

VANTAGE™

Reverse Osmosis Systems

L SERIES



THE RIGHT SOLUTIONS,
FLEXIBLE AND ECONOMICAL

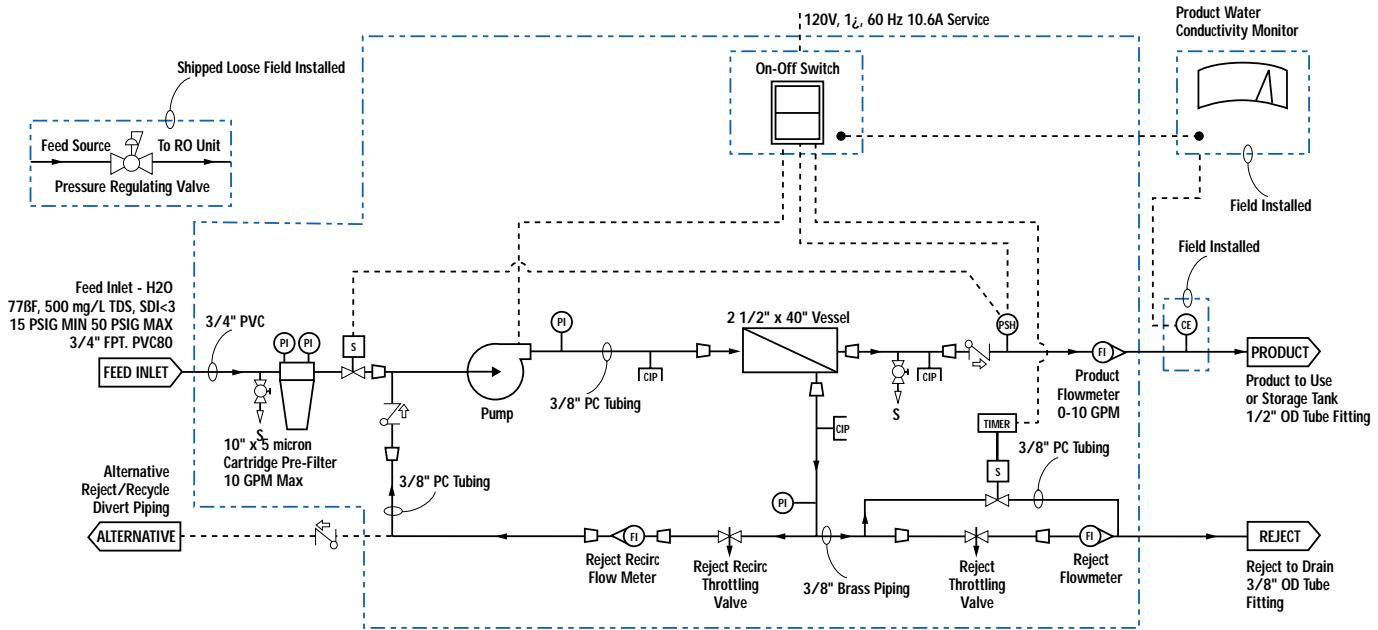
*Custom solutions through
advanced standardization*

Vantage™ Reverse Osmosis units are pre-engineered systems specifically designed for a variety of industrial applications. Vantage systems offer you the greatest flexibility possible from a standard system. The control system is an advanced microprocessor based system that is very easy to use. The W, L, V and H Series families range in product flow from 0.1 to 23 gpm. With the many pre-packaged options available, we'll find the right solution for you.

Capabilities

- ◆ TFC RO Membranes ensure optimum water quality
- ◆ Optional Microprocessor-based controller provides user-friendly programmable controls
- ◆ Small footprint minimizes required space
- ◆ High quality components ensure continuous, reliable operation
- ◆ Low energy membranes reduce the cost of ownership
- ◆ Reject recycle maximizes water recovery and minimizes waste
- ◆ Pre-engineered systems mean easy installation
- ◆ Clean-in-place connections maximize system availability
- ◆ Dial-up capability enables real-time remote monitoring (LC models only)
- ◆ Auxiliary equipment interface provides system wide control (LC models only)

LO/LC Process Flow Diagram (LO control scheme shown)



DESIGN PARAMETERS

Configuration	.....
Inlet Pressure Requirements	.....
Feed Water Temperature	.....
Feed Water Source	.....
Prefiltration Requirements	.....
Feed Water Fouling Index	.....
System Recovery (Nominal)	.....
Product Pressure Available	.....
Membrane Salt Rejection	.....
Performance Basis	.....

Common Specifications

Multi-Stage, Single Pass
25-50 PSIG
77°F
Well or Softened
5 μ nominal
Silt Density Index (SDI) < 3
50%
25 PSIG
99% nominal (based on 2000 ppm NaCl @ 225 PSI, 77°F, pH 8, and 15% recovery)
A specific computer projection must be run for each individual application

GENERAL SPECIFICATIONS

Pressure vessels	.....
Conductivity sensor	.....
Flow indicator	.....
Flow indicator (reject)	.....
Flow indicator (recycle)	.....
Control System	.....

PVC
LO: Optional; LC: Epoxy coated 3/4" MNPT
Rotameter, PVC/acrylic construction, 1/2" FPT connections
Rotameter, PVC/acrylic construction, 1/2" FPT connections
Rotameter, PVC/acrylic construction, 1/2" FPT connections
LO: N/A; LC: Microprocessor, NEMA 4X enclosure

OPERATING LIMITS

Maximum Feed Temperature	.....
Minimum Feed Temperature*	.....
Maximum Feed Pressure	.....
Minimum Feed Pressure	.....
*Lower temperature may require larger booster pump	

113°F
50°F
50 PSIG
15 PSIG

FEED WATER REQUIREMENTS

Maximum SDI Rating	.....
Maximum Turbidity	.....
Maximum Free Chlorine and/or chloramine	.....
Maximum pH (continuous)	.....
Minimum pH (continuous)	.....
Maximum pH (cleaning -30 min.)	.....
Minimum pH (cleaning -30 min.)	.....

3
1 NTU
<0.02 PPM
11
4
12
1

SYSTEM SPECIFICATIONS

Model Number	L001	L002	L003	L004	LC01	LC02	LC03	LC04
Product Flow* (gpm)	0.4	0.8	1.2	1.6	0.4	0.8	1.2	1.6
Feed Flow (gpm)	0.8	1.6	2.4	3.2	0.8	1.6	2.4	3.2
Reject Flow (gpm)	0.4	0.8	1.2	1.6	0.4	0.8	1.2	1.6
Reject Recycle (gpm)	3.1	2.3	1.5	0.7	3.1	2.3	1.5	0.7
Cleaning Flow (gpm) at 60 PSIG max.	5	5	5	5	5	5	5	5
Connection								
Feed Inlet	3/4" NPT	3/4" NPT	3/4" NPT	3/4" NPT	3/4" NPT	3/4" NPT	3/4" NPT	3/4" NPT
Product Outlet	1/2" tube	1/2" tube	1/2" tube	1/2" tube	1/2" tube	1/2" tube	1/2" tube	1/2" tube
Reject to Drain Outlet	3/8" tube	3/8" tube	3/8" tube	3/8" tube	3/8" tube	3/8" tube	3/8" tube	3/8" tube
Membranes								
Membrane/Vessel	1	1	1	1	1	1	1	1
Membrane Quantity	1	2	3	4	1	2	3	4
Membrane Type	TW 30-2540	TW 30-2540	TW 30-2540	TW 30-2540	TW 30-2540	TW 30-2540	TW 30-2540	TW 30-2540
Vessels								
Vessel Array	1	1:1	1:1:1	1:1:1:1	1	1:1	1:1:1	1:1:1:1
Vessel Quantity	1	2	3	4	1	2	3	4
Pumps								
Pump Type	Centrifugal	Centrifugal	Centrifugal	Centrifugal	Centrifugal	Centrifugal	Centrifugal	Centrifugal
Pump Motor HP (ref.)	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4
System Dimensions**								
H x W x D								
inches	62 x 17 x 26	62 x 17 x 26	62 x 17 x 26	62 x 17 x 26	62 x 17 x 26	62x17x26	62x17x26	62x17x26
cm	157 x 43 x 66	157 x 43 x 66	157 x 43 x 66	157 x 43 x 66	157 x 43 x 66	157x43x66	157x43x66	157x43x66
Shipping Weight								
lb	70	80	90	100	80	90	100	110
kg	32	36	41	45	36	41	45	50
Electrical								
High Voltage Service	115VAC	115VAC	115VAC	115VAC	115VAC	115VAC	115VAC	115VAC
High Voltage Amp Draw	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6

*Product Flow rates are based on equipment design parameters. These Product Flow rates may not be appropriate for other feed waters.

**Does not include operating space requirements.

Standard Options	Description
Modem	This option provides a modem and necessary communication port to allow for remote operation, monitoring and linking multiple Reverse Osmosis units together; each individual unit must be fitted with a systems controller. The components for this option are internal to the systems controller. This option is only available on the LC model.
Motor voltages	This option provides a standard model Reverse Osmosis unit with voltage specific wiring and electrical components designed to work with the electrical service available. Please note, when ordering the 380VAC 50Hz voltage option, RO performance is slightly de-rated from the other standard models.
Conductivity monitor	This option provides an analog conductivity monitor for purposes of monitoring the product water quality. The components for this option are shipped with the unit and require field installation and set up. This option is only available on the LO model.

SERVICE AND TECHNICAL SUPPORT

USFilter service centers provide easy access to professional, local service. Our support network of technically trained field personnel ensures that you receive immediate and reliable service.

USFilter staff is available for:

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- Preventative and emergency maintenance on any manufacturer's system
- New system installations and upgrades
- Water sampling and analysis, and more

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STANDARD PRODUCT ORDERING INFORMATION

Vantage RO Part Number Matrix / Single Pass Reverse Osmosis Units

		VRO	LO	04	AX
VANTAGE MODEL					
LO	L w/o controller commercial RO				
LC	L w/ controller commercial RO				
VESSEL QUANTITY DESIGNATION					
01	1 VESSEL				
02	2 VESSELS				
03	3 VESSELS				
04	4 VESSELS				
LO OPTION DESIGNATIONS					
AC	120VAC 1PH 60HZ WITH CONDUCTIVITY MONITOR				
AX	120VAC 1PH 60HZ WITHOUT CONDUCTIVITY MONITOR				
LC OPTION DESIGNATIONS					
AM	120/240VAC 1PH 60 HZ WITH MODEM				
AX	120/240VAC 1PH 60 HZ WITHOUT MODEM				
BM	208/230VAC 3PH 60HZ WITH MODEM				
BX	208/230VAC 3PH 60HZ WITHOUT MODEM				
CM	230VAC 3PH 60HZ WITH MODEM				
CX	230VAC 3PH 60HZ WITHOUT MODEM				
DM	460VAC 3PH 60HZ WITH MODEM				
DX	460VAC 3PH 60HZ WITHOUT MODEM				
EM	380VAC 3PH 50HZ WITH MODEM				
EX	380VAC 3PH 50HZ WITHOUT MODEM				

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