

REVERSE OSMOSIS

# BUDGET SERIES

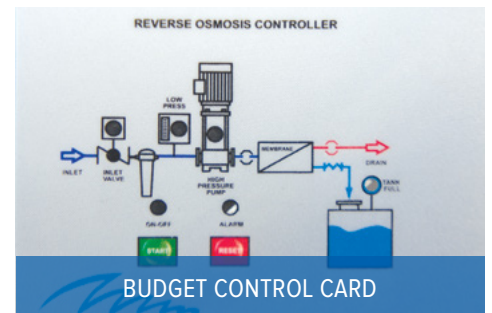
Applied for water where classical purification systems become insufficient (seawater, well water with high conductivity etc.), separating all undesirable minerals from water, membrane filtration transaction devoted to pure water provision is called REVERSE OSMOSIS.



BUDGET CONTROL CARD



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## OPERATING PRINCIPLE OF REVERSE OSMOSIS SYSTEM

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 membrane element. By means of 'Cross Flow', while some liquids (element water) pass through membrane, some liquid (intensive water) move parallel to membrane surface, so protect others to stick to membrane. This process enables much more qualified water compared with other filtration systems.



Budget 240

## MORE INFO



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MODEL	FEEDING CAPACITY	PERMEATE CAPACITY	MEMBRANE SIZE	MEMBRANE QTY (pcs)	RECOVERY (%)	MOTOR POWER (kw)
	@20C m <sup>3</sup> / day					
BT 125-1	1.8	0.72	2,5" x 21"	1	40	0.37
BT 125-2	3.75	1.5	2,5" x 40"	1	40	0.37
BT 125-3	5	2	4" x 21"	1	40	0.37
BT 140	10	5	4" x 40"	1	50	0.64
BT 240	20	10	4" x 40"	2	50	0.64
BT 340	25	15	4" x 40"	3	50	1.1
BT 440	33.5	20	4" x 40"	4	50	1.5
BT 540	42	25	4" x 40"	5	50	2.2
BT 640	50	30	4" x 40"	6	50	2.2
BT 840	57.5	40	4" x 40"	8	60	2.2
BT 940	64.5	45	4" x 40"		60	2.2
BT 1040	71.5	50	4" x 40"	10	60	2.2
BT 1240	86	60	4" x 40"	12	60	3
BT 1540	107.5	75	4" x 40"	15	60	3

## STANDARD FEATURES

- FRP or Stainless Steel Membrane Vessels
- Membranes are TFC Spiral - 2,5" or 4"
- AISI304 stainless steel vertical centrifuge high pressure pump (between BT340 - BT1540)
- Brass body rotary type high pressure pump (between BT125-1 and BT240)
- St-37 epoxy painted carbon steel frame
- Cartridge Filter - 5 micron
- U-PVC / Zonder low and high pressure piping
- Solenoid automatic valves
- Flow regulation valves at pump outlet and drain lines (between BT340 - BT1540)
- Low pressure switch
- Inline flow meters at product and drain water lines
- Glycerin type manometers
- Conductivity meter at product water line
- RO electronic control card
- 220 V/50Hz/1ph (between BT 125/1 - BT 240)
- 380 V/50Hz/3ph (between BT 340 - BT1540)
- ASC 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 (SiO<sub>2</sub>) tolerance : 25 ppm max.

Max. Iron (Fe) tolerance :  
0.05 ppm (without ASC dosing)  
0.2 ppm (with ASC dosing)

Min. and max. feed water temperature  
(10° C - 30°C)

Hydrogen Sulfide should be removed

Turbidity should be removed (NTU <1)

Oil-Grase should be removed

SDI < 5

Microbiological contamination should be removed