

#### HIGH RIGIDITY COUPLINGS FOR MACHINE TOOL





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# Constant challenge and Continuous research and Development

**DUR!** is specialized in machine tools and automation components. We have expanded our knowledge and scope of coupling through steady

quality improvement and technology development.

As a result, we have launched our new coupling series based on our accumulated knowledge, technology and experience.

This coupling series is a coupling for machine tools.

It is thoroughly managed through excellent technology and strict quality inspection. Experience the breakthrough performance of the coupling series for machine tools created with advanced technology.

Technological enterprise of trust of machine tool coupling!

#### **Contents**

04 | Application

06 DRDA Series Features & Structure, Material

08 DRDA-A







10 | **DRDA**-







2 DRDA-BSP







14 DRDA Technical Data

16 DHDS Series Structure & Combination

18 DHDS A hub









20 DHDS B hub









29 | **DRJT-S** 

22 DHDS Technical Data

24 | DJC/DJCS/DRJT Structure & Material

26 | **DJC** 

27 | **DJCS** 

28 | DRJT-A



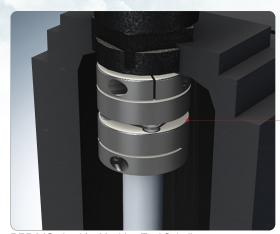


30 | DJC/DJCS/DRJT Technical Data

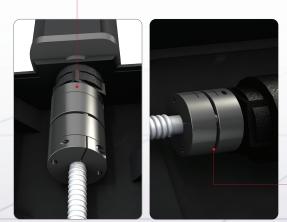
31 | DJC/DJCS/DRJT Application

# APPLICATION High Rigidity Disk Couplings for Machine Tool

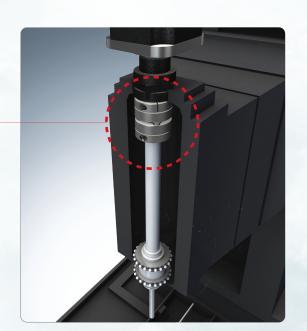


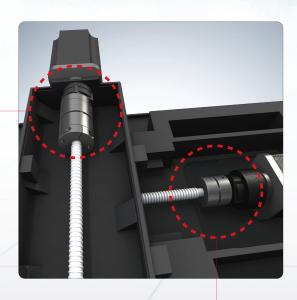


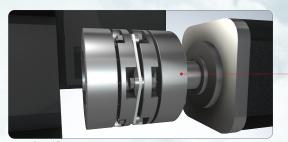
**DRDA**/Optimal for Machine Tool Spindle



DRDA/Optimal for Machine Tool Conveying Axis







DHDS-A/Single type



DHDS-B/Double type with plate between the hubs

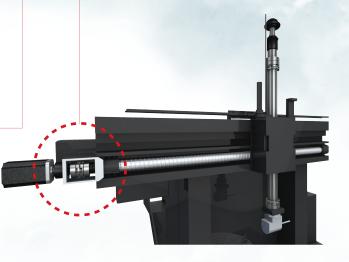


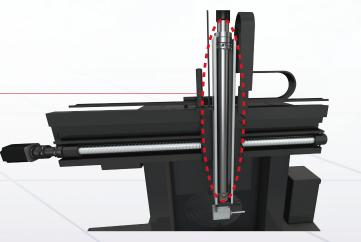
DHDS-C/Double type with sleeve 1 between the hubs



DHDS-CSP/Double type that changing the length of sleeve S is available







DRDA-A

**DRDA-BSP** 

**DHDS** Series

DHDS A hub DHDS B hub DJC/DJCS/DRJT Series

DJC

DJCS DRJT-A

DRJT-S

# DRDA Series DURI Rectangle Disk Aluminum Coupling

#### Innovative Performance Advanced Technology of **DURI**

The Flexible coupling of Disk type.

A highly stiffness disk coupling for Machine tool.

Zero backlash.

The material is aluminum alloy with high Stiffness, So inertia moment is low.

It is optimal for Machine tool spindle and Conveying Axis.

Due to Assemble using a Dedicated jig, Ensure a High Concentricity.

It is Possible to Specify total length,

It Offers a variety of Options such processing keyway.





















#### **FEATURE**

#### **High Stiffness and Various type**

Due to the high-strength aluminum alloy of high strength and the outer diameter of the shaft-linking hub, the low inertia most suitable for high-speed operation is achieved. There are 3 types according to the combination of the bore diameter of the coupling, so you can choose the best type. Depending on the type, different shapes and diameters can be selected and combined.

#### Simple and secure fastening

When fastening to the shaft, it is possible to securely fasten and shorten assembly time.

Because it is centered with a dedicated jig, it has a very high concentricity.

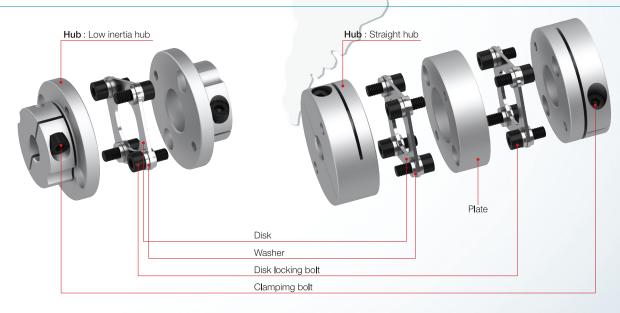
#### Various options

A wide variety of options such as a length-specified and Keyway milling application are available.

In addition, tap hole machining are available on the hub section.

Combinations of options are also possible, so you can provide various specifications.

#### **STRUCTURE & MATERIAL**



: Aluminum alloy with high stiffness

Hub surface treatment : Alumite Clamping bolt SCM440 : SUS304 Disk

Washer : SUS304 & STEEL

: Aluminum alloy with high stiffness

Plate Surface treatment: Alumite Disk locking bolt : SCM440

#### **APPLICATION**

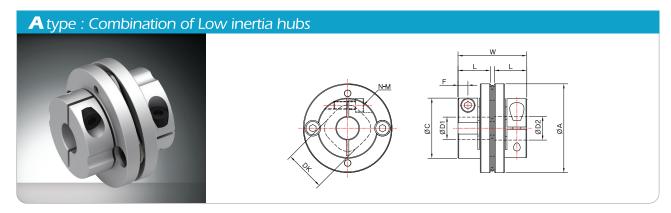
Machine tool, Actuator, Chip mounter, Semiconductor manufacturing equipment, Packing machine

DRDA Series

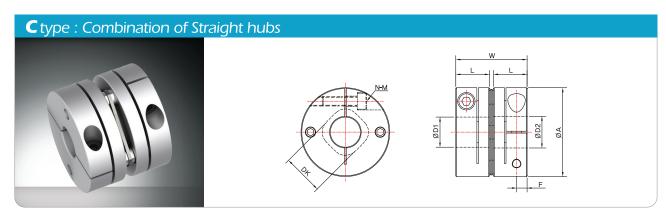
DRDA-A



#### **DRDA-A**/Single type



# Btype: Combination of Low inertia hub and Straight hub



#### Order method (Example)

DRDA-44	A	Ø <b>10</b>	Ø <b>12</b>
Coupling-Size	Single type	Bore : D1	Bore : D2

<sup>\*</sup>Supported Shaft Tolerance/h7(h6, g6)

#### Dimensions

Dimensio	115												unit (mm)
Product No.	Type	D	1	D	2	А	С	W	-	F	DK	N-M	Tightening torque
i roudet No.	Туре	Min.	Max.	Min.	Max.	Α	U	VV		1	DK	IN-IVI	N∙m
DRDA- 44A	A B C	8 8 Over 15	15 15 19	8 Over 15 Over 15	15 24 24	44	29.6 29.6	34	15.4	4.65	19.5	2-M4	3.4~4.1
DRDA- 56A	A B C	8 8 Over 19	19 19 25	8 Over 19 Over 19	19 30 30	56	38 38	43.4	20.46	6.25	26	2-M5	7.0~8.5
DRDA- 63A	С	10	30	10	30	63	-	50.6	24	7.75	31	2-M6	14~15
DRDA- 68A	A B C	11 11 Over 24	24 24 30	11 Over <b>24</b> Over <b>24</b>	24 35 35	68	46 46 -	53.6	25.2	8	31	2-M6	14~15
DRDA- 82A	С	18	35	18	40	82	-	68	30	9	38	2-M8	27~30
DRDA- 94A	С	25	40	25	45	94	-	68.3	30	9	42	2-M8	27~30
DRDA-104A	С	32	45	32	45	104	-	69.8	30	9	48	2-M8	27~30

<sup>\*</sup> For Information on Other tolerances, Contact DURI.

#### Specifications

Product No.	Type	Rated Torque		Misalignment		Max. Speed	Torsional Stiffness	Axial Stiffness	Moment of Inertia	Mass
Troduct No.	Туре	N·m	Parallel (mm)	Angular (°)	Axial (mm)	min <sup>-1</sup>	N·m/rad	N/mm	kg·m²	kg
DRDA- 44A	A B C	12	0.02	1	±0.3	10,000	20,000	80	$16.71 \times 10^{-6}$ $22.55 \times 10^{-6}$ $29.25 \times 10^{-6}$	0.077 0.085 0.100
DRDA- 56A	A B C	25	0.02	1	±0.4	10,000	32,000	48	$55.71 \times 10^{-6}$ $76.26 \times 10^{-6}$ $99.03 \times 10^{-6}$	0.159 0.177 0.206
DRDA- 63A	С	40	0.02	1	$\pm 0.42$	10,000	50,000	43	$188.0 \times 10^{-6}$	0.314
DRDA- 68A	A B C	60	0.02	1	± 0.45	10,000	70,000	76.4	$145.9 \times 10^{-6}$ $205.0 \times 10^{-6}$ $268.6 \times 10^{-6}$	0.283 0.326 0.385
DRDA- 82A	С	100	0.02	1	$\pm 0.55$	10,000	140,000	128	$710.6 \times 10^{-6}$	0.708
DRDA- 94A	С	180	0.02	1	±0.65	10,000	100,000	108	1236×10 <sup>-6</sup>	0.946
DRDA-104A	С	250	0.02	1	± 0.74	10,000	120,000	111	1891 × 10-6	1.202

<sup>\*</sup> Depending on the bore diameter, rated torque of the couplings may be limited. Consult "Standard Bore Diameters."

#### **■ Standard Bore Diameter**

										C+	andarı	d bore	diam	ator D	1 D2/	mm)									
Product No.										Ol	anuan	1 0016	ulalli												
	8	9	9.525	10	11	12	13	14	15	16	17	18	19	20	22	24	25	28	30	32	35	38	40	42	45
DRDA- 44A	9	•	•	•	•	•	•	•	•	•	•	•	•	0	0	0									
DRDA- 56A	18	20	22	22	•	•	•	•	•	•	•	•	•	•	•	•	•	0	0						
DRDA- 63A				31	34	36	38	•	•	•	•	•	•	•	•	•	•	•	•						
DRDA- 68A					50	51	•	•	•	•	•	•	•	•	•	•	•	•	•	0	0				
DRDA- 82A												•	•	•	•	•	•	•	•	•	•	0	0		
DRDA- 94A																	•	•	•	•	•	•	•	0	0
DRDA-104A																				226	•	•	•	•	•

<sup>\*</sup>The Machining tolerance for paired mounting shafts is h7(h6 or g6) class.

DRDA Series

DRDA-A DRDA-B

<sup>\*</sup>Max. Speed does not take into account dynamic balance.

 $<sup>\</sup>ensuremath{^{*}}\textsc{Torsional}$  stiffness values given are measured values for the disk alone.

<sup>\*</sup>The moment of inertia and mass are measured for the maximum bore diameter.

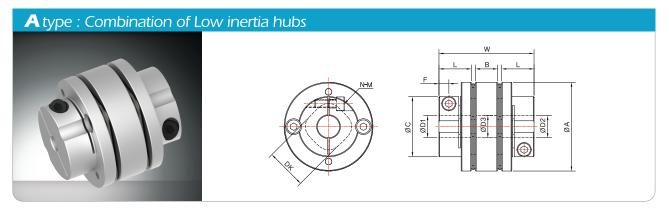
<sup>\*</sup>Bore diameters marked with ●, ○ or numbers are supported as the standard bore diameters.

<sup>\*</sup>Bore diameters marked with O have restrictions on the Inner diameter of the Disk, so axis penetration is impossible.

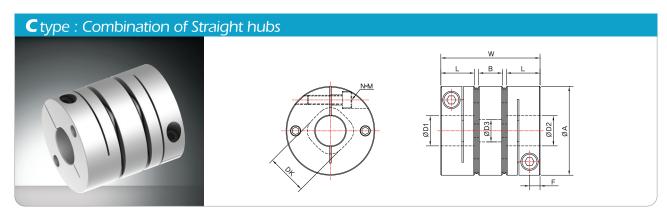
<sup>\*</sup>Bore diameters whose fields contain numbers are restricted in their rated torque by the holding power of the shaft connection component because the bore diameter is small. The numbers indicate the rated torque [N·m]

<sup>\*</sup>Please contact us regarding special arrangements for Other bore diameters.

#### **DRDA-B**/Double type



# Btype: Combination of Low inertia hub and Straight hub



#### Order method (Example)

DRDA-44	В	Ø <b>10</b>	Ø <b>12</b>
Coupling-Size	Double type	Bore : D1	Bore: D2

<sup>\*</sup>Supported Shaft Tolerance/h7(h6, g6)

#### Dimensions

Difficitsio	113														unit (mm)
Product No.	Type	D	1	D	2	Α	С	W	1	В	F	D3	DK	N-M	Tightening torque
Troddot Hor	Туро	Min.	Max.	Min.	Max.	^						ВО	DIX	14 101	N⋅m
DRDA- 44B	А В С	8 8 Over 1 <i>5</i>	15 15 19	8 Over 15 Over 15	15 24 24	44	29.6 29.6 -	48	15.4	10.8	4.65	20	19.5	2-M4	3.4~4.1
DRDA- 56B	A B C	8 8 Over 19	19 19 25	8 Over 19 Over 19	19 30 30	56	38 38 -	59.8	20.4	13.8	6.25	26	26	2-M5	7.0~8.5
DRDA- 63B	С	10	30	10	30	63	-	68.7	24	15.5	7.75	31	31	2-M6	14~15
DRDA- 68B	A B C	11 11 Over 24	24 24 30	11 Over 24 Over 24	24 35 35	68	46 46	73.3	25.2	16.5	8	31	31	2-M6	14~15
DRDA- 82B	C	18	35	18	40	82	-	98	30	22	9	40	38	2-M8	27~30
DRDA- 94B	С	25	40	25	45	94	-	98.6	30	22	9	47	42	2-M8	27~30
DRDA-104B	С	32	45	32	45	104	-	101.6	30	22	9	50	48	2-M8	27~30

<sup>\*</sup> For Information on Other tolerances, Contact DURI.

#### Specifications

Product No.	Tuno	Rated Torque		Misalignment		Max. Speed	Torsional Stiffness	Axial Stiffness	Moment of Inertia	Mass
1100001110.	Type	N∙m	Parallel (mm)	Angular (°)	Axial (mm)	min <sup>-1</sup>	N·m/rad	N/mm	kg∙m²	kg
ORDA- 44B	А В С	12	0.24	1 (On one side)	±0.6	10,000	10,000	40	$29.98 \times 10^{-6}$ $35.82 \times 10^{-6}$ $42.52 \times 10^{-6}$	0.124 0.131 0.146
ORDA- 56B	A B C	25	0.28	1 (On one side)	±0.8	10,000	16,000	24	98.34×10 <sup>-6</sup> 118.9×10 <sup>-6</sup> 141.7×10 <sup>-6</sup>	0.25 0.268 0.298
ORDA- 63B	С	40	0.31	1 (On one side)	$\pm 0.84$	10,000	25,000	21.5	$261.3 \times 10^{-6}$	0.459
ORDA- 68B	A B C	60	0.34	1 (On one side)	±0.9	10,000	35,000	38.2	$256.6 \times 10^{-6}$ $315.7 \times 10^{-6}$ $379.3 \times 10^{-6}$	0.447 0.489 0.549
ORDA- 82B	С	100	0.52	1 (On one side)	$\pm 1.10$	10,000	70,000	64	$1039 \times 10^{-6}$	1.037
ORDA- 94B	С	180	0.52	1 (On one side)	±1.30	10,000	50,000	54	$1798 \times 10^{-6}$	1.369
ORDA-104B	С	250	0.55	1 (On one side)	±1.48	10,000	60,000	55.5	2754×10-6	1.739

<sup>\*</sup> Depending on the bore diameter, rated torque of the couplings may be limited. Consult "Standard Bore Diameters."

#### Standard Bore Diameter

										C+		.l l	48	D	1 00/										
Product No.										51	anuan	d bore	uiam	eter D	I, DZ(	IIIII)									
	8	9	9.525	10	11	12	13	14	15	16	17	18	19	20	22	24	25	28	30	32	35	38	40	42	45
DRDA- 44B	9	•	•	•	•	•	•	•	•	•	•	•	•	0	0	0									
DRDA- 56B	18	20	22	22	•	•	•	•	•	•	•	•	•	•	•	•	•	0	0						
DRDA- 63B				31	34	36	38	•	•	•	•	•	•	•	•	•	•	•	•						
DRDA- 68B					50	51	•	•	•	•	•	•	•	•	•	•	•	•	•	0	0				
DRDA- 82B												•	•	•	•	•	•	•	•	•	•	0	0		
DRDA- 94B																	•	•	•	•	•	•	•	0	0
DRDA-104B																				226	•	•	•	•	•

<sup>\*</sup>The Machining tolerance for paired mounting shafts is h7(h6 or g6) class.

DRDA Series DRDA-A

DRDA-B

<sup>\*</sup>Max. Speed does not take into account dynamic balance.

 $<sup>\</sup>ensuremath{^{*}}\textsc{Torsional}$  stiffness values given are measured values for the disk alone.

<sup>\*</sup>The moment of inertia and mass are measured for the maximum bore diameter.

<sup>\*</sup>Bore diameters marked with ●, ○ or numbers are supported as the standard bore diameters.

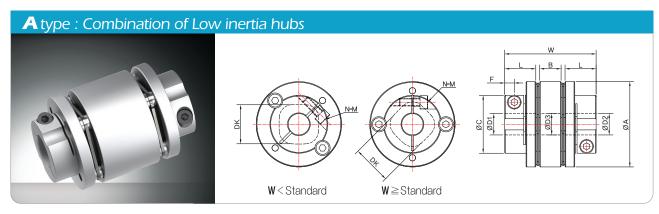
<sup>\*</sup>Bore diameters marked with O have restrictions on the Inner diameter of the Disk, so axis penetration is impossible.

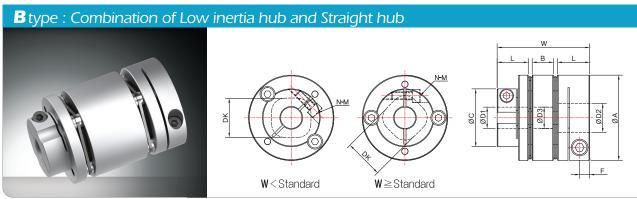
<sup>\*</sup>Bore diameters whose fields contain numbers are restricted in their rated torque by the holding power of the shaft connection component because the bore diameter is small. The numbers indicate the rated torque [N·m]

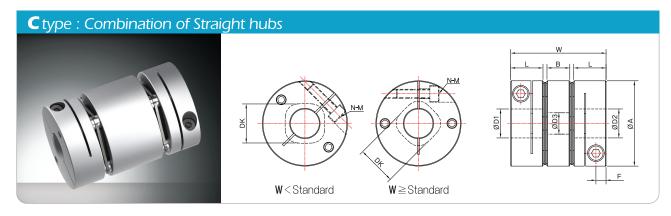
<sup>\*</sup>Please contact us regarding special arrangements for Other bore diameters.

#### **DRDA-BSP**/Double type that can change the length

It is type that can cope with the distance between shafts by changing plate length in DRDA-B type. Please specify the length in 1mm units to suit your needs.







#### Order method (Example)

DRDA-44	BSP	Ø10	Ø12	W65
Coupling-Size	Double type	Bore : D1	Bore: D2	Length specified

<sup>\*</sup>Supported Shaft Tolerance/h7(h6, g6)

#### Dimensions

Dimensio	ns															unit (mm)
Product No.	Tuno	D	1	D	2	Λ	С		W			F	Da	DK	NI NA	Tightening torque
Product No.	Type	Min.	Max.	Min.	Max.	Α	U	Std.	Min.	Max.	L		D3	DK	N-M	N∙m
DRDA-44B	A B C	8 8 Over 15	15 15 19	8 Over 15 Over 15	15 24 24	44	29.6 29.6	48	43	65	15.4	4.65	20	19.5	2-M4	3.4~4.1
DRDA-56B	A B C	8 8 Over 19	19 19 25	8 Over 19 Over 19	19 30 30	56	38 38 -	59.8	53	80	20.4	6.25	26	26	2-M5	7.0~8.5
DRDA-63B	С	10	30	10	30	63	-	68.7	60	85	24	7.75	31	31	2-M6	14~15
DRDA-68B	A B C	11 11 Over 24	24 24 30	11 Over 24 Over 24	24 35 35	68	46 46 -	73.3	65	90	25.2	8	31	31	2-M6	14~15

<sup>\*</sup>For information on other tolerances, Contact DURI.

#### Specifications

Opecificat	10113										
		Rated torque		Misali	gnment		Max. Speed	Moment of	nertia (ka.m²)	Mac	ss (kg)
Product No.	Type	nateu torque	Paral	lel (mm)	Angular	Axial	iviax. Speeu	Worlden Or	mertia (ky·iii )	IVIAS	55 (ry)
		N·m	Min. W	Max. W	0	mm	min <sup>-1</sup>	Min. W	Max. W	Min. W	Max. W
DRDA-44B	А В С	12	0.15	0.54	1 (On one side)	±0.6	10,000	$25.06 \times 10^{-6}$ $30.89 \times 10^{-6}$ $37.58 \times 10^{-6}$	$44.76 \times 10^{-6}$ $50.62 \times 10^{-6}$ $57.31 \times 10^{-6}$	0.107 0.116 0.130	0.174 0.182 0.197
DRDA-56B	A B C	25	0.16	0.63	1 (On one side)	±0.8	10,000	$77.42 \times 10^{-6}$ $97.97 \times 10^{-6}$ $120.08 \times 10^{-6}$	$144.03 \times 10^{-6}$ $164.08 \times 10^{-6}$ $187.06 \times 10^{-6}$	0.205 0.225 0.252	0.347 0.365 0.394
DRDA-63B	С	40	0.16	0.60	1 (On one side)	±0.84	10,000	226.08×10 <sup>-6</sup>	325.00 × 10 <sup>-6</sup>	0.378	0.538
DRDA-68B	A B C	60	0.19	0.63	1 (On one side)	±0.9	10,000	$210.08 \times 10^{-6}$ $269.09 \times 10^{-6}$ $333.05 \times 10^{-6}$	$340.01 \times 10^{-6}$ $399.02 \times 10^{-6}$ $462.08 \times 10^{-6}$	0.382 0.424 0.484	0.567 0.609 0.669

<sup>\*</sup>Depending on the bore diameter, Rated torque of the couplings may be limited. Consult "Standard Bore Diameters."

#### Standard Bore Diameter

Product No.									Standa	ard bor	e diame	eter D1,	D2(mm)								
Troudet No.	8	9	9.525	10	11	12	13	14	15	16	17	18	19	20	22	24	25	28	30	32	35
DRDA- 44B	9	•	•	•	•	•	•	•	•	•	•	•	•	0	0	0					
DRDA- 56B	18	20	22	22	•	•	•	•	•	•	•	•	•	•	•	•	•	0	0		
DRDA- 63B				31	34	36	38	•	•	•	•	•	•	•	•	•	•	•	•		
DRDA- 68B					50	51	•	•	•	•	•	•	•	•	•	•	•	•	•	0	0

<sup>\*</sup>The Machining tolerance for paired mounting shafts is h7(h6 or g6) class.

DRDA Series
DRDA-A
DRDA-B

<sup>\*</sup>Standard compatible lengths W Range from the minimum W Dimension shown in the above table to the maximum. Specify the length in 1 mm units.

<sup>\*</sup>When the W dimension is shorter than the standard, The left/right clamping bolt phases will be off by 45°

<sup>\*</sup> Max. Speed does not take into account dynamic balance.

 $<sup>\</sup>ensuremath{^{*}}\xspace$  The moment of inertia and mass are measured for the maximum bore diameter.

<sup>\*</sup>Torsional stiffness values check P.11.

<sup>\*</sup>Bore diameters marked with •, • or numbers are supported as the standard bore diameters.

<sup>\*</sup>Bore diameters marked with O have restrictions on the Inner diameter of the Disk, so axis penetration is impossible.

<sup>\*</sup>Bore diameters whose fields contain numbers are restricted in their rated torque by the holding power of the shaft connection component because the bore diameter is small.

The numbers indicate the rated torque [N·m]

<sup>\*</sup>Please contact us regarding special arrangements for Other bore diameters.

#### **DRDA** Technical Data

#### **Precautions When Using**

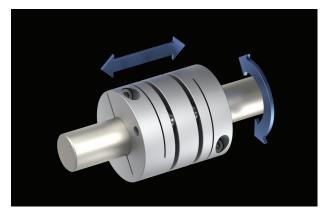
The concentricity of the left and right internal diameters of the coupling is precisely assembled using a dedicated jig. If strong impact is applied to the coupling from outside, assembly precision may not be maintained and there is a possibility of damage during use.

Please pay enough attention.

- (1) Operating environment Temperature range is -30°C ~+100°C. Although water resistance and oil resistance are available, use at extreme temperatures is a factor of deformation.
- (2) Since the disk is made of thin stainless steel plate, handle it carefully to avoid injury.
- (3) Do not tighten the clamp bolt before inserting the used Shaft.
- (4) Be careful of parallel, angular, and axial misalignment.

#### Mounting

- (1) Check that the clamping bolt is loosened and remove foreign matter, oil, etc. from the shaft and coupling inner surface. (Please clean the oil component using oil remover and use it.)
- (2) When inserting the coupling to the shaft, do not apply excessive force such as compression or tensile to the disk laminates.
  - Especially when the coupling is inserted on the motor side and then the coupling is inserted on the mating shaft, an excessive compressive force is applied Please note that.
- (3) With the clamping bolt loosened, check that the coupling smoothly moves in the axial and rotational directions. If it does not move smoothly, readjust the centering of the two axes.
- This method is recommended as a simple confirmation method of the left and right concentricity.
- However, Please check the degree of assembly by other methods. (Figure 1)
- (4) The relative use axis is a circular axis in principle, but if a key axis other than a circular axis is inevitably used, Please be careful.



▲ (Figure 1)





▲ Bad Mounting (Figure 2)

▲ Right Mounting (Figure 3)

Depending on the mounting position of the shaft, the coupling body may be damaged and the shaft gripping force may be lowered.

To meet the coupling performance, we recommend using it on a circular shaft. (Figure 2, 3)

- (5) The length at which the shaft is inserted into the coupling is the hub length of the coupling(L dimension). Also do not interfere with the disks, plate and other shaft
- (6) Check the operation of the force such as compression or tension in the axial direction and tighten the clamping bolt.

When tightening the clamp bolt, use a calibrated torque wrench to tighten within the specified torque range.

Therefore, calculate the allowable eccentricity value by the following formula, and adjust it so that it becomes less than the value.

#### **DRDA** Technical Data

**DRDA** Series

DRDA-A

DRDA-B

DRDA-BSP

#### **Checked for Design verification**

#### **Length specified Order Parts**

In the DRDA-BSP type, you can specify the full length to suit your needs.

Therefore, calculate the allowable eccentricity value by the following formula, and adjust it so that it becomes less than the value.

 $\varepsilon = \tan \theta \times LG$   $\varepsilon$ : Allowable parallel misalignment [mm]

 $\theta$ : Allowable angular deflection [°]

LG = LP + S LP : Length of Plate

S: Gap size between hub and Plate

#### The keyway machining

The keyway machining are available upon request. However, basically, because it is designed to transmit the torque by the frictional engagement by the clamp mechanism, the allowable torque of the coupling, Do not use it in excess.

Please also note the following points before using

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

#### Points to Consider Regarding the ball Screw System

When the total torsional frequency of the ball screw system is 400 to 500 Hz or less, depending on the gain adjustment of the servomotor.

The oscillation of the servo motor may occur.

The oscillation of the servomotor is mainly caused by the natural frequency of the whole ball screw system and the problem of the electric control system.

This problem is caused by adjusting the whole system such as torsional rigidity and inertia of coupling and feed screw, and by increasing the torsional natural frequencies of the mechanical system by the review in the design stage or by adjusting the electrical control tuning function(filter function) of the servo motor You have to adjust and avoid.



# DHDS Series DURI Hexagon Disk Steel Coupling

# Innovative Performance Advanced Technology of **DURI**

Highly rigid steel disk coupling for machine tools. High delivery torque and reliability. It has high torsional rigidity and flexible function. Strong against impact and temperature. High precision assembly is possible. Zero backlash.











# **DHDS**Series









#### STRUCTURE



#### **COUPLING COMBINATION SYSTEM**



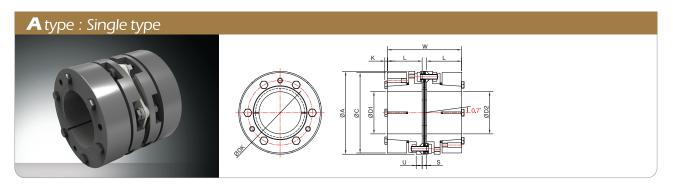
**DHDS** Series

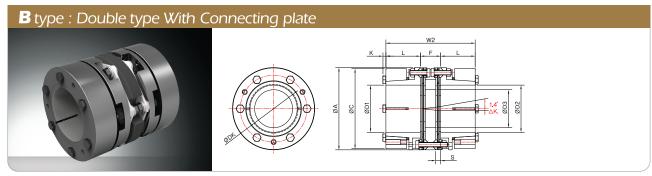
DHDS B hub

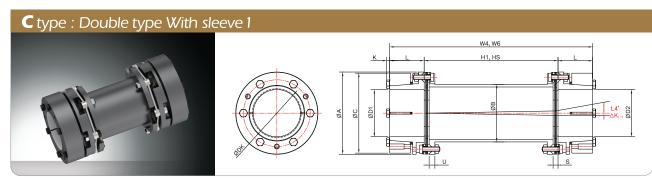
# DATE HIGH RIGIDITY DISK COUPLINGS FOR MACHINE TOOL

#### **DHDS A Hub** type

**DURI** Hexagon Disk Steel Coupling









#### ■ Order method (Example)

DHDS-143	A/B/C/CSP	Ø <b>80A</b>	Ø <b>80A</b>	W1400*)
Coupling-Size	Type	Bore : D1/Hub type	Bore : D2/Hub type	Length-Specified

<sup>\*</sup>Standard H7, Other Tolerances Possible. \*CSP type Only.

#### **■** Dimensions

Dimensi	0115																	unit (mm)
Product No.	D1 <sup>1)</sup> Min.	D2 <sup>1)</sup> Max.	D3	А	С	В	K	S	U	F	DK	L	H1	HS	W	W2	W4	W6
DHDS- 77	25	45	33	77	77	50	3.5	4.6	7	21.2	45	40	65		84.6	101.2	145	
DHDS- 89	32	52	41	89	82	60	3.5	5	7	22	55	45	75.6		95	112	165.6	
DHDS-104	40	60	46	104	100	70	3.5	6.1	8	26.2	65	50	91.4	Customer	106.1	126.2	191.4	Dependent on
DHDS-123	45	70	51	123	115	80	4	8	10	34	74	55	112.8	Specifications	118	144	222.8	HS
DHDS-143	55	90	66	143	143	100	5.5	8.6	10	35.2	88	60	133.2		128.6	155.2	253.2	
DHDS-167	65	100	76	167	162	110	5.5	9.2	12	40.4	103	70	135.2		149.2	180.4	275.2	

#### Specifications

					Permitted Mi	salignments5)			Spring Stiffness	
	Rated Torque <sup>2)</sup>	Max. Torque <sup>3)</sup>	Max. Speed4)	Axial <sup>6) 7)</sup>		Radial <sup>6)</sup>		Tors	ion <sup>11)</sup>	Angular
Product No.				Axiai	With Connecting Plate	With Sleeve 1	With Sleeve S	Disk Pack	Tube Sleeve S	Spring
	T <sub>KN</sub>	T <sub>KS</sub>	n <sub>max</sub>	$\triangle K_a$	$\triangle K_r$	$\triangle K_{rH}$	$\triangle K_{rH}$	$C_{TLP}$	C <sub>T H rel</sub>	Stiffness <sup>8)</sup>
	N∙m	N∙m	rpm	mm	mm	mm	mm	10 <sup>3</sup> N·m/rad	10 <sup>6</sup> N·m mm/rad	N·m/rad
DHDS- 77	300	450	13,600	0.8	0.2	0.7		180	19	285
DHDS- 89	420	630	11,800	0.9	0.2	0.8		290	34	305
DHDS-104	650	975	10,100	1.1	0.25	1	(HS-S)×0.0122	320	71	875
DHDS-123	1,100	1,650	8,500	1.3	0.3	1.25	(no-5) \ 0.0122	1,350	108	1,285
DHDS-143	1,600	2,400	7,300	1.5	0.3	1.45		1,900	217	2,025
DHDS-167	2,600	3,900	6,200	1.7	0.35	1.5		2,950	415	3,260

#### **■ Moment of Inertia and Mass**

			Moments	of Inertia					Ma	SS		
Product No.	Disk Pack <sup>9)</sup>	Hub <sup>10)</sup>	Connecting Plate	Sleeve 1	Sleeve S with HS=1000mm	Sleeve S per1000mm Tube	Disk Pack <sup>9)</sup>	Hub <sup>10)</sup>	Connecting Plate	Sleeve 1	Sleeve S with HS=1000mm	Sleeve S per1000mm Tube
	10 <sup>-3</sup> kgm <sup>2</sup>	kg	kg	kg	kg	kg	kg					
DHDS- 77	0.08	0.78	0.23	0.32	2.11	1.93	0.08	0.79	0.31	0.39	3.63	3.48
DHDS- 89	0.13	1.23	0.44	0.61	3.77	3.43	0.09	1.02	0.43	0.54	4.42	4.22
DHDS-104	0.30	2.88	0.95	1.38	7.81	7.12	0.16	1.71	0.68	0.93	6.82	6.51
DHDS-123	0.81	5.81	2.3	3.02	12.62	10.86	0.32	2.53	1.19	1.46	8.09	7.50
DHDS-143	1.36	13.77	4.6	6.1	24.98	21.86	0.39	3.92	1.96	2.04	10.22	9.47
DHDS-167	3.43	27.35	9.72	12.96	49.43	41.61	0.71	6.08	2.96	3.38	16.83	15.34

- 1) Transmittable torques dependent on bore. See p22.
- 2) Valid for changing Idirection as well as for max. permitted shaft misalignment.
- 3) Valid for unchanging load direction, max. load cycles  $\leq 10^5$ .
- 4) Not valid for coupling with sleeve S.
- 5) The permitted misalignments may not simultaneously reach their maximum values.
- 6) The values refer to couplings with 2 disk packs.
- 7) Only permitted as a static or virtually static value.
- 8) The values refer to 1 disk pack.
- 9) Moments of inertia and Mass are valid for 1 disk pack.
- 10) Moments of inertia and Mass are valid for max bore.
- 11) The  $C_{T tot.}$ -Value of a Double type Coupling can be roughly calculated as follows.  $\mathbf{C}_{T tot.}$  = HS[mm]-2 S[mm]

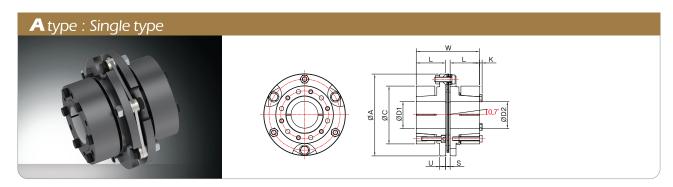
**DHDS** Series

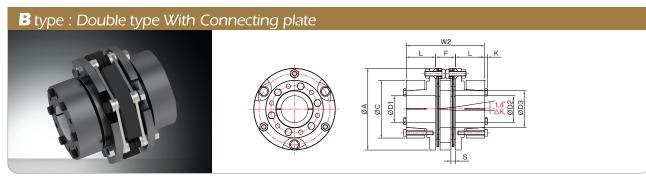
DHDS A hub

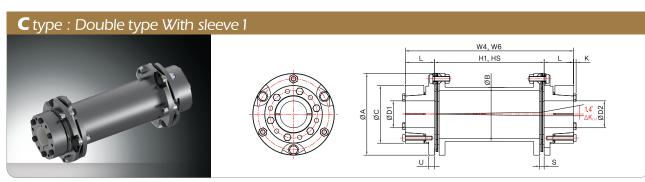
#### **DURI** Hexagon Disk Steel Coupling

#### **DHDS B Hub** type

\* It is available to fasten to inside and outside the hub.









#### ■ Order method (Example)

DHDS-143	A/B/C/CSP	Ø50B	Ø <b>50B</b>	W1400*)
Coupling-Size	Type	Bore : D1/Hub type	Bore : D2/Hub type	Length-Specified

<sup>\*</sup>Standard H7, Other Tolerances Possible. \*CSP type Only.

#### Dimensions

Billionoi	0110																unit (mm)
Product No.	D1 <sup>1)</sup>	D2 <sup>1)</sup>	А	D3	С	В	K	S	U	F	-	H1	HS	W	W2	W4	W6
Troubot No.	Min.	Max.	^	Б	U	U	, K	J	U			- '''	110	VV	VVZ	VV <del>T</del>	VVO
DHDS- 77	14	26	77	33	53	50	3.5	4.6	7	21.2	35	65		74.6	91.2	135	
DHDS- 89	20	36	89	41	64	60	3.5	5	7	22	40	75.6		85	102	155.6	
DHDS-104	25	45	104	46	74	70	3.5	6.1	8	26.2	45	91.4	Customer	96.1	116.2	181.4	Dependent on
DHDS-123	30	45	123	51	84	80	4	8	10	34	50	112.8	Specifications	108	134	212.8	HS
DHDS-143	35	55	143	66	104	100	5.5	8.6	10	35.2	55	133.2		118.6	145.2	243.2	
DHDS-167	40	65	167	76	118	110	5.5	9.2	12	40.4	60	135.2		129.2	160.4	255.2	

#### **DHDS** Series DHDS A hub DHDS B hub

#### Specifications

					Permitted Mi	salignments <sup>5)</sup>			Spring Stiffness	
	Rated Torque <sup>2)</sup>	Max. Torque <sup>3)</sup>	Max. Speed4)	Axial <sup>6) 7)</sup>		Radial <sup>6)</sup>		Tors	ion <sup>11)</sup>	Angular
Product No.				Axiai	With Connecting Plate	With Sleeve 1	With Sleeve S	Disk Pack	Tube Sleeve S	Spring
	T <sub>KN</sub>	T <sub>KS</sub>	n <sub>max</sub>	$\triangle K_a$	$\triangle K_r$	$\triangle K_{rH}$	$\triangle K_{rH}$	$C_{TLP}$	C <sub>T H rel</sub>	Stiffness <sup>8)</sup>
	N∙m	N∙m	rpm	mm	mm	mm	mm	10 <sup>3</sup> N·m/rad	10 <sup>6</sup> N·m mm/rad	N·m/rad
DHDS- 77	300	450	13,600	0.8	0.2	0.7		180	19	285
DHDS- 89	420	630	11,800	0.9	0.2	0.8		290	34	305
DHDS-104	650	975	10,100	1.1	0.25	1	(HS-S)×0.0122	320	71	875
DHDS-123	1,100	1,650	8,500	1.3	0.3	1.25	(110-0) ~ 0.0122	1,350	108	1,285
DHDS-143	1,600	2,400	7,300	1.5	0.3	1.45		1,900	217	2,025
DHDS-167	2,600	3,900	6,200	1.7	0.35	1.5		2,950	415	3,260

#### **■ Moment of Inertia and Mass**

			Moments	of Inertia					Ma	SS		
Product No.	Disk Pack <sup>9)</sup>	Hub <sup>10)</sup>	Connecting Plate	Sleeve 1	Sleeve S with HS=1000mm	Sleeve S per1000mm Tube	Disk Pack9)	Hub <sup>10)</sup>	Connecting Plate	Sleeve 1	Sleeve S with HS=1000mm	Sleeve S per1000mm Tube
	10 <sup>-3</sup> kgm²	10 <sup>-3</sup> kgm <sup>2</sup>	kg	kg	kg	kg	kg	kg				
DHDS- 77	0.08	0.27	0.23	0.32	2.11	1.93	0.08	0.49	0.31	0.39	3.63	3.48
DHDS- 89	0.13	0.57	0.44	0.61	3.77	3.43	0.09	0.71	0.43	0.54	4.42	4.22
DHDS-104	0.30	1.15	0.95	1.38	<i>7</i> .81	7.12	0.16	1.03	0.68	0.93	6.82	6.51
DHDS-123	0.81	2.46	2.3	3.02	12.62	10.86	0.32	1.71	1.19	1.46	8.09	7.50
DHDS-143	1.36	5.59	4.6	6.1	24.98	21.86	0.39	2.73	1.96	2.04	10.22	9.47
DHDS-167	3.43	11.14	9.72	12.96	49.43	41.61	0.71	3.99	2.96	3.38	16.83	15.34

- 1) Transmittable torques dependent on bore. See p22.
- 2) Valid for changing Idirection as well as for max. permitted shaft misalignment.
- 3) Valid for unchanging load direction, max. load cycles  $\leq 10^5$ .
- 4) Not valid for coupling with sleeve S.
- 5) The permitted misalignments may not simultaneously reach their maximum values.
- 6) The values refer to couplings with 2 disk packs.
- 7) Only permitted as a static or virtually static value.
- 8) The values refer to 1 disk pack.
- 9) Moments of inertia and Mass are valid for 1 disk pack.
- 10) Moments of inertia and Mass are valid for max bore.
- 11) The  $C_{T tot.}$ -Value of a Double type Coupling can be roughly calculated as follows.  $C_{T tot.}$  =

## **DHDS**-Series

#### **DURI** Hexagon Disk Steel Coupling

#### **DHDS** Technical Data

#### ■ Transmittable torque T<sub>R</sub> [N·m] of Hub Bore

Hub type	Product No.											Size										
nub type	Froduct No.	Ø <b>25</b>	Ø <b>28</b>	Ø <b>30</b>	Ø <b>32</b>	Ø35	Ø38	Ø40	Ø <b>42</b>	Ø <b>45</b>	Ø48	Ø <b>50</b>	Ø <b>52</b>	Ø <b>55</b>	Ø <b>60</b>	Ø <b>65</b>	Ø <b>70</b>	Ø <b>75</b>	Ø80	Ø <b>85</b>	Ø <b>90</b>	Ø100
	DHDS- 77	339	404	448	492	558	620	659	694	738												
(FF. B.	DHDS- 89				526	602	679	730	780	851	913	948	978									
	DHDS-104							873	937	1036	1132	1195	1255	1338	1454							
	DHDS-123									1268	1394	1480	1565	1691	1890	2065	2204					
Frictionally-Locking Transmittable torques	DHDS-143													2074	2366	2658	2943	3213	3458	3666	3828	
Suitable for H7/g6	DHDS-167															3246	3618	3991	4353	4695	5007	5497

ATTENTION! Please observe permitted peak torque for selected coupling size and type

Hub type	Product No.									Size								
пир туре	Product No.	Ø14	Ø16	Ø <b>20</b>	Ø <b>22</b>	Ø <b>25</b>	Ø <b>28</b>	Ø30	Ø32	Ø35	Ø38	Ø40	Ø <b>42</b>	Ø <b>45</b>	Ø <b>50</b>	Ø55	Ø <b>60</b>	Ø <b>65</b>
761	DHDS- 77	158	186	240	369	312												
Hill	DHDS- 89			283	320	375	428	468	509	568								
A HA	DHDS-104					429	495	546	600	669	741	796	852	932				
	DHDS-123							704	769	863	960	1031	1104	1206				
Frictionally-Locking Transmittable torques	DHDS-143									1057	1176	1269	1366	1500	1692	1889		
Suitable for H7/g6	DHDS-167											1783	1919	2107	2400	2680	2967	3263

**ATTENTION!** Please observe permitted peak torque for selected coupling size and type



# DJC/DJCS/DRJT Series DURI High Rigidity Jaw Couplings for Machine Tool

#### **Innovative Performance Advanced** Technology of **DURI**

The Flexible coupling of jaw type.

A Highly stiffness jaw coupling for machine tool.

It is optimal for machine tool spindle and conveying axis.

High torque transmission coupling balancing is excellent. (DRJT)

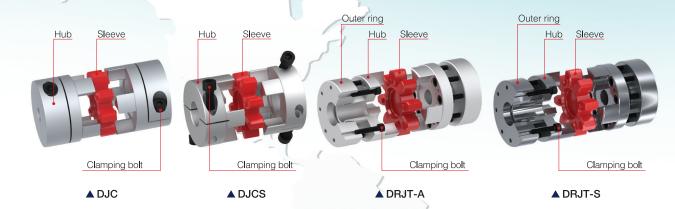
The Material is aluminum alloy with high stiffness, so inertia moment is low.

The Inertia moment is low, it is ideal for high speed rotation.

The Vibration occurred by eccentricity or declination when rotation is absorbed by sleeve. Backlash is zero.



#### **STRUCTURE & MATERIAL**



#### **DJC**

Hub material: High-Strength aluminum alloy Hub Surface treatment : Alumite Clamping bolt material: SCM440 Sleeve material: Polyurethane

#### DRJT-A

Hub & Outer ring material: High-Strength aluminum alloy Hub & Outer ring surface treatment : Alumite

Clamping bolt material: SCM440 Sleeve material: Polyurethane

#### **IDJCS**

Hub material: High-Strength aluminum alloy Hub Surface treatment : Alumite Clamping bolt material: SCM440 Sleeve material: Polyurethane

#### DRJT-S

Hub & Outer ring material : High-Strength steel

Clamping bolt material: SCM440 Sleeve material: Polyurethane

#### **■ SLEEVE**

SLLLVL						
Sleeve Type	Standard type	Through type	Hardness (Shore)	Material	Operating Temperature (°C)	Features
RD		*	98-A	Polyurethane	-30~+90	High torque, High response
YL	**	*	92-A	Polyurethane	-30~+90	Balance type of flexibility and responsiveness
GR	*	*	64-D	Hytrel	-50~+120	High response, High load, Heat resistance

#### **APPLICATION**

Machine tool, Hydraulic equipment, Pumps, Fans, Conveyors, Packing machine.

DJC

DJCS

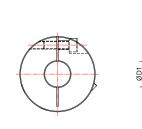
DRJT-A DRJT-S

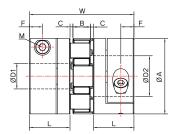
## DJCS (Aluminum)

#### **DURI** Jaw-type Flexible Coupling

#### **DJC**(Aluminum)







#### **■ Dimensions/Specifications**

				imono	sion(mm)				Clampi	ng bolt			Torque	May Coood	Moment of Inertia	Torsional	Mis	alignme	ents	Mass
Product No.			L		SIOTI (IIIIII)				Size	Torque	Sleeve	Rated. Torque	Max. Torque	імах. әреец	WOTHER OF THE LIA	Stiffness	Parallel	Angular	Axial	IVIdSS
	D1(Min)	D2(Max)	Α	L	W	В	С	F	M	N∙m	3,00	N∙m	N∙m	min <sup>-1</sup>	kg∙m²	N·m/rad	mm	0	mm	kg
DJC- 40CA	8	20	40	25	66	12	2	11.0	M6	10.5	RD	21	42	9,550	3.9×10 <sup>-5</sup>	1,512	0.06	0.9	+ 1.2 - 0.5	0.160
DJC- 55CA	10	28	55	30	78	14	2	10.5	M6	10.5	RD	60	120	6,950	1.6×10 <sup>-4</sup>	3,640	0.10	0.9	+ 1.4 - 0.5	0.330
DJC- 65CA	14	38	65	35	90	15	2.5	11.5	M8	25	RD	160	320	5,850	3.6×10 <sup>-4</sup>	6,410	0.11	0.9	+ 1.5 - 0.7	0.515
DJC- 80CA	15	45	80	45	114	18	3	15.5	M8	25	RD	325	650	4,750	1.1×10 <sup>-3</sup>	11,800	0.12	0.9	+ 1.8 - 0.7	1.050
DJC- 95CA	20	50	95	50	126	20	3	18	M10	49	RD	450	900	4,000	2.3×10 <sup>-3</sup>	21,594	0.14	0.9	+ 2.0 - 1.0	1.600
DJC-100CA	25	55	104	56	140	21	3.5	21	M12	86	RD	525	1,050	3,600	4.6×10 <sup>-3</sup>	25,759	0.16	0.9	+ 2.1	2.550

<sup>\*</sup>Max. Speed does not take into account dynamic balance.

#### **■ Standard Bore Diameter**

Product No.									9	Standa	rd bore	e diam	eter D	1, D2(m	m)								
Froduct No.	8	10	11	14	15	16	18	19	20	22	24	25	28	30	32	35	38	40	42	45	48	50	55
DJC- 40CA	•	•	•	•	•	•	•	•	•														
DJC- 55CA		•	•	•	•	•	•	•	•	•	•	•	•										
DJC- 65CA				•	•	•	•	•	•	•	•	•	•	•	•	•	•						
DJC- 80CA					•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•			
DJC- 95CA									•	•	•	•	•	•	•	•	•	•	•	•	•	•	
DJC-100CA												•	•	•	•	•	•	•	•	•	•	•	•

<sup>\*</sup>Bore diameters marked with • are Supported as the Standard bore diameters.

#### ■ Order method (Example)

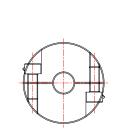
DJC-65	RD	CA	CA	Ø <b>20</b>	Ø <b>25</b>
Coupling-Size	Sleeve type	Hub type : D1 side	Hub type : D2 side	Bore : D1	Bore : D2

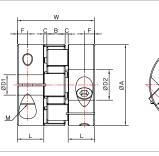
<sup>\*</sup>Supported Shaft Tolerance/h7

#### **DJCS**(Aluminum)

\*Jaw type coupling which the length is short









#### **■ Dimensions/Specifications**

				Dimone	ion(mm)				Clampi	ng bolt			Torque	11 0 1	Moment of Inertia	Torsional	Mis	alignme	nts	Mass
Product No.				פווטוווע	ion (iiiii)				Size	Torque	Sleeve	Rated. Torque	Max. Torque	Max. Speeu	WOMENLOI MENIA	Stiffness	Parallel	Angular	Axial	IVIdSS
	D1(Min)	D2(Max)	Α	L	W	В	С	F	M	N·m	31.	N·m	N∙m	min <sup>-1</sup>	kg·m²	N·m/rad	mm	0	mm	kg
DJCS-55CD	10	32	55	18	54	14	2	7	M6	10	RD	60	120	10,400	1.3 ×10 <sup>-4</sup>	3,640	0.10	0.9	+ 1.4 - 0.5	0.280
DJCS-65CD	14	35	65	21	62	15	2.5	9	M8	25	RD	160	320	8,800	2.6 ×10 <sup>-4</sup>	6,410	0.11	0.9	+ 1.5 - 0.7	0.400
DJCS-80CD	15	45	80	26	76	18	3	10	M10	49	RD	325	650	7,150	7.04×10 <sup>-4</sup>	11,800	0.12	0.9	+ 1.8 - 0.7	0.680

<sup>\*</sup>Max. Speed does not take into account dynamic balance.

Standar	d Bo	ore C	)iam	eter															
Product No.								Stand	dard boi	e diame	ter D1, [	)2(mm)							
r roudet ivo.	10	11	12	14	15	16	18	19	20	24	25	28	30	32	35	38	40	42	45
DJCS-55CD	•	•	•	•	•	•	•	•	•	•	•	•	•	•					
DJCS-65CD				•	•	•	•	•	•	•	•	•	•	•	•				
DJCS-80CD					•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

<sup>\*</sup>Bore diameters marked with ● are Supported as the Standard bore diameters.

\*The moment of Inertia and Mass are measured for the Maximum bore diameter.

#### **■ Order method (Example)**

DJCS-55	RD	CD	CD	Ø <b>20</b>	Ø <b>25</b>
Coupling-Size	Sleeve type	Hub type : D1 side	Hub type : D2 side	Bore : D1	Bore : D2

<sup>\*</sup>Supported Shaft Tolerance/h7

DJCS

DRJT-A **DRJT-S** 

<sup>\*</sup>The moment of Inertia and Mass are measured for the Maximum bore diameter.

<sup>\*</sup>Please contact us Regarding special arrangements for Other bore diameters.

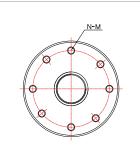
<sup>\*</sup>Please contact us Regarding special arrangements for Other bore diameters.

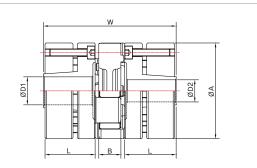
**DRJT-S**(Steel)

#### **DURI** Jaw Taper-type Flexible Coupling

#### **DRJT-A**(Aluminum)







#### **■ Dimensions/Specifications**

			Dimon	ısion(mı	m)		Cla	amping	bolt		Sleeve	Torque	May Chard	Moment of Inertia	Torsional	Mi	salignm	ents	Mass
Product No.			Dilliel	151011(1111	11)		Size	Torque	Quantity	Sleeve	Rated Torque	Max. Torque	імах. эреец	MONIENT OF METLIA	Stiffness	Parallel	Angular	Axial	IVId55
	D1(Min)	D2(Max)	Α	L	W	В	M	N·m	N	1)   0	N∙m	N∙m	min <sup>-1</sup>	kg·m²	N·m/rad	mm	0	mm	kg
DRJT- 30A	6	14	30	18.5	50	10	МЗ	1.34	4	RD	12.5	25	32,000	0.85×10 <sup>-5</sup>	1 <i>7</i> 1.9	0.09	0.9	+1.0 -0.5	0.069
DRJT- 40A	10	20	40	25	66	12	M4	3	6	RD	21	42	24,000	3.94×10 <sup>-5</sup>	1,512	0.06	0.9	+1.2 -0.5	0.161
DRJT- 55A	14	28	55	30	78	14	M5	6	4	RD	60	120	17,000	1.63×10 <sup>-4</sup>	3,640	0.10	0.9	+1.4 -0.5	0.344
DRJT- 65A	16	38	65	35	90	15	M5	6	8	RD	160	320	15,000	3.55×10 <sup>-4</sup>	6,410	0.11	0.9	+1.5 -0.7	0.510
DRJT- 80A	20	48	80	45	114	18	M6	10	8	RD	325	650	12,000	1.07×10 <sup>-3</sup>	11,800	0.12	0.9	+1.8 -0.7	1.030
DRJT- 95A	28	50	95	50	126	20	M8	25	4	RD	450	900	10,000	2.32×10 <sup>-3</sup>	21,594	0.14	0.9	+ 2.0 - 1.0	1.630
DRJT-100A	30	55	104	56	140	21	M10	49	4	RD	525	1,050	9,100	3.90×10 <sup>-3</sup>	25,759	0.16	0.9	+ 2.0 - 1.0	2.222

<sup>\*</sup>Max. Speed does not take into account dynamic balance.

#### **■ Standard Bore Diameter**

Product No.									S	tandar	d bore	diame	ter D1	, D2(m	ım)								
Product No.	6	8	9	10	11	14	15	16	19	20	24	25	28	30	32	35	38	40	42	45	48	50	55
DRJT- 30A	•	•	•	•	•	•																	
DRJT- 40A				•	•	•	•	•	•	•													
DRJT- 55A						•	•	•	•	•	•	•	•										
DRJT- 65A								•	•	•	•	•	•	•	•	•	•						
DRJT- 80A										•	•	•	•	•	•	•	•	•	•	•	•		
DRJT- 95A													•	•	•	•	•	•	•	•	•	•	
DRJT-100A														•	•	•	•	•	•	•	•	•	•

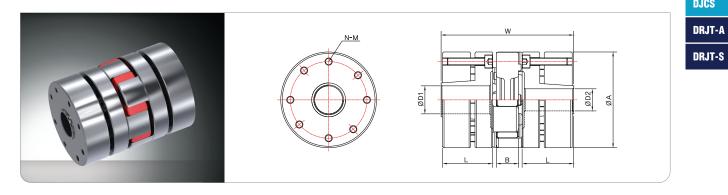
<sup>\*</sup>Bore diameters marked with ● are Supported as the Standard bore diameters.

#### ■ Order method (Example)

DRJT-65	A	RD	Ø <b>20</b>	Ø <b>25</b>
Coupling-Size	Material : Aluminum	Sleeve type	Bore : D1	Bore : D2

<sup>\*</sup>Supported Shaft Tolerance/h7

#### **DRJT-S**(Steel)



#### **■ Dimensions/Specifications**

			Dimen	cion/m	m)		Cla	mping	bolt			Torque	May Coood	Moment of Inertia	Torsional	Mi	salignme	nts	Mass
Product No.			וווופוו	SIUIT(IIII	11)		Size	Torque	Quantity	Sleeve	Rated Torque	Max. Torque	імах. эреси	INIOITICITE OF ITICITIA	Stiffness	Parallel	Angular	Axial	IVIASS
	D1(Min)	$D2(\hbox{Max})$	Α	L	W	В	M	N∙m	N	21-	N∙m	N·m	min <sup>-1</sup>	kg·m²	N·m/rad	mm	0	mm	kg
DRJT- 40S	10	20	40	25	66	12	M4	4.1	6	RD	21	42	35,800	8.94×10 <sup>-5</sup>	1,512	0.06	0.9	+ 1.2 - 0.5	0.365
DRJT- 55S	14	28	55	30	78	14	M5	8.5	4	RD	60	120	26,000	3.89×10 <sup>-4</sup>	3,640	0.10	0.9	+ 1.4 - 0.5	0.518
DRJT- 65S	15	38	65	35	90	15	M5	8.5	8	RD	160	320	22,000	8.50×10 <sup>-4</sup>	6,410	0.11	0.9	+ 1.5 - 0.7	1.154
DRJT- 80S	20	45	80	45	114	18	M6	14	8	RD	325	650	17,900	2.62×10 <sup>-3</sup>	11,800	0.12	0.9	+ 1.8 - 0.7	2.500
DRJT- 95S	25	50	95	50	126	20	M8	35	4	RD	450	900	15,000	6.43×10 <sup>-3</sup>	21,594	0.14	0.9	+ 2.0 - 1.0	4.680
DRJT-100S	30	55	104	56	140	21	M10	69	4	RD	525	1,050	13,600	10.54×10 <sup>-3</sup>	25,759	0.16	0.9	+ 2.1 - 1.0	6.200

<sup>\*</sup> Max. Speed does not take into account dynamic balance.

#### **■ Standard Bore Diameter**

Product No.								St	andard	bore dia	ameter I	D1, D2(	mm)							
Troudet No.	10	11	14	15	16	19	20	24	25	28	30	32	35	38	40	42	45	48	50	55
DRJT- 40S	•	•	•	•	•	•	•													
DRJT- 55S			•	•	•	•	•	•	•	•										
DRJT- 65S				•	•	•	•	•	•	•	•	•	•	•						
DRJT- 80S							•	•	•	•	•	•	•	•	•	•	•			
DRJT- 95S									•	•	•	•	•	•	•	•	•	•	•	
DRJT-100S											•	•	•	•	•	•	•	•	•	•

<sup>\*</sup>Bore diameters marked with ● are Supported as the Standard bore diameters.

#### **■** Order method (Example)

DRJT-65	S	RD	Ø <b>20</b>	Ø <b>25</b>
Coupling-Size	Material : Steel	Sleeve type	Bore : D1	Bore : D2

<sup>\*</sup>Supported Shaft Tolerance/h7

DJC/DJCS/DRJT Series

DJCS

<sup>\*</sup>The moment of Inertia and Mass are measured for the Maximum bore diameter.

<sup>\*</sup>Please contact us Regarding special arrangements for Other bore diameters.

<sup>\*</sup>The moment of Inertia and Mass are measured for the Maximum bore diameter.

<sup>\*</sup>Please contact us Regarding special arrangements for Other bore diameters.

### DJC/DJCS/DRJT Series

**DURI** High Rigidity Jaw Couplings for Machine Tool

#### **DJC/DJCS/DRJT** Technical Data

#### **Precautions When Using**

DJC/DJCS/DRJT Couplings Be aware in their handling that their allowable values and points of caution are not the same.

- (1) Although sleeves are designed to be oilproof, do not subject them to excessive amounts of oil as it may cause deterioration. Use and storage in direct sunlight may shorten Sleeve service life, so cover Sleeve appropriately.
- (2) Do not tighten up clamping bolts until after inserting the mounting shaft.

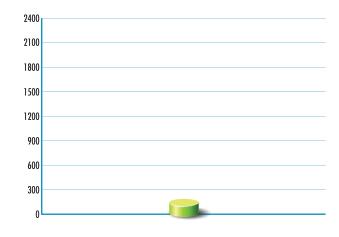
#### Mounting

- (1) Remove any rust, dust, oil or the like from the inner surfaces of the shaft and coupling.
  - Be particularly careful to degrease to fully remove any grease, oil, or the like that is molybdenum disulfide based or contains extremepressure additives that strongly affect coefficients of friction.

- (2) Insert and mount the shaft far enough so that the paired mounting shafts touch the entire length of the clamping hub of the coupling (dimensions chart L), and does not interfere with the sleeves or the other shaft.
- (3) To get full coupling performance, mount couplings so that differences between coupling centers during operation are within the misalignment shown in the specifications table.
  - However, this misalignment is the maximum value when each occurs independently, so make the allowable value when they combine 50% or less of this value.
- (4) Check centering by holding a straight-edge to the outer circumference of the main body, using two points about
- The centering precision has a major impact on the service life of the sleeve.
- We recommend aligning the centering locations as the method for centering the two shafts.
- (5) Clamping bolts to the tightening torques shown below using a calibrated torque wrench.
- (6) Do not use clamping bolt other than those specified by

#### **DRJT** Balancing test

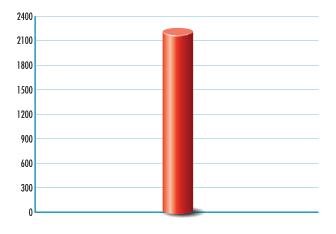
	unit (mg)
Product No.	Result
DRJT-65ARD_28×28	163
*Measuring instrument : Ralancing measuri	na instrument held by us



#### **DJC Balancing test**

	unit (mg)
Product No.	Result
DJC-65RD_CA×CA_28×28	2197

\* Measuring instrument: Balancing measuring instrument held by us.



# APPLICATION High Rigidity Jaw Couplings for Machine Tool

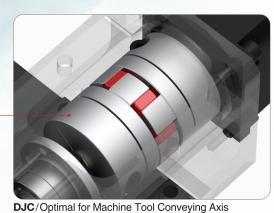








**DRJT/Optimal for Machine Tool Spindle** 





**DJCS/Optimal for Machine Tool Conveying Axis** 

DJCS

DRJT-A

DRJT-S