



To Use This Product Safely

Be sure to read this before use. For general cylinder information, see Intro 41, and for Cylinder Switches, see P. 1512.

Individual Precautions: Balancer unit BBS Series

Design / Selection

Warning

■ Do not use the balancer unit exceeding the maximum Operating Pressure or operating piston speed.

■ Do not rotate the Piston Rod while the brake is applied. This will cause damage.

■ Do not disassemble.

CAUTION

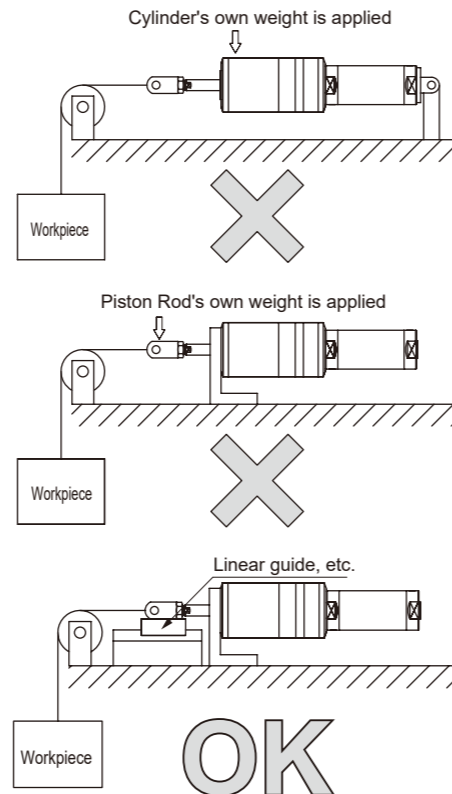
■ If the automatic pressure adjustment air system is selected, be sure to use the control box (BBS-A-TB).

■ Lubrication is not required for this unit. Also, if lubricated, it will cause trouble, so please refrain from doing so.

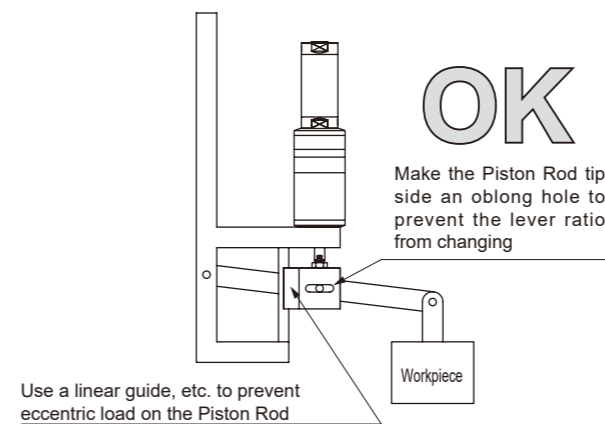
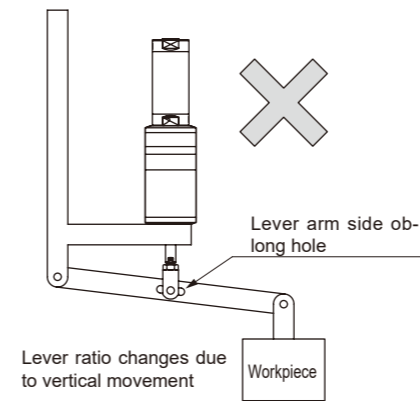
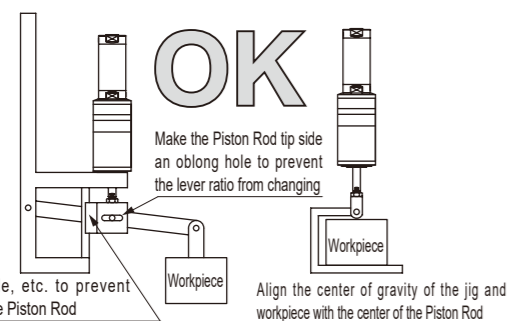
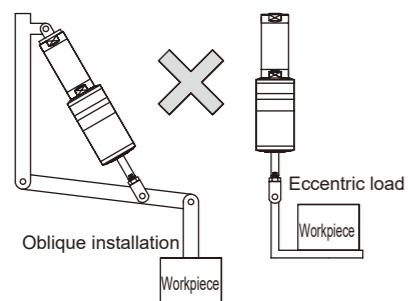
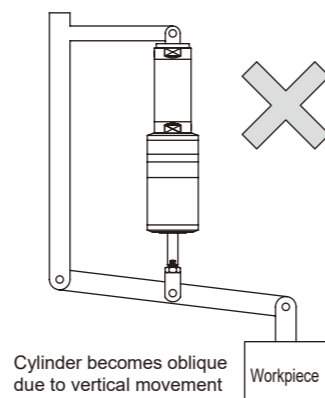
■ This balancer unit should basically be used indoors. Although the unit can be used outdoors in a mobile manner, please move it indoors and store it after use.

■ Since this balancer unit has a mechanism to automatically detect the load applied to the Piston Rod, please install it so that no eccentric load (oblique installation, eccentric load, etc.) is applied to the Piston Rod. The Piston Rod will operate poorly if an eccentric load is applied, requiring additional operating force. Furthermore, the automatic detection function may produce inaccurate results.

■ When using the balancer horizontally, please consider so that no moment due to the Piston Rod and its own weight is applied.



■ When used in a link type, please use a structure where the lever ratio does not change. (Example: Fulcrum movement) If the lever ratio changes with vertical movement, the load could move up or down depending on the detection position regardless of manual operation.



During Use

CAUTION

- Periodically drain the accumulated condensate in the filter before it exceeds the specified line.
- If compressor oil carbides (carbon or tar-like substances) enter the circuit, valves and cylinders will malfunction. Pay close attention to compressor maintenance and inspection.
- If left unattended during work, be sure to apply the brake. There is a risk of serious accidents such as falling jigs or workpieces.

■ Do not rotate the Piston Rod while the load is held by the brake. Since the Piston Rod, brake, and detection part are connected, applying rotational torque may damage the detection part and brake.

■ Consider the supplied air flow rate when piping between the balancer unit and control box. Moreover, the control box should be placed as close to the balancer as possible in order to reduce the piping length. If the flow rate is low or the piping is long, the operating force will increase.

■ If BBS-A air system is selected, a pressure gauge and air lamp (two pressure gauges are also acceptable) are used for initial setting. Please prepare these devices by yourself.

■ Use clean, dry air that has passed through an air filter and oil mist filter as the compressed air. For this reason, use a filter in the circuit, and pay attention to the filter's filtration degree (preferably 5 μm or less), flow rate, mounting position (close to the control circuit), etc.

■ Please note that the operating force may change during operation depending on the usage conditions.

For precautions during mounting, installation, adjustment, use, and maintenance, please see "Precautions for Use" in this catalog and the CKD Components product site (<https://www.ckd.co.jp/kiki/en/>) → "Model No." → Instruction Manual.

Special

MVC

STK

MCP

GLC

BBS

NHS

HR

LN

Cylinder Switch

Ending

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