

# Technical Data Sheet

## WQ-RS

### Commercial Reverse Osmosis Systems



Engineered Solutions

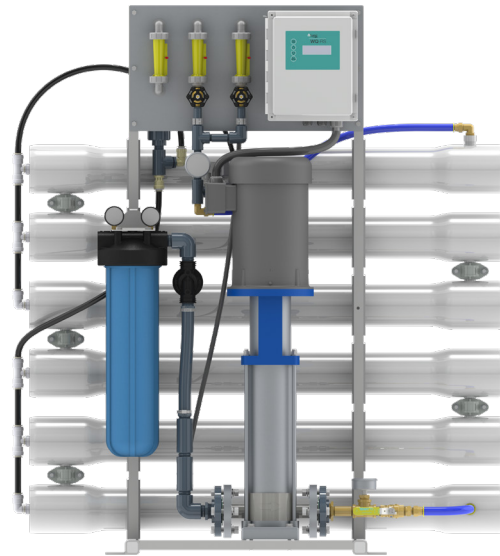
#### Flow Rates up to 120 GPM

Lync's WQ-RS reverse osmosis (RO) systems are commercial grade high-pressure RO units that can reduce up to 99% of the contaminants in water, including suspended and dissolved solids. Lync WQ-RS systems are designed for floor mount installations and can supply production rates ranging from 3,600 gallons per day up to 120 gallons per minute. Reverse osmosis is a process where high-pressure feed water is fed into a semi-permeable membrane. In the membrane, pure water is allowed to pass through the membrane material and exit as purified permeate water. Dissolved mineral salts are not allowed to pass through the membrane and become a concentrated reject stream that is sent to a drain. WQ-RS systems use integral pump and high-pressure/high-rejection membranes to achieve a minimum average NaCl ionic rejection of 95 percent.

These systems are designed to feed an atmospheric storage tank for collection of the reverse osmosis water. Reverse osmosis water has a wide variety of applications including municipal water treatment, steam boiler and steam sterilizer make up, laboratory use, spot free rinsing, ice and beverage water, water for cooking, food processing, metal plating and finishing, as well as water for humidification.

WQ-RS effectively removes corrosive ions such as chlorides and sulfates from the treated water. The result is mechanical equipment and piping systems that last longer and perform at their highest efficiency.

The WQ-RS system should be installed after a water softener or anti-scale system, so that scale forming



calcium and magnesium hardness cannot scale the RO membranes. Additionally, backwash carbon filter should be installed on the RO feed water line to remove the chlorine and prevent membrane degradation due to chlorine attack. Backwash sediment filter is also required to be installed on the RO feed water line to reduce the silt density index of the water to prevent particulate fouling of the RO membranes.

**WARNING:** Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system. In such cases, UV disinfection system is recommended to be installed on the RO feed water to prevent the chances of RO membrane biofouling.

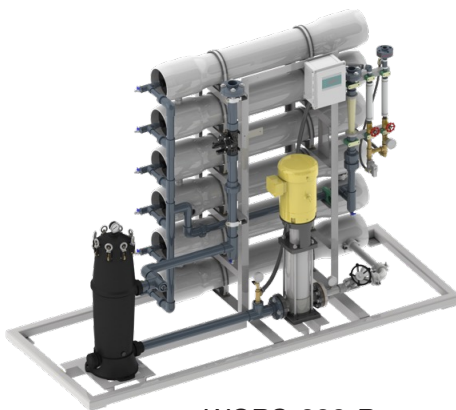
Model	Production Rate		Recovery	Piping Connection			Dimension L x W x H (in)	Membrane		Electrical Requirement	Shipping Weight (lb)
	GPM	GPD		Feed Water	Product Water	Reject Water		Quan- tity	Size (in)		
WQRS-005-R	2.5	3,600	25%-75%	1"	¾"	¾"	51 x 18 x 57	2	4 x 40	230 VAC, 3-Phase, 60 Hz, 15 Amps	400
WQRS-010-R	5	7,200	42%-75%	1"	¾"	¾"	51 x 18 x 57	4	4 x 40		600
WQRS-015-R	7.5	10,800	50%-75%	1"	¾"	¾"	51 x 18 x 57	6	4 x 40		800
WQRS-030-R	15	21,600	50%-75%	2"	1½"	1"	108 x 42 x 72	3	8 x 40	230 VAC, 3-Phase, 60 Hz, 30 Amps	1600
WQRS-060-R	30	43,200	50%-75%	2"	1½"	1"	108 x 42 x 72	6	8 x 40		2200
WQRS-090-R	60	86,400	65%-75%	2½"	2"	1½"	196 x 41 x 79	12	8 x 40	460 VAC, 3-Phase, 60 Hz, 20 Amps	2800
WQRS-180-R	120	172,800	65%-75%	3"	2½"	1½"	196 x 41 x 79	24	8 x 40	460 VAC, 3-Phase, 60 Hz, 30 Amps	3800

**Notes:** For all other guideline information please contact your Lync representative. Published maximum production rates are based on a feed water of 77°F, SDI of less than 3, 1000 ppm TDS, and pH 8. Individual membrane productivity may vary (±15%). May be operated on other feed waters with reduced capacity. Percent rejection is based on membrane manufacturer's specifications; overall system percent rejection may be less.

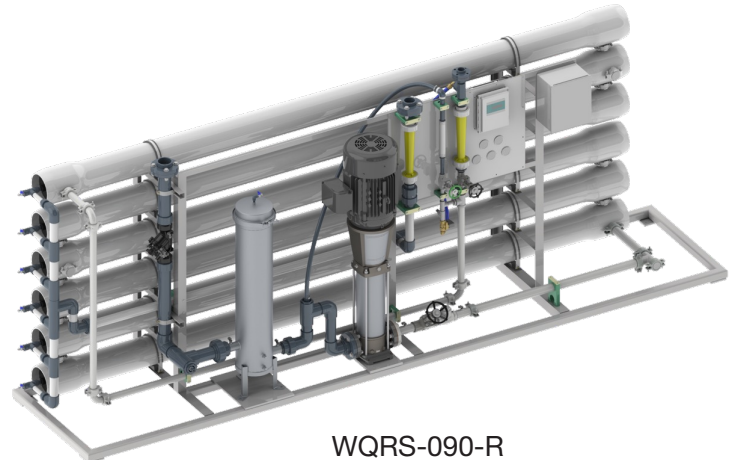
Features	WQRS-005-R WQRS-010-R WQRS-015-R	WQRS-030-R WQRS-060-R	WQRS-090-R WQRS-180-R
Powder coated steel frame	•	•	•
Electronic controller with product water conductivity meter	•	•	
FRP side-port pressure vessels	•	•	•
Pre-filter housing and cartridge (20" Full-Flow) - 5 Micron	•		
Non-metallic Big Bubba pre-filter housing - 5 Micron		•	
Stainless steel pre-filter and cartridges - 5 Micron			•
Vertical heavy-duty multi-stage centrifugal pump	•	•	•
Automatic inlet valve	•	•	•
Low-pressure shut-off with automatic restart	•	•	•
Tank level input	•	•	•
Pretreatment interlock input	•	•	•
Adjustable recycle line	•	•	•
Concentrate auto flush	•	•	
Pre-filter pressure gauges	•	•	•
Pump discharge pressure gauge	•	•	•
Flow meter for product water	•	•	•
Flow meter for reject water	•	•	•
Flow meter for recycling water	•	•	•
Check valve for product water	•	•	•
Reject pressure gauge		•	•
Membrane feed pressure gauge			•
Sample valves for product water			•
On/off switch	•		•



WQRS-005-R  
WQRS-010-R  
WQRS-015-R



WQRS-030-R  
WQRS-060-R



WQRS-090-R  
WQRS-180-R

**Notice:** The information contained herein is not intended to replace the full product installation and safety information available or the experience of a trained product installer. You are required to thoroughly read all installation instructions and product safety information before beginning the installation of this product.



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