





Disc Couplings

High Rigidity (O.D. 87), Keywayed Bore / Clamping

 The stainless discs of this product have sharp edges that may cause injuries.
Use of thick protective gloves is recommended.

For Servo Motors

■ **Features:** The keywayed bore type covers high torque of up to 180N · m.

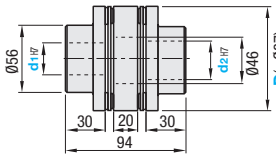


Type		Disc Type	Main Body		Disc	Accessory
Both Sides Keywayed Bore	Both Sides Clamping		Material	Surface Treatment	Material	
CPSWWK	CPSWC	Double	EN 1.1191	-	EN 1.4310	Clamp Screw
CPSHWK	-	Single	Equiv.		Equiv.	Set Screw

⚠ Tolerances for d1 and d2 are values before slit machining.
⚠ Shipped after center-aligned and assembled.

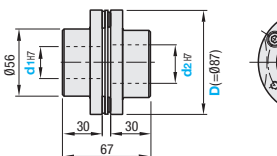
■ **Both Sides Keywayed Bore**

CPSWWK (Double Disc)



* The keyways on the right and left sides are 90° offset.

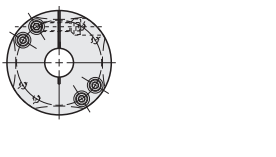
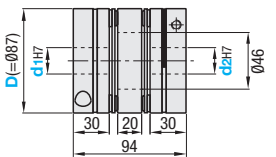
CPSHWK (Single Disc)



* The keyways on the right and left sides face the same direction.

■ **Both Sides Clamping**

CPSWC (Double Disc)



Part Number		D	d1, d2 Selection	Clamp Screw		Allowable Torque (N · m)	Angular Misalignment (°)	Lateral Misalignment (mm)	Static Torsional Spring Constant (N · m/rad)	Max. Rotational Speed (r/min)	Moment of Inertia (kg · m²)	Allowable Axial Misalignment (mm)	Compensation Factor	Mass (kg)	Unit Price
Type				Size	Tightening Torque (N · m)										
Double Disc Type Both Sides Keywayed Bore CPSWWK	87	20 22 24 25 30 35	M8x25	28	180	0.6	0.2	140000	6000	1.94x10 ⁻³	±1.0	1.5	1.9		
Double Disc Type Both Sides Clamping CPSWC															

⚠ The coupling with Ø35mm bore diameter conforms to servo ^{+0.01}₀ motor shaft tolerance of 35mm.

Part Number		D	d1, d2 Selection	Clamp Screw		Allowable Torque (N · m)	Angular Misalignment (°)	Static Torsional Spring Constant (N · m/rad)	Max. Rotational Speed (r/min)	Moment of Inertia (kg · m²)	Allowable Axial Misalignment (mm)	Compensation Factor	Mass (kg)	Unit Price
Type				Size	Tightening Torque (N · m)									
Single Disc Type Both Sides Keywayed Bore CPSHWK	87	20 22 24 25 30 35	M8x25	28	180	0.6		330000	6000	1.11x10 ⁻³	±0.5	1.5	1.3	

⚠ The coupling with Ø35mm bore diameter conforms to servo ^{+0.01}₀ motor shaft tolerance of 35mm.

⚠ The lateral, angular, and axial misalignment values shown are for each occurring individually. When multiple misalignments are occurring simultaneously, the allowable maximum value of each will be reduced to 1/2.

⚠ For the selection criteria and alignment procedures, see **P.1061**

 Ordering Example

Part Number - Shaft Bore Dia. d1 - Shaft Bore Dia. d2
CPSWC65 - 20 - 30

Shaft Bore Dia. d1, d2	b		t		Key Nominal Dim. b×h	Set Screw	
	Reference Dia.	Tolerance	Reference Dia.	Tolerance		Size	Tightening Torque (N · m)
20, 22	6	±0.015	2.8	+0.1 0	6x6	M5	4
24, 25, 30	8	±0.018	3.3	+0.2	8x7	M6	7
35	10	±0.018	3.3	0	10x8	M8	15

• Cautions on Installations

- Do not tighten the locking screws before inserting shafts into coupling. (Tightening the lock screws with empty bores will cause bushing distortion.)
- Use a torque wrench to tighten the locking screws.
- Never use screws other than included for the locking screws.

• Removal

- Ensure that the machine has completely stopped before starting work.
- Loosen the locking screws sequentially in a circumferential order.
- Insert screws into removal screws holes and tighten evenly.
- Repeat the installation procedure for re-installation.




• Installation

- Wipe the shaft surface clean and apply a thin layer of oil or grease. (Do not use oils or greases containing Molybdenum Sulfide.)
- Wipe clean the contacting inner bores of the coupling, as well as the screw and seating surfaces of the locking screws.
- Insert the shaft into the coupling. (Please do not tighten keyless clamping flange to the bolt before inserting the shaft.)
- After locating, tighten the locking screws using a torque wrench in the diagonal order, beginning lightly (approx. 1/4 of the predetermined tightening torque).
- Tighten the screws to higher torque (Approx. 1/2 of specified max.)
- Tighten the screws to the specified max. torque.
- Finally, tighten the screws in a circumferential order.




Disc Couplings

High Rigidity (O.D. 87), Keyless Clamping

 The stainless discs of this product have sharp edges that may cause injuries.
Use of thick protective gloves is recommended.

For Servo Motors

■ **Features:** The Keyless Clamping Type covers high torque of up to 250N · m.

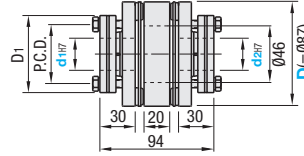


Type		Disc Type	Main Body		Disc	Accessory
Both Sides Keyless Clamping	One Side Keyless Clamping, One Side Keywayed Bore		Material	Surface Treatment	Material	
CPSWN	CPSWMK	Double	EN 1.1191	-	EN 1.4310	Locking Screw
CPSHN	CPSHMK	Single	Equiv.		Equiv.	Set Screw

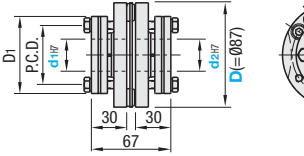
⚠ Tolerances for d1 and d2 are values before slit machining.
⚠ Shipped after center-aligned and assembled.
⚠ The locking screw holes have integrated removal screw holes on the keyless clamping flange. Use M8 screws into the screw holes for removal.
For installation and removal of Keyless Clamping Type couplings, see **P.1079**

■ **Both Sides Keyless Clamping**

CPSWN (Double Disc)

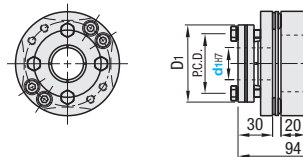


CPSHN (Single Disc)

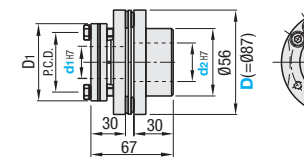


■ **One Side Keyless Clamping, One Side Keywayed Bore**

CPSWMK (Double Disc)



CPSHMK (Single Disc)



Part Number		D	d1, d2 Selection (Keyless Clamping)	d2 Selection (Keywayed Bore)	d1,d2	D1	P.C.D.	Locking Screw		Unit Price	
Type								Size	Tightening Torque (N · m)	CPSWN	CPSWMK
Double Disc Type, Both Sides Keyless Clamping CPSWN	87	25 30 35 38 40 45	20 22 24 25 30 35		25	62	50	M6x30	13.7		
					30	66	54				
Double Disc Type One Side Keyless Clamping, One Side Keywayed Bore CPSWMK					35	68	54				
					38~45	78	64				

⚠ The coupling with Ø35mm bore diameter conforms to servo ^{+0.01}₀ motor shaft tolerance of 35mm.

Part Number		D	d1, d2 Selection (Keyless Clamping)	d2 Selection (Keywayed Bore)	d1,d2	D1	P.C.D.	Locking Screw		Unit Price	
Type								Size	Tightening Torque (N · m)	CPSHN	CPSHMK
Single Disc Type Both Sides Keyless Clamping CPSHN	87	25 30 35 38 40 45	20 22 24 25 30 35		25	62	50	M6x30	13.7		
					30	66	54				
Single Disc Type One Side Keyless Clamping, One Side Keywayed Bore CPSHMK					35	68	54				
					38~45	78	64				

⚠ The coupling with Ø35mm bore diameter conforms to servo ^{+0.01}₀ motor shaft tolerance of 35mm.

■ Characteristic Values

• Double Disc Type

Part Number	D	d1,d2	Allowable Torque (N · m)	Angular Misalignment (°)	Lateral Misalignment (mm)	Static Torsional Spring Constant (N · m/rad)	Max. Rotational Speed (r/min)	Moment of Inertia (kg · m²)	Allowable Axial Misalignment (mm)	Compensation Factor	Mass (kg)
Type											
CPSWN	87	25	200	0.6	0.2	140000	6000	2.49x10 ⁻³	±1.0	1.5	2.3
		30, 35, 38 40, 45	250								
CPSWMK		20~45	180					2.22x10 ⁻³			2.1

⚠ Static torsional spring constant, inertia moment, and mass values are for cases of maximum shaft diameter.

⚠ The lateral, angular, and axial misalignment values shown are for each occurring individually. When multiple misalignments are occurring simultaneously, the allowable maximum value of each will be reduced to 1/2.

⚠ For the selection criteria and alignment procedures, see **P.1061**

 Ordering Example

Part Number - Shaft Bore Dia. d1 - Shaft Bore Dia. d2
CPSWN65 - 35 - 20

• Single Disc Type

Part Number	D	d1,d2	Allowable Torque (N · m)	Angular Misalignment (°)	Static Torsional Spring Constant (N · m/rad)	Max. Rotational Speed (r/min)	Moment of Inertia (kg · m²)	Allowable Axial Misalignment (mm)	Compensation Factor	Mass (kg)
Type										
CPSHN	87	25	200	0.6	330000	6000	1.68x10 ⁻³	±0.5	1.5	1.6
		30, 35, 38 40, 45	250				1.40x10 ⁻³			
CPSHMK		20~45	180							1.5

⚠ Single Disc Type cannot tolerate lateral misalignment.

Shaft Bore Dia. d1, d2	b		t		Key Nominal Dim. b×h	Set Screw	
	Reference Dia.	Tolerance	Reference Dia.	Tolerance		Size	Tightening Torque (N · m)
20, 22	6	±0.015	2.8	+0.1 0	6x6	M5	4
24, 25, 30	8	±0.018	3.3	+0.2	8x7	M6	7
35	10	±0.018	3.3	0	10x8	M8	15