

Couplings

Slit Clamping / Short Clamping

For higher torque capacities, see Disc Type. P.1094-1105

Couplings – Slit Clamping

Couplings – Short Clamping

CPLCN
(Aluminum – Standard)

CPLSC
(Stainless Steel – Standard Type)

CPSCN
(Aluminum – Short)

CPSSC
(Stainless Steel – Short Type)

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

Tolerance values for d₁, d₂, are applied before slit is machined.

For the selection criteria and alignment procedures, see P.1091, 1093.

CPLSC and CPSSC in have 1 clamping screw for D12-13.

Type	Material	Surface Treatment	Accessories
CPLCN, CPSCN	Aluminum Alloy	Clear Anodize	Hex Socket Head Cap Screw
CPLSC, CPSSC	Stainless Steel	—	—

*d₁, d₂ Identical Diameter = d₁ + 0.5
d₁, d₂ Different Diameters = Large Shaft Diameter + 0.5

Part Number	Type	D	d ₁	d ₂	L		ℓ		M (Coarse)	A	F		Slip Torque (N·m)						
					CPLCN	CPSCN	CPLSC	CPSSC			CPLCN	CPSCN	CPLSC	CPSSC					
12	CPLCN (Aluminum)	12	*4	*4	*5	18.5	14	5	5.2	M2	4	2.5	2.6	—	—				
																*5	*5	—	—
																*6	*6		
																*8	*8		
16	CPLCN (Aluminum)	16	*5	*6	23	18	6.5	6.8	M2.5	5	3.25	3.4	—	—					
															*6	*6	—	—	
															*8	*8			
															*10	*10			
20	CPLCN (Aluminum)	20	*6	*8	26	20	7.5	7.65	M2.5	6.5	3.75	3.8	—	—					
															*8	*8	—	—	
															*10	*10			
															*12	*12			
25	CPLSC (Stainless Steel)	25	*6	*8	31	25	8.5	9.6	M3	9	4.25	4.8	0.7	1.2					
															*8	*8	—	—	
															*10	*10			
															*12	*12			
32	CPSCN (Aluminum)	32	*8	*10	41	32	12	12.6	M4	11	6	6.3	1.2	1.9					
															*10	*10	—	—	
															*12	*12			
															*14	*14			
40	CPSSC (Stainless Steel)	40	*10	*12	56	—	17	—	M5	14	8.5	—	2.1	2.4					
															*12	*12	—	—	
															*14	*14			
															*16	*16			

CPSCN and CPSSC are not available for D40. CPSCN and CPSSC are available in * marked sizes only. When slip torque is less than the allowable torque, use within slip torque.

Part Number	Type	D	Allow. Torque (N-m)	Max Rotational Speed (r/min)	Moment of Inertia (Kg-m ²)	Static Torsional Spring Constant (N-m/rad)	Lateral Misalign. (mm)	Angular Misalign. (°)	Allow. Axial Misalign. (mm)	Screw Tightening Torque (N-m)	Mass (g)
12	CPLCN (Alum.)	12	0.4	52000	7.8 x 10 ⁻⁴	45	0.10	2	±0.3	0.5	3.6
16		0.5	39000	3.4 x 10 ⁻⁷	80	±0.4			1	9.2	
20		1	31000	9.1 x 10 ⁻⁷	170	±0.5			1.5	28	
25		2	25000	2.6 x 10 ⁻⁶	380	±0.5			2.5	64	
32		4	19000	9.7 x 10 ⁻⁶	500	±0.5			4	140	

Part Number	Type	D	Allowable Torque (N-m)	Max Rotational Speed (r/min)	Moment of Inertia (Kg-m ²)	Static Torsional Spring Constant (N-m/rad)	Angular Misalign. (°)	Allowable Axial Misalign. (mm)	Screw Tightening Torque (N-m)	Mass (g)
12	CPSCN (Alum.)	12	0.4	52000	6.4 x 10 ⁻⁶	80	1	±0.1	0.5	3
16		0.5	39000	2.9 x 10 ⁻⁷	180	±0.2		1	8	
20		1	31000	7.5 x 10 ⁻⁷	200	±0.2		1.5	25	
25		2	25000	2.3 x 10 ⁻⁶	780	±0.2		2.5	53	
32		4	19000	8.1 x 10 ⁻⁶	1100	±0.2		2.5	53	

CPSCN does not allow eccentricity.

Part Number	Type	D	Allow. Torque (N-m)	Max Rotational Speed (r/min)	Moment of Inertia (Kg-m ²)	Static Torsional Spring Constant (N-m/rad)	Lateral Misalign. (mm)	Angular Misalign. (°)	Allow. Axial Misalign. (mm)	Screw Tightening Torque (N-m)	Mass (g)
12	CPLSC (Stainless Steel)	12	0.3	52000	2.2 x 10 ⁻⁷	64	0.10	2	±0.2	0.5	10
16		0.5	39000	9.0 x 10 ⁻⁷	85	±0.3			1	25	
20		1	31000	2.5 x 10 ⁻⁶	250	±0.4			1.5	78	
25		2	25000	7.1 x 10 ⁻⁶	330	±0.4			2.5	170	
32		3.5	19000	2.7 x 10 ⁻⁵	850	±0.5			4	370	

Part Number	Type	D	Allowable Torque (N-m)	Max Rotational Speed (r/min)	Moment of Inertia (Kg-m ²)	Static Torsional Spring Constant (N-m/rad)	Angular Misalign. (°)	Allowable Axial Misalign. (mm)	Screw Tightening Torque (N-m)	Mass (g)
12	CPSSC (Stainless Steel)	12	0.3	52000	1.8 x 10 ⁻⁷	140	1	±0.1	0.5	8.5
16		0.5	39000	7.8 x 10 ⁻⁷	240	±0.1		1	21	
20		1	31000	2.1 x 10 ⁻⁶	330	±0.1		1.5	69	
25		2	25000	6.3 x 10 ⁻⁶	720	±0.2		2.5	150	
32		3.5	19000	2.2 x 10 ⁻⁵	1300	±0.2		2.5	150	

CPSSC does not allow eccentricity.

Part Number Example: CPLCN25 - 8 - 10

Couplings

Rigid Set Screw / Rigid Clamping

The Rigid Type cannot tolerate any lateral and angular misalignments. Adequate centering is required before use.

Couplings – Rigid Set Screw

CPR (Aluminum)
CPRS (Stainless Steel)

When d₁ and d₂ are 3 and 4, k=0.05

For the selection criteria and alignment procedures, see P.1091, 1093.

Type	Material	Surface Treatment	Accessories
CPR	Aluminum Alloy	Clear Anodize	Set Screw
CPRS	Stainless Steel	—	—

Part Number	Type	D	d ₁ , d ₂ (d ₁ ≠d ₂)					L	M (Coarse)	F
16	CPR (Aluminum)	16	3	4	5	6	24	M3	6	
			5	6	8	10				
20	CPRS (Stainless Steel)	20	8	10	11	12	36	M4	9	
			12	14	15	16				
40	CPR (Aluminum)	40	15	16	18	20	44	M5	10.5	

Part Number	Type	D	Allowable Torque (N-m)	Max. Rotational Speed (r/min)	Inertia Moment of Inertia (Kg-m ²)	Screw Tightening Torque (N-m)	Mass (g)
16	CPR (Aluminum)	16	0.3	24000	4.4 x 10 ⁻⁷	0.7	11
		20	0.5	19000	1.3 x 10 ⁻⁶	—	20
		25	1	15000	3.9 x 10 ⁻⁶	1.7	39
		32	2	12000	1.2 x 10 ⁻⁵	4	71
20	CPRS (Stainless Steel)	20	0.3	24000	1.2 x 10 ⁻⁶	0.7	28
		25	0.5	19000	3.5 x 10 ⁻⁶	1.7	54
		25	1	15000	1.0 x 10 ⁻⁶	—	100
		32	2	12000	3.1 x 10 ⁻⁶	—	190

Recommended Tolerance of Applicable Shaft Diameter: h₆ and h₇.

CPRS is not available for D40.

Couplings – Rigid Clamping

CPRC (Aluminum)
CPRSC (Stainless Steel)

Tolerance values for d₁, d₂, are applied before slit is machined.

For the selection criteria and alignment procedures, see P.1091, 1093.

Type	Material	Surface Treatment	Accessories
CPRC	Aluminum Alloy	Clear Anodize	Hex Socket Head Cap Screw
CPRSC	Stainless Steel	—	—

Part Number	Type	D	d ₁ , d ₂ (d ₁ ≠d ₂)					L	M (Coarse)	A	t	F
16	CPRC (Aluminum)	16	5	6	16	M2.5	5	1	3.75			
			6	8								
20	CPRSC (Stainless Steel)	20	8	10	25	M3	9	6	4.75			
			10	12						14		
40	CPRC (Aluminum)	40	14	15	16	18	44	M5	13	1.5	10.5	
			18	20	24							

CPRSC is not available for D40 and D50.

Part Number	Type	D	Allowable Torque (N-m)	Max. Rotational Speed (r/min)	Moment of Inertia (Kg-m ²)	Screw Tightening Torque (N-m)	Mass (g)
16	CPRC (Aluminum)	16	0.3	9500	3.0 x 10 ⁻⁷	1	9
		20	0.5	7600	8.7 x 10 ⁻⁷	—	15
		25	1	6100	2.7 x 10 ⁻⁶	1.5	29
		32	2	4800	7.1 x 10 ⁻⁶	2.5	61
20	CPRSC (Stainless Steel)	20	0.3	9500	8.0 x 10 ⁻⁷	1	22
		25	0.5	7600	2.4 x 10 ⁻⁶	1.5	41
		25	1	6100	7.3 x 10 ⁻⁶	1.5	80
		32	2	4800	2.5 x 10 ⁻⁵	2.5	160

Part Number Example: CPRC25 - 8 - 10