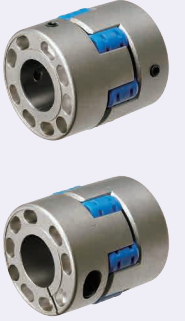


Jaw Couplings

Set Screw / Clamping

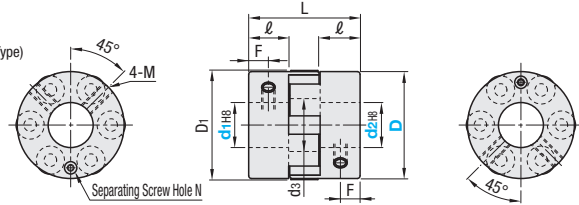
■ **Features:** Deals high torque and has significantly little backlash because the spacer is assembled by press-fitting. Suitable for transfer mechanism using servo motors, since the overall length is short and spacer absorbs the shocks of direction reversals.



RoHS10

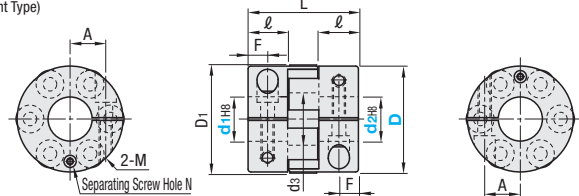
■ **Set Screw**

MMJN (High Rigidity)
MMJP (Misalignment Tolerant Type)



■ **Clamping**

MMJCN (High Rigidity)
MMJCP (Misalignment Tolerant Type)



Type	Standard Bore	Hub Material	Spacer Material	Surface Treatment	Accessory
Set Screw	MMJN	Aluminum Diecast	Nylon (Black)	Electroless Nickel Plating	Set Screw
	MMJP		Polyurethane (Blue)		
Clamping	MMJCN	Aluminum Diecast	Nylon (Black)	Electroless Nickel Plating	Hex Socket Head Cap Screw
	MMJCP		Polyurethane (Blue)		

Operating Temperature: -20°C ~ 60°C
 Tolerances for d1 and d2 are values before slit machining.
 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**
 A separation of hub is possible by fitting commercially available bolt into the separating screw hole.

Part Number		d1, d2 Selection (d1 ≤ d2)		D1	d3	L	ℓ	F	Set Screw			Separating Tap Dia.	Unit Price
Type	D								M	Tightening Torque (N·m)			
MMJN MMJP	55	15	16 18 20 24	56	27	60	21	10.5	M6	8	M4		
	70		18 20 24 28 30 35	72	35	75	26	13	M8	16	M5		
	95		24 28 30 35 40	97	46	100	35.5	17.5	M10	33	M6		

Part Number		d1, d2 Selection (d1 ≤ d2)		D1	d3	L	ℓ	F	A	Clamp Screw			Separating Tap Dia.	Unit Price
Type	D									M	Tightening Torque (N·m)			
MMJCN MMJCP	55	15	16 18 20 24	56	27	60	21	10.5	18.5	M6	15	M4		
	70		18 20 24 28 30 35	72	35	75	26	13	24	M8	32	M5		
	95		24 28 30 35 40	97	46	100	35.5	17.5	32	M10	65	M6		

Part Number		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·m ²)	Movable Axial Misalignment (mm)	Mass (g)
MMJN	55	80	1	0.1	8000	11000	1.0x10 ⁻⁴	±0.5	300
	70	120			11000	8000	4.0x10 ⁻⁴	±0.7	600
	95	180			20000	6000	1.0x10 ⁻³	±1.0	1200

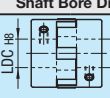
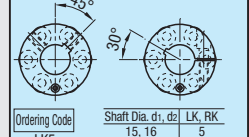
Part Number		Allowable Torque (N·m)	Angular Misalignment (°)	Lateral Misalignment (mm)	Static Torsional Spring Constant (N·m/rad)	Max. Rotational Speed (r/min)	Moment of Inertia (kg·m ²)	Movable Axial Misalignment (mm)	Mass (g)
MMJP	55	20	2	0.3	600	11000	1.0x10 ⁻⁴	±0.5	300
	70	40			1200	8000	4.0x10 ⁻⁴	±0.7	600
	95	80			4000	6000	1.0x10 ⁻³	±1.0	1200

⊕ The allowable torque varies depending on temperature. See **P.1062**

⊕ The allowable torque varies depending on temperature. See **P.1062**

Alterations **MMJN55** - **LDC19** - **RDC22**


Ordering Example **MMJN55** - **15** - **18**

Alterations	Keyway	Shaft Bore Dia.	Keyway Width
Spec.	MMJN MMJP		Keyway Width (b) is changed as the table below. Ordering Code KLH10 KRH10
	MMJCN MMJCP		
		1mm Increment D LDC, RDC 55 15-24 70 18-35 95 24-40 LDC19 RDC21	Shaft Bore Dia. d1, d2 Reference Dia. Tolerance 30 10 ±0.0180 3.3 ±0.0150 30 10 ±0.0180 3.3 ±0.0150
	Ordering Code LK5 RK5	Shaft Dia. d1, d2 LK, RK	Keyway Width (b) is changed as the table below. Ordering Code KLH10 KRH10
		Shaft Dia. d1, d2 LK, RK	Keyway Width (b) is changed as the table below. Ordering Code KLH10 KRH10
		Shaft Dia. d1, d2 LK, RK	Keyway Width (b) is changed as the table below. Ordering Code KLH10 KRH10
Code	LK (Left Shaft) RK (Right Shaft)	LDC (Left Shaft) RDC (Right Shaft)	KLH (Left Shaft) KRH (Right Shaft)

Shaft Bore Dia. d1, d2	LK	b	t	Key Nominal Dim. Inch
15, 16	5	5	±0.0150	2.3 +0.1
18, 20	6	6	±0.0150	2.8 0
24-30	8	8	±0.0180	3.3 +0.2
35	10	10	±0.0215	4.0 0
40	12	12	±0.0215	5.0 0

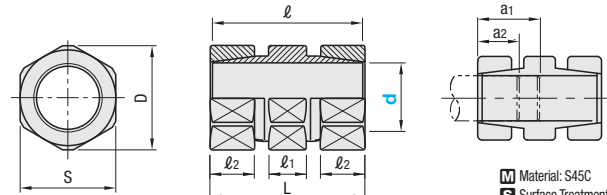
N Coupling / Chain Coupling

■ **Features:** Easy to tighten the shaft by nut alone, and able to handle thrust load.



RoHS10

CPN



Material: S45C
Surface Treatment: Manganese Phosphate


Part Number	Type	S	D	ℓ	ℓ1	ℓ2	L	Shaft Insertion Depth (mm)		Tightening Torque (N·m)	Moment of Inertia GD ² (kg·m ²)	Allowable Torque (N·m)	Max. Allowable Thrust (N)	Mass (g)	Unit Price
								Standard a1	Minimum a2						
6	12	13	20.5	5.5	5.5	21.5	10.25	7.5	11.8	4.24x10 ⁻⁶	7.8	833	13		
7	14	15	20.5	5.5	5.5	21.9	10.25	7.5	12.7	5.25x10 ⁻⁷	8.8	981	17.5		
8	14	15	21	6	6	23	10.5	7.5	13.7	8.25x10 ⁻⁷	9.8	1128	18		
9	17	18.5	23.5	6.5	7	25.5	11.75	8.5	15.7	1.98x10 ⁻⁶	11.8	1520	30		
10	17	18.5	25.4	7	7.5	27.4	12.7	9.2	19.6	2.08x10 ⁻⁶	15.7	1804	30		
11	19	21	29	8	9	31	14.5	10.5	24.5	3.75x10 ⁻⁶	19.6	1912	43		
12	19	21	30	8	9	32	15	11	29.4	3.75x10 ⁻⁶	37.3	2010	41		
14	22	24.6	34	9	10	36	17	12.5	34.3	7.50x10 ⁻⁶	41.2	2442	60		
15	23	25	37.5	9.5	11.5	39.5	18.75	14	39.2	1.00x10 ⁻⁵	49	2942	75		
16	24	26	39	10	12	41	19.5	14.5	49	1.45x10 ⁻⁵	54.9	3275	100		
17	26	28.5	41	11	12.5	43	20.5	15	53.9	1.93x10 ⁻⁵	60.8	3687	115		
18	27	30	43	12	12.5	45	21.5	15.5	58.8	2.48x10 ⁻⁵	68.6	3942	130		
19	29	32	45	12	13.5	47	22.5	16.5	63.7	3.25x10 ⁻⁵	75.5	4364	150		
20	30	32.5	48	13	14.5	50	24	17.5	68.6	3.50x10 ⁻⁵	88.2	4952	160		
22	32	35	50	14	15	52	25	18	78.4	5.00x10 ⁻⁵	103	5491	190		
24	35	38.5	52	14	16	54	26	19	83.3	7.25x10 ⁻⁵	123	6080	230		
25	36	40	55	15	17	57	27.5	20	88.2	9.00x10 ⁻⁵	157	7159	260		
30	41	45	63	17	17	65	31.5	23	127	8.75x10 ⁻⁵	177	11768	350		
35	46	51	69	19	19	71	34.5	25	167	1.55x10 ⁻⁴	206	11768	480		

- **Details of the Product**
- Keyless - Locking by Friction: Allows high-accuracy mounting with no backlash. Easy phase matching. Omission of keyway machining contributes to total cost saving.
 - High Torque Transmission / High Thrust Load Capacity: Allows combined load of torque and thrust.
 - Easy Locking with a Nut: It is easy to mount where a space is limited. Requires no space in axial direction.
 - Keywayed shafts can be used also. (15 ~ 20% less allowable torque)
- **Precautions for Use**
- Tightening torque control is required. (A torque wrench is recommended.)
 - Replace the Teflon tape on the threads for reuse.
 - Use shafts with h7 tolerance and S8 or better surface roughness.
 - Shaft Insertion Depth Standard a1 (in the table) is recommended. Minimum a2 is required.

Ordering Example Part Number **CPN10**

■ **Features:** Dual row roller chains and sprockets construction has excellent torque transmission efficiency.

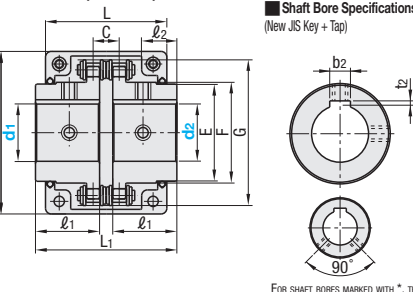
■ **Chain Coupling**



① Chain + ③ Main Body
② Case

Name	Type	Material			Accessory
		① Chain	② Case	③ Main Body	
Set (①+②+③)	CPC	Steel	Aluminum Diecast	S45C (Sprockets are Induction Hardened)	Set Screw
Chain ①	CHE	Steel	-	-	-
Case ②	BHE	-	Aluminum Diecast	-	Set Screw

■ **Shaft Bore Specifications**
(New JIS Key + Tap)



FOR SHAFT BORES MARKED WITH *, THE SET SCREW LOCATIONS ARE AS SHOWN.

⊕ Operating Temperature: -10°C ~ 60°C

Part Number	Type	No.	d1, d2 Selection (d1 ≤ d2)		Mass (kg)	D	E	F	G	L1	ℓ1	ℓ2	C	Max. Rotational Speed (r/min)	Allowable Torque (N·m) at less than 50rpm	Unit Price
			① Chain only	② Case only												
3012	14'	16'	0.6	69	25	26.5	45	64.8	29.8	16	10.2	250	100			
4012	14	15 16 17 18 19 20 22'	0.9	77	33	36	62	79.4	36	17	14.4	250	218			
4014	17	18 19 20 22 24 25 28' 30'	1.2	84	43	45	69	79.4	36	17	14.4	200	296			
4016	19	20 22 24 25 28 30 32	1.7	92	48	51	77	87.4	40	23	14.4	200	386			
5014	20	22 24 25 28 30 32 35	2.3	101	53	56	86	99.7	45	24	18.1	150	563			
5016	22	24 25 28 30 32 35 38 40	3.1	111	60	63	96	99.7	45	24	18.1	150	735			
5018	30	32 35 38 40 42 45	3.8	122	70	73	106	99.7	45	24	18.1	150	931			
6018	40	42 45 48 50 55	7.0	142	85	88	127	123.5	56	28	22.8	100	1,754			
6022	48	50 55	11.7	168	110	115	152	123.5	56	28	22.8	100	2,372			

Ordering Example Part Number **CPC4012** - **14** - **16**
CHE3512
BHE6022

■ **Separate Item**

Part Number	Type	No.	Chain only					Mass (kg)	Unit Price
			P	H	H1	B	Y		
3012		12	9.525	8.1	8.1	23.85	5.72	0.1	
4012		12	12.70	10.41	12.06	32.78	7.90	0.2	
4014		14	12.70	10.41	12.06	32.78	7.90	0.2	
4016		16	12.70	10.41	12.06	32.78	7.90	0.3	
5014		14	15.875	13.01	15.08	41.45	9.54	0.4	
5016		16	15.875	13.01	15.08	41.45	9.54	0.5	
5018		18	15.875	13.01	15.08	41.45	9.54	0.6	
6018		18	19.05	15.64	18.09	52.30	12.7	1.0	
6022		22	19.05	15.64	18.09	52.30	12.7	1.3	

Part Number	Type	No.	Case only		Unit Price
			D	L	
3012		69	63	0.3	
4012		77	72	0.3	
4014		84	75	0.4	
4016		92	75	0.4	
5014		101	85	0.5	
5016		111	85	0.6	
5018		122	85	0.8	
6018		142	106	1.2	
6022		168	117	1.8	

- **Keyway Dimensions**
- | Shaft Bore Dia. d1, d2 | Keyway b x t2 | Set Screw M |
|------------------------|---------------|-------------|
| 14-17 | 5x2.3 | 6 |
| 18-22 | 6x2.8 | 6 |
| 24-30 | 8x3.3 | 8 |
| 32-38 | 10x3.3 | 8 |
| 40-42 | 12x3.3 | 8 |
| 45-50 | 14x3.8 | 10 |
| 55 | 16x4.3 | 12 |
- **TOLERABLE MISALIGNMENTS**
- Angular α = 0.5° or Less
 - Lateral ε = 1% or less of chain pitch