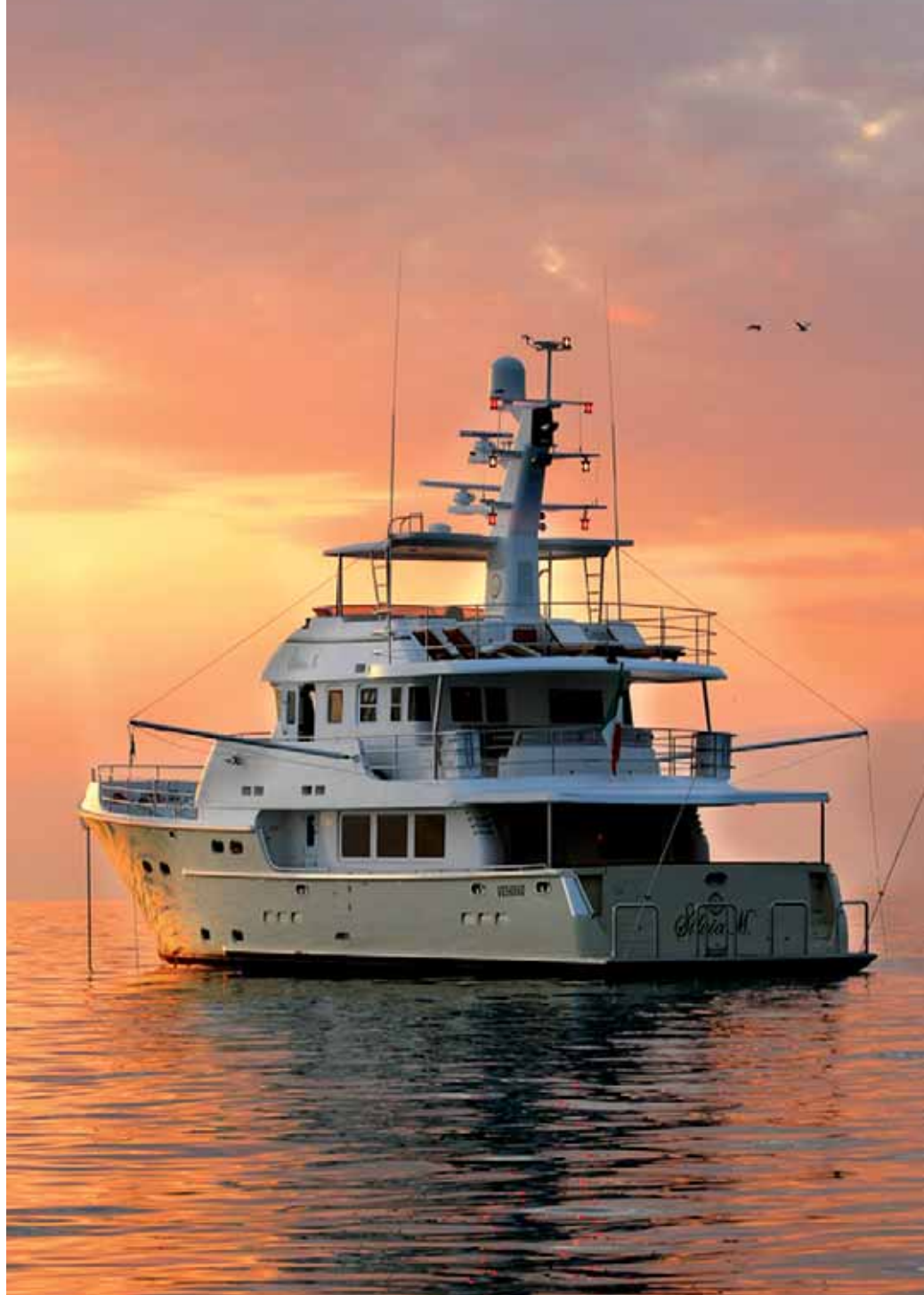




aerospace  
climate control  
electromechanical  
**filtration**  
fluid & gas handling  
hydraulics  
pneumatics  
process control  
sealing & shielding



# Village Marine Water Desalination & Purification Systems



# ENGINEERING YOUR SUCCESS.

A global Fortune 300 company with customers in 48 countries, Parker Hannifin is the world's leading supplier of hydraulic, pneumatic, and electromechanical systems and components. Customers rely on Parker for engineering excellence, world-class manufacturing and outstanding customer service to provide comprehensive application solutions that are second to none.



- More than USD 12.1 billion in sales
- 298 plants worldwide
- 12,000 distributors
- 449,000 customers
- Serving 1,200 distinct markets
- Listed as PH on the New York Stock Exchange

## The Parker Brand Promise

aerospace  
climate control  
electromechanical  
filtration  
fluid & gas handling  
hydraulics  
pneumatics  
process control  
sealing & shielding

Let Parker become part of your design team. Whether you need to develop new products, redesign existing applications, or design completely new systems, Parker offers unparalleled engineering expertise.

As the leader in the motion and control industry, Parker strives to be our customers' trusted partner. These relationships are cultivated by listening closely to our customers and repeatedly providing them with value measured in any currency: saved time, reduced waste, gained efficiency, expanded output and increased profitability.

Parker is the global leader in motion and control technologies, partnering with its customers to increase their productivity and profitability.

## Parker Racor / Village Marine Tec.

### Forward Thinking in Reverse Osmosis Engineering

**For over 30 years,** Village Marine Tec. has developed innovative water desalination and purification plants for some of the most challenging environments – the middle of the ocean, 800 feet below the sea, offshore oil rigs, deserts, and disaster areas.

**A legacy of performance.** Village Marine Tec. received the prestigious Aegis Excellence Award as the only RO supplier to excel in quality and delivery, surpassing U.S. Navy expectations.

**Fresh water for every vessel.** Our customers enjoy all of the luxuries of home – drinking water, ice, showers, dishwashers, and laundry – onboard. A complete range of reliable, power-efficient watermakers for sailboats, motorboats and yachts, as well as custom equipment, is available for quick delivery and allows our customers to cruise with confidence.

**Without the noise.** Village Marine's experience in designing RO systems for Navy submarines has helped us create the quietest pleasure and commercial watermakers on the market.

**The ultimate barrier to impurities.** Salts, minerals and organics are no match for Aqua Pro® spiral wound membranes, which remove impurities from seawater, brackish water, fresh water and tap water.

**Quality at the source.** The superior quality components that go into Village Marine and Offshore Marine Systems ensure that each one is built to the highest standards for safety, maintainability and reliability.

Providing the most innovative and reliable RO purification systems from energy-saving 160 GPD watermakers to high-performance 100,000 GPD system is what has established Village Marine Tec. as a leader in industry.

Meeting the fresh water requirements of military ships to working marine vessels to luxury yachts to seaside properties has always been the mission of Village Marine Tec. a global leader in the innovative application of reverse osmosis technology and now able to offer the 'power of Parker' and Racor Filtration.



## Over 30 years of innovation, over 30 years of quality...

**Diesel Fuel 1969** It all began with a patented, and exceptionally efficient new way to remove water, dirt, rust and algae from diesel fuel.



**Cold 1975** Racor pioneers integrated fuel heaters, now standard throughout the industry.



**Technology 1983** Aquabloc® filters debut, and Racor Filter/Separators make another significant leap in filtration efficiency.



**Protection 1984** The Racor Sentinel System shuts down an engine before a major component failure can cause permanent damage.



**Growth 1985** Racor becomes a division of Parker Hannifin Corporation, further strengthening one of the world's most respected brands.



**Standard Equipment 1987** The first Navistar powered Ford E Series and F Series vehicles roll off the production line with the revolutionary, compact and flexible Racor Spin On Series.



**Quality 1989** Racor earns Ford Q1 certification, the first in a series of quality awards from one of the world's leading engine and equipment manufacturers.



**The Environment 1991** Along with protecting engines, Racor makes products that protect the environment. Lifeguard is a marine fuel/air separator that prevents fuel from escaping overboard from vent lines during refuelling.



**Oil 1992** Every bit as vital and every bit as dirty as fuel. The Racor solution is an ingenious one, a cleanable oil filter that puts an end to frequent filter changes and disposal.



**Air 1994** Engines gasping for a breath of fresh air breathe easy with the introduction of synthetic, multi stage Racor "twice the life" air filters.



**CCV Products 1995** Racor starts cleaning up engine rooms with a crankcase ventilation system that keeps oily blow-by from damaging turbo chargers and other precision components.



**Racor Hydrocarbon 1997** Racor Hydrocarbon Filters and Vessels debut – offering customers flow rates to 1000 gpm and higher.



**UK Facility 2000** Having moved out of Morley into a purpose built factory at nearby Dewsbury in 1998, Racor sees significant growth in Europe. 2000 saw the expansion of manufacturing capability to include all spin on series filters,



**Global OEM 2001** Racor continues to forge long term relationships with Global OEM companies to produce sound, cost effective engineered solutions to meet specific application requirements.



**High Performance Air Filters 2002** Racor purchases Farr opening up opportunities in medium and heavy duty Engine Air applications.



**Ultra High Efficiency CCV Integration 2007** European design and engineering consolidation to provide CCV integrated OEM solutions.



**Lab and Engine Test Facilities 2008** A major investment in Dewsbury facilities ensure technical resources are in place to support customer needs.



**Reverse Osmosis 2009** Parker Racor purchases Village Marine Tec-Water desalination and purification systems.



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# The Inside Story



TRUE 316 Stainless Steel  
high pressure regulator  
– Eliminates risk of over  
pressurization



Aqua Pro, magnetic drive,  
low pressure pumps

Aqua Pro, Titan Series,  
Titanium head,  
corrosion resistant high  
pressure pumps.



Aqua Pro, industrial grade,  
pleated pre-filtration



VMT-Squirt 600  
Plug and Play, Self  
contained model.

Corrosion resistant,  
powder coated,  
aluminium frame and  
mounting brackets

All 316 Stainless Steel  
mounting hardware

Fresh water automatically  
diverted to tank

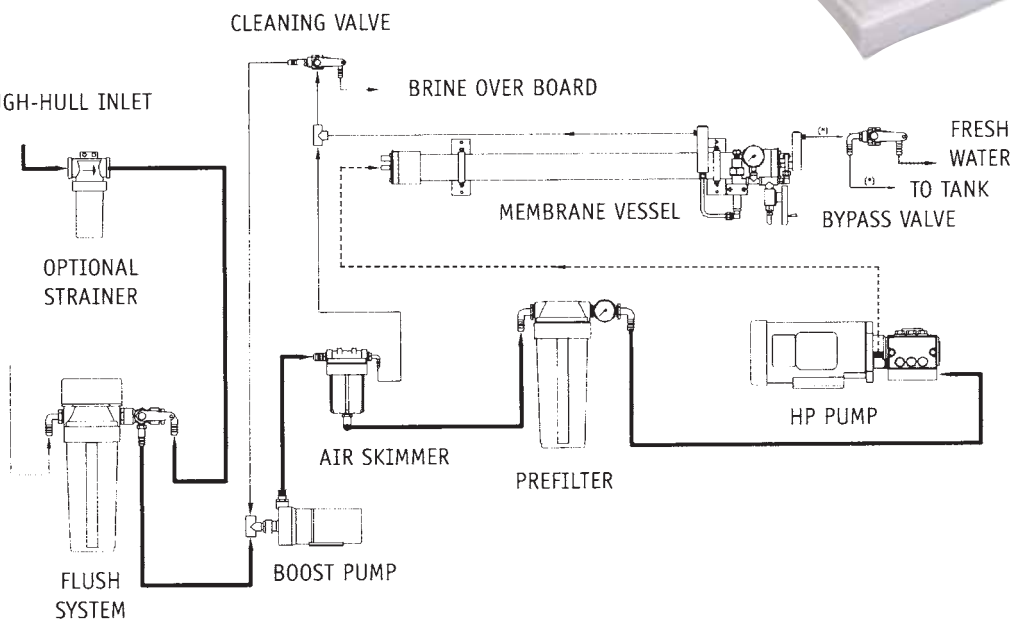
Convenient oil drain



Integral, closed loop  
cleaning system



3/4" THROUGH-HULL INLET





High pressure bypass valves, 316 Stainless Steel



Water Quality Monitor – LCD readout displays fresh water quality and sea water temperature, adjustable set point, high salinity alarm, hour meter on a corrosion resistant Inconel panel



Air/Oil separator. Maintenance FREE!  
No Filters to Replace



Remote Control Panel – Push button operation, LCD ppm display, audible high salinity alarm and warning lights on a corrosion resistant Inconel panel



Corrosion resistant fresh water and brine flow meters



Master Control Panel – LCD readout, push button operation, low pressure protection, high salinity warning, check system indicator for diagnostics and maintenance, on a corrosion resistant Inconel panel



Glycerin filled, high and low pressure gauges



Industrial Strength reinforced high pressure hose with Titanium wetted fittings



Custom made seawater membranes



Fiberglass pressure vessels



Corrosion resistant, machined nylon end caps and manifolds



316Stainless Steel Vibration isolation mounts



# Aqua Pro® Pumps

Innovative engineering  
Solid material choices

## Titan Series High Pressure Pumps

Quiet and durable, Aqua Pro Titan Series Pumps are dependable and specifically designed for reverse osmosis applications. Specific pump components are made of titanium which is impervious to sea water corrosion. The positive-displacement pump design uses less energy than most pumps.

Key features of the Titan Series High Pressure Pumps:

- Titanium pump heads ensure reliable operation and minimal maintenance.
- Titanium fluid ends and titanium-backed nylon valves are impervious to sea water corrosion.
- Heavy-duty industrial drive end and corrosion/wear-resistant plungers extend service life in high pressure applications.
- The combination plunger pump and pressure regulation design reduces noise and vibration to provide quiet, smooth operation.



Magnetic Drive  
Low Pressure Pump  
788-1

Titan Series  
High Pressure  
Titanium Pump  
708-3



Titan Series  
High Pressure  
Titanium Pump  
708-5

Titan Series  
High Pressure  
Titanium Pump  
3P20



Titan Series  
High Pressure Titanium Pump  
5P50HD and  
5P100HD

Titan Series  
High Pressure Titanium Pump  
10P200HD

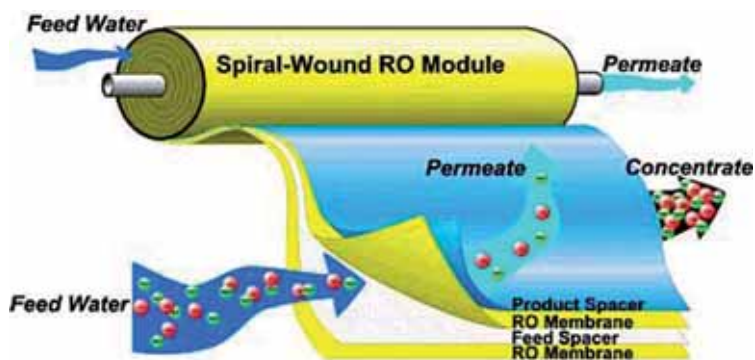




# Aqua Pro® Membranes and Pressure Vessels

Unmatched design capabilities

Proven manufacturing and quality processes



Salts, minerals and organics are no match for Aqua Pro spiral wound membranes. They remove impurities from sea water, brackish water, fresh water and tap water. Selecting the highest grade of materials and thoroughly testing their performance and integrity, results in unmatched membrane quality and efficiency. Flexibility in design and manufacturing capabilities allows maximum quality control and quick response to unique, custom fabrication.

The world's most technologically advanced reverse osmosis pressure vessels feature non-metallic wetted surfaces. The pressure tubes are constructed of a filament wound fibreglass/epoxy compound.



**Membrane Test Conditions:**  $\approx 32,000$  PPM NaCl  
800 PSI (57 bar)  
77° F (25°C)  
pH 8.0

## Membranes and Filter Specifications

SW - Membrane	Product Water Flow Rate LPD (gpd)*	Minimum Salt Rejection (%)
2519 (64 x 483mm)	830 (220)	99.2
2538 (64 x 965mm)	2081 (550)	99.2
4040 (102 x 1016mm)	6050 (1600)	99.2
6040 (152 x 1016mm)	9460 (2500)	99.2

\*Flow rates for individual membranes may vary +/-20%

# Pure Water Series 400-18,000 GPD (1,514-68,137 LPD)

## For Commercial Marine Applications

The Pure Water (PW) Series is designed to provide installation flexibility, superior performance, and extended service life in the most rugged conditions. Typically used in 24 / 7, continuous-duty applications, the PW Series is fully operational from an optional remote control.



Manual Fresh Water Flush

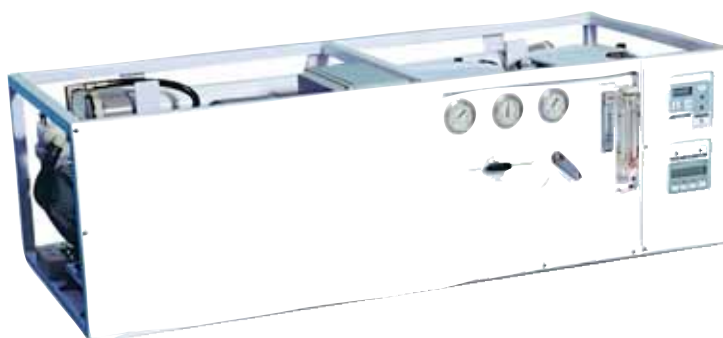


VMT-PW 400-2000 GPD  
(1,514-7,571 LPD)  
Modular System



VMT-PW 400-2000 GPD (1,514-7,571 LPD)  
Semi-Modular System

VMT-PW 400-2000 GPD  
(1,514-7,571 LPD)  
Horizontal Frame System



## Pure Water Specifications

Model	LPD +/-20%	Voltage 50 Hz (60 Hz available)	Power Kw	Amps*	Water Connections			Dimensions L x W x H mm	Dry Weight kg
					Feed Inlet	Reject Outlet	Product Outlet		
PW400	1,514	110/220 VAC	1.1	6	19mm	13mm	13mm	686 x 610 x 406	102
PW600	2,270	110/220 VAC	1.5	7	19mm	13mm	13mm	1372 x 610 x 406	159
PW800	3,028	110/220 VAC	2.2	10	19mm	13mm	13mm	1372 x 610 x 406	159
PW1200	4,540	110/220 VAC	2.2	10	19mm	13mm	13mm	1372 x 610 x 406	182
PW1600	6,057	220 VAC	3.7	15	19mm	13mm	13mm	1372 x 711 x 406	193
PW2000	7,570	220 VAC	3.7	15	19mm	13mm	13mm	1372 x 711 x 406	205

\* Based on 220/3 phase. Amp draw may vary depending on voltage / Hz.



## Standard Features and Benefits include

- Monel Mesh Strainer and Dual sediment prefilters.
- Maintenance-free Air/Oil Separator allows operation while underway.
- 3 or 5 Plunger Titanium Pump for low vibration and noise with unsurpassed corrosion resistance.
- Magnetic Drive Low Pressure Pump provides up to 0.7 bar of boost pressure to the filtration system. Never requires seal replacement.
- 316SS, Glycerine Filled Pressure Gauges.
- Freshwater Flush System included. Optional automation of the flush system is available.
- Adjustable 316 SS Pressure Regulating Valve allows use in fresh, brackish or seawater.
- Easy to operate 316 SS High Pressure Bypass Valve controls the operating mode from cleaning/rinse to R.O. Allows high pressure bypass for start-up and low pressure flushing without readjustment of regulating valve.
- Automatic Diversion Valve diverts water to discharge if water quality drops below acceptable standards.
- Digital Water Quality Monitor displays purity of product water output. Also displays temperature and total hours for accurate service log.
- Cleaning Valve for easy cleaning or sterilization of the system including membranes.



VMT-PW  
3000-18000 GPD  
(11,356-68,137 LPD)  
Horizontal Frame System

## Industrial Pure Water Specifications

Model	LPD +/-20%	Voltage 50 Hz (60 Hz available)	Power Kw	Amps*	Water Connections			Dimensions L x W x H mm	Dry Weight kg
					Feed Inlet	Reject Outlet	Product Outlet		
PW3000	11,350	440/220 VAC	7.5	14/28	38mm	38mm	25mm	2134 x 864 x 889	364
PW4000	15,100	440/220 VAC	7.5	14/28	38mm	38mm	25mm	2134 x 864 x 889	409
PW5000	18,925	440/220 VAC	11.1	21/42	38mm	38mm	25mm	2134 x 864 x 889	455
PW6000	22,700	440/220 VAC	11.1	21/42	38mm	38mm	25mm	2134 x 1117 x 889	477
PW7000	26,500	440/220 VAC	11.1	21/42	38mm	38mm	25mm	2134 x 1219 x 889	682
PW8000	30,280	440 VAC	15.0	27	38mm	38mm	25mm	2134 x 1219 x 889	727
PW10000	37,850	440 VAC	15.0	27	38mm	38mm	25mm	2134 x 1219 x 889	818
PW12000	45,425	440 VAC	18.6	34	38mm	38mm	25mm	2235 x 1321 x 889	864
PW16000	60,570	440 VAC	18.6	34	38mm	38mm	25mm	2235 x 1321 x 1092	1000
PW18000	68,140	440 VAC	22.3	40	38mm	38mm	25mm	2235 x 1321 x 1092	1022

\* Based on 440/220 Volts 3 phase - Amp draw will vary due to voltage / Hz.

# Pure Water Vertical Series

800-4,000 GPD (3,028-15,142 LPD). For Large Yachts, Commercial Marine Applications and Coastal Properties



VMT-PWV2000  
Vertical Frame System  
with front door open for  
maintenance access  
(7,571 LPD)



## Pure Water Vertical Specifications

Model	LPD +/-20%	Voltage* 50/60 Hz 3 Phase	Power Kw	Amps	Water Connections			Dimensions L x W x H mm	Dry Weight kg
					Feed Inlet	Reject Outlet	Produce Outlet		
PWV800	3,028	440/380/220	2.2	14/28	19mm	13mm	13mm	559 x 787 x 1422	231
PWV1200	4,540	440/380/220	2.2	6	19mm	13mm	13mm	559 x 787 x 1422	239
PWV2000	7,570	440/380/220	3.7	6	19mm	13mm	13mm	610 x 787 x 1422	253
PWV3000	11,350	440/380/220	3.7	14	19mm	13mm	13mm	838 x 1118 x 1676	444
PWV4000	15,100	440/380/220	3.7	14	19mm	13mm	13mm	838 x 1118 x 1676	465

\* Power is available only in 3 phase/60 Hz or 3 phase/50 Hz.

VMT-PWV800-1200  
(3,028-4,571 LPD)  
Vertical Frame System



VMT-PWV3000-4000  
(11,356-15,142 LPD)  
Vertical Frame System



With the same high-quality features of the horizontal Pure Water Series, the vertical frame Pure Water Series offers a more compact foot print for flexible installation options and optimal use of space. All components are on a single skid, in one frame, and include a multi-media pre-filter and flush system.

If the requirement is high volume potable water, delivered on a reliable basis, in a harsh environment, the Village Marine Pure Water Series in either configuration meets the requirements.



# Aegean Series

400-1,300 GPD (1,514-4,921 LPD)

For Fishing Vessels and Work Boats



OML-Aegean Series



OML-Baltic Series



# Baltic Series

400-1,300 GPD

(1,514-4,921 LPD)

For Fishing Vessels  
and Work Boats

**Aegean, Baltic and Caspian Series Specifications**

Model A = Aegean B = Baltic C = Caspian	LPD +/-20%	Voltage available	Power Kw	* Amps	Dimensions L x W x H mm	Dry Weight kg
A 400	1,514	110/220/12	1.65	9	508 x 610 x 787	61
A 500	1,890	110/220/12	1.65	9	508 x 610 x 787	61
A 600	2,271	110/220/12	1.65	9	508 x 610 x 787	65
A 800	3,028	110/220/12	3.1	9	686 x 610 x 406	88.5
A 1000	3,785	110/220/12	3.1	9	686 x 610 x 406	88.5
A 1300	4,921	110/220/12	3.1	9	686 x 610 x 406	88.5
B 400	4,514	110/220/12	1.65	9	Modular	53.5
B 500	1,890	110/220/12	1.65	9	Modular	53.5
B 600	2,271	110/220/12	1.65	9	Modular	53.5
B 800	3,028	110/220/12	3.1	9	Modular	60
B 1000	3,785	110/220/12	3.1	9	Modular	69
B 1300	4,921	110/220/12	3.1	16	Modular	102
C 400	1,514	110/220/12	1.65	9	686 x 610 x 406	61
C 600	2,271	110/220/12	1.65	9	686 x 610 x 406	68
C 600	2,271	110/220/12	1.65	9	686 x 610 x 406	68
C 800	3,028	110/220/12	3.1	16	686 x 610 x 406	125
C 1000	3,785	110/220/12	3.1	16	686 x 610 x 406	125
C 1300	4,921	110/220/12	3.1	16	2235 x 1321 x 1092	131.5

\* Based on 220/1 phase. Amp draw may vary depending on voltage/H<sub>2</sub>.



The OML-Baltic Series modular design allows for flexible installation where space constraints need taking into consideration. Fresh water is the last thing fishermen hauling in their catch or offshore workers performing their duties should have to worry about at any time. Reliable reverse osmosis systems onboard commercial marine vessels aren't a luxury, they are a necessity – to provide drinking water, showers, laundry – and also supply the needed water to process the catch and keep equipment operating smoothly for weeks and months at a time.

The Offshore Marine Aegean, Baltic and Caspian Series are designed to withstand the punishment of the big rollers. Keeping fresh water in their tanks, keeps the working mariners from distractions and allows them to focus on the task at hand.

Ruggedly built for a long-service life in severe conditions, standard features and benefits of the Aegean, Baltic and Caspian Series include;

- Aqua Pro corrosion-resistant titanium pump heads.
- Heavy duty pressure vessels, hardware and fasteners to prevent leaks, wear and tear.
- Pumps and motors are shock-mounted to isolate and minimize vibration transfer to a ship's hull.
- With the crew's safety in mind at all times, the OML systems have built-in safeguards such as low-voltage protection to keep motors from overheating.
- Water-diversion valves prevent tanks from salting.
- Under and over safety switches prevent catastrophic system failure.
- All pressure hoses have a 4:1 safety factor.

## Caspian Series

400-1,300 GPD (1,514-4,921 LPD)

For Fishing Vessels and  
Work Boats



OML-Caspian Series

The Caspian Series has all of the features and benefits of the Aegean Series and Baltic Series plus;

- Designed for use in waters where particulate levels are higher than normal; for example, a fishing vessel operating in waters with a high level of plankton.
- The integrated multimedia filtration system is cleanable without consumable elements.
- The electronics package is in a NEMA enclosure to assure a moisture-free environment.
- The Caspian system is virtually maintenance free, saving time and money on replacing pre-filter cartridges.



# Squirt and Stowaway Series

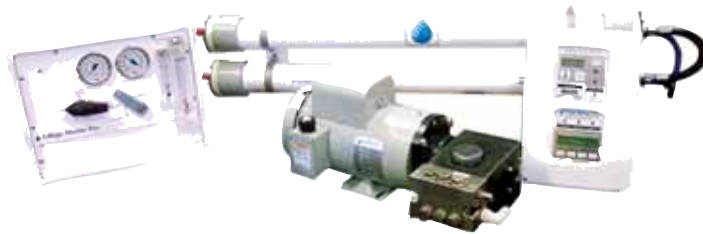
400-800 GPD (1,514-3,028 LPD).

For Power Boat Applications

Frame mounted system for quick and easy installation. Can be operated and monitored from the included remote control.



VMT-Squirt Horizontal Frame



VMT-Squirt Modular

Complete modular system for maximum installation flexibility. Fully operational from the included remote control.

VMT-Stowaway Semi-Modular

Compact size with separate boost pump and filter allows installation flexibility above or below waterline. Fully operational from the included remote control.



## Squirt/MPW Specifications

Model	LPD +/-20%	Voltage 50 Hz (60 Hz available)	Power Kw	Amps 110 V	Water Connections			Dimensions L x W x H mm	Dry Weight kg
					Feed Inlet	Reject Outlet	Product Outlet		
SPW400	1,514	110/220 VAC	1.1	12-13	19mm	12.7mm	7.0mm	660 x 406 x 381	55
SPW600	2,270	110/220 VAC	1.1	12-13	19mm	12.7mm	9.5mm	660 x 406 x 381	57
SPW800	3,028	110/220 VAC	1.1	12-13	19mm	12.7mm	9.5mm	660 x 406 x 381*	64
MPW400	1,514	110/220 VAC	1.1	12-13	19mm	12.7mm	7.0mm	Consult Manual	61
MPW600	2,270	110/220 VAC	1.1	12-13	19mm	12.7mm	9.5mm	Consult Manual	64
MPW800	3,028	110/220 VAC	1.1	12-13	19mm	12.7mm	9.5mm	Consult Manual	66

\* Remote membranes are 102 (D) x 1270 (L) x 305 (H) mm

## Stowaway Specifications

Model	LPD +/-20%	Voltage 50 Hz (60 Hz available)	Power Kw	Amps 110V	Water Connections			Dimensions L x W x H mm	Dry Weight kg
					Feed Inlet	Reject Outlet	Product Outlet		
STW400	1,514	110/220 VAC	1.1	12-13	19mm	12.7mm	7.0mm	559 x 406 x 298	50
STW600	2,270	110/220 VAC	1.1	12-13	19mm	12.7mm	9.5mm	559 x 406 x 298	53
STW800	3,028	110/220 VAC	1.1	12-13	19mm	12.7mm	9.5mm	559 x 406 x 298*	61



## Squirt and Stowaway Series

### Standard Features and Benefits include

- 5 micron sediment prefilter.
- Maintenance-free Air/Oil Separator allows operation while underway.
- 3 Plunger Titanium Pump for low vibration and noise with unsurpassed corrosion resistance.
- Magnetic Drive Low Pressure Pump provides up to 0.7 bar of boost pressure to the filtration system. Never requires seal replacement.
- Glycerine Filled Pressure Gauges
- Freshwater Flush System included. (Optional automatic flush system is available).
- Adjustable 316 SS Pressure Regulating Valve allows use in fresh, brackish or seawater.
- Easy to operate 316 SS High Pressure Bypass Valve controls the operating mode from cleaning/rinse to Reverse Osmosis. Allows high pressure bypass for start-up and low pressure flushing without readjustment of regulating valve.
- Automatic Diversion Valve channels the water to discharge if water quality drops below acceptable standards.

## Aegean Sub-Compact Series



## Aegean Sub-Compact Series

400-800 GPD (1,514-3,028 LPD).

### For Power Boat Applications

The OML Aegean Sub-Compact Series has unique features and benefits which make it an industry best seller include:

- Exclusive framed design.
- Enclosed control panel for protected electronics with manual freshwater flush, allowing for shut down without chemical preservatives for up to three weeks.
- Custom Titan series high-pressure, positive displacement pump with a titanium head. (8.7 LPM )
- This compact package is available in 1,514 to 3,028 LPD, (110/220 volt system).
- Easy to install in the most compact of engine rooms or lazarette.



OML-Aegean Sub-Compact

### Aegean Sub-Compact Specifications

Model	LPD +/-20%	Voltage Available	Power Kw	Amp Draw 220 V/1/50	Cycle Available	Dimensions L x W x H mm	Dry Weight kg
ASC400	1,514	110/220/12	1.65	9	50/60	508 x 432 x 559	60
ASC500	1,890	110/220/12	1.65	9	50/60	508 x 432 x 559	61
ASC600	2,270	110/220/12	1.65	9	50/60	508 x 432 x 559	66
ASC800	3,028	110/220/12	1.65	9	50/60	508 x 432 x 559	69

# Little Wonder Series

160-200 GPD (606-757 LPD). For Sail Boat Applications

The Little Wonder (LW) is the watermaker of choice for the experienced sailor. The Little Wonder comes equipped with a corrosion resistant, single piston, belt driven, low RPM high-pressure pump. The result is the most reliable, field serviceable, quiet, efficient and economical source of fresh water available in the industry. Available in self contained frame, semi-modular or completely modular configurations with water output ranging from 606 to 757 LPD.



VMT-LW  
Horizontal Frame System

The modular Little Wonder watermakers are designed for cruising sail boats where space is limited and reliability is required.

Little Wonder fully-contained water makers are the compact, efficient fresh water source for cruising sailors.



VMT-LWM  
Modular with Pump/Motor

## Little Wonder Series Specifications

Model	Max Flow LPD+/-20%	Voltage 12/24 Volt	Amps	Water Connections			Dimensions L x W x H mm	Dry Weight kg
				Feed Inlet	Reject Outlet	Product Outlet		
LW160VIP	606	12/24 V DC	13/7	13mmHB	13mmHB	6mmHB	330 x 330 x 635	32
LW200VIP	757	12/24 V DC	17/9	13mmHB	13mmHB	6mmHB	330 x 330 x 635	33
LW160	606	12/24 V DC	13/7	13mmHB	13mmHB	6mmHB	673 x 279 x 235	30
LW200	757	12/24 V DC*	17/9	13mmHB	13mmHB	6mmHB	673 x 279 x 235	31
LWM160	606	12/24 V DC	13/7	13mmHB	13mmHB	6mmHB	406 x 254 x 178	22
LWM200	757	12/24 V DC*	17/9	13mmHB	13mmHB	6mmHB	406 x 305 x 178	23

\* Also available with 110/220V (20mm HB feed inlet). 110v - 6amps, 220v-3.3 amps.

The Little Wonder vertical systems are in compact frame for easy installation and simple operation. Operating on DC power, they are ideal for sail boats or as back up watermakers on larger yachts.



VMT-LW  
Vertical Frame  
System

Standard Features:



Pre-Filter



Low Pressure  
Boost Pump



Manual Fresh  
Water Filter

### Standard Features and Benefits include

- Raw Water Boost Pump provides extra feed pressure.
- Village Marine Tec's Exclusive Titanium High Pressure Pump is impervious to the corrosive sea water environment and designed for maximum efficiency, producing more water with less battery power.
- Adjustable 316 SS Pressure Regulating Valve provides constant pressure. No fluctuating pressure and low noise.
- Product Flowmeter to monitor gallons per hour of product water being produced.
- Glycerine Filled High Pressure Gauge to ensure accurate reading of pressure from high pressure pump.
- Easy to operate High Pressure Bypass Valve controls the operating mode from cleaning/ rinse to reverse osmosis.
- Supplied with Cleaning and Preservative Chemicals to keep your system in prime working condition, plus a Spare Pre-filter Cartridge.
- 12V, Permanent Magnet Motor has significant reserve capacity for long life (on DC powered units).
- Special Hi-Rejection Aqua Pro Membrane(s).
- Manual Fresh Water Flush.
- Product Sample Valve.
- Cleaning Valve.



# Sea Quencher Series

160-200 GPD (606-757 LPD).

For Power and Sail Boat Applications



OML-SQ 200 Semi-Modular  
(757 LPD)

The Offshore Marine Sea Quencher (SQ) Series offers durable, high value desalination systems. Driven by AC or DC power, the Sea Quencher models use low electrical consumption in relation to their water production.



## Sea Quencher Series Specifications

Model	LPD	Voltage	Power Amps	Dimensions mm	Water Connections			Dry Weight kg
					Feed Inlet	Reject Outlet	Product Outlet	
SQ160	606	12/24 VDC	13/7	610 x 279 x 305	1/2" FNPT	1/2" FNPT	1/4" FNPT	32
SQ200	757	12/24 VDC	17/9	610 x 279 x 305	1/2" FNPT	1/2" FNPT	1/4" FNPT	33
SQ200	757	110/220 VAC	6/3.3	610 x 279 x 305	1/2" FNPT	1/2" FNPT	1/4" FNPT	33

# No-Frills Series

450-2,000 GPD (1,703-7,571 LPD).

For Sail Boats and Motor Boats Applications



VMT-No Frills 450 Modular (1,703 LPD)



The No Frills Series offers all the best of Village Marine engineered components while operating independently of any electrical connections or requirements. Driven by AC or engine power, the modular configuration comes with Aqua Pro membranes and titanium pump and fittings. Integral to the No Frills Series are a stainless steel pressure regulator and connectors.

## No-Frills Series Specifications

Model	Max Flow LPD+/-20%	Voltage 50 Hz (60 Hz available)	Power Kw	Power Amps 110V/220V	Water Connections			Dry Weight kg
					Feed Inlet	Reject Outlet	Product Outlet	
NF450	1703	110/220 VAC	1.1	13/8	19mm	13mm	6mm	42
NF600	2271	110/220 VAC	1.1	13/8	19mm	13mm	10mm	45
NF800	3028	110/220 VAC	1.1	13/8	19mm	13mm	10mm	60
NF1200	4542	220 VAC	2.2	15	19mm	13mm	10mm	79
NF1600	6057	220 VAC	3.7	22	25mm	13mm	13mm	105
NF2000	7571	220 VAC	3.7	22	25mm	13mm	13mm	110

# Sea Water Series

24,000 - 93,000 GPD (90,850-352,043 LPD). For Offshore Rigs, Work Camps, Coastal Properties and Cruise Ships



The Sea Water Series reverse osmosis desalination systems are designed to provide potable water in demanding environments. Its rugged, efficient design allows high through-put of water with minimum electric power use. The Sea Water Series systems are quiet because the mounting of the motors and Aqua Pro pumps isolates and minimizes vibration transfer to the vessel's hull or the RO system enclosure.

## SW Series Specifications

Model	Product Flow LPD+/-20%	Power kw	Skid Size L x W x H mm	Operating Weight kg
SW 24	90,850	26	3607 x 1829 x 1981	3152
SW 32	121,100	26	3607 x 1829 x 1981	3311
SW 36	136,275	31	3607 x 1829 x 1981	3402
SW 42	158,987	45	6096 x 610 x 2134	NA
SW 66	249,837	63	6096 x 610 x 2134	NA
SW 93	352,043	86	6096 x 610 x 2134	NA



Aqua Pro Pump 5 Plunger Titanium Head

The VMT-SW series are skid mounted with two complete, independent RO systems. The two trains can run together or can be operated on a duty/stand by basis. Top quality components, manufactured by Village Marine, provide maximum corrosion resistance. Straight-forward, easy to understand controls, result in reliable operation.







Optional Media Prefiltration  
2438 (L) x 1219 (W) x 2438 (H) mm



OML - SW66 Modular



Prefilter Skid  
1524 (L) x 1219 (W) x 914 (H) mm



High Pressure Pump  
2438 (L) x 610 (W) x 610 (H) mm

# Accessories & Options

## Pleated Filters

Manufactured from industrial grade polypropylene, Village Marine Tec.'s pleated filters are designed specifically for the Reverse Osmosis watermaker industry. These filters are superior to wound or polyspun cartridges, and give you longer filter life as well as increasing flow rates, while keeping cartridge size down.

Stock sizes fit most standard filter housings, as well as Big Blue® and Big White® housings. Carbon block filters are available for fresh water flush systems.



Pleated Filter Model	Capacity
33-0117	5 micron, 2.5 x 10
33-0118	20 micron, 2.5 x 10
33-0034	5 micron, 2.5 x 20
33-0211	20 micron, 2.5 x 20
33-0052	5 micron, 5 x 10
33-0053	20 micron, 5 x 10
33-0057	5 micron, 5 x 20
33-0058	20 micron, 5 x 20
33-0005	5 micron, 30 square
33-0020	20 micron, 30 square
33-5100	5 micron, 100 square
33-2100	20 micron, 100 square
33-0311	carbon, 2.5 x 10
33-0315	carbon, 5 x 10
33-0083	carbon, 5 x 20



## Cleaning & Preservative Filter Cartridge Kits

Village Marine Tec.'s single use cleaning and preservative cartridge kits are designed specifically for VMT's RO Systems. The Cleaning and Preservative Cartridges allow for easy and effective membrane maintenance.

The Cleaning and Preservative Cartridge Kits eliminate the hassle and mess of measuring powered chemicals and ensure correct chemical concentrations.

**1 Blue Stripe** Biological cleaner to remove oil, grease, algae and bacteria

**2 Red Stripe** Acidic cleaner to remove scale off membrane surface

**3 Green Stripe** Preserving chemical to be used for long term storage



## Remote Control Panel

Operate and monitor all of the major functions of your watermaker from the comfort of a bridge or salon.

No more trips to the engine room to turn valves or push buttons. The Village Marine Remote Control uses a true pressure regulator that can actually start and stop the system.



## Spares and Consumables

Village Marine Tec. manufactures and stocks 100% of consumables and spare parts. Protect your investment and warranty by using only authorized spares.



### TDS1

Total dissolved solids meter with automatic temperature

compensation. A convenient, portable meter used for checking water quality at any discharge point.

## Ultra Violet Sterilizer

UV Sterilizers made of 316SS kill bacteria and viruses at 99.9% effectiveness. Install on the outlet of the fresh water tank for total protection or in line with the water-maker. An inexpensive option which provides an additional peace of mind.

UV Sterilizer Model	Capacity
VMS-2	7.57 LPM
VMS-4	15.14 LPM
VMS-12	45.42 LPM

12V, 110V or 220V Power Supply



## Dock Side Reverse Osmosis

Fill your tanks with fresh drinking water from any dock with VMT's Dockside Reverse Osmosis system. Manufactured with 316SS pressure vessels, ultra low pressure high-flow membranes, corrosion resistant flow meters, 316SS pressure regulating valve, 316SS mounting hardware and plumbing, and powder coated mounting brackets. Makes up to 11m<sup>3</sup>/day with 7 bar inlet pressure.

Dock Side Model	Capacity LPD
DS 1500	5,680
DS 3000	11,360



## Industrial Media Filter

The Village Marine Tec. Media Filter is a multi-media design, specifically engineered to operate with PW systems. The multi-media layers are optimized to remove particulate matter from the feed stream ahead of the micron filtration system.

The advanced media design reduces iron and manganese in the feed stream.



## Cyclone Separation System

Cyclone Separator Systems - Made from durable, non-corrosive materials. Cyclone Separator Systems are maintenance free and designed for operation in silty waters. Designed for stand-alone operation or in combination with media filtration, the CS systems include boost pump, controls, gauges and valving on a powder-coated skid. A CS system will lengthen maintenance intervals and reduce overall operating costs by minimizing cartridge filter and membrane replacement. With no moving parts to wear out, a Cyclone Separator system will virtually last forever.



## Commercial Media Filtration Systems

Extend micron filter life and reduce maintenance cost by adding a commercial media filter. Designed for commercial operation but practical for private operation. The media filter uses a back-washable, reusable media, which effectively removes particulate matters down to 10 microns, as well as, soluble Iron. System comes complete with boost pump, control box, pressure gauges and valves for easy installation and operation.



Comm. Media Model	Capacity LPD
CMF 400	1,514
CMF 1200	4,540
CMF 2000	7,570

- 316SS Glycerine Filled Gauge for accurate reading of pressure. Indicates when media requires backflush
- Specially Engineered media packages reduces iron and manganese damage to membranes and requires no regeneration

## Industrial Media Filtration Systems Specifications

Model	Max Flow LPD	Flange Connections (mm)			Dimensions L x W x H mm	Dry Weight kg
		Inlet	Outlet	Backwash		
IMF 7000	26,500	38	38	38	1016 x 1219 x 2261	909
IMF 10,000	37,850	38	38	38	1016 x 1219 x 2261	954
IMF 20,000	75,708	38	38	38	1016 x 1219 x 2413	1045



# Oily Water Separator

For Offshore Rigs, Commercial Vessels,  
Cruise Ships and Cargo Ships

VMT Oily Water Separators meet the IMO resolution MEPC.60(33) and MARPOL 73/78 standards of 15 ppm limits for discharge from the machinery bilge spaces of ships. Heavy-duty construction, non-corrosive materials, fail-safe monitoring, permanent oil attractant media, quiet operation and smooth flow result in an easy to use, high quality, affordable solution to your oil separation needs.

The Village Marine Oily Water Separators (OWS) combine simplicity and reliability to produce a fully automatic system that operates continuously with virtually no maintenance.

The VMT OWS utilizes permanent media - which is self cleaning through the flushing cycle - in a unique, two-pass design to produce effluent with exceptionally low oil levels.



## Oily Water Separator Specifications

Model	Max Flow (l/min)	Voltage 50Hz/60Hz	KW	Water Connections*		Dimensions L x W x H mm	Dry Weight kg
				Inlet			
OWS2.2	8.3	220/110 VAC	0.37	19mm FNPT		559 x 533 x 1092	125
OWS4.4	17	220/110 VAC	0.37	19mm FNPT		610 x 610 x 1295	167
OWS8.8	33	220/110 VAC	0.37	32mm FNPT		787 x 914 x 1549	361
OWS11	42	220/110 VAC	0.37	32mm FNPT		787 x 914 x 1549	361

\* All other water connection specifications are 19mm FNPT such as:  
oil outlet, proc. water outlet overboard and proc. water outlet recirculation.



## The Leader in MIL-SPEC Reverse Osmosis Desalination Systems



For over 30 years VMT has been the leading supplier of RO Desalination Equipment to the US Navy and US Coast Guard. We are proud that our steadfast commitment to the design, engineering and manufacture of the worlds most advanced RO equipment has helped improve the quality of life while underway for the men and women who serve. From Potable Water for drinking and showers to High-Purity Permeate for Reactor-Grade applications, Village Marine is your choice for Fresh Water from the sea.

Our in-house design, manufacturing and testing capabilities coupled with our synergistic family of companies are unequalled in the industry and uniquely position VMT to provide the toughest most reliable MIL-SPEC RO equipment.

### US Navy Installations

- Arleigh Burke (DDG 51) Class
- Spruance (DD 963) Class
- Ticonderoga (CG 47) Class
- Tarawa (LHA 1) Class
- Los Angeles (SSN 688) Class
- Ohio (SSN 726) Class
- Avenger (MCM1) Class
- Osprey (MHC51) Class
- Freedom (LCS1) Class
- Virginia (SSN774) Class

### US Coast Guard Installations

- WAGB-11 Polar Sea
- WLB 225' Class
- WMEC 270' Class
- WPB 87' Class
- WMEC 210' Class
- WPB 110' Class

## Design, Manufacturing & Technical Support

### Design Engineering Standards

- MIL-STD-901 (Shock)
- MIL-STD-167 (Vibration)
- MIL-STD-461 (EMI)

### Quality Assurance

- MIL-I-45208A
- T9074-AS-GIB-010/271
- Dye Penetrant
- Magnetic Particle
- Ultrasonic



Village Marine Tec's reverse osmosis desalination systems have been independantly tested and determined to be in accordance with European CE (Conformite Européne). The CE mark, where applied indicates the specific model which complies with all applicable directives.

### Fabrication and Weld Standards

- NAVESEA S9074-AH-GIB-010/22
- NAVESEA S9074-AR-GIB-010/278
- NAVESEA S9074-AQ-GIB-101/248

### Materials and Processes

- SMAW/GMAW/GTAW
- NiCu 400
- Titanium
- Hastelloy C276
- CuNi (70/30 90/10)
- A36 Carbon Steel
- Alumium
- 300 Series SS

### Technical Support

Technical Assistance Team of factory trained personnel to support US Navy and USCG Fleet and other world militaries.

## Also Available From Racor Fuel

### Marine Turbine Series

High-grade aluminium components and powder coat paints mean corrosion is never a worry.



A durable mounting bracket doubles resistance to vibration fatigue.

Polymer bowl withstands impact and temperature extremes.

Aquabloc® II media sheds water and keeps engines waterproof, rustproof, and dirtproof.



75900MAX

### High-Capacity RVFS Series

RVFS Series filter vessels offer a versatile, economical alternative to competitor's vessels. Industry applications include removing liquid and solid contaminations from diesel fuel, gasoline, kerosene, aviation gas, jet fuel, and other lubricating or hydraulic oils. RVFS vessels utilize proven filter design technology and can be used as coalescers, pre-filters, monitors or separators by changing internal components or flow direction, or by selecting optional filter cartridges when ordering.



### Fuel Dispensing

The new FBO-10-MA and FBO-14-MA filter assemblies are designed to meet the toughest hydrocarbon refueling conditions and provide easy filter change-outs. The FBO assembly can flow from 25 GPM (95 LPM) to 75 GPM (230 LPM) depending on the model, the filter installed, and the fuel being filtered.



## Also Available From Racor Oil



### Never Lo Oil Replenishing Systems

Never Lo Oil Replenishing Systems, automatic or manual, provide a constant supply of fresh, clean oil to the engine.

- The AFG Automatic Gravity System continuously monitors engine oil and automatically maintains it at a pre-adjusted level. The system requires no electrical connections and is easy to install
- The Push-Button Manual Pressurized Remote Fill Oil Replenishing System allows an operator to add oil to the engine by simply depressing a valve button until the desired amount of oil has been added. The amount of oil needed is determined by routine dipstick checking. The site gauge is calibrated at two-quart intervals for easy makeup.
- When used in conjunction with the DOC19, the Never Lo Oil Replenishing System provides a constant supply of fresh oil to the engine.

### DOC19 and DOC Plus, Patented Maintenance Systems

DOC19 and DOC Plus patented maintenance systems automatically change oil while the engine is running. The DOC19 systematically removes small amounts of oil from the engine, blends it into the return fuel line, and burns it as fuel - in a simple, efficient closed loop system to keep your vehicle out of the maintenance shop and on the job.

The DOC Plus incorporates Racor's proven gravity-based Never Lo oil replenishing system to continuously replace the oil withdrawn from the engine and burned by the action of the DOC for the ultimate in hands-off oil maintenance. Reduced downtime for engine maintenance means quick payback.



### LFS 800 Series Bypass Oil Filtration

Now, engine owners have the opportunity to combine the Racor Full-Flow Lubrication Filtration System with a highly efficient, environmentally safe Bypass Oil Filtration System.



- 1 Extends the miles between oil changes
- 2 Saves maintenance costs and downtime
- 3 Keeps oil cleaner longer, reducing oil consumption and disposal
- 4 Extends engine life and 're-build' intervals
- 5 Keeps engines better lubricated which means reduced wear
- 6 Removes damaging water

# Also Available From Racor Crankcase



## CV Systems

In an open system, the crankcase breather is connected to the Crankcase Ventilation (CV) filter assembly. The CV outlet is open to atmosphere. This configuration is simple to install and is an effective oil mist removal system for applications which allow crankcase venting to atmosphere.

The only routine maintenance required for the CV system is filter replacement. Typical service life of the high-performance filter in diesel applications is 750 hours.

CV units are designed to handle various crankcase flow rates up to 50 CFM.



## Closed Crankcase Ventilation (CCV) Systems

The outlet of a CCV system is returned to the engine intake system for re-combustion instead of polluting the environment.

Unique crankcase pressure regulator with integral bypass valve minimises variation in crankcase pressure. Excessive variation in crankcase pressure can damage seals, cause loss of oil, and other problems.

There are several models available to handle crankcase flow rates from 1 to 50 CFM.

Pop-up style indicator alerts of bypass condition and need for filter change.

Choose left or right-hand inlet. Available with or without bypass indicator.

High-efficiency oil separation to 0.3 micron.

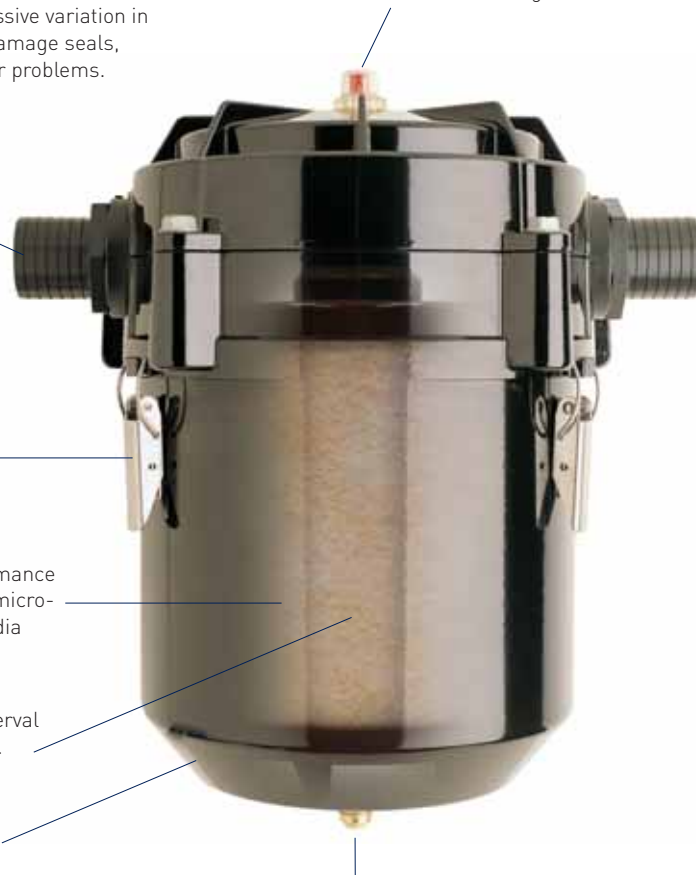
Stainless steel latches for tool-less element change.

Replacement high-performance filter with depth-loading, micro-glass fiber coalescing media

Extended filter service interval from Vaporbloc™ element.

Steel housing with epoxy powder coating

Continuous operating temperature range: -40°F to +240°F (-40°C to 116°C)



Drain check valve allows collected oil to return to crankcase. This eliminates frequent draining and significantly reduces oil consumption.

## Also Available From Racor Air

### Marine Air Filter/Silencers

Reduce Emissions, Clean Up Engine Rooms and Engines

Racor Marine Air Filter/Silencers remove contaminants introduced into the air from both outside and inside the vessel. Sand, salt, carpet fibres and other contaminants are trapped in oil-impregnated Vaporbloc™ filter media. Turbo noise is reduced by the unique design of the housing. An integral hose connection on the housing routes the clean blow-by from the CCV back into the engine.

- Pop-up style indicator alerts operator of a bypass condition and need for CCV Vaporbloc™ filter change
- Air Filter/Silencer is standard with an integral venturi port for CCV connection



- Air filter media is washable
- Optional tap sleeves are available for easy connection of existing air cleaner to CCV assembly
- Prevents turbo and intercooler from fouling

### How the System Works

The engine crankcase breather is connected to the inlet of the Racor CCV assembly. The CCV outlet is connected to the engine's combustion air inlet via an air intake connector where filtered blow-by gas is recycled through the combustion process. Oil collected in the CCV sump is returned to the crankcase through a hose and a drain check valve.



### Replacement Filters

Racor offers direct replacement for the intake air filter operation of competitive air filters/silencers. Also available is the replacement filter for the vacuum limiter air separator.

The filter media for all replacement filters is an oil-impregnated cotton gauze and is sandwiched between pleated, epoxy-coated aluminium wire-mesh polyurethane sealed surfaces. This product is cleanable and must be oiled before using.

### Air Filter Cleaning Kit

For washing and re-oiling Racor cleanable air filters - part number AF M82006.







01422 377367



enquiries@prosep.co.uk

**PROSEP**  
FILTER SYSTEMS LTD

WE ARE YOUR '**ONE STOP SHOP**' FOR ALL  
OF YOUR FILTRATION REQUIREMENTS

**LIQUID FILTRATION**

- CARTRIDGES
- FILTER BAGS
- VESSELS
- STRAINERS

**AIR FILTRATION**

- VENT FILTERS
- STERILE AIR
- VACCUM
- AIR-CONDITIONING
- FILTER MEDIA

**DOMESTIC**

- ULTRAVIOLET
- TREATMENT OF BOREHOLES,  
SPRINGS & WELLS
- WATER TESTING

**FUEL FILTRATION**

- DIESEL, AVIATION



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*for all your filter requirements*