Pneumatic equipment

Read this before use for safe operation.

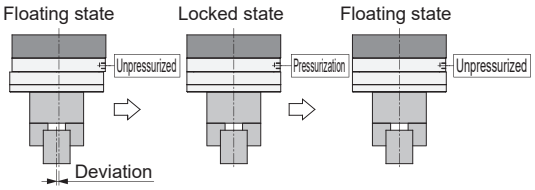
Always read this before use. For general cylinders and cylinder switches, refer to Pneumatic Cylinder ⑤ (Catalog No. RJ-006AA).

Individual precautions : Quick adjuster Slim QREC Series

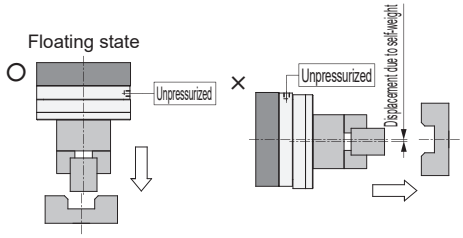
Design / Selection

Caution

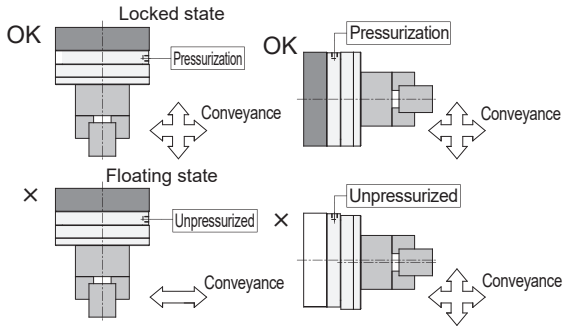
■ As shown in the figure below, applying air pressure will return the plate to the center and lock the Floating function. Releasing the pressure will return it to the Floating state. Note, floating should only be performed with the product facing downward (as shown) or upward. Floating in a horizontal position may cause impact loads due to self-weight dropping, leading to part damage or performance degradation.



■ For press-fitting or insertion work, ensure the product is in an unpressurized Floating state. Horizontal use (lower right figure) is prohibited due to potential misalignment from self-weight.



■ Transport must always be performed in the Locked state. Transporting in Floating state may cause part damage or performance degradation. Additionally, start and stop transport motions as gently as possible. Sudden starts/stops may release the lock and impair centering accuracy.



■ Payload refers to the limit where physical damage does not occur under static load in Locked state (not a guarantee of maintained accuracy). Consider sufficient safety margins if impacts may occur.

■ Mount the load with its center of gravity within the product's outer dimensions. Avoid offset mounting as it may release the lock, causing part damage or performance degradation.

■ When transporting with robots, account for inertial forces from mounted loads that may generate excessive moment. Maintain sufficient margin relative to the product's allowable load.

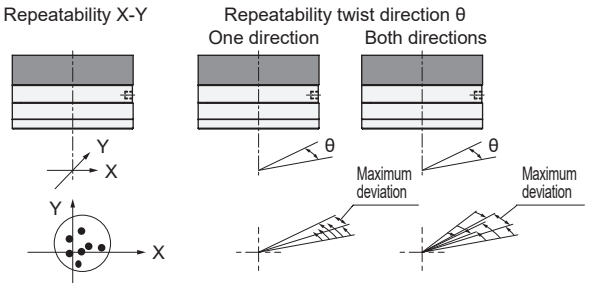
■ Do not disassemble or modify the unit.

■ When mounting hands etc. on the mounting surface, ensure piping / wiring doesn't interfere with Floating operation.

■ External control devices, robot-side flanges, and tool-side flanges must be prepared by the customer.

■ Repeatability

Here, Repeatability refers to the deviation from the reference position when repeatedly pressurizing/depressurizing the quick adjuster under identical conditions (quick adjuster fixed, etc. See below).
Conditions : Workpiece dimensions, shape, weight
· Robot motion
· Air pressure, etc.



Repeatability twist direction θ both directions (reference value)

QREC-01 to 07	QREC-12	QREC-25
±0.5°	±0.4°	±0.2°

■ Operating environment

In machining, casting, and welding facilities, cutting fluid, chips, dust, or other foreign matter may enter. Use covers to prevent these as much as possible. Also, do not use in the following environments

- Exposed to cutting fluid (abrasives or grinding debris in the fluid may wear sliding parts)
- Atmosphere contains organic solvents, chemicals, acids, alkalis, kerosene, etc.
- Exposed to water

For installation/setup/adjustment, operation, and maintenance precautions, visit the CKD equipment product site (https://www.ckd.co.jp/kiki/en/) → "Model No." → Instruction Manual.