



ADDENDUM to IOM – Tech Notes

Fluid Coolers & Chillers

(Fluid Coolers for Soft Serve Units Only – See Page 2 for Chiller Info)

Note: *Not to be used in Lieu of IOM Manuals included with the unit.
Specials units or construction may or may not differ.*

Basic & Helpful Information

Note: *See Page 2 for Chiller info.*

Fluid Coolers & Chillers Units carry only the standard parts warranty. Service and Labor Warranty can not be honored for Fluid Coolers (or in plain language; labor costs can not be covered under factory warranty).

These systems are designed for Soft Serve units only, not other refrigeration and/or ice machine usages.

If the coil ruptures due to a "Freeze-Up", replace entire unit. The continued Service/Repair costs will not warrant the keeping of the damaged system as hidden damage is present and will rupture again. (This is not a warranty failure.)

Piping Considerations

Air in the system can be a major problem and must be removed to function properly.

If the unit has Fluid Lines running higher in elevation than the Fluid Cooler Unit piping, installation of additional Automatic Bleed Air Valves is required at the high points of the piping.

If the pipes lines run over a parapet, they will also require additional Automatic Bleed Air Valves.

Glycol Mix

Down to -20degF ambient; the fluid mixture of 50/50 will function properly.

Below -20degF ambient; the fluid mixture of 60/40 is recommended.

Caution: **Never go with a higher than 60% glycol mix.**

Special Filling Considerations

Air in the system can be a major problem and must be removed to function properly.

Fluid Cooler Units should have average water pressure of 25psig to 30 psig.

The Water-Hammer Headers Fill Tube (highest point of liquid on unit itself) should be filled within 6 to 8 inches of the top, no more or less. (This is to act as like a shock absorber for the pump and/or water surges where the air at top of this header will compress to absorb the surge.) **Warning: Do not fill Water-Hammer Headers Fill Tube to the top or water surge can destroy unit and cause possible injury.**

ColdZone recommends that the water regulating valve on the soft serve machine be set to wide open.

Fan Settings

The fan thermostats should be set at 50degF for fan number one and 65degF for fan number two.



Pump Considerations

Warning: the pump is rated for 230 volts only

The fluid coolers are sent with a buck/boost transformer taking (or bucking) 208 volts to 230 volts, the pump is rated for 230 volts only.

If the supply voltage is 230 volts the transformer need not be used, but if the supply voltage is 208 volts the transformer must be used.

Field Fluid Pump Adjustment Requirements

The electrical amp draw of the pump should be within 1 or 2 tenths of the full rated (FLA) pump load (see pump rating plate for FLA). The bypass valve is how to control or adjust the amp draw and must be adjusted for field conditions.

Chillers

Basic Information

These are special refrigeration units designed to work with the Fluid Cooler Unit above only.

Piping Information

The piping hookup as simple as counting 1, 2, 3;

1. The outlet of the Fluid Cooler Unit pipes to the inlet of the Chiller.
2. The Chiller outlet goes to the inlet of the Soft Serve Machine.
3. The Soft Serve Machines' outlet goes to the inlet of the Fluid Cooler.

Refrigerant Requirements

See the specification sheet for the refrigerant type and amount of charge. Also they should be referred to for the field adjustments for the controls.

The Wharton-ator Tip

Dave Wharton (retired) recommends installing a relay to shut off the Fluid Cooler fan motors (only) when the chiller is in operation to help reduce the heat load to the water during hot weather.

Final: This should provide years of trouble free performance, but don't forget to make adjustments for your region. Thanks for putting up with the humor. See our website for even more info www.ColdZone.com under "Products and Literature" and/or "Tech Tips".

Thank you for helping, us help, our Customer.