MJB Flexible Couplings - Jaw Type (Bushing)

High torque | Vibration absorption | Electrical Insulation

Structure

● Bushing Type

MJB ➡ P.xxxx

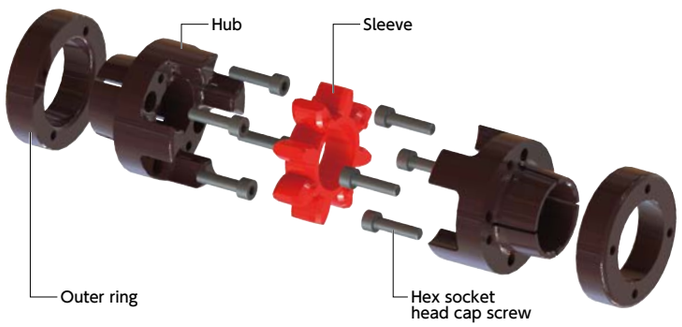
● Sleeve

Outside diameter ϕ40

Tight fit | Easy fit

Outside diameter: ϕ55 - ϕ95

Tight fit | Easy fit



● Material/Finish

RoHS

	MJB
Hub	S45C Ferrosoferric Oxide Film (Black)*1
Outer Ring	S45C Ferrosoferric Oxide Film (Black)
Sleeve	Polyurethane
Hex Socket Head Cap Screw	SCM435 Ferrosoferric Oxide Film (Black)

*1 : Due to manufacturing process requirements, couplings may have bores with or without surface treatment. This does not affect the performance of the couplings.

● Part number specification

MJB - 55 - RD - 10 - 10

Product Code | Size | Sleeve Type | Bore Diameter

Please refer to dimensional table for part number specification.

Additional Keyway at Shaft Hole ➡ P.xxxx	Cleanroom Wash & Packaging ➡ P.xxxx	Change to Stainless Steel Screw ➡ P.xxxx
Not Available	Not Available	Not Available

● Applicable motors

	Tight Fit	Easy Fit
Servomotor	○	●
Stepping Motor	○	○
General-purpose Motor	◎	◎

◎: Excellent ○: Very good ●: Available

● Property

	Tight Fit	Easy Fit
High Torque	◎	◎
Allowable Misalignment	○	○
Vibration Absorption	◎	◎
Electrical Insulation	◎	◎
Assembling	○	◎
Allowable Operating Temperature	−20℃ to 60℃	−20℃ to 60℃

◎: Excellent ○: Very good

- This is a jaw type flexible coupling.
- Excellent for high torque transmission and ideal for machine tool spindles.
- Excellent flexibility. Excellent flexibility allows eccentricity, angular misalignment and twisting vibration to be accepted.
- It has electrical insulation. Resistance value: Not less than 2 MΩ
- There are four types of sleeve hardness. Please select desirable units according to usage conditions including torque and misalignment.
- Since the sleeve's vibration absorption of Tight Fit can raise the gain of a servomotor, this unit can achieve high responsive operation exceeding the Disk coupling.
- Easy fit allows you to assemble and partition the hub and sleeve smoothly.
  This allows you to reduce the time of assembling the unit and maintenance.

● Application

Machine tool / Spindle

● Sleeve Type

Sleeve type	Sleeve hardness (JIS)			
	A80	A92	A98	D64
Tight fit	BL	WH	RD	GR
Easy fit	EBL	EWH	ERD	EGR

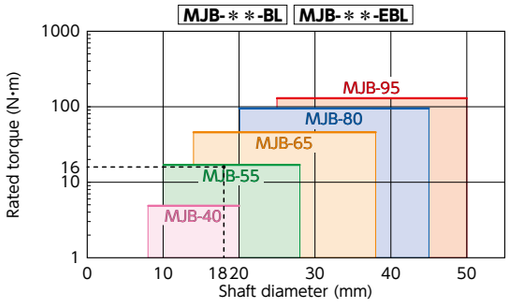
Small ← Rated torque / Max. torque → Large

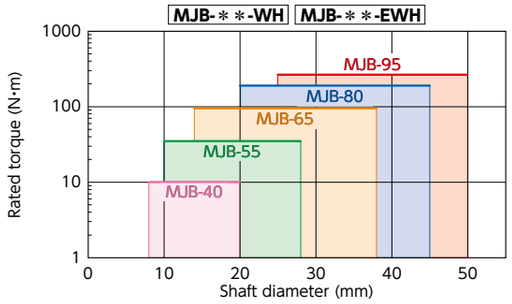
Large ← Allowable misalignment → Small

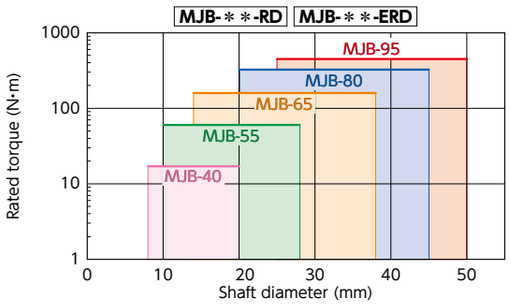
Selection

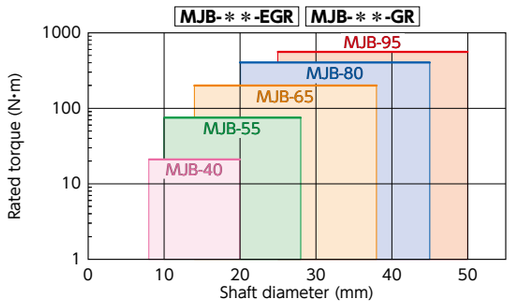
● Selection Based on Shaft Diameter and Rated Torque

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









● Selection Example

In case of selected parameters of shaft diameter of ϕ 18 and load torque of 16 N•m, the selection size for **MJB-＊＊-BL** **MJB-＊＊-EBL** is **MJB-55-BL** **MJB-55-EBL**

Additional Keyway at Shaft Hole ➡ P.xxxx	Cleanroom Wash & Packaging ➡ P.xxxx	Change to Stainless Steel Screw ➡ P.xxxx
Not Available	Not Available	Not Available

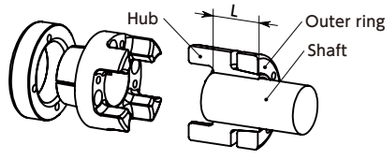
● Mounting and Removing

● Mounting

① Clean up the fitting surfaces of hub, outer ring and shaft.

② Apply light oil thinly on the surfaces. However, avoid molybdenum base oil as it seriously reduces the fastening power.

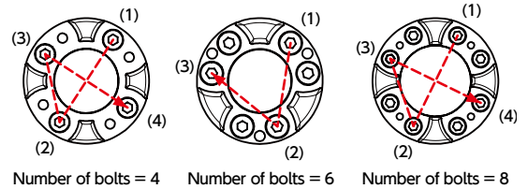
③ Insert the shaft to the dimension L. ➡ **Table 1**



④ Tighten the hex socket head bolts with 50% of the tightening torque in **Table 1**, each once, following the sequence in **Fig. 1**.

⑤ In the same sequence as in ④, tighten the hex socket head bolts with 100% of the tightening torque in **Table 1**, each once.

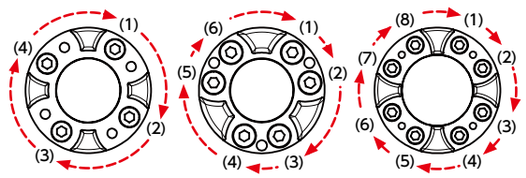
Dia Tighten in diagonal sequence



Number of bolts = 4 | Number of bolts = 6 | Number of bolts = 8

⑥ Tighten all hex socket head cap screws with 100% of the tightening torque in **Table 1**, following the sequence in **Fig. 2**.

Diagram 2 Tighten all bolts



Number of bolts = 4 | Number of bolts = 6 | Number of bolts = 8

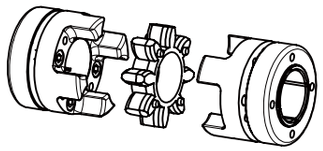
⑦ Repeat ⑥ until all hex socket head cap screws are securely fixed.

As a guide, the rotation of a hex socket head screw, when tightened, should be less than 20 degrees.

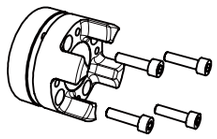
Use a torque wrench to tighten bolts.

● Removal

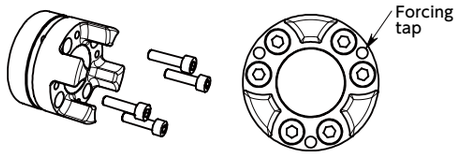
① Disassemble the hub and the sleeve.



② Confirm that there is no torque or thrust load, then loosen all hex socket head bolts completely and remove them.



③ Insert one of the removed bolts in ② to a forcing tap, and tighten little by little, avoiding uneven clamping.



④ Repeating ③ will lead to sharply reduced tightening torque.

Remove the coupling from the shaft, as the fastening force from the tapered surface is reduced.

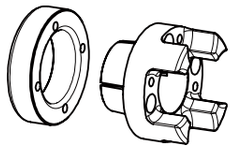


Table 1

Part Number	L	Hex Socket Head Cap Screw		Screw Tightening Torque (N?m)
		Diameter of Thread	Number of Bolts	
MJB-40	25	M4	6	4
MJB-55	30	M5	4	8.5
MJB-65	35	M5	8	8.5
MJB-80	45	M6	8	14
MJB-95	50	M8	8	35