

PWG ALFA

Reverse Osmosis



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A compact & easy solution
for industrial water treatment.



ABOUT REVERSE OSMOSIS

If the traditional purification systems fail to eliminate undesirable minerals from the water (e.g. sea water, well water with high conductivity ...), reverse osmosis is the solution to obtain pure water. Reverse osmosis (RO) is a filtration method that removes many types of large molecules and ions from solutions by applying pressure to the solution on one side of a selective membrane, which will only allow the small water molecules to pass through.

The result is purified or permeate water. The membrane surface is kept clean by the "Cross Flow" filtration method. Whereas the pure, permeate water passes through the membrane, the concentrate water flows parallel to the membrane surface and carries off the larger particles.



RECOMMENDED FEED WATER LIMITS



ALFA 540

Feed water TDS	0-2,000 ppm
Feed water pressure	2 to 5 bar
Feed Water Ph range	6-8
Silica (SiO ₂) tolerance	25 ppm max.
Min. and max. feed water temperature	10° C - 30°C
Max. Iron (Fe) tolerance	0.05 ppm (without ASC dosing)
	0,2 ppm (with ASC dosing)

Hydrogen Sulfide should be removed.
Turbidity should be removed. (NTU < 1)
Oil-Grase should be removed.
SDI < 5
Microbiological contamination
should be removed

TECHNICAL FEATURES

MODEL	FEEDING CAPACITY @20C	PERMEATE CAPACITY @20C	MEMBRANE SIZE	MEMBRANE QTY(pcs)	RECOVERY (%)	MOTOR POWER (kw)	ARTIKEL NUMBER
	L / day	L / day					
ALFA 140	10.000	5.000	4" x 40"	1	50	0.64	5113010038
ALFA 240	20.000	10.000	4" x 40"	2	50	0.64	5113010039
ALFA 340	25.000	15.000	4" x 40"	3	60	1.5	5113010040
ALFA 440	33.500	20.000	4" x 40"	4	60	1.5	5113010041
ALFA 540	42.000	25.000	4" x 40"	5	60	2.2	5113010042
ALFA 640	50.000	30.000	4" x 40"	6	60	2.2	5113010043
ALFA 840	57.500	40.000	4" x 40"	8	70	2.2	5113010044
ALFA 940	64.500	45.000	4" x 40"	9	70	2.2	5113010045
ALFA 1040	71.500	50.000	4" x 40"	10	70	2.2	5113010046
ALFA 1240	86.000	60.000	4" x 40"	12	70	3	5113010047
ALFA 1540	107.500	75.000	4" x 40"	15	70	3	5113010048

STANDARD FEATURES

- Membrane vessels FRP or Stainless Steel
- TFC Spiral wound membranes 2,5" or 4" diameter
- SS304 stainless steel vertical centrifuge high pressure pump (available in between ALFA 340 - ALFA1540)
- Brass body rotary type high pressure pump (available in between ALFA 140 - ALFA 240)
- Equipments between ALFA 140 and ALFA 640 has SS304 stainless steel frame (optional ST37 carbon steel)
- Equipments between ALFA 840 and ALFA 1540 has ST-37 carbon steel or SS304 stainless steel frame
- 5 micron cartridge filter
- Low and high pressure pipings U-PVC
- Solenoid automatic valves or equivalent valve
- Pressure adjustment valves in Pump outlet and waste water line
- Low and high pressure switches
- Premeate and concentrate flowmeters (rotameters)
- Recirculation flowmeters (reverse cycle is available in between ALFA 340 - ALFA 1540)
- Gliserin Filled Manometers
- Product Water Conductivity Meter
- Autoflush System
- RO Electronic Control Card, Alarm and Position Indicators
- 220 V/50Hz/1ph (between ALFA 140 - ALFA 240)
- 380 V/50Hz/3ph (between ALFA 340 - ALFA 1540)
- Antiscalant dosage system is not included



WHY PWG ALFA RO?

Applied where classical purification systems become insufficient (seawater, well water with high conductivity,...) to separate all undesirable minerals. ALFA is a compact & easy to use Reverse Osmosis. A plug and play solution for any of your industrial water treatment projects.

- Compact design in industrial water purifying solutions
- Easy and automatic operation
- Plug & Play
- Short lead time
- Standard models on stock
- Special models on demand
- High quality material: AISI304 skid, high pressure rotary pumps, stainless steel membranes, ...
- A PWG Product

APPLICATIONS



INDUSTRY

- Water purification for food and beverage industry
- Water treatment for cooling towers, boilers and turbines
- Desalination of brackish water
- Deionized water for pre-EDI at Laboratory
- Car wash, aquariums, textile painting,