



# Turbo-Flo LE

## ME865 Thru ME868 Series

### Low Emission Acme Adapter

## Instruction Manual



### WARNING

- Trapped liquid **MUST BE** purged prior to bringing vehicle indoors for service to prevent discharge from hydrostatic relief valve. To purge, use adapter P/N MEP105 and follow instructions provided.
- Hydrostatic relief valve may vent when exposed to a rapid temperature rise.
- Brass models are suitable for use with LP-Gas only.
- Failure to follow these instructions or to properly install and maintain this equipment could result in (A) personal injury or death and (B) an explosion and/or fire causing property damage.
- Install, operate and maintain Marshall Excelsior Co. equipment in accordance with federal, state, and local codes and these instructions. The installation in most states must also comply with NFPA #58 LP-Gas Code, ANSI K61.1 and DOT standards.
- Only personnel trained in the proper procedures, codes, standards and regulations of the LP-Gas and Anhydrous Ammonia industries should install and service this equipment.

**CAUTION:** Contact or inhalation of liquid propane, anhydrous ammonia or their vapors can cause serious injury or death! Disperse propane or ammonia only in accordance with local regulations. To prevent exposure of LP-Gas or NH<sub>3</sub> to people and livestock when allowed by regulations, release these products outdoors in air currents that will ensure dispersion. Keep LP-Gas far enough from any open flame or other source of ignition to prevent fire or explosion! LP-Gas is heavier than air and may not disperse or evaporate quickly if released in still air.

**NOTE:** If the pressure downstream of the Globe Valve exceeds 350 PSI due to rapid temperature differential, it may be necessary to install a vent valve in the downstream pressure port of the Globe Valve. This will allow the downstream pressure to be reduced preventing hard operation of the valve. A high flow Globe Valve with integrated backcheck is available (PN: ME825IBC-16). This valve features an integrated backcheck through the valve seat which provides a closed loop system allowing the downstream pressure to bypass the valve seat to equalize with the upstream piping. A bypass kit (PN: ME868BLK) is available if an ME825-16 Globe Valve is installed. This kit provides a closed loop system allowing the downstream pressure to bypass the valve seat to equalize with the upstream piping.

### INTRODUCTION

#### SCOPE OF INSTRUCTIONS

These instructions cover ME865 thru ME868 series Low Emission Acme Adapters. Marshall Excelsior Low Emission Acme Adapters provide back flow protection to container openings or liquid lines where flow is intended in one direction only. The valve is mechanically held closed until pressure activates the valve when flow is directed into piping or containers causing the back check to open. When flow stops or reverses, the check returns to the closed position. All Marshall Excelsior Low Emission Acme Adapters are designed with soft seats, which provide a positive seal.

**NOTE: THE SOFT SEAT INSTALLED ON THE VALVE WILL PROVIDE A POSITIVE SEAL REQUIRING A MINIMUM OF 15 PSI PRESSURE DIFFERENTIAL BETWEEN THE TRANSFER LINE AND CONTAINER TO UNSEAT THE VALVE AND ALLOW IT TO FULLY OPEN.**

**Marshall Excelsior Co.**  
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Phone (269) 789-6700 Fax (269) 781-8340

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Instruction #438 Rev-G



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## INSTALLATION

### WARNING

Release all system pressure prior to installation of valve. Failure to do so could result in personal injury. Use proper safety equipment at all times. Completely purge the system of all LP-Gas or NH<sub>3</sub>.

Not recommended for use with soft seat backcheck in bobtail spray fill port.

1. Apply a suitable thread sealant compound, such as Loctite 565PST, to Male NPT thread of the Low Emission Acme Adapter.
2. Valve must be installed with hydrostatic relief output directed away from personnel. Install into system following the directional arrow stamped on the valve body, considering the flow direction of the system piping the backcheck is being installed into.
3. Tighten connections by placing a suitable wrench onto the hex wrench flats provided.
4. Pressurize the system after all plumbing is complete to a pressure of at least 150 PSI and check all joints for leakage using a suitable leak detector solution such as "Marshall Excelsior" leak detector.

## OPERATION

**WARNING: Do not use with Marshall Excelsior ME431R/ ME441R Series or REGO 3194-90/ A3194-90 Acme Caps. These cap styles have an internal boss which will open the backcheck seat releasing the trapped liquid propane from the Low Emission Acme Adapter.**

1. Remove Acme Dust Cap from 1-3/4" Acme Adapter on Vapor Return Line.
2. Connect Vapor Return Hose and open valves in the Vapor Return System.
3. Wait for pressure to equalize with the storage tank and the excess flow to open in the Vapor Internal Valve by watching the Pressure Gauge in the Bobtail Vessel.  
**NOTE: This vapor equalization procedure will significantly reduce the differential pressure required to open the low emission backcheck when filling.**
4. Remove Acme Dust Cap from Low Emission Acme Adapter.
5. Connect ME806-16 Turbo-Flo LE Transfer Valve to Low Emission Acme Adapter and tighten connections using Marshall Excelsior part number MEP120B Spanner Wrench.
6. Slowly open the Globe/ Ball Valve on the truck side of the connection.
7. Unlock the safety latch on the ME806-16 Transfer Valve and move the operating handle forward toward the connection. This motion will automatically open the pilot valve feature and equalize the system pressure. Continue pushing the operating handle forward until fully open.
8. When filling is complete, close the ME806-16 Transfer Valve by moving the operating handle back to the closed position until the safety latch locks into place.
9. Close the Globe/ Ball Valve on the truck side of the connection
10. Disconnect the ME806-16 Transfer Valve and replace the Acme Dust Cap onto the Low Emission Acme Adapter.

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