Pneumatic components

Safety Precautions

Be sure to read this section before use.
Refer to Intro Page 73 for general information of the cylinder, and to Intro Page 80 for general information of the cylinder switch.

Product-specific cautions: Brake unit JSB3 Series

Design/selection

⚠WARNING

■ Use a rod with a surface roughness between 1.2 to 1.6 μmRz. Use of a non-standard rod may result in abnormal wear of the brake shoe metal or a drop in holding force.

■ Use a rod treated with industrial chrome plating (coating thickness of 15 μm or more).

■ Do not use multiple synchronized brake units. If the synchronization deviates, load is concentrated on the brake unit where the brake was applied first, risking shortened service life or damage.

⚠CAUTION

■ Connect with spherical bearings (floating joints) to prevent damage to the screw at the rod end, to prevent wear or seizure in the brake unit, and to prevent twisting of the rod and brake unit at any position during movement.

■ Sliding resistance is generated in this product even with brake released. Use of thrust as below or higher is recommended.

Rod diameter code	16	20	20A	25	30	35	35A	40	45
Required thrust guideline [N]	53	82	140	227	357	565	722	942	1193

■ As shown in Fig.1, the brake unit is fixed to the table, so keep the rod parallel to the direction of table movement.

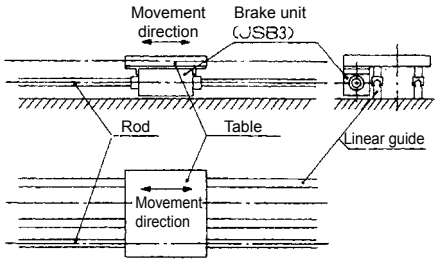

Fig. 1

■ Do not use for rotating rod braking.

■ Note that stopping accuracy is adversely affected if the brake unit air supply pipe is too long.

■ Do not apply lateral load moment to brake units when using in a horizontal state.

Mounting, installation and adjustment

⚠CAUTION

■ Check that load is applied in the rod axial direction.

■ Take special care in handling so as not to cause scratches or dents.
Rough handling may result in abnormal wear of the brake shoe metal or a drop in holding force.

Use/maintenance

⚠WARNING

■ Never disassemble the brake section, as this is dangerous.

■ Do not apply grease.
It may cause the holding force to decrease.

■ For safety purposes, prevent the load from falling under its own weight during maintenance.

⚠CAUTION

■ Make sure that water and oil do not contact the brake unit and rod section.
Water may cause corrosion and ultimately lead to malfunctioning.
Splattered oil may compromise the holding force and stopping accuracy.

■ If the manual release bolt is removed while the piston rod is pulled out, the bolt cannot be screwed in. When the manual release bolt has been removed, supply air from the brake release port and screw in the bolt.