



OSMO ASIA PACIFIC LTD.

FACT SHEET



Reverse Osmosis Machine
10 M³/H



Reverse Osmosis Machine
100 M³/H

Options Available:

pH monitoring	: Feed
Instrument center	: Thornton 770 Max or equal
Panel view	: Siemens color display or equal
Touch screen control	: Siemens or equal
Communication	: Remote monitoring DH+
	: Analog output 4-20 mA

Membrane Elements:

Membrane type	: TFC (Polyamide)
Style	: Spiral wound elements
Membrane flux	: 27-30 L/M ² H (16-17.5 GFD)
Membrane rejection	: 99.5%

Operating Parameters:

Operating pressure	: 15 bar
Recovery	: 65 to 85%
Nominal rejection	: 95 to 99%
Design temperature	: 25°C
Operating temperature	: 15 to 40°C
Minimum feed pressure	: 2 bar

Documentation Available:

- Operating and maintenance manual
Complete with:
- Machine specification
 - Installation and commissioning description
 - Troubleshooting
 - Maintenance
 - Layout, flow diagram, electrical drawing

RO-TFC-8 Series (50/60 Hz)

RO-TFC-8 Series combines high quality product water, user-friendly controls, durable construction, and easy installation.

Standard Capacities:

From 10 to 100 M³/H

Standard Features:

- Automatic inlet shutoff valve
- 316 Stainless steel pre-filter
- 316 Stainless steel centrifugal feed pump
- FRP housing diameter \cong 20 cm (8 inches)
- Automatic permeate flushing at standby
- Cleaning-In-Place (CIP) system
- One chemical feeder

Control and Instrumentation:

Control center (PLC)	: Siemens or equal
	: Status indicators
Flow indicators	: Permeate concentrate
Pressure indicators	: Pre/Post filter, pump discharge, concentrate, permeate
Purity indicator	: Permeate
Pressure switches	: Feed pump inlet & discharge
Alarms	: High/low feed pressure
	: High permeate conductivity

Materials of Construction:

High pressure piping	: Stainless steel SCH.10
Low pressure piping	: PVC SCH.80
Frame (Skid)	: Painted blue carbon steel or stainless steel
Enclosure	: Nema4
Clamps & fittings	: Corrosion proof

Typical Applications:

- Beverage manufacturing
- Potable water
- Food processing
- Chemical processing
- Power generation
- Pulp & paper
- Textile
- Electronic manufacturing
- Refineries
- Waste water recovery
- Other industrial applications

RO-TFC-8 SERIES

Specifications:

Model	TFC-8-10	TFC-8-15	TFC-8-20	TFC-8-30	TFC-8-40	TFC-8-50	TFC-8-60	TFC-8-80	TFC-8-100
CAPACITIES									
Permeate Rate (M ³ /H) *	10	15	20	30	40	50	60	80	100
(Approx. GPM)	(44)	(66)	(88)	(132)	(176)	(220)	(265)	(350)	(440)
Feed Rate at 75% (M ³ /H)	13.30	20.00	26.60	40.00	53.30	66.60	80.00	106.60	133.30
(Approx. GPM)	(58.50)	(88.00)	(117.00)	(176.00)	(234.50)	(293.00)	(352.00)	(469.00)	(586.50)
Recovery Range (%)	65 - 85	65 - 85	65 - 85	65 - 85	65 - 85	65 - 85	65 - 85	65 - 85	65 - 85
PRE-FILTER AND FEED PUMP									
Filter Round	5	7	7	(2) 7	(2) 7	(3) 7	(2) 12	(2) 12	(3) 12
Filter Length	30"	30"	40"	30"	40"	30"	30"	40"	40"
Total kW	11	15	18.5	30	37	45	60	74	90
HOUSING & MEMBRANE ELEMENT									
Housing Qty **	2 (5)	3 (5)	3 (6)	5 (6)	6 (7)	8 (6)	10 (6)	11 (7)	14 (7)
Element Qty ***	10	15	18	30	42	48	60	77	98
Array Arrangement	1+1	2+1	2+1	3+2	4+2	5+3	6+4	7+4	9+5
INSTALLATION AND UTILITY REQUIREMENTS									
Inlet Flange – inch (cm)	2" (5.1)	3" (7.6)	3" (7.6)	3" (7.6)	4" (10.1)	4" (10.1)	4" (10.1)	6" (15.2)	6" (15.2)
Perm. Flange – inch (cm)	2" (5.1)	2-½" (6.3)	2-½" (6.3)	3" (7.6)	3" (7.6)	4" (10.1)	4" (10.1)	4" (10.1)	6" (15.2)
Conc. Flange – inch (cm)	1-½" (3.8)	2" (5.1)	2" (5.1)	2" (5.1)	2-½" (6.3)	2-½" (6.3)	2-½" (6.3)	3" (7.6)	3" (7.6)
Drain Size (M ³ /H)	8	15	15	24	24	32	48	56	64
Feed Pressure (bar)	2 Bar Minimum								
Power - Main	380-Volts 3-Phases 50-Hertz or 460-Volts 3-Phases 60-Hertz								
Control	220-Volts 1-Phases 50-Hertz or 110-Volts 1-Phases 60-Hertz								
APPROXIMATE OVERALL DIMENSIONS & WEIGHT									
Height (cm)	185	185	185	185	185	200	210	210	210
Width (cm)	580	580	690	690	805	690	690	805	805
Depth (cm)	152	152	160	170	180	200	200	220	220
Weight (Kg)	1350	1600	1750	2300	2900	3400	3900	4600	5600

* Machines available with other capacities

** All 8" (20.3 cm) housing, are with side ports

*** All membrane elements are with an area of 400 sq.ft. (37 M²). Flux at 27 to 30 L/M²H (GFD 16 to 17.5)

Feed Water Requirements:

Reverse Osmosis machines require the following feed water conditions:

- Temperature (°C) : 15 to 40
- Functional pH : 5 to 10
- Residual Chlorine (ppm) : < 0.02 to Nil *
- Silt Density Index (SDI) : < 3
- Total Dissolved Solids (ppm) : < 1800
- Metals – Iron, Manganese (ppm) : < 0.03

* Chlorine shorten the life of the element.

For More Information:

Contact us at +66 (0)2 381 4214 to 7



OSMO ASIA PACIFIC LTD.

1044/8 Soi 44/2 Sukhumvit Road, Prakanong, Bangkok 10110, THAILAND.

Tel : 66 (0) 2-381-4213 to 7 Fax : 66 (0) 2-391-8183 Mobile : 66 (0) 81-833-1271

E-mail : claud@osmoasia.com Website : www.osmoasia.com

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