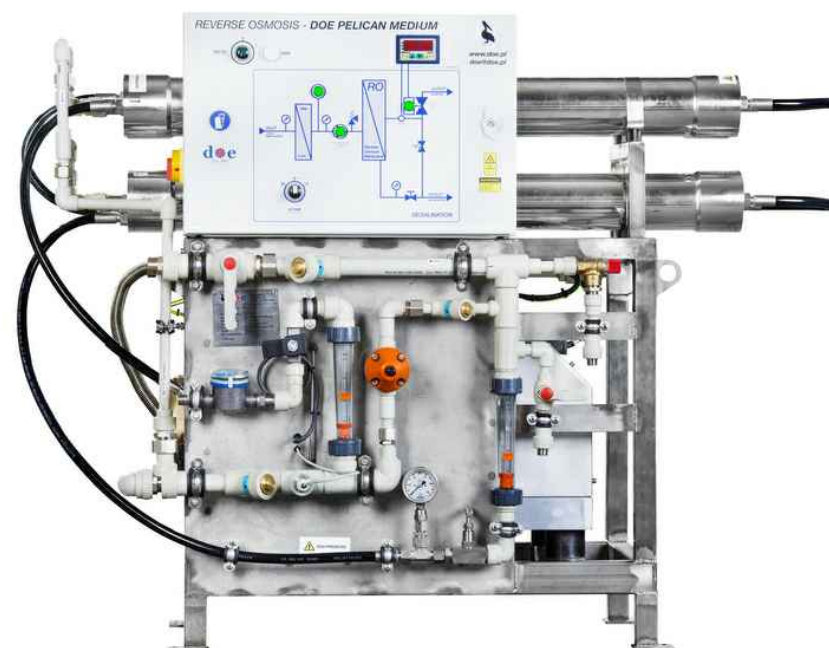




# PELICAN MEDIUM



Revision date: 20.06.2016



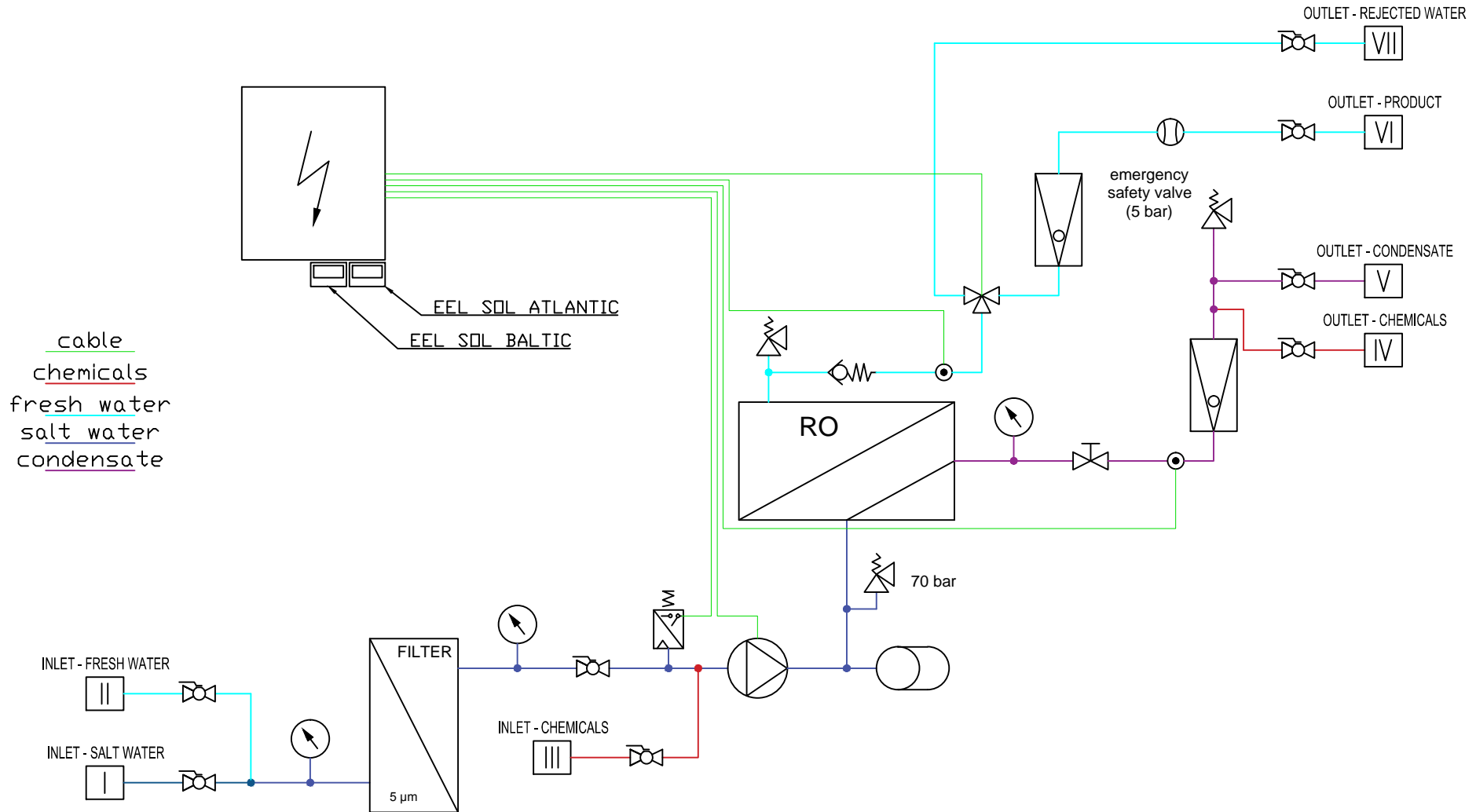
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
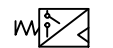






PELICAN MEDIUM – FRESH WATER MAKER FROM SALT WATER

date: 20.06.2016

sheet: 1/10

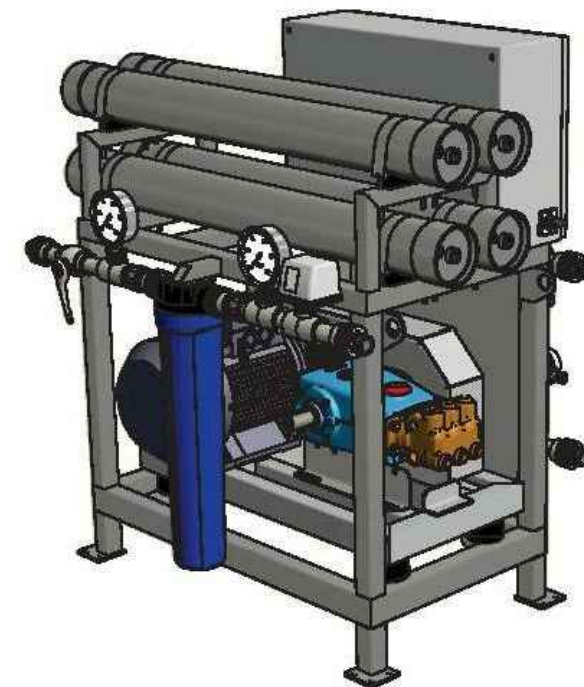
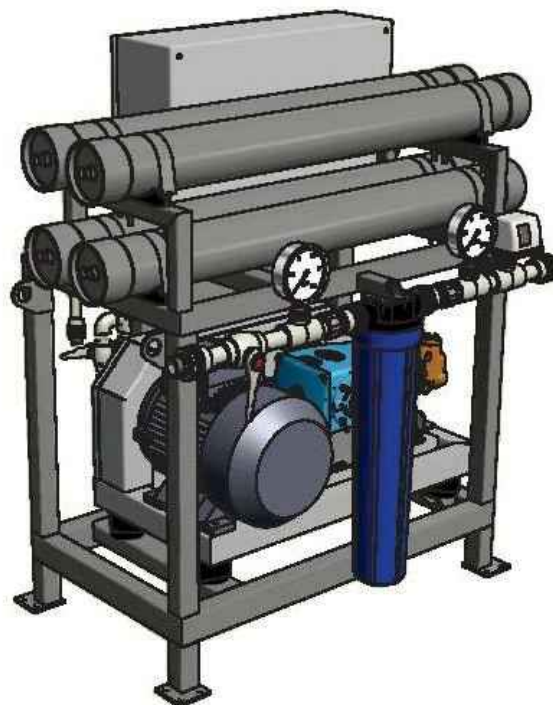


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SYMBOLS AND MATERIAL SPECIFICATION		
Symbol	Specification	Quantity
	Branching pipeline	-
	Pump	1
	Manometer	3
	Sensor conductivity	1
	Rotameter	2
	Monitoring pressure switch	1
	Non return plate valve	3
	Valve	3
	Safety valve	3
	Flow meter	1
	Vibrations compensate	1
	3-way valve	1

Item	Name of connection	DN	M25/M30
I	INLET – SALT WATER	G 1"	G 1 1/2"
II	INLET – FRESH WATER	G 1/2"	G 1/2"
III	INLET – CHEMICALS	G 1/2"	G 1/2"
IV	OUTLET – CHEMICALS	G 1/2"	G 1/2"
V	OUTLET – CONDENSATE	G 1"	G 1 1/2"
VI	OUTLET – PRODUCT	G 1/2"	G 1"
VII	OUTLET – REJECTED WATER	G 1/2"	G 1"

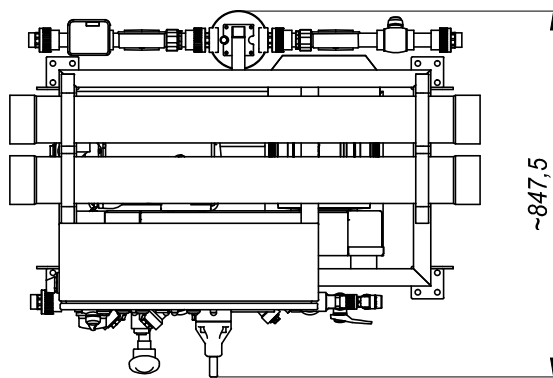
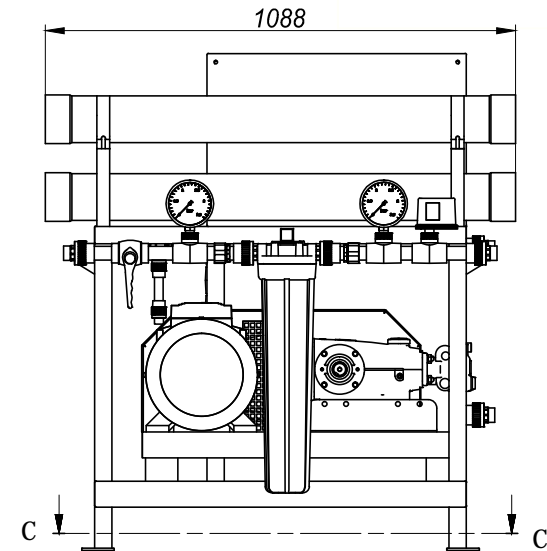
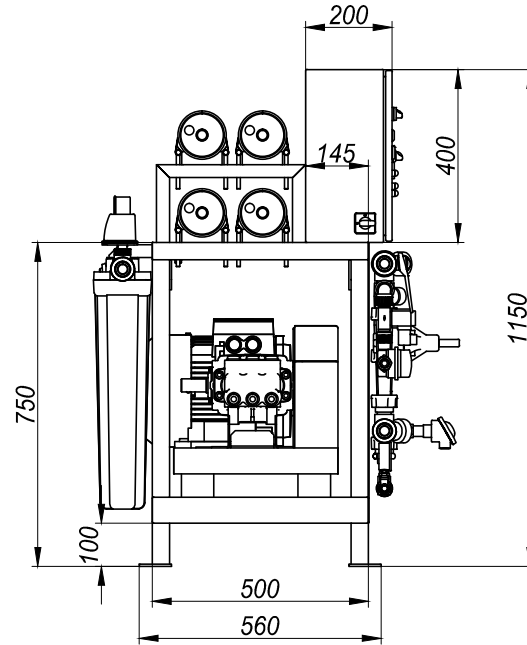
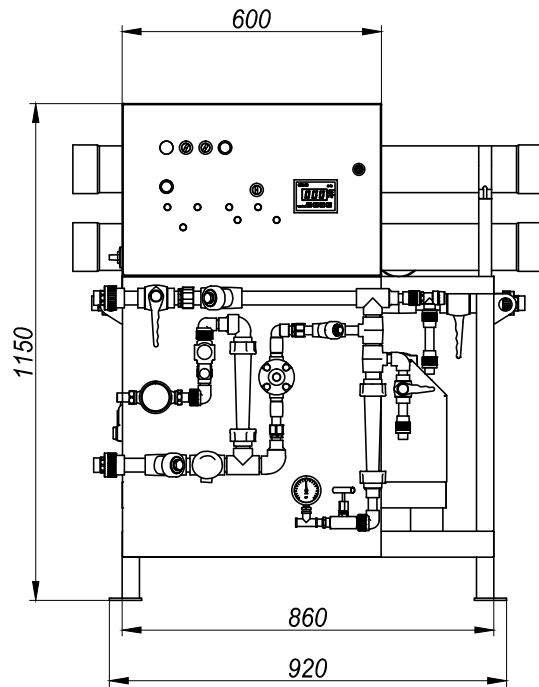
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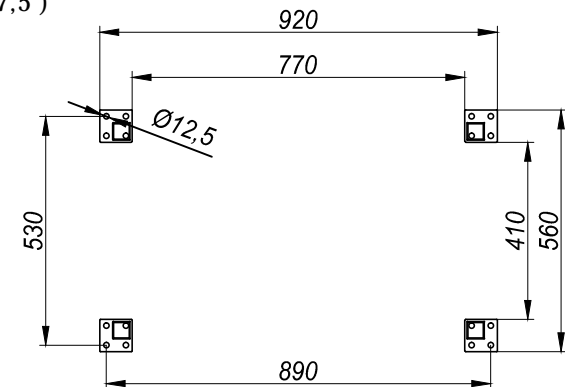
## PELICAN MEDIUM - 4 MEMBRANES

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# PELICAN MEDIUM - 4 MEMBRANES



C-C (1 : 17,5)



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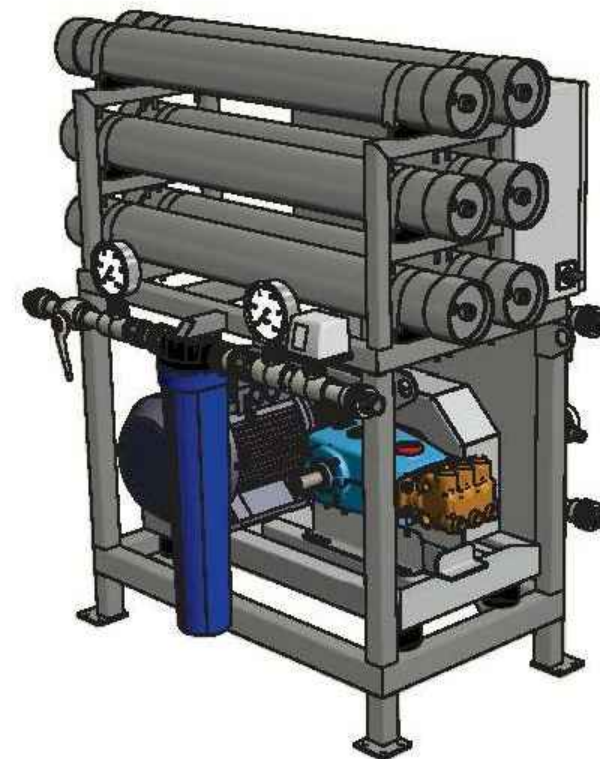
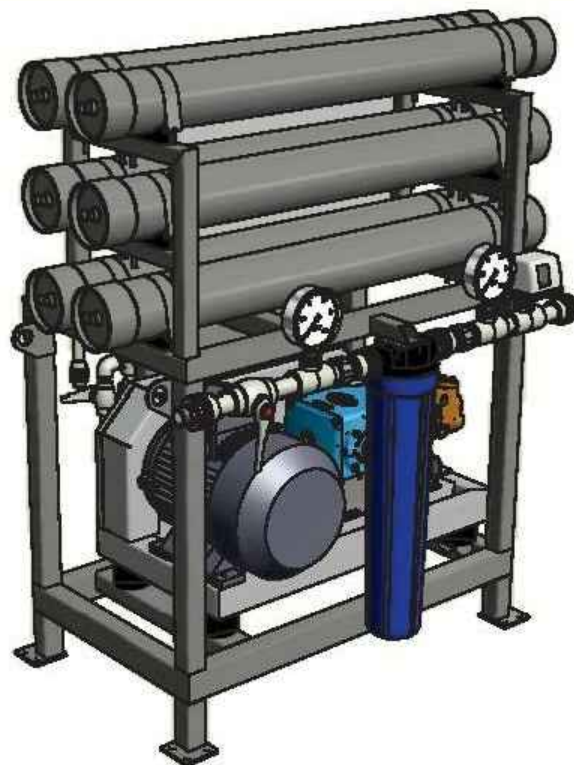
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## PELICAN MEDIUM – FRESH WATER MAKER FROM SALT WATER

date: 20.06.2016

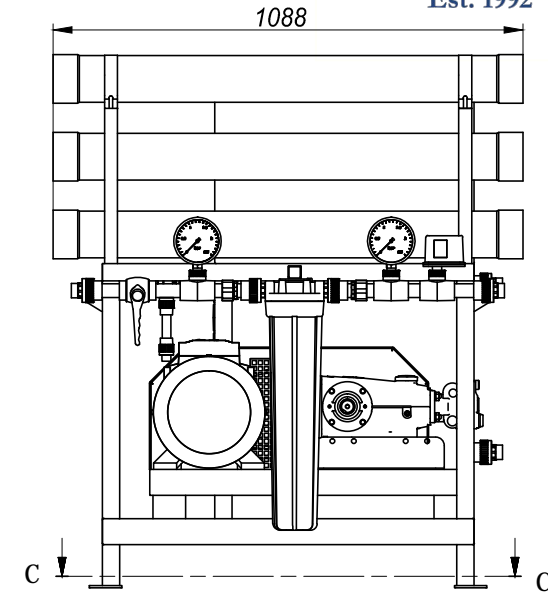
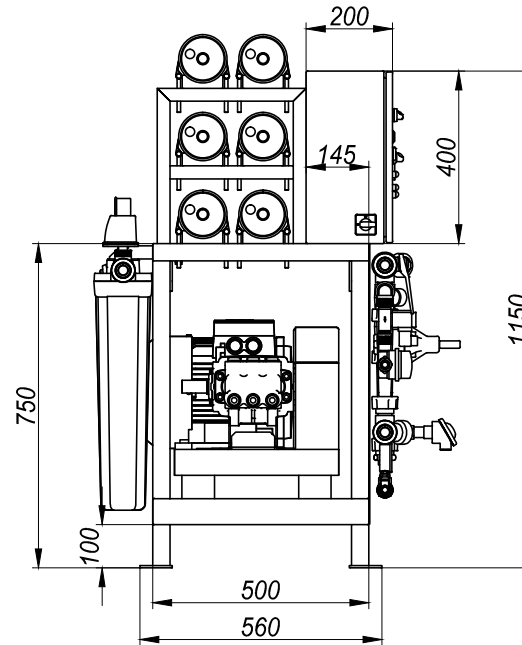
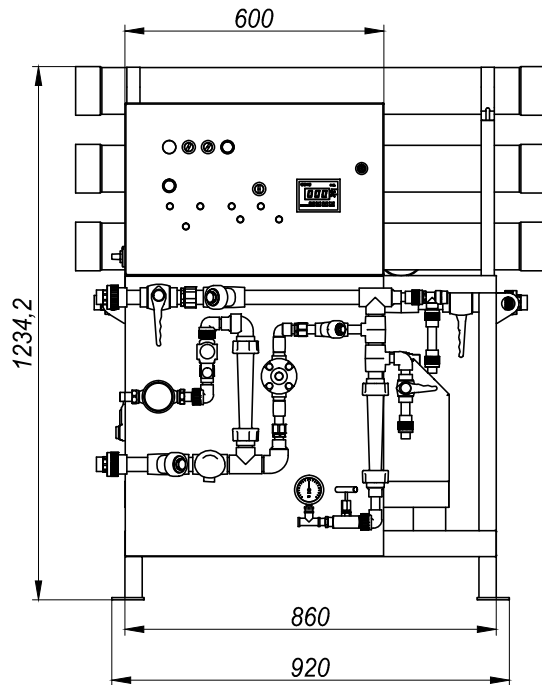
sheet: 5/10



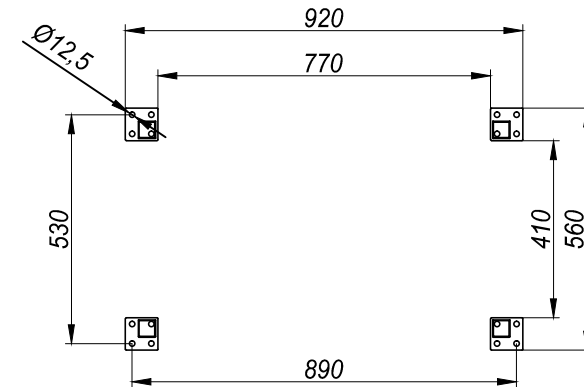
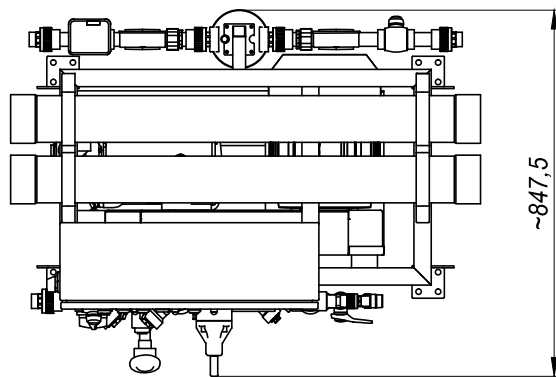
## PELICAN MEDIUM - 6 MEMBRANES

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# PELICAN MEDIUM - 6 MEMBRANES



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## PELICAN MEDIUM – FRESH WATER MAKER FROM SALT WATER

date: 22.06.2016

sheet: 7/10

## Maximal production of the Pelican Medium

TYPE	M10	M12	M14	M16	M18	M20	M26	M30
PUMP TYPE	1057	1057	1057	1057	1057	1541	1541	1541
MEMBRANES QUANTITY [pcs.]	4	4	4	4	4	4	6	8
Water inlet [t/day]	28	33	37	39	55	68	76	76
5 °C	11,4 60 475 98 683	12,3 60 512 86 863	12,9 60 537 80 1005	13,2 60 550 78 1075	14,6 60 608 65 1684	15,2 60 633 60 2200	21,5 60 895 65 2271	26 60
10 °C	11,4 57 475 130 683	13,2 60 550 113 825	13,9 60 580 104 962	14,4 60 600 101 1025	16,2 60 675 83 1617	17,1 60 712 75 2121	23,8 60 991 83 2175	28 60
15 °C	11,2 54 467 177 691	13,7 59 571 150 804	14,8 60 616 136 926	15,3 60 638 131 987	17,7 60 737 106 1555	18,8 60 783 95 2050	25,9 60 1079 106 2087	30 60
20 °C	10,7 51 446 239 712	13,4 56 558 200 817	15,6 60 616 178 926	16,2 60 675 171 950	18,9 60 787 135 1505	20,4 60 850 120 1983	27,1 59 1129 138 2037	31 59
25 °C	10 49 416 318 742	12 53 500 267 875	14 56 583 238 959	16 58 666 225 959	18 57 750 178 1542	19,9 56 829 159 2004	26 55 1083 185 2083	30 55
30 °C	10,2 48 425 416 733	12,4 51 517 352 858	14,4 54 600 313 942	15,8 56 658 295 967	18,2 55 758 233 1534	19,7 53 820 211 2013	24,8 52 1033 248 2133	28 52
35 °C	9,6 46 400 550 758	12,2 50 508 456 867	14,3 53 595 404 947	15,3 54 637 384 988	17,7 53 737 306 1555	18,7 51 779 276 2054	23,9 50 959 325 2207	27 50
	2,5 kW 3 - 3,45 112:224 - 95:224 950 - 1140 475 - 485	2,8 kW 3 - 3,45 132:224 - 112:224 950 - 1140 560 - 570	3,3 kW 4 - 4,6 150:224 - 125:224 950 - 1140 636 - 636	3,5 kW 4 - 4,6 160:224 - 125:224 950 - 1140 679 - 672	4,8 kW 5,5 - 6,3 224:224 - 190:224 950 - 1140 950 - 967	5,9 kW 7,5 - 8,6 118:224 - 100:224 1400 - 1740 764 - 776	6,6 kW 7,5 - 8,6 132:224 - 112:224 1400 - 1740 854 - 870	6,6 kW 7,5 - 8,6 132:224 - 112:224 1400 - 1740 854 - 870

flow of product [t/day] — 11,4 60 — working pressure [bar]  
 flow of product [L/h] — 475 98 — salinity [mg/L]  
 reject condensate [L/h] — 683

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# SALT WATER REVERSE OSMOSIS - PELICAN MEDIUM

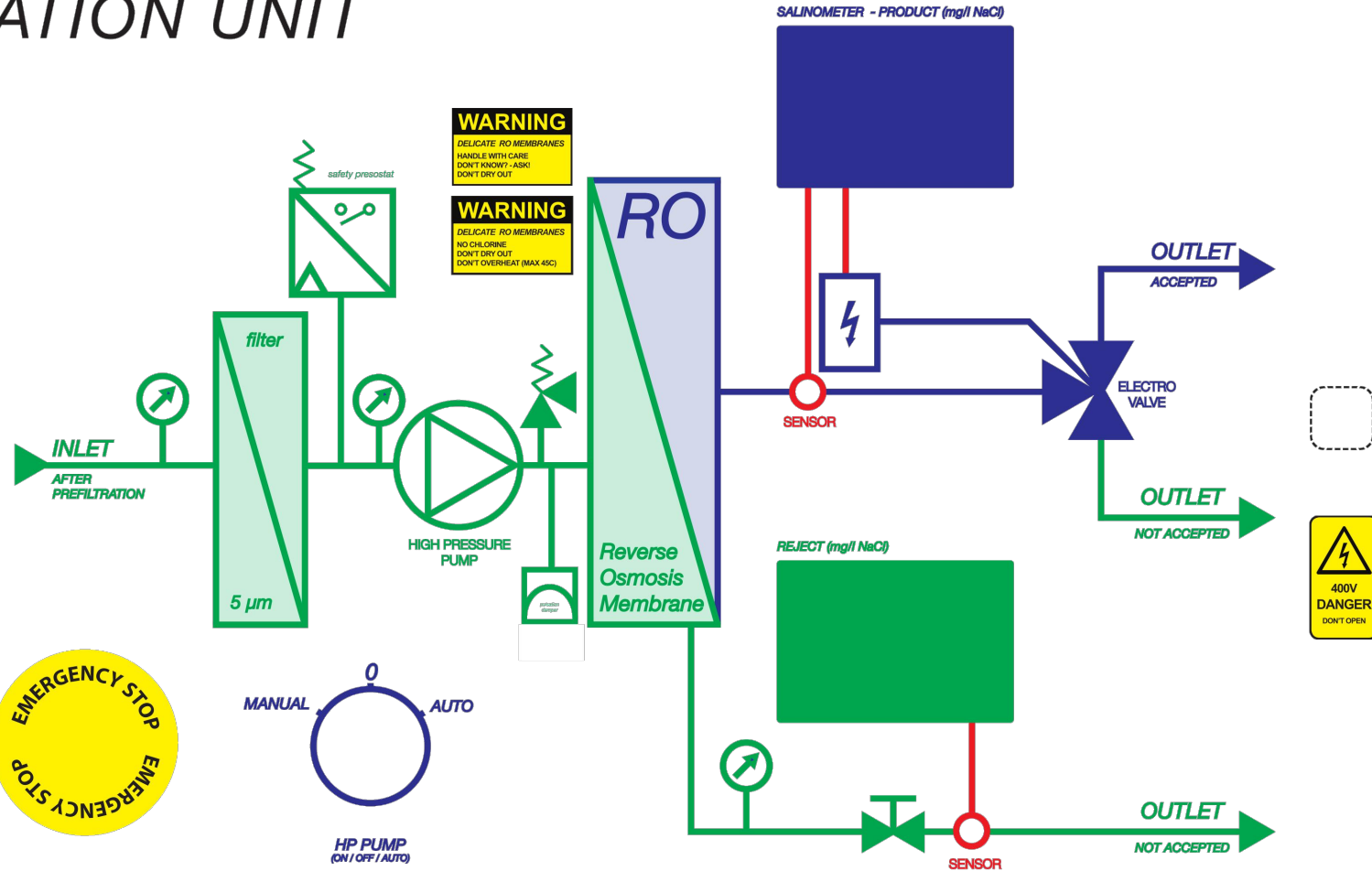
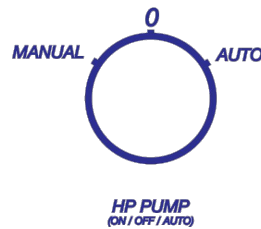
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PELICAN MEDIUM – FRESH WATER MAKER FROM SALT WATER

date: 20.06.2016

sheet: 9/10

## PELICAN MEDIUM

Pelican Medium is water maker based on RO technology for production of drinking water from sea water. Range of applications from 10 to 30 [t/day].

### Construction:

- HP pump used on unit - CAT 1057 (for 10-18 [t/day]) or CAT 1541 (for over 20 [t/day])
- number of membranes - 4 pcs type 4040 for 10-18[t/day] or 8 membranes for the biggest version 30[t/day]
- marine electric motors from 3[kW] to 7.5[kW]
- power supply 3x400[V] 50[Hz] or 3x440[V] 60[Hz]

Pelican Medium is equipped with small inlet filter with 2 manometers to control the filter dirt. The unit is prepared to be used with DOE Mermaid (Prefiltration Unit) that can prepare the salt incoming water for RO needs. The pre filtration should be on the 5 microns level.

3-way valve is controlled by salinity sensor and direct the water to the tank or to the bilge. Except the main inlet to device, there is added a separate inlet for fresh water (rinsing inlet) and separate inlet for chemicals (washing inlet). Inlet for fresh water can be used to clean the unit or to product ultra clean water for engine room devices.

Pelican Medium is controlling the product water with the salt meter, showing the parameter on the electric box and controls the 3-way valve. If salinity reaches the high level, then rejected water is directed to another outlet.

The HP pump is precede from dry working by presostat, HP part is equipped with the safety valve and pulsation damper. The regulation table is equipped with the rotametr for product and bribe (condensate), safety valves for high pressure and low pressure, chemical outlet and water meter for product.

The steel galvanized electric box is powder painted, is equipped with the needed protection equipment, not CPU enables to check the Unit by everybody. The door of the electric box is clearly showing the parameters of the unit.

