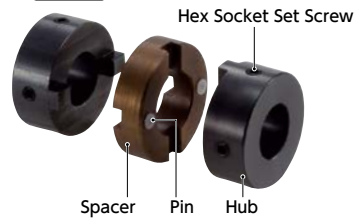


**Structure**

● Set Screw type

**MOM** → P.179



● Clamping type

**MOM-C** → P.181



● Set Screw + Key type

**MOM-K** → P.183



● Clamping + Key type

**MOM-CK** → P.185



● Material/Finish



	<b>MOM / MOM-C / MOM-K / MOM-CK</b>
Hub	S45C Ferrosoferric Oxide Film (Black)
Spacer	FCD400 Ferrosoferric oxide film
Pin	Polyacetal
Hex Socket Set Screw	SCM435 Ferrosoferric oxide film
Hex Socket Head Cap Screw	SCM435 Ferrosoferric oxide film

● Applicable motors

	<b>MOM</b>
Servomotor	-
Stepping Motor	-
General-purpose motor	⊙

⊙: Excellent ○: Very good

● Property

	<b>MOM</b>
High torque	⊙
High Torsional Stiffness	⊙
Allowable Misalignment	○

⊙: Excellent ○: Very good

- This is an oldham-type flexible coupling.
- FCD400 is adopted in the spacer. Suitable for low-speed and high-torque specification.
- High performance grease is applied in the gap between hubs and the spacer in order to prevent sticking.
- Slippage of hubs and a spacer allows large eccentricity and angular misalignment to be accepted.
- A projection placed in the spacer (resin pin) allows angular misalignment to be effortlessly accepted.
- Long-term maintenance free. The grease accumulated in a grease hole will gradually seep out during operation, thereby maintaining the lubrication property over a long period.



● Application

Mixer / Pump / Small power press / Grinder

⚠ Precautions for Use

Please apply grease periodically in order to prevent sticking of hubs and a spacer.

● Part number specification

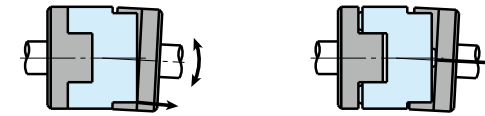
**MOM-30K-12-14**

Product Code   Size   Bore Diameter

Please refer to dimensional table for part number specification.

● Spacer's projection structure

Spacer's projection structure allows large angular to be effortlessly accepted. It reduces burden on the shaft.



(Without projection)

(With projection)

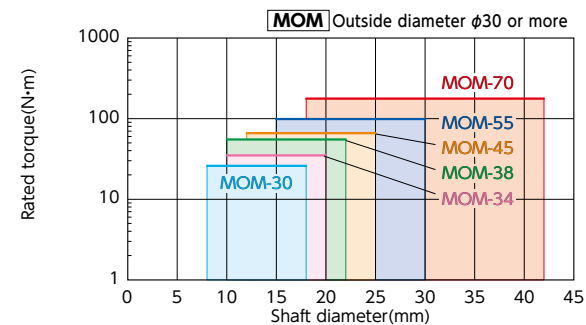
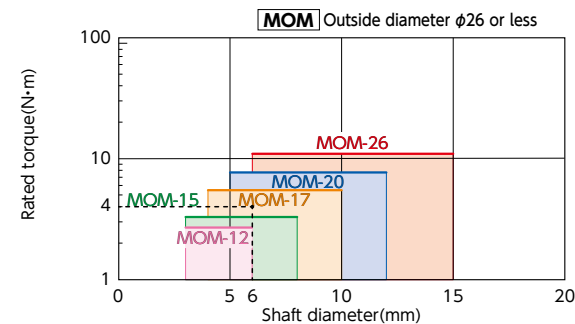
In the oldham-type coupling whose spacer has no projection, the spacer and hubs interfere with each other near outside diameter, so that the max. angular misalignment is small (1° - 1.5°) and that the bending moment arises on the shaft.

NBK's oldham type coupling allows the angular misalignment to be easily accepted since the projection serves as support. Bending moment does not arise. Therefore, the max. angular misalignment is large (2°) and the burden on the shaft is reduced. **MOM** is provided with a projection by inserting a resin pin into the spacer.

**Selection**

● Selection based on shaft diameter and rated torque

The area bounded by the shaft diameter and rated torque indicates is the selection size.



● Selection example

In case of selected parameters of shaft diameter of φ 6 and load torque of 4N·m, the selected size is

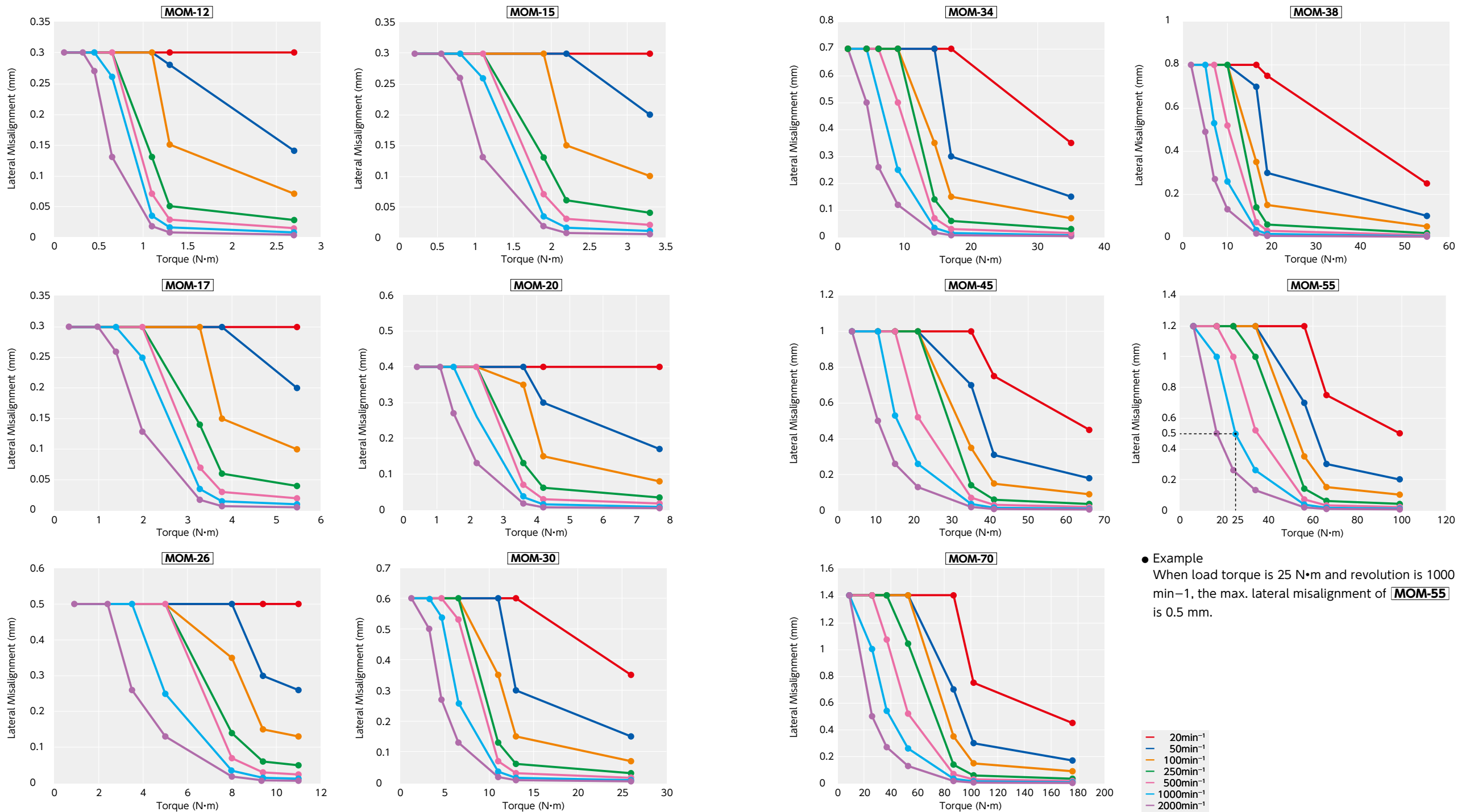
**MOM-17**.



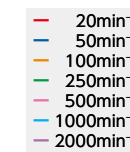
### Technical Information

#### Max. Lateral Misalignment

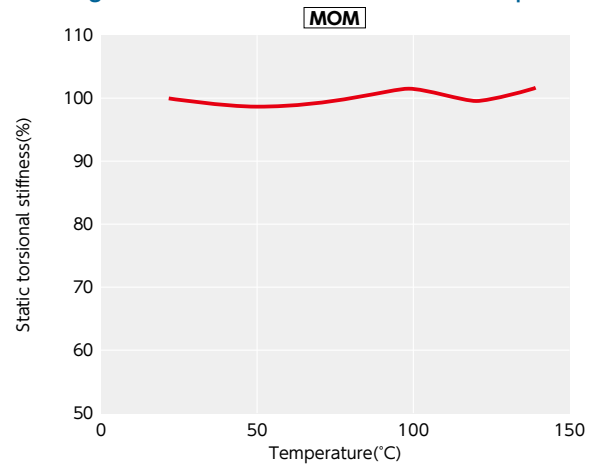
MOM's max. lateral misalignment varies depending on the load torque and revolution.



● Example  
When load torque is 25 N·m and revolution is 1000 min<sup>-1</sup>, the max. lateral misalignment of **MOM-55** is 0.5 mm.



● **Change in static torsional stiffness due to temperature**



This is a value under the condition where the static torsional stiffness at 20°C is 100%.

**MOM**'s change in torsional stiffness due to temperature is small and the change in responsiveness is extremely small.

However, if the unit is used under higher temperature, be careful about misalignment due to elongation or deflection of the shaft associated with thermal expansion.

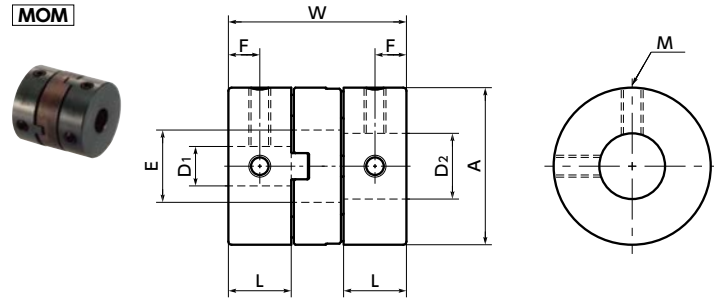
● **Slip Torque**

Concerning the sizes shown in the following table, please note that the shaft's slip torque is smaller than the max. torque of **MOM-C**.

Unit : N · m

Part Number	Bore Diameter																		
	3	4	5	6	6.35	8	10	12	14	15	16	18	20	22	24	25	28	30	35
<b>MOM-15C</b>	0.3	0.5	0.8	1															
<b>MOM-17C</b>		2.1	3.5	3.7															
<b>MOM-20C</b>			3.8	6	6	6.8	7.5												
<b>MOM-26C</b>				5.4	5.4	5.8	6.6	8.7											
<b>MOM-30C</b>						7.4	12.6	14.4	15.1										
<b>MOM-34C</b>							13	13.2	15.8	16.1	16.8								
<b>MOM-38C</b>							16.4	18.4	20.9	23.1	25.1	28.3	31.6						
<b>MOM-45C</b>								47.9	48.9	56.1	56.8	57.5	62.8						
<b>MOM-55C</b>										42.9	54.1	55.3	56.2	89.3	93.4	97.5			
<b>MOM-70C</b>												62.6	92.9	95.5	97.6	103.9	119	122.1	130

● These are test values based on the condition of shaft's dimensional allowance: h7, hardness: 34 - 40 HRC, and screw tightening torque of the values described in **MOM-C** Dimension table.



Dimensions

Unit : mm

Part Number	A	L	W	E	F	M	Screw Tightening Torque (N·m)
MOM-12	12	5.2	15	5.9	2.6	M2.5	0.5
MOM-15	15	5.4	16.6	6.9	2.7	M3	0.7
MOM-17	17	6.7	20.4	7.3	3.35	M3	0.7
MOM-20	20	7	22	11.1	3.5	M3	0.7
MOM-26	26	9	26.6	13.3	4.5	M4	1.7
MOM-30	30	12	34	15.5	6	M4	1.7
MOM-34	34	13	35	17.5	6.5	M5	4
MOM-38	38	15	40.5	21.5	7.5	M5	4
MOM-45	45	15	45.2	24.3	7.5	M5	4
MOM-55	55	17	51	27.7	8.5	M6	7
MOM-70	70	20	58.6	38.5	10	M8	15

Part Number	Standard Bore Diameter (dimensional allowance H8)																						
	D1 · D2																						
	3	4	5	6	6.35	8	10	12	14	15	16	18	20	22	24	25	28	30	35	38	40	42	
MOM-12	●	●	●	●																			
MOM-15	●	●	●	●		●																	
MOM-17		●	●	●		●	●																
MOM-20			●	●	●	●	●	●															
MOM-26				●	●	●	●	●	●														
MOM-30					●	●	●	●	●	●													
MOM-34						●	●	●	●	●	●												
MOM-38							●	●	●	●	●	●											
MOM-45								●	●	●	●	●	●										
MOM-55									●	●	●	●	●	●			●	●					
MOM-70												●	●	●	●	●	●	●	●	●	●	●	●

- All products are provided with hex socket set screw.
- In a case where the bore diameter is  $\phi 4$  or less, the set screw is used in only one place.
- Recommended dimensional allowances of applicable shaft diameter are h6 and h7.
- A set of hubs with set screw type for one side and clamping type for the other side is available upon request.

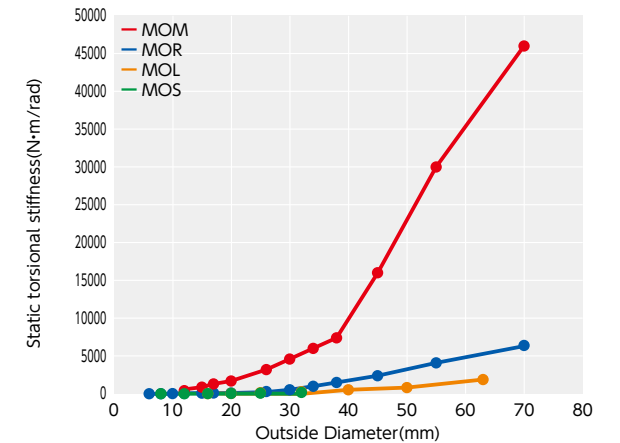
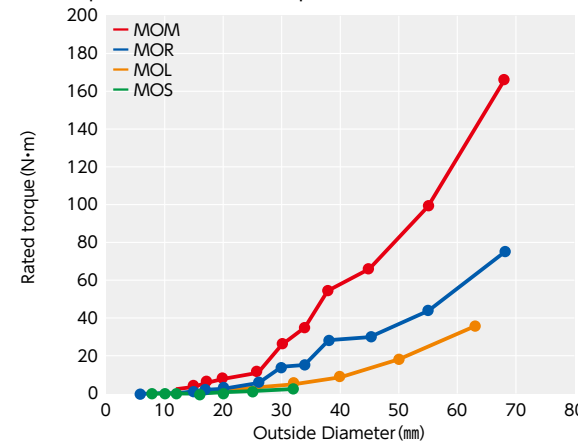
Additional Keyway at Shaft Hole → P.803    Cleanroom Wash & Packaging → P.807    Change to Stainless Steel Screw → P.805  
 Available / Add'l charge    Available / Add'l charge    Available / Add'l charge

Performance

Part Number	Max. Bore Diameter (mm)	Rated*1 torque (N·m)	Max.*1 torque (N·m)	Max. Rotational Frequency (min <sup>-1</sup> )	Moment*2 of Inertia (kg·m <sup>2</sup> )	Static Torsional Stiffness (N·m/rad)	Max. lateral*3 misalignment (mm) → P.175	Max. Angular Misalignment (°)	Mass*2 (g)
MOM-12	6	2.7	5.4	2000	$2.0 \times 10^{-7}$	420	0.3	2	9
MOM-15	8	3.3	6.6	2000	$5.5 \times 10^{-7}$	870	0.3	2	15
MOM-17	10	5.5	11	2000	$1.1 \times 10^{-6}$	1300	0.3	2	24
MOM-20	12	7.7	15.4	2000	$2.3 \times 10^{-6}$	1700	0.4	2	34
MOM-26	15	11	22	2000	$8.1 \times 10^{-6}$	3200	0.5	2	72
MOM-30	18	26	52	2000	$1.8 \times 10^{-5}$	4600	0.6	2	119
MOM-34	20	35	70	2000	$3.1 \times 10^{-5}$	6000	0.7	2	159
MOM-38	22	55	110	2000	$5.5 \times 10^{-5}$	7400	0.8	2	230
MOM-45	25	66	132	2000	$1.2 \times 10^{-4}$	16000	1	2	364
MOM-55	30	99	198	2000	$3.0 \times 10^{-4}$	30000	1.2	2	636
MOM-70	42	176	352	2000	$8.9 \times 10^{-4}$	46000	1.4	2	1090

- \*1: Values with no load fluctuation and rotation in a single direction. If there is large load fluctuation, or both normal and reverse rotation, select a size with some margin.
- \*2: These are values with max. bore diameter.
- \*3: The max. lateral misalignment varies depending on the load torque and revolution. → P.175

● Comparison of rated torque

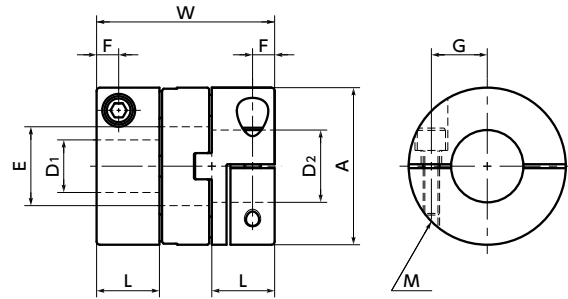


● Part number specification

MOM-26-6.35-10



MOM-C



Outside Diameter:  $\phi 15 - \phi 38$

**Dimensions**

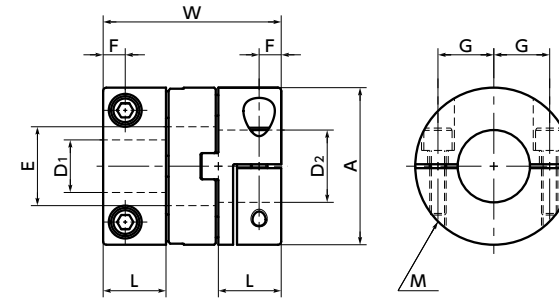
Unit : mm

Part Number	A	L	W	E	F	G	M	Screw Tightening Torque (N·m)
MOM-15C	15	6.6	19	6.9	2.15	5.2	M1.6	0.25
MOM-17C	17	9	25	7.3	2.65	5.5	M2	0.5
MOM-20C	20	10	28	11.1	3.25	7.25	M2.5	1
MOM-26C	26	11.5	31.6	13.3	4	9	M3	1.5
MOM-30C	30	12	34	15.5	4	11	M3	1.5
MOM-34C	34	13	35	17.5	4.5	12	M4	3.5
MOM-38C	38	15	40.5	21.5	4.75	14	M4	3.5
MOM-45C	45	16.2	47.6	24.3	6.2	16	M5	8
MOM-55C	55	20.8	58.6	27.7	7.9	20	M6	13
MOM-70C	70	25	68.6	38.5	8.9	26	M6	13

Part Number	Standard Bore Diameter																				
	D1 • D2	3	4	5	6	6.35	8	10	12	14	15	16	18	20	22	24	25	28	30	35	
MOM-15C	•	•	•	•																	
MOM-17C		•	•	•																	
MOM-20C			•	•	•																
MOM-26C				•	•	•															
MOM-30C					•	•	•														
MOM-34C						•	•	•													
MOM-38C							•	•	•	•											
MOM-45C								•	•	•	•										
MOM-55C									•	•	•	•	•								
MOM-70C										•	•	•	•	•	•						

- All products are provided with hex socket head cap screw.
- Recommended dimensional allowances of applicable shaft diameter are h6 and h7.
- A set of hubs with clamping type for one side and set screw type or other type for the other side is available upon request.
- In case of mounting on D-cut shaft, be careful about the position of the D-cut surface of the shaft. → P.258

Additional Keyway at Shaft Hole → P.803 Available / Add'l charge  
 Cleanroom Wash & Packaging → P.807 Available / Add'l charge  
 Change to Stainless Steel Screw → P.805 Available / Add'l charge



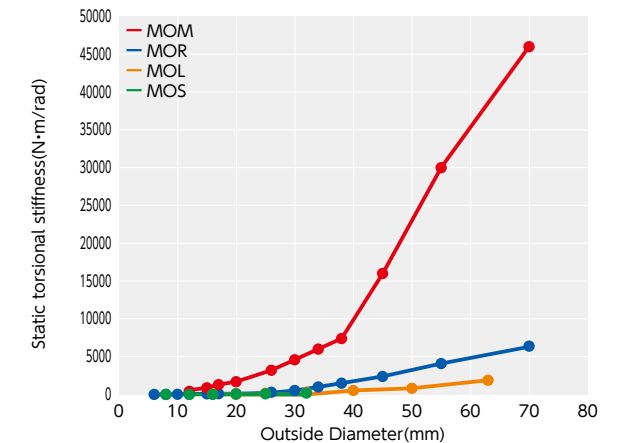
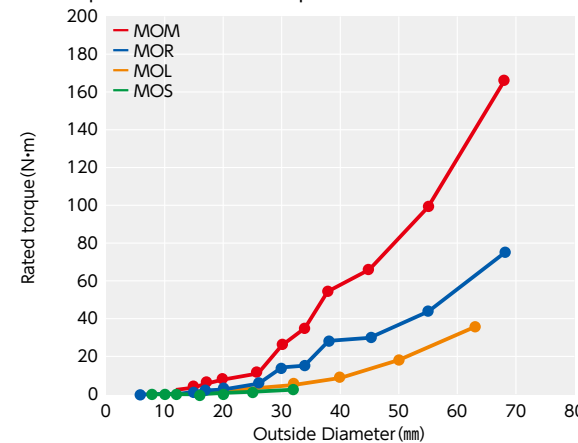
Outside Diameter:  $\phi 45 - \phi 70$

**Performance**

Part Number	Max. Bore Diameter (mm)	Rated*1 torque (N·m)	Max.*1 torque (N·m)	Max. Rotational Frequency (min <sup>-1</sup> )	Moment*2 of Inertia (kg·m <sup>2</sup> )	Static Torsional Stiffness (N·m/rad)	Max. Lateral*3 Misalignment (mm) → P.175	Max. Angular Misalignment (°)	Mass*2 (g)
MOM-15C	6	3.3	6.6	2000	6.2×10 <sup>-7</sup>	870	0.3	2	19
MOM-17C	6.35	5.5	11	2000	1.4×10 <sup>-6</sup>	1300	0.3	2	34
MOM-20C	10	7.7	15.4	2000	3.0×10 <sup>-6</sup>	1700	0.4	2	47
MOM-26C	12	11	22	2000	9.6×10 <sup>-6</sup>	3200	0.5	2	92
MOM-30C	14	26	52	2000	1.8×10 <sup>-5</sup>	4600	0.6	2	131
MOM-34C	16	35	70	2000	3.1×10 <sup>-5</sup>	6000	0.7	2	173
MOM-38C	20	55	110	2000	5.5×10 <sup>-5</sup>	7400	0.8	2	235
MOM-45C	22	66	132	2000	1.2×10 <sup>-4</sup>	16000	1	2	387
MOM-55C	25	99	198	2000	3.4×10 <sup>-4</sup>	30000	1.2	2	752
MOM-70C	35	176	352	2000	1.0×10 <sup>-3</sup>	46000	1.4	2	1370

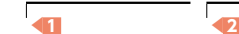
- \*1: Values with no load fluctuation and rotation in a single direction. If there is large load fluctuation, or both normal and reverse rotation, select a size with some margin.
- \*2: These are values with max. bore diameter.
- \*3: The max. lateral misalignment varies depending on the load torque and revolution. → P.175

• Comparison of rated torque

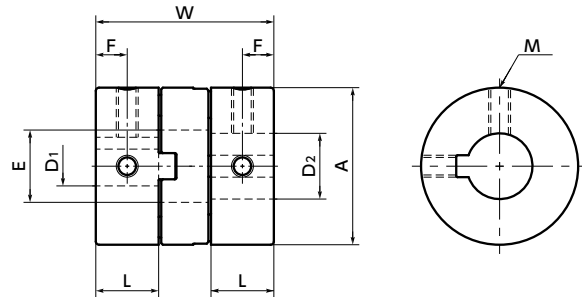


• Part number specification

**MOM-55C-15-16**



MOM-K



**Dimensions**

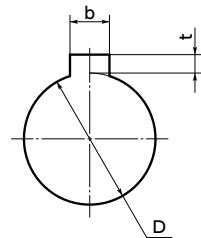
Unit : mm

Part Number	A	L	W	E	F	M	Screw Tightening Torque (N·m)
MOM-15K	15	5.4	16.6	6.9	2.7	M3	0.7
MOM-17K	17	6.7	20.4	7.3	3.35	M3	0.7
MOM-20K	20	7	22	11.1	3.5	M3	0.7
MOM-26K	26	9	26.6	13.3	4.5	M4	1.7
MOM-30K	30	12	34	15.5	6	M4	1.7
MOM-34K	34	13	35	17.5	6.5	M5	4
MOM-38K	38	15	40.5	21.5	7.5	M5	4
MOM-45K	45	15	45.2	24.3	7.5	M5	4
MOM-55K	55	17	51	27.7	8.5	M6	7
MOM-70K	70	20	58.6	38.5	10	M8	15

Part Number	Standard Bore Diameter (dimensional allowance H8)																	
	D1 · D2	6	6.35	8	10	12	14	15	16	18	20	22	24	25	28	30	35	
MOM-15K		●																
MOM-17K		●		●														
MOM-20K		●	●	●	●													
MOM-26K		●	●	●	●	●												
MOM-30K				●	●	●	●	●										
MOM-34K				●	●	●	●	●	●									
MOM-38K				●	●	●	●	●	●	●								
MOM-45K					●	●	●	●	●	●	●							
MOM-55K						●	●	●	●	●	●	●	●					
MOM-70K								●	●	●	●	●	●	●	●	●	●	●

- All products are provided with hex socket set screw.
- Recommended dimensional allowances of applicable shaft diameter are h6 and h7.
- A set of hubs with key type for one side and clamping type or other type for the other side is available upon request.

• Details of Shaft Hole



Standard bore diameter D	Keyway				Key
	b	t	Standard Dimension	Allowance	
6 · 6.35	2	±0.0125	1.0	+0.1 0	2×2
8	3	±0.0125	1.4	+0.1 0	3×3
10 · 12	4	±0.0150	1.8	+0.1 0	4×4
14 · 15 · 16	5	±0.0150	2.3	+0.1 0	5×5
18 · 20 · 22	6	±0.0150	2.8	+0.1 0	6×6
24 · 25 · 28 · 30	8	±0.0180	3.3	+0.2 0	8×7
35	10	±0.0180	3.3	+0.2 0	10×8

• Excerpt from JIS B 1301

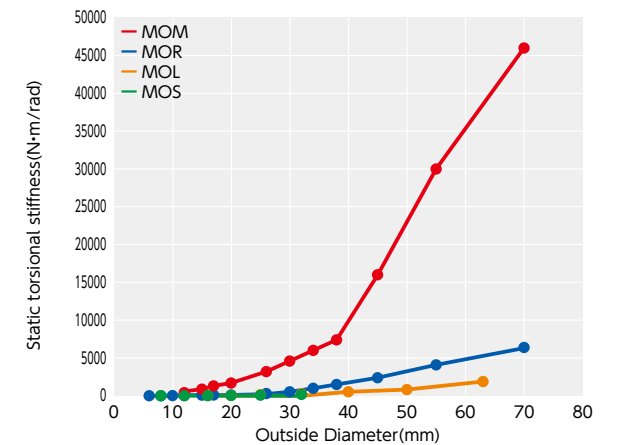
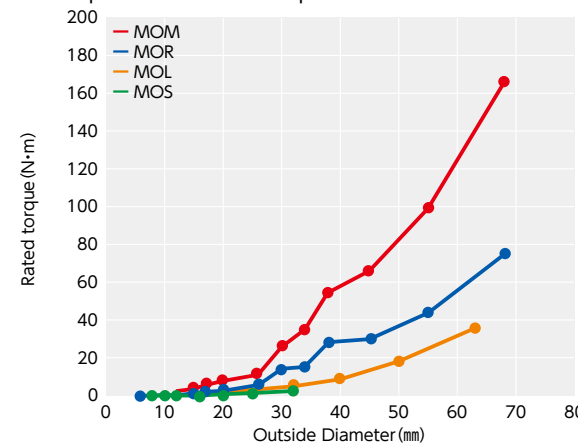
Additional Keyway at Shaft Hole → P.803 Cleanroom Wash & Packaging → P.807 Change to Stainless Steel Screw → P.805  
Please feel free to contact us Available / Add'l charge Available / Add'l charge

**Performance**

Part Number	Max. Bore Diameter (mm)	Rated*1 torque (N·m)	Max.*1 torque (N·m)	Max. Rotational Frequency (min <sup>-1</sup> )	Moment*2 of Inertia (kg·m <sup>2</sup> )	Static Torsional Stiffness (N·m/rad)	Max. lateral*3 misalignment (mm) → P.175	Max. Angular Misalignment (°)	Mass*2 (g)
MOM-15K	7	3.3	6.6	2000	5.7×10 <sup>-7</sup>	870	0.3	2	17
MOM-17K	8	5.5	11	2000	1.1×10 <sup>-6</sup>	1300	0.3	2	26
MOM-20K	10	7.7	15.4	2000	2.4×10 <sup>-6</sup>	1700	0.4	2	37
MOM-26K	12	11	22	2000	8.4×10 <sup>-6</sup>	3200	0.5	2	78
MOM-30K	15	26	52	2000	1.8×10 <sup>-5</sup>	4600	0.6	2	130
MOM-34K	16	35	70	2000	3.2×10 <sup>-5</sup>	6000	0.7	2	178
MOM-38K	20	55	110	2000	5.7×10 <sup>-5</sup>	7400	0.8	2	241
MOM-45K	22	66	132	2000	1.2×10 <sup>-4</sup>	16000	1	2	384
MOM-55K	28	99	198	2000	3.1×10 <sup>-4</sup>	30000	1.2	2	650
MOM-70K	35	176	352	2000	9.3×10 <sup>-4</sup>	46000	1.4	2	1200

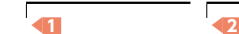
- \*1: Values with no load fluctuation and rotation in a single direction. If there is large load fluctuation, or both normal and reverse rotation, select a size with some margin.
- \*2: These are values with max. bore diameter.
- \*3: The max. lateral misalignment varies depending on the load torque and revolution. → P.175

• Comparison of rated torque

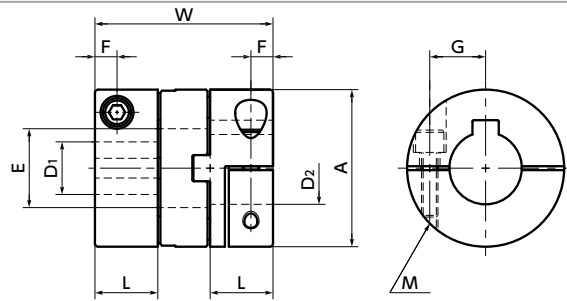


• Part number specification

**MOM-15K-6-6**



**MOM-CK**



Outside Diameter:  $\phi 15 - \phi 38$

Unit : mm

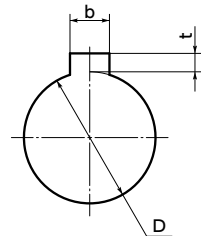
**Dimensions**

Part Number	A	L	W	E	F	G	M	Screw Tightening Torque (N·m)
MOM-15CK	15	6.6	19	6.9	2.15	5.2	M1.6	0.25
MOM-17CK	17	9	25	7.3	2.65	5.5	M2	0.5
MOM-20CK	20	10	28	11.1	3.25	7.25	M2.5	1
MOM-26CK	26	11.5	31.6	13.3	4	9	M3	1.5
MOM-30CK	30	12	34	15.5	4	11	M3	1.5
MOM-34CK	34	13	35	17.5	4.5	12	M4	3.5
MOM-38CK	38	15	40.5	21.5	4.75	14	M4	3.5
MOM-45CK	45	16.2	47.6	24.3	6.2	16	M5	8
MOM-55CK	55	20.8	58.6	27.7	7.9	20	M6	13
MOM-70CK	70	25	68.6	38.5	8.9	26	M6	13

Part Number	Standard Bore Diameter D1 · D2															
	6	6.35	8	10	12	14	15	16	18	20	22	24	25	28	30	35
MOM-15CK	●															
MOM-17CK	●															
MOM-20CK	●	●	●	●												
MOM-26CK	●	●	●	●	●											
MOM-30CK			●	●	●	●										
MOM-34CK				●	●	●	●	●								
MOM-38CK				●	●	●	●	●	●	●						
MOM-45CK					●	●	●	●	●	●	●					
MOM-55CK						●	●	●	●	●	●	●				
MOM-70CK							●	●	●	●	●	●	●	●	●	●

- All products are provided with hex socket head cap screw.
- Recommended dimensional allowances of applicable shaft diameter are h6 and h7.
- A set of hubs with clamping + key type for one side and clamping type or other type for the other side is available upon request.
- In case of mounting on D-cut shaft, be careful about the position of the D-cut surface of the shaft. → P.258

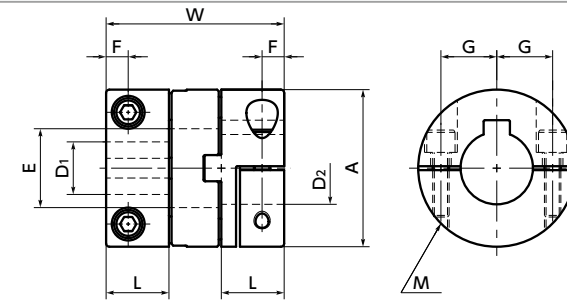
• Details of Shaft Hole



Standard bore diameter D	Keyway				Key
	b	t	Standard Dimension	Allowance	
6 · 6.35	2	±0.0125	1.0	+0.1 0	2×2
8	3	±0.0125	1.4	+0.1 0	3×3
10 · 12	4	±0.0150	1.8	+0.1 0	4×4
14 · 15 · 16	5	±0.0150	2.3	+0.1 0	5×5
18 · 20 · 22	6	±0.0150	2.8	+0.1 0	6×6
24 · 25 · 28 · 30	8	±0.0180	3.3	+0.2 0	8×7
35	10	±0.0180	3.3	+0.2 0	10×8

• Excerpt from JIS B 1301

- Additional Keyway at Shaft Hole → P.803
  - Cleanroom Wash & Packaging → P.807
  - Change to Stainless Steel Screw → P.805
- Please feel free to contact us   Available / Add'l charge   Available / Add'l charge



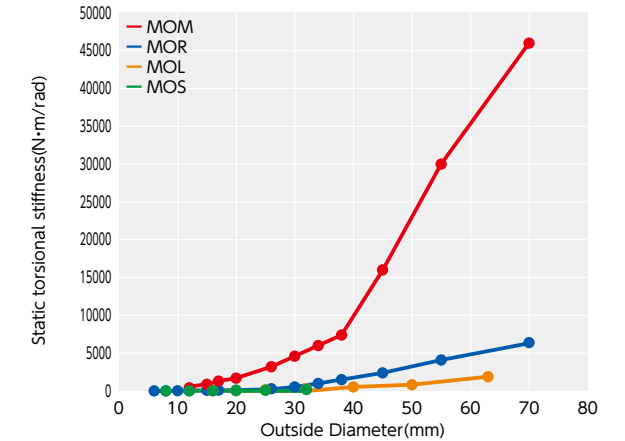
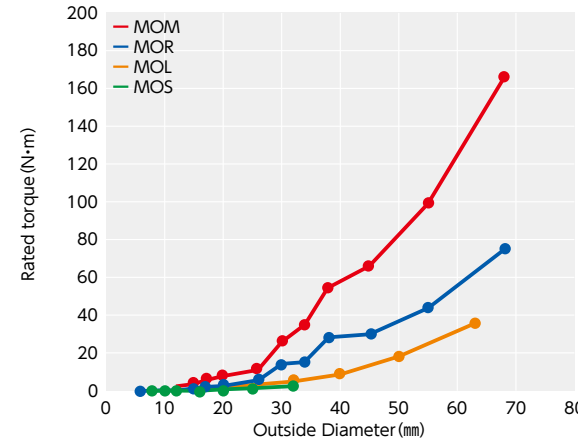
Outside Diameter:  $\phi 45 - \phi 70$

**Performance**

Part Number	Max. Bore Diameter (mm)	Rated*1 torque (N·m)	Max.*1 torque (N·m)	Max. Rotational Frequency (min <sup>-1</sup> )	Moment*2 of Inertia (kg·m <sup>2</sup> )	Static Torsional Stiffness (N·m/rad)	Max. lateral*3 misalignment (mm) → P.175	Max. Angular Misalignment (°)	Mass*2 (g)
MOM-15CK	6	3.3	6.6	2000	6.1×10 <sup>-7</sup>	870	0.3	2	18
MOM-17CK	6.35	5.5	11	2000	1.4×10 <sup>-6</sup>	1300	0.3	2	33
MOM-20CK	10	7.7	15.4	2000	2.9×10 <sup>-6</sup>	1700	0.4	2	45
MOM-26CK	12	11	22	2000	9.5×10 <sup>-6</sup>	3200	0.5	2	90
MOM-30CK	14	26	52	2000	1.8×10 <sup>-5</sup>	4600	0.6	2	128
MOM-34CK	16	35	70	2000	3.0×10 <sup>-5</sup>	6000	0.7	2	170
MOM-38CK	20	55	110	2000	5.4×10 <sup>-5</sup>	7400	0.8	2	231
MOM-45CK	22	66	132	2000	1.2×10 <sup>-4</sup>	16000	1	2	383
MOM-55CK	25	99	198	2000	3.4×10 <sup>-4</sup>	30000	1.2	2	743
MOM-70CK	35	176	352	2000	1.0×10 <sup>-3</sup>	46000	1.4	2	1350

- \*1: Values with no load fluctuation and rotation in a single direction. If there is large load fluctuation, or both normal and reverse rotation, select a size with some margin.
- \*2: These are values with max. bore diameter.
- \*3: The max. lateral misalignment varies depending on the load torque and revolution. → P.175

• Comparison of rated torque



• Part number specification

**MOM-38CK-16-18**

