RoHS Compliant

New Addition in Size

Bore Modifications

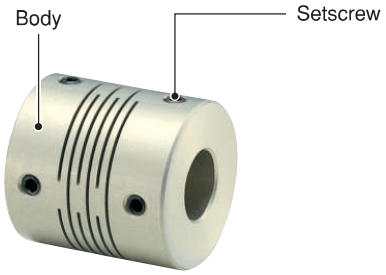
MSX Couplicon 2

For Servomotors

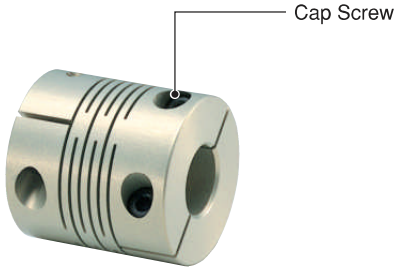
Compact

Configuration

MSX Setscrew Type



MSX-C Clamp Type



Material & Finish

Body	Anodized Aluminum Coating
Setscrew	Black Oxide Coating*
Cap Screw	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.

- For FPD equipment, semiconductor equipment, or equipment to be used in environments requiring clean, heat resistant, or chemical resistant components, take a look at our **MSXP** coupling constructed of PEEK®*.

MSXP (P.118～P.121)

Features

Merits

- High Torsional Stiffness, High Response
- Zero Backlash

- One-piece metallic spring coupling
- Extremely high torsional stiffness, low inertia and excellent response
- Manufactured from extra super duralumin (A7075) - the highest strength aluminum alloy
- Absorption of parallel, angular misalignments and shaft end-play by spring action
- Identical clockwise and counter-clockwise rotational characteristics
- Finished products featuring two different end bore diameters available in stock

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

◎ : Excellent ● : Very Good

When Ordering

Specify product code and both bore diameters.

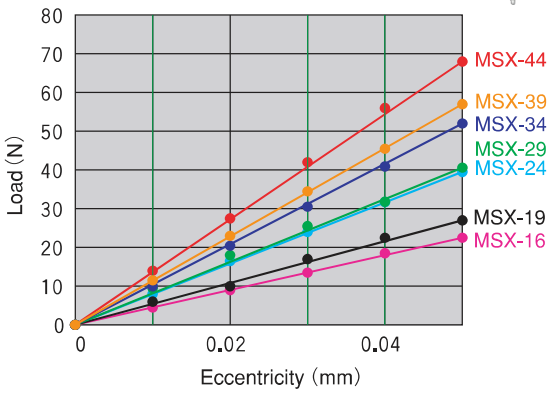
MSX-19C-5×6

Product Code D_1 D_2

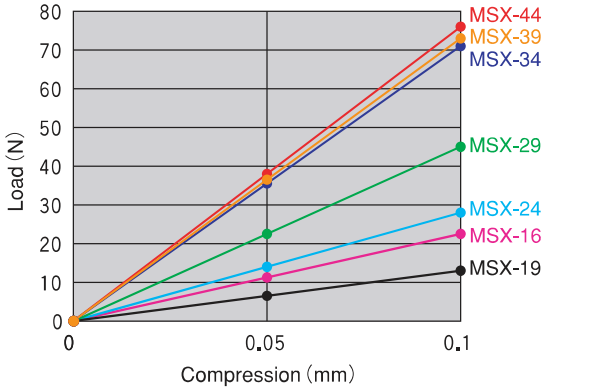
*PEEK® is a registered trademark of Victrex plc.

Technical Data

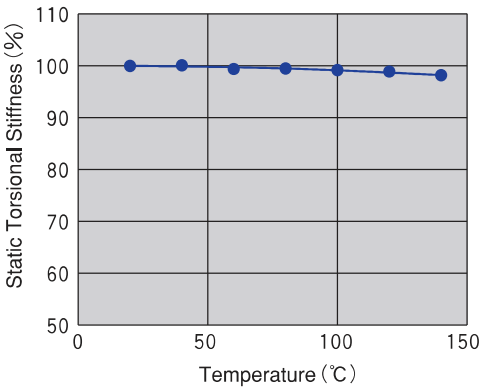
Eccentric Reaction Force



Thrust Reaction Force

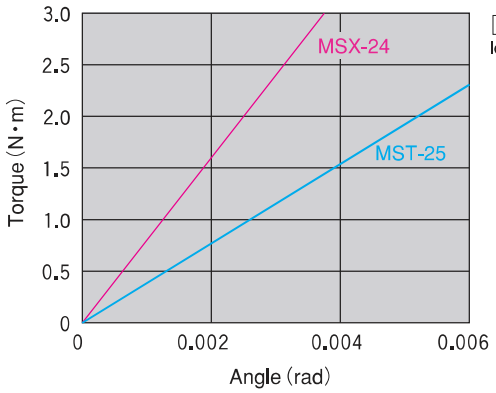


Changes in Static Torsional Stiffness Caused by Temperature



100% values represent product performance at 20℃.
Because MSX experiences very little change in static torsional stiffness caused by temperature, the effect on response is minimal. However, please take into consideration that operating at high temperatures may lead to misalignment due to shaft distortion or elongation from thermal expansion.

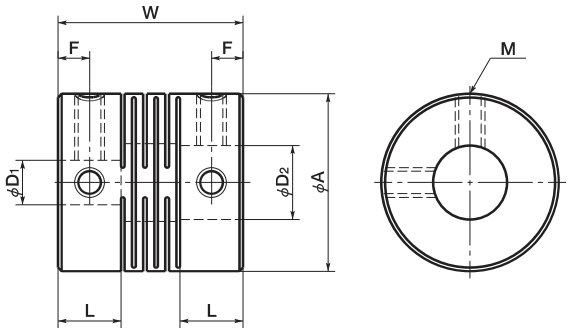
Static Torsional Stiffness Comparisons



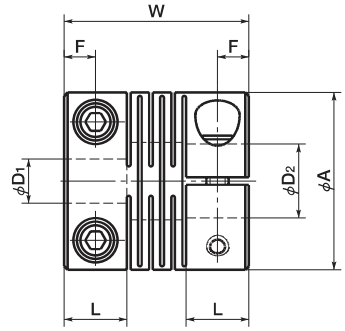
MSX has a high torsional stiffness and excellent response.
Ideal for servomotors' high speed, high precision positioning.

● 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.

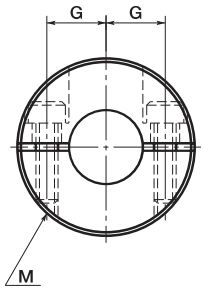
MSX Setscrew Type



MSX-C Clamp Type



CAD DATA 2D 3D down load



Dimensions

unit : mm

Product Code		A	L	W	F	G	M	Wrench Torque (N・m)
MSX-16		16	6	17.4	3	—	M3	0.7
MSX-19		19	6.8	20	3.4	—	M3	0.7
MSX-24		24	8.5	25	4.25	—	M4	1.7
MSX-29		29	10.2	30	5.1	—	M4	1.7
MSX-34		34	12	35	6	—	M5	4
MSX-39		39	13.5	40	6.75	—	M5	4
MSX-44		44	15.5	45	7.75	—	M6	7
MSX-16C		16	6	17.4	3	4.74	M2	0.5
MSX-19C		19	6.8	20	3.4	5.6	M2.5	1
MSX-24C		24	8.5	25	4.25	8	M3	1.5
MSX-29C		29	10.2	30	5.1	9	M3	1.5
MSX-34C		34	12	35	6	11	M3	1.5
MSX-39C		39	13.5	40	6.75	14	M4	2.5
MSX-44C		44	15.5	45	7.75	16	M4	2.5

Specifications

Product Code	Max. Bore (mm)	Rated* Torque (N·m)	Max.* Torque (N·m)	Max. Rotational Frequency (min^{-1})	Moment** of Inertia ($kg \cdot m^2$)	Static Torsional Stiffness (N·m/rad)	Errors of Eccentricity (mm)	Errors of Angularity (°)	Errors of Shaft End-Play (mm)	Mass** (g)
MSX-16	8	0.5	1	39000	2.8×10^{-7}	200	0.05	0.5	±0.1	7
MSX-19	10	1	2	33000	6.2×10^{-7}	270	0.05	0.5	±0.1	10
MSX-24	12	1.5	3	26000	2.0×10^{-6}	790	0.05	0.5	±0.1	22
MSX-29	14	2	4	21000	5.2×10^{-6}	1400	0.05	0.5	±0.1	40
MSX-34	18	3	6	18000	1.1×10^{-5}	2200	0.05	0.5	±0.1	64
MSX-39	20	6	12	16000	2.9×10^{-5}	4100	0.05	0.5	±0.1	90
MSX-44	22	9	18	14000	5.5×10^{-5}	5100	0.05	0.5	±0.1	133
MSX-16C	6	0.5	1	39000	2.5×10^{-7}	200	0.05	0.5	±0.1	7
MSX-19C	8	1	2	33000	5.8×10^{-7}	270	0.05	0.5	±0.1	12
MSX-24C	10	1.5	3	26000	1.8×10^{-6}	790	0.05	0.5	±0.1	23
MSX-29C	12	2	4	21000	4.7×10^{-6}	1400	0.05	0.5	±0.1	41
MSX-34C	16	3	6	18000	1.1×10^{-5}	2200	0.05	0.5	±0.1	62
MSX-39C	20	6	12	16000	2.3×10^{-5}	4100	0.05	0.5	±0.1	88
MSX-44C	22	9	18	14000	4.3×10^{-5}	5100	0.05	0.5	±0.1	128

＊Adjustment of rated and maximum torque specifications for load fluctuations is not required. For more detailed information, please refer to For Better Drive on page 34.
＊＊Based on the maximum shaft bores.

unit:mm

Product Code	Stock Bore Diameters $D_1 \times D_2$							
MSX-16	5 × 5	5 × 6	6 × 6					
MSX-19	5 × 5	5 × 6	5 × 7	5 × 8	6 × 6	6 × 6.35	6× 7	6× 8
	6.35× 6.35	6.35× 8	8 × 8	8 ×10	10 ×10			
MSX-24	6 × 6	6 × 8	6 ×10	6.35× 6.35	6.35× 8	6.35×10	7× 8	8× 8
	8 × 9.525	8 ×10	9.525×10	10 ×10	10 ×11	10 ×12	11×12	12×12
MSX-29	8 × 8	8 ×10	8 ×11	8 ×12	10 ×10	10 ×11	10×12	10×14
	11 ×12	11 ×14	12 ×12	12 ×14				
MSX-34	10 ×14	11 ×14	12 ×12	12 ×14	12 ×16	14 ×14	14×15	14×16
	15 ×15	15 ×16	16 ×16					
MSX-39	10 ×14	12 ×12	12 ×14	12 ×15	12 ×16	12 ×19	14×14	14×15
	15 ×15	15 ×16	16 ×16					
MSX-44	12 ×12	12 ×14	12 ×19	14 ×14	14 ×15	14 ×16	15×15	15×16
	15 ×19	15 ×20	20 ×20					
MSX-16C	5 × 5	5 × 6	6 × 6					
MSX-19C	5 × 5	5 × 6	5 × 7	5 × 8	6 × 6	6 × 6.35	6× 7	6× 8
	6.35× 6.35	6.35× 8	8 × 8					
MSX-24C	6 × 6	6 × 8	6 ×10	6.35× 6.35	6.35× 8	6.35×10	7× 8	8× 8
	8 × 9.525	8 ×10	9.525×10	10 ×10				
MSX-29C	8 × 8	8 ×10	8 ×11	8 ×12	10 ×10	10 ×11	10×12	11×12
	12 ×12							
MSX-34C	10 ×14	11 ×14	12 ×12	12 ×14	12 ×16	14 ×14	14×15	14×16
	15 ×15	15 ×16	16 ×16					
MSX-39C	10 ×14	12 ×12	12 ×14	12 ×15	12 ×16	12 ×19	14×14	14×15
	15 ×15	15 ×16	16 ×16					
MSX-44C	12 ×12	12 ×14	12 ×19	14 ×14	14 ×15	14 ×16	15×15	15×16
	15 ×19	15 ×20	20 ×20					

- All products come with set screws (MSX) or cap screws (MSX-C).
- Tolerance on shaft bores of setscrew type coupling is H8.
- Recommended tolerance on 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.