

Operation

Hot engine cooling water is pumped by the engine circulating pump through the seawater heater and back to the engine circulating system. This water is not affected in any way except that some heat is removed. This is the heat that boils the seawater in the distilling shell. As this takes place under deep vacuum, the seawater is boiled at a very low temperature (46-60°).

Raw seawater is pumped continuously through the fresh water condenser. Most of the seawater is then discharged to sea. A certain quantity, however, is fed into the distilling shell where it is boiled, the seawater concentrate, or brine, is continuously drawn off from the distilling shell by a venturi ejector and discharged to sea.

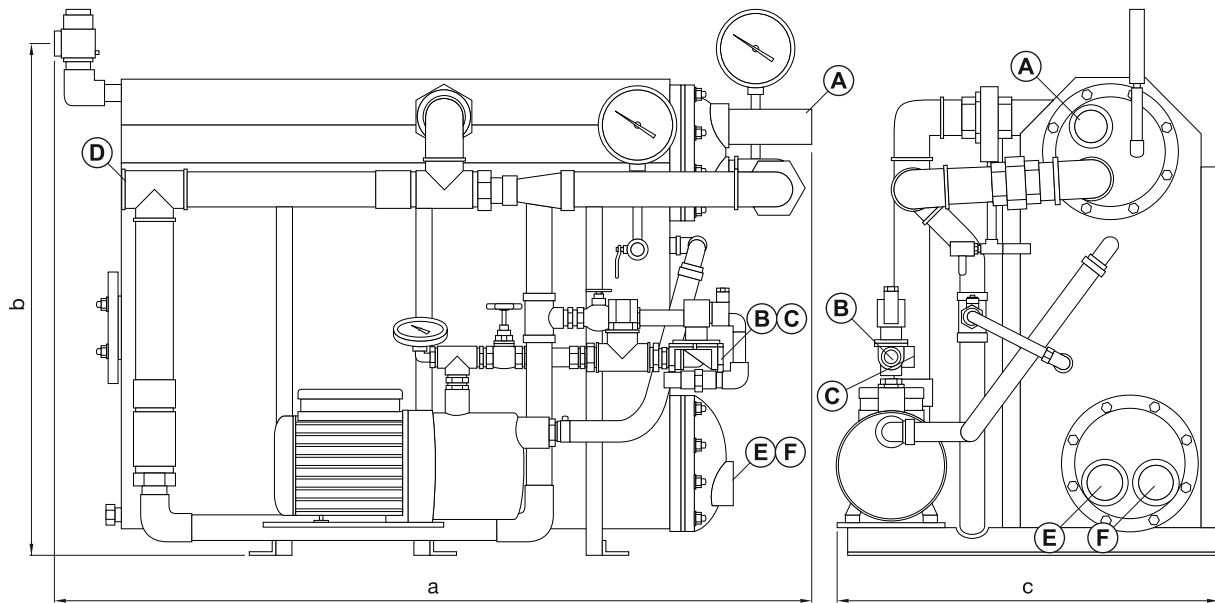
The vapor or steam, produced by boiling the seawater, passes through a monel mesh separator where any droplets of water or entrained particles are removed. Thus, only pure vapor enters the fresh water condenser section. This vapor passes over the tubes of the fresh water condenser where it is condensed by the cool seawater flowing through the tubes. The resultant fresh water is pumped from there to the storage tank by the fresh water pump.

The distilling shell vacuum is maintained by evacuating the non- condensable gases from the shell with a venturi ejector.

All fresh water is monitored by the salinity control system with automatic dumping should the water contain more than 4 ppm of salt.

Safe design against failure protects valuable freshwater storage from possible salt contamination.

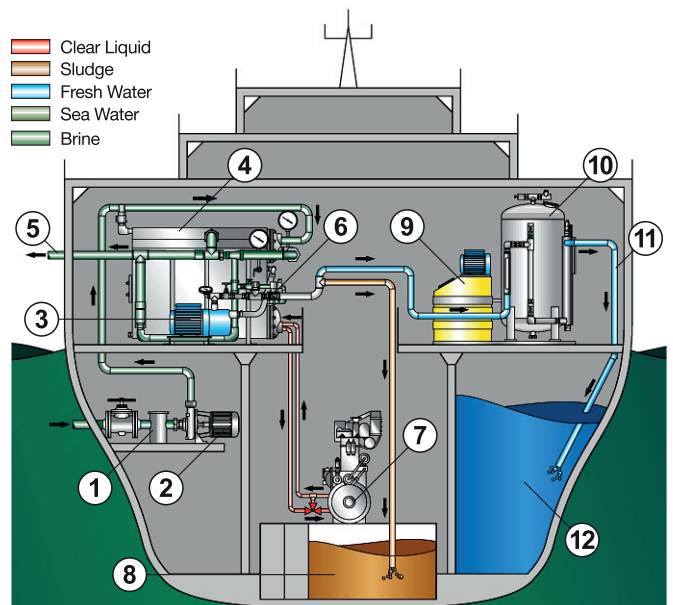
J Series (J-10 to J-50) Desalinators

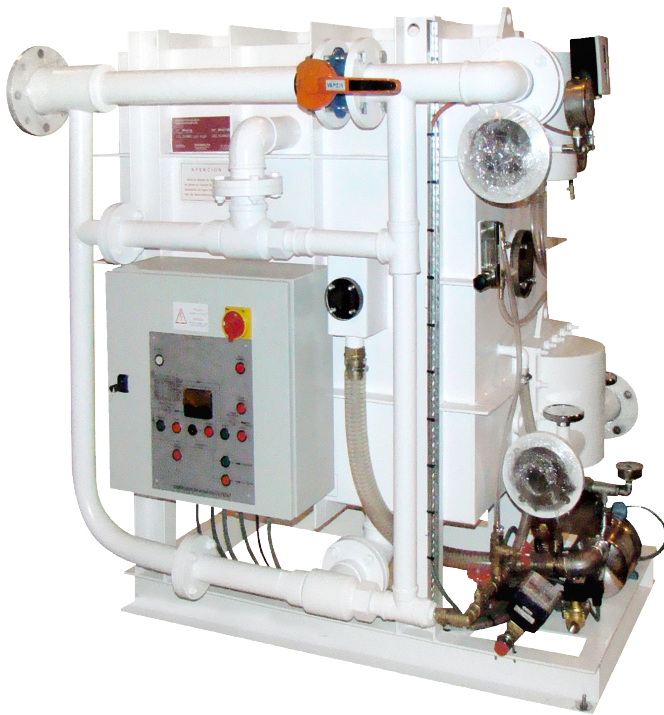


MODEL	a mm	b mm	c mm	A (Sea water inlet)	B (Fresh water discharge)	C (Bilge discharge)	D (Brine discharge)	E (Hot water inlet)	F (Hot water return)
J-10	860	555	485	1"RM	¼"RH	½"RH	1½"RH	1" RH	1" RH
J-20	1043	704	534	1½"RM	½"RH	½"RH	1½"RH	1½"RH	1½"RH
J-25	1087	809	600	1½"RM	½"RH	½"RH	1½"RH	2"RM	2"RM
J-30	1138	809	600	2"RM	½"RH	¾"	1½"RH	2"RM	2"RM
J-50	1200	1005	665	2"BSP-RH	¾"	¾"	2½"BSP	2"BSP	2"BSP

FEATURES	MODEL				
	J-10	J-20	J-25	J-30	J-50
Capacity (m3/day)	1.5-2	3.5 - 4	4-5	5-6	9-10
Hot water flow rate (m3/h - 85°C)	4.5	9	11.3	13.5	22.7
Minimum requirements to produce (KCal/h)	47115	94485	118125	142000	235600
Power consumption (Kw)	2.4	2.6	3.0	3.0	3.5
Net weight	145	236	280	290	440
Operative weight	190	285	335	345	510
Power supply	380-220V 3 phase 50 cycles, 440-110V 3 phase 60 cycles				

ITEM	DESCRIPTION
1	Sea water filter
2	Sea water pump
3	Fresh water pump
4	Evaporator
5	Brine discharge to sea
6	Salimetric cell
7	Engine
8	Bilge tank
9	Chlorine tank
10	Potabilizer
11	Water to drink
12	Fresh water tank





Operation

Hot engine cooling water is pumped by the engine circulating pump through the seawater heater and back to the engine circulating system. This water is not affected in any way except that some heat is removed. This is the heat that boils the seawater in the distilling shell. As this takes place under deep vacuum, the seawater is boiled at a very low temperature (46-60°).

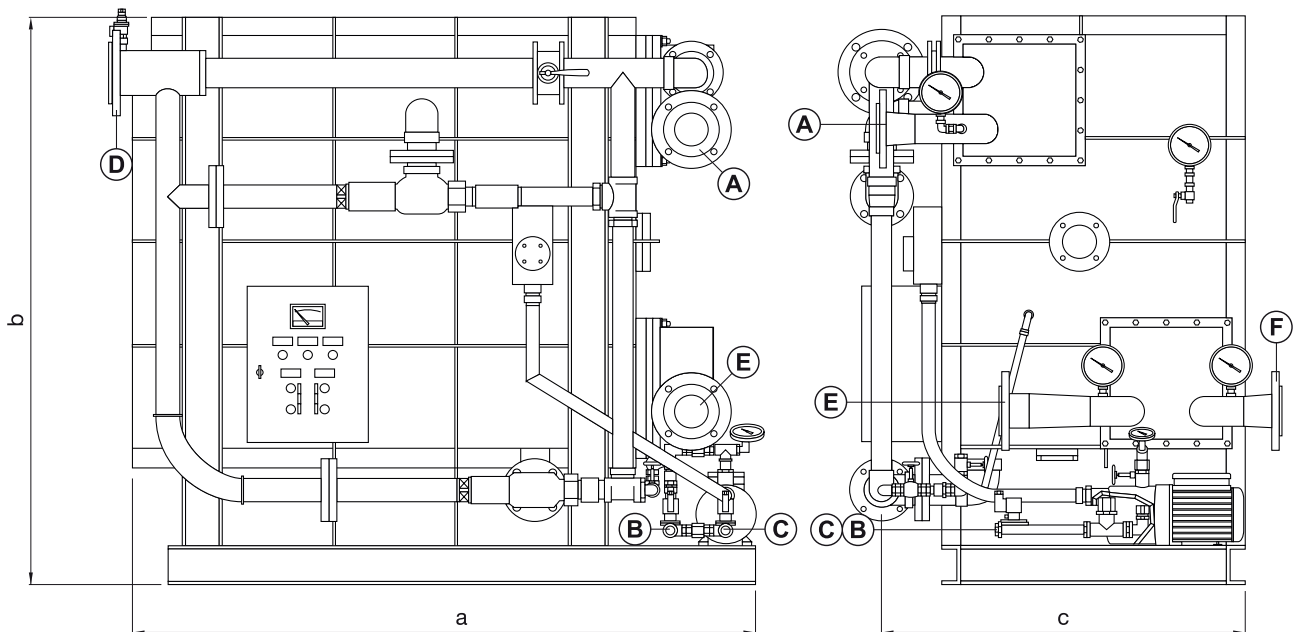
Raw seawater is pumped continuously through the fresh water condenser. Most of the seawater is then discharged to sea. A certain quantity, however, is fed into the distilling shell where it is boiled, the seawater concentrate, or brine, is continuously drawn off from the distilling shell by a venturi ejector and discharged to sea.

The vapor or steam, produced by boiling the seawater, passes through a monel mesh separator where any droplets of water or entrained particles are removed. Thus, only pure vapor enters the fresh water condenser section. This vapor passes over the tubes of the fresh water condenser where it is condensed by the cool seawater flowing through the tubes. The resultant fresh water is pumped from there to the storage tank by the fresh water pump.

The distilling shell vacuum is maintained by evacuating the non- condensable gases from the shell with a venturi ejector. All fresh water is monitored by the salinity control system with automatic dumping should the water contain more than 4 ppm of salt.

Safe design against failure protects valuable freshwater storage from possible salt contamination.

J Series (J-60 to J-150) Desalimators



MODEL	a mm	b mm	c mm	A (Sea water inlet)	B (Fresh water discharge)	C (Bilge discharge)	D (Brine discharge)	E (Hot water inlet)	F (Hot water return)
J-60	1350	1296	728	DN50	3/4"	3/4"	DN80	DN65	DN65
J-70	1350	1480	1050	2 1/2"	3/4"	3/4"	3"	2 1/2"	2 1/2"
J-100	1350	1460	850	DN80	3/4" RH	3/4" RH	DN100	DN80	DN80
J-150	1650	1550		DN65	3/4"	3/4"	DN100	DN80	DN80

FEATURES	MODEL			
	J-60	J-70	J-100	J-150
Capacity (m3/day)	10-16	12-19	15-22	20-30
Hot water flow rate (m3/h - 85°C)	27	32	66	87
Minimum requirements to produce (KCal/h)	270000	325000	475000	540000
Power consumption (Kw)	6.7	6.7	10.4	10.4
Net weight	840	900	970	1050
Operative weight	1090	1170	1270	1380
Power supply	380-220V 3 phase 50 cycles, 440-110V 3 phase 60 cycles			

ITEM	DESCRIPTION
1	Sea water filter
2	Sea water pump
3	Fresh water pump
4	Evaporator
5	Brine discharge to sea
6	Salimetric cell
7	Engine
8	Bilge tank
9	Chlorine tank
10	Potabilizer
11	Water to drink
12	Fresh water tank

