# Diversco



Instruction Sheet BK8500-350 Rev. A

### REGO IS A LEADING MANUFACTURER OF GAS AND CRYOGENIC VALVES, REGULATORS AND RELIEF VALVES FOR GAS AND CRYOGENIC STORAGE/DISTRIBUTION SYSTEMS.

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WARNING: Installation, usage and maintenance of this product must be in compliance with all RegO® instructions as well as 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: Avoiding the inhalation of, or skin contact with compressed and cryogenic gases is advised. Many of these gases can cause asphyxiation, serious injury or death. See MSDS for specific information regarding the safe handling of the service gas. Evacuation of gas should take place in a well-ventilated area to ensure dispersion. Keep gasses far from open flames or other sources of ignition to prevent fire or explosion.

Note: Suitable for use on Argon (Ar), Nitrogen (N<sub>2</sub>), Nitrous Oxide (N<sub>2</sub>O), Oxygen (O<sub>2</sub>), Carbon Dioxide (CO<sub>2</sub>), and Liquid Natural Gas (LNG).

#### Installation:

- Using an appropriate wrench and firmly securing the body, remove the bonnet ring or bonnet bolts from the body. Remove the bonnet, gasket and seat assembly from the body. Set all parts aside in a <u>CLEAN</u> area for re-assembly.
- 2. Ensure piping system connections are clean and free of any debris.
- Position the valve in the piping system such that the flow arrow is in the proper direction for the intended application. The flow arrow must point horizontal with bonnet in vertical position. The valve will not properly operate if the piping or tubing system is inclined downward or upward.
- 4. For valves with silver brazing pipe ends or silver brazing tube ends, braze the pipe or tube connections to the body. Follow all national, regional, and/or local code, standard or specification for the proper brazing procedures.
- 5. Allow the body to air cool after brazing.
- Clean the body in accordance with applicable piping code requirements.
- Re-assemble with new gasket, seat assembly, bonnet and bonnet ring or bonnet bolts. Secure with the proper torque, see table. The torques shown are for reference only.
- 8. Follow all local or national codes and standards for pressure testing and leak checking the installation before start up of the system.
- Inspect for body joint leakage after cool down. It may be necessary to re-tighten the cap after system cool-down.

## **OPERATING INSTRUCTIONS FOR BK8500 SERIES**

Cryogenic Lift Check Valves for Bulk Storage Containers and Pipelines.

#### Operation:

RegO® Lift Check Valves are designed to provide shut off in one direction and offer a long, low maintenance service life for liquid or vapor service: they are designed to check flow in direction opposite of the flow arrow. They are ideally suitable for use on bulk storage containers, transports, cylinder filling plants, and plant piping.

- RegO<sub>®</sub> Lift Check Valves operate automatically by the flowing fluid. There is no external mechanism to operate the disc/arm assembly.
- 2. Follow your company's established operating procedures.
- 3. Wear eye protection & 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. If the valve must be removed from the system, <u>evacuate internal</u> pressure before uncoupling valve connections.
- 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:

- Any signs of corrosion due to salt water, industrial pollutants, chemicals, and roadway contaminants;
- Any physical damage that would prevent proper sealing and usage or that may cause product failure under pressure;
- 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 capable of stopping flow in one direction, the flow arrow on the valve indicates inlet to outlet orientation. The inlet should be positioned to towards the side typically under higher pressure than the outlet.

Be aware of piping systems that confine gas without the appropriate protection against over pressurization.

Never uncouple any part of the valve without relieving all pressure in the system.

TORQUE (±10%)		
Valve Size	Bonnet Ring	Bonnet Bolts
1"	91 ft-lbs	
	123 N-m	05.6.11
1 1/2"		35 ft-lbs
		47 N-m