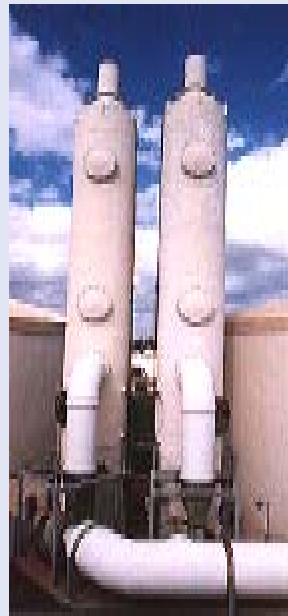




Four 1.5 MGD Reverse Osmosis Trains



Permeate
Degasifier

Concentrate
Degasifier

Scrubber Towers



TOWN OF JUPITER

Location: Jupiter, Florida
 Engineer: Kimley Horn
 Market: Municipal
 Membrane: Hydranautics 8" CPA2

Capacity: 6.0 MGD
 Feed Source: Floridan Aquifer
 Feed Quality: 5500 mg/l TDS
 Start-Up: November 1990

Project Highlights: Working with Hydranautics, Hydropro installed the Town of Jupiter's 6.0 MGD Reverse Osmosis Water Treatment Plant. This facility was designed by Hutcheon Engineers, a division of Kimley-Horn, Inc. As the General Contractor for the project, Hydranautics chose Hydropro for its expertise in installing large Reverse Osmosis plants. Hydropro manufactured the FRP instrument and sample panels for the job, installed the four 1.5 MGD RO trains, the pre-treatment equipment, the membrane cleaning system, the interconnecting piping and the system headers.

The plant's product water is acidified and degasified to remove H₂S and CO₂. Hydropro's scope of work included the erection and plumbing of the concentrate degasifier and permeate degasifiers with their associated blowers and chemical feed systems.

Immediately after start-up it became apparent that additional treatment would be required as odor control for the hydrogen sulfide gasses being stripped by the permeate degasifiers. After extensive testing it was decided to use scrubbers to resolve the odor problem. Hydropro was contracted to erect and plumb the two fifty foot high scrubber towers pictured above. The gasses removed in the permeate degasifiers are captured and passed through the scrubbers where the sulfur in the H₂S is converted back to elemental sulfur and removed in its solid form by filter press.

The Jupiter RO facility works in conjunction with an existing lime softening plant. The product waters from the combined facilities are blended before storage. The RO feed water is fed antiscalant prior to micron filtration. The pre-treated water is then pumped through the two stage RO plant to create a permeate of approximately 200 mg/l TDS.

As one of the largest municipal RO facilities operating in Florida, Jupiter's plant is a model for efficiency of space and operation. Since start-up, Hydropro has assisted with maintenance of this plant whenever called upon, maintaining a close working relationship with the Town of Jupiter.