



Parts & Service Communicator

Subject: To Tee or Not to Tee?



Figure 1

SCOPE

Do not put a tee for the plain water connection in the line from the pump deck to the cold plate when installing cold carbonated (Intelli Carb) equipment.

By putting a tee in the line will create service problems and bad drink quality. What can happen is when dispensing a noncarbonated beverage and a carbonated beverage at the same time, the CO₂ inside the carbonator tank overpowers the water coming in, starving the carbonated drink for water. Then you can have a gas out condition in the carbonated tank. Another problem that can occur is a water hammer condition. This is when you have excessive pressure building up in the water lines. In the carbonated lines, the carbonation tank provides a shock absorber for the water pressures in the line. This shock absorber is not there for the non carbonated drinks. When a non carbonated drink is poured, it will come out very fast immediately after the pump has run. As the drink pours, the pressure decreases and so does the volume of water to the drink. Then bad drink quality will surface though irregular ratioing (brixing) of the valves. The hammering can damage valve O-rings and can possibly cause leaks.

Additionally make sure the total water supply tubing is sufficiently sized (minimum 3/8") to handle the drink capacity of the dispenser. The dynamic (flowing) water pressure measured just before the pump inlet with the pump running can go no lower than 40 P.S.I. This translates into filling a five gallon bucket with water in two minutes and 24 seconds or less with the water line going to the pump.

ACTION

When installing or servicing make sure that the water line from the pump deck to the water inlet on the cold plate has no tees or branches coming off it.

FURTHER ACTIONS

Contact Manitowoc Beverage Systems Service Sellersburg Indiana if you have any questions or concerns: 800-367-0427.