



# Safety Precautions

Be sure to read this section before use.

When designing and manufacturing equipment using CKD products, the manufacturer is obligated to ensure that the safety of the mechanism, pneumatic control circuit and/or water control circuit and the system that runs the electrical controls are secured.

It is important to select, use, handle and maintain CKD products appropriately to ensure their safe usage.

Observe warnings and precautions to ensure device safety.

Check that device safety is ensured, and manufacture a safe device.

## WARNING

- 1** This product is designed and manufactured as a general industrial machine part. It must be handled by an operator having sufficient knowledge and experience.
  - 2** Use this product in accordance with specifications.

This product must be used within its stated specifications. In addition, never modify or additionally machine this product. This product is intended for use in general industrial machinery equipment or parts. It is not intended for use outdoors (except for products with outdoor specifications) or for use under the following conditions or environments. (Note that this product can be used when CKD is consulted prior to its usage and the customer consents to CKD product specifications. The customer should provide safety measures to avoid danger in the event of problems.)

    - ①** Use for applications requiring safety, including nuclear energy, railways, aircraft, marine vessels, vehicles, medical devices, devices or applications in contact with beverages or foodstuffs, amusement devices, emergency cutoff circuits, press machines, brake circuits, or safety devices or applications.
    - ②** Use for applications where life or assets could be significantly affected, and special safety measures are required.
  - 3** Observe organization standards and regulations, etc., related to the safety of the device design and control, etc.

ISO4414, JIS B 8370 (General rules for pneumatic systems)  
JFPS2008 (Principles for pneumatic cylinder selection and use)  
Including the High Pressure Gas Safety Act, Industrial Safety and Health Act, other safety rules, organization standards and regulations, etc.
  - 4** Do not handle, pipe, or remove devices before confirming safety.
    - ①** Inspect and service the machine and devices after confirming safety of all systems related to this product.
    - ②** Note that there may be hot or charged sections even after operation is stopped.
    - ③** When inspecting or servicing the device, turn OFF the energy source (air supply or water supply), and turn OFF power to the facility. Discharge any compressed air from the system, and pay attention to possible water leakage and leakage of electricity.
    - ④** When starting or restarting a machine or device that incorporates pneumatic components, make sure that the system safety, such as pop-out prevention measures, is secured.
  - 5** Observe the warnings and cautions on the following pages to prevent accidents.
- Precautions are ranked as "DANGER", "WARNING", and "CAUTION" in this section.

 **DANGER:** In the case where the product operation is mishandled and/or when the urgency of a dangerous situation is high, it may lead to fatalities or serious injuries.

 **WARNING:** A dangerous situation may occur if handling is mistaken, leading to fatal or serious injuries.

 **CAUTION:** A dangerous situation may occur if handling is mistaken, leading to minor injuries or property damage.

Note that some items indicated with "CAUTION" may lead to serious results depending on the conditions. All items contain important information and must be observed.

## Limited warranty and disclaimer

- 1** Warranty period  
This warranty is valid for one (1) year after delivery to the customer's designated site.
- 2** Scope of warranty  
In case any defect clearly attributable to CKD is found during the warranty period, CKD shall, at its own discretion, repair the defect or replace the relevant product in whole or in part and at no cost, according to its own judgment. Note that the following failures are excluded from the warranty scope:
  - (1) Failures due to use outside the conditions and environments set forth in the catalog or these specifications.
  - (2) Failures resulting from factors other than this product.
  - (3) Failures caused by improper use of the product.
  - (4) Failures resulting from modifications or repairs made without CKD consent.
  - (5) Failures caused by matters that could not be predicted with the technologies in practice when the product was delivered.
  - (6) Failures resulting from natural disasters or accidents for which CKD is not liable.The warranty covers the actual delivered product, as a single unit, and does not cover any damages resulting from losses induced by malfunctions in the delivered product.
- 3** Compatibility check  
The customer is responsible for confirming the compatibility of CKD products with the customer's systems, machines and equipment.

 Always read the precautions described in each catalog before use.