

Safety Precautions

Cautions relating to the applicable laws and regulations





In order to ensure that the products described in this catalog will be operated safely, users should ensure not only that they thoroughly understand the items in the sections entitled “Cautions to be observed when using the products” and “Notice to users of the catalog” and in the operating instructions of products themselves but also that they adhere to the safety-related standards set forth in the applicable laws and regulations listed on the right.

<Applicable safety-related laws and regulations>






- (1) High Pressure Gas Safety Act
- (2) Industrial Safety and Health Act
- (3) Fire Service Act
- (4) Explosion class
- (5) JIS B 8270: Pressure vessels
- (6) JIS B 8361: General rules for hydraulic equipment

Cautions to be observed when using the products








(1) Cautionary items to be heeded when handling the products

- (i)  **CAUTION** When handling the products, wear protective gear as needed by the circumstances: Failure to do this may result in injury.
- (ii)  **CAUTION** Pay careful attention to the work procedures since, depending on the weight of the product and the work posture you adopt, your hands may become pinched or you may hurt your back.
- (iii)  **CAUTION** Do not climb onto the products, hit or drop them or apply external force to them. Such actions may cause operational trouble, damage, oil leaks or other problems.
- (iv)  **CAUTION** Thoroughly wipe up any work-related oils which have been found on the products or on the floor. Otherwise, you may drop the products or slip on the floor, possibly injuring yourself.





(2) Cautionary items to be heeded when installing and removing the products

- (i)  **CAUTION** Only individuals with specialized knowledge should perform the installation and removal of the products and the connections of the pipes and electrical wires, etc.
* Individuals with specialized knowledge: Individuals with the Class 2 or higher certification in hydraulic system adjustment or individuals who have been trained by Tokyo Keiki in the servicing of the company's products
- (ii)  **WARNING** Before proceeding with any work, be absolutely sure to turn off the equipment's power, and check that the electric motors, engines, etc. have stopped operating. Also check that the pressure inside the hydraulic piping has dropped to zero.
- (iii)  **WARNING** Be absolutely sure to turn off the power before proceeding with electrical wiring connections work. Otherwise, you may be subject to electric shocks.
- (iv)  **CAUTION** Ensure that all the mounting holes and all the adhesion surfaces are clean. Otherwise, trouble with loose bolts or damage to seals may result in damage, oil leaks or other trouble.
- (v)  **CAUTION** When installing the products, be absolutely sure to use the specified bolts and to tighten the bolts using the specified torque. Bear in mind that use of non-specified bolts or torque levels may cause operational trouble, damage and/or oil leaks.

(3) Cautionary items to be heeded during operation

- (i)  **DANGER** In atmospheres where there is a risk of explosions or combustion, products for which the requisite countermeasures have not been taken must not be used under any circumstances.
- (ii)  **WARNING** Protective covers must be installed on the rotating shafts of pumps, motors and other such products to prevent the hands, clothing, etc. of the operators from becoming caught and entangled.
- (iii)  **WARNING** Should any abnormality (such as unusual sounds, oil leaks or smoke) occur, operation must be shut down immediately, and the requisite action taken. Failure to do so may result in damage, a fire, injuries, etc.
- (iv)  **CAUTION** Before operating the equipment for the first time, check that the hydraulic circuits and electrical wiring connections are completely problem-free and that there is no looseness in those areas where parts have been fastened or tightened.
- (v)  **CAUTION** Do not operate the products using specifications other than the ones which are set forth in the catalog, drawings, written specifications or other documentation.
- (vi)  **CAUTION** While the products are operating, their temperature will reach high levels due to the rise in the temperatures of the oil and solenoids: As such, take care not to bring your hands or other parts of your body into contact with the products. You may burn yourself if you fail to heed this caution.
- (vii)  **CAUTION** Ensure that the appropriate hydraulic fluids are used and that their degrees of contamination are kept within the recommended levels. Failure to heed this caution may result in operational trouble and/or damage.

(4) Cautionary items to be heeded during maintenance and storage

- (i)  **CAUTION** Under no circumstances must the users remodel the products.
- (ii)  **CAUTION** Products must not be disassembled and reassembled without authorization. Otherwise, the products may not be able to perform as originally designed, and trouble and/or accidents may occur. If product disassembly and reassembly are unavoidable, these operations must be carried out by an individual with specialized knowledge.
- (iii)  **CAUTION** Before transporting or storing the products, take into account the ambient temperature, humidity and other environmental conditions, and ensure that the products are protected from dust and rust.
- (iv)  **CAUTION** When a product is to be used after a long-term period of storage, it may be necessary to change the seals.