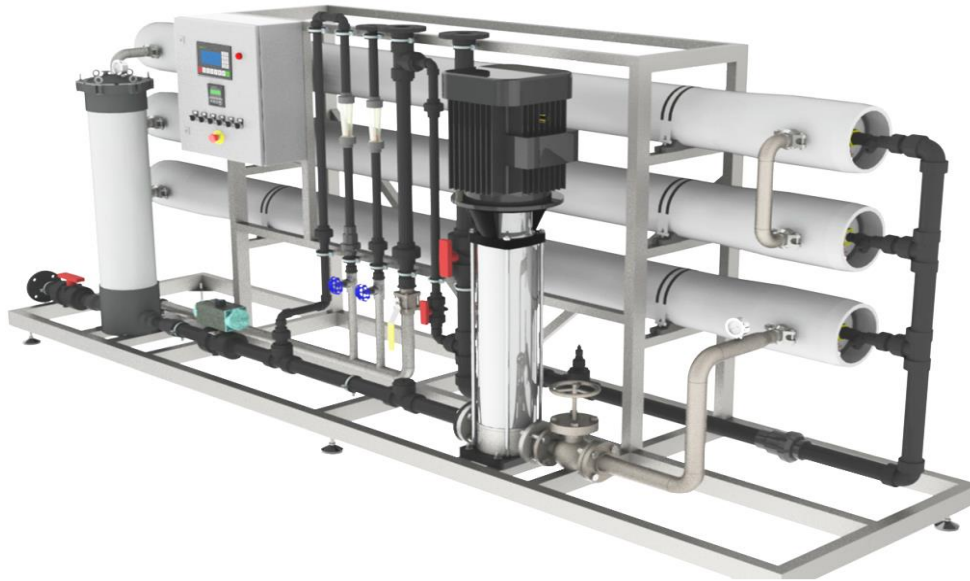


PTROM Series

Reverse Osmosis Systems from 3.5m³/h to 12m³/h (Feed TDS < 2500 ppm).



PTROM Series

The smart, clean utilitarian industrial design of the PTROM Series allows for convenient installation, user-friendly operation, and ease of maintenance. These skid-mounted, packaged systems are pre-plumbed and pre-wired complete on a steel frame with side-mounted pressure gauge and pipe flow meter allowing for straight forward system monitoring and control. EWP offers an assortment of both basic and premium designs of pure water systems that can be private labeled or customized.

Benefits

- Fully equipped and customizable
- Individually tested and preserved
- Expandable and skid mounted
- Low operation and maintenance costs
- Components easily accessible
- Easy maintenance and servicing
- Pre-plumbed, wired and assembled
- 1-year limited warranty

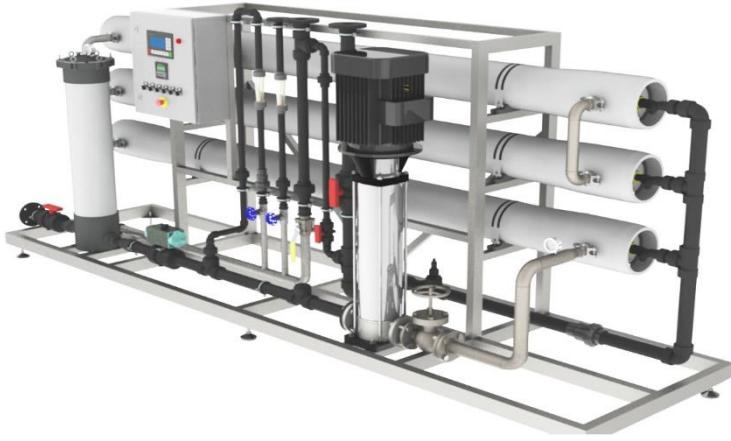
Applications

- Municipal, Wastewater, Hotel, Military,
- Hospital, Food and beverage, Agriculture,
- Pharmaceutical, Disaster relief, Mining,
- Refinery, Power and energy, Restaurants,
- Boiler feed

Ordering Guide

Example	PTROM	6	TB/FA/SA	380T50
RO system series				
PTROM				
Nominal Capacity				
4	[4m ³ /h]			
6	[6m ³ /h]			
8	[8m ³ /h]			
9	[9m ³ /h]			
10	[10m ³ /h]			
12	[12m ³ /h]			
Connection (code)				
TB	[Thread, BSPT]			
TN	[Thread,NPT]			
FA	[Flange,ANSI]			
FD	[Flange,DIN]			
SA	[Socket,ANSI]			
SD	[Socket,DIN]			
Power supply (code)				
380T50	[380VAC/ three phase/50HZ]			
220T60	[220VAC/ three phase/60HZ]			
400T50	415T50	440T50	200T60	208T60
240T60	380T60	440T60	460T60	480T60

PTROM Series Reverse Osmosis System Standard Feature



Membrane and housing

- Membrane model --- LP22-8040
- Membrane manufacturer --- Panamar
- Nominal rejection --- 97-99%
- Housing --- FRP, 300psi, side port (for ≤ 1000 ppm)
--- FRP, 450psi, side port (for ≤ 2500 ppm)
- Housing manufacturer --- First Line or equal

Boost pump

- Type --- Vertical multi-stage centrifugal
- Pump material --- SS304 (for ≤ 500 ppm)
--- SS316 (for ≤ 1000 ppm)
--- SS316 (for ≤ 2500 ppm)
- Connection --- DIN Flange
- Pump brand --- CNP

Electrical valve

- Feed valve --- UPVC
- Flush valve --- SS316

Instrumentation

- Flow meters --- Permeate, concentrate, concentrate recycle
- Conductivity --- Permeate
- Pressure gauge --- Pre-filter, post - filter, pump discharge, concentrate
- Pressure switch --- Feed, RO membrane inlet

Material of construction

- High-pressure piping --- SS304 (for ≤ 500 ppm)
--- SS316 (for ≤ 1500 ppm)
--- SS316 (for ≤ 2500 ppm)
- Low-pressure piping --- UPVC
- Frame --- SS304
- Control box --- IP54

Connection port

- Feed inlet port
- Permeate port
- Drain port
- Clean-in-place (CIP) ports

Documentation included

- Operation and maintenance manual
- Drawings: P&ID, electrical diagram

Control system

- Siemens PLC
- Weinview HMI
- Tank level control
- Low pressure/High pressure protection
- Auto flush
- Pretreatment lockout control backup

Options and Upgrades

- pH and ORP meter
- Feed water conductivity meter
- ABB VFD
- Grundfos/Danfoss pump
- Dow/Hydranautics/Toray membrane
- SS304/316 seamless housing
- Easy access remote control
- Communication: Modbus RTU
- Flow transmitter with pulse signal output
- Pressure transducer with analog signal output
- Antiscalant dosing system
- Clean-in-place (CIP) system
- Pretreatment system

PTROM Series Specifications

MODEL	PTIROM-4	PTIROM-6	PTIROM-8	PTIROM-9	PTIROM-10	PTIROM-12
Permeate rate ¹	4m ³ /hr	6m ³ /hr	8m ³ /hr	9m ³ /hr	10m ³ /hr	11.1m ³ /hr
Approx. conc. rate	1.33m ³ /hr	2m ³ /hr	2.67m ³ /hr	3m ³ /hr	3.33m ³ /hr	3.7m ³ /hr
Approx. recycle rate	3.33m ³ /hr	2.5m ³ /hr	1.8m ³ /hr	1m ³ /hr	0.6m ³ /hr	0 ~ 0.5m ³ /hr
Approx. feed rate	5.33m ³ /hr	8m ³ /hr	10.7m ³ /hr	12m ³ /hr	13.33m ³ /hr	14.8m ³ /hr
Design recovery	75%	75%	75%	75%	75%	75%
Pump and Motor (50HZ/60HZ) - Up to 500mg/L Feed TDS design						
Manufacturer	CNP	CNP	CNP	CNP	CNP	CNP
Model	CDLF8-13 (50hz)	CDLF12-11 (50hz)	CDLF12-12 (50hz)	CDLF12-13 (50hz)	CDLF16-10(50hz)	CDLF16-10(50hz)
Motor power rate	5.5kw	7.5kw	7.5kw	11kw	11kw	11kw
Wetted parts material	SS304	SS304	SS304	SS304	SS304	SS304
Design flow rate ²	8.66m ³ /hr	10.5m ³ /hr	12.5m ³ /hr	13m ³ /hr	13.93m ³ /hr	16m ³ /hr
Design boost pressure	11.5bar	12.0bar	11.6bar	12.3bar	12.5bar	11.8bar
Model	CDLF8-8 (60hz)	CDLF12-7 (60hz)	CDLF12-8 (60hz)	CDLF12-8 (60hz)	CDLF12-8(60hz)	CDLF16-7 (60hz)
Motor power rate	5.5kw	7.5kw	11kw	11kw	11kw	15kw
Wetted parts material	SS304	SS304	SS304	SS304	SS304	SS316
Design flow rate ²	8.66m ³ /hr	10.5m ³ /hr	12.5m ³ /hr	13m ³ /hr	13.93m ³ /hr	15.3m ³ /hr
Design boost pressure	10.7bar	11.8bar	12.5bar	12.2bar	11.5bar	12.6bar
Pump and Motor (50HZ/60HZ) - Up to 1000mg/L Feed TDS design						
Manufacturer	CNP	CNP	CNP	CNP	CNP	CNP
Model	CDLF8-16 (50hz)	CDLF12-13 (50hz)	CDLF12-14 (50hz)	CDLF12-15 (50hz)	CDLF16-11 (50hz)	CDLF16-12 (50hz)
Motor power rate	5.5kw	11kw	11kw	11kw	11kw	11kw
Pump material	SS316	SS316	SS316	SS316	SS316	SS316
Design flow rate ²	8.66m ³ /hr	10.5m ³ /hr	12.5m ³ /hr	13m ³ /hr	13.93m ³ /hr	16m ³ /hr
Design boost pressure	14.3bar	14.0bar	13.6bar	14.3bar	13.8bar	14.1bar
Model	CDLF8-10 (60hz)	CDLF12-8 (60hz)	CDLF12-10 (60hz)	CDLF12-10 (60hz)	CDLF12-10 (60hz)	CDLF16-8 (60hz)
Motor power rate	7.5kw	11kw	11kw	11kw	11kw	15kw
Pump material	SS316	SS316	SS316	SS316	SS316	SS316
Design flow rate ²	8.66m ³ /hr	10.5m ³ /hr	12.5m ³ /hr	13m ³ /hr	13.93m ³ /hr	15.3m ³ /hr
Design boost pressure	13.5bar	13.4bar	15.5bar	15.3bar	14.5bar	14.4bar
Pump and Motor (50HZ/60HZ) - Up to 2500mg/L Feed TDS design						
Manufacturer	CNP	CNP	CNP	CNP	CNP	CNP
Model	CDLF8-20 (50hz)	CDLF12-18 (50hz)	CDLF12-18 (50hz)	CDLF12-18 (50hz)	CDLF16-14(50hz)	CDLF16-16(50hz)
Motor power rate	7.5kw	11kw	11kw	11kw	15kw	15kw
Pump material	SS316	SS316	SS316	SS316	SS316	SS316
Design flow rate ²	8.66m ³ /hr	10.5m ³ /hr	12.5m ³ /hr	13m ³ /hr	13.93m ³ /hr	16m ³ /hr
Design boost pressure	18.0bar	18.8bar	17.6bar	17.2bar	17.6bar	18.9bar
Model	CDLF8-14 (60hz)	CDLF12-12 (60hz)	CDLF12-12 (60hz)	CDLF12-12 (60hz)	CDLF12-12(60hz)	CDLF16-10(60hz)
Motor power rate	11kw	15kw	15kw	15kw	15kw	18.5kw
Pump material	SS316	SS316	SS316	SS316	SS316	SS316
Design flow rate ²	8.66m ³ /hr	10.5m ³ /hr	12.5m ³ /hr	13m ³ /hr	13.93m ³ /hr	15.3m ³ /hr
Design boost pressure	19.0bar	20.3bar	18.8bar	18.5bar	17.6bar	18.1bar
Membranes Elements and Housings						
RO membrane quantity	4	6	8	9	10	12
RO housing spec	2-element, 2port	3-element, 2port	4-element, 2port	3-element, 2port	5-element, 2port	4-element, 2port
RO array	1→1	1→1	1→1	1→1→1	1→1	1→1→1

¹ Nominal permeate rate listed at temperature 25°C, Permeate rate can be reduced by 20% as temperature drops.

² Design flow rate of the pump is the sum of the Feed rate and Concentrate recycle rate.

**Note: All design and specifications are for reference only and subject to change without prior notice.*

PTROM Series Specifications

MODEL	PTROM-4	PTROM-6	PTROM-8	PTROM-9	PTROM-10	PTROM-12
Permeate rate ¹	4m ³ /hr	6m ³ /hr	8m ³ /hr	9m ³ /hr	10m ³ /hr	11.1m ³ /hr
Approx. conc. rate	1.33m ³ /hr	2m ³ /hr	2.67m ³ /hr	3m ³ /hr	3.33m ³ /hr	3.7m ³ /hr
Approx. recycle rate	3.33m ³ /hr	2.5m ³ /hr	1.8m ³ /hr	1m ³ /hr	0.6m ³ /hr	0 ~ 0.5m ³ /hr
Approx. feed rate	5.33m ³ /hr	8m ³ /hr	10.7m ³ /hr	12m ³ /hr	13.33m ³ /hr	14.8m ³ /hr
Design recovery	75%	75%	75%	75%	75%	75%
Cartridge Filtration						
Filter housing	HPCF-5DC3	HPCF-5DC3	HPCF-5DC4	HPCF-5DC4	HPCF-5DC4	HPCF-8DC4
PP cartridge length	30"	30"	40"	40"	40"	40"
Filter housing quantity	1	1	1	1	1	1
	5 per housing	5 per housing	5 per housing	5 per housing	5 per housing	8 per housing
Installation						
Inlet	1.5" Flange	1.5" Flange	2" Flange	2" Flange	2" Flange	2" Flange
Permeate	1.5" Flange	1.5" Flange	1.5" Flange	1.5" Flange	1.5" Flange	2" Flange
Drain	1" Flange	1" Flange	1-1/4" Flange	1-1/4" Flange	1-1/4" Flange	1.5" Flange
CIP inlet	1.5" BSPT or NPT	2" BSPT or NPT	2" BSPT or NPT	2" BSPT or NPT	2" BSPT or NPT	2" BSPT or NPT
CIP conc. outlet	1.5" BSPT or NPT	1.5" BSPT or NPT	1.5" BSPT or NPT	1.5" BSPT or NPT	1.5" BSPT or NPT	1.5" BSPT or NPT
CIP perm. outlet	1"DIN or Sch80	1"DIN or Sch80	1"DIN or Sch80	1"DIN or Sch80	1"DIN or Sch80	1"DIN or Sch80
Package Dimension						
Approx. height	1675mm	1675mm	1675mm	1675mm	1675mm	1675mm
Approx. width	3000mm	4000mm	5000mm	4000mm	5500mm	5000mm
Approx. depth	1000mm	1000mm	1000mm	1000mm	1000mm	1000mm
Approx. shipping weight	490kg	500kg	512kg	525kg	540kg	770kg
Options						
Antiscalant feed system	Metering pump: 1.5L/h		Chemical tank: 200-300L			
CIP system	CIP pump: 8m ³ /h@4.0bar		CIP tank: 500L	CIP filter: HPCF-5DC3		
Pretreatment: PTSC/PTMC series	PTSC836-30	PTSC836-36	PTMC-100	PTMC-120	PTMC-120	PTMC-120
Pretreatment: PTSC/Customized	PTSCS836-30	PTSCS836-36	Customized	Customized	Customized	Customized

¹ Nominal permeate rate listed at temperature 25°C, Permeate rate can be reduced by 20% as temperature drops.

² Design flow rate of the pump is the sum of the Feed rate and Concentrate recycle rate.

Operating Limits

Max. feed temperature	35°C	Free Chlorine	undetectable	Max. TDS	2500ppm
Min. feed temperature	5 °C	Iron	<0.1 ppm	SDI	<5
Max. feed pressure	5bar	Manganese	<0.05 ppm	pH (Continuous)	4 ~ 9
Min. feed pressure	2bar	Organic matter	<1 ppm	Min. pH (Continuous)	4

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