

SKID/CONTAINERIZED SEA & BRACKISH WATER REVERSE OSMOSIS EQUIPMENT

FG Water Technologies
Wuxi Fenigal Science and Technology Co., Ltd.



M Series Seawater Desalination Watermaker

Capacity: 30l/h~200l/h (8GPH~52GPH)

CN/105089



M series watermaker is designed to produce high quality portable water from sea water or high salinity brackish water. M series watermaker produce pure potable water from 30 to 200 litres (8-52 gallon) per hour.

M series watermaker is a small desalination system based on reverse osmosis principle which is the most popular water treatment technology in the world.

M series watermaker use modular design to simplify the maintenance. The high pressure pump, instruments and electric control are built into a central process unit (CPU), the membrane housing, membrane and pressure regulating valve are built into a membrane unit (MU). A chemical cleaning pump, tank and fast connection pipeline are built into a chemical cleaning unit (CCU).

M series watermaker use one button ON/OFF.

M series watermaker could also use a remoter to control the start/stop of the machine in 15 meters range. It could also be used to monitor the status of the machine.



Technical Data	Unit	M-30	M-60	M-60L	M-100	M-200
Rated Product Flow 1)	LPH (GPH)	30 (8)	60 (15)	60 (15)	100 (26)	200 (52)
Rated Recovery Rate 1)	%	7	15	15	25	34
Min Pressure In	barg	2	2	2	2	2
Max Pressure In	barg	5	5	5	5	5
Min System Pressure 2)	barg	10	10	10	10	10
Max System Pressure 2)	barg	70	70	70	70	70
RO Membrane Spec.	inch	2521	2521	2540	2540	2540
RO Membrane Qty.	pcs	1	2	1	2	4
Rated Power 3)	kW	1.4	1.4	1.4	1.4	2.1
Power Input 4)		1PH, 220 AC±10%, 50Hz				

Note:

- 1) The rated product flow and rated recovery rate are based on the design feed (35,000 ppm, 20°C standard seawater).
- 2) The normal system operating pressure shall be above the minimum pressure, and shall not exceed the maximum pressure.
- 3) The maximum power at 70bar.
- 4) If you need other input voltage and frequency, please contact us.

CN/105089

R Series Seawater Desalination Watermaker

Capacity: 300l/h~2,300l/h (80GPH~610GPH)



R series watermaker is designed to produce high quality portable water from sea water or high salinity brackish water. R series watermaker produce pure potable water from 6,000 to 55,000 litres (1,600-14,500 gallon) per day.

Together with 2nd pass RO system and EDI system, the watermaker could make ultra-pure water, which is used for chemistry, pharmaceutical or electronic industries. For more details, please contact us.

R series watermaker is a small desalination system based on reverse osmosis principle which is the most popular water treatment technology in the world.

2 type is available for R series:

Modular: using R-xx(xx is normally the capacity of the system) as type name. The pretreatment unit (which is normally sand filter here), SWRO unit and chemical clean unit are designed as separated skids. It will be more flexible to choose modular design when the entrance or the space is limited, or there is no crane available.

All-in-1: using R-xxA as type name. The pretreatment unit, SWRO unit and chemical clean unit are carefully designed to be put into 1 skid. All-in-1 design could save installation time on site.



Technical Data	Unit	R-6(A)	R-12(A)	R-18(A)	R-24(A)	R-48(A)
Rated Product Flow 1)	LPH (GPH)	300 (80)	550 (150)	850 (220)	1,100 (290)	2,300 (610)
Rated Recovery Rate 1)	%	30	34	34	34	34
Min. Feed-in Pressure	barg	0	0	0	0	0
Max. Feed-in Pressure	barg	2	2	2	2	2
Min System Pressure 2)	barg	20	20	20	20	20
Max System Pressure	barg	70	70	70	70	70
RO Membrane Spec.	inch	4040	4040	4040	4040	8040
RO Membrane Qty.	pcs	2	4	6	8	4
Rated Power 3)	kW	3.8	5.2	7.7	10.2	18.5
Input 4)		3PH, 380 AC±10%, 50Hz				

Note:

- 1) The rated product flow and rated recovery rate are based on the design feed (35,000 ppm, 20°C standard seawater). If the feed TDS is lower, higher product flow and higher recovery rate could be available; if the feed TDS is higher, product flow and recovery rate might be lower to avoid over pressure or scaling, contact us for details.
- 2) The normal system operating pressure shall be above the minimum pressure, and shall not exceed the maximum pressure. For higher system pressure, please contact us.
- 3) The maximum power at 70bar.
- 4) For other input voltage and frequency, please inform us while placing the order.

C Series Seawater Desalination Watermaker

Capacity: 3.5m³/h~33.5m³/h (925GPH~8,860GPH)

CN/105089



C series watermaker is designed to install the pretreatment system, RO system, chemical cleaning system and chemical dosing system all into the container. Containerized design minimize the site installation and erecting time of the desalination system. No need extra roof for the system.

Containerized system also make the transportation much easier.

To ensure the reliability of the watermaker, the core parts are from the well-known manufacturers in water treatment area, such as Danfoss, Pentair, Toray, Hydranautics, Siemens, Schneider, etc.

C series watermaker are designed and manufactured on the basis of the industrial standard: ASME, ASTM, IEC, etc.

- 1) Containerized design minimize the site installation and shorten the erecting time.
- 2) Containerized system save cost from transportation and site civil works.
- 3) Simple process, feed pump is used as backwash pump for sand filter.
- 4) Automatically backwash system for sand filter.
- 5) 3 step filtering ensure the safe operation of high pressure pump, energy recovery device and RO membrane.
- 6) Super duplex high pressure pump using axial piston principle from Danfoss, higher efficient, lighter, more compact than common plunger pump, and only one service is needed for up to 3 year.
- 7) Super duplex energy recovery device using isobaric pressure exchanger principle from Danfoss, much higher efficient than energy recovery turbine, and only one service is needed for up to 3 year.

Technical Data	Unit	C-80	C-100(E)	C-200E	C-400E	C-500E	C-600E	C-800
Rated Product Flow ¹⁾	M ³ /H	3.5	4.5	9.5	16.5	21.5	25.5	33.5
Rated Recovery Rate ¹⁾	%	36	35	36	45	45	45	45
Min Pressure In ²⁾	barg	4	4	4	4	4	4	4
Max Pressure In	barg	6	6	6	6	6	6	6
Min System Pressure ³⁾	barg	20	20	20	20	20	20	20
Max System Pressure ³⁾	barg	70	70	70	70	70	70	70
RO Membrane Spec.	inch	8040	8040	8040	8040	8040	8040	8040
RO Membrane Qty.	pcs	6	8	18	35	42	48	64
Membrane housing Qty.	pcs	2	2	4	5	6	6	8
Rated Power ⁴⁾	kW	25	32(16)	29	47	59	72	94
Input ⁵⁾	V	3PH 380 AC±10%						
Frequency ⁵⁾	Hz	50						

Note:

- 1) The rated product flow and rated recovery rate are based on the design feed (35,000 ppm, 20°C standard seawater), if the feed TDS is lower, higher product and higher recovery rate could be available; if the TDS is higher, the capacity might be cut and the recovery rate might be lower (for C-400E and above) to ensure the safe operation, contact us for details.
- 2) As the system has no feed pump, an intake pump or feed pump should be added to provide the required pressure.
- 3) The normal operating system pressure shall be above the minimum pressure. If higher pressure above 70bar is needed, please contact us for solution.
- 4) The power consumption at 70 bar, normally lower. The power of intake pump and/or feed pump are not included.
- 5) Other input voltage and frequency is available on request.



Water & Wastewater Treatment Equipment

FENIGAL FG Water
Technologies 

FG Water Technologies

Wuxi Fenigal Science and Technology Co., Ltd.

China Head Office:

606#, Building B, CHUANGYE CHANYE PARK, DICUI ROAD 100,
BINHU, WUXI, JIANGSU, P.R.CHINA

website:<http://www.fgwater.com>

Email: info@fgwater.com

Tel: +86-510-85163211

Cell: +86-13646187144