

# Expedition Vessel Bilgewater Membrane Separator on M/V Antarctic Dream

Market Application Publication



## Introduction

M/V Antarctic Dream is an expedition vessel with ice strengthened hull, built specifically for Antarctica exploration and totally refurbished to add the comfort of a small cruise ship (private bathroom in each cabin). The vessel allows a true expedition experience, in the spirit of the early explorers, with multiple landings in the most unique and marvelous settings of Antarctica. Passengers enjoy their time exploring on land and in the launch. The vessel measures 83 meters long and 11.9 meters wide. It has a capacity of 80 passengers in 40 cabins, all with exterior views.

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## Problem

The management and crew of this unique vessel promote the beauty of nature. They also feel strongly about reducing their effect on the marine environment wherever they venture.

One area of concern was the overboard discharge of accumulated bilge water which might contain harmful oils or other contaminants. This foul bilge water is normally pumped overboard as needed.

## Solution

Parker Racor - Village Marine Tec. Bilgewater Membrane Separator was installed to meet the needs of the ship owners, engineers, crew, and passengers. The BMS-350 is fully certified under the new IMO resolution MEPC 107(49) and implements an advanced three stage design for maximum oil separation. The unit incorporates Racor VMT membrane technology specifically designed for bilge water treatment. The System is fully automated

and employs a self cleaning cycle for prolonged membrane life, minimizing system maintenance. The M/V Antarctic Dream's engineer, Eduardo Hernandez, is pleased with the BMS system's performance and the ease of maintenance, "Before the Parker team offered their help, we had a real concern. Now we sleep better at night knowing we are protecting the seas from oily water and other foulness".



▲  
Bilgewater  
Membrane  
Separator



ENGINEERING YOUR SUCCESS.

# Expedition Vessel Bilgewater Membrane Separator on M/V Antarctic Dream

**Inlet Connection:**  
3/4" FNPT on models  
BMS350-1000  
1-1/4" FNPT on models BMS2000 and  
BMS2500

**Oil Discharge:**  
3/4" FNPT on all models

**Clean Water Flush Inlet:**  
3/4" FNPT on all models maximum  
water pressure 20 psi

## General Specifications:

**Treated Water Outlet:**  
3/4" FNPT on all models

Model #	Part Number	Power Volts/ phase/Hz	Dimensions inch/mm	Capacity GPM/m3/hr	Dry Weight lbs/kg	Operating Weight lbs/kg	Power (Amps)
BMS-350	90-8670	110/1/60	width 34.5/876 depth 33.5/851 height 50/1270	1.5/.35	500/227	650/295	19.7
	90-8671	220/1/60					10
	90-8672	220/3/60					10.3
	90-8673	440/3/60					2.5
	90-8674	230/1/50					10
90-8675	380/3/50	5.5					
BMS-500	90-8676	110/1/60	width 34.5/876 depth 33.5/851 height 50/1270	2.2/.5	500/227	650/295	19.7
	90-8677	220/1/60					10
	90-8678	220/3/60					10.3
	90-8679	440/3/60					2.5
	90-8680	230/1/50					10
90-8681	380/3/50	5.5					
BMS-1000	90-8682	110/1/60	width 49.5/1257 depth 37/940 height 58/1473	4.4/1	610/277	850/386	19.7
	90-8683	220/1/60					10
	90-8684	220/3/60					10.3
	90-8685	440/3/60					2.5
	90-8686	230/1/50					10
90-8687	380/3/50	5.5					
BMS-2000	90-8688	220/1/60	width 63.5/1613 depth 52.5/1333 height 68/1727	8.8/2	1160/526	2000/907	36.7
	90-8689	220/3/60					36
	90-8690	440/3/60					12
	90-8691	230/1/50					36
	90-8692	380/3/50					14.5
BMS-2500	90-8693	220/1/60	width 63.5/1613 depth 52.5/1333 height 68/1727	11/2.5	1260/571	2110/957	36.7
	90-8694	220/3/60					36
	90-8695	440/3/60					12
	90-8696	230/1/50					36
	90-8697	380/3/50					14.5

\* Water production capacity may be slightly less than rated for all 50 Hz units.

## Spares and Consumables

Part No.	Description	Part No.	Description
33-3003	Membrane Element	20-0296	Relay level control 110 VAC/50-60
33-0057	Process filter 5 micron all models	70-5030	PLC preloaded with Code
90-5026	Media Fill Kit (model BMS-350 - 500)	85-0042	Cleaner 1 - 5 LB (Alkaline Type)
90-5028	Media Fill Kit (model BMS-1000)	85-0043	Cleaner 2 - 5 LB (Acid Type)
90-5029	Media Fill Kit ( models BMS-2000 & BMS-2500)	85-0044	Preservative - 5 LB
33-0082	Process filter & Membrane housing cover seal O-ring	85-0036	Cleaner 1 - 1 LB (Alkaline Type)
20-0029	Switch, 3-pos	85-0037	Cleaner 2 - 1 LB (Acid Type)
20-0028	Switch, 2-pos	85-0038	Preservative - 1 LB
20-3004	Light, Indicator, Green	70-5029	Process pump (boost pump) seal kit (models BMS-350 - 1000)
20-3006	Light, Indicator, Red	70-5044	Process pump (boost pump) seal kit (models BMS-2000 & BMS-2500)
20-0505	Light, Incandescent (110)		

### WARNING – USER RESPONSIBILITY

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