FLEXEON™

CT-Series Reverse Osmosis Systems

CT-Series Reverse Osmosis Systems have been engineered for capacities ranging from 4000 – 7000 gallons per day and feed water up to 2000 TDS.

CT-Series Reverse Osmosis Systems are designed for overall high performance, high recovery rates, minimal energy consumption and offer great savings with low maintenance and operation costs.

CT-Series Reverse Osmosis Systems feature a compact space saving expandable design, excellent pre-filtration, quality components and allow for many options and upgrades to suit most applications.

CT-7000 Reverse Osmosis System Pictured



Benefits:

- Fully Equipped and Customizable
- Expandable & Lightweight Design
- Compact Space Saving Design
- Components Easily Accessible
- Pre-Plumbed, Wired & Assembled
- Factory Tested & Preserved
- Low Operation Costs
- Low Maintenance Costs

- Easy Maintenance & Servicing
- CE Compliant †
- 1-Year Limited Warranty
- Made in the U.S.A.



Engineered Water
Treatment Solutions

FLEXEON™

CT-Series Reverse Osmosis Systems

Features:

- Minitrol Computer Controller
 - Multi Color LED Indicator Status Light
- Pre-Treatment Lockout
- Tank Level Input
- Low Pressure Monitoring and Alarm
- White Powder Coated Aluminum Frame
- 5 Micron Sediment Prefilter
- 10 Micron Carbon Block Pre-filter
- 1 Micron Sediment Pre-filter
- Double O-Ring Filter Housings
- Goulds® Multi-Stage Booster Pump
- AXEON® HF1 Low Energy Membranes
- AXEON® PVC Pressure Vessels
- Permeate Flow Meter
- Concentrate Flow Meter
- Feed Low Pressure Switch
- Feed Solenoid Valve with Manual Bypass
- HM Digital[™] PS-100 TDS Controller
- 316 Stainless Steel Concentrate Valve
- 0-300 psi Pump Pressure Gauges
- 0-100 psi Prefilter Pressure Gauges
- John Guest® Push/Pull Fittings with Locking Safety Clips



Options & Upgrades:

- AXEON® HF4 Extra Low Energy Membranes
- AXEON® HF5 Ultra Low Pressure Membranes
- AXEON® NF3 Nanofiltration Membranes
- AXEON® NF4 Nanofiltration Membranes
- Stainless Steel Pressure Vessels
- Fiberglass Pressure Vessels
- Concentrate Recycle Valve with Flow Meter
- HM Digital™ PS-200 Dual TDS Controller
- HM DigitalTM PSC-150 TDS/Conductivity Controller
- Goulds® Multi-Stage Stainless Steel Booster Pump
- Mintrol IF Computer Controller with Feed Flush

- \$150 Computer Controller with Feed Flush
- S150 Computer Controller Expander Board
- \$150 Computer Controller with Dual TDS
- † Pump Pressure Relief Valve
 - High Pressure Tank Switch
 - Chemical Pump Outlet
 - Blending Valve
 - Permeate Sample Ports
 - Single Wood Crate
 - Double Wood Crate

Reverse Osmosis System Packages:

Models	CT-4000 / CT-5000 / CT-7000		
	STANDARD (S)	ADVANCED (A)	PREMIER (P)
Frame			
White Powder Coated Aluminum Frame	✓	✓ /	✓
Controls			
Minitrol Computer Controller	✓		
Minitrol IF Computer Controller		/	
S150 Computer Controller			✓
Pre-Treatment Lockout	✓	/	√
Tank Level Input	✓	/	✓
LED Controller Display	✓	/	
LCD Controller Display			✓
Feed Solenoid Valve with Manual Bypass	/	√	✓
Concentrate Recycle Valve		√	✓
Feed Low Pressure Switch 15-30 psi	✓	√	✓
Instrumentation			
Permeate Flow Meter	✓	√	✓
Concentrate Flow Meter	✓	/	✓
Concentrate Recycle Flow Meter		✓	✓
316 Stainless Steel Concentrate Valve	/	/	✓
0-100 psi Prefilter In Pressure Gauge	/	/	✓
0-100 psi Prefilter Out Pressure Gauge	/	/	✓
0-300 psi Pump Pressure Gauge	/	/	√
0-300 psi Final Concentrate Pressure Gauge	/	/	√
HM Digital™ PS-100 Permeate TDS Controller	/	/	
Controller Permeate TDS Monitoring			√
Controller Feed TDS Monitoring			√
Standard Options			
Feed Flush		✓	✓
5 Micron Sediment Pre-filter	√	/	✓
10 Micron Carbon Pre-filter	/	√	✓
1 Micron Sediment Pre-filter	/	√	√
Double O-Ring Filter Housings	/	√	√
AXEON® HF1 Low Energy RO Membranes	/		
AXEON® HF4 Extra Low Energy RO Membranes		√	✓
AXEON® PVC Pressure Vessels	/	√	✓
Goulds® Multi-Stage Booster Pump	/	/	
Goulds® Multi-Stage Stainless Steel Booster Pump			✓
Permeate Sample Valves			/

 $\textbf{Note 1:} \ \text{All 50Hz systems come standard with AXEON} \ \text{HF4 Extra Low Energy RO Membranes}.$

Naming Matrix:

- **C** = Frame Style
- T = Feed Water Type Tap Water (T), Brackish Water (B), Sea Water (S)
- **XXXX** = Rated Production in Gallons Per Day Based on Standard Test Conditions
- **S, A, P =** System Package Identifiers

FLEXEON™ CT-Series	Standard (S)	Advanced (A)	Premier (P)
FLEXEON™ CT-4000	CT-4000S	CT-4000A	CT-4000P
FLEXEON™ CT-5000	CT-5000S	CT-5000A	CT-5000P
FLEXEON™ CT-7000	CT-7000S	CT-7000A	CT-7000P

FLEXEON[™] CT-Series Reverse Osmosis Systems

Specifications:

Models	CT - 4000	CT - 5000	CT - 7000
Design			
Configuration	Single Pass	Single Pass	Single Pass
Feed Water Source	City or Well Water	City or Well Water	City or Well Water
Standard Recovery Rate	48%	53%	62%
Recovery with Concentrate Recycle	Up to 75%	Up to 75%	Up to 75%
Rejection and Flow Rates			
Nominal Salt Rejection %	98.5	98.5	98.5
Permeate Flow* gpm (lpm)	2.78 (10.52)	3.47 (13.14)	4.86 (18.40)
Minimum Feed Flow gpm (lpm)	7.00 (26.50)	8.00 (30.28)	10.00 (37.85)
Maximum Feed Flow gpm (lpm)	9.00 (34.07)	10.00 (37.85)	12.00 (45.42)
Minimum Concentrate Flow gpm (lpm)	3.00 (11.36)	3.00 (11.36)	3.00 (11.36)
Connections		, ,	, ,
Feed inch	1 FNPT	1 FNPT	1 FNPT
Permeate inch	1 FNPT	1 FNPT	1 FNPT
Concentrate inch	1 FNPT	1 FNPT	1 FNPT
Membranes			
Membrane(s) Per Vessel	1	1	1
Membrane Quantity	2	3	4
Membrane Size	4040	4040	4040
Vessels			
Vessel Array	1:1	1:1:1	1:1:1:1
Vessel Quantity	2	3	4
Pumps			
Pump Type	Multi-Stage	Multi-Stage	Multi-Stage
Motor HP (kw)	1.5 (1.10)	1.5 (1.10)	1.5 (1.10)
RPM @ 60 (50 Hz)	3450 (2900)	3450 (2900)	3450 (2900)
Electrical			
Standard Voltage	220V 60HZ 1PH	220V 60HZ 1PH	220V 60HZ 1PH
	220V 50HZ 1PH	220V 50HZ 1PH	220V 50HZ 1PH
	220V 60HZ 3PH	220V 60HZ 3PH	220V 60HZ 3PH
Voltage Options	220V 50HZ 3PH	220V 50HZ 3PH	220V 50HZ 3PH
	380V 50HZ 3PH	380V 50HZ 3PH	380V 50HZ 3PH
	460V 60HZ 3PH	460V 60HZ 3PH	460V 60HZ 3PH
Voltage Amp Draw (220V 60Hz / 220 50Hz / 380V 50Hz/ 460V 60Hz)	8.3 / 8.9 / 4.5 / 3.5	8.3 / 8.9 / 4.5 / 3.5	8.3 / 8.9 / 4.5 / 3.
Systems Dimensions **			
L x W x H inch (cm)	30 x 38 x 47 (76 x 96 x 119)		30 x 38 x 47 (76 x 96 x 1
Weight lb. (kg)	235 (106.6)	250 (113.4)	265 (120.2)

^{*}Product Flow rates are based on equipment test parameters.

Operating Limits:

Maximum Feed Temperature °F (°C)	105 (40.96)	Maximum Free Chlorine ppm	0
Minimum Feed Temperature °F (°C)	40 (4.44)	Maximum TDS ppm	2000
Maximum Ambient Temperature °F (°C)	120 (48.89)	Maximum Hardness gpg	15
Minimum Ambient Temperature °F (°C)	35 (1.66)	Maximum pH (Continuous)	11
Maximum Feed Pressure psi (bar)	85 (5.86)	Minimum pH (Continuous)	3
Minimum Feed Pressure psi (bar)	35 (2.41)	Maximum pH (Cleaning 30 Min.)	12
Maximum Operating Pressure psi (bar)	150 (10.34)	Minimum pH (Cleaning 30 Min.)	2
Maximum SDI Rating SDI	<3		
Maximum Turbidity NTU	1		

Test Parameters: 550 TDS Filtered (5 Micron), De-Chlorinated, Softened City Feed Water, 35 psi (2.41 bar) Feed Pressure, 150 psi (10.34 bar) (HF1 Membranes), 100 psi (6.89 bar) (HF4 Membranes), 70 psi (4.83 bar) (NF3 & NF4 Membranes), or 80 psi (5.52 bar) (HF5 Membranes) Operating Pressure, 77 Degrees F (25 Degrees C), Recovery as stated, 7.0 pH. Data taken after 30 minutes of operation.

Low temperatures and high feed water TDS levels will significantly affect system's production capabilities. Computer projections should be run for individual applications which do not meet or exceed minimum and maximum operating limits.



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^{**}Does not include operating space requirements.