

REGO Cryo-Flow Products

Operating Instructions For TCV8512S, and TCV8508S-S
Brass Check valves for Cryogenic Bulk Tank Fill Circuits
Suitable for use on Oxygen, Argon, Nitrogen, Nitrous Oxide, and
Carbon Dioxide

Maximum Allowable Pressure 42 bar

Warning: Installation, usage and maintenance of this product must be in compliance with all Engineered Controls International Inc. instructions as well all requirements and provisions of national, and local standards, codes, regulations, and laws.

Inspection and maintenance on a periodic basis is essential. Only qualified personnel should perform installation and maintenance.

Be sure all instructions are read and understood before installation, operation and maintenance. These instructions must be passed on to the end user of the check valve.

Caution: Contact of cryogenic liquids or inhalation of the vapors must be avoided to prevent serious injury and death! O₂, Ar, N₂, N₂O, and CO₂ must be released outdoors in air currents that will ensure dispersion to prevent exposure to people and livestock. These gases must be kept far enough from open flame or other source of ignition to prevent fire or explosion!

Installation:

1. Loosen and remove the four (4) screws from the flange and slide flange from the body. Remove the piston and spring from inside the body, then remove the gasket from the body. Discard the gasket and place the other removed items in a clean, dirt free area for reassembly.
2. Ensure all connections are clean and free of any debris.
3. Braze the connections to the body. Follow all national, regional, and/or local code, standard or specification for the proper brazing procedures.
4. After the body has cool sufficiently, replace the spring and piston in the body. Place the new gasket in the gland on the body. Replace the flange and the four screws in the body, and then tighten the four screws in an "X" pattern to 22.6 – 25.4 N·m torque.
5. Apply a sealant that is appropriate for the intended service to the male threads of the connection.
6. Position the check valve such that the flow arrow is in the proper direction for the intended application.
7. Restrain the check valve with a vise or suitable wrench, and using an appropriate wrench for the connection, tighten the connection to the check valve. Do not over tighten connection, as this will damage the threads.
8. Follow all local or national codes and standards for pressure testing and leak checking the installation before start up of the system.

Operation: REGO Cryo-Flow Products Check valves are designed to provide positive shut-off and offer a long, low maintenance service life for liquid or vapor service.

1. Follow your company's established operating procedures.
2. Wear eye protection and gloves.
3. Do not hammer or force the check valve in any manner.
4. If the check valve must be removed from the system, evacuate internal pressure before uncoupling check valve connections.
5. Check valves installed in piping systems such that vapor could be isolated from a pressure relief device require installation of a suitable pressure relief device.

Maintenance and Inspection:

Periodically check for:

1. Any signs of corrosion due to water, salt, industrial pollutants, chemicals, and roadway contaminants;
2. Any physical damage that would prevent proper sealing and usage or that may cause product failure under pressure;
3. Leaks in the flange/body area; body and flange connections of the check valve.

Keep all equipment clean, and replace damaged equipment immediately.

Hazards:

- These check valves are designed to stop flow in one direction; the flow arrow on the check valve indicates inlet to outlet orientation. The inlet is positioned towards the side typically under higher pressure than the outlet; therefore, use of properly sized relief devices to prevent over pressurization must be installed.

General Warning:

All REGO Cryo-Flow products are mechanical devices that will eventually become inoperative due to wear, contaminants, corrosion, and aging components. Periodic inspection and maintenance is essential. The safe useful life of this product can vary greatly depending on the environment it is exposed to, and the inspection/maintenance program that is used.

For more information, refer to REGO Cryo-Flow Products catalog or www.regoproducts.com/cryoflow.

REGO GmbH
Industriestrasse 9
D- 35075 Gladenbach Germany
Tel- 49-6462-9147-10
Fax- 49-6462-9147-29
E-mail. info@rego-europe.de