Oil Free Bushing Overview

■ Oil Free Bushings

Bushings are soaked in lubricant so that no oil lubrication
Plain Bearings or less frequent oil lubrication is required.

Features of Oil Free Bushings

- **Long Term Maintenance-free**
- **Optimal for use in heavy load applications compared to rolling bearings.**
- **Suitable for use even under severe operating conditions, such as high and low temperatures.**
- **Thinner wall compared to rolling bearings. Space-saving.**
- **Suitable for both Linear and Rotary Motions.**

Oil Free Bushing Type

Type	Features	Shape	Size	Page
① Copper Alloy (Metal Type) 	· High temperature resistant · High corrosion resistance · Excels in impact strength · Optimal for use in heavy load and low speed applications (C-VALUE Products are suitable for medium load and low speed applications)	· Straight · Flanged · Thrust · Washers · Flange Integrated · Flanged Housing · Housing - Blocks	I.D. Ø5 ~ 100 Length 8 ~ 100	P.381~390
② Bronze Casting (Metal Type) 	· Excels in baking resistance · Minute motion is possible · Optimal for use in low load and high speed applications	· Straight · Flanged · Flange Integrated	I.D. Ø5 ~ 30 Length 8 ~ 70	P.391, 392
③ Casting (Metal Type) 	· Optimal for use in medium load and low speed applications	· Straight · Flanged · Housing · Flange Integrated	I.D. Ø6 ~ 30 Length 6 ~ 60	P.397
④ Multi-Layer LF 	· High temperature resistant · Optimal for use in heavy load and low speed applications · Thin wall and compact	· Straight · Flanged · Washers · Flanged Housing · Housing - Blocks	I.D. Ø3 ~ 50 Length 3 ~ 60	P.398
⑤ Resin (Resin Type) 	· High temperature resistant (PTFE) · Excels in chemical resistance (PTFE) · Conforms to Food Sanitation Law · Optimal for use in low load and high speed applications	· Straight · Flanged · Washers · Flanged Housing · Housing - Blocks	I.D. Ø3 ~ 50 Length 3 ~ 50	P.401, 402

Features of plain bearings and rolling bearings

■Plain Bearings
The shaft slides over the bearing surface in contact with the bearing.

■Rolling Bearings
The shaft rotates in contact with points.

Each Product Property



	Oil Free Bushings	Linear Bushings	Bearings
Bushing Type	Plain Bearings	Rolling Bearings	Rolling Bearings
Lubrication	No initial lubrication required	Lubrication required	Lubrication required
Linear Motion	○	◎	-
Rotary Motion	○	-	◎
Load Capacity	◎	△	○
Heat Resistance	◎	△	△
Corrosion Resistance	○	△	△
Friction Resistance	△	◎	◎
Thickness	Thin Wall	Thick Wall	Thick Wall

◎ : Good ○ : Acceptable △ : Poor - : Unusable

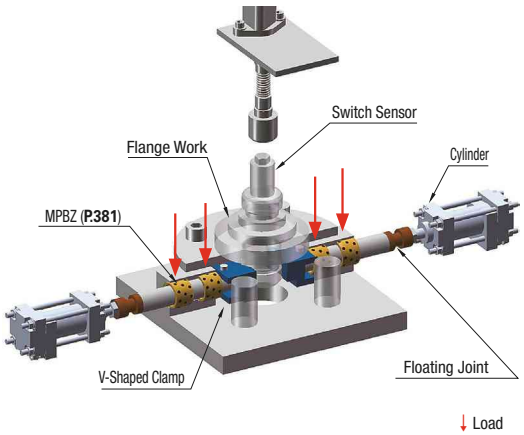
Oil Free Bushings Application Example

Oil Free Bushings are frequently used in the linear and rotary motions shown here.

Application Examples

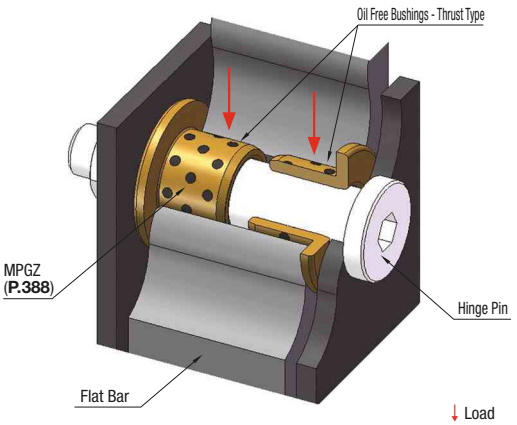
1 Tightening Equipment

Oil Free Bushings are suitable for this equipment because of a heavy load applied for tightening.
Optimal for use in heavy load applications compared to rolling bearings.



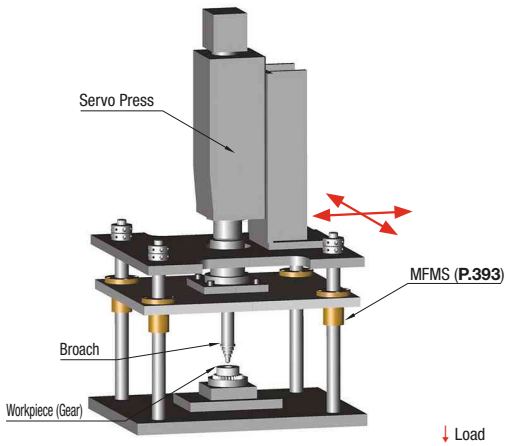
2 Hinge Plates

Oil Free Bushings are suitable for rotations of the hinge pin and the hinge plate.
It can also be used for rotary motions in addition to linear motions.



3 Serration Processor

Oil Free Bushings are suitable because a large load will be applied to serration processing. The flange has the Oil Free Bushings built-in, so you can save time and trouble for replacing parts.



4 Clamping Arm

Oil Free Bushings are suitable for designing in a limited space.
Thinner wall compared to rolling bearings. Suitable for compact design.