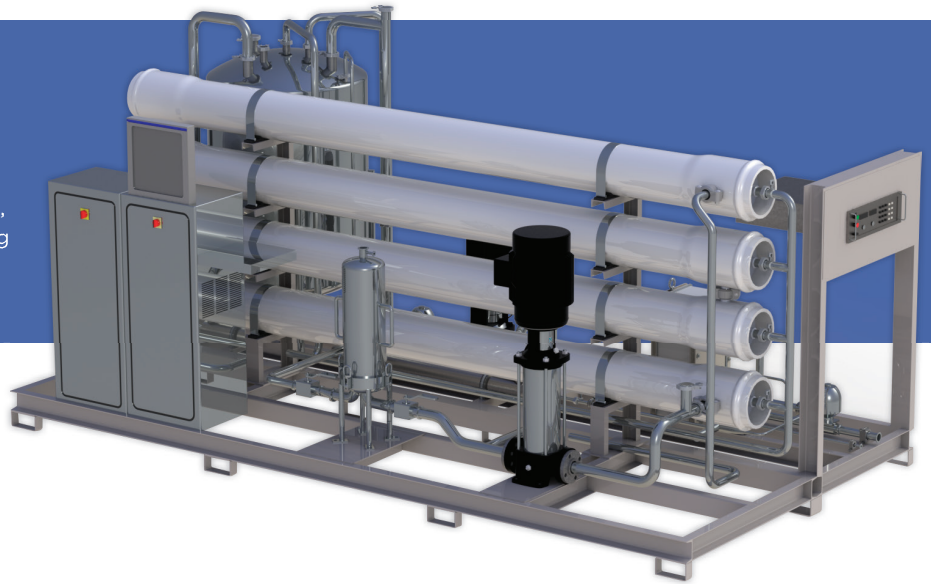


Aqua-Chem's SANRODI purified water systems are designed to meet USP Purified Water Standards and ASTM Laboratory Reagent Water Standards for a variety of applications including bulk API or BPC preparation, non-parenteral dosage forms, WFI pretreatment and initial rinsing, laboratory activities, medical device manufacturing, cosmetics processing and industrial biotechnology amongst others.



STANDARD FEATURES

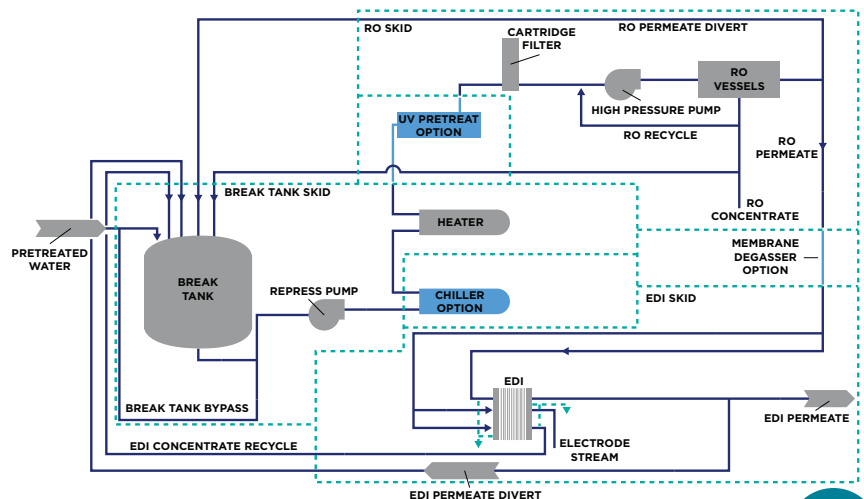
- 100 Gallon SS Feed/Sanitization Break Tank
- Electric Heater for Hot Water Sanitization
- SS Repress Pump
- SS Multi-Stage High Pressure Pump
- High-Efficiency TEFC Motors with Variable Frequency Drive
- SS Cartridge Filter Housing with 5 Micron Particle Pre-filters
- FRP Membrane Pressure Vessels
- Sanitary Full-Fit Membranes
- Heat-Sanitizable Low-Energy CEDI Stacks with VDC Power Supply
- PLC with Backup Power Supply
- 10" Touchscreen HMI
- Sanitary Turbine Flow Sensors
- PID Flow Control Valves
- Sanitary Pressure Transmitters
- Conductivity Sensors
- Level Sensor
- RO and EDI Concentrate Recycle Increases Recovery
- Permeate Divert Valves
- Tri-Clamp Connections
- Sanitary 316L SS Tubing/Piping for RO Product, EDI Inlet, and EDI Product
- Powder-Coated Carbon Steel Skid

OPTIONS & UPGRADES

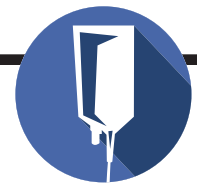
- Chemical Feed Pump and Day Tank
- Dual Alternating Catalytic Carbon Filter
- Dual Alternating Water Softener
- Dual Alternating Media Filter
- Hardness Monitor
- SS Membrane Pressure Vessels
- UV Disinfection and Post-Filter
- Degassing Membrane
- TOC Monitor
- Microbial Monitor
- Remote Monitoring
- pH Sensor
- ORP Sensor
- Purified Water Storage and Distribution Skid

INNOVATIVE SKID DESIGN

Modular interlocking skid design allows for ability to mix/match solutions; configurable to meet compact footprints and access ways in pre-existing facilities and accommodates for expansion and option addition as well.



SANRODI-SERIES



MODELS	SANRODI-4.4	SANRODI-6.6	SANRODI-11	SANRODI-22	SANRODI-33	SANRODI-44	SANRODI-66	
DESIGN								
Nominal Product Flow Rate (gpm) ¹	4.4	6.6	11	22	33	44	66	
Capacity Range (gpm) ¹	2.5-5	6-10	11-15	16-24	25-35	36-48	49-70	
RO Recovery (%) ¹	75							
EDI Recovery (%) ¹	> 90							
Nom Salt Rejection (%) ¹	≤ 99.9							
Feed Water TDS (ppm)	1000							
Feed Water Temp (°F)	77							
OPERATING PARAMETERS								
Feed Water Source ²	Potable Water < 1000ppm							
Operating Temp (°F)	50-86							
Sanitization Temp (°F)	80-90							
Max Operating PSI	250							
Operating pH Range	4-11							
RO Recovery Range (%) ³	50-75							
Feed Flow Range (gpm) ³	4-12	9-22	16-34	24-54	37-75	53-100	72-147	
RO MEMBRANE HOUSINGS & MEMBRANES								
Vessel Array	1:1	2:2	1:1		1:1:1	2:1:1:1	2:2:2:1	
Membrane Qty	6	12	4	6	9	14	20	
Membrane Size	4040			8080				
Membranes Per Vessel	3							
Membrane Type	Hot Water Sanitizable, Full-Fit, Sanitary RO							
EDI STACKS								
Stack Type	Hot Water Sanitizable, Pharmaceutical EDI							
Stack Qty	1				2			
Stack Size (gpm)	7	11	17	24	35	24	35	
Power	250VDC, 8A	400VDC, 8A			500VDC, 8A	400VDC, 16A	500VDC, 16A	
SANITIZATION BREAK TANK								
Volume (gallons)	100							
HEATER								
Type	Immersion							
Power (kW)	20			35				
PUMPS (REPRESS)								
Pump Type	Vertical Multi-Stage Centrifugal							
Motor HP	1.5		5			7.5		
PUMPS (HIGH PRESSURE)								
Pump Type	Vertical Multi-Stage Centrifugal							
Motor HP	7.5		20			30		
CONNECTIONS								
Feed (in)	1 FLANGE		1.5 FLANGE		2 FLANGE	2.5 FLANGE	3 FLANGE	
Product (in)	0.75 TRI-CLAMP		1 TRI-CLAMP	1.5 TRI-CLAMP		2 TRI-CLAMP		
Drain (in)	1 FLANGE		1.5 FLANGE		2 FLANGE	2.5 FLANGE	3 FLANGE	
Water Coolant (in)	0.5 FNPT							
Chemical Feed Port (in)	0.5 NPT							
ELECTRICAL								
Standard Voltage ⁴	460V 3ph 60Hz							
SYSTEM DIMENSIONS								
L x W x H (in) ⁵	132 x 67 x 84			152 x 82 x 84				
Est Dry Weight (lbs)	3400	3600	4100	4300	4600	5400	6200	

¹Product flow, rejection, and recovery rates are based on feedwater conditions of 1000ppm TDS at 77°F. Treatment ability of the RO system is dependent on feed water quality. Higher TDS and/or lower temperatures will reduce product flow. An Aqua-Chem applications engineer can rate these units for other feed water conditions. ²Feed water source requirements: temperature of 10-30°F (50-86°C), pressure of 30-80psig, NTU < 1, SDI < 3, TDS < 1000ppm, hardness < 1ppg, free chlorine < 0.1ppm, iron/manganese < 0.1ppm, aluminum < 0.05ppm, TOC < 3ppm, oil and grease < 0.1 ppm, silica < 10ppm, CO₂ < 12ppm ³Feed water flow range is based on operating RO between 50-75% recovery. The concentrate recycle loop is used to increase recovery from 50-75%. Check with an Aqua-Chem applications engineer if feed water conditions are suitable for recovery over 75%. ⁴Other voltage options are available. ⁵Subskids are separable to reduce width to a minimum width of 41".