



## Miniature / Guide cylinder

### ① Don't twist the cover.

Don't twist the cover when install the cylinder or fitting. If cover rotate, the junction is probably destroyed.

### ② Install the speed control valve to adjust speed.

When operate the cylinders, please install the control valve to adjust the speed of piston within the regular usage range.

### ③ Don't exert the lateral load on the piston rod.

Please operate the cylinders within the regular usage ranges. Do not exert excessively lateral load on the piston rod.

### ④ The long piston rod need to be braced by supports.

Operate the long stroke cylinders, please use supports to brace the piston rod for avoiding piston rod droop.

### ⑤ Don't close the needle valve completely.

Don't operate the cylinders that the needle valve of which is close completely. That cause packings and related parts are broken.

### ⑥ Don't open the needle valve excessively.

Open the needle valve excessively that like no buffer. The piston hit the cover directly, lead to the piston and cover probably broken.

### ⑦ The parts inside the cylinder tube can't be replaced.

The cover and cylinder tube are combined by rolling, so that can't be disassembled. The parts inside the cylinder tube can't be replaced except the rod packing.

### ⑧ Assemble snap ring into the groove certainly.

Please use the appropriate tool to disassemble the snap ring for replacing the rod packing. Don't support the air to the cylinders until finish replacing certainly to avoid snap ring spouting hurt people or machines.

| Miniature cylinder |
|--------------------|
| Applicable model   |
| <b>MCMA</b>        |
| <b>MCMB</b>        |
| <b>MCKMB</b>       |
| <b>MCMBL</b>       |
| <b>MCMBR*</b>      |
| <b>MCMI</b>        |
| <b>MCMIS</b>       |
| <b>MCKMI</b>       |

| Guide cylinder   |
|------------------|
| Applicable model |
| <b>MGTB</b>      |
| <b>MGTK</b>      |
| <b>MGTU</b>      |

## Pen cylinder

### ① Don't twist the cover.

Don't twist the cover when install the cylinder or fitting. If cover rotate, the junction is probably destroyed.

### ② Install the speed control valve to adjust speed.

When operate the cylinders, please install the control valve to adjust the speed of piston within the regular usage range.

### ③ Don't exert the lateral load on the piston rod.

Please operate the cylinders within the regular usage ranges. Do not exert excessively lateral load on the piston rod.

### ④ The parts inside the cylinder tube can't be replaced.

The cover and cylinder tube are combined by rolling, so that can't be disassembled. The parts inside the cylinder tube can't be replaced.

| Applicable model |
|------------------|
| <b>MCMJ</b>      |
| <b>MCMJ1</b>     |

## Round cylinder

### ① Install the speed control valve to adjust speed.

When operate the cylinders, please install the control valve to adjust the speed of piston within the regular usage range.

### ② Don't exert the lateral load on the piston rod.

Please operate the cylinders within the regular usage ranges. Do not exert excessively lateral load on the piston rod.

### ③ Don't close the needle valve completely.

Don't operate the cylinders that the needle valve of which is close completely. That cause packings and related parts are broken.

### ④ Don't open the needle valve excessively.

Open the needle valve excessively that like no buffer. The piston hit the cover directly, lead to the piston and cover probably broken.

| Applicable model |
|------------------|
| <b>MCCG</b>      |
| <b>MCCN</b>      |

## Sensor switch

① Install more than 2 magnetic cylinders side by side, please maintain more than 40mm apart, in order to avoid the mutual interference of the magnetic fields between the cylinders, that might cause sensor malfunction.

② If a large number of the magnetic substance (attracted by the magnet) attached to the cylinder, for example, iron filings, iron powder, the substance could weaken the internal cylindrical magnet, and the sensor may not sense normally.

③ Please cut off the power supply before wiring work; Otherwise, it may cause electric shock, malfunction or damage the sensor.

④ The sensor is not designed to be explosion proof. Do not use in an environment filled with explosive gas to avoid causing an explosion.

⑤ Do not use in an environment that generates a magnetic field, Because it may cause the sensor and cylinder to malfunction, or the magnet inside the cylinder be demagnetization.

⑥ Do not use in water, or be splashed with water, it may cause poor insulation or malfunction of the sensor.

⑦ Do not use in an environment containing oil or chemicals, it may cause deterioration of sensors.