

Specifications: Pro Series Water Store Skid 2600/5200/7800

Product Offering Overview

Part Number

Pro Series Water Store Skid
2600/5200/7800

Product Flow Rate

2600 - 1.81 USGPM
5200 - 3.62 USGPM
7800 - 5.42 USGPM

Design Parameters

Configuration	Multistage, single pass
Inlet Pressure	20 PSI
Feed Water Temperature	5 C (41F)
Feed Water Source	Well water or Municipal supply
Pre-filtration Requirements	5 micron nominal
Feed Water Fouling Index	Silt Density Index (SDI) < 5
Permeate Recovery Ratio	50%
Product Pressure Available	25 PSI nominal
Membrane Salt Rejection	98% nominal (Based on 2000-ppm MgSo ₄ solution at 100 psi, 77degrees F)

General Specifications

Frame

Materials	Full depth welded structural carbon steel
Paint	Epoxy coated
Color	Blue

De-Chlorination

Control Valve	Autotrol series 263 Automatic Filter Valve
Media Type	High capacity granular activated carbon
Media Quantity	2.0 Cubic Feet
Filter Connections	1" Autotrol adapters w/bypass valve
Drain Connection	¾" outlet w/one way check valve

Water Softening

Control Valve	Autotrol Ready Soft Dual Alternating Demand Regeneration Softener Valve.
Media Type	High capacity ion exchange resin
Media Quantity	2.0 Cubic Feet
Filter Connections	1" Autotrol adapters w/bypass valve
Brine Tank	40 Gal Poly brine tank w/overflow protection
Drain Connection	¾" outlet w/one way check valve

Pre-Filters

Housings
Manufacturer US Filter – Plymouth Products
Model #20 Big White
Element #1 Wound Depth Filter, 20 micron nominal
Element #2 Wound Depth Filter, 5 micron nominal

Process Pump

Manufacturer Goulds
Model 10GBS15
Materials
Pump body/internals 304 stainless steel
Shaft and coupling 304 stainless steel
Connection type submersible pump in stainless steel sleeve
Capacity 10GBS15 – 7.5 USGPM at 440 feet TDH

Process Pump Motor

Type High efficiency
Voltage 115-230V
RPM at 60 Hz 3500 RPM
Horsepower 10GBS15 – 1-1/2

Membranes

Manufacturer Osmonics
Model AK4040F400
Materials Thin Film Composite (TFC)
Type Spiral wound

Pressure Vessels

Manufacturer Excel Flow
Model EF4040
Materials stainless steel
Rating 400 psi working pressure
Process Connections end entry, feed/concentrate FNPT

Distribution System**Post Treatment Filters**

Housings
Manufacturer US Filter – Plymouth Products
Model #20 Big White
Element #1 Matrikx Carbon Block, 5 micron nominal
Element #2 Harmsco pleated paper, 1 micron absolute

Distribution Pump

Manufacturer Grundfos
Model MQ3-45
Materials
Pump body/internals 304 stainless steel
Shaft and coupling 416 stainless steel
Connection type 1" NPT
Capacity 18 USGPM @ 70 FT of total dynamic head

UV Sterilizer

Manufacturer	Trojan
Model	UV Max Model E
Capacity	7-28 USGPM
Voltage	90-265V
UV Dosage	20,000 Microwatts/seconds @18 USGPM

Piping Systems

Low Pressure Feed, Reject	Schedule 80 PVC, socket welded, flanged, PVC primer and cementing NSF61
Product	Schedule 80 PVC, socket welded, flanged, PVC primer and cementing NSF61
High Pressure Reject, and Permeate	Schedule 80 PVC, socket welded, flanged, PVC primer and cementing NSF61

Control Valves

Inlet Valve	Burkert Model 5282 – 1/2" NPT brass body, 2.8-230 PSI working pressure, 240V/60 Hz
Concentrate Valve	Burkert Model 5282 – 1/2" NPT brass body, 2.8-230 PSI working pressure, 240V/60 Hz

Manual Valves

Concentrate Throttling	Swagelok B-18RF8 1/2" needle valve
Recirculation Throttling	Swagelok B-18RF8 1/2" needle valve

Instrumentation Equipment Specifications**Pressure**

Feed Pressure	WIKA Model 233.53, 304SS, 63-mm, panel mount
Post-filter Pressure	WIKA Model 233.53, 304SS, 63-mm, panel mount
Membrane Pressure	WIKA Model 233.53, 304SS, 115-mm, panel mount

Flow Sensor

Permeate	Blue & White Model F-55005L mechanical flow meter, polysulphone body with 316 SS float
Concentrate	Blue & White Model F-55005L mechanical flow meter, polysulphone body with 316 SS float
Recycle (Optional)	Blue & White Model F-55005L mechanical flow meter, polysulphone body with 316 SS float

Instrumentation

Membrane Pressure Gauge
 Feed Pressure Gauge
 Post Filter Pressure Gauge
 Permeate Flow Meter
 Concentrate Flow Meter
 Recycle Flow Meter (optional)
 Low Pressure shut off switch w/programmable time delay and fault display
 High Pressure shut off switch w/programmable time delay and fault display
 TDS/Conductivity probe with LCD display, alarm, shutdown and fault display
 Operating hour display with programmable shutdown for filter change reminder.
 Feed water temperature display
 Thermal protected
 Power indicator display with system status
 Tank full indicator display
 UV elapsed month display, system status indicator and warning alarms

Process Controller

Manufacturer	R&D Specialties
Model	Model 15 RO Controller
Voltage	120/240V 50/60hz

Operating Limits**Temperature**

Maximum Feed	42 C
Minimum Feed	5 C

Pressure

Maximum Feed	90 PSIG (static)
Minimum Feed	7.25 PSIG (when operating)

Process Influent Guidelines

Maximum SDI Rating	5
Maximum Turbidity	30 (avg) NTU
Maximum Free Chlorine and/or chloramines	<0.1 PPM
Maximum pH (continuous)	11
Minimum pH (continuous)	4
Maximum pH (clean-30 min)	12
Minimum pH (clean-30 min)	1

Flow Rate Specifications (L/s) (per train)

	2600	5200	7800
Feed	3.62	7.22	10.84
Product (maximum)	1.81	3.61	5.42
Reject	1.81	3.61	5.42
Recycle	1.38	1.28	1.16

Unit Configuration Specifications

Vessel Array Staging	2600 – 1 5200 – 1:1 7800 – 1:1:1
Membranes per Vessel	1
Membrane Quantity	1; 1:1; 1:1:1
Vessel Quantity	1; 2; 3

Utility Requirements**Connection Specifications**

Feed Inlet	1" NPT
Product Outlet To Storage	1" NPT
Concentrate Outlet	1" NPT
Product Water From Storage	1" NPT
Product Water to POU	1" NPT

Drains

Waste drain – max. gpm	15 GPM
Floor drain	a floor drain (in addition to waste drain) should be supplied for general maintenance

Electrical Specifications

Automatic GAC Filter	12VDC w/120V transformer, standard 120V plug
Water Softener	12VDC w/120V transformer, standard 120V plug
Main RO Control Panel	13.0 Amps 220-240V 1phase, 60HZ. 250V/20amp plug
Level Control system:	120V standard plug.
UV system:	120V standard plug.

Physical Dimensions

Length	104"
Width	30"
Height	66"
Weight	750 LBS.