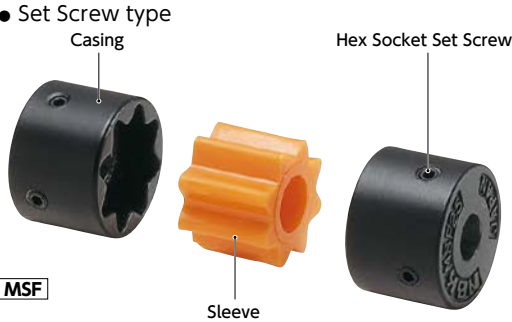


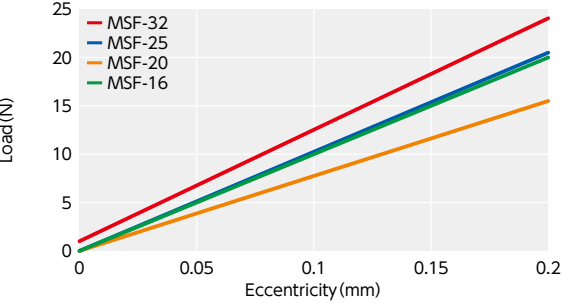
MSF Flexible coupling - Serration - type

WEB Selection Tool CAD Download Electrical Insulation SUS Stainless steel

Structure

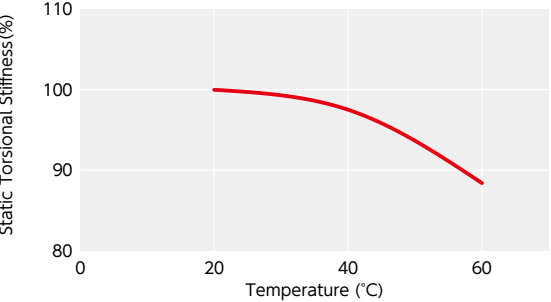


- Technical Information
- Eccentric reaction force



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

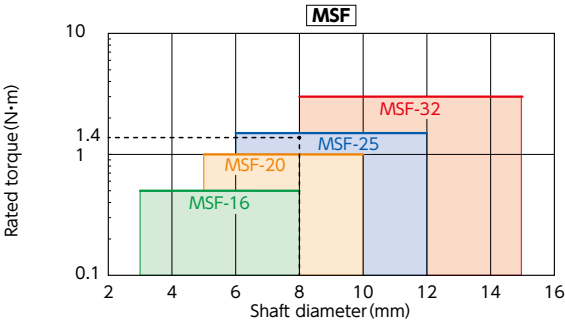
RoHS2 Compliant

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

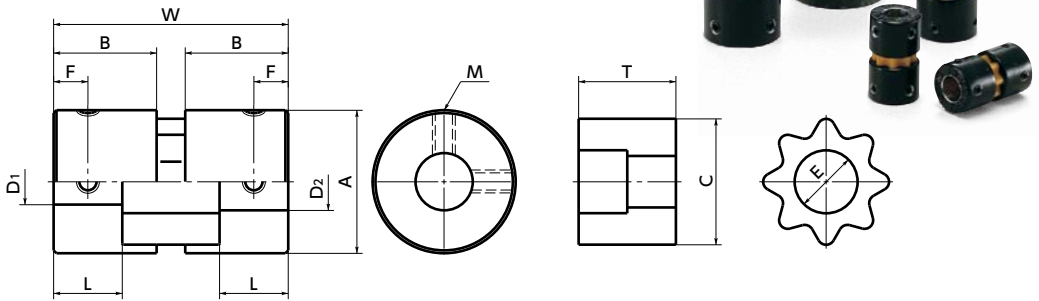


Selection example

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

MSF-25.

MSF



Dimensions

| Part Number | A | B | L | W | F | M | Screw Tightening Torque (N·m) | Sleeve | | | Standard Bore Diameter (dimensional allowance H8) D1 · D2 | | | | | | | | | |
|-------------|----|----|----|----|---|----|-------------------------------|--------|----|---------|--|---|---|---|------|---|----|----|----|---|
| | | | | | | | | T | C | E | 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 ϕ 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 ⁻¹) | Moment*2 of Inertia (kg·m ²) | 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^{-7} | 4.4 | 0.20 | 2 | 22 |
| MSF-20 | 10 | 1 | 2 | 31000 | 2.7×10^{-6} | 9.5 | 0.20 | 2 | 42 |
| MSF-25 | 12 | 1.5 | 3 | 25000 | 8.1×10^{-6} | 20 | 0.20 | 2 | 81 |
| MSF-32 | 15 | 3 | 6 | 19000 | 2.5×10^{-5} | 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