

*Applied for water where classical purification systems become insufficient (seawater, well water with high conductivity etc.), separating all undesirable minerals from water, membran filtration transaction devoted to pure water provision is called **REVERSE OSMOSIS**.*

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 forcing only the small water molecules through the membrane becoming purified or permeate water.

Membrane surface is always kept clean and unplugged by 'Cross Flow' operation that happens inside membran element. By means of 'Cross Flow', while some liquids (element water) pass through membran, some liquid (intensive water) move parallel to membran surface, so protect others to stick to membran. This process enables much more qualified water compared with other filtration systems.



MODEL	FEEDING CAPACITY @20C	PERMEATE CAPACITY @20C	MEMBRANE SIZE	MEMBRANE QTY (pcs)	RECOVERY (%)	MOTOR POWER (kw)
	m³ / day	m³ / day				
ALFA 125 - 1	1.8	0.72	2,5" x 21"	1	40	0.37
ALFA 125 - 2	3.75	1.5	2,5" x 40"	1	40	0.37
ALFA 125 - 3	5	2	4" x 21"	1	40	0.37
ALFA 140	10	5	4" x 40"	1	50	0.64
ALFA 140 XL	13	6.5	4" x 40" XL	1	50	0.64
ALFA 240	20	10	4" x 40"	2	50	0.64
ALFA 240 XL	25	12.5	4" x 40" XL	2	50	0.64
ALFA 340	25	15	4" x 40"	3	60	1.5
ALFA 340 XL	33.5	20	4" x 40" XL	3	60	1.5
ALFA 440	33.5	20	4" x 40"	4	60	1.5
ALFA 540	42	25	4" x 40"	5	60	2.2
ALFA 440 XL	46	27.5	4" x 40" XL	4	60	1.5
ALFA 640	50	30	4" x 40"	6	60	2.2
ALFA 540 XL	58.5	35	4" x 40" XL	5	60	2.2
ALFA 840	57.5	40	4" x 40"	8	70	2.2
ALFA 640 XL	70	42	4" x 40" XL	6	60	2.2
ALFA 940	64.5	45	4" x 40"	9	70	2.2
ALFA 1040	71.5	50	4" x 40"	10	70	2.2
ALFA 840 XL	75	52.5	4" x 40" XL	8	70	2.2
ALFA 940 XL	86	60	4" x 40" XL	9	70	3
ALFA 1240	86	60	4" x 40"	12	70	3
ALFA 1040 XL	96.5	67.5	4" x 40" XL	10	70	3
ALFA 1540	107.5	75	4" x 40"	15	70	3
ALFA 1240 XL	118	82.5	4" x 40" XL	12	70	3

STANDART 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 125/1 - ALFA 240)
- Equipments between ALFA 125-1 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 / Zonder
- Solenoid automatic valves or equivalent valve
- Pressure adjustment valves in Pump outlet and waste water line
- Low and high pressure switches
- Product water and waste water 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 125/1 - ALFA 240)
- 380 V/50Hz/3ph (between ALFA 340 - ALFA 1540)
- Antiscalant dosage system is not included

RECOMMENDED FEED WATER LIMITS

- Feed water TDS : 0-2,000 ppm
- Feed water pressure : 2 to 5 bar
- Feed Water Ph range : 6-8
- Silica (SiO₂) 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



Alfa Compact Series



Alfa 140