

APPLIED[®] SYSTEMS USA

Series HL – 300 to 9,000 GPD High TDS RO Systems

Reverse Osmosis Systems 300 to 9,000 Gallons/Day For Feed Water TDS 1,000 to 5,000 PPM

Designed to produce low dissolved solids water from tap or well water, these RO systems use high efficiency reverse osmosis membranes. The product water is used in applications such as water stores, whole house, ice makers, humidification, misting and a wide variety of other applications.

Part of the L-series family (other systems include L and XL series), these systems treat higher TDS water using thin film membranes and FRP membrane housings. All high pressure lines and components are made of corrosion resistant materials. The operating pressure is between 200 and 250 psi. Careful design steps are taken to minimize the highly corrosive nature of these brackish waters.

These reverse osmosis systems use the proven, reliable components and are mounted on a sturdy powder-coated metal frame. There are numerous design details learned from years of experience that are incorporated in our water filtration systems. Our process and fluid design ensures an optimum membrane life and minimizes the membrane fouling.

Key Features

- 38 years of experience is reflected in our quality
- Compact, Heavy Duty, Powder Coated Frame
- Proven components used throughout the system
- Conservatively engineered for reliable long term performance
- Factory tested to ensure trouble-free operation

Why Applied Membranes?

- Over 10,000 commercial/industrial systems in operation
- Our products are being used in over 100 countries worldwide
- From packaged systems to custom engineered Reverse Osmosis systems, we can take care of your needs
- We are one of the few companies that have the expertise to provide Reverse Osmosis systems for drinking water, boiler feed water, seawater, desalination, ultrapure water, USP water, and water reuse
- We have supplied more systems to more countries than most of our competitors
- Our customers include major national and international companies in every field of application
- We stock more components for all sizes of RO systems than any other company
- We have earned an enviable reputation for our product quality, performance reliability and business integrity



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MEMBRANES INC.[®]

Industry Leader in RO Expertise and Membrane Applications Since 1983™



Phone: (760) 727-3711 • Fax: (760) 727-4427 • www.appliedmembranes.com • sales@appliedmembranes.com

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Standard Equipment

- Thin Film Composite Membranes
- FRP membrane pressure vessels
- 5 micron 20" cartridge filter & housing
- Feed water temperature
- Automatic inlet feed solenoid valve
- Permeate, Concentrate & Recycle
- Flowmeters
- System control valve, Stainless Steel
- Recycle control valve, Stainless Steel
- Low pressure pump protection
- High pressure stainless steel RO pump
- Automatic membrane flush
- 4) Liquid filled pressure gauges for filter in/out and system pressures
- Feed and permeate TDS displayed on controller LED with percent rejection
- System on/off with 2-level tank floats
- Stainless Steel and corrosion resistant materials on high pressure side
- Powder coated carbon steel frame
- Boxed and palletized for shipment

Microprocessor Controller for Automatic Operation

Monitors and/or Controls:

- Inlet valve
- Delayed start-up of high pressure pump
- Feed water flush at system shut-down
- Low pressure switch
- On/Off with tank level
- Permeate Water Quality (TDS)
- Pre-treatment backwash/lockout

Controller Features:

- Backlit LED Display
- LED indicator light for system status/alarm
- Front panel access port for calibration of TDS sensor
- LED indicator light for water quality (TDS)
- Start-up and shut-down with tank level
- Feed flush at shut-down
- Low pressure shut-down
- Low pressure automatic restart
- Delayed start-up of high pressure pump

I-ROC300



UL Listing Optional

LED Display:

- Permeate TDS
- Operating Status
- Alarm Condition

Recommended Optional Pre-Treatment Equipment

- Carbon filter
- Water Softener
- Multi-media filter
- Antiscalant Injection

Ordering Information

Model No.	System Capacity		Membrane Elements		Line Sizes (NPT, Inches)			System Dimensions (in/cm)			Approx. Shipping Weight (Lb/Kg)
	GPD	m ³ /day	Qty.	Size (Dia. x L)	Inlet	Perm.	Conc.	Length	Depth	Height	
HL-12521A-116	300	1	1	2.5 x 21	3/4	3/8	3/8	20/51	24/61	55/140	230/104
HL-125A-116	600	2	1	2.5 x 40	3/4	3/8	3/8	20/51	24/61	55/140	240/109
HL-225A-116	1,200	5	2	2.5 x 40	3/4	3/8	3/8	20/51	24/61	55/140	250/113
HL-14A-116	1,800	6	1	4 x 40	3/4	1/2	1/2	20/51	24/61	55/140	275/125
HL-24A-116	3,000	11	2	4 x 40	3/4	1/2	1/2	20/51	24/61	55/140	300/136
HL-34A-216	4,500	17	3	4 x 40	3/4	1/2	1/2	20/51	32/82	55/140	325/147
HL-44A-216	6,000	23	4	4 x 40	3/4	1/2	1/2	20/51	32/82	55/140	350/159
HL-54A-216	7,500	28	5	4 x 40	3/4	1/2	1/2	20/51	32/82	55/140	375/170
HL-64A-216	9,000	34	6	4 x 40	3/4	1/2	1/2	20/51	32/82	55/140	400/181

Notes and Voltage/ Ordering Information

- All dimensions and weights are approximate.
- **Capacity Basis:** 24 hrs/day
- **Systems rated at:** 77°F (25°C) using 1000 to 5000 ppm sodium chloride solution operating at approx. 200-225 psi pressure.
- **Minimum feed pressure to RO System:** 40-60 PSI. System capacity changes significantly with water temperature
- Chlorine must be removed with a carbon filter prior to the RO system, if present in feed water.
- Pretreatment for water hardness using a softener or antiscalant injection should be added to avoid scaling the membranes.
- Feed water turbidity: Less than 1 NTU; Feed water silt density index (SDI): 3 maximum. If exceeded, pretreatment with media filter recommended. All pretreatment equipment and SDI test kits are available from Applied Membranes.
- **Voltage:** Please add our voltage codes to the end of the model number when ordering.
Example: HL-12521-116 = 110v, 1 ph, 60 hz.
 - Voltage Codes:
 - **116** = 110v, 1ph, 60hz (up to L-24A only)
 - **216** = 220/230v, 1ph, 60hz
 - **215** = 220/230v, 1ph, 50hz
 - Three Phase Not Available

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