1506 George Brown Drive
Marshall, MI 49068
Phone (269) 789-6700
Fax (269) 781-8340
www.marshallexcelsior.com

Installation and Operation Instructions for For: ME670DBC LPG / NH3 Filler Valve with Back Check

SCOPE

Intended for use as a high capacity filler valve with a manual shut-off device in LPG or NH_3 containers. These valves can be equipped with either a soft seat back check or excess flow feature that is internal to the container. The excess flow version can also be used as a vapor equalizing valve typically found in NH_3 applicators and nurse tank applications.

NOTE

For proper operation and performance of the excess flow feature, the manual shutoff must be completely open and back seated.

!WARNING!

Contact with, or inhalation of liquid propane, anhydrous ammonia and their vapors can cause serious injury and/or death. LPG must be released outdoors in air currents that will ensure dispersion to prevent exposure to people and livestock and in accordance with local regulations. LPG must be kept far enough from open flame or other sources of ignition to prevent fire or explosion. LPG and NH_3 vapors are heavier than air and will not disperse or evaporate rapidly if released in still air.

An abundant supply of clean water must be readily available and easily accessible as a means of providing IMMEDIATE First Aid treatment for exposure to anhydrous ammonia.

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.

WARNING: These products contain a chemical known to the state of California to cause cancer and birth defects or reproductive harm

!CAUTION!

- Always wear suitable eye protection, gloves and protective clothing when operating or servicing LPG and NH3 equipment.
- Check seals, seats and Acme threads for wear and damage before use. Repair or replace all defective parts immediately.
- Always completely relieve system or line pressure prior to servicing equipment and plumbing.
- Use a suitable sealant on tapered pipe joints and always pressure test for leaks prior to returning to service.
- Always replace protective dust caps after use.
- To prevent the accidental opening of any valve, never carry or grasp a valve by its hand wheel or handle.

- To prevent accidental discharge, introduction of contaminants or premature wear never intentionally drag or drop a hose end valve.
- Regular inspection and maintenance is essential for continued safe operation.

Features

- Positive seating back check valve opens for maximum flow at minimum pressure drop when filling - regardless of the type of coupling in which the valve is installed.
- Back Check seat is fully contained in the tank coupling for maximum protection in the event of external damage to the valve.
- Resilient seat disc assembly is fully contained on three sides for bubble-tight shut-off and long service life.
- "V"-ring spring -loaded stem seal design requires no repacking or field adjustment.
- Specially machined break-away groove beneath ACME threads will shear-off with excessive pull on the hose and leave the valve body intact.
- Plugged 1/4" NPT boss accommodates vent valve or hydrostatic relief valve.

1506 George Brown Drive
Marshall, MI 49068
Phone (269) 789-6700
Fax (269) 781-8340
www.marshallexcelsior.com

Installation and Operation Instructions for For: ME670DBC LPG / NH3 Filler Valve with Back Check

Installation

1. Check hose end valve and filler valve for foreign materials and, if present, remove with extreme care. If foreign material cannot be safely removed, do not proceed with filling and replace valve.
2. Apply a suitable PTFE thread sealant compound to the external NPT threads.
3. Install the valve into the coupling hand tight and then wrench tighten 1-2 additional turns. Do not overtighten. Over tightening of the valve may cause distortion of the body preventing the internal components from proper actuation.
4. Follow all local and national codes and standards for pressure testing and leak checking the installation.

Operation

The ME670DBC valves are designed specifically for use as a manual filler valve on storage and applicator containers. This valve incorporates an integral back-check valve.

1. Follow your company's established filling procedures.
2. Always wear suitable eye protection, gloves and protective clothing when operating or servicing LPG and NH3 equipment.
3. Remove the protective cap from the ACME connection. Connect filler hose to the ACME connection, and turn clockwise until hand tight.
4. Ensure all threads engage smoothly and easily. Do not hammer or force the valve.
5. Open hose end valve on filler hose first, then open the ME670DBC valve.
6. When opening the valve, turn the hand-wheel counterclockwise, and ensure that it is opened fully (back-seat). Do not partially open the valve. Observe the valve connections. There should be no leak. If a leak develops, close the valve and correct the problem.
7. After the filling process is complete, move the valve to the fully closed position.
8. To close the valve, turn the hand-wheel clockwise until it stops. This indicates that the seat disc has contacted the seat.
9. Relieve pressure at the filler hose connection by opening the vent valve, when supplied, on the ME670DBC valve. **Ensure all pressure is bled from system prior to uncoupling valve connections.**
10. Uncouple the filler hose. Return the protective cap

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 which 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!

- The valve must be fully closed with the hand wheel when not in use. The back-check valve is not designed to be the primary seal.
- Ensure the protective cap is in place when filler valve is not in use. Do not allow foreign material to enter the body of the valve.
- When disconnecting from a filler valve, if the venting of gas does not stop, foreign material may be preventing the filler or hose end valve from closing completely. Do not disconnect from a filler valve before venting is complete.
- ACME connections can wear over time and may prevent a secure connection, inspect the threads and replace couplings that have worn or damaged threads.

!WARNING!

Underwriters Laboratories' requires that the upper seal in filler valves be replaceable. As a result, excessive or repeated heavy torque loads may loosen valve components that allow seal replacement. Never apply more force or torque to an Acme connection than is required to provide a reliable seal.

!GENERAL WARNING!

Marshall Excelsior products are mechanical devices that are subject to wear, contaminants, corrosion, and aging of components made of materials such as rubber and metal. Over time these devices will eventually become inoperative. The safe service life of these products will reflect the environment and conditions of use that they are subjected to. Regular inspection and maintenance is essential. Marshall Excelsior products have a long record of quality and service, so LP-Gas dealers may forget hazards that can arise from using aging devices that have outlived their safe service life.