

REVERSE OSMOSIS XL RO SERIES™



XL / XLD MODELS 10-600 GPM

ADVANCED QUICKLINK TECHNOLOGY

PAT. PENDING

STANDARD INTEGRATED FEATURES AND BENEFITS

Quick Link Technology™ - Designed to provide a simple method of control and connection of electrical field devices required to make an RO "System" operate seamlessly.

Field Devices include:

Pretreatment filters and softeners, booster and break tank pumps, chemical feed, pH, ORP, bypass and auxiliary make-up valves, level control, distribution pumps, portable exchange DI bankswitching and rinse-up, high quality cells and control.

Simplicity - System field devices easily "plug and control" into the main panel.

Flexibility - User is prompted to select system devices and options via simple HMI touch screens.

Cost Savings - Quick Link Technology eliminates the need for many stand alone components like pH, ORP, and resistivity instrumentation. Purchase only the cells you need and just "plug and control". Several costly control panels are eliminated from pretreatment softeners, filters, and pump control. The XL series control provides and integrates all the necessary pre-treatment logic. Field wiring is replaced by low voltage quick link connections.

True Engineered System - Finally, an RO unit that can be called a "System". From pretreatment through tank level and post-treatment portable DI control, the XL - RO System becomes a "System" by simply activating standard features.



Model XL-4L-5H

100 GPM

STANDARD INTEGRATED OPERATING SYSTEM

PAT. PENDING

X-Web™ - Advanced remote monitoring and alarm functions through internet technology. Uses ethernet port for network connection or wireless communication.

Automatic Graphic P & ID Generator - Through simple prompts during set up, the Graphic HMI Display is created displaying only the items installed.

PreTreat Link™ - Complete control for up to four automatic softeners with independent flow sensors and four automatic filters. Control options include time clock, duplex alternating, parallel or variable demand. Initiation can be via meter, pressure differential, or other external regeneration source.

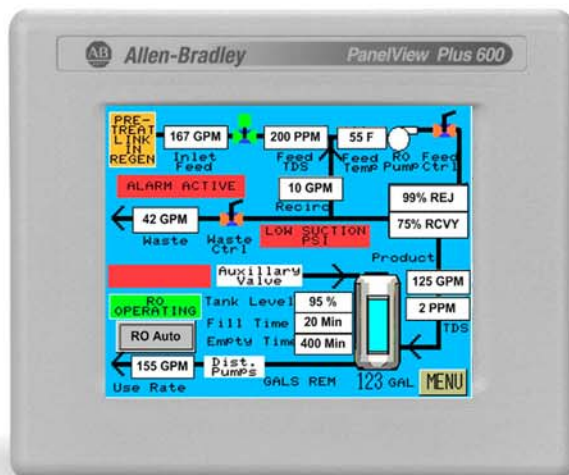
HQ Link™ - Up to three high purity cells (purchased separately) can be connected. Display is switchable showing either temperature or non-temperature compensated values. Displays resistivity or conductivity (+/- 1% accuracy).

DI Link™ - Simple method for monitoring, controlling, and switching two Portable Exchange DI banks.

Duplex RO - Quick Link connection allows for seamless lead/lag or parallel RO operation for XLD models.

Level Control - Each XL - RO is shipped with a Quick Link analog level transmitter.

PLC / HMI - Allen-Bradley PLC and Panel View Plus Color Touch Screen interface control. Panel is UL 508 Listed and is built with isolated outputs with 15% additional inputs and outputs.



Color Touch Screen HMI with Automatically Generated P & ID Display



ENGINEERED TO LAST

STANDARD STAINLESS STEEL FEATURES

- All Stainless Structural Steel Frame Construction
- Stainless NEMA 4x Control Panel
- Stainless Hydraulic Panel
- Stainless Butt Welded Inlet Piping
- Stainless Automatic Inlet Valve
- Stainless Cartridge Pre-Filter Housing
- Stainless Grundfos Multi-Stage Pump w/ TEFC Motor
- Stainless High Pressure Piping
- Stainless Pump Control Valve
- Stainless Waste Control Valve
- All Stainless Hardware and Victaulic Clamps
- Stainless Instrumentation Tubing and Compression Fittings

MEMBRANE ELEMENTS AND HOUSING

- RO Membranes - Filmtec XLE 440
- Membrane Rejection - Up to 99.5%
- Membrane Size - 8" x 40", 440 ft² ea.
- RO Housings - 300 psi FRP w/ Stainless Ports
- Cartridge Filter - 5 micron Nominal, Polypropylene

MECHANICAL INSTRUMENTATION

- Pressure Gauges* - Pre-filter, Post-filter, Pump Discharge, Membrane Feed, Membrane Waste
- Pressure Switch* - RO Pump Suction
- Pressure Relief* - Product Water (Adjustable)
- Cleaning Connections*

RO DESIGN PARAMETERS

- Recovery - 60-80%
- Minimum Inlet Pressure - 30 psi
- Maximum Product Pressure - 40 psi
- Maximum Inlet Pressure - 90 psi
- Design Temperature - 35 F to 85 F
- Electrical Requirement - 480VAC, 60Hz, 3PH

DIGITAL INSTRUMENTATION

- Flow* - Product, Waste, Feed, Storage Tank Empty Rate, Auxiliary Bypass Make-up, Membrane Percent Recovery. Pretreat Link Individual Softener Flow Rates.
- Conductivity* - Feed, Product, Membrane Percent Rejection
- Optional HQ Link Conductivity or Resistivity Cells.
- Temperature* - Feed Water
- Tank Level* - Percent Full, Gallons Remaining, Time to "Full" or "Empty", High Alarm, Low Alarm, Low Level Distribution Pump Cutoff. Prefers analog but accepts discrete tank level input.

OPTIONAL QUICK LINK READY DEVICES

Product Divert Valve, Waste Flush Valve, pH Cell, ORP Cell, HQ Cells, DI Bank Switch Valve, DI Rinse Valve, Pressure Transmitters and more.



Quick Link Technology™ Makes Connections Simple

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STANDARD AND OPTIONAL FEATURES

	FEATURE	XL / XLD RO		INTERNET DATA VIEWING & ALARMS THROUGH X-WEB CONTROL
		STANDARD	OPTION	
SYSTEM CONTROL	PreTreat Link™	■		■
	X-WEB™ Monitoring	■		
	Duplex RO Control	■		■
	HQ-Link™ High Purity Instrumentation		■ (1)	■ (1)
	Allen-Bradley PLC	■		
INSTRUMENTATION	Allen-Bradley Color Touch Screen HMI 6"	■		
	Allen-Bradley Color Touch Screen HMI 10"		■	
	Digital Feed Conductivity	■		■
	Digital Product Conductivity	■		■
	Digital Feed Temperature	■		■
	Digital Product Flow	■		■
	Digital Waste Flow	■		■
	Digital Recirc Flow	■ (2)		■
	Digital Feed Flow	■		■
	Digital Pressure Transmitters 0 - 100 PSI (ie. System inlet)		■	■
	Digital Pressure Transmitters 0 - 300 PSI (ie. Membrane in/out)		■	■
	Digital Tank Level TRANSMITTER INCLUDED	■ (3)		■
	Digital Storage Tank Use Rate	■ (4)		■
	PSI Gauge Package	■		
	pre-filter			
	post-filter			
	pump-discharge			
membrane feed				
membrane waste				
Digital Percent Recovery	■		■	
Digital Percent Rejection	■		■	
pH Display and Control		■ (5)	■	
ORP Display and Control		■ (5)	■	
PUMP CONTROL	Dual Chemical Injection Control	■		
	Booster/Break Tank Pump Control	■		
	Duplex Distribution Pump Control HOA	■		■
	Remote Recirculation Pump Control	■		■
	Low PSI Shutdown/Alarm	■		■
	Low PSI Auto Restart	■		■
VALVE CONTROL	RO Product Pressure Relief Valve (PRV)	■		
	Auxillary Water Make-Up Control	■ (6)		■
	Product Divert/Flush	■ (6)		■
	Waste Flush Control	■ (6)		■
DI CONTROL	DI Link™ Portable Exchange DI Control and Bank Switching	■ (1,6)		■

1 Optional HQ-Cell Required.

2 Models XL-3L-4H and larger do not require recirculation.

3 Digital level transmitter is included with each RO.

4 Calculated value standard. Measured value available w/optional Quick Link™ flow transmitter

5 Optional Quick Link™ cell required.

6 Optional Quick Link™ valve required.

REVERSE OSMOSIS XL SERIES™



SPECIFICATIONS AND DESIGN DATA

SINGLE SYSTEM												
DESIGN TEMPERATURE												
35°F TO 85°F												
MODEL	PRODUCT GPM	INLET SUPPLY GPM	WASTE GPM	FEED PSI @ 35°F	FEED PSI @ 55°F	MEMBRANES	PUMP HP	PIPE CONNECTIONS			SKID	SHIPPING WEIGHT (lbs)
								INLET	PRODUCT	WASTE	LENGTH x DEPTH x HEIGHT	
XL-1L-2H	12	16	4	191	136	2	7.5HP	2"	1 1/2"	1"	68" x 37" x 73"	1700
XL-1L-3H	18	24	6	197	138	3	7.5HP	2"	1 1/2"	1"	68" x 37" x 73"	1900
XL-1L-4H	22	30	8	243	189	4	10HP	2"	1 1/2"	1"	68" x 37" x 73"	2100
XL-2L-3H-5E	26	37	11	214	140	5	10HP	2"	1 1/2"	1"	108" x 37" x 73"	2400
XL-2L-3H	34	45	11	194	136	6	10HP	2"	1 1/2"	1"	108" x 37" x 73"	2500
XL-2L-4H	40	53	13	186	138	8	10HP	2"	1 1/2"	1"	108" x 37" x 73"	2750
XL-3L-3H	50	67	17	179	125	9	15HP	2"	2"	1"	148" x 37" x 74"	3000
XL-3L-4H	65	86	21	185	129	12	15HP	2"	2"	1"	148" x 37" x 74"	3300
XL-4L-3H	65	86	21	179	125	12	15HP	3"	3"	1 1/2"	188" x 37" x 74"	3400
XL-4L-4H	80	113	33	192	137	16	25HP	3"	3"	1 1/2"	188" x 37" x 74"	3600
XL-4L-5H	100	133	33	194	140	20	25HP	4"	3"	1 1/2"	188" x 47" x 74"	3800
XL-4L-6H	125	167	42	190	136	24	30HP	4"	3"	1 1/2"	188" x 47" x 74"	4000
XL-4L-7H	150	200	50	225	129	28	40HP	4"	3"	2"	188" x 47" x 74"	4400
XL-4L-8H	175	233	58	184	129	32	40HP	4"	3"	2"	188" x 47" x 74"	4800
XL-4L-9H	200	267	67	185	129	36	50HP	4"	3"	2"		5400
XL-4L-10H	225	300	75	178	120	40	60HP	6"	4"	2"		5850
XL-4L-11H	250	333	83	190	133	44	60HP	6"	4"	2"		6150
XL-4L-12H	300	400	100	214	148	48	75HP	6"	4"	3"		6500

DUPLEX SYSTEM*		
DESIGN TEMPERATURE		
35°F TO 85°F		
MODEL	PRODUCT GPM	SHIPPING WEIGHT (lbs)
XLD-1L-2H	24	3400
XLD-1L-3H	36	3800
XLD-1L-4H	44	4200
XLD-2L-3H-5E	52	4800
XLD-2L-3H	68	5000
XLD-2L-4H	80	5500
XLD-3L-3H	100	6000
XLD-3L-4H	130	6600
XLD-4L-3H	130	6800
XLD-4L-4H	160	7200
XLD-4L-5H	200	7600
XLD-4L-6H	250	8000
XLD-4L-7H	300	8800
XLD-4L-8H	350	9600
XLD-4L-9H	400	10800
XLD-4L-10H	450	11700
XLD-4L-11H	500	12300
XLD-4L-12H	600	13000

NOTE:

TDS, pressure and temperature will affect RO product, SDI <3

Free Chlorine -0.0 mg/1 maximum

Dimensions refer to nominal size only, and do not include operating maintenance area

Specifications subject to change without notice

*Total feed and waste water requirements are two (2) times single unit values. Refer to single system data for individual unit details.