



Beverage Systems

Safety Bulletin

Component Safety Advisory

SB-Y10-01

Date:

July 2006

Subject:

Inspection of CO₂ storage vessels for potentially hazardous condition.

Models Affected:

All Chart Beverage Systems CO₂ storage vessels manufactured between June 2003 and June 2006, including Mite 200, Charger 300, Mizer 450 and Carbo-Max 750.

Warning: Risk of Severe Injury or Death

Chart has received field reports that tubes may leak or discharge from the fitting in certain Chart bulk CO₂ storage systems. Affected models are listed above and include all Chart CO₂ storage vessels manufactured between June 2003 and June 2006.

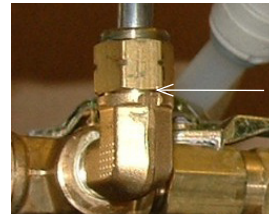
These CO₂ storage vessels are equipped with Parker Vibra-Lok fittings on either the pressure builder or economizer circuit, depending on model. The Vibra-Lok fitting differs from a conventional style compression fitting in that the Vibra-Lok fitting requires the nut to be tightened until it **contacts the body** of the fitting, as shown:

Correct Installation



Fitting
contacts
body

Incorrect Installation



Gap
between
fittings

- Customers should **immediately** inspect all affected CO₂ storage vessels to assure correct assembly of the Vibra-Lok fittings. In the event the Vibra-Lok fittings currently are not installed so that the nut contacts the body of the fitting, customers should follow the remedial procedures on page 2 of this bulletin.
- Customers should ensure correct assembly of Vibra-Lok fittings as part of their periodic inspection and maintenance program.
- Customers should not modify the pressure builder or economizer circuits.

Failure to ensure that the fitting has been installed according to these recommendations, or modification of the pressure builder or economizer circuits, can result in leaks or complete discharge of the tube from the fitting, resulting in a release of CO₂. Such leaks or discharge can result in an increased concentration of CO₂, particularly inside of buildings or enclosed spaces, which can result in severe injury or death.

CO₂ gas monitors should be used in any indoor or enclosed installation where leaks or gas discharge can create a dangerous concentration of CO₂.

Please refer to CGA Pamphlet G-6.5 and page 1 of the Chart (Vessel) User Manual for additional specific warnings regarding safe vessel installation and emergency procedures. To obtain additional copies of these documents or more information about this safety bulletin please contact Chart Technical Service at 800-253-1769 or 952-758-4400.

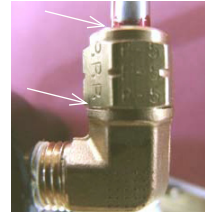
Vibra-Lok Fitting

(The Vibra-Lok fitting has a different installation procedure compared to a conventional compression fitting.)

Inspection:

- Ensure that the Vibra-Lok fittings are fully tightened to the stainless steel Pressure Builder or Economizer tubing so that the nut "bottoms out" against the fitting such that the nut contacts the body of the fitting as seen in Figure 2 .
- **If the nut is not contacting the body of the fitting, the fitting should be removed and reassembled.**
- Check for leaks where the tubing enters the fitting and where the nut tightens against the body of the fitting as indicated in Figures 2, 3, and 4.
- **If a leak is detected, the fitting should be removed and reassembled or replaced.**

Figure 2



Disassembly (if necessary):

- Close the isolation valves **on both ends** of the Pressure Builder or Economizer Circuit.
(Figures 3 and 4 show one end of each circuit)
- While the valves are closed, turn the nut on the compression fitting counterclockwise slowly at first to allow relief of possible trapped pressure. Continue turning the nut and remove it and the tubing from the fitting.
- Check the condition of the fitting's threads and its rubber grommet seal. If either is worn or distorted, the fitting must be replaced.
- Note: According to the manufacturer, all Vibra-Lok fittings can be reassembled repeatedly. New sleeves can easily be added to retain original fitting performance. To obtain new sleeves please call Chart Customer Service at 800-247-4446.



Figure 3: Pressure Builder valve and Vibra-Lok fitting (Carbo-Mite, Charger, Mizer)



Figure 4: Economizer valve and Vibra-Lok fitting (Carbo-Max 750)

Assembly:

- Place the nut and the rubber grommet onto the tube and fully insert the tube into the fitting as shown in Figure 5.
The rubber grommet should seat 1/4" from the end of the tube.
- While making sure that the tubing stays fully inserted into the fitting, tighten the nut to the fitting. **Note: The nut on a Vibra-Lok fitting must be tightened until it contacts the body of the fitting.**
- Open the respective isolation valves and check for leaks on the tightened fittings.

Figure 5

