

Nelsen NRO Commercial Systems



The NRO Commercial Series of Reverse Osmosis systems are built by Nelsen Corporation. These commercial systems of unmatched value in quality and price give you a multitude of standard features that are optional on most other ROs! NSF-grade high quality parts are used to build this tough system. All Nelsen NRO Commercial Systems are wet tested to optimum pressure and production prior to shipment, and are delivered with individual quality assurance reports to show actual performance data on outputs and rejections.

The NRO Commercial Series is designed for commercial or industrial applications requiring flow rates of 0.17-6.9 gallons per minute (GPM). The NRO Commercial Series features the durability of a powder coated steel frame, a complete performance monitoring package, and simple system integration. Upgradable design allows for additional membranes to be added to increase production.

Nelsen Corporation has many years of technical experience and service expertise ready to help optimize the performance of your system or build a system to your specific needs!

Additional system features include:

- **High Flow TFC Low Pressure Membranes** - other types and ratings available.
- **High Quality Gloss 300psi FRP Housings** - *Stainless Steel Housings available at no additional cost.*
- **All Stainless Braided Hoses Used In Construction.**
- **Extended Frame Legs w/Plastic End Caps** - *for protection from floor/ground contact and ease of movement.*
- **Easily Replaceable Motor Mounting System** - *for ease of field repairs.*
- **True Union Couplings On Inlet & Outlet of Motor** - *no plumbing disassembly required for change out.*
- **Easily Replaceable Sch 80 PVC Fittings** - *for ease of field repairs.*
- **Quick Connect Fittings for Gauges & Recycle Operation** - *for ease of service.*
- **Brass or Stainless Steel Inlet Shut Off Valve.**
- **Integrated Recycle Valve Standard.**
- **Low Pressure Mechanical Switch with Time Delay Snubber Valve.**
- **Permeate & Concentrate Flow Meters.**
- **Liquid Filled Gauges for accurate & steady pressure readings.**
- **Panel Mounted Concentrate Pressure Gauge.**
- **Stainless Steel High Pressure Centrifugal Pump** - *for long lasting performance.*
- **Pump Throttle Valve & Pipe Mounted Discharge Pressure Gauge.**
- **Float Switch & Pretreatment Interlocks Standard on all Systems.**
- **High Flow 5 Micron Prefilter - Front Mounted for ease of access.**

Nelsen Commercial Reverse Osmosis System Specifications

Model:	NRO-1440-1600	NRO-2440-3200	NRO-3440-4800	NRO-4440-6400	NRO-5440-8000	NRO-6440-10000
Production GPD	1600	3200	4800	6400	8000	10,000
Membrane	4 X 40 (1)	4 X 40 (2)	4 X 40 (3)	4 X 40 (4)	4 X 40 (5)	4 X 40 (6)
Permeate GPM	1.11	2.2	3.3	4.5	5.7	6.9
Feed GPM***	6.0	7.0	8.0	9.0	10.0	11.0
% Recovery w/Recycle	19%-30%	50%-75%	50%-75%	50%-75%	50%-75%	50%-75%
Pump	1 HP	1 HP	1.5 HP	1.5 HP	3 HP	3 HP
FLA 60HZ 1Ø 110/220	19.2/9.6	19.2/9.6	24/12	24/12	*/15	*/15
FLA 60HZ 3Ø 230/460	**	**	**	**	**	**
Circuit Size	25/15A	25/15A	30/15A	30/15A	20A	20A
Inlet	3/4"	3/4"	3/4"	3/4"	1" Big Blue®	1" Big Blue®
Permeate	1/2"	1/2"	1/2"	1/2"	1"	1"
Concentrate	1/2"	1/2"	1/2"	1/2"	1"	1"
Unit Dims (DxWxH)	27¼"x25"x54¾"	27¼"x25"x54¾"	27¼"x25"x54¾"	27¼"x25"x54¾"	32½"x25"x56½"	32½"x25"x56½"
Shipping Dims (DxWxH)	34"x34½"x58½"	34"x34½"x58½"	34"x34½"x58½"	34"x34½"x58½"	34"x34½"x58½"	34"x34½"x58½"
Weight - Pounds	124 lbs.	149 lbs.	158 lbs.	169 lbs.	211 lbs.	224 lbs.

NRO Commercial Systems

PART NUMBER

DESCRIPTION

Suggested Retail

Nelsen Commercial NRO Systems

4" MEMBRANE SYSTEMS

NRO-1440-1600	Single 4x40 Membrane Comm RO - 1600 GPD	
NRO-2440-3200	Two 4x40 Membrane Comm RO - 3200 GPD	
NRO-3440-4800	Three 4x40 Membrane Comm RO - 4800 GPD	
NRO-4440-6400	Four 4x40 Membrane Comm RO - 6400 GPD	
NRO-5440-8000	Five 4x40 Membrane Comm RO - 8000 GPD	
NRO-6440-10000	Six 4x40 Membrane Comm RO - 10,000 GPD	

Commercial RO Optional Accessories

Optional accessory packages installed at time of assembly.

RO CONTROL BOX



- **Hardware Design:** Modular for easier assembly, easier service and superior flexibility. Clean logical layout with clear labeling and easy access.
- **Superior Interface:** 4 line LCD with clear, common-sense information. Takes the guess-work out of monitoring the RO.
- **Electrical Design:** High-current wiring is stationary – not subject to flexing and twisting every time the controller door is opened. The terminal block is mounted to the back panel where it belongs. Wiring is easier, cleaner and more secure.
- **Superior Protection:** Fully fused – because fuses cost less than circuit boards. Uses standard, readily-available fuses.
- **Filtering:** Robust protection from surges, interference or miswiring.
- **Power Supply:** Operates reliably on varying voltages.

NRO CONTROLLER	ROC2 Control Box w/Low Pressure, Permeate TDS & Level Controls	
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SYSTEM OPTIONS

NRO-OPT 2	Auto Flush - Requires NRO Controller	
NRO-OPT 3	Permeate Flush - Requires NRO Controller	
NRO-OPT 4	Additional Gauges - Post Filter, Pump Feed (ea.)	
NRO-OPT 5	Manual Fast Flush	
NRO-OPT 6	Bladder Tank Control	

OPTIONS WITH CONTROL BOX INCLUDED

NRO-OPT 7	Auto Flush Components	
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*Different pump/mtr combination may be required to meet flow and pressure requirements.

**Full crating included

