

IMPORTANT SAFETY NOTICE TO DEALER FROM QUALITY STEEL CORPORATION

(To be shared with your service and installation personnel.)

Filling instructions for the Vacuum Pre-purged Propane Tank

CAUTION:

- **Do not remove seals on valves before being properly instructed on how to initially fill a vacuum pre-purged propane tank.**
 - **Do not let any air enter the propane tank.** If air is allowed in the tank before the pressure is normalized, it must be re-purged with propane vapor in accordance with NFPA Pamphlet #58 and government regulatory requirements.
 - **Do not remove cap from fill valve until the vacuum has been neutralized.** Begin filling through the service valve (a/k/a the multivalve) for the first fill or at least until the vacuum is neutralized.
 - **Do not open the outage valve until the pressure in the tank has normalized or a positive pressure has been achieved in the tank.**
 - **The presence of a vacuum in the tank does not eliminate the need for the introduction of methanol into the tank.**
 - **Never prepare the propane tank for service on a customer's property, but always at the bulk plant site or some other safe location.**
- 1) Verify that a vacuum exists in the tank as follows:
 - Remove the seal wrap from the service valve and verify that the service valve hand wheel is tightly closed.
 - Connect a vacuum pressure gauge to the service valve outlet connection and open the hand wheel.
 - Visually check the vacuum pressure gauge dial for the presence of a vacuum.
 - Close the service valve and disconnect the vacuum pressure gauge.
 - **IMPORTANT NOTE:** If the vacuum is not in accordance with NPGA Safety Bulletin No. 133-89(a), the container must be re-purged with propane vapor. Additionally, due to the potential for internal oxidation of a tank not under vacuum, the addition of extra ethyl mercaptan to the tank prior to or during the first fill may be warranted to help counteract possible depletion of the ethyl mercaptan already in the tank.
 - 2) Add methanol to the propane tank by connecting a hose to the POL outlet of the service valve.
 - 3) Submerge the other end of the hose in a safety container that has been filled with the required measure of methanol.
 - 4) Gradually open the service valve and the methanol will be drawn into the tank to partially fill the vacuum that exists.
 - 5) To prevent air from getting into the propane tank, close the service valve as soon as the measured amount of methanol has been removed from the safety container.
 - 6) Disconnect the methanol hose from the POL of the service valve.
 - 7) Connect the propane fill hose to the POL connector on the service valve.
 - 8) Open the service valve and start to fill the tank with propane.
 - **CAUTION:** After the tank pressure has been normalized**, close the outage valve (if it was opened after the pressure was normalized), the service valve and the fill hose valve.
 - **NOTE:** **The appropriate amount of propane to normalize the vacuum pressure in the tank will vary depending on the volume of the tank. If liquid is used, 1 to 4 gallons of propane is required for all tanks up to 1000 gal. water capacity. If vapor is used, wait until there is no longer an audible transfer of vapor from the filler hose to the tank.
 - 9) Bleed off the fill connector pressure and disconnect.

THE TANK HAS NOW BEEN PREPARED FOR SERVICE.

- **When setting a new tank, the size of the tank should be properly selected to fit the demand for gas to be used.**
- To transport the tank after preparation process, remove all propane gas in the tank in excess of the amount of propane permitted to be transported under applicable regulations, including those of the U.S. Department of Transportation.
- Once the tank has been safely set for service, you may continue the filling process through the fill valve by removing the seal and cap of the fill valve and using your normal safe filling procedures. **CAUTION: The initial fill must be to the maximum allowable liquid level to help counteract the possible depletion of ethyl mercaptan in the tank.**
- If you did not do so earlier, you should also inject methanol into the tank at this point by including an injection device in your fill line.
- Future fillings should be made through the fill valve.

SAFETY FIRST

Let the user of the tank know you care!

SAFETY FIRST

THIRD PARTY USERS: If the user of a new tank is not the Purchaser of the tank, said Purchaser shall furnish the user with a copy of Quality Steel's special installation, operational and safety instructions, which Purchaser has been provided by Quality Steel. Purchaser agrees to indemnify and hold Quality Steel harmless for any and all loss, damage, and/or expense which may at any time be sustained by Quality Steel by reason of any claims by the user against which Quality Steel would have a partial or total legal defense had notice of Quality Steel's special installation, operational, and/or safety instructions been made available by the Purchaser to the user.

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