

5.0 EQUIPMENT DESCRIPTION/ SPECIFICATIONS

"UPW" Water Storage Tank

Quantity	Three (3)
Capacity	210 gallons
Dimensions	30" dia x 70" high
Material of Construction	HDPE
Pressure Rating	6" wac pressure, 3" wac vacuum
Required Manway	Removable cover
Instrumentation	
Pressure transmitter	Rosemount
Model	1151 LT-4-S-G0-X-52-H-FI
Quantity	One (1)
Nitrogen Regulating Valve	
Quantity	One (1) for the three tank setup
Manufacturer	Veriflo
Model	HFR901S-4PB-X-8-V
Material of Construction	316ss
Conservation Vent Valve	
Quantity	One (1)
Manufacturer	ProtectoSeal
Model	F18542DJF3 with HEPA
Material of Construction	316 ss
Style	Pipe-away inlet
Back Pressure Regulating Valve	
Quantity	One (1)
Manufacturer	George Fischer
Model	708.401.201
Material of Construction	PVDF

"UPW" Distribution Pump (SK-100)

Quantity	One (1)
Material of Construction	Skid mounted, carbon steel
External Coating (Skid)	Two part epoxy
Pump Quantity	One (1)
Manufacturer	Grundfos
Model	CRN-16-30G
Style	Vertical, multi-stage
ANSI	No
Material of Construction	316ss
Capacity	65 gpm @ 65 psig
Motor	7.5 hp TEFC
RPM	3500
Electrical	480v/60hz/3ph

“UPW” TOC Reduction UV Sterilizer (SK-200)

Quantity	One (1)
Material of Construction	Skid mounted, carbon steel
External Coating (Skid)	Two part epoxy
UV Quantity	Two (2)
Manufacturer	Aquafine
Model	CSL-10R/60 TOC
Wavelength	185nm
Electrical	115v/60hz/1ph
Accessories	Intensity meter Temperature switch Standard finish
Intensity	240,000 microwatts-sec/sqcm

“UPW” Heat Exchanger (SK-300)

Quantity	One (1)
Material of Construction	Skid mounted, carbon steel
External Coating (Skid)	Two part epoxy
Process Water Piping	GF PVDF
Cooling Water Piping	Sch. 80 PVC
Heat Exchanger	
Manufacturer	Alfa Laval
Model	M6-MFG
Seal material	Viton
Cooling water req'd	65 gpm @ 60°F, 55 psi
Temperature transmitter	
Manufacturer	Burkert
Model	414531D
Control valve	
Manufacturer	Burkert
Model	420666E

“UPW” Polish Demineralizers (SK-400)

Quantity	Eight (8)
Tank Manufacturer	Structural Fibers
Material of Construction	FRP
Rating	125 psi, non code
Size	14”dia x 48”side (3.61 cuft)
Media	Cation Resin, U.S.Filter C361 SMBSG H ⁺ UHP, once through Anion Resin, U.S.Filter A464 PMGSG OH ⁻ UHP, once through
Array	Eight on line, 4:4

“UPW” Post DI Filtration and Bacteria Reduction UV (SK-500)

Quantity	One (1)
Material of Construction	Skid mounted, carbon steel
External Coating (Skid)	Two part epoxy
Cartridge Filter Housing	
Quantity	One (1)
Manufacturer	US Filter-Filterite
Model	21Mega+ 3-2-F
Material of Construction	316ss, electropolished
Cartridge Filters	

Manufacturer	Filterite
Model	WFN-0.45-30-US-M3
Material of Construction	PP, 30"
Configuration	SOE, 222 o-ring/fin
Filter Rating	0.45 micron, absolute, single layer
Filter Quantity	Seven (7) total
Filter Flux Rate	2.5 gpm/10" equivalent

UV Sterilizer

Quantity	One (1)
Manufacturer	Aquafine
Model	CSL-6R
Wavelength	254nm
Electrical	115v/60hz/1ph
Accessories	Intensity meter Temperature switch Standard finish
Intensity	33,333 microwatts-sec/sqcm

Membrane Degasification System (SK-600)

Quantity	One (1)
Material of Construction	Skid mounted, carbon steel
External Coating (Skid)	Two part epoxy
Process Water Piping	GF PVDF BCF
Drain and Vacuum Piping	Sch. 80 PVC
Nitrogen Inlet Piping	316ss tubing
Degasification Membrane	Three (3)
Manufacturer	Celgard LLC (formerly Hoechst Celanese)
Model	X-40, 10"x 28" with 316L electropolished ext shell
Array	three (3) in series

Vacuum Pump Skid (SK-900)

Quantity	One (1)
Material of Construction	Skid mounted, carbon steel
External Coating (Skid)	Two part epoxy
Pump Quantity	One (1)
Manufacturer	Sihi
Pump Model	XBA-303
Pump Style	Liquid Ring Vacuum
Material of Construction	Cast iron/Ductile iron/431ss
Capacity	14.5 acfm @ 28" Hg. Vac.
Motor	5 hp, TEFC
Electrical	480v/60hz/3ph

“UPW” Boost Pump (SK-700)

Quantity	One (1)
Material of Construction	Skid mounted, carbon steel
External Coating (Skid)	Two part epoxy
Pump Quantity	One (1)
Manufacturer	Grundfos
Model	CRN-16-30G
Style	Vertical, multi-stage
ANSI	No
Material of Construction	316ss
Capacity	65 gpm @ 65 psig
Motor	7.5 hp TEFC
RPM	3500
Electrical	480v/60hz/3ph

“UPW” Ultrafilter (SK-800)

Quantity	One (1)
Material of Construction	Skid mounted, carbon steel
External Coating	Two part epoxy
Cartridge	
Manufacturer	Asahi-Pall Microza
Model	OLT-5026
Filter Rating	6,000 Daltons MWCO
Filter Quantity	Two (2)

Miscellaneous

Isolation Valves	
Diaphragm	
Manufacturer	GF diaphragm
Material of Construction	PVDF / Teflon
Operators	Rotational handle
Operated Diaphragm Valves	
Manufacturer	GF Diaphragm
Material of construction	PVDF/ Teflon
Operator	Air to air
Sample Valves	
Manufacturer	GF Ultrapure, 525
Pressure Gauges	Ashcroft, 63 mm
Gauge Isolator	GF, 523
Pump Discharge Check Valve	
Manufacturer	Check All
Material of construction	316 SS
Style	Wafer Check

Instrumentation

Resistivity Monitor	
Quantity	Two (2)
Manufacturer	Thornton
Model	770
Accessories	Sensor with tri-clamp connections
Output Capability	4-20mA
Pressure Transmitter	One (1)
Manufacturer	Rosemount
Model	1151
Accessories	Isolation valve, local indication
Output Capability	4-20mA

US FILTER
COS JOB # 98154

Flow Monitor

Quantity
Type

Manufacturer
Model

One (1)

Flow transmitter and insertion type
flow sensor

Signet

P51530-10 sensor with 8512
transmitter