

## Caution in Use

### Storage/Transportation

#### ● Storage

The gas spring should be stored in dust, sunlight and humid-free area.

#### ● Transportation

Keep the gas spring in a way that it does not hit other gas spring. The scratches or dents made on the piston rod surface may deteriorate the product's durability. (FIG 1)

### Operation/Mounting

- Do not attempt to dismantle the gas spring. High pressure gas is sealed inside and the parts may pop out dangerously.
- Do not attempt to give additional machining onto the gas spring.
- Do not weld or cut the gas spring . Do not throw gas spring into the fire.
- Do not mount the gas spring by using the tap hole on the tip of piston.
- Do not attempt to lift the whole die assembly by using the tap hole on the tip of piston rod. The tap hole is provided for carrying and mount/dismount a single gas spring. (FIG 2)
- The piston rod should be loaded to its full surface equally. If not, adjust the location of cushion pin or adaptor plate to achieve it. (FIG 3)

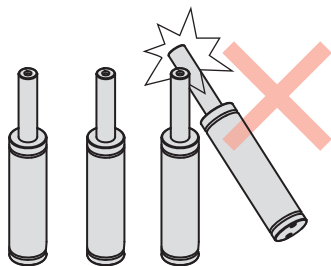


FIG 1

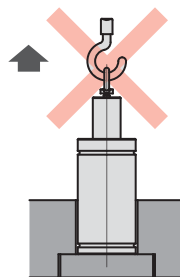


FIG 2

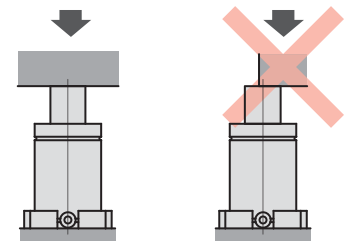


FIG 3

## Caution in Use

### Operation/Mounting

- The gas spring is securely mounted by the screws from the bottom or by the flanges.
- Do not attempt the grinding or welding operation close to the gas spring. If it is inevitable, cover the gas spring to protect them from debris or spatters. (FIG4)
- Do not use the gas spring under the high temperature environment. The maximum operating temperature is 70 °C. If the operational temperature is beyond room temperature (20°C), decrease the charging pressure until it equals to the max. charging pressure (at 20°C). For the details, refer to Instruction Manual.
- Avoid side-load to the piston as much as possible. The side-load significantly shortens the service-life of gas spring, specifically the mounting in lateral. The piston rod tends to lean because of its own weight in case of lateral mount. (FIG5)
- Use gas spring within the recommended stroke range. Over stroke may cause the damage.
- Mount the gas spring to die lubricant free area. If the oil wet gas spring strokes, the oil may become the oil film and intrude inside the cylinder. The accumulated draw oil may cause abnormal high pressure in the cylinder. Especially the chlorine and soluble oils must be avoided as they will deteriorate sealing capability of packing and shorter gas spring life. (FIG6)
- Never use the gas spring under the condition of piston sudden release. Sudden release is very dangerous and there is high risk of gas exhaust and serious damage of the cylinder.

