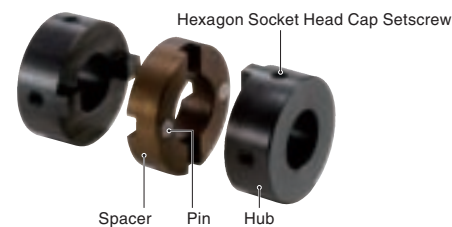


Structure

MOM Setscrew Type
Outside Diameter $\phi 12 - \phi 70$



MOM-C Clamping Type
Outside Diameter $\phi 15 - \phi 70$



MOM-K Key Type
Outside Diameter $\phi 15 - \phi 70$



MOM-CK Clamping + Key Type
Outside Diameter $\phi 15 - \phi 70$



Applicable Motors

● Application

	MOM/MOM-C/MOM-K/MOM-CK
Servomotor	—
Stepping Motor	—
General-Purpose Motor	◎

◎: Excellent ●: Very Good

● Property

	MOM/MOM-C/MOM-K/MOM-CK
Zero Backlash	—
High Torque	◎
High Torsional Rigidity	◎
Allowable Misalignment	●

◎: Excellent ●: Very Good

- 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 to be accepted.
- A projection placed in the spacer (resin pin) allows angular 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.



Grease Hole

● Application

Mixer / Pump / Small power press / Grinder

Material / Finish

Environmental Adaptability

	MOM/MOM-C/MOM-K/MOM-CK
Hub	S45C Ferrosoferric Oxide Film (Black)
Spacer	FCD400 Ferrosoferric Oxide Film (Black)
Pin	Polyacetal
Hexagon Socket Head Cap Setscrew	SCM435 Ferrosoferric Oxide Film (Black)
Hexagon Socket Head Cap Screw	SCM435 Ferrosoferric Oxide Film (Black)

● For Ordering

MOM-30-12×14

Part Number D₁ D₂

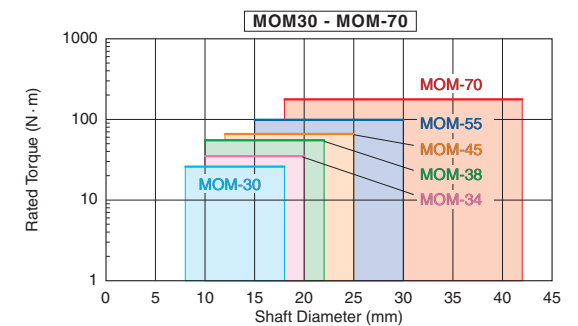
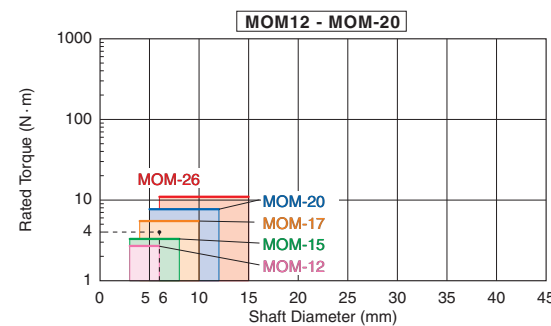
Select bore diameters of both sides from the standard bore diameter.
▶ pages 44, 46, 48, 50

Selection

● Selection based on performance [WEB Selection Tool](#)

Please use the selection tool on our website (www.nbk1560.com).

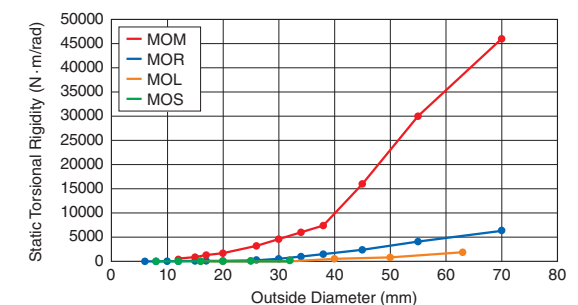
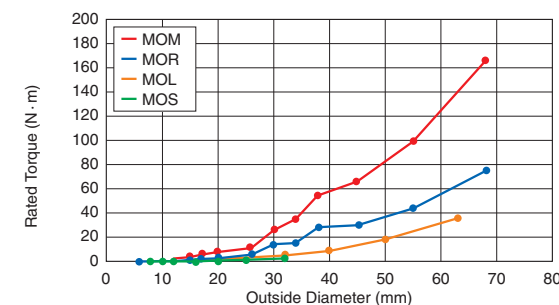
● Selection based on shaft diameter and rated torque



● Selection Example

When under the condition of shaft diameter: $\phi 6$ and load torque: $4\text{N} \cdot \text{m}$, the selection size of **MOM** is **MOM-17**.

● Comparison of rated torque and torsional rigidity

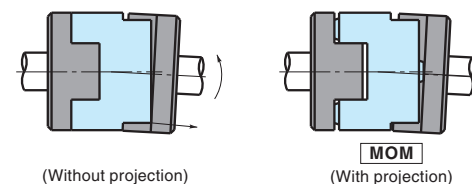


MOM's torque and torsional rigidity are higher as compared with resin spacer's oldham type coupling **MOR**.

MOL **MOS** because of FCD400 spacer.



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



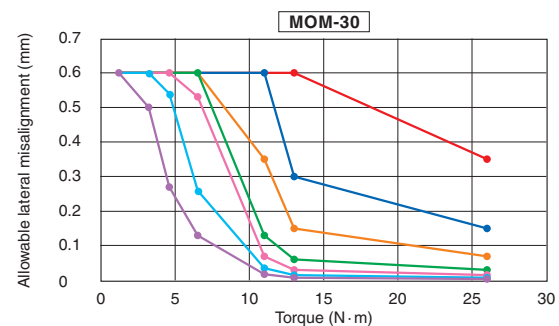
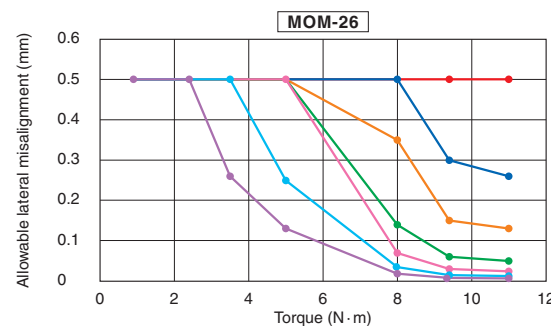
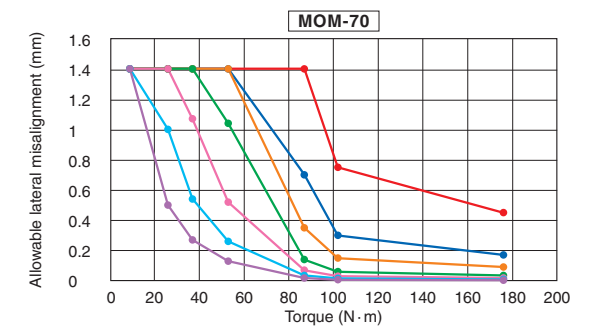
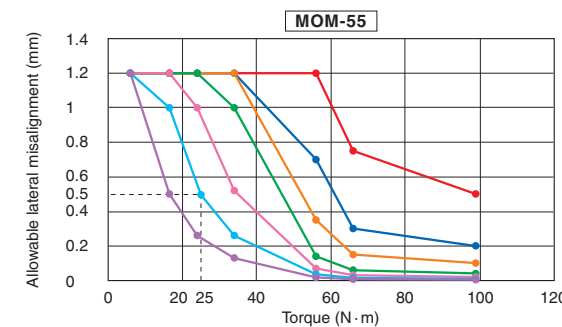
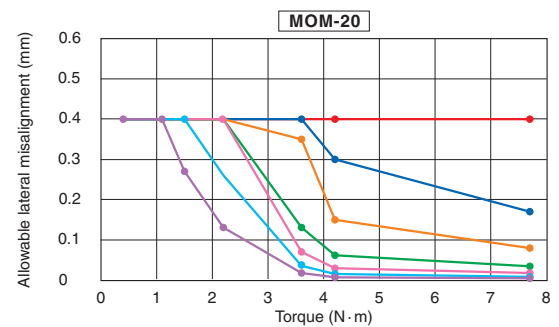
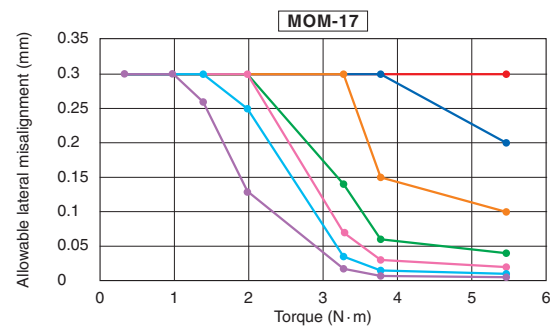
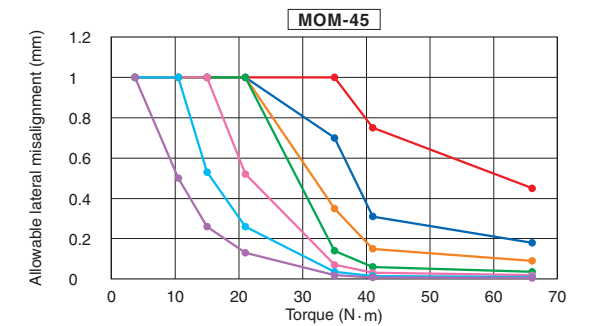
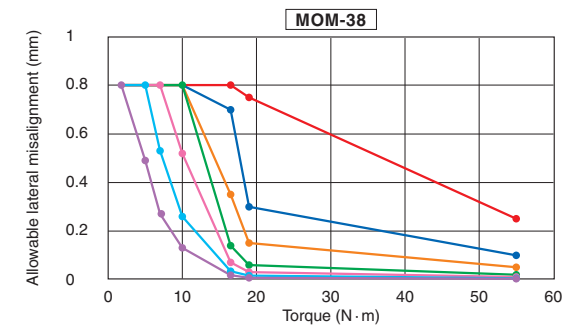
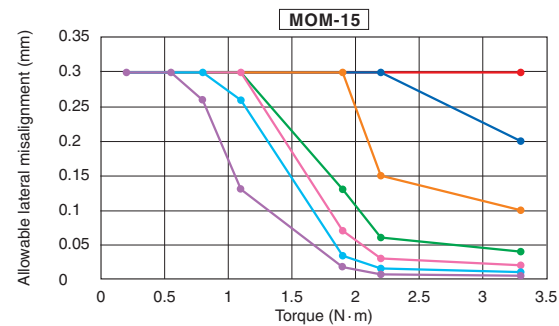
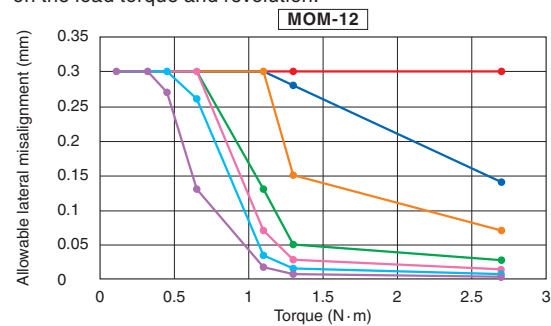
In the oldham type coupling whose spacer has no projection, the spacer and hubs interfere with each other near outside diameter, so that the allowable angular is small ($1^\circ - 1.5^\circ$) and that the bending moment arises on the shaft. NBK's oldham type coupling easily allows the angular since the projection serves as support. Bending moment does not arise. Therefore, the allowable angular 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.

MOM

Technical Information

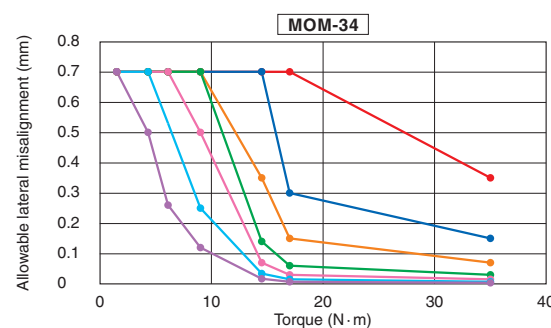
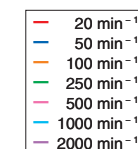
Allowable Lateral Misalignment

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

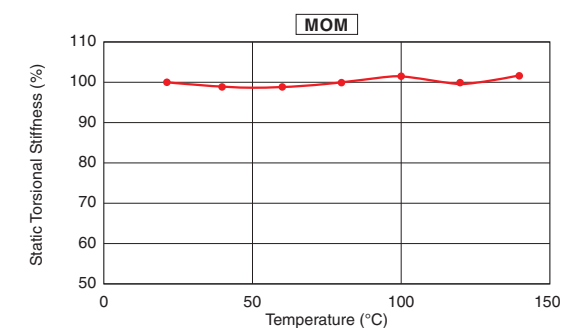


Example

When under the condition of load torque: 25N·m and revolution: 1000min⁻¹, the allowable lateral misalignment of **MOM-55** is 0.5mm.

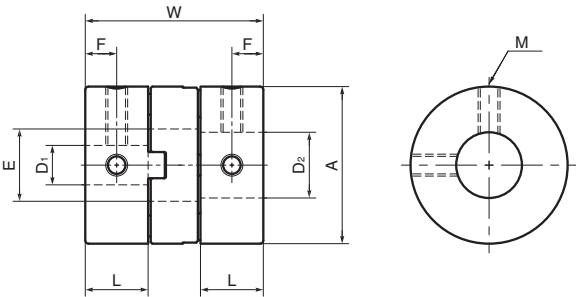


Change in static torsional stiffness due to temperature



This is a value under the condition where the static torsional stiffness at 20°C is 100%. **MOM**'s change in torsional rigidity 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.

MOM Setscrew Type



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 D ₁ / D ₂ (Dimensional Allowance H8)																			
	3	4	5	6	6 ^{3S}	8	10	12	14	15	16	18	20	22	24	25	28	30	35	38
MOM-12	●	●	●	●																
MOM-15	●	●	●	●		●														
MOM-17		●	●	●		●	●													
MOM-20			●	●	●	●	●	●												
MOM-26				●	●	●	●	●	●											
MOM-30						●	●	●	●	●	●									
MOM-34							●	●	●	●	●	●	●							
MOM-38							●	●	●	●	●	●	●	●						
MOM-45								●	●	●	●	●	●	●	●	●				
MOM-55										●	●	●	●	●	●	●	●	●		
MOM-70												●	●	●	●	●	●	●	●	●

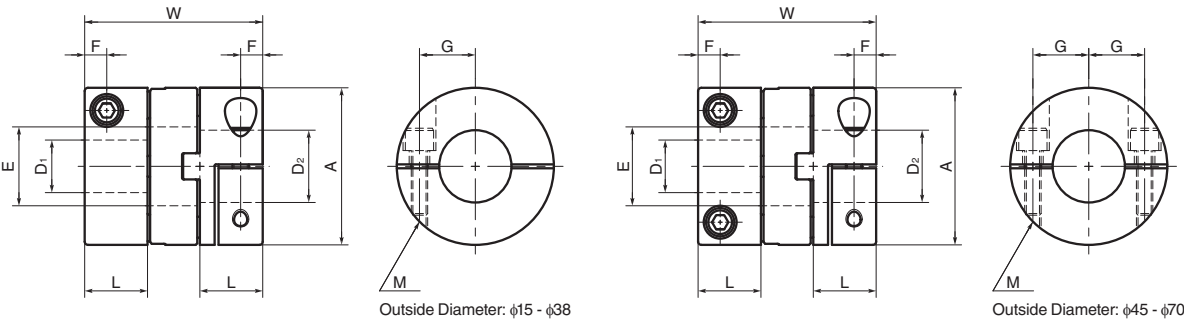
- All products are provided with hexagon socket head cap setscrew.
- In a case where the bore diameter is φ4 or less, the setscrew is used only in one place.
- Recommended dimensional allowances of applicable shaft diameter are h6 and h7.
- A set of hubs with combination of setscrew type and clamping type or other type is available upon request.
- Additional modification for bore and keyway can be performed.

Performance

Part Number	Max. Bore Diameter (mm)	Rated Torque * (N·m)	Max. Torque * (N·m)	Max. Rotational Frequency (min ⁻¹)	Moment of Inertia ** (kg·m ²)	Static Torsional Stiffness (N·m/rad)	Max. Lateral Misalignment *** (mm) ♦ pages 42 - 43	Max. Angular Misalignment (°)	Weight ** (g)
MOM-12	6	2.7	5.4	2000	2.0×10 ⁻⁷	420	0.3	2	9
MOM-15	8	3.3	6.6	2000	5.5×10 ⁻⁷	870	0.3	2	15
MOM-17	10	5.5	11	2000	1.1×10 ⁻⁶	1300	0.3	2	24
MOM-20	12	7.7	15.4	2000	2.3×10 ⁻⁶	1700	0.4	2	34
MOM-26	15	11	22	2000	8.1×10 ⁻⁶	3200	0.5	2	72
MOM-30	18	26	52	2000	1.8×10 ⁻⁵	4600	0.6	2	119
MOM-34	20	35	70	2000	3.1×10 ⁻⁵	6000	0.7	2	159
MOM-38	22	55	110	2000	5.5×10 ⁻⁵	7400	0.8	2	230
MOM-45	25	66	132	2000	1.2×10 ⁻⁴	16000	1.0	2	364
MOM-55	30	99	198	2000	3.0×10 ⁻⁴	30000	1.2	2	636
MOM-70	42	176	352	2000	8.9×10 ⁻⁴	46000	1.4	2	1090

- * Correction of rated torque and maximum torque due to load fluctuation is not required.
- ** These are values with maximum bore diameter.
- *** The max. lateral misalignment varies depending on the load torque and revolution.♦ pages 42 - 43

MOM-C Clamping Type



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 D ₁ / D ₂																		
	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												●	●	●	●	●	●	●	●

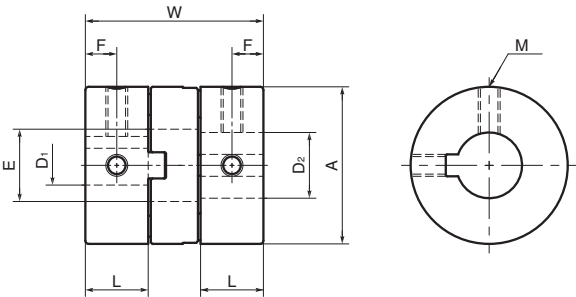
- All products are provided with hexagon socket head cap screw.
- Recommended dimensional allowances of applicable shaft diameter are h6 and h7.
- A set of hubs with combination of clamping type and setscrew type or other type is available upon request.
- Additional modification for bore and keyway can be performed.

Performance

Part Number	Max. Bore Diameter (mm)	Rated Torque * (N·m)	Max. Torque * (N·m)	Max. Rotational Frequency (min ⁻¹)	Moment of Inertia ** (kg·m ²)	Static Torsional Stiffness (N·m/rad)	Max. Lateral Misalignment *** (mm) ♦ pages 42 - 43	Max. Angular Misalignment (°)	Weight ** (g)
MOM-15C	6	3.3	6.6	2000	6.2×10 ⁻⁷	870	0.3	2	19
MOM-17C	6.35	5.5	11	2000	1.4×10 ⁻⁶	1300	0.3	2	34
MOM-20C	10	7.7	15.4	2000	3.0×10 ⁻⁶	1700	0.4	2	47
MOM-26C	12	11	22	2000	9.6×10 ⁻⁶	3200	0.5	2	92
MOM-30C	14	26	52	2000	1.8×10 ⁻⁵	4600	0.6	2	131
MOM-34C	16	35	70	2000	3.1×10 ⁻⁵	6000	0.7	2	173
MOM-38C	20	55	110	2000	5.5×10 ⁻⁵	7400	0.8	2	235
MOM-45C	22	66	132	2000	1.2×10 ⁻⁴	16000	1.0	2	387
MOM-55C	25	99	198	2000	3.4×10 ⁻⁴	30000	1.2	2	752
MOM-70C	35	176	352	2000	1.0×10 ⁻³	46000	1.4	2	1370

- * Correction of rated torque and maximum torque due to load fluctuation is not required.
- ** These are values with maximum bore diameter.
- *** The max. lateral misalignment varies depending on the load torque and revolution. ♦ pages 42 - 43

MOM-K Key Type



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

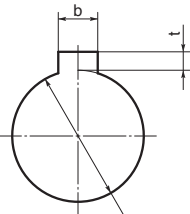
Part Number	Standard Bore Diameter D ₁ / D ₂ (Dimensional Allowance H8)															
	6	6 ³⁵	8	10	12	14	15	16	18	20	22	24	25	28	30	35
MOM-15K	●															
MOM-17K	●		●													
MOM-20K	●	●	●	●												
MOM-26K	●	●	●	●	●											
MOM-30K			●	●	●	●	●									
MOM-34K				●	●	●	●	●								
MOM-38K				●	●	●	●	●	●	●						
MOM-45K					●	●	●	●	●	●	●					
MOM-55K							●	●	●	●	●	●	●	●		
MOM-70K									●	●	●	●	●	●	●	●

- All products are provided with hexagon socket head cap setscrew.
- Recommended dimensional allowances of applicable shaft diameter are h6 and h7.
- A set of hubs with combination of key type and clamping type or other type is available upon request.
- Additional modification for bore and keyway can be performed.

Performance

Part Number	Max. Bore Diameter (mm)	Rated Torque * (N·m)	Max. Torque * (N·m)	Max. Rotational Frequency (min ⁻¹)	Moment of Inertia ** (kg·m ²)	Static Torsional Stiffness (N·m/rad)	Max. Lateral Misalignment *** (mm) ♦ pages 42 - 43	Max. Angular Misalignment (°)	Weight ** (g)
MOM-15K	7	3.3	6.6	2000	5.7×10 ⁻⁷	870	0.3	2	17
MOM-17K	8	5.5	11	2000	1.1×10 ⁻⁶	1300	0.3	2	26
MOM-20K	10	7.7	15.4	2000	2.4×10 ⁻⁶	1700	0.4	2	37
MOM-26K	12	11	22	2000	8.4×10 ⁻⁶	3200	0.5	2	78
MOM-30K	15	26	52	2000	1.8×10 ⁻⁵	4600	0.6	2	130
MOM-34K	16	35	70	2000	3.2×10 ⁻⁵	6000	0.7	2	178
MOM-38K	20	55	110	2000	5.7×10 ⁻⁵	7400	0.8	2	241
MOM-45K	22	66	132	2000	1.2×10 ⁻⁴	16000	1.0	2	384
MOM-55K	28	99	198	2000	3.1×10 ⁻⁴	30000	1.2	2	650
MOM-70K	35	176	352	2000	9.3×10 ⁻⁴	46000	1.4	2	1200

- * Correction of rated torque and maximum torque due to load fluctuation is not required.
- ** These are values with maximum bore diameter.
- *** The max. lateral misalignment varies depending on the load torque and revolution. ♦ pages 42 - 43

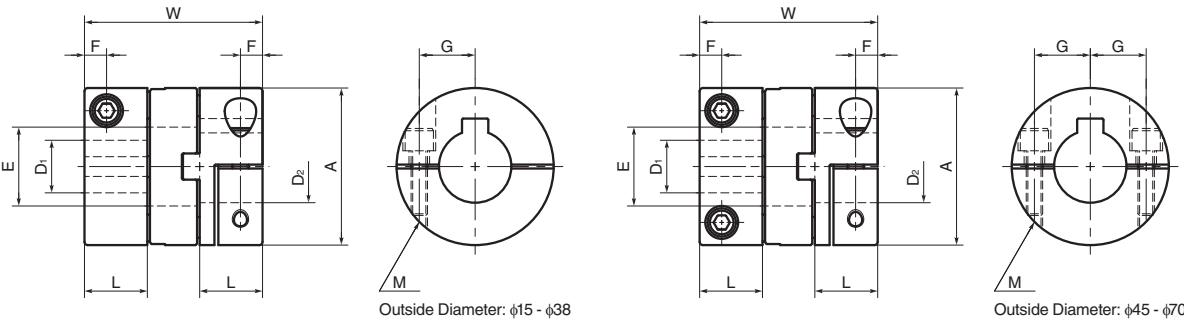


Details of Bore

Unit: mm

Standard Bore Diameter D	Keyway				Key
	b		t		Nominal Dimension b x h
	Basic Dimension	Allowance (JS9)	Basic Dimension	Allowance	
6 · 6.35	2	±0.0125	1.0	+0.1 0	2x2
8	3	±0.0125	1.4	+0.1 0	3x3
10 · 12	4	±0.0150	1.8	+0.1 0	4x4
14 · 15 · 16	5	±0.0150	2.3	+0.1 0	5x5
18 · 20 · 22	6	±0.0150	2.8	+0.1 0	6x6
24 · 25 · 28 · 30	8	±0.0180	3.3	+0.2 0	8x7
35	10	±0.0180	3.3	+0.2 0	10x8

MOM-CK Clamping + Key Type



Dimensions

Unit: mm

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

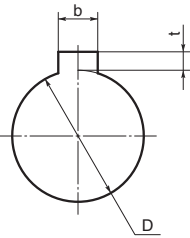
Part Number	Standard Bore Diameter D ₁ / D ₂															
	6	6 ³⁵	8	10	12	14	15	16	18	20	22	24	25	28	30	35
MOM-15CK	●															
MOM-17CK	●															
MOM-20CK	●	●	●	●												
MOM-26CK	●	●	●	●	●											
MOM-30CK			●	●	●	●										
MOM-34CK				●	●	●	●	●								
MOM-38CK				●	●	●	●	●	●	●						
MOM-45CK					●	●	●	●	●	●	●					
MOM-55CK							●	●	●	●	●	●	●			
MOM-70CK									●	●	●	●	●	●	●	●

- All products are provided with hexagon socket head cap screw.
- Recommended dimensional allowances of applicable shaft diameter are h6 and h7.
- A set of hubs with combination of clamping + key type and clamping type or other type is available upon request.
- Additional modification for bore and keyway can be performed.

Performance

Part Number	Max. Bore Diameter (mm)	Rated Torque * (N · m)	Max. Torque * (N · m)	Max. Rotational Frequency (min ⁻¹)	Moment of Inertia ** (kg · m ²)	Static Torsional Stiffness (N · m/rad)	Max. Lateral Misalignment *** (mm) ➡ pages 42 - 43	Max. Angular Misalignment (°)	Weight ** (g)
MOM-15CK	6	3.3	6.6	2000	6.1×10 ⁻⁷	870	0.3	2	18
MOM-17CK	6.35	5.5	11	2000	1.4×10 ⁻⁶	1300	0.3	2	33
MOM-20CK	10	7.7	15.4	2000	2.9×10 ⁻⁶	1700	0.4	2	45
MOM-26CK	12	11	22	2000	9.5×10 ⁻⁶	3200	0.5	2	90
MOM-30CK	14	26	52	2000	1.8×10 ⁻⁵	4600	0.6	2	128
MOM-34CK	16	35	70	2000	3.0×10 ⁻⁵	6000	0.7	2	170
MOM-38CK	20	55	110	2000	5.4×10 ⁻⁵	7400	0.8	2	231
MOM-45CK	22	66	132	2000	1.2×10 ⁻⁴	16000	1.0	2	383
MOM-55CK	25	99	198	2000	3.4×10 ⁻⁴	30000	1.2	2	743
MOM-70CK	35	176	352	2000	1.0×10 ⁻³	46000	1.4	2	1350

- * Correction of rated torque and maximum torque due to load fluctuation is not required.
- ** These are values with maximum bore diameter.
- *** The max. lateral misalignment varies depending on the load torque and revolution. ➡ p.42 - 43



Details of Bore

Unit: mm

Standard Bore Diameter D	Keyway				Key Nominal Dimension b × h
	b Basic Dimension	Allowance (JS9)	t Basic 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