

# SIRION™ Multipure

Reverse Osmosis - Brackish Water Desalination

SIRION™ Multipure reverse osmosis systems are specifically designed to treat brackish waters. They reject over 99% of the salt contained within the feed water.

Flow rates for standard systems range from 4.7 to 104.2 m<sup>3</sup>/hr for feed waters of up to 5 000 ppm (TDS.)

## Features & Benefits

- Standardized and skid-mounted; short lead times and quick start-up
- Small footprint; easily integrated into existing plant
- Chemical pre-treatment; protects the RO membranes
- High pressure pump with variable frequency drive; efficient and quiet operation
- State-of-the-art RO membranes
- Flushing and chemical cleaning system; removes salt deposits, prevents scaling and maintains system performance
- Touch screen interface for easy operation
- PLC control

## Applications

- Production of potable water
- Industrial process water
- Agricultural irrigation
- Industrial water reuse

## Related Services

Local after-sales service and support teams offer preventative and corrective maintenance programs to ensure the long-term, efficient operation of installed plant.

## Hydrex® Chemicals

Hydrex® 4000 water treatment chemicals from Veolia Water Technologies should be used for optimised plant operation.



## Equipment Performance & Dimensions

Model	Flow @ 15°C		Nominal Recovery	Dimensions		Membranes		Pump
	Feed	Permeate		WxDxH	Weight	1 <sup>st</sup> array	2 <sup>nd</sup> array	Power
	m <sup>3</sup> /hr	m <sup>3</sup> /hr	%			m	kg	Quantity
Feed water TDS up to 1000 ppm								
RO 100/1	5.94	4.17	70	5x1.7x2.2	1400	2	2	7.5
RO 150/1	8.92	6.25	70	5x1.7x2.2	1450	3	3	9.2
RO 225/1	14.29	9.38	70	5x1.7x2.2	1600	6	3	11
RO 325/1	19.10	13.54	70	5.5x1.7x2.2	1700	8	4	18.5
RO 425/1	23.39	17.71	75	7.5x1.7x2.2	1900	12	6	18.5
RO 500/1	27.67	20.83	75	5.5x1.7x2.2	2100	12	8	22
RO 600/1	32.94	25	75	6.5x1.7x2.2	2200	15	10	26
RO 750/1	41.34	31.25	75	7.5x1.7x2.2	2300	18	12	30
RO 850/1	47.41	35.42	75	6.5x1.7x2.2	2500	20	15	30
RO 1100/1	61.19	45.83	75	7.5x1.7x2.2	3200	24	18	37
RO 1300/1	72.13	54.17	75	7.5x1.7x2.2	3450	30	18	45
RO 1450/1	80.66	60.42	75	7.5x1.7x2.2	3700	30	24	55
RO 1800/1	100.13	75	75	(9x2x2.2)+(9x1.5x2.2)	4300+4300	42	24	63
RO 1900/1	105.7	79.17	75	(9x2x2.2)+(9x1.5x2.2)	4550+4550	42	30	75
RO 2100/1	116.82	87.5	75	(9x2x2.2)+(9x1.5x2.2)	4800+4800	48	30	75
RO 2200/1	122.39	91.67	75	(9x2x2.2)+(9x1.5x2.2)	5000+5000	54	30	75
RO 2500/1	139.07	104.17	75	(9x2x2.2)+(9x1.5x2.2)	5500+5500	60	36	92
Feed water TDS up to 3000 ppm								
RO 100/3	6.41	4.17	70	5x1.7x2.2	1400	2	2	13
RO 125/3	7.38	5.21	70	5x1.7x2.2	1450	3	3	11
RO 200/3	12.78	8.33	70	5x1.7x2.2	1500	6	3	13
RO 280/3	17.89	11.67	70	5.5x1.7x2.2	1600	8	4	18.5
RO 375/3	22.18	15.75	70	5.5x1.7x2.2	1800	12	6	18.5
RO 450/3	26.65	18.79	70	5.5x1.7x2.2	2100	12	8	22
RO 550/3	32.44	23	70	6.5x1.7x2.2	2350	15	10	30
RO 650/3	38.43	27.25	70	7.5x1.7x2.2	2400	18	12	30
RO 780/3	46.21	32.63	70	7.5x2x2.2	2575	20	15	37
RO 1000/3	55.48	41.67	75	7.5x2x2.2	3200	24	18	45
RO 1175/3	62.28	48.96	75	7.5x2x2.2	3450	30	18	55
RO 1350/3	75	56.25	75	7.5x2x2.2	3700	30	24	55
RO 1500/3	83.33	62.5	75	7.5x2x2.2	4000	36	24	63
RO 1700/3	94.57	70.83	75	(9x2x2.2)+(9x1.5x2.2)	4300+4300	42	24	75
RO 1800/3	100	75	75	(9x2x2.2)+(9x1.5x2.2)	4550+4550	42	30	75
RO 1900/3	105.56	79.17	75	(9x2x2.2)+(9x1.5x2.2)	4800+4800	48	30	92
RO 2100/3	116.82	87.5	75	(9x2x2.2)+(9x1.5x2.2)	5000+5000	54	30	92
RO 2400/3	133.51	100	75	(9x2x2.2)+(9x1.5x2.2)	5500+5500	60	36	92
Feed water TDS up to 5000 ppm								
RO 100/5	6.33	4.17	70	5x1.7x2.2	970	3	3	11
RO 175/5	11.13	7.29	70	5x1.7x2.2	1100	6	3	13
RO 250/5	15.93	10.42	70	5.5x1.7x2.2	1400	8	4	22
RO 350/5	22.32	14.67	70	7.5x1.7x2.2	1610	12	6	22
RO 400/5	25.46	16.75	70	5.5x1.7x2.2	1600	12	8	22
RO 500/5	31.61	20.83	70	6.5x1.7x2.2	1950	15	10	30
RO 600/5	38.46	25	70	7.5x1.7x2.2	2200	18	12	37
RO 700/5	44.39	29.17	70	6.5x1.7x2.2	2575	20	15	37
RO 900/5	53.57	37.5	70	7.5x1.7x2.2	3200	24	18	55
RO 1100/5	65.48	45.83	70	7.5x1.7x2.2	3450	30	18	55
RO 1250/5	74.4	52.08	70	7.5x1.7x2.2	3700	30	24	63
RO 1550/5	92.26	64.58	70	(9x2x2.2)+(9x1.5x2.2)	4300+4300	42	24	75
RO 1650/5	98.21	68.75	70	(9x2x2.2)+(9x1.5x2.2)	4550+4550	42	30	92
RO 1750/5	104.17	72.92	70	(9x2x2.2)+(9x1.5x2.2)	4800+4800	48	30	92
RO 1950/5	116.07	81.25	70	(9x2x2.2)+(9x1.5x2.2)	5000+5000	54	30	92
RO 2150/5	127.98	89.58	70	(9x2x2.2)+(9x1.5x2.2)	5500+5500	60	36	110

## Material Specifications

Pressure Vessels	FRP 400 psi
Pipework	AISI 316L SCH40 for high pressure / Others: uPVC
Skid	EPOXY coated carbon steel
Pump Material	AISI 304 or 316L (depending on TDS)
Pump Type	Centrifugal submersible multistage sleeved
Control Cabinet	Painted carbon steel to IP54
Membranes	Polyamide spiral wound (8")

## Feed Water Supply Quality

Feed Water design Temp. (°C)	15
Max. SDI	3
Max. Turbidity (NTU)	0.1
Max. TOC (ppm)	3
Iron (ppm)	< 0.1
Manganese (ppm)	< 0.1
Free Chlorine (ppm)	< 0.1