

## REGO Cryo-Flow Products

Operating Instructions for: 9560 Threaded Connection Valves and Panel Mounted Valves

Suitable for use on O<sub>2</sub>, H<sub>2</sub>, He, Ar, N<sub>2</sub>, N<sub>2</sub>O, CO<sub>2</sub>, C<sub>2</sub>H<sub>2</sub>, Compressed Air, and Mixtures of these gases

Maximum Allowable Pressure 290 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 valve.**

**Caution: Contact or inhalation of vapors must be avoided to prevent serious injury and death! Evacuate gas to well ventilated area free of combustibles and oxidizers.**

### Installation:

1. Ensure connections are clean and free of any debris.
2. Apply an appropriate sealant that is compatible with the intended service to the male threads of the connection.
3. Position the valve such that the flow arrow is in the proper direction for the intended application.
4. Restrain the valve with a vise or suitable wrench, and using an appropriate wrench for the connection, tighten the connection to the valve. Do not over tighten connections, as this will damage threads.

Note: If using the Panel Mount version of this valve, bore a 4.128 cm hole in the panel at the desired location of the valve. Maximum distance between the bonnet and panel nut is 11.43 mm.

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 Valves are designed to provide positive shut-off and offer a long, low maintenance service life for vapor service: they are designed to stop flow in either direction.

1. Follow your company's established operating procedures.
2. Wear eye protection and gloves.
3. Ensure all threads engage smoothly and easily. Do not hammer or force the valve in any manner.
4. When opening the valve, turn the hand-wheel counterclockwise, and ensure that it is opened fully (back-seated). Do not partially open the valve. With the valve pressurized, inspect the connections for signs of leakage – no leakage permissible.
5. To close the valve, turn the hand-wheel clockwise until it stops. This indicates that the seat disc has contacted the seat. Do not over torque the hand wheel after the seat disc has engaged the seat.
6. If the valve must be removed from the system, evacuate internal pressure before uncoupling valve connections.

7. Valves installed in piping systems that isolate vapor 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 valve bonnet area, body, and end connections of the valve.

**Keep all equipment clean, and replace damaged equipment immediately.**

### Hazards:

- These valves are designed to stop flow in either direction; however, the flow arrow on the valve indicates inlet to outlet orientation. The inlet should be positioned towards the side typically under higher pressure than the outlet.

### 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](http://www.regoproducts.com/cryoflow).

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## REGO Cryo-Flow Products

Operating Instructions for: 9560 Brazed Connection Valves and Panel Mounted Valves

Suitable for use on O<sub>2</sub>, H<sub>2</sub>, He, Ar, N<sub>2</sub>, N<sub>2</sub>O, CO<sub>2</sub>, C<sub>2</sub>H<sub>2</sub>, Compressed Air, and Mixtures of these gases

Maximum Allowable Pressure 290 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 valve.**

**Caution: Contact or inhalation of vapors must be avoided to prevent serious injury and death! Evacuate gas to well ventilated area free of combustibles and oxidizers.**

### Installation:

**NOTE:** Before the valve can be brazed into place, the internal mechanisms must be removed to avoid damaging the seat and seals.

1. Clamp the valve body in a vise. Remove the lock nut, hand wheel, and slip washer. Using an appropriate wrench, remove the bonnet cap. Remove the stem, stem seals, and backup ring from the valve body.
2. Ensure connections are clean and free of any debris.
3. Position the valve such that the flow arrow is in the proper direction for the intended application.
4. Braze the connections to the body. Follow all national, regional, and/or local code, standard or specification for the proper brazing procedures.
5. Replace the stem and seat disc assembly (make sure that the seat disc is threaded all the way up the stem). Replace the retainer, o-ring, and backup ring. Thread bonnet onto body and torque to 113 – 136 N·m. Replace slip washer, hand wheel, and nut; tighten nut firmly.

Note: If using the Panel Mount version of this valve, bore a 4.128 cm hole in the panel at the desired location of the valve. Maximum distance between the bonnet and panel nut is 11.43 mm.

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 Valves are designed to provide positive shut-off and offer a long, low maintenance service life for vapor service: they are designed to stop flow in either direction.

1. Follow your company's established operating procedures.
2. Wear eye protection.
3. Wear suitable gloves to prevent freeze burns.
4. Ensure all threads engage smoothly and easily. Do not hammer or force the valve in any manner.
5. When opening the valve, turn the hand-wheel counterclockwise, and ensure that it is opened fully (back-seated). Do not partially open the valve. With the valve pressurized, inspect the connections for signs of leakage – no leakage permissible.

6. To close the valve, turn the hand-wheel clockwise until it stops. This indicates that the seat disc has contacted the seat. Do not over torque the hand wheel after the seat disc has engaged the seat.
7. If the valve must be removed from the system, evacuate internal pressure before uncoupling valve connections.
8. 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 valve bonnet area, body, and end connections of the valve.

**Keep all equipment clean, and replace damaged equipment immediately.**

### Hazards:

- These valves are designed to stop flow in either direction; however, the flow arrow on the valve indicates inlet to outlet orientation. The inlet should be positioned towards the side typically under higher pressure than the outlet.

### 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](http://www.regoproducts.com/cryoflow).

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