



- Drain Line Routing and Installation
(One drain line per zone)

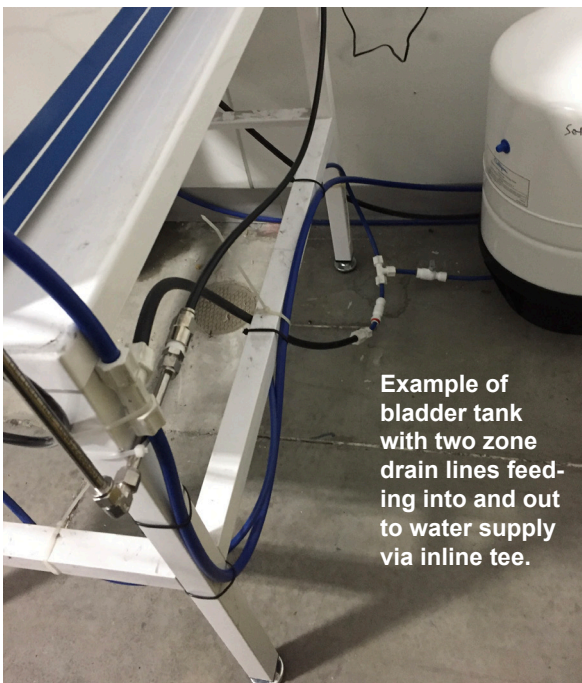
Pump Drain Line (one drain line per zone)

Drain lines exist because high pressure lines need to immediately depressurize in order to close nozzles @ 350 psi. When the pump cycles off the electric drain valve (EDV) opens allowing line pressure @ 1000 psi to immediately release to low pressure. The amount of water which drains is estimated at a maximum 3/4 gallon per zone during the pump off cycle. The function of the electric drain valve (EDV) is standard in one zone pumps and within the Danfoss 3/2 solenoid valves for multiple zone pumps.

The traditional method for plumbing drain lines is to route the zone drain line to the closest drain. During the last two years we have incorporated the option to route the drain line into the incoming low pressure water supply line to the pump via a low pressure bladder tank as displayed by the Aqua-Cleer 9 gal bladder tank diagram. With tank pressure at 25 psi, it functions as an expansion tank.

Shown is the routing of the drain line(s) to the bladder tank with an exit line feeding into the supply side of the pump. All lines require a check valve preventing back flow. This layout allows pump stations to be located where drains are not easily accesible and saves water otherwise wasted to the drain.

- Bladder Tank Aqua-Cleer 9 Gal Specifications and Information
Dimensions: 15.37" x 22.0" – Weight: 24 lbs
Steel Tank w/ Butyl Rubber Diaphragm – 13.8 Total Tank Volume
Maximum Volume without stretch 11.4 gal
Sourced from Total Water treatment Systems Inc, Madison WI;
Contact: Dennis Eisenhauer Regional Sales Manager;
deisenhauer@total-water.com; cell: 630-202-6815:



Example of bladder tank with two zone drain lines feeding into and out to water supply via inline tee.

