

Water Technologies

Vantage™ M280 Series Reverse Osmosis Units

The Clear Advantage
In Membrane Systems

SIEMENS

Siemens Water Technologies Vantage™ M280 Series Reverse Osmosis (RO) units are double pass (product staged) units designed and manufactured for general industrial applications. The M280 series double pass units can remove up to 98% of dissolved inorganics, over 95% of total dissolved organics and all colloidal and suspended matter larger than 0.05 micron. Their flexible design can accommodate virtually all TFC 8-inch spiral wound RO membranes to suit your application.

Each unit is mounted on a polyurethane coated structural steel frame and includes a high pressure feed pump, FRP side entry pressure vessels, spiral wound thin film composite (TFC) RO membranes, PVC low pressure feed piping, 316L stainless steel high pressure piping, PVC reject and recycle piping, PVC product piping, and a control panel.

M280 Series Benefits:

- Hydrostatically tested at the factory for quality control
- Pre-engineered, pre-assembled and fully designed units
- 316L stainless steel pumps and piping resist corrosion

M280 Series Features:

- For manufacturing, beverage, micro-electronics and boiler feed applications
- 5 micron cartridge filtration is included to protect membranes
- Sample valves on the feed provide an easy mechanism to test water quality and guarantee system performance
- UL Listed enclosure assures quality and reliability
- Side-port membrane housing reduces maintenance costs

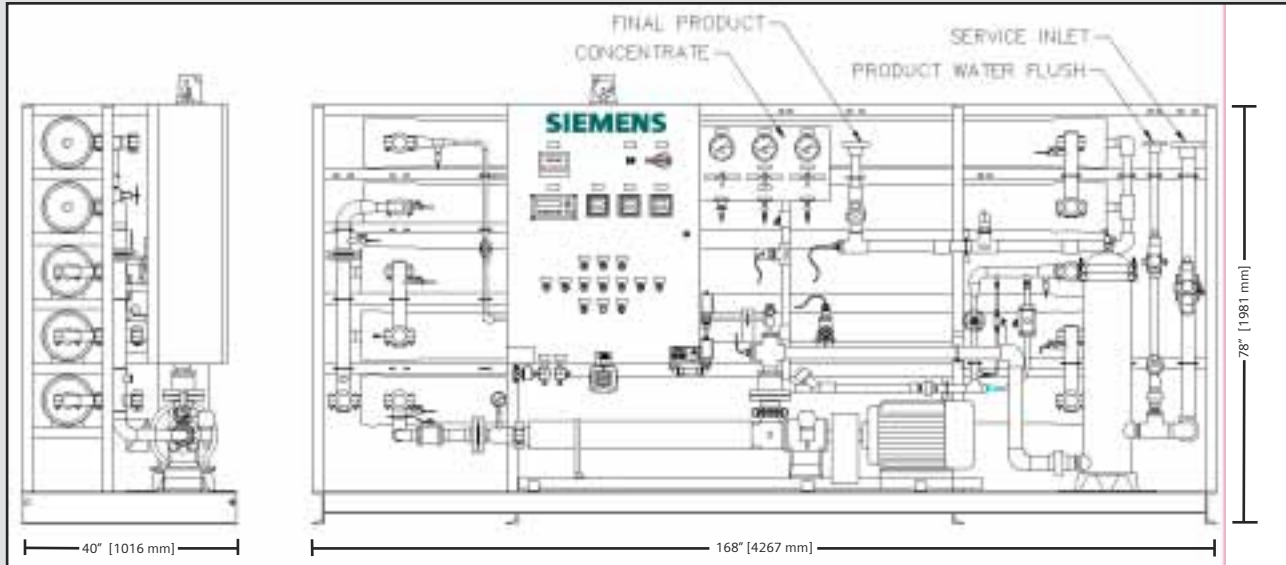


Specifications

Model Number	Flow Rate Specifications GPM Nominal (M ³ /hr)			Vessel Staging	Membrane Quantity	Customer Connection Specifications (inches)			Approx Shipping Weight	
	Product*	Feed	Reject			Feed	Product	Reject	Lb	(kg)
283-250	25 (5.7)	40 (9.1)	15 (3.4)	1:1:1/1:1	15	2	1.5	1	3000	(1361)
284-230	25 (5.7)	40 (9.1)	15 (3.4)	1:1/1	12	2	1.5	1	3200	(1451)
284-260	50 (11.4)	68.5 (15.6)	18.5 (4.2)	2:1:1/1:1	24	2	1.5	1	3600	(1633)
284-280	60 (13.6)	82.2 (18.7)	22.2 (5.0)	2:2:1/1:1:1	32	2	1.5	1	4000	(1814)
284-290	75 (17.0)	102.8 (23.3)	27.8 (6.3)	3:2:1/2:1	36	3	2	1.5	4200	(1905)
286-280	100 (22.7)	137 (31.1)	37 (8.4)	3:2/2:1	48	3	3	2	7000	(3175)
286-310	125 (28.4)	171.3 (38.9)	46.3 (10.5)	5:2/3:1	66	4	3	2	8500	(3856)
286-320	150 (34.1)	205.6 (46.7)	55.6 (12.6)	5:3/3:1	72	4	3	2	9000	(4082)

*Product flow rates are based on equipment design parameters listed below. Product flow rates may not be appropriate for other feed waters.

Dimensions*



*Dimensions for 283-250 model only. Refer to table below for dimensions of all models.

Model Number	Overall Dimensions W x D x H (inches)	Overall Dimensions W x D x H (millimeters)
283-250	168 x 40 x 78	4267 x 1016 x 1981
284-230	201 x 41 x 78	5105 x 1041 x 1981
284-260	201 x 41 x 78	5105 x 1041 x 1981
284-280	196 x 56 x 90	4978 x 1422 x 2286
284-290	196 x 56 x 90	4978 x 1422 x 2286
286-280	277 x 56 x 91	7036 x 1422 x 2311
286-310	277 x 56 x 91	7036 x 1422 x 2311
286-320	277 x 68 x 91	7036 x 1727 x 2311

Design Parameters:

Feed Water Source	Well or Softened
Feed Water Fouling Index	Silt Density Index (SDI) < 3
Design Feed Water Temperature	60°F* (15° C)
Inlet Pressure Requirements	25-60 PSIG (172-414 KPA)
Product Pressure Available	25 PSIG (172 KPA)
System Recovery (Nominal)	65%
Performance Basis	A specific RO projection must be run for each individual application.

*Lower temperature may require larger booster pump or use of low energy membranes.

If any of the feed water parameters are not within the limits given, contact Technical Support at 800.875.7873 ext 5000.

The information provided in this brochure contains merely general descriptions or characteristics of performance which in actual case of use do not always apply as described or which may change as a result of further development of the products. An obligation to provide the respective characteristics shall only exist if expressly agreed in the terms of contract.

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