



Reverse Osmosis System Design/Build

Design Services

Process Design

Harn R/O Systems' engineers determine the membrane type, system configuration, and pretreatment steps that will maximize performance and prolong membrane life based on each project's individual production goals and feed-water characteristics. Harn employs several licensed professional engineers in multiple disciplines including civil, mechanical, chemical, and environmental engineering.

System Design/Component Selection

Harn R/O Systems' equipment is designed for ease of operation and maintenance and to provide the lowest overall life cycle cost. Our engineers are adept at selecting the thousands of components that comprise a membrane system and configuring them in the optimum system design.

Membrane Skid Frame Design

Harn R/O Systems is unique in the membrane treatment industry. Our engineers design the structural fiberglass or steel framework that supports the R/O system and select the frame coating system. Our skid frame material of choice is structural fiberglass. Although Harn can supply frames constructed from other materials, fiberglass is the "gold standard" for corrosion resistance. Fiberglass is as strong as steel, when designed correctly, and can be structurally certified by professional engineers for any application, including in seismically active areas.

Mechanical/Hydraulic/Piping System Design

Our design professionals determine the appropriate size and materials of construction for the system's interconnecting piping, valves, and tubing. Special attention is paid to ensuring even hydraulics to maximize membrane life, reduce piping headers, and save energy overall.

I&C System/Electrical Design

Harn R/O Systems' staff designs the instrumentation and control systems that are critical to every membrane treatment system, including the development and programming of control logic. We have also developed long-term relationships with regional I&C companies, and for some projects can outsource portions of these design services along with the supply of control panels.

Computer-Assisted Drafting

Harn R/O Systems drafting department utilizes AutoCAD software and state-of-the-art hardware to produce all of the custom drawings required for system design and construction. All of our CAD work is performed by in-house, full-time staff for efficient communication between engineering and fabrication.