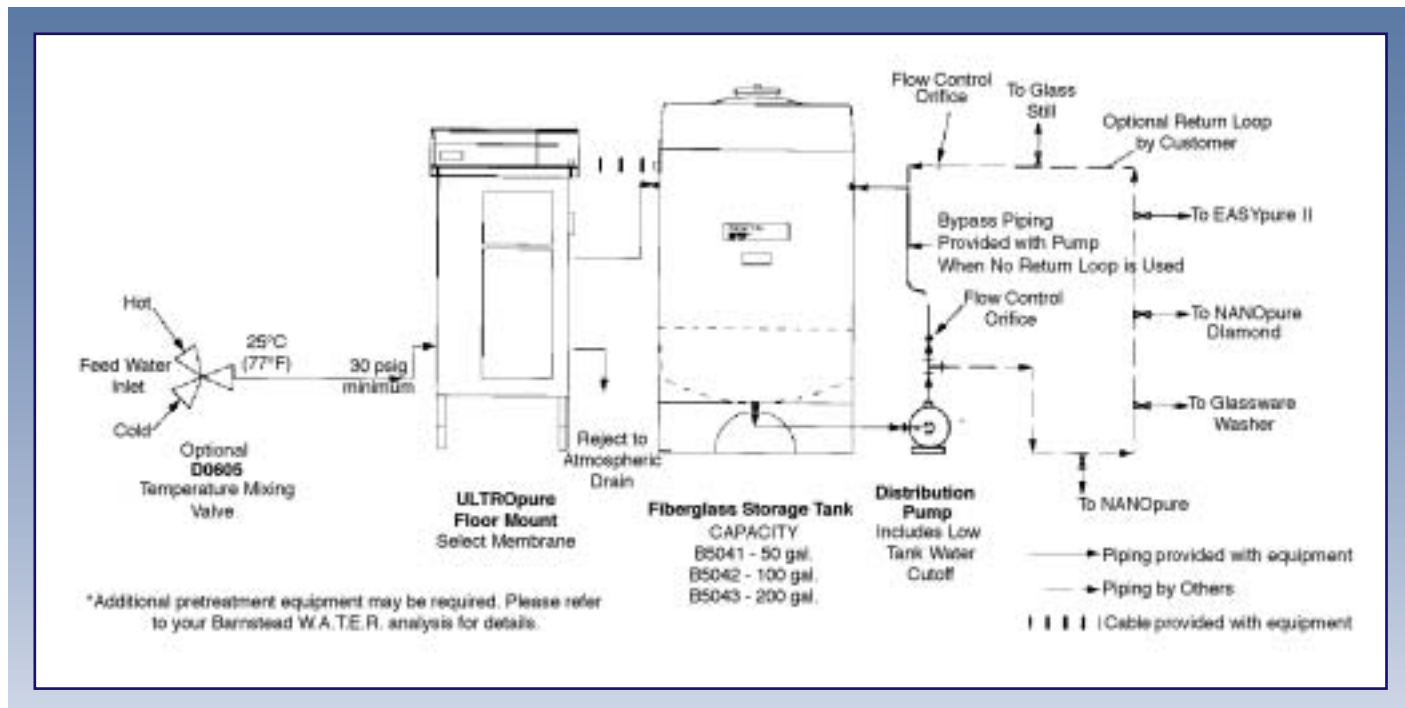




Reverse Osmosis Central System



Central System Considerations

A few considerations in cost/benefit analysis when designing a central pure water system: the distribution pump should be properly sized for elevation change, frictional losses and the maximum instantaneous flow rate required at any one time; velocity through the piping should be about 4-7 feet/second and piping should be designed so that water stagnation areas, or deadlegs, are avoided. A deadleg occurs when water is stagnate in a pipe length equal to six times its diameter (for a 1" diameter pipe, this is 6" pipe length). A return loop to the storage tank should be installed wherever possible. The best commonly available piping materials are 316 (or 316 L) grade stainless steel or a homopolymer plastic, such as polypropylene or polyvinylidene fluoride (PVDF). PVC, however, may be adequate for some applications.

Water quality degradation will occur to some extent in all central water purification systems. Even the best piping materials will leach out trace organics or metals because of the large amount of contact area within the distribution system, which may provide unacceptable results to most critical work.

Barnstead's selection of distillation and deionization point-of-use equipment is designed to provide you the best possible water at the point-of-use to meet or exceed the requirements of your most critical applications.

Barnstead supplies the equipment only. However, in many areas of the U.S. and Canada, we can arrange equipment installation through direct or factory-trained field service representatives. Installation of distribution and other piping should be performed by a qualified plumbing contractor. On-site electrical installation work should be done by a qualified electrician.