



ROTARY ACTUATOR

MCRA series Bore size : $\phi 63$ (Double acting)

- Body size made more compact than ever.
- Functional design and clean appearance.
- Rail type mounting allows switch position to be adjusted very easily.



MCRB series

Bore size : $\phi 16 \sim \phi 32$ (Double acting)

- The swing motion with twin-piston and rack-pinion driving.
- Adjustable swing angle ($0^\circ \sim 190^\circ$), three body mounting mode .



MRTH / MRTF series

Bore size : $\phi 40, \phi 63, \phi 80$

- The body is manufactured in anodized aluminium alloy, and has been designed looking at the harmonious aesthetic development.
- Pinion and rack produced from carbon steel reduces backlash within the mechanism.
- Rotation adjustment screw.



MCRQ series

Bore size : $\phi 15 \sim \phi 40$ (Double acting)

- Operating range of table is $0^\circ \sim 190^\circ$ by angle adjusting screw.
- Compact design using double rack and single pinion.
- Hollow shaft standard for wiring and piping.
- Possible to fit shock absorbers as stops.



MCRQ-S series

Bore size : $\phi 15, \phi 20, \phi 25$ (Double acting)

- **4 to 10 times more allowable kinetic energy** (compared with internal shock absorber type)
- **Total length shortened**
Longitudinal mounting space is reduced because there is no protrusion from adjustment bolts or internal shock absorbers.



MINI-ROTARY ACTUATOR

MCRJ series Bore size : $\phi 6, \phi 8$ (Double acting)

- Rack and pinion type / with external stoppers.
- Mounting from 3 directions.
- Piping and wiring are same directions.



SWING CLAMP CYLINDERS

MCKC series

Bore size : $\phi 16 \sim \phi 32$

- Ultra compact, light weight and space saving cylinder.
- Ideal for use in machinery where space is limited and incorporating sensor groove which enables flush fitting of sensors.



MTAS / MTAD series

Bore size : $\phi 25 \sim \phi 63$

- These swing clamps are used when it is required to keep the fixture workpiece area free of straps and clamping components for unrestricted workpiece loading and unloading.
- This pneumatic clamping element is a pull type cylinder. There are five standard sizes, and for each size two versions of standard clamping arms, mounting of these clamping arms at any angle within 360° .



MAS* series

MATS* series

Bore size : $\phi 25 \sim \phi 63$

This cylinder belongs to a pull cylinder of which the total stroke is equal to the sum of a swing stroke and a clamping stroke, and is usually used within the clamping stroke.



CLAMP CYLINDERS

MCKA series

Bore size : $\phi 40 \sim \phi 63$

- Using anodized aluminum alloy barrel ensures better abrasion and corrosion proof.
- Use unlubricated bush seals for durable servelife.



MCKB series

Bore size : $\phi 32$

- Lever-type air cylinder for grasp use. Compact and light design suitable for limited space application (ex. CNC machining tool).
- Four sides of sensor switch installation available. control is simplified.

