

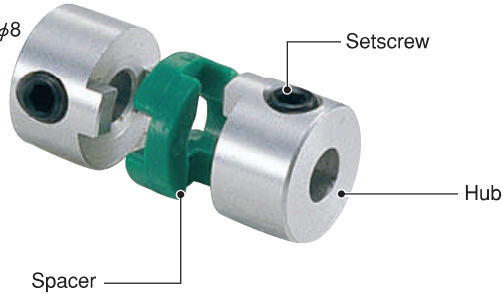
MOS



Configuration

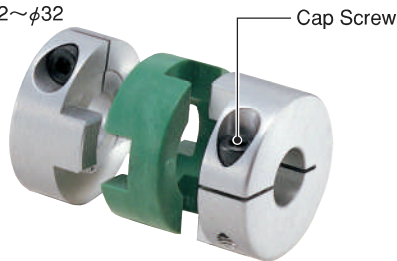
MOS Setscrew Type

Outside Diameter $\phi 8$



MOS-C Clamp Type

Outside Diameter $\phi 12 \sim \phi 32$

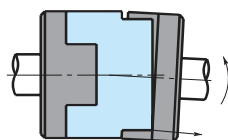
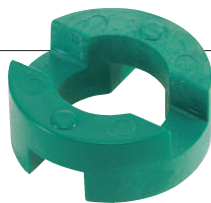


Material & Finish

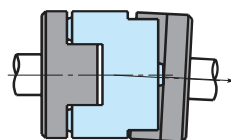
Hub	A2017, Anodized Coating
Spacer	Polyacetal
Setscrew	SCM435, Black Oxide Coating
Cap Screw	SCM435, Black Oxide Coating

* Stock screws can be replaced with stainless steel screws. Please take advantage of our stainless steel screw option. For more information please refer to page 16.

The protruded spacer design enables high allowable angular misalignment and minimized load on shafts.



Without Protrusion



MOS
With Protrusion

Oldham coupling with no protrusions feature low allowable misalignment (1~1.5°) due to interference between the spacer and hubs at the proximity of the outside diameter.

A bending moment is generated as well.

The MOS series features a high maximum angular misalignment (3°), enabled by the protrusions which act as points of support.

No bending moment is generated and the shaft load is minimized.

Features

Merits

- Small Eccentric Reaction Force
- Allowable Misalignment
- Vibration Absorption

- Oldham type flexible coupling
- Compact coupling with short overall length
- Slippage between hubs and spacer allows high parallel and angular misalignments
- Minimized load on shaft caused by misalignments.
- Simple configuration enables ease of assembly
- Protruded spacer design enables high allowable angular misalignment
- Exhibits excellent electrical insulation
- Operational Temperature: $-20^{\circ}\text{C} \sim 80^{\circ}\text{C}$
- Finished products featuring two different end bore diameters available in stock

Application	
Servomotor	—
Stepping Motor	●
General-Purpose Motor	◎
Encoder	—
Special Characteristics	
Zero Backlash	—
High Torsional Stiffness	—
High Torque	●
Allowable Misalignment	◎
Vibration Absorption	●
Electrical Insulation	◎
Corrosion Resistant (All Stainless Steel)	—

◎ : Excellent ● : Very Good

When Ordering

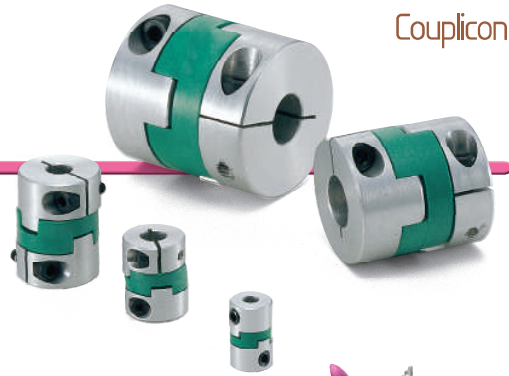
Specify product code and both bore diameters.

MOS-16C-5×6

Product Code

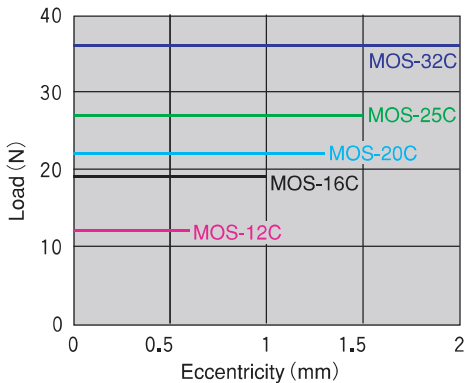
D₁

D₂



Technical Data

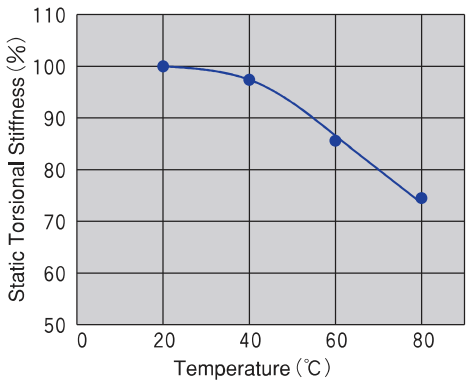
Eccentric Reaction Force



This graph indicates the initial slip load on the hub and spacer. After the component is broken in, slip load is lessened, axel load caused by misalignment is reduced, and the burden on bearings will be lightened.



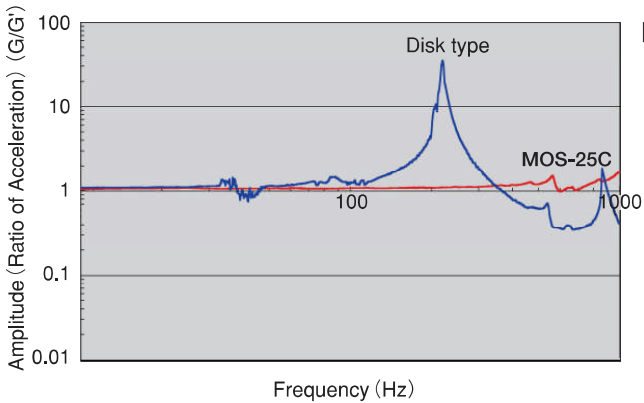
Changes in Static Torsional Stiffness Caused by Temperature



100% values represent product performance at 20°C. The graph shows the changes in torsional stiffness within the operational temperature range. Please take into consideration the decreases in response at higher temperatures.



Natural Frequency

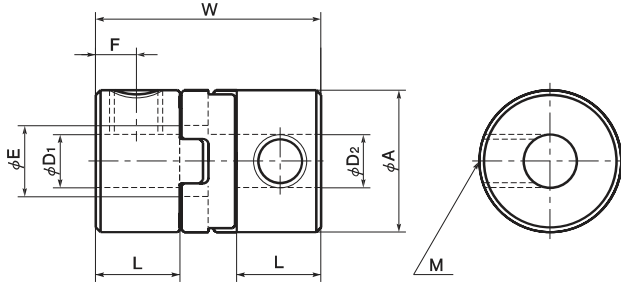


MOS has small amplitude at natural frequency and superior vibration absorption properties.
*Data for all sizes can be downloaded from our homepage.

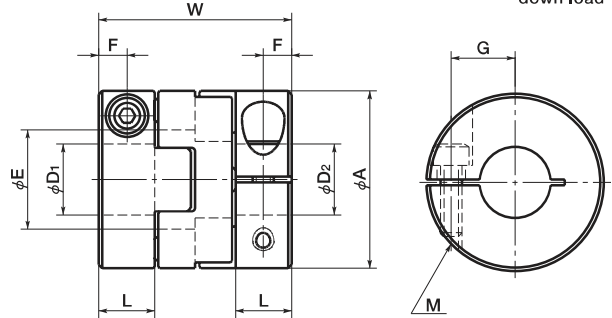


● The technical data contained in this catalog is for convenient reference, but they are not guaranteed values. More detailed technical data can be downloaded from our homepage.

MOS Setscrew Type



MOS-C Clamp Type



CAD DATA [2D](#) [3D](#)
download

Dimensions

Outside Diameter $\phi 8$

Outside Diameter $\phi 12 \sim \phi 32$

unit:mm

Product Code			A	L	W	E	F	G	M	Wrench Torque (N·m)
MOS- 8			8	4.8	12.7	4	2.3	—	M3	0.7
MOS-12C			12	5	14.9	6	2.5	4	M2	0.5
MOS-16C			16	7	21	8	3.5	5	M2.5	1
MOS-20C			20	7	22.1	10	3.5	6.5	M2.5	1
MOS-25C			25	8	27.2	14	4	9	M3	1.5
MOS-32C			32	10	33.3	18	5	11	M4	2.5

Product Code	Stock Bore Diameters													
	D1 · D2													
	1	2	2.5	3	4	5	6	6.35	7	8	10	11	12	14
MOS- 8	●	●	●	●										
MOS-12C				●	●	●								
MOS-16C				●	●	●	●							
MOS-20C						●	●	●	●	●				
MOS-25C								●	●	●	●			
MOS-32C								●	●	●	●	●	●	●

- All products come with setscrews (MOS) or cap screws (MOS-C).
- Tolerance of shaft bore on MOS-8 is H8.

- Recommended tolerance for shaft diameters is h6 and h7.
- Bore and keyway modifications are available on request. Please take advantage of our bore modification services For more information please refer to pages 17~19.

Specifications

Product Code	Max. Bore (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)	Errors of Eccentricity (mm)	Errors of Angularity (°)	Mass** (g)
MOS- 8	3	0.08	0.16	78000	1.2×10 ⁻⁸	2	0.5	2	2
MOS-12C	5	0.2	0.4	52000	7.1×10 ⁻⁸	9	0.6	2	3
MOS-16C	6	0.4	0.8	39000	3.0×10 ⁻⁷	30	1.0	2	8
MOS-20C	8	0.7	1.4	31000	7.4×10 ⁻⁷	47	1.3	2	13
MOS-25C	10	1.2	2.4	25000	2.2×10 ⁻⁶	85	1.5	2	24
MOS-32C	14	2.8	5.6	19000	7.3×10 ⁻⁶	190	2.0	2	48

* Adjustment of rated and maximum torque specifications for load fluctuations is not required. However, if operating temperature exceeds 30°C, please adjust rated torque and maximum torque as detailed in the table below.

For more detailed information, please refer to For Better Drive on page 34.

** Based on the maximum shaft bores.

Air Temperature	-20°C ~ 30°C	30°C ~ 40°C	40°C ~ 60°C	60°C ~ 80°C
Temperature Correction Factor	1.00	0.80	0.70	0.55