.6×10 ⁻⁷	30	1	0.1	+0.6 0	6
DJC-20CRD	20	10	30	8	1	5	M2.5	1	5	10	31,000	1.1×10 ⁻⁶	65	1	0.1	+0.8 0	19
DJC-25CRD	25	10	31.5	9	1.25	5	M3	2	10	20	25,000	2.4×10 ⁻⁶	220	1	0.1	+1.0 0	25
DJC-30CRD	30	11	35	10	1.5	5.5	M4	4	14	28	21,000	6.2×10 ⁻⁶	220	1	0.1	+1.0 0	50
DJCL-30CRD	30	15.5	44	10	1.5	5.5	M4	4	14	28	20,000	7.5×10 ⁻⁶	220	1	0.1	+1.0 0	55
DJC-40CRD	40	19.5	55	12	2	7	M5	8	18	36	15,000	3.1×10 ⁻⁵	2,000	1	0.1	+1.0 0	135
DJCL-40CRD	40	25	66	12	2	8.5	M5	8	18	36	14,000	3.9×10 ⁻⁵	2,000	1	0.1	+1.0 0	160
DJC-55CRD	55	30	78	14	2	10.5	M6	13	60	120	11,000	1.6×10 ⁻⁴	4,000	1	0.1	+1.4 0	330
DJC-65CRD	65	35	90	15	2.5	13	M8	30	180	360	9,000	3.8×10 ⁻⁴	8,000	1	0.1	+1.5 0	560
DJC-80CRD	80	45	114	18	3	15	M10	50	325	650	7,000	1.1×10 ⁻³	20,000	1	0.1	+1.5 0	1,050
DJC-95CRD	95	50	126	20	3	18	M10	50	450	900	6,000	2.3×10 ⁻³	30,000	1	0.1	+2.0 0	1,600
DJC-100CRD	104	56	140	21	3.5	20	M12	90	600	1,200	6,000	4.6×10 ⁻³	40,000	1	0.1	+2.0 0	2,550

Mass and Moment of Inertia are measured with max bore size.

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-14□	●	●	●	●																											
DJC-20□		●	●	●	●	●	●	●	●																						
DJC-25□				●	●	●	●	●	●	●	●	●																			
DJC□-30□					●	●	●	●	●	●	●	●	●	●	●																
DJC□-40□								●	●	●	●	●	●	●	●	●	●	●													
DJC-55□										●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
DJC-65□												●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
DJC-80□														●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
DJC-95□															●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
DJC-100□																●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●

**Features**

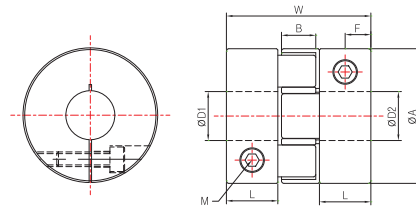
- There is only Clamp type.
- Jaw type coupling which the hole length is short.

Specification

- Materials : High-rigidity aluminum alloy(customized for metals)
- Surface treatment : Alumite process

Others

- We can supply nonstandard Inner Diameter and key seat.

**Features**

- DRJT is a JAW-Type Flexible Coupling.
- It is outstanding in transferring high torques, and Optimized for spindling machines.
- Cased with aluminum in high rigidity, The coupling has a moment of lower inertia, so it can have a high speed in the revolution.
- The high rev. allows the coupling to absorb the vibrations arising from the eccentricity and declination.
- It has outstanding strengths in terms of balancing and insulating with a temperature of $-30^{\circ}\text{C} \sim 90^{\circ}\text{C}$ available.

Specification

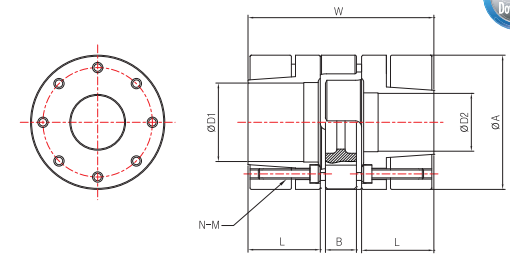
- Materials : High-rigidity aluminum alloy(customized for metals)
- Surface treatment : Alumite process

Usage

- Machine tools, - Spindle

Others

- h7 is recommended for intolerance of inner diameter.



Product NO.	Dimension(mm)					Tightening Screw		Rated Torque	Max. Torque	Max. RPM	Moment of Inertia	Torsional Stiffness	Angle	Parallel	End Play	Mass
						Size	Torque									
	A	L	W	B	F	M	N · m	N · m	N · m	min ⁻¹	kg · m ²	N · m/rad	°	mm	mm	g
DJCS-55CRD	55	20.5	59	14	10.5	M6	13	60	120	11,000	1.3×10^{-4}	4,000	1	0.1	$+1.4_0$	280
DJCS-65CRD	65	22	64	15	11	M8	30	160	320	9,000	2.6×10^{-4}	8,000	1	0.1	$+1.5_0$	400
DJCS-80CRD	80	32	88	18	16	M10	50	320	640	7,000	8.7×10^{-4}	20,000	1	0.1	$+1.5_0$	860
DJCS-95CRD	95	33	92	20	16.5	M10	50	450	900	6,000	1.68×10^{-3}	30,000	1	0.1	$+2.0_0$	1,190
DJCS-100CRD	104	34	96	21	17.5	M12	90	600	1,200	5,000	3.1×10^{-3}	40,000	1	0.1	$+2.0_0$	1,700

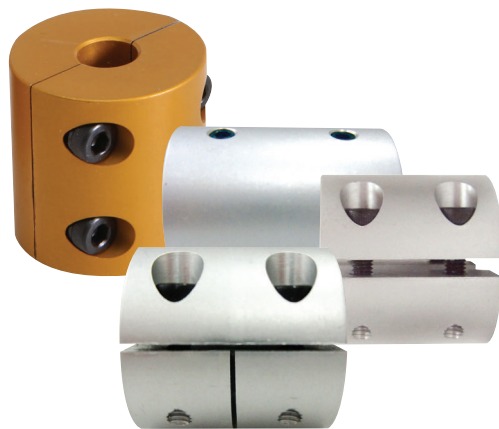
Mass and Moment of inertia are measured with max bore size.

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							•	•	•	•	•	•	•	•	•	•	•	•	•	•

Product NO.	Dimension(mm)				Tightening Screw			Rated Torque	Max. Torque	Max. RPM	Moment of Inertia	Torsional Stiffness	Angle	Parallel	End Play	Mass
					Size	Torque	Quantity									
	A	L	W	B	M	N · m	Qty	N · m	N · m	min ⁻¹	kg · m ²	N · m/rad	°	mm	mm	g
DRJT-30A	30	18.5	50	10	M3	2	4	13	26	38,000	0.04 × 10 ⁻⁴	220	1	0.1	+1 0	65
DRJT-40A	40	25	66	12	M4	4	6	17	34	30,000	0.19 × 10 ⁻⁴	2,000	1	0.1	+1 0	160
DRJT-55A	55	30	78	14	M5	8	4	60	120	23,000	0.78 × 10 ⁻⁴	4,000	1	0.1	+1 0	345
DRJT-65A	65	35	90	15	M5	8	8	180	360	20,000	1.70 × 10 ⁻⁴	8,000	1	0.1	+1.4 0	560
DRJT-80A	80	45	114	18	M6	13	8	325	650	15,000	5.17 × 10 ⁻⁴	20,000	1	0.1	+1.5 0	1,030
DRJT-95A	95	50	126	20	M8	25	4	450	900	11,000	11.17 × 10 ⁻⁴	30,000	1	0.1	+1.5 0	1,630
DRJT-100A	104	56	140	21	M10	50	4	600	1,200	10,000	3.70 × 10 ⁻³	40,000	1	0.1	+2.0 0	2,200

Mass and Moment of inertia are measured with max bore size.

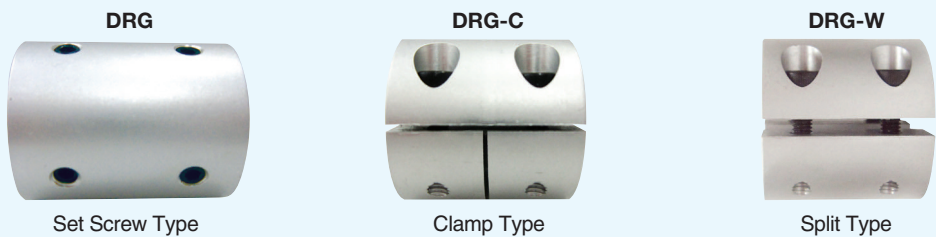
Product NO.	Standard Inner diameter(D1, D2) (mm)																												
	6	7	8	9	10	11	12	14	15	16	17	18	19	20	22	24	25	26	28	30	32	35	38	40	42	45	48	50	55
DRJT-30A	●	●	●	●	●	●	●	●																					
DRJT-40A					●	●	●	●	●	●	●	●	●	●															
DRJT-55A							●	●	●	●	●	●	●	●	●	●	●	●											
DRJT-65A									●	●	●	●	●	●	●	●	●	●	●	●	●	●	●						
DRJT-80A									●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●			
DRJT-95A														●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
DRJT-100A														●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●



Features

- Light weight, extremely low inertia, High Responsiveness.
- Zero backlash.
- Outstanding oil-resistance and Anti-chemical.
- There are 3 types.
- Do not allow eccentricity, Declination and End play.

Structure & material



Material : Aluminum alloy with high stiffness
Surface treatment : Alumite process

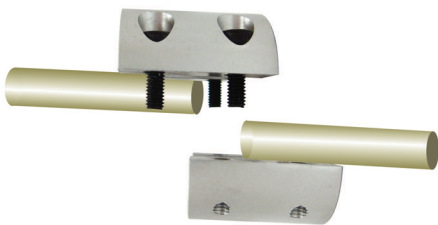
Usage

- Servo motor
- Stepping motor
- General wide use motor
- Encoder

Others

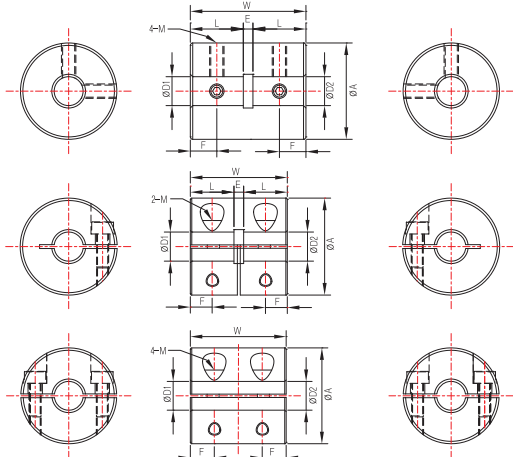
- All products are included set screw and Cap screw.
- We can supply nonstandard Inner Diameter.
- We encourage h7 for tolerance of Inner Diameter.
- We can supply with key seat.

DRG-W Type



Order method

DRG-16C-Ø5×Ø6
Product No. D1 D2



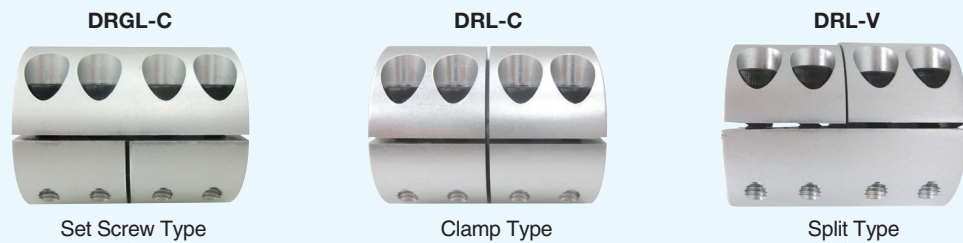
Product NO.	Dimension(mm)					Tightening Screw		Rated Torque	Max. Torque	Max. RPM	Moment of Inertia	Mass
						Size	Torque					
	A	L	W	F	E	M	N · m	N · m	N · m	min ⁻¹	kg · m ²	g
DRG-16	16	10.5	23	5.25	2	M3	0.7	1	2	39,000	4.4 × 10 ⁻⁷	11
DRG-20	20	11	24	5.5	2	M3	0.7	1.5	3	31,000	9.7 × 10 ⁻⁷	20
DRG-20L	20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

Mass and Moment of inertia are measured with max bore size.

Product NO.	Standard Inner diameter(D1, D2) (mm)																	
	3	4	5	6	8	10	11	12	14	15	16	18	20	22	24	25	28	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																●	●	●

DRGL-C | DRL-C | DRL-V**Features**

- Rigid coupling with long type.
- You can use this coupling as a joint for Connecting axis.
- Zero backlash, Torsional rigidity is Outstanding, High responsiveness.
- Outstanding oil-resistance and Anti-Chemical.
- There are 3 types.
- Do not allow eccentricity, Declination and End play.

Structure & material

Material : Aluminum alloy with high stiffness
Surface treatment : Alumite process

Usage

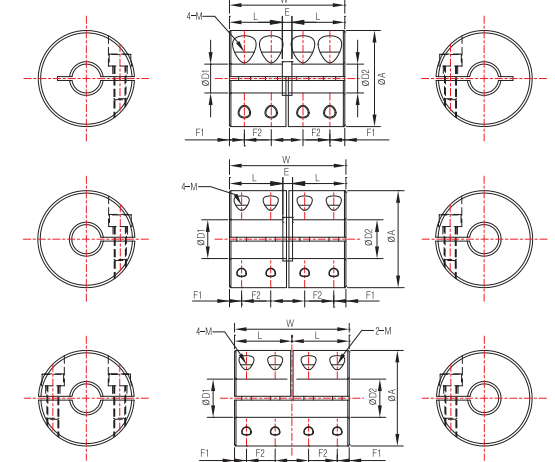
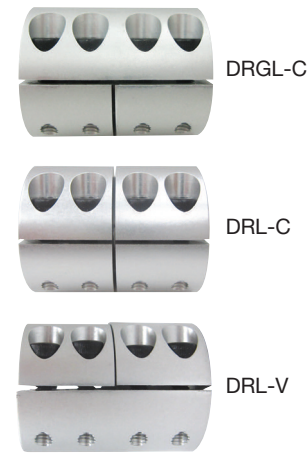
- Servo motor
- Stepping motor
- General wide use motor
- Encoder

Others

- All products are included set screw and Cap screw.
- We can supply nonstandard Inner Diameter.
- We encourage h7 for tolerance of Inner Diameter.
- We can supply with key seat.

DRL-V Type

Order method

DRGL-16C-Ø5×Ø6
Product No. D1 D2

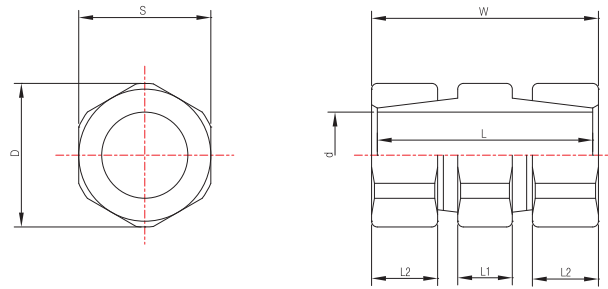
Product NO.	Dimension(mm)						Tightening Screw		Rated Torque N · m	Max. Torque N · m	Max. RPM min ⁻¹	Moment of Inertia kg · m ²	Mass g
	A	L	W	F1	F2	E	Size M	Torque N · m					
DRGL-16C	16	10.25	22.5	3	5.4	2	M2.5	1	1	2	39,000	3.4×10 ⁻⁷	10
DRGL-20C	20	11	24	3.1	5.6	2	M2.5	1	2.5	5	31,000	9.2×10 ⁻⁷	18
DRGL-25C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

Mass and Moment of inertia are measured with max bore size.

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



Electroless nickel plating

**Features**

- Simple lock by Nut tightening It can be installed in a narrow space Cost Savings because of tightening without key seat.
- High Tightening Torque and Allowable Thrust It is possible to supply with plating.
- In plated type, Tightening Torque and Allowable Thrust are reduced by 30%

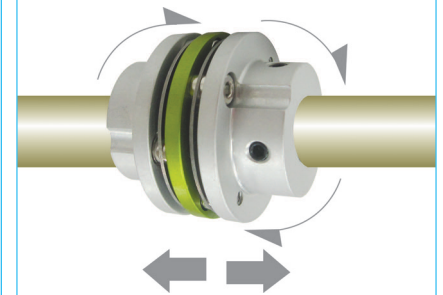
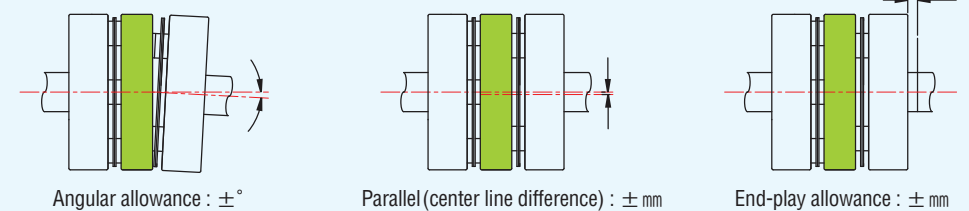
Others

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

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

**Features**

- Disc type flexible coupling.
- Zero backlash.
- Stainless disc allows 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 & material**Misalignment****Usage**

- Servo motor
- Stepping motor
- General wide use motor
- Encoder

Others

- All products are included set screw and cap screw.
- We can supply nonstandard Inner Diameter and key seat.
- Don't re-assemble after disassemble randomly.
- You can order different types of both hubs.
- We encourage h7 for tolerance of Inner Diameter.
- You can order with one side is clamp type and another side is Set screw type.
- You can ask additional disk quantity.

DRS | DRW | DRA (Set Screw Type)

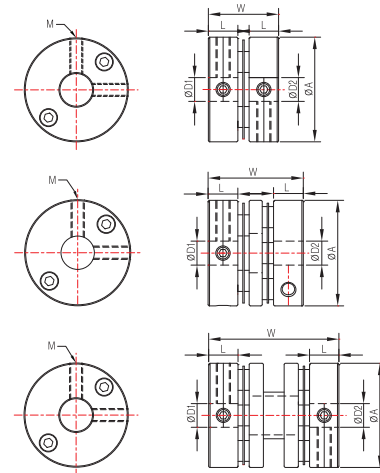
Order method

DRW-31-Ø8×Ø10
Product No. D1 D2

DRS

DRW

DRA



Product NO.	Dimension(mm)			Tightening Screw		Rated Torque	Max. Torque	Max. RPM	Moment of Inertia	Torsional Stiffness	Angle	Parallel	End Play	Mass
	A	L	W	Size	Torque									
DRS-16	16	5.1	11.9	M2.5	0.5	0.6	1.2	30,000	1.8×10^{-7}	270	0.5	0.02	0.1	5
DRW-16	16	5.1	15.6	M2.5	0.5	0.6	1.2	30,000	2.2×10^{-7}	200	2	0.05	0.2	6
DRWL-16	16	5.1	17.6	M2.5	0.5	0.6	1.2	30,000	2.6×10^{-7}	200	2	0.05	0.2	7
DRS-19	19	6.1	14	M3	0.7	1	2	20,000	3.0×10^{-7}	600	1	0.02	0.1	6
DRW-19	19	6.1	18	M3	0.7	1	2	20,000	5.3×10^{-7}	450	2	0.05	0.2	10
DRWL-19	19	6.1	21	M3	0.7	1	2	20,000	5.8×10^{-7}	450	2	0.05	0.2	11
DRS-22	22	6.2	14.8	M4	1.7	1.3	2.6	20,000	6.9×10^{-7}	600	1	0.02	0.2	10
DRW-22	22	6.2	19.9	M4	1.7	1.3	2.6	20,000	1.0×10^{-6}	500	2	0.12	0.2	16
DRWL-22	22	6.2	21.5	M4	1.7	1.3	2.6	20,000	1.1×10^{-6}	500	2	0.12	0.2	17
DRA-22	22	6.2	27.5	M4	1.7	1.3	2.6	20,000	1.3×10^{-6}	500	2	0.12	0.2	18
DRS-26	26	7.3	17	M4	1.7	2	4	20,000	2.0×10^{-6}	1,300	1	0.02	0.2	20
DRW-26	26	7.3	25.3	M4	1.7	2	4	20,000	2.3×10^{-6}	800	2	0.15	0.2	28
DRA-26	26	7.3	31.2	M4	1.7	2	4	20,000	3.2×10^{-6}	800	2	0.15	0.2	32
DRS-31	31.8	7.2	17.1	M4	1.7	3	6	15,000	4.4×10^{-6}	1,700	1	0.02	0.2	30
DRW-31	31.8	7.2	24.2	M4	1.7	3	6	15,000	4.3×10^{-6}	1,300	2	0.15	0.2	30
DRWL-31	31.8	7.2	29.2	M4	1.7	3	6	15,000	5.5×10^{-6}	1,300	2	0.15	0.2	38
DRA-31	31.8	7.2	35.7	M4	1.7	3	6	15,000	5.5×10^{-6}	1,300	2	0.15	0.2	38

Mass and Moment of inertia are measured with max bore size.

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				•	•	•	•	•	•	•	•	•	•	•	•	•

○ : Axis penetration is impossible.

DRS | DRW | DRA (Clamp Type)

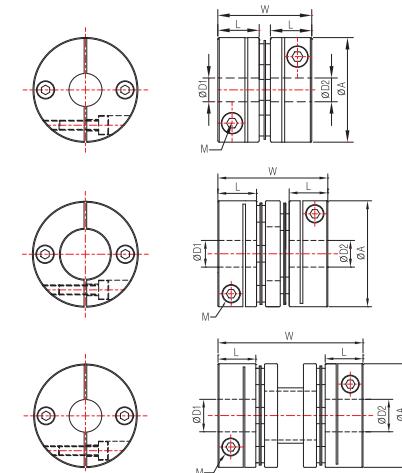
Order method

DRW-31C-Ø8×Ø10
Product No. D1 D2

DRS

DRW

DRA



Product NO.	Dimension(mm)			Tightening Screw		Rated Torque	Max. Torque	Max. RPM	Moment of Inertia	Torsional Stiffness	Angle	Parallel	End Play	Mass
	A	L	W	Size	Torque									
DRS-16C	16	7.8	17.4	M2	0.5	0.6	1.2	30,000	2.6×10^{-7}	270	0.5	0.02	0.1	7
DRW-16C	16	7.8	21	M2	0.5	0.6	1.2	30,000	3.3×10^{-7}	200	2	0.05	0.2	9
DRWL-16C	16	7.8	23	M2	0.5	0.6	1.2	30,000	3.7×10^{-7}	200	2	0.05	0.2	10
DRS-19C	19	8.7	19.2	M2.5	1	1	2	20,000	4.0×10^{-7}	600	1	0.02	0.1	8
DRW-19C	19	8.7	23	M2.5	1	1	2	20,000	7.4×10^{-7}	450	2	0.05	0.2	14
DRWL-19C	19	8.7	26.2	M2.5	1	1	2	20,000	7.9×10^{-7}	450	2	0.05	0.2	15
DRS-22C	22	8.7	19.8	M2.5	1	1.3	2.6	20,000	1.0×10^{-6}	600	1	0.02	0.2	15
DRW-22C	22	8.7	24.9	M2.5	1	1.3	2.6	20,000	1.3×10^{-6}	500	2	0.12	0.2	18
DRWL-22C	22	8.7	26.5	M2.5	1	1.3	2.6	20,000	1.4×10^{-6}	500	2	0.12	0.2	19
DRA-22C	22	8.7	32.5	M2.5	1	1.3	2.6	20,000	1.5×10^{-6}	500	2	0.12	0.2	20
DRS-26C	26	10.7	23.8	M3	2	2	4	20,000	2.4×10^{-6}	1,300	1	0.02	0.2	15
DRW-26C	26	10.7	32	M3	2	2	4	20,000	3.4×10^{-6}	500	2	0.15	0.2	34
DRA-26C	26	10.7	38	M3	2	2	4	20,000	3.9×10^{-6}	800	2	0.15	0.2	39
DRS-31C	31.8	11.6	25.9	M3	2	3	6	15,000	5.8×10^{-6}	1,700	1	0.02	0.2	40
DRW-31C	31.8	11.6	33	M3	2	3	6	15,000	7.5×10^{-6}	1,300	2	0.15	0.2	52
DRWL-31C	31.8	11.6	38	M3	2	3	6	15,000	8.8×10^{-6}	1,300	2	0.15	0.2	60
DRA-31C	31.8	11.6	44.5	M3	2	3	6	15,000	8.8×10^{-6}	1,300	2	0.15	0.2	60
DRS-39C	39	13.6	30.9	M4	4	6	12	10,000	1.6×10^{-5}	2,300	1	0.02	0.6	70
DRW-39C	39	13.6	38.6	M4	4	6	12	10,000	2.1×10^{-5}	1,800	2	0.15	0.6	95
DRWL-39C	39	13.6	44	M4	4	6	12	10,000	2.4×10^{-5}	1,800	2	0.15	0.6	110
DRA-39C	39	13.6	56	M4	4	6	12	10,000	3.0×10^{-5}	1,800	2	0.15	0.6	120
DRSC-42C	42.5	13.6	30.9	M4	4	8	16	10,000	3.2×10^{-5}	3,500	2	0.02	0.6	95
DRWC-42C	42.5	13.6	45.2	M4	4	8	16	10,000	3.3×10^{-5}	3,500	2	0.15	0.6	120
DRSC-47C	47	16.5	37	M4	4	13	26	10,000	5.4×10^{-5}	6,000	2	0.02	0.6	140
DRWC-47C	47	16.5	49.1	M4	4	13	26	10,000	5.5×10^{-5}	6,000	2	0.15	0.6	160

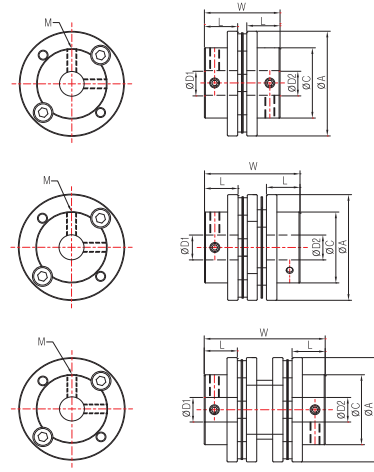
Mass and Moment of inertia are measured with max bore size.

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	24	25	
DR□-16C	●	●	●	●																					
DR□-19C	●	●	●	●	●																				
DR□-22C		●	●	●	●	●	●	●																	
DR□-26C				●	●	●	●	●	●	●	●	●	○												
DR□-31C				●	●	●	●	●	●	●	●	●	●	●	●	○	○	○							
DR□-39C					●	●	●	●	●	●	●	●	●	●	●	●	●	●	○	○	○	○			
DR□-42C					●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	○	○	○			
DR□-47C								●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	○	○	

○ : Axis penetration is impossible.

Coupling
DRS | DRW | DRA (Set Screw Type)

Order method **DRWA-42**-Ø8×Ø10
Product No. D1 D2



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

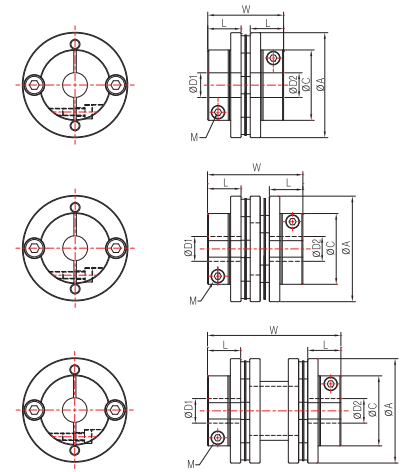
Mass and Moment of inertia are measured with max bore size.

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	25	26	28	30	32			
DR□-42	•	•	•	•	•	•	•	•	•	•	•	•	•	•	○													
DR□-47				•	•	•	•	•	•	•	•	•	•	•	•	•												
DR□-54						•	•	•	•	•	•	•	•	•	•	•	•											
DR□-64									•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	○	○			

○ : Axis penetration is impossible.

Coupling
DRS | DRW | DRA (Clamp Type)

Order method **DRWA-42C**-Ø8×Ø10
Product No. D1 D2



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

Mass and Moment of inertia are measured with max bore size.

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	25	26	28	30	32			
DR□-42C	•	•	•	•	•	•	•	•	•	•	•	•	•	•	○													
DR□-47C				•	•	•	•	•	•	•	•	•	•	•	•	•												
DR□-54C							•	•	•	•	•	•	•	•	•	•	•	•	•									
DR□-64C									•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	○	○			

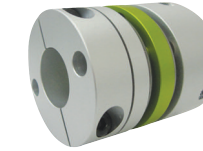
○ : Axis penetration is impossible.

DRS | DRW | DRA (Clamp Type)

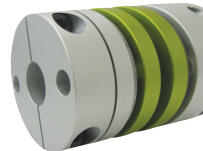
Order method

DRW-80C- $\varnothing 20 \times \varnothing 25$
Product No. D1 D2

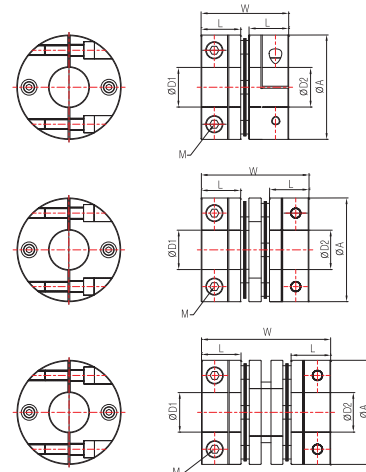
DRS



DRW



DRA



Product NO.	Dimension(mm)			Tightening Screw		Rated Torque	Max. Torque	Max. RPM	Moment of Inertia	Torsional Stiffness	Angle	Parallel	End Play	Mass
				Size	Torque									
	A	L	W	M	N · m	N · m	N · m	min ⁻¹	kg · m ²	N · m/rad	°	mm	± mm	g
DRSC-54C	54	19	42.6	M5	8	23	46	10,000	9.8×10^{-5}	11,000	2	0.02	0.8	200
DRWB-54C	54	19	52.1	M5	8	23	46	10,000	1.1×10^{-4}	9,000	2	0.3	0.8	250
DRWC-54C	54	19	58	M5	8	23	46	10,000	1.2×10^{-4}	9,000	2	0.3	0.8	280
DRS-80C	79	30	66.4	M8	30	75	150	10,000	7.5×10^{-4}	40,000	2	0.02	1.2	800
DRW-80C	79	30	82	M8	30	75	150	10,000	8.4×10^{-4}	34,000	2	0.5	1.2	900
DRA-80C	79	30	98	M8	30	75	150	10,000	8.5×10^{-4}	34,000	2	0.5	1.2	1,000
DRS-90C	94.5	30.4	68.2	M8	30	150	300	10,000	1.2×10^{-3}	60,000	2	0.02	1.4	930
DRW-90C	94.5	30.4	98	M8	30	150	300	10,000	1.8×10^{-3}	38,000	2	0.5	1.4	1,350
DRS-100C	104.5	30.6	71	M8	30	220	440	10,000	2.2×10^{-3}	70,000	2	0.02	1.4	1,300
DRW-100C	104.5	30.6	102.5	M8	30	220	440	10,000	2.9×10^{-3}	50,000	2	0.5	1.4	1,700

Mass and Moment of inertia are measured with max bore size.

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	40	42	45	50
DR□-54C	●	●	●	●	●	●	●	●	●	●	●	●	●	●	○	○	○							
DR□-80C						●	●	●	●	●	●	●	●	●	●	●	●	●	●	○				
DR□-90C											●	●	●	●	●	●	●	●	●	●	●	●	●	
DR□-100C											●	●	●	●	●	●	●	●	●	●	●	●	●	

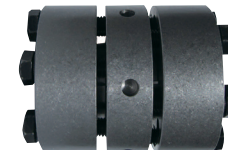
○ : Axis penetration is impossible.

DRJ | DRP

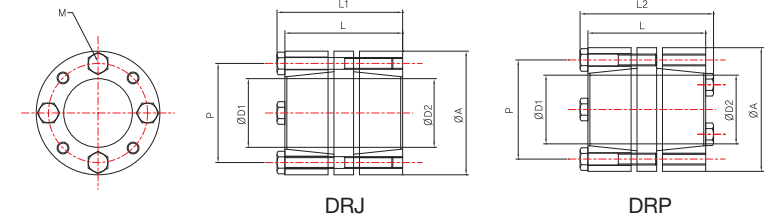
Order method

DRJ/DRP-63-30×30
Product No. A D1 D2

DRJ



DRP

**Features & Material**

- For Only Servo motor, High Torque, High Responsiveness.
- Size Standardization of Shaft diameter from $\varnothing 16 \sim \varnothing 48$.
- Material : S45C

Product NO.	Dimension(mm)							Torque	Thrust	Moment of Inertia	Tightening Screw		Max. RPM	Mass	
	A	D1	D2	L	L1	L2	P				Size	Torque			
								N·m	kN	kg·m ²	N×M	N·m	min ⁻¹	kg	
53-16-16	53	16	16	56	60	64	41	78.5	9.8	3.08×10 ⁻⁴	4×M6	17.7	14,500	0.80	
53-20-16		20						3.05×10 ⁻⁴		0.76					
53-20-20		22	20					2.90×10 ⁻⁴		0.77					
53-22-20			22					0.72							
53-22-22			118												
58-25-20	58	25	20	58	62	66	45	98.2	9.8	4.18×10 ⁻⁴	4×M6	17.7	12,500	0.87	
58-25-22			22					118						4.13×10 ⁻⁴	0.86
58-25-25			25					127							0.84
63-30-25	63	30	25	60	64	68	50.5	157	11.8	6.18×10 ⁻⁴	4×M6	17.7	12,000	1.05	
63-30-30			30					186		6.10×10 ⁻⁴				1.01	
68-35-25	68	35	25	60	64	68	56	157	11.8	8.70×10 ⁻⁴	4×M6	17.7	10,000	1.14	
68-35-28			28					177		8.75×10 ⁻⁴				1.11	
68-35-30			30					186		8.78×10 ⁻⁴	6×M6			1.17	
68-35-32			32					206		8.80×10 ⁻⁴	4×M6			1.15	
68-35-35			35					226			1.12				
73-35-38	73	35	38	70	74	78	60	226	12.8	1.40×10 ⁻³	4×M6	17.7	9,000	1.51	
73-38-42		38						245		1.40×10 ⁻³				1.53	
73-42-42		42						275		1.66×10 ⁻³				1.41	
78-48-48	78	48	48	70	74	78	66	461	18.7	1.85×10 ⁻³	6×M6	17.7	8,000	1.50	

Mass and Moment of inertia are measured with max bore size.



Features

- Flexible Coupling of the cross joint type.
- Absorbs very large eccentricity and declination due to Slip between Bush built in the hub and Spacer pin.
- In case of Clamp type, it implements a complete Balancing due to symmetry structure of clamping bolt and part crippled by side.
- Backlash is very small due to Pin and Bush are Assembled in high level.
- Axial load caused by misalignment is small, So minimize the load of relative axis.

Structure & Material

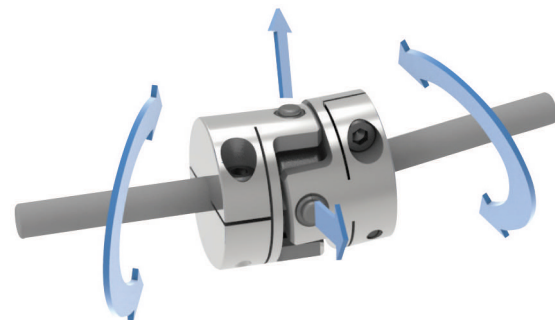
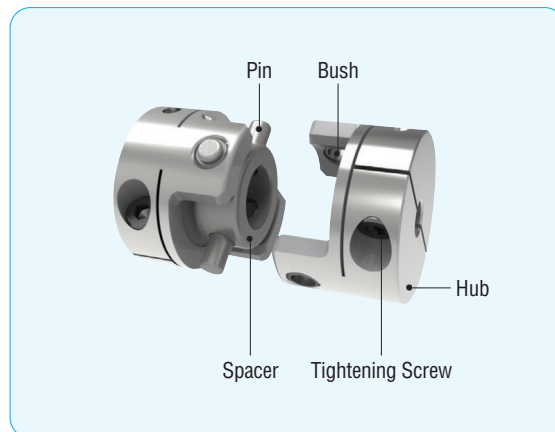
- Hub : Aluminum alloy with High Stiffness
- Surface treatment : Alumite process
- PIN : SUJ2
- Bush : Dry Bearing
- Spacer : SUS304
- Tightening Screw : SCM435

Usage

- Servo motor
- Stepping motor
- General wide use motor

Others

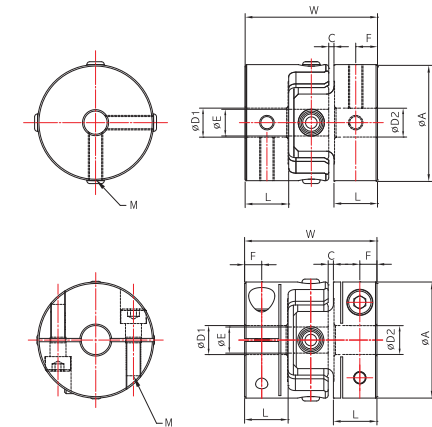
- When using at high temperatures, the change of torsional stiffness and Responsiveness is very small, but note the misalignment.
- Encourage h7 for tolerance of shaft.



Set Screw Type



Clamp Type



Order method

DRCJ-32C-Ø8×Ø12
Product No. D1 D2



Product NO.	Dimension(mm)						Tightening Screw		Rated Torque	Max. Torque	Max. RPM	Moment of Inertia	Torsional Stiffness	Angle	Parallel	End Play	Mass
							Size	Torque									
	A	L	W	C	F	E	M	N · m	N · m	N · m	min ⁻¹	kg · m ²	N · m/rad	°	mm	mm	g
DRCJ-15	15	7.4	22.2	0.7	3.7	2.7	M3	0.7	0.3	0.6	42,000	3.1×10 ⁻⁷	210	1.5	0.3	0	11
DRCJ-20	20	7.4	23.4	0.8	3.7	4.2	M3	0.7	0.6	1.2	31,000	1.0×10 ⁻⁶	472.5	1.5	0.5	0	21
DRCJ-25	25	10.4	30.4	1.3	5.2	5.2	M4	1.7	1.2	2.4	25,000	3.2×10 ⁻⁶	840	1.5	0.5	0	42
DRCJ-32	32	12.9	39	1.6	6.45	8.2	M5	4	4	8	21,000	1.1×10 ⁻⁵	1,260	1.5	0.5	0	90
DRCJ-40	40	15	45.6	1.8	7.5	15.2	M5	4	6	12	15,000	3.2×10 ⁻⁵	1,995	1.5	0.5	0	158
DRCJL-15C	15	7.4	22.2	0.7	2.95	2.7	M2.5	1	0.3	0.6	42,000	3.2×10 ⁻⁷	231	1.5	0.3	0	11
DRCJL-15C	15	7.4	24.2	1.7	2.95	2.7	M2.5	1	0.3	0.6	33,000	3.3×10 ⁻⁷	210	2	0.3	0	12
DRCJ-20C	20	7.4	23.4	0.8	2.75	4.2	M2.5	1	0.6	1.2	31,000	1.0×10 ⁻⁶	367.5	1.5	0.5	0	21
DRCJL-20C	20	7.4	26.4	2.3	2.75	4.2	M2.5	1	0.6	1.2	24,000	1.0×10 ⁻⁶	315	2	0.5	0	22
DRCJ-25C	25	10.4	30.4	1.3	3.55	5.2	M3	2	1.2	2.4	25,000	3.1×10 ⁻⁶	840	1.5	0.5	0	41
DRCJL-25C	25	10.4	33.4	2.8	3.55	5.2	M3	2	1.2	2.4	20,000	3.2×10 ⁻⁶	735	2	0.5	0	43
DRCJ-32C	32	12.9	39	1.6	4.4	8.2	M4	4	4	8	21,000	1.1×10 ⁻⁵	1,260	1.5	0.5	0	87
DRCJL-32C	32	12.9	43	3.6	4.4	8.2	M4	4	4	8	16,000	1.1×10 ⁻⁵	1,050	2	0.5	0	90
DRCJ-40C	40	15	45.6	1.8	5.9	15.2	M5	8	6	12	15,000	3.1×10 ⁻⁵	1,995	1.5	0.5	0	157
DRCJL-40C	40	15	51	4.5	5.9	15.2	M5	8	6	12	12,000	3.2×10 ⁻⁵	1,890	2	0.5	0	160

Mass and Moment of inertia are measured with max bore size.

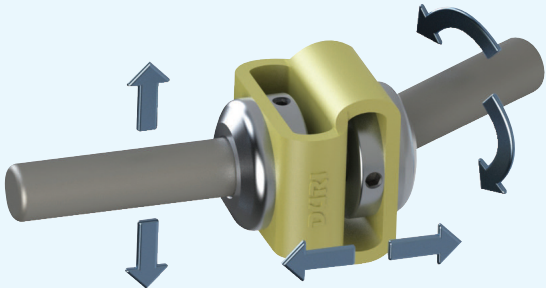
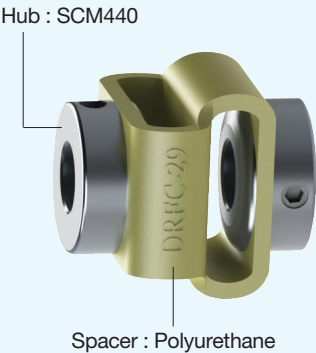
Product NO.	Standard Inner diameter(D1, D2) (mm)										
	3	4	5	6	6.35	8	10	11	12	14	15
DRCJ□-15□	•	•	•	•	•						
DRCJ□-20□		•	•	•	•	•					
DRCJ□-25□			•	•	•	•	•				
DRCJ□-32□				•	•	•	•	•	•	•	
DRCJ□-40□						•	•	•	•	•	•



Features

- Integrated flexible Coupling.
- Absorbs excellently large eccentricity, Declination and End play.
- Absorbs shock and vibration.
- Low moment of inertia.

Structure & material



Usage

- Stepping motor
- General wide use motor

Others

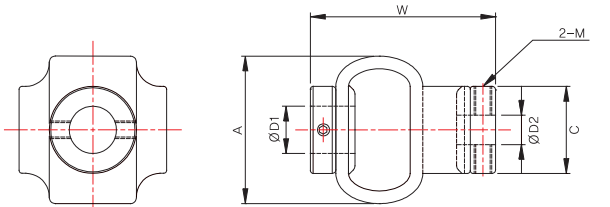
- Key seat can not be processed.
- Encourage h7 for tolerance of shaft.



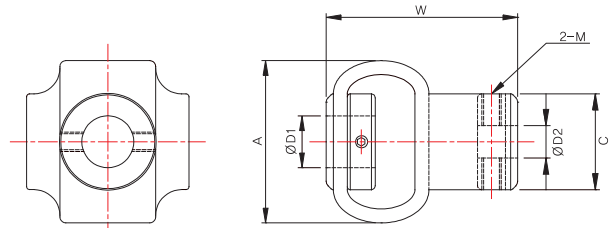
Set Screw Type



Set Screw Type



DRFC 29, 38



DRFC 48, 54

Product NO.	Dimension (± 2mm)			Tightening Screw		Max. RPM	Max. Torque	Angle	Parallel	End Play	Mass
	A	W	C	Size	Torque						
				M	N · m	min ⁻¹	N · m	°	mm	mm	g
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

Mass and Moment of inertia are measured with max bore size.

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					●	●	●	●	●

CONNECTING SHAFT

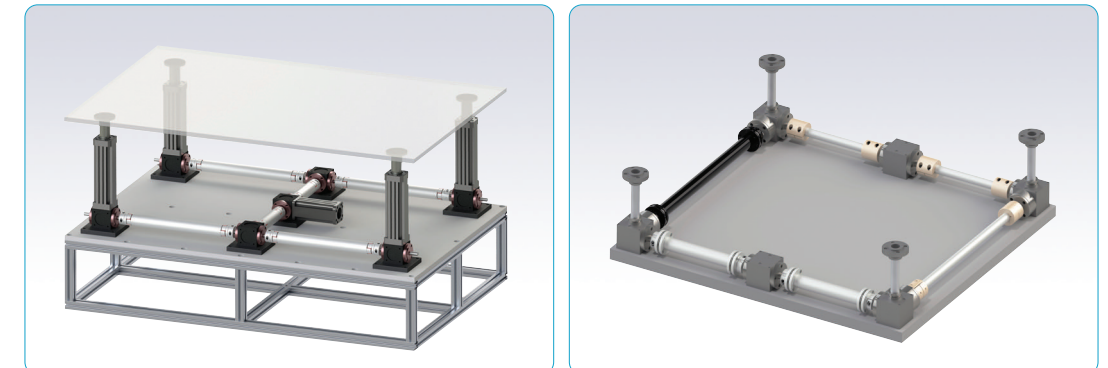


Features

- 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.

Connecting Shaft
Disk CouplingsConnecting Shaft
Jaw Couplings

Application





Features

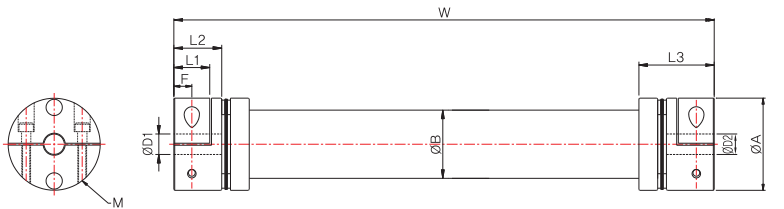
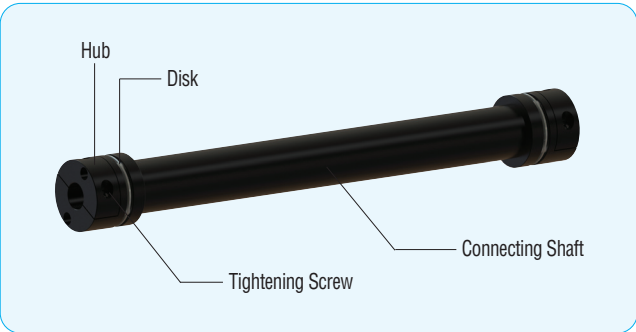
- For high torque transmission.
- Due to aluminum alloy with high stiffness, Moment of inertia is low.
- Increase the convenience and save the cost through the use this shaft.
- In case of clamp type, it is possible to supply as split type.
- In case of split type, it is easy to assemble and disassemble.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

Structure & material

- Hub : Aluminum alloy with high stiffness
- Connecting shaft : Aluminum alloy with high stiffness
- Hub and Connecting shafts surface treatment : Alumite process
- Disk : Stainless steel

Others

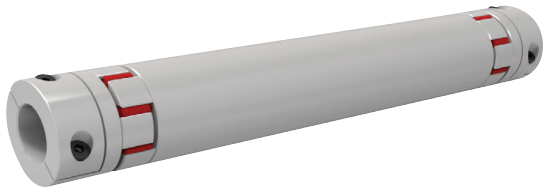
- All products are included cap screw.
- We can supply nonstandard Inner Diameter and key seat.



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

Moment of inertia is measured with max bore size.

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-31□□	●	●	●	●	●	●	●	●	●	●	●	●																				
DRACL-42□□		●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●												
DRACL-54□□								●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●									
DRACL-64□□										●	●	●	●	●	●	●	●	●	●	●	●	●	●	●								
DRACL-80□□													●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●			
DRACL-90□□																				●	●	●	●	●	●	●	●	●	●	●	●	
DRACL-100□□																				●	●	●	●	●	●	●	●	●	●	●	●	●



DRJCL-CRD



DRJCL-CWRD

Features

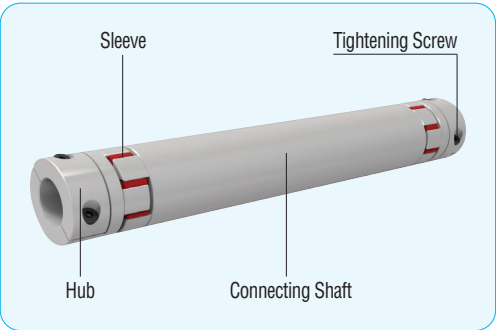
- For high torque transmission.
- The outstanding Balance.
- Due to aluminum alloy with high stiffness, Moment of inertia is low.
- Increase the convenience and save the cost through the use this shaft.
- In case of clamp type, it is possible to supply as split type.
- In case of split type, it is easy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

Structure & material

- Hub : Aluminum alloy with high stiffness
- Connecting shaft : Aluminum alloy with High stiffness
- Hub and Connecting shafts surface treatment : Alumite process
- Sleeve : Thermoplastic

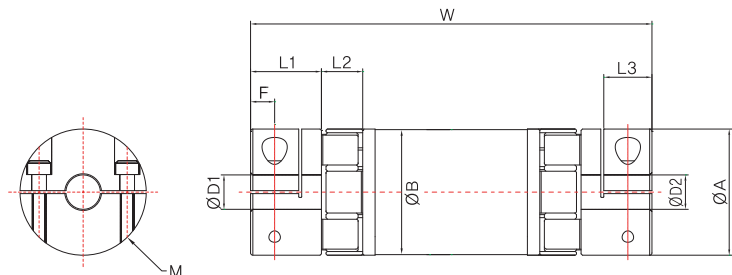
Others

- All products are included cap screw.
- We can supply nonstandard Inner Diameter and key seat.



DRJCL-CRD

DRJCL-CWRD



Order method **DRJCL-55C(W)RD-Ø15×Ø20**
Product No. D1 D2



Product NO.	Dimension(mm)						W		Tightening Screw		Rated Torque	Max Torque	Max. RPM	Moment of Inertia		Torsional Stiffness		Angle	Parallel	End Play
							Maximum	Minimum	Size	Torque				Coupling	Pipe/m	Coupling	Pipe/m			
	A	B	F	L1	L2	L3	mm	mm	M	N·m	N·m	N·m	min ⁻¹	kg·m ²	kg·m ²	N·m/rad	N·m/rad	°	mm/m	mm
DRJCL-30□□RD	30	30	5.5	15.5	13	11	98	2,000	M4	4	14	28	1,500	7.5×10 ⁻⁶	1.36×10 ⁻⁴	220	1,380	2	5	±1.0
DRJCL-40□□RD	40	40	8.5	25	16	17	130	2,000	M5	8	18	36	1,500	3.9×10 ⁻⁵	3.43×10 ⁻⁴	2,000	3,800	2	5	±1.0
DRJCL-55□□RD	55	55	10.5	30	18	21	175	2,000	M6	13	60	120	1,500	1.6×10 ⁻⁴	1.23×10 ⁻³	4,000	11,150	2	5	±1.0
DRJCL-65□□RD	65	55	13	35	20	26	200	2,000	M8	30	180	360	1,500	3.8×10 ⁻⁴	1.23×10 ⁻³	8,000	11,150	2	5	±1.0
DRJCL-80□□RD	80	55	15	45	24	30	245	2,000	M10	50	325	650	1,500	1.0×10 ⁻³	1.23×10 ⁻³	20,000	11,150	2	5	±1.0
DRJCL-95□□RD	95	78	18	50	26	36	270	1,400	M10	50	450	900	1,500	2.8×10 ⁻³	5.07×10 ⁻³	30,000	37,840	2	5	±1.0
DRJCL-100□□RD	104	78	20	56	28	40	300	1,400	M12	90	600	1,200	1,500	4.6×10 ⁻³	5.07×10 ⁻²	40,000	37,840	2	5	±1.0

Moment of inertia is measured with max bore size.

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-30□□RD	●	●	●	●	●	●	●																			
DRJCL-40□□RD		●	●	●	●	●	●	●	●	●																
DRJCL-55□□RD						●	●	●	●	●	●	●	●	●	●	●										
DRJCL-65□□RD								●	●	●	●	●	●	●	●	●	●	●	●							
DRJCL-80□□RD												●	●	●	●	●	●	●	●	●	●					
DRJCL-95□□RD													●	●	●	●	●	●	●	●	●	●	●			
DRJCL-100□□RD														●	●	●	●	●	●	●	●	●	●	●	●	

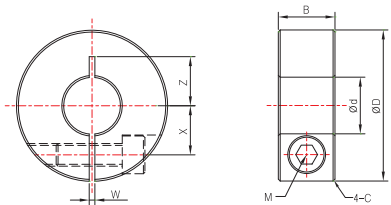
DRSS

Order method

DRSS-10×12
Product No. d B



DRSS-Slit type



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	

Product NO.	Dimension(mm)						Tightening Screw
	d	D	B	W	X	Z	M
DRSS DRSS-B DRSS-S DRSS-N DRSS-SUS	4	18	8	1	5	3.5	M3
	5	20	8	1	6	6	M3
		20	10	1	6	6	M4
	6	20	8	1	6	6.5	M3
		20	10	1	6	6	M4
	8	25	10	1.5	8	9	M4
		30	15	1.5	9	10	M6
	10	30	12	1.5	9	10	M5
		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
	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

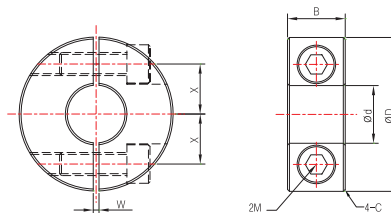
DRSD

Order method

DRSD-10×12
Product No. d B



DRSD-Split type



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	

Product NO.	Dimension(mm)						Tightening Screw
	d	D	B	W	X	M	
DRSD DRSD-B DRSD-S DRSD-N DRSD-SUS	4	18	8	1	5	M3	
	5	20	8	1	6	M3	
		20	10	1	6	M4	
	6	20	8	1	6	M3	
		20	10	1	6	M4	
	8	25	10	1.5	8	M4	
		30	15	1.5	9	M6	
	10	30	12	1.5	10	M5	
		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	



LOCKING ELEMENT



Duri Locking Element Features

The Locking Element provides users an opportunity to easily penetrate into Spacers on the axis and hub, and a potential to transmit high torques. Also, its axial direction can be easy to adjust. The product can give advantages such as improved designer's workability and working environment, as well as heightened strength on the key-free parts. The Locking element has common types compatible with other products, and can have extraordinary types in stock. For user's convenience, it has been customized in size and use.

The Locking element is available for key-free power transmission on the axis and hub. Absence of key grooves 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), and also available for tightening the moving axes and sprocket wheels, the moving axes and gears, and for transmitting the power against the moving torques (MT). In addition, 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 no enough pressure, low transfer torque may result in skidding or the ring being fixed on the shaft, so make sure to check how the pressure works.

Locking Element Line Up Contents

Type	Locking Element				
Model	DR200	DR300	DR300C	DR300F	DR300EF
Page	54	58	59	60	61
Type	Locking Element				
Model	DR110	DR132	DR133	DR132A	DR133B
Page	62	64	65	66	67
Type	Locking Element				
Model	DR134S	DR400	DR500	DR603	MAD
Page	68	69	70	71	73
Type	Locking Element				
Model	MAS	MASUS	DRAP	DRMC	
Page	74	75	76	77	

Assembling

When starting the assembly work, oil can be lightly applied on the area where there is any friction between bolts and the rings connected to the body.

Lack of oil may lead to keeping transfer torques steady and as a result, the oil must be carefully checked.

Make sure that the oil will be EP additive-free in it.

Tighten the bolts diagonally with a wrench tool as the following steps

Basically, the bolts can be equally tightened to 25% of the standard torque first, then to 50% and finally to 100% respectively with each bolt locked once.

Disassembling

With all the bolts first taken out, new bolts must be inserted into the holes to start the work by uniformly tightening them on a diagonal line.

Reusing

Be careful not to have the Locking element deformed and its bolts sagged after being assembled and disassembled.

The deformation or sagging will make the Lock become obsolete, so it must be replaced with new one.

Power Conversion Efficiency, Transmission Efficiency η

As the consumption power is selected, the supply power can be calculated based on the transmission efficiency.

With the Locking element chosen, the materials must keep a yield point to which the pressure is allowable, so that the Lock can hold a larger capacity of transfer torque than the power measured on the supplied side.

$$P_o \text{ [kW]} = P_s \text{ [kW]} / \eta$$

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

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

Force of Trust : F_t (N)

$$F_r \text{ [N]} = K \cdot F_t \text{ [N]}$$

K : Selection coefficient depending on the power fluctuation

If there is a variable in the power transferred, the Locking element will be selected, which has a larger capacity of common transfer torque than the value multiplied by the next coefficient K, depending on how the power can change or whether there is an inertia or not.

- No fluctuation to Less fluctuation : $K = 1.0 \sim 2.5$
- For light shocks, intermediate variable load or inertia : $K = 2.0 \sim 3.5$
- For strong shocks, vibrations or big inertia : $K = 3.0 \sim 5.0$

Used for calculation when working on combined loads.

If combined loads (Force of thrust + revolving torque) are given to the Locking element, 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 (M_h).

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

d : diameter

The maximum inner diameter on the hollow axis.

If the Locking element 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.

$$d_{\text{max}} \leq d \cdot \sqrt{\frac{\sigma_{0.2} - (2 \cdot P_s \cdot C)}{\sigma_{0.2}}} - d_{\text{bolt}} \quad [\text{mm}]$$

- d_{max} : The maximum inner diameter on the shaft.
- d : The diameter
- P_s : 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)
- d_{bolt} : The diameter of a bolt (If not used on the axis, $d_{\text{bolt}} = 0$)

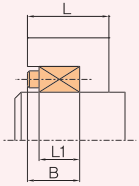
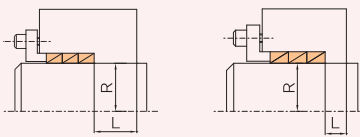
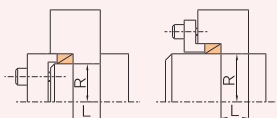
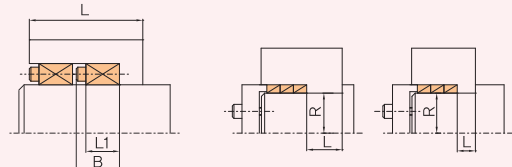
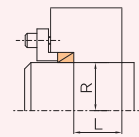
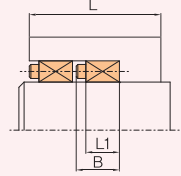
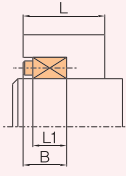
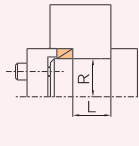
Calculating the minimum diameter on the hub

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

$$\text{minimum diameter on the hub} > D \cdot \sqrt{\frac{\sigma_{0.2} + (C \cdot Ph)}{\sigma_{0.2} - (C \cdot Ph)}} + dbolt \quad [\text{mm}]$$

- $\sigma_{0.2}$: 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.

C	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	 $B \leq L \leq 2 \cdot L1$	 $L < n \cdot B + L1$ n: singular max3
	 $L < R$	 $L < n \cdot B + L1$ n: singular max3
C = 0.8	 $R \leq L$	 $n \cdot B + L1 \leq L$ n: singular max3
C = 0.6	 $B + L1 \leq L$	 $R \leq L$

The yield point (yield strength) is set to $\sigma_{0.2}$.

$\sigma_{0.2}$		Material symbol		Designation
Mpa [N/mm ²]	kgf/mm ²			
100~200	119	12	FC200 Standard material	Gray cast iron
	147	15	FC250 Standard material	Gray cast iron
	175	18	FC300 Standard material	Gray cast iron
			SC360 Standard material	Carbon cast steel
			SS330 Standard material	Rolled steel for general
	196	20	A2017-T4	Duralumin
200~300	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
			SS400 Standard material	Rolled steel for general
	225	23	S15C Standard material	Carbon steel for machine structure use
			SC450 Standard material	Carbon cast steel
	245	25	FCD400 Standard material	Nodular graphite cast iron
			S20C Standard material	Carbon steel for machine structure use
			SC480 Standard material	Carbon cast steel
			SS490 Standard material	Rolled steel for general
	265	27	S25C Standard material	Carbon steel for machine structure use
300~400	274	28	S30C Standard material	Carbon steel for machine structure use
	280	29	FCD450 Standard material	Nodular graphite cast iron
	290	30	A2024-T4	Super duralumin
	294	30	S35C Standard material	Carbon steel for machine structure use
	320	33	FCD500 Standard material	Nodular graphite cast iron
	325	33	S40C Standard material	Carbon steel for machine structure use
	343	35	S45C Standard material	Carbon steel for machine structure use
	365	37	S50C Standard material	Carbon steel for machine structure use
400~	370	38	FCD600 Standard material	Nodular graphite cast iron
			S55C 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 4 days, stored at room temperature.

The yield point (yield strength) is set to $\sigma_{0.2}$.

Strength class (Size × Pitch)	Max tightening Force			Max tightening Torque		
	8.8 N	10.9 N	12.9 N	8.8 N · m	10.9 N · m	12.9 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 μ m
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 care.

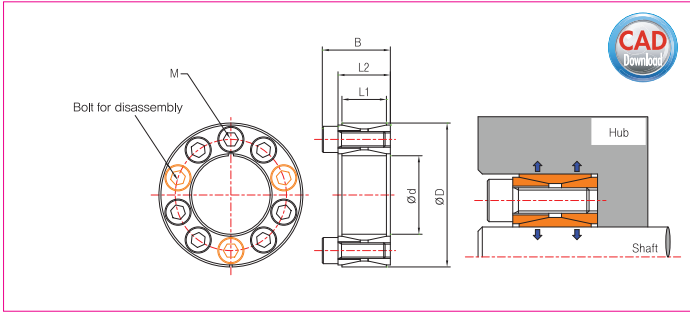
If it uses a double row : Transmission torque $\times 1.9$

If it uses a triple row : Transmission torque $\times 2.7$

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.



DR200 d $\times$ D	Dimension			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 $\cdot$ m	kN	N $\cdot$ m	Mpa	Mpa	kg
14 $\times$ 42	17	20	26	M6	8	15	25	250	200	85	0.18
15 $\times$ 42	17	20	26	M6	8	15	25	250	200	85	0.18
17 $\times$ 44	17	20	26	M6	8	15	25	250	200	85	0.18
19 $\times$ 47	17	20	26	M6	8	15	29	270	225	95	0.20
20 $\times$ 47	17	20	26	M6	8	15	29	280	225	95	0.20
22 $\times$ 47	17	20	26	M6	8	15	29	310	210	95	0.20
24 $\times$ 50	17	20	26	M6	9	15	32	370	210	100	0.21
25 $\times$ 50	17	20	26	M6	9	15	32	400	200	100	0.21
28 $\times$ 55	17	20	26	M6	10	15	36	500	200	100	0.25
30 $\times$ 55	17	20	26	M6	10	15	36	530	185	100	0.25
32 $\times$ 60	17	20	26	M6	12	15	42	680	205	110	0.29
35 $\times$ 60	17	20	26	M6	12	15	43	750	190	110	0.28
38 $\times$ 65	17	20	26	M6	14	15	49	930	200	115	0.31
40 $\times$ 65	17	20	26	M6	14	15	49	980	190	115	0.31
42 $\times$ 75	20	24	32	M8	12	37	75	1,580	235	130	0.53
45 $\times$ 75	20	24	32	M8	12	37	76	1,700	220	130	0.52
48 $\times$ 80	20	24	32	M8	12	37	74	1,790	210	120	0.56
50 $\times$ 80	20	24	32	M8	12	37	75	1,870	200	120	0.55
55 $\times$ 85	20	24	32	M8	14	37	88	2,390	210	135	0.59
60 $\times$ 90	20	24	32	M8	14	37	88	2,610	190	125	0.63
65 $\times$ 95	20	24	32	M8	16	37	98	3,210	200	135	0.68
70 $\times$ 110	24	28	38	M10	14	70	135	4,709	266	168	1.22
75 $\times$ 115	24	28	38	M10	14	70	135	5,003	247	164	1.27
80 $\times$ 120	24	28	38	M10	14	70	135	5,298	240	160	1.34
85 $\times$ 125	24	28	38	M10	16	70	154	6,475	252	172	1.42
90 $\times$ 130	24	28	38	M10	16	70	154	6,867	238	164	1.49
95 $\times$ 135	24	28	38	M10	18	70	174	8,143	252	178	1.52
100 $\times$ 145	26	33	45	M12	14	127	196	9,750	252	174	2.1

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

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 operators work efficiency.
DR300 & DR300C have common types compatible with other products.
DR300F can be used without any flange designed.
If DR300(C) is combined on a multi row, DR300EF type (adjustable) can be recommended.

Specifications

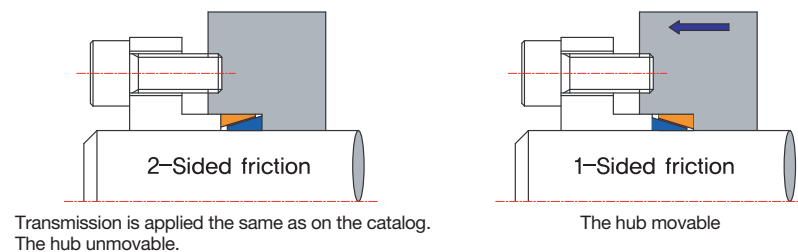
Surface roughness : Rt max 16 μ m
Processing tolerance(Max) : d 40mm Below, Shaft : h6, Hub : H7
d 42mm More than, Shaft : h8, Hub : H8

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.

DR300F

Feature

DR300F is a DR300 Type (DR300, DR300C) and optimized standard coupling.

Specifications

In case of DR300, DR300C
Surface roughness : Rt max 16 μ m
Processing tolerance(Max) : d 40mm Below Shaft : h6, Hub : H7
d 42mm More than Shaft : h8, Hub : H8

Usage

It need not be designed again when using a DR300 type.
The diameter on the other side $\varnothing 10 \sim \varnothing 100$
Tolerance for diameters on the axis and the hub can be set depending on each type.

DR300EF

Feature

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 16 μ m
Processing tolerance(Max) Shaft : h8, Hub : H8

Usage

Pump, Cam, Sprocket, Pulley, etc.

Cautions

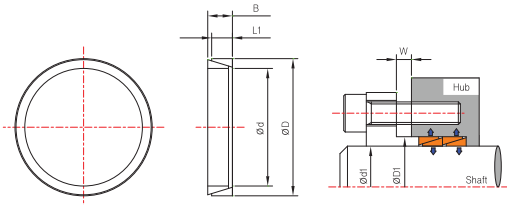
The hub is movable despite its space-saving, high torque transmission and adjustable attributes.

How to use

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

DR300(There are no slits found)

Order method DR300-20×25
Product No. d D

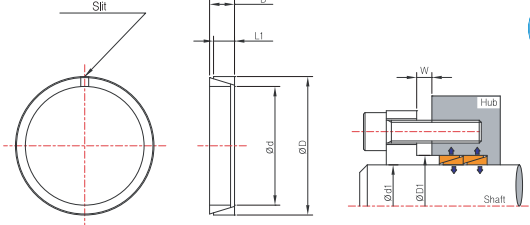


DR300 has a sealing effect because there are no slits found.
Absence of slits requires initial clamping force until interlocked with the hub.

DR300/DR300C d×D	Dimension		Weight	Scale when using multi			
				× 1.0	× 1.55	× 1.85	× 2.02
	W(Gap) When using multi Dimension						
	Row 1	Row 2		Row 3	Row 4		
mm	mm	mm	kg	mm	mm	mm	mm
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

DR300C(There are slits found)

Order method DR300C-20×25
Product No. d D

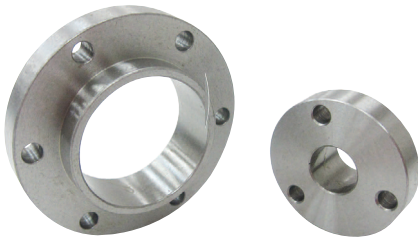


DR300C has any slit found, so initial clamping force is not required and its bolts are clamped.

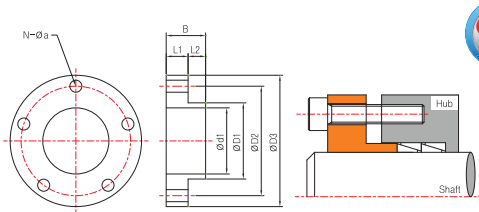
DR300/DR300C d×D	DR300						DR300C				
	Pre load force	Tightening torque	Transfer		Surface pressure		Tightening torque	Transfer		Surface pressure	
			Thrust	Torque	Shaft	Hub		Thrust	Torque	Shaft	Hub
			kN	N · m	Mpa	Mpa		kN	N · m	Mpa	Mpa
mm	N	N · m					N · m				
5×8	9,780	2.5	0.8	2	113	71	1.0	1.2	3	169	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

DR300F

Order method DR300F-20×25
Product No. d D



Features
No need extra design because of the standardized product.



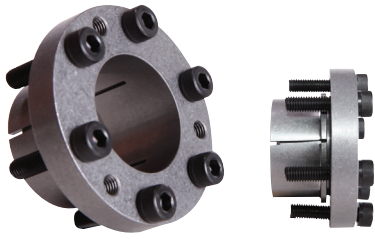
Usage : Applicable to DR300 and DR300C type.
Specifications : Shaft diameter Ø10~Ø100



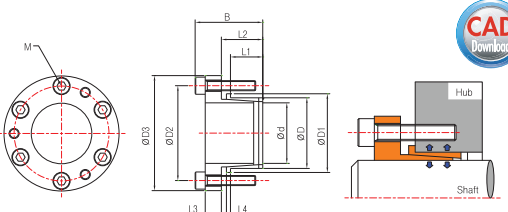
DR300F d×D	Application DR300/DR300C d×D	Dimension									Tightening screw (DIN912/12.9)		Mass
		d1	D1	D2	D3	L1	L2	B	N-φa		Size	Quantity	
mm	mm	mm	mm	mm	mm	mm	mm	mm	N	mm	M	Qty	kg
10×13	10×13	10.2	12.8	28	36	8	5	13	3	4.4	M4	3	0.06
11×14	11×14	11.2	13.8	28	36	8	5	13	3	4.4	M4	3	0.06
12×15	12×15	12.2	14.8	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

Order method DR300EF-20×25
Product No. d D



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



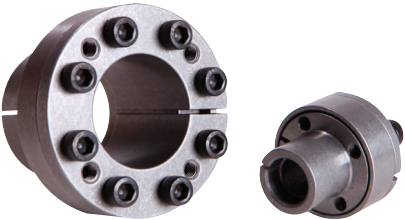
Usage : Pump, Cam, Sprocket, Wheel, Gear, Pulley etc.
Specifications : Surface roughness, Processing tolerance



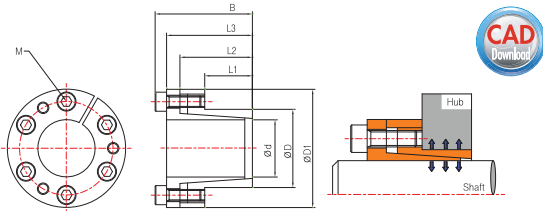
DR300EF d×D	Dimension								Tightening screw (DIN912/12.9)			Transfer		Surface pressure		Mass
	D1	D2	D3	L1	L2	L3	L4	B	Size	Quantity	Tightening torque	Thrust	Torque	Shaft	Hub	
mm	mm	mm	mm	mm	mm	mm	mm	mm	M	Qty	N · m	kN	N · m	Mpa	Mpa	kg
5×8	8	15	21.5	7	9.5	4	-	16.5	M3	3	1.9	1.69	5	200	134	0.013
6×9	9	16	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

Order method DR110-20×28
Product No. d D



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



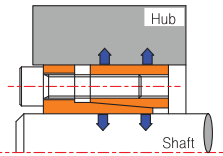
Usage : Pulley with small hub outside diameter, Sprocket, Gear etc.
Specifications : Surface roughness/Rt max 16μm
Processing tolerance(Max)/Shaft h8, hub H8

DR110 d×D	Dimension					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		N · m	kN	N · m	Mpa	Mpa	kg
6×14	25	10	18.5	21	24	M3	3	2	4.0	12	185	80	0.04
7×15	27	12	22	25	29	M4	3	5	7.0	25	235	110	0.06
8×15	27	12	22	25	29	M4	3	5	7.0	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

DR132

- The scope of DR132 applies to 18×47~100×145 and its torque ranges between 380~13,400 N·m
- It has a centering function, but allows for the hub's mobility.
- A torque limiter keeps the bolts from being tightened more than the standard torque.
- Surface roughness : Rt max 16μm
- Processing tolerance(Max) : Shaft h8, hub H8

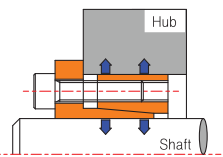
Order method DR132-25×50
Product No. d D



DR133

- The scope of DR133 applies to 18×47~100×145 and its torque ranges between 280~9,700 N·m
- It has a centering function.
- Hub is not moved to the shaft direction.
- Surface roughness : Rt max 16μm
- Processing tolerance(Max) : Shaft h8, hub H8

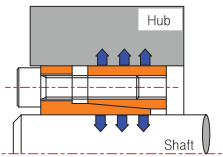
Order method DR133-25×50
Product No. d D



DR132A

- It is a short type for DR132. The scope of DR132A applies to 18×47~100×145 and its torque ranges between 295~11,086 N·m
- It has a centering function, but allows for the hub's mobility.
- A torque limiter keeps the bolts from being tightened more than the standard torque.
- Surface roughness : Rt max 16μm
- Processing tolerance(Max) : Shaft h9, hub H9

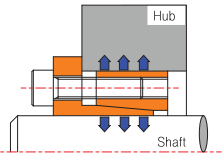
Order method DR132A-25×50
Product No. d D



DR133B

- It is a short type for DR133. The scope of DR133B applies to 19×47~100×145 and its torque ranges between 285~10,595 N·m
- It has a centering function.
- Hub is not moved to the shaft direction.
- Surface roughness : Rt max 16μm
- Processing tolerance(Max) : Shaft h9, hub H9

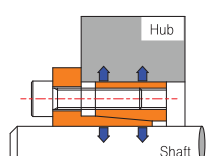
Order method DR133B-25×50
Product No. d D



DR134S

- The diameter on the hub, ranging from 8mm to 19mm, is not found in the DR133B series.
- The scope of DR134S applies to 8×22~19×35 and its torque ranges between 18~108 N·m
- It has a centering function.
- Hub is not moved to the shaft direction.
- Surface roughness : Rt max 16μm
- Processing tolerance(Max) : Shaft h8, hub H8

Order method DR134S-12×26
Product No. d D



Locking Element

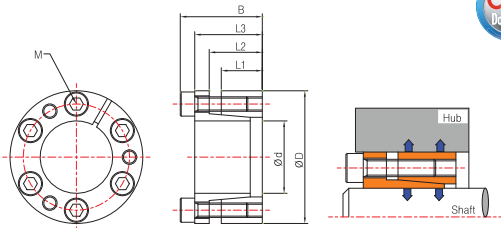
DR132

Order method

DR132-25×50
Product No. d D



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



Usage : Gear, Pulley, Sprocket, Cam, etc.
Specifications : Surface roughness/Rt max 16μm
Processing tolerance(Max)/Shaft h8, hub H8

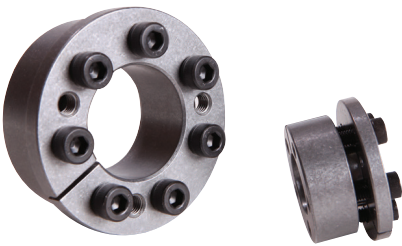
DR132/DR133 d×D	Dimension					Tightening screw(DIN912/12.9)			
	D1(DR133 Only)	L1	L2	L3	B	Size	Quantity	DR132 Tightening torque	DR133 Tightening torque
	mm	mm	mm	mm	mm	M	Qty	N·m	N·m
18×47	56	17	22	28	34	M6	5	14	17
19×47	56	17	22	28	34	M6	5	14	17
20×47	56	17	22	28	34	M6	5	14	17
22×47	56	17	22	28	34	M6	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

Locking Element

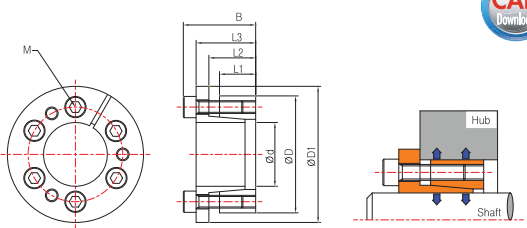
DR133

Order method

DR133-25×50
Product No. d D



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

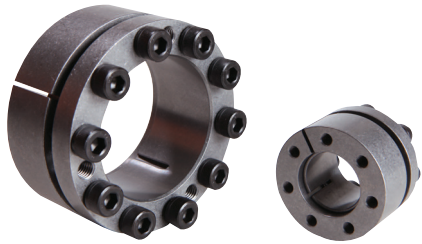


Usage : Gear, Pulley, Sprocket, Cam, etc.
Specifications : Surface roughness/Rt max 16μm
Processing tolerance(Max)/Shaft h8, hub H8

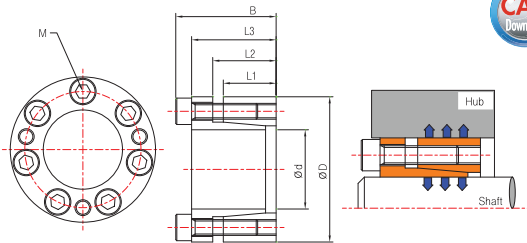
DR132/DR133 d×D	DR132					DR133				
	Transfer		Surface pressure		Weight	Transfer		Surface pressure		Mass
	Thrust	Torque	Shaft	Hub		Thrust	Torque	Shaft	Hub	
mm	kN	N·m	Mpa	Mpa	kg	kN	N·m	Mpa	Mpa	kg
18×47	38	380	295	125	0.3	28	280	220	95	0.3
19×47	38	380	295	125	0.3	28	280	220	95	0.3
20×47	38	380	295	125	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

Order method DR132A-25×50
Product No. d D



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

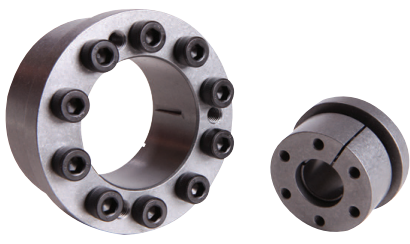


Usage : Sprocket, Gear, Cam, etc.
Specifications : Surface roughness/Rt max 16μm
Processing tolerance(Max)/Shaft h9, hub H9

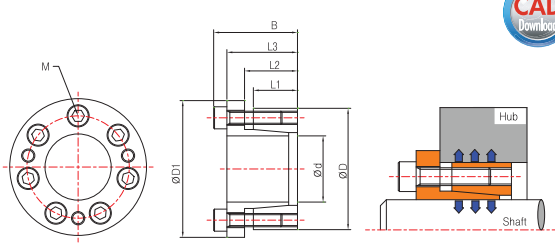
DR132A d×D	Dimension				Tightening screw(DIN912/12.9)			Transfer		Surface pressure		Mass
	L1	L2	L3	B	Size	Quantity	Tightening torque	Thrust	Torque	Shaft	Hub	
	mm	mm	mm	mm	M	Qty	N · m	kN	N · m	Mpa	Mpa	
18×47	20	24	32	38	M6	6	16	31	295	299	97	0.33
19×47	20	24	32	38	M6	6	16	31	295	299	97	0.33
20×47	20	24	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

Order method DR133B-25×50
Product No. d D



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

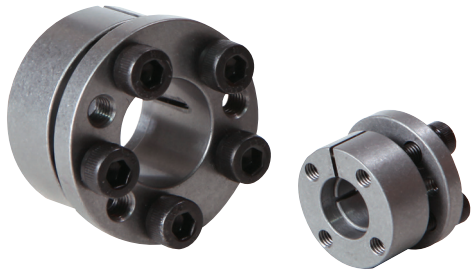


Usage : Gear, Pulley, Sprocket, Cam, etc.
Specifications : Surface roughness/Rt max 16μm
Processing tolerance(Max)/Shaft h9, hub H9

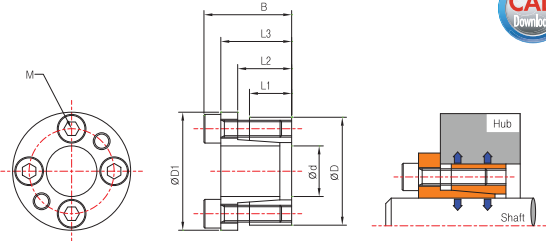
DR133B d×D	Dimension					Tightening screw(DIN912/12.9)			Transfer		Surface pressure		Mass
	D1	L1	L2	L3	B	Size	Quantity	Tightening torque	Thrust	Torque	Shaft	Hub	
	mm	mm	mm	mm	mm	M	Qty	N · m	kN	N · m	Mpa	Mpa	
19×47	53	20	24	32	38	M6	6	16	30	285	285	93	0.36
20×47	53	20	24	32	38	M6	6	16	30	295	270	93	0.36
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

Order method DR134S-13×27
Product No. d D



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



Usage : Pulley, Gear, Fly wheel, Lever, Cam, etc.
Specifications : Surface roughness/Rt max 16μm
Processing tolerance(Max)/Shaft h8, hub H8

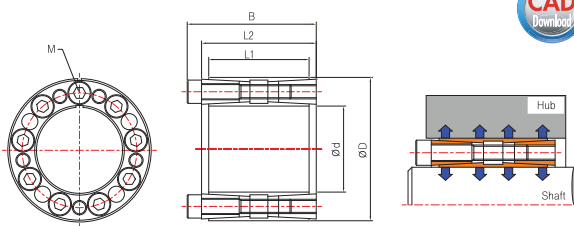
DR134S d×D	Dimension					Tightening screw(DIN912/12.9)			Transfer		Surface pressure		Mass
	D1	L1	L2	L3	B	Size	Quantity	Tightening torque	Thrust	Torque	Shaft	Hub	
	mm	mm	mm	mm	mm	M	Qty	N · m	kN	N · m	Mpa	Mpa	
8×22	25	10	13	17	21	M4	3	4	5	18	274	70	0.05
9×23	26	10	13	17	21	M4	3	4	5	21	244	67	0.05
10×24	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

Order method DR400-50×80
Product No. d D



Features
It is a kind of Locking element 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.



Usage : Gear, Pulley, Sprocket, Cam, etc.
Specifications : Surface roughness/Rt max 16μm
Processing tolerance(Max)/Shaft h8, hub H8

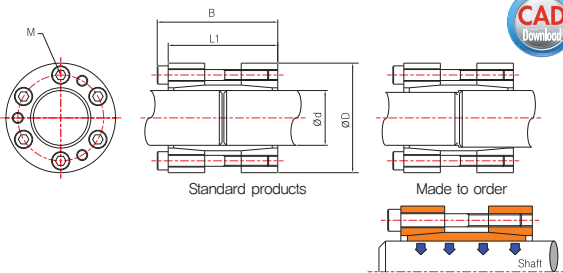
DR400 d×D	Dimension			Tightening screw(DIN912/12.9)			Transfer		Surface pressure		Mass
	L1	L2	B	Size	Quantity	Tightening torque	Thrust	Torque	Shaft	Hub	
	mm	mm	mm	M	Qty	N · m	kN	N · m	Mpa	Mpa	
19×47	39	45	51	M6	6	17	41	496	185	110	0.40
20×47	39	45	51	M6	6	17	41	522	185	110	0.40
22×47	39	45	51	M6	6	17	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

Order method DR500-50×90
Product No. d D



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

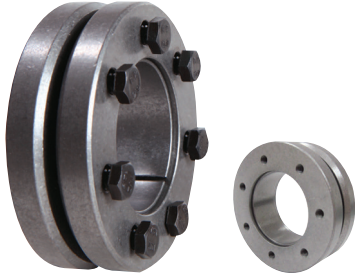


Usage : It is available as rigid coupling for connecting both shaft.
Specifications : Surface roughness/Rt max 16µm
Processing tolerance(Max)/Shaft h8

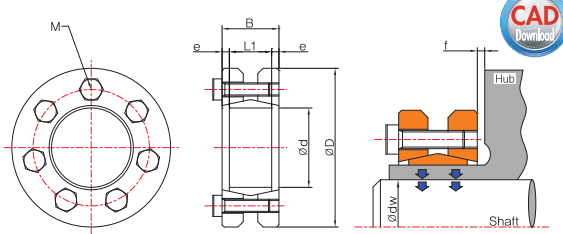
DR500 d×D	Dimension		Tightening screw(DIN912/12.9)			Transfer		Mass
	L1	B	Size	Quantity	Tightening torque	Thrust	Torque	
mm	mm	mm	M	Qty	N · m	kN	N · m	kg
15×45	50	56	M6	4	17	23	180	0.4
16×45	50	56	M6	4	17	23	190	0.4
17×45	50	56	M6	4	17	24	200	0.4
18×50	50	56	M6	4	17	24	220	0.5
19×50	50	56	M6	4	17	24	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

Order method DR603-30×60
Product No. d D



Features
Large transmissible torque is available.
Fitting and disassembly is easy.



Usage : Fitting from hub outside.
Specifications
Surface roughness/Rt max 16µm
Processing tolerance(Max)/Shaft Od h6, Hub Id H7, Hub Od H6

DR603 d×D	Applicable shaft	Dimension				Tightening screw(DIN931/10.9)			Transfer		Surface pressure	Mass
	dw	B	L1	e	f	Size	Quantity	Tightening torque	Thrust	Torque		
mm	mm	mm	mm	mm	mm	M	Qty	N · m	kN	N · m	Mpa	kg
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		
	21								29	250		
30×60	24	21.5	16	2.75	3	M5	7	4	29	300	233	0.3
	25								31	340		
	26								33	380		
36×72	28	23.5	18	2.75	4	M6	5	12	50	440	307	0.4
	30								58	570		
	31								58	630		
44×80	32	25.5	20	2.75	5	M6	7	12	64	620	317	0.6
	35								74	780		
	36								77	860		
50×90	38	27.5	22	2.75	5	M6	8	12	79	940	289	0.8
	40								86	1,160		
	42								92	1,380		
55×100	42	30.5	23	3.75	5	M6	8	12	79	1,160	252	1.1
	45								88	1,520		
	48								97	1,880		
62×110	48	30.5	23	3.75	6	M6	10	12	100	1,850	279	1.3
	50								111	2,200		
	52								117	2,400		
68×115	50	30.5	23	3.75	6	M6	10	12	97	2,000	255	1.4
	55								106	2,500		
	60								120	3,150		
75×138	55	32.5	25	3.75	8	M8	7	30	119	2,500	273	1.7
	60								137	3,200		
	65								155	3,950		
80×145	60	32.5	25	3.75	8	M8	7	30	124	3,200	256	1.9
	65								140	3,900		
	70								158	4,600		
85×155	65	39.0	30	4.50	8	M8	10	30	175	4,800	285	3.5
	70								195	6,100		
	75								216	7,400		
90×155	65	39.0	30	4.50	10	M8	10	30	170	4,750	271	3.3
	70								190	6,000		
	75								210	7,250		
100×170	70	44.0	34	5.00	10	M8	12	30	195	6,900	258	4.7
	75								220	7,500		
	80								240	9,000		

MAD, MAS, MASUS, DRAP, DRMC series's 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.

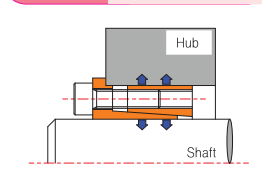
DRAP's the body was used aluminum alloy and the bolt was used plated bolt.

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.

Locking Element MAD

- Body Material No. : S45C
- Bolt specification : SCM440
- Size range : 5×16~85×112
- Transfer torque range : 7~4,400 N·m
- Centering function is available.
- It has a hub stationary on the axis when assembled.
- Surface roughness : Rt max 16 μ m
- Processing tolerance(Max) : Shaft h7, Hub H7

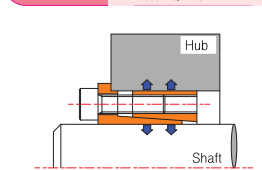
Order method MAD 25×43



Locking Element MAS

- Body Material No. : MAD Type Which plated.
- Bolt specification : SCM440 Which plated
- Size range : 5×16~50×72
- Transfer torque range : 5~1,362 N·m
- Centering function is available.
- It has a hub stationary on the axis when assembled.
- Surface roughness : Rt max 16 μ m
- Processing tolerance(Max) : Shaft h7, Hub H7

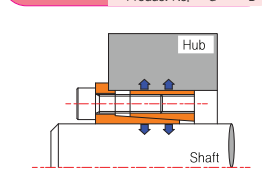
Order method MAS 25×43



Locking Element MASUS

- Body Material No. : MAD Type Which all Stainless steel.
- Bolt specification : SUS304
- Size range : 5×16~50×72
- Transfer torque range : 2~754 N·m
- Centering function is available.
- It has a hub stationary on the axis when assembled.
- Surface roughness : Rt max 16 μ m
- Processing tolerance(Max) : Shaft h7, Hub H7

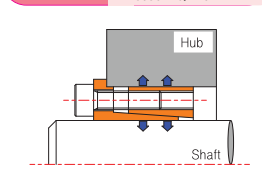
Order method MASUS 25×43



Locking Element DRAP

- Body Material No. : MAD Type Which Aluminum alloy.
- Bolt specification : SCM440 Which plated
- Size range : 5×16~35×57
- Transfer torque range : 5~548 N·m
- Centering function is available.
- It has a hub stationary on the axis when assembled.
- Surface roughness : Rt max 16 μ m
- Processing tolerance(Max) : Shaft h7, Hub H7

Order method DRAP 25×43

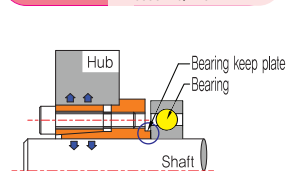


Locking Element DRMC

It can be assembled with being pressed directly bearing inner ring, so it can be reduced the assembly process time.

- Body Material No. : The bodys material is Aluminum alloy.
- Bolt specification : SCM440 Which plated
- Size range : 4×15~35×56
- Transfer torque range : 2~230 N·m
- Centering function is available.
- It has hub stationary on the axis when assembled.
- Surface roughness : Rt max 16 μ m
- Processing tolerance(Max) : Shaft h7, Hub H7

Order method DRMC 25×42



Locking Element

MAD

Order method

MAD-25×43
Product No. d D



Features

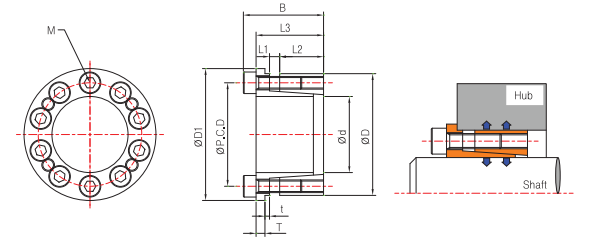
MAD is available for the shaft with a narrow diameter
Centering function is available.
Decision on position is free.
It has a shaft on the hub unmovable when assembled.
Safe and precise fitting system

Usage

Gear, Pulley, Sprocket, Cam, etc.

Specifications

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

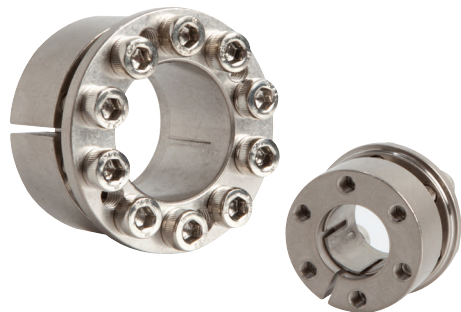


MAD d×D	Dimension								Tightening screw(DIN912/12.9)			Transfer		Surface pressure		Mass	Moment of inertia
	D1	P.C.D	t	T	L1	L2	L3	B	Size	Quantity	Tightening torque	Thrust	Torque	Shaft	Hub		
mm	mm	mm	mm	mm	mm	mm	mm	mm	M	Qty	N·m	kN	N·m	Mpa	Mpa	kg	kg·m ²
5×16	18.5	11.7	1.2	1.8	2.0	8.0	13.0	16.0	M3	4	1.9	2.80	7	249	81	0.018	6.27×10 ⁻⁷
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 ⁻⁶
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 ⁻⁶
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 ⁻⁶
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 ⁻⁶
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 ⁻⁶
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 ⁻⁶
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 ⁻⁶
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 ⁻⁶
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 ⁻⁵
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 ⁻⁵
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 ⁻⁵
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 ⁻⁵
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 ⁻⁵
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 ⁻⁵
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 ⁻⁵
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 ⁻⁵
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 ⁻⁵
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 ⁻⁵
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 ⁻⁴
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 ⁻⁴
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 ⁻⁴
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 ⁻⁴
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 ⁻⁴
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 ⁻⁴
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 ⁻⁴
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 ⁻⁴
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 ⁻⁴
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 ⁻⁴
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 ⁻³
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 ⁻³
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 ⁻³
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 ⁻³
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 ⁻³

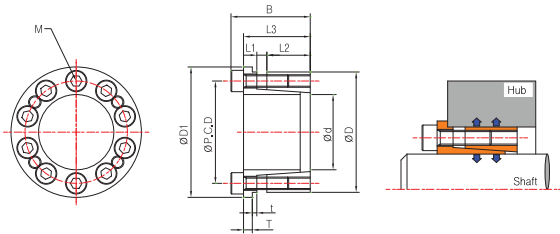
Locking Element
MAS (Electroless nickel plating)

Order method

MAS-25×43
Product No. d D



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.



Usage
Gear, Pulley, Sprocket, Cam, etc.
Specifications
Surface roughness : Rt max 16μm
Processing tolerance(Max) : Shaft h7, Hub H7

MAS d×D	Dimension								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 ²
5×16	18.5	11.7	1.2	1.8	2.0	8.0	13.0	16.0	M3×10	4	1.9	2.1	5	254	67	0.018	6.27×10 ⁻⁷
6×19	21.5	14.0	1.3	2.0	2.0	9.0	14.3	18.3	M4×12	4	3.9	3.5	10	323	84	0.026	1.36×10 ⁻⁶
6.35×20	22.5	14.35	1.3	2.0	2.0	9.0	14.3	18.3	M4×12	4	3.9	3.5	10	307	79	0.029	1.66×10 ⁻⁶
8×21	23.5	15.40	1.3	2.0	2.0	9.3	14.6	18.6	M4×12	4	3.9	4.1	17	244	92	0.035	2.03×10 ⁻⁶
10×23	25.5	17.50	1.3	2.0	2.0	9.5	14.8	18.8	M4×12	4	3.9	3.9	20	192	77	0.040	2.92×10 ⁻⁶
11×24	26.5	18.40	1.3	2.0	3.0	9.5	15.8	19.8	M4×12	4	3.9	4.0	23	174	73	0.045	3.45×10 ⁻⁶
12×26	28.5	20.20	1.5	2.5	3.5	10.5	18.0	22.0	M4×15	6	3.9	5.9	37	239	91	0.053	5.37×10 ⁻⁶
14×28	30.5	22.20	1.5	2.5	3.5	10.5	18.0	22.0	M4×15	6	3.9	7.2	51	204	84	0.061	7.07×10 ⁻⁶
15×29	31.5	23.20	1.5	2.5	3.5	11.5	19.0	23.0	M4×15	6	3.9	7.2	55	205	90	0.066	8.58×10 ⁻⁶
16×30	33.0	24.20	1.6	2.5	3.5	12.0	19.6	23.6	M4×15	6	3.9	7.3	59	193	87	0.075	1.02×10 ⁻⁵
17×31	33.5	25.20	1.6	2.5	3.5	12.5	20.1	24.1	M4×15	8	3.9	8.9	77	205	97	0.075	1.17×10 ⁻⁵
18×32	34.5	26.20	1.6	2.5	3.5	12.5	20.1	24.1	M4×15	8	3.9	8.9	81	166	93	0.080	1.31×10 ⁻⁵
19×33	35.5	27.20	1.6	2.5	3.5	12.5	20.1	24.1	M4×15	8	3.9	8.9	86	184	91	0.081	1.46×10 ⁻⁵
20×38	42.0	30.80	1.8	3.0	4.0	15.3	24.1	29.1	M5×18	8	8.8	18.3	183	213	97	0.144	3.70×10 ⁻⁵
22×40	44.0	32.80	1.8	3.0	4.0	15.3	24.1	29.1	M5×18	8	8.8	18.3	201	193	92	0.165	4.42×10 ⁻⁵
24×42	46.0	34.80	1.8	3.0	4.0	16.3	25.1	30.1	M5×18	8	8.8	21.0	252	121	105	0.180	5.45×10 ⁻⁵
25×43	47.0	35.80	1.8	3.0	4.0	17.3	26.1	31.1	M5×18	8	8.8	21.1	264	212	102	0.188	6.15×10 ⁻⁵
28×46	50.0	38.80	1.8	3.5	4.0	17.3	26.6	31.6	M5×18	10	8.8	21.1	295	212	107	0.195	8.15×10 ⁻⁵
30×48	52.0	40.80	1.8	3.5	4.0	17.3	26.6	31.6	M5×18	10	8.8	26.4	396	198	102	0.208	9.45×10 ⁻⁵
32×50	54.0	42.80	1.8	3.5	4.0	18.3	27.6	32.6	M5×18	10	8.8	26.4	423	192	103	0.219	1.14×10 ⁻⁴
35×57	62.0	48.40	2.0	4.0	4.5	19.5	30.0	36.0	M6×20	8	15.7	31.3	548	207	105	0.325	2.12×10 ⁻⁴
38×60	65.0	51.40	2.0	4.0	4.5	20.0	30.5	36.5	M6×20	10	15.7	39.0	741	208	110	0.362	2.62×10 ⁻⁴
40×62	67.0	53.40	2.0	4.0	4.5	20.5	31.0	37.0	M6×20	10	15.7	39.0	779	202	110	0.380	3.00×10 ⁻⁴
42×64	69.0	55.40	2.0	4.0	4.5	20.5	31.0	37.0	M6×20	10	15.7	39.2	823	192	106	0.405	3.32×10 ⁻⁴
45×67	72.0	58.40	2.0	4.0	4.5	21.0	31.5	37.5	M6×20	10	15.7	39.2	882	184	104	0.435	3.95×10 ⁻⁴
48×70	75.0	61.40	2.0	4.5	4.5	21.0	32.0	38.0	M6×20	12	15.7	46.5	1,117	206	118	0.460	4.75×10 ⁻⁴
50×72	77.0	63.40	2.0	4.5	4.5	21.5	32.5	38.5	M6×20	14	15.7	54.4	1,362	202	119	0.485	5.35×10 ⁻⁴

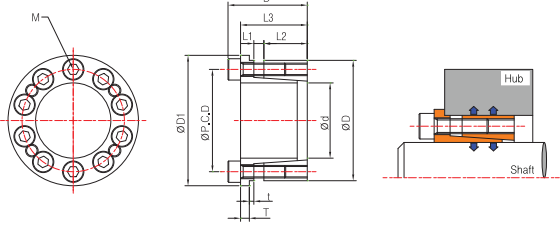
Locking Element
MASUS (Stainless steel type)

Order method

MASUS-25×43
Product No. d D



Features
The standard models from Ø5~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



Usage
Gear, Pulley, Sprocket, Cam, etc.
Specifications
Surface roughness : Rt max 16μm
Processing tolerance(Max) : Shaft h7, Hub H7

MASUS d×D	Dimension								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 ²
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 ⁻⁷
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 ⁻⁶
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 ⁻⁶
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 ⁻⁶
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 ⁻⁶
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 ⁻⁶
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 ⁻⁶
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 ⁻⁶
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 ⁻⁶
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 ⁻⁵
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 ⁻⁵
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 ⁻⁵
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 ⁻⁵
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 ⁻⁵
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 ⁻⁵
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 ⁻⁵
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 ⁻⁵
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 ⁻⁵
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 ⁻⁵
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 ⁻⁴
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 ⁻⁴
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 ⁻⁴
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 ⁻⁴
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 ⁻⁴
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 ⁻⁴
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 ⁻⁴
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 ⁻⁴

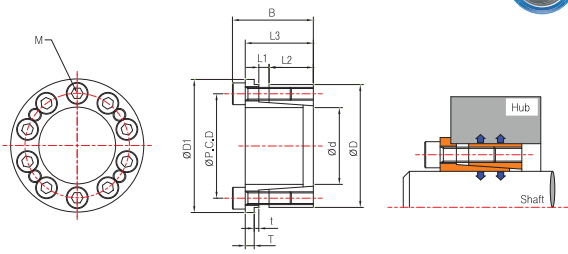
Locking Element
DRAP(Aluminum)

Order method

DRAP-25×43
Product No. d D



Features
DRAP is available for the shaft with a narrow diameter
Material is aluminum Bolt is plated.
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.



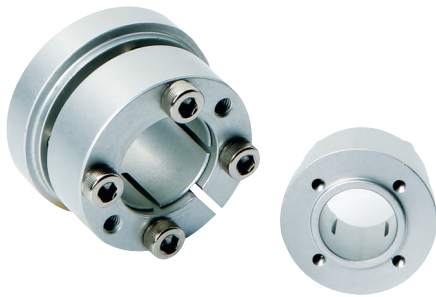
Usage
Aluminum pulley, Aluminum timing belt, Resins gear, etc.
Specifications
Surface roughness : Rt max 16μm
Processing tolerance(Max) : Shaft h7, Hub H7

DRAP d×D	Dimension								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 ²
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 ⁻⁷
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 ⁻⁷
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 ⁻⁷
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 ⁻⁷
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 ⁻⁶
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 ⁻⁶
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 ⁻⁶
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 ⁻⁶
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 ⁻⁶
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 ⁻⁶
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 ⁻⁶
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 ⁻⁶
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 ⁻⁶
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 ⁻⁵
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 ⁻⁵
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 ⁻⁵
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 ⁻⁵
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 ⁻⁵
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 ⁻⁵
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 ⁻⁵
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 ⁻⁵

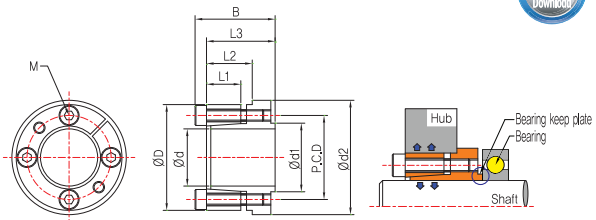
Locking Element
DRMC(Aluminum)

Order method

DRMC-25×42
Product No. d D



Features
DRMC is available for the shaft with a narrow diameter
Material is aluminum Bolt is plated.
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.



Caution
If the bearing needs initial clamping force, another tool is required.
It has a small pressure on the side, but a large transmission.
Centering function is available.
Usage
Aluminum pulley, Aluminum timing belt, Resins gear, etc.
Specifications
Surface roughness : Rt max 16μm
Processing tolerance(Max) : Shaft h7, Hub H7

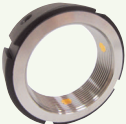
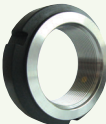
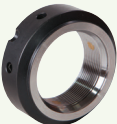
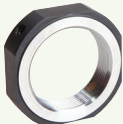
DRMC d×D	Dimension							Tightening screw			Transfer		Surface pressure		Mass	Moment of inertia
	d1	d2	P.C.D	L1	L2	L3	B	Size	Quantity	Tightening torque	Thrust	Torque	Shaft	Hub		
mm	mm	mm	mm	mm	mm	mm	mm	M	Qty	N · m	kN	N · m	Mpa	Mpa	kg	kg · m²
4×15	6.5	17.5	10.1	6.5	9	13	15.5	M2.5×12	4	0.9	1.00	2.0	151	37	0.006	1.99×10 ⁻⁷
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 ⁻⁷
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 ⁻⁷
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 ⁻⁷
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 ⁻⁷
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 ⁻⁷
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 ⁻⁶
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 ⁻⁶
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 ⁻⁶
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 ⁻⁶
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 ⁻⁶
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 ⁻⁶
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 ⁻⁶
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 ⁻⁶
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 ⁻⁵
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 ⁻⁵
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 ⁻⁵
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 ⁻⁵
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 ⁻⁵
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 ⁻⁵
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 ⁻⁵
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 ⁻⁵



LOCKNUT



Locknut Line Up Contents

Type	Precision Locknut			
Model	KZM	KZMT	DCN	KZMV
				
Page	82	83	84	86
Type	Precision Locknut			
Model	KZMF	KAN	KSN	KSNT
				
Page	87	88	90	91
Type	Precision Locknut			
Model	KSNA	ZMVT	AN	DN
				
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Duri precision Locknut has the following 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, Locknut 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.

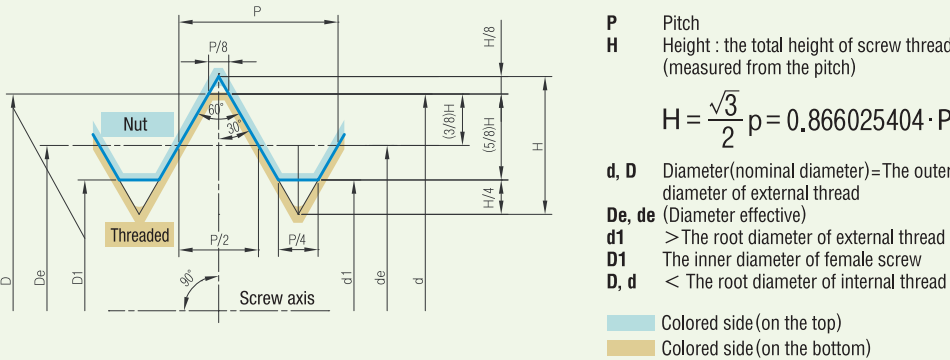
Duri Locknut specification

- Material : Brass pin C3604(environmentally supplied)
- Main body : S45C
- Set Screw : SCM440
- Hardness : HRC 22~28,
- Surface process : Black oxide coating
- Nut Precision Class : ISO 4H
- perpendicularity : ± 0.002~0.007mm

Any product has no set screw with it.

Duri Locknut has been produced according to the ISO standard.

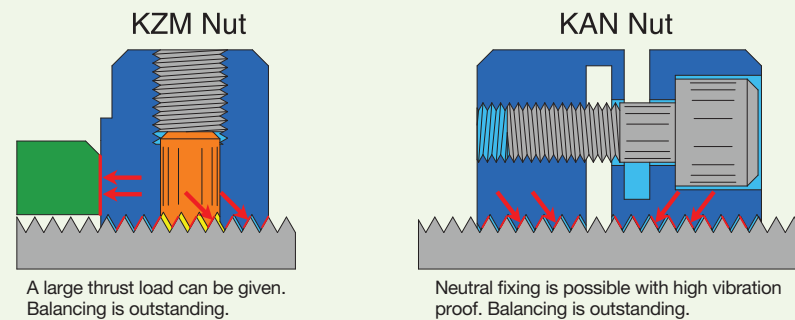
For its shape and dimension, The following promises can be declared. The shape of screw thread will be decided automatically not by nominal diameter, but by screw pitch.



- Promise 1) make sure that the nut is larger than the blue line.
- Promise 2) make sure that external thread is smaller than the blue line.
- Promise 3) above promises should be kept in terms of the thread and nut

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

About Self-Locking Effect

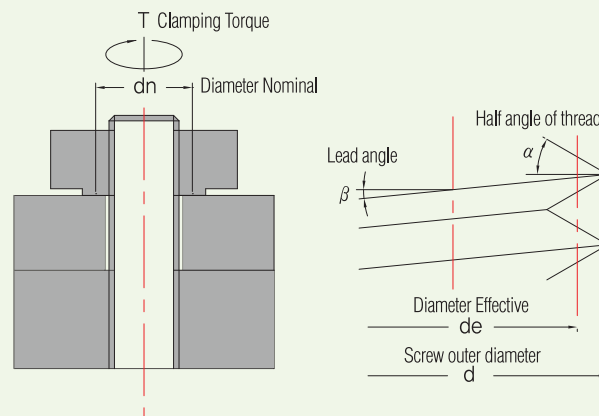
Once the nut is clamped, the material tends to break down. This leads to the loss of its elasticity, or the slits caused by mechanical vibrations result in both weak tension and friction. That's how the loose stopper happens. It's important that the tension is always made to work on the thread for the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

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.

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

T : Clamping Torque (N·m)
N : Thrust Load (N)
de : Diameter Effective (mm)
dn : Diameter Nominal (mm)
 μ : Friction Coefficient of a thread (0.15)
 μ_n : Friction Coefficient Nominal (0.15)
 α : Half angle of a thread (°)
 β : Lead angle (°)



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 Locknut 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.

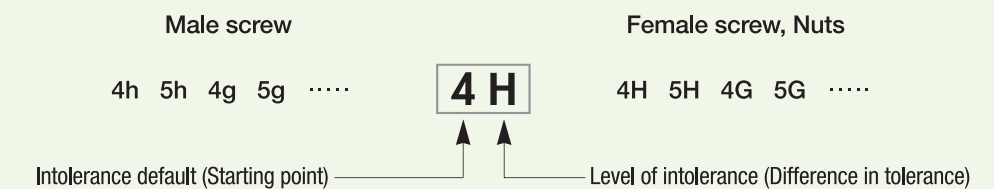
About Precision Level

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.

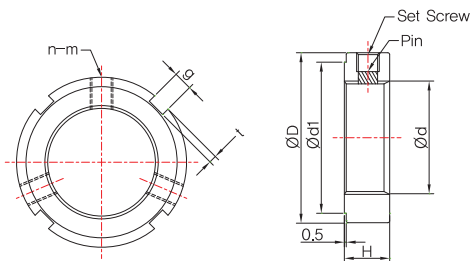
Note : Combination of 4h and 4H has the smallest slit (Or the highest precision level)

How to Refer to the Level



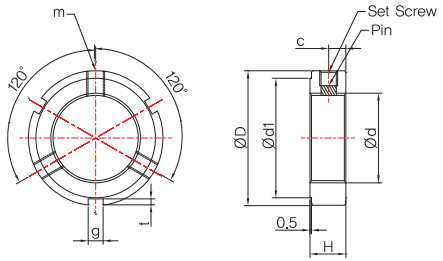
Effective diameter	If the slit is 0 <<< If there are slits found	Range of tolerance	If they are small <<< If they are large
Grade of Male screw	h g	Figures	4 . . . 5 . . . 6
Grade of Nut	h g		

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
Screw preciseness/ ISO4H, Screw angularity/ $\pm 0.002-0.007\text{mm}$

Product NO.	Dimension					Set Screw		Mass
	D	H	g	t	d1			
d × pitch	mm	mm	mm	mm	mm	n-m	N · m	g
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



Specifications
Material : S45C, Hardness : HRC 22-28
Surface treatment : Black phosphated coating
Screw preciseness : ISO4H
Screw angularity : $\pm 0.002-0.007\text{mm}$

Product NO.	Dimension						Set Screw		Mass
	D	H	g	t	d1	C			
d × 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



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, Set screw material : SCM440, Hardness : HRC 22~28
Surface treatment : Black phosphated coating, Screw preciseness : ISO 4H
Screw angularity : $\pm 0.002\sim 0.007\text{mm}$

Usage

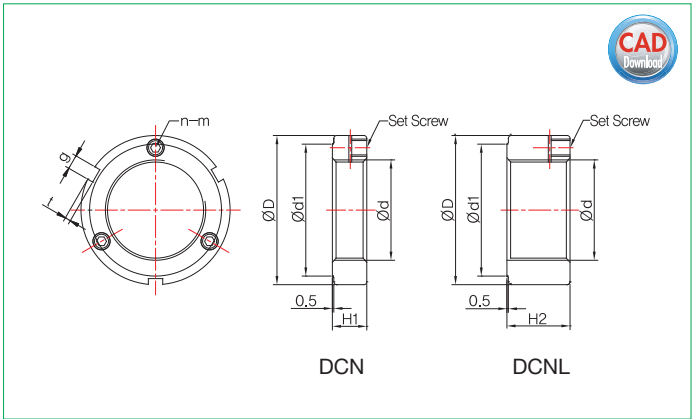
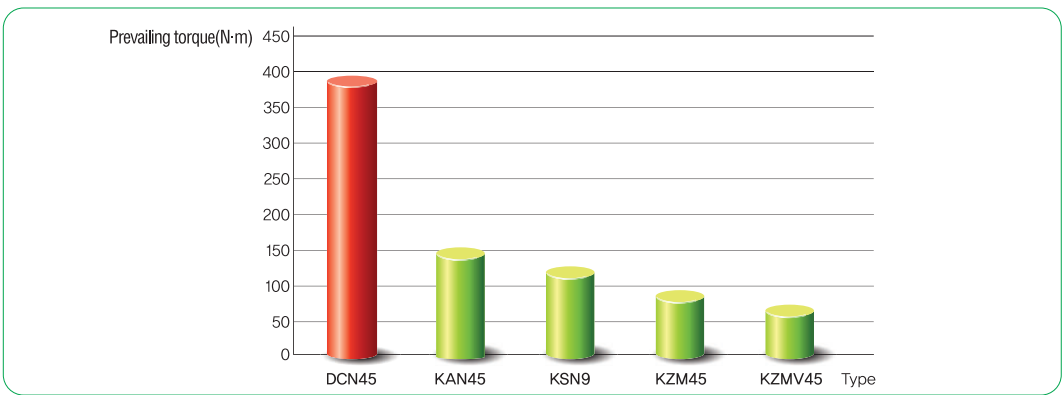
Fixing Machine Tool Bearings, Fixing Ball screw support bearings.
Part which requiring the axial positioning and so on

DCN45×1.5 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

(Note) KAN40 is tightened with hexagon wrench bolt. Measuring instrument : Using Torque test machine our company's holding.

Prevailing Torque Comparison Graph



Product NO.	Dimension						Set Screw		Mass	
	D	H1	H2	g	t	d1			DCN	DCNL
d × pitch	mm	mm	mm	mm	mm	mm	m	N · m	g	g
DCN(L)17×1	28	10	18	4	2	23	2-M4	2	28	100
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

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

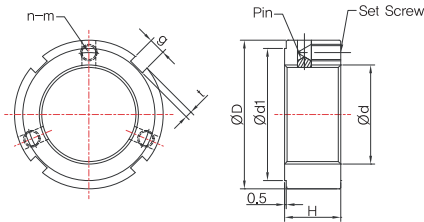
KZMV

Order method

KZMV-30×1.5
Product No.



Feature
Set Screw can be fitted at the shaft direction.



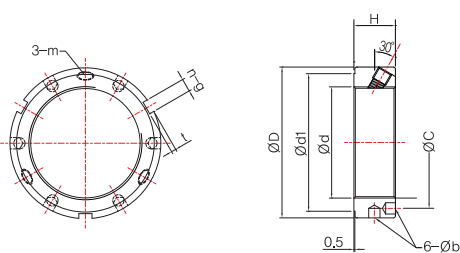
Usage : Main Axis of a machine tool, Ball Screw Support Bearing.
Precise spindle, Precise test machine.
Specifications : Material /S45C, Hardness/HRC 22-28
Surface treatment/Black phosphated coating
Screw preciseness/ISO4H, Screw angularity / $\pm 0.002\sim 0.007\text{mm}$

Product NO.	Dimension					Set Screw		Mass
	D	H	g	t	d1			
d × pitch	mm	mm	mm	mm	mm	n-m	N · m	g
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

KZMF

Order method

KZMF-30×1.5
Product No.



Specifications
Material : S45C, Hardness : HRC 22-28
Surface treatment : Black phosphated coating
Screw preciseness : ISO4H
Screw angularity : $\pm 0.002\sim 0.007\text{mm}$

Product NO.	d × pitch	Dimension							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



Feature

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

Usage

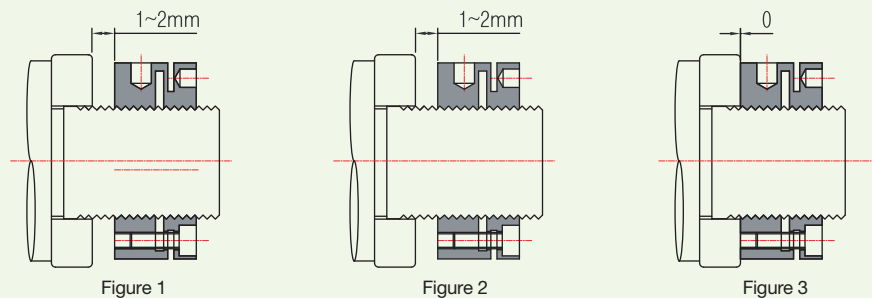
General, precise Bearing, Ball Screw Support Bearing.

Specifications

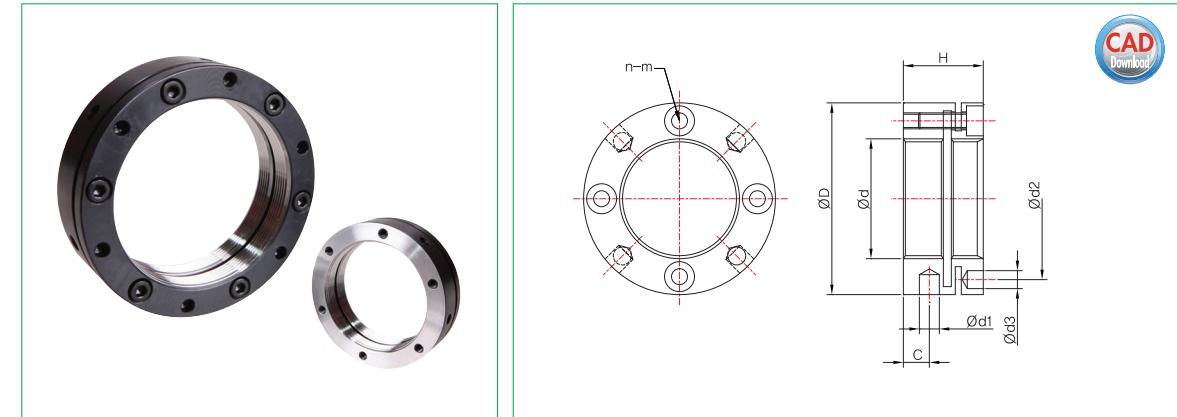
Material : S45C
Hardness : HRC 22-28
Surface treatment : Black phosphated coating
Screw preciseness : ISO4H
Screw angularity : $\pm 0.002 \sim 0.007\text{mm}$

Follow the steps to clamp the KAN Nut.

- 1 Clean up the screw of the shaft
- 2 Loosen up each bolt.
- 3 Put the KAN nut into the screw and tighten it to the space of 1~2mm against the other Section (see the figure 1)
- 4 Tighten the bolt in the sequence of diagonal uniformly to get rid of any slit between shaft and nut. (see the figure 2)
- 5 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.
- 6 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.
- 7 Tighten the nut with required axial force.
- 8 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)
- 9 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.



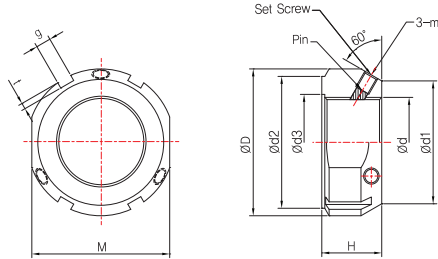
Note) The centrifugal force on the moving shaft results in the KAN nut being loosened.



Product NO.	Dimension						Holes	Set Screw			Mass
	D	d1	d2	d3	H	C		m	n	N · m	
d × pitch	mm	mm	mm	mm	mm	mm					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

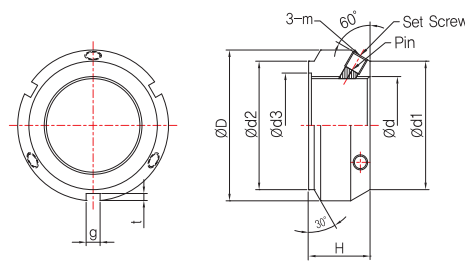


Feature
KSN can be clamped by two sided.



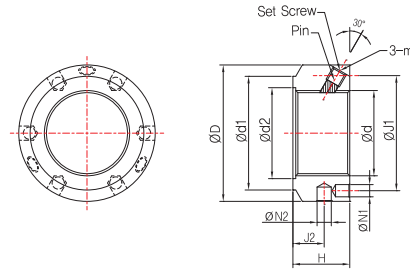
Usage : Main Axis of a machine tool, Ball Screw Support Bearing.
Precise spindle, Precise test machine.
Specifications : Material/S45C, Hardness/HRC 22-28
Surface treatment/Black phosphated coating
Screw preciseness/ISO4H, Screw angularity/ $\pm 0.002\sim 0.007\text{mm}$

Product NO.	d × pitch	Dimension								Set Screw		Mass
		D	d1	d2	d3	H	g	t	M			
		mm	mm	mm	mm	mm	mm	mm	mm	m	N · m	
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



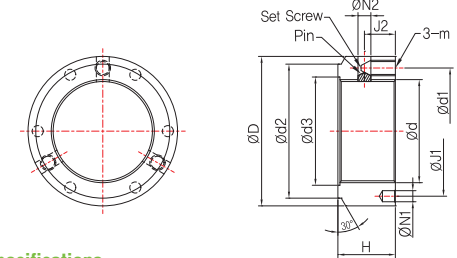
Specifications
Material : S45C, Hardness : HRC 22-28
Surface treatment : Black phosphated coating
Screw preciseness : ISO4H, Screw angularity : $\pm 0.002\sim 0.007\text{mm}$

Product NO.	d × pitch	Dimension								Set Screw		Mass
		D	d1	d2	d3	H	g	t				
		mm	mm	mm	mm	mm	mm	mm		m	N · m	
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



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
Screw preciseness /ISO4H, Screw angularity / $\pm 0.002 \sim 0.007\text{mm}$



Specifications

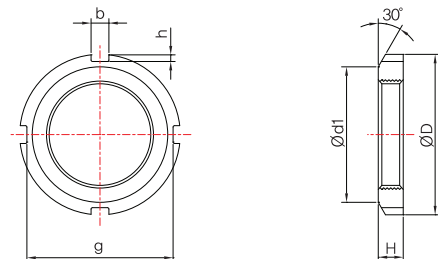
Material : S45C, Hardness : HRC 22-28
Surface treatment : Black phosphated coating
Screw preciseness : ISO4H, Screw angularity : $\pm 0.002 \sim 0.007\text{mm}$

Feature

Set Screw can be fitted at the shaft direction.

Product NO.	d × pitch	Dimension								Set Screw		Mass
		D	d1	d2	H	J1	J2	N1	N2			
		mm	mm	mm	mm	mm	mm	mm	mm	m	N · m	
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

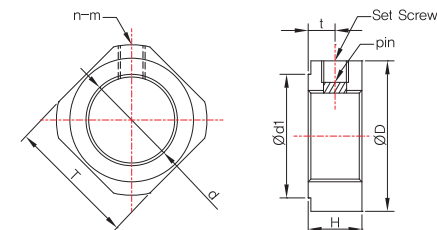
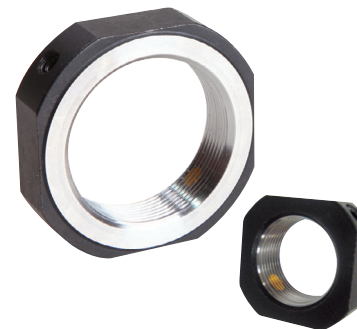
Product NO.	d×pitch	Dimension									Set Screw		Mass
		D	d1	d2	d3	H	J1	J2	N1	N2			
		mm	mm	mm	mm	mm	mm	mm	mm	mm	m	N·m	g
ZMVT5	M25×1.5	42	33.5	35	26	20	32.5	11	4.3	5	M6	8	120
ZMVT6	M30×1.5	48	39	40	32	20	40.5	11	4.3	5	M6	8	150
ZMVT7	M35×1.5	53	44	47	38	20	45.5	11	4.3	5	M6	8	180
ZMVT8	M40×1.5	58	49	52	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



Specifications

Material : S45C, Hardness : HRC 22-28
Surface treatment : Black phosphated coating
Screw preciseness : ISO4H, Screw angularity : $\pm 0.002\sim 0.007\text{mm}$

Product NO.	d × pitch	Dimension						Set Screw	Mass
		D	d1	g	b	h	H		
		mm	mm	mm	mm	mm	mm		
AN02	M15×1	25	21	21	4	2	5	-	AW02
AN02	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



Specifications

Material : S45C, Hardness : HRC 22-28
Surface treatment : Black phosphated coating
Screw preciseness : ISO4H, Screw angularity : $\pm 0.002\sim 0.007\text{mm}$

Product NO.	d × pitch	Dimension					Set Screw		Mass
		D	d1	T	t	H			
		mm	mm	mm	mm	mm	n-m	N · m	g
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

History



- 1999 Jan. Establishment DURI Trade Company
- 2000 Jan. Establishment DURI's First Factory
- 2000 Feb. Join for Japan Fuji Seimitsu co., Ltd.'s Korea Agency
- 2004 May. Establishment of DURI's R&D Center
- 2004 Jun. Establishment DURI's Second Factory
- 2005 Jan. Change to DURI Mitec Co., Ltd. for Corporate Body
- 2007 Jun. Relocation First and Second Factory(The Current point)
- 2007 Jun. Relocation R&D Center(The Current point)
- 2009 Apr. Optain ISO9001/14001
- 2012 Jan. Trademark Registration of DURI Mitec (40-0906438)
- 2012 Sep. Design Registration of Coupling (30-0661997)
- 2012 Nov. Patent Registration of Precision Locknut (10-1202803)
- 2013 Apr. RoHS Certification-Locknut, Locking Element, Coupling
- 2013 May. Parts and Material Company Certification
- 2013 July. INNO-BIZ Certification
- 2013 Aug. Open Chang-Won Office
- 2014 Aug. Localized Successes of Coupling for Machine Tool
- 2014 Oct. Release of Grinding Locknut for the First time in Korea
- 2016 Jan. Establishment China Shanghai Office
- 2016 Mar. Establishment Japan Osaka Branch Office
- 2016 Jun. Patent Registration of Integrated Flexible Coupling (10-1628789)
- 2016 Sep. Awards Presidential Citation for Developing Outstanding Capital Goods
- 2016 Oct. Design Registration Coupling for Power Transmission (30-0875980)
- 2016 Oct. Design Registration Connector of Coupling for Power Transmission (30-0875978)
- 2016 Oct. Design Registration Coupling for Power Transmission (30-0879347)

Award and Certification



