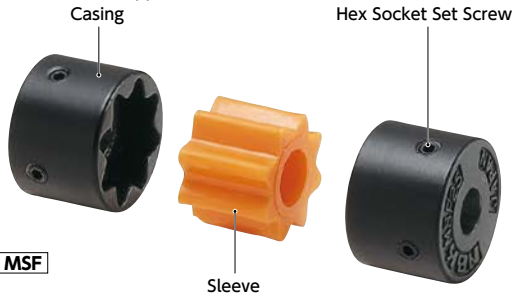


# MSF Flexible coupling - Serration - type

WEB Selection Tool | WEB CAD Download | Electrical Insulation | SUS Stainless steel

## Structure

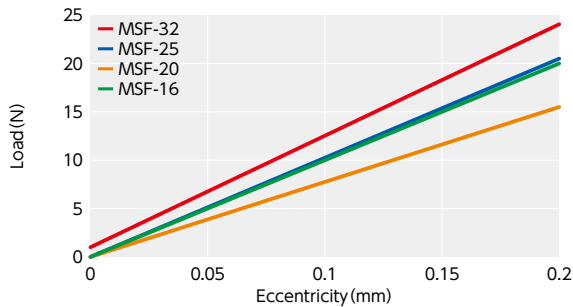
- Set Screw type



MSF

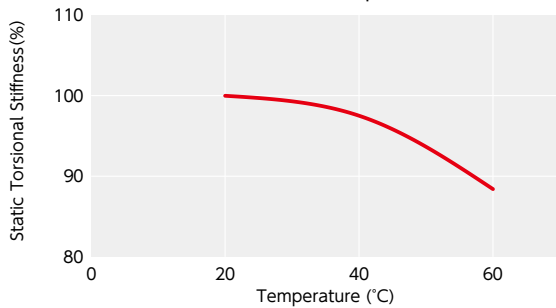
## Technical Information

- Eccentric reaction force



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



- Applicable motors

	MSF
Servomotor	-
Stepping Motor	-
General-purpose motor	⊙

⊙: Excellent ○: Very good

- Property

	MSF
Allowable Misalignment	○
Vibration absorption	○
Electrical insulation	⊙
Allowable operating temperature	-20°C to 60°C

⊙: Excellent ○: Very good

- The engagement of serration transmits torque. This is a simple structure flexible coupling.

- It has excellent flexibility. Its max. lateral misalignment and max. angular misalignment are large, absorbing torsional vibration.

- Application

Mixer/Gaming device

- Material/Finish

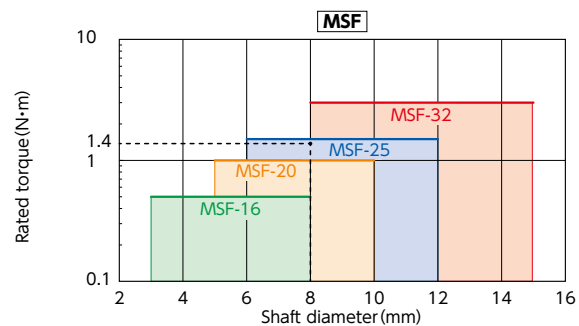
RoHS2 Compliant

	MSF-16-MSF-25	MSF-32
Casing	ZDC2 Cathodic electrodeposition coating	SMF4040 Steam treatment
Sleeve	Polyurethane	Polyurethane
Hex Socket Set Screw	SCM435 Ferrosferric oxide film	SCM435 Ferrosferric oxide film

## Selection

- Selection based on shaft diameter and rated torque

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

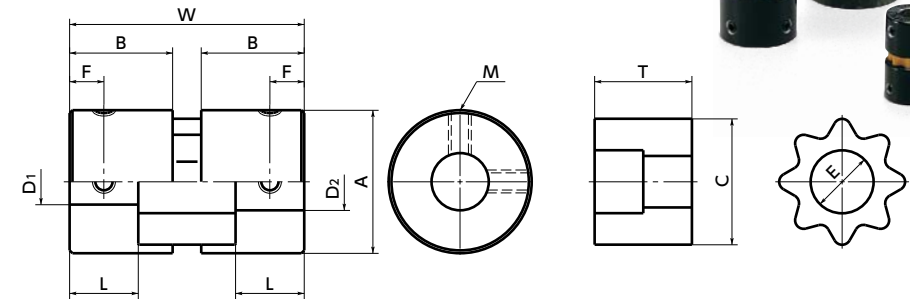


- Selection example

In case of selected parameters of shaft diameter of  $\phi$  8 and load torque of 1.4 N·m, the selected size is

**MSF-25**.

MSF



## Dimensions

Unit: mm

Part Number	A	B	L	W	F	M	Screw Tightening Torque (N·m)	Sleeve			Standard Bore Diameter (dimensional allowance H8)												
								T	C	E	D1·D2	3	4	5	6	6.35	8	10	12	14			
MSF-16	16	12	8	27	4	M3	0.7	11	14	6 / 6	●	●	●	●	●	●	●	●	●	●	●	●	●
MSF-20	20	15	10	34	5	M3	0.7	14	18	8 / 8	●	●	●	●	●	●	●	●	●	●	●	●	●
MSF-25	25	18	12	41	6	M4	1.7	17	22	10 / 10	●	●	●	●	●	●	●	●	●	●	●	●	●
MSF-32	32	21	14	48	7	M4	1.7	20	29	12 / 14	●	●	●	●	●	●	●	●	●	●	●	●	●

- 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.

## 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 Misalignment (mm)	Max. Angular Misalignment (°)	Mass*2 (g)
MSF-16	8	0.5	1	39000	9.0×10 <sup>-7</sup>	4.4	0.20	2	22
MSF-20	10	1	2	31000	2.7×10 <sup>-6</sup>	9.5	0.20	2	42
MSF-25	12	1.5	3	25000	8.1×10 <sup>-6</sup>	20	0.20	2	81
MSF-32	15	3	6	19000	2.5×10 <sup>-5</sup>	52	0.20	2	150

\*1: Correction of rated torque and max. torque due to load fluctuation is not required. However, if ambient temperature exceeds 30°C, be sure to correct the rated torque and max. torque with temperature correction factor shown in the following table. The allowable operating temperature of MSF is -20°C to 60°C.

\*2: These are values with max. bore diameter.

- Ambient Temperature / Temperature Correction Factor

Ambient temperature	Temperature correction factor
-20°C to 30°C	1.00
30°C to 40°C	0.80
40°C to 60°C	0.70

- Part number specification

**MSF-16-6-6.35** 1 set

1 2

**MSF-16-SLV** Single Sleeve

1 Single Sleeve

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