



NEXGEN
FUELING™

A division of Chart Industries

VT-0013

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CES

First Fill Fueling Procedure

The purpose of this procedure is to give guidance when filling LNG fuel tanks that have never been put into service, or are without pressure due to repair and maintenance.

This procedure applies to fills with both centrifugal pumps as well as high volume low-pressure piston pump systems manufactured by Chart Applied Technology. Due to greater power, as well as better control of the reciprocating pump, the piston fill differs from the centrifugal pump fill.

If the tank has been out of service, as it would be if shipped from the factory, the bus OEM, or the maintenance shop, it must be purged with natural gas prior to filling.

Centrifugal Pump fills.

1. Don all required protective gear.
2. Attach vent fixture to vent valve, so that any purged gases are vented through the fueling station vent system.
3. Completely open the vent valve, and then back off the valve a $\frac{1}{4}$ turn to prevent it from freezing open.
4. Cautiously start fueling.
5. At the beginning, throttle the liquid going into the tank(s) by closing the dispenser hand valve or the fueling nozzle isolation valve. The pressure in the tank(s) should stay below 60 PSI.
6. Fill between 10 to 20 gallons.
7. Stop fill and allow tank(s) to vent down through vent.
8. Close vent.

9. Start fill again with the liquid throttled. While monitoring the pressure gauge, gradually open the throttle valve until there is a completely free flow.

10. Finish fill in normal manner.

Piston pump fills.

1. Don all required protective gear.
2. Attach vent fixture to vent valve, so that any purged gases are vented through the fueling station vent system.
3. Completely open the vent valve, and then back off the valve a $\frac{1}{4}$ turn to prevent it from freezing open.
4. Reduce pump speed to a minimum. The pressure in the tank(s) should stay below 60 PSI.
5. Fill between 10 to 20 gallons, then stop fill, and allow tank(s) to vent down through vent.
6. Close vent.
7. Start fill again at low pump speeds.
8. Complete fill in normal manner.

This procedure is for use by trained mechanics experienced with using Liquefied Natural Gas systems and vacuum technology. Review all pertinent safety documents before starting this procedure.