

Installation and Operation

!!! WARNING !!!

Contact with, or inhalation of liquid propane, anhydrous ammonia and their vapors can cause serious injury and 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 NH₃ 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.

NOTE: Brass versions are intended for use with LPG only.

!!! 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, introducing contaminants and premature wear, never intentionally drag or drop a hose end valve.
- Regular inspection and maintenance is essential for continued safe operation.

!!! 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.

Hose End and Filling Valves

To prevent damage, excessive wear and possible hazardous product release follow this procedure on every filling application when connecting to, filling with or disconnecting the hose end valve or fill check / swivel adapter from the fill valve:

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. Inspect filler valve, fill check valve, hose end valve and hose swivel for leaks and loosened parts. Do not use any valves or adapters that are leaking or show signs of damage or excessive wear.
3. **Support the weight of the hose and valve and align Acme connectors carefully (See Figure 2a, 2b, 2c & 3)**
4. **Minimize the length of hose supported by the connection and never attempt to move the hose while it is connected to the tank.**
5. **Make sure the Acme connector easily spins on by hand. Never use hammers or pipe wrenches to tighten Acme connections.**
6. Fully open the fill valve, as applicable, and hose end valve during loading to reduce restrictions that may prevent proper operation of excess flow valves
7. If a leak is detected when filling is started, immediately stop the operation and follow procedures to correct the leaking condition.
8. Before disconnecting a filler valve, close both the filler and hose end valve tightly and vent the trapped gas by (a) using the vent on the hose end valve or (b) slightly loosening the coupling nut to vent the gas before disconnecting.
9. Loosen the filler valve connection very slowly. If the gas does not stop venting, then there is a leak in the filler valve or hose end valve. Do not disconnect the filling connector. Make sure you are familiar with your companies' procedure for handling this hazardous situation and follow it carefully.
10. If a filling hose adaptor back check, such as MEC's ME571H, ME572 or ME574 series is installed on the hose end valve, the adapter can be left on the filler valve that fails to close.
11. The filler valve should be tightly capped when filling is complete and the hose end valve is disconnected, and at all times when not in use (See Figure 4).
12. **Note:** The use of a hose end swivel, such as ME850SS-8 installed between the hose and hose end valve is highly recommended to reduce the torsional loads that are applied to the fill connections from the hose.



Figure 1: Tank installation overview

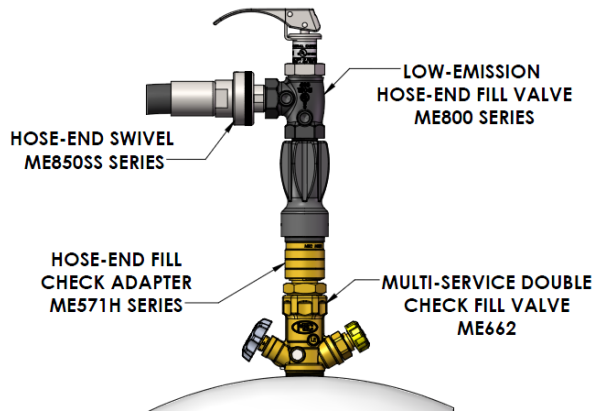


Figure 2a: Hose End Coupling

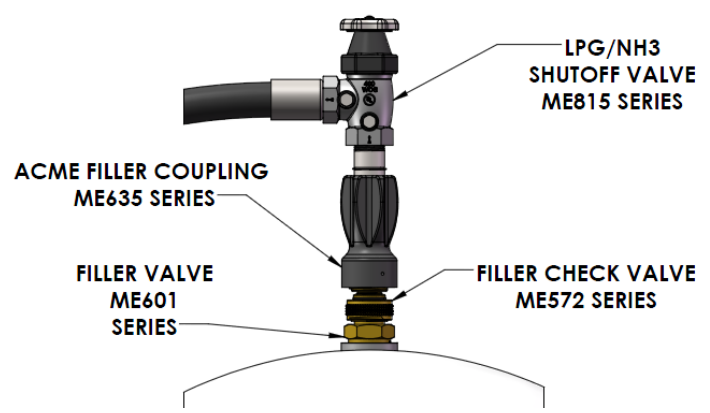


Figure 2b: Check Valve Coupling

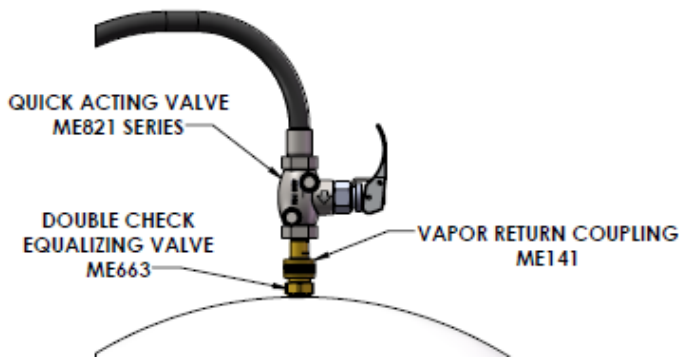


Figure 2c: Vapor Return



Figure 3: ACME Alignment



Figure 4: Dust Cap Installation

Maintenance and Trouble Shooting

Inspect fill check adapters, swivel check adapters, hose end valve and hose swivels for leaking or loose connections prior to every use. Do not use any valves, adapters or swivels that are leaking or show signs of damage or excessive wear. Prompt repairs or replacements should be made by a properly trained personnel. Continued use without repair or replacement can create a hazardous situation, which could result in serious or fatal personal injury or property damage.