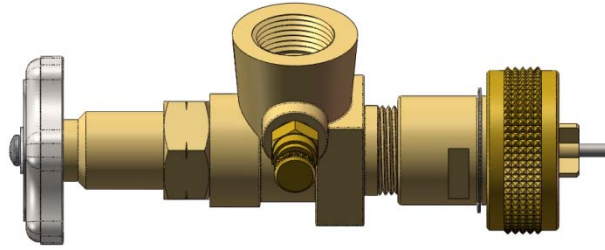


## ME450 OPERATION INSTRUCTIONS

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### GENERAL

The ME450 unloading adapter is intended to be used when liquid has to be removed from a propane tank manufactured prior to 1963 during an emergency or when relocation is necessary.

### SAFETY INSTRUCTION

- Only personnel trained in accepted LPG industry procedures (NFPA 58, NPGA, CETP, etc.) should work on LP gas systems.
- Wear approved eye and hand protection during liquid transfer.
- Marshall Excelsior Unloading Adapter is to be used with MEC Filler Valves ONLY. Use with other manufacturer valves may cause damage or a proper seal may not be achieved.

### OPERATING INSTRUCTIONS

1. It is recommended that a shutoff valve be installed between the outlet of the unloading adapter and the transfer hose.
2. Turn the unloading adapter's hand wheel counter clockwise until it stops to retract the pin fully.
3. Check to ensure the vent valve on side of unloading adapter is closed by turning knob clockwise finger tight.
4. Install the unloading adapter on the filler valve by engaging the coupling nut and turning clockwise until hand tight. Never attach the unloading adapter on the filler valve when the pin is in an extended position. This can result in the filler valve opening before the coupling nut is fully tightened thus releasing LP gas.
5. To open the filler valve, turn the hand wheel on the unloading adapter clockwise to extend the pin. Be careful to stop turning the hand wheel when the filler valve has been opened fully which is attained when a mechanical stop is felt.
6. Proceed with the evacuation process.
7. Once the LP liquid evacuation is complete, close the filler valve by turning the unloading adapter's hand wheel counter clockwise until it stops. This will fully retract the pin.
8. Close the shutoff valve installed at the unloading adapter outlet. Open the vent valve on the side of unloading adapter by turning the knob counter clockwise to depressurize the connection. Be sure that the vent valve has stopped venting to verify that the filler valve is closed and the unloading adapter can be removed. Remove the unloading adapter.
9. Store the unloading adapter in a location where damage will not occur.

Do not use an unloading adapter that is damaged, missing components, or is not in good working condition. Remove from service, tag it, and contact your service center or local Marshall Excelsior distributor for repair instructions and replacement parts kit.

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Marshall Excelsior Company (MEC) would like to provide you with information regarding the hazards associated with Liquefied Petroleum Gas (LPG) and anhydrous ammonia (NH<sub>3</sub>) equipment. All MEC products must be installed and maintained in accordance with NFPA 58 "Liquefied Petroleum Gas Code", NFPA 59 "Utility LP-Gas Plant Code" for LPG, and ANSI Standard K61.1 for NH<sub>3</sub>, as well as all other applicable state, federal and local requirements. In the interest of safety, all persons employed in handling LPG and NH<sub>3</sub> must be trained in proper handling and operating procedures.

MEC 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 is affected by the environment and conditions of use that they are subjected to. MEC products have a long record of quality and service, so managers and service personnel must keep in mind the hazards that can arise from using aging devices that have outlived their safe service life.

## !!! WARNING !!!

**Contact with, or inhalation of liquid propane, anhydrous ammonia, and their vapors can cause serious injury and death! NH<sub>3</sub> and 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 vapor is 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.**

## !!! CAUTION !!!

- Always wear suitable eye protection, gloves and protective clothing when operating or servicing LPG and NH<sub>3</sub> 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.
- Use only the special wrenches designed for making 2-1/4" and 3-1/4" Acme valve connections.
- Regular inspection and maintenance is essential for continued safe operation.

## Hose End and Filling Valves

Follow this procedure on every filling application in order to prevent hazardous conditions:

- 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.
- Make sure the Acme connector easily spins on by hand. Never use hammers or pipe wrenches to tighten Acme connections.
- If a leak is detected when filling is started, immediately stop the operation and follow procedures to correct the leaking condition.
- 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 coupling nut to vent the gas before disconnecting. Loosen the filler valve 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.

## Back Checks and Valves with Back Checks

Back checks limit flow to one direction. They are not intended to be a primary shut-off. Always fully close shut-off valves equipped with back checks when not in use.

## Excess Flows and Valves with Excess Flows

Excess flows check closed when their rated flow is exceeded. Always fully open a shut-off valve with an excess flow when in use.

## Quick Acting Filling Valves

Inspect valves daily to ensure locking mechanism is working properly.

There are developing trends in state legislation and proposed national legislation making the owner of products responsible for replacing products before they outlive their safe service life. LP-Gas dealers should be aware of such legislation as it affects them.

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