Parker Filtration for the United States NAVY
ENGINEERING YOUR SUCCESS.
Parker Filtration

Filtration is the technology of purifying solids, liquids and gases. Parker filtration systems and products ensure optimal performance for applications in industrial, mobile and marine markets. With extensive engineering expertise in motion and control, market leading breadth of product, and unequaled global distribution, Parker provides innovative components and complete systems to customers worldwide. Parker partners with customers to improve their productivity and profitability. The following is an overview of the Parker Filtration Groups’ commercial products that are ideal for the United States Navy. We are here to help.

### Racor Village Marine Tec. Capabilities (Bulletin # 7845)

The Leader in MIL-SPEC Reverse Osmosis Desalination Systems

For over 30 years Racor Village Marine Tec. 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 world’s 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, Racor Village Marine Tec. is your choice for fresh water from the sea.

### Desalination Systems Installed

**USN surface fleet installations**
- ARLEIGH BURKE CLASS (DDG)
- SPRUANCE CLASS (DD)
- TICONDEROGA CLASS (CG)
- TARAWA CLASS (LHA)
- AVENGER CLASS (MCM)
- OSPREY CLASS (MHC)
- FREEDOM CLASS (LCS)
- CYCLONE CLASS (PC)
- SAN ANTONIO CLASS (LPD 24 AF)

**USN submarine fleet installations**
- LOS ANGELES CLASS (SSN)
- OHIO CLASS (SSBN / SSGN)
- SEAWOLF CLASS (SSN)
- VIRGINIA CLASS (SSN)

**USN carrier fleet installations**
- ENTERPRISE CLASS (CVN-65)
- GERALD R. FORD CLASS (CVN-78)

**USCG installations**
- POLAR CLASS (WAGB)
- JUNIPER CLASS (WLB)
- KEEPER CLASS (WLM)
- MARINE PROTECTOR CLASS (WPB)
- ISLAND CLASS (WPB)
- RELIANCE CLASS (WMEC)
- FAMOUS CLASS (WMEC)
### Offshore Desalination
**SW Series (Bulletin # 7832)**

The SW Series RO desalination systems are designed for rugged use in harsh environments where a large quantity of potable water is required. Typical installations are offshore rigs, work camps, oceanfront resorts, or cruise ships.

### Land Based Desalinators
**SW Modular (Bulletin # 7833)**

The SW Series reverse osmosis desalination systems are designed for high through-put water requirements with minimum electric power use. These efficient and quiet models cover the range of 160, 250 and 350 m$^3$/day (42,000, 66,000 and 93,000 GPD).

### PW Vertical Vertical Series
**(Bulletin # 7833)**

The PW Vertical Series RO desalination systems are designed for installation where minimum footprint space is available and potable water is required on a reliable basis. Typical installations are ocean tugs, expedition/research vessels, commercial fishboats, oceanfront property or large yachts.

### PW Desalinators
**(Bulletin # 7913)**

Racor Village Marine offers the proven components of the industry standard PW Series Watermakers in varied formats to fit special installation requirements. The PWV vertical style requires a very small footprint space. The PWS “swing” semimodular style has a hinged front panel to allow service access to all components from the front.

### Commercial PW Series
**(Bulletin # 7831)**

The PW Series reverse osmosis desalination systems are the preferred choice of fresh water generating equipment for the most discriminating marine operators (such as major oil companies, the United States Coast Guard and the Cousteau Society). They are designed to provide performance and longevity under the most rugged conditions.

### IMF Media Filtration Systems
**(Bulletin # 7862)**

The Racor Village Marine Tec. Media Filtration Systems offer multi-media performance and are specifically engineered to operate with Village Marine PW Series Watermakers. The media layers are optimized to remove particulate matter from the feed stream ahead of the micron filtration system.
Racor Village Marine offers stainless steel (SS316) filter housings specifically designed for seawater use. Simple but secure closure systems allow quick cartridge change. Powder coated shells offer superior corrosion resistance. Fasteners and clamps are stainless steel.

Aqua Pro Pumps “Titan Series” high pressure pumps are the product of years of experience in the desalination industry, and have been specifically designed and engineered for corrosive and high-pressure applications.

Aqua Pro thin film composite reverse osmosis membranes deliver high salt rejection while maintaining high production rates to obtain the energy efficiency demanded by operators.

The model #20200-01 ships service diesel generator lube oil filter housing is for an existing Fairbanks Morse OP type diesel engine installed on LSD-41 class ships.

The Racor Village Marine Tec. Remineralizer Systems offer pH neutralization of RO water and are specifically engineered to operate with PW and SW Series Watermakers. The media restore a buffer capacity to raise pH and reduce fresh water “aggressiveness” against metal pipes and fixtures.

The PW-XP reverse osmosis desalination systems are based on the very popular PW series. They are the preferred choice of fresh water generating equipment for the most discriminating marine operators (such as major oil companies, the US NAVY, the US Coast Guard and the Cousteau Society).
When auxiliary engines demand heavy-duty, high-capacity water separation and fuel filtration, the Marine Turbine Series fuel filter/water separator is the most complete, efficient, and reliable engine protection you can install.

In a robust, compact package, the Racor Closed Crankcase Ventilation (CCV) Filter Systems provide superior oil coalescence and crankcase pressure control under the most severe conditions for diesel engines.

For diesel engines, the Racor Marine Air Filter/Silencers remove contaminants introduced into the air from outside and inside the vessel. Sand, salt, carpet fibers and other contaminants are trapped in the oil-impregnated Vaporbloc™ filter media.

A unique oil cleaning system that puts theoretical filtration principles and mechanisms into practice. Low flow, low pressure, no flow and pressure pulses, and axial filtration combined with special cellulose filter media allow you to achieve advance filtration.

Racor High Flow filter vessels offer economy, versatility, unparalleled high efficiency, and low maintenance solutions for many fuel delivery applications.

Racor ACM20, Parker’s renowned portable particle counter, has been re-engineered and calibrated for use in hydrocarbon fuels and allows quick, easy, and economical fuel condition contaminant detection. A two minute test will allow you to check contamination levels, trends and integrity in a far more consistent, reliable and repeatable way than traditional “clear and bright” methods.
A diagnostic filter cart. The Icount PD particle detector, the most up-to-date technology in solid particle detection, is mounted to the standard frame of the Parker filter cart for enhanced monitoring of your hydraulic system. The Icount PD, coupled with the Parker filter cart is a cost effective solution to fluid management and contamination control.

Racor hydrocarbon filter housings are designed for removing solid contaminants such as dirt, rust, pipe scale and other types of solids from fuels. Racor hydrocarbon vessels are designed for a single pass through the high efficiency cartridges providing clean product downstream.

Racor’s API/EI qualified coalescers are manufactured using multi-layered particulate capture media and a resin-impregnated glass fiber coalescing core. No metal center-tube is used in order to provide efficient coalescence and reduce restriction allowing the filter to be crushable/incinerable for disposal.

A diagnostic filter cart. The Icount PD particle detector, the most up-to-date technology in solid particle detection, is mounted to the standard frame of the Parker filter cart for enhanced monitoring of your hydraulic system. The Icount PD, coupled with the Parker filter cart is a cost effective solution to fluid management and contamination control.

The MPD is ideally suited for critical hydraulic and lubrication applications demanding constant, uninterrupted filtered flow. The rugged ductile iron construction, coupled with a unique modular design concept allows for application flexibility across a variety of markets. This feature-rich product provides real customer benefit with environmentally friendly coreless replacement elements.

Parker’s Fulflo® EcoBond™ Cartridges are the most economical high purity filter cartridges available. Featuring a graded density matrix of uniform polypropylene fibers, the EcoBond™ provides consistent filtration for a wide variety of fluids. No fiber finish or surfactants are present to generate extractable leading to foaming or other undesirable effects on the filtrate.
Compressed air contamination problems can be avoided by installing a Parker Domnick Hunter low pressure (LP) heatless desiccant compressed air dryer which provides a continuous supply of clean, oil-free and dry compressed air.

The Parker Domnick Hunter five stage high pressure (HP) compressed air purification system provides a continuous supply of clean, oil-free and dry compressed air at a maximum working pressure of 276 bar g.

The regenerative CO₂ reduction system from Parker Domnick Hunter can provide a continuous supply of high quality diving or emergency breathing air from a high pressure compressed air supply. The five stage filtration process can reduce CO₂ levels from 10,000 ppm (1%) to a safe level of less than 500 ppm (0.05%).

Compressed air contamination problems can be avoided by installing a Parker Domnick Hunter High Pressure Combination Unit (HPCU) which provides a continuous supply of clean oil-free air. The HPCU consists of a water separator, a high efficiency coalescing filter and an oil vapour removal filter in a compact, robust package which is designed to operate at pressures up to 350 bar g (5075 psi g).

The Parker Domnick Hunter range of high pressure breathing air purifiers can be used with most high pressure compressed air systems up to 350 bar g (5075 psig). The HPBA purifiers offer complete protection against carbon monoxide (CO) and carbon dioxide (CO₂). All purifiers in the range are designed for easy installation, operation and maintenance with simple in-line connections.

High flow duplex filter strainer assembly, with cleanable filter cartridges rated for 20 micron absolute. Porting connections are 4” and 6” ANSI flange. Naval duplex filter models include 400DD, 610, 620 and BVD filter series designed and tested conforming to shock requirements for U.S. Naval vessels.
Parker Fulflo® Flo-Pac® Cartridges are the perfect choice for many filtration requirements. Flo-Pac pleated cartridges contain premium grade, phenolic impregnated cellulosic filter media. Parker’s line of pleated cartridges is designed for critical filtration applications, providing long service life, high flow rate and low pressure drop.

The unique construction of Parker’s patented* Fulflo® XTL” (extended life) cartridges provides twice the average life of conventionally wound cartridges for process fluid filtration. Computer modeling has optimized the wound cartridge geometry maximizing the use of the internal cartridge surface area.

The Guardian is a versatile system designed to be easily carried from job to job. The Guardian quickly (4 gpm) transfers and filters hydraulic fluid. Several different types of elements are available to match the filtration needs of your application.
At Parker, we’re guided by a relentless drive to help our customers become more productive and achieve higher levels of profitability by engineering the best systems for their requirements. This means looking at customer applications from many angles to find new ways to create value. Whatever the motion and control technology need, Parker has the experience, breadth of product and global reach to consistently deliver.

No company knows more about motion and control technology than Parker.

For further info call 1 800 C-Parker
(1 800 272 7537).

**AEROSPACE**
- Aircraft engines
- Business & general aviation
- Commercial transports
- Land-based weapon systems
- Military aircraft
- Missiles & launch vehicles
- Regional transports
- Unmanned aerial vehicles

**CLIMATE CONTROL**
- Agriculture
- Air conditioning
- Food, beverage & dairy
- Life sciences & medical
- Precision cooling
- Processing
- Transportation

**ELECTROMECHANICAL**
- Aerospace
- Factory automation
- Food & beverage
- Life science & medical
- Machine tools
- Packaging machinery
- Paper machinery
- Plastics machinery & converting
- Primary metals
- Semiconductor & electronics
- Textile
- Wire & cable

**FLUID & GAS HANDLING**
- Aerospace
- Agriculture
- Bulk chemical handling
- Construction machinery
- Food & beverage
- Fuel & gas delivery
- Industrial machinery
- Mobile
- Oil & gas
- Transportation
- Welding

**HYDRAULICS**
- Diagnostic equipment
- Hydraulic cylinders & accumulators
- Hydraulic motors & pumps
- Hydraulic systems
- Hydraulic valves & controls
- Power take-offs
- Rubber & thermoplastic hose & couplings
- Tube fittings & adapters
- Quick disconnects

**PNEUMATICS**
- Air preparation
- Compact cylinders
- Field bus valve systems
- Grippers
- Guided cylinders
- Manifolds
- Miniature fluidics
- Pneumatic accessories
- Pneumatic actuators & grippers
- Pneumatic valves and controls
- Rodless cylinders
- Rotary actuators
- Tie rod cylinders
- Vacuum generators, cups & sensors

**PROCESS CONTROL**
- Analytical sample conditioning products & systems
- Fluoropolymer chemical delivery fittings, valves & pumps
- High purity gas delivery fittings, valves & regulators
- Instrumentation fittings, valves & regulators
- Medium pressure fittings & valves
- Process control manifolds

**FILTRATION**
- Food & beverage
- Industrial machinery
- Life sciences
- Marine
- Mobile equipment
- Oil & gas
- Power generation
- Process
- Transportation

**SEALING & SHIELDING**
- Aerospace
- Chemical processing
- Consumer
- Energy, oil & gas
- Fluid power
- General industrial
- Information technology
- Life sciences
- Military
- Semiconductor
- Telecommunications
- Transportation

**SEALING & SHIELDING**
- Dynamic seals
- Elastomeric o-rings
- EMI shielding
- Extruded & precision-cut, fabricated elastomeric seals
- Homogeneous & inserted elastomeric shapes
- High temperature metal seals
- Metal & plastic retained composite seals
- Thermal management
### Worldwide Filtration Manufacturing Locations

#### North America

**Compressed Air Treatment**
Filtration & Separation/Balston
Haverhill, MA
978 858 0505
www.parker.com/balston

**Finite Airtek Filtration**
Airete/domnick hunter/Zander
Lancaster, NY
716 686 6400
www.parker.com/faf

**Finite Airtek Filtration/Finite**
Oxford, MI
248 628 6400
www.parker.com/finitefilter

#### Engine Filtration & Water Purification

**Racor**
Modesto, CA
209 521 7860
www.parker.com/racor

**Racor**
Holly Springs, MS
662 252 2656
www.parker.com/racor

**Racor**
Beaufort, SC
843 846 3200
www.parker.com/racor

**Racor – Village Marine Tec.**
Carson, CA
310 516 9911
desalination.parker.com

**Hydraulic Filtration**

**Hydraulic Filter**
Metamora, OH
419 644 4311
www.parker.com/hydraulicfilter

Laval, QC Canada
450 629 9594
www.parkerfarr.com

**Process Filtration**
domnick hunter Process Filtration
Oxnard, CA
805 604 3400
www.parker.com/processfiltration

#### Europe

**Compressed Air Treatment**
domnick hunter Filtration & Separation
Gateshead, England
+44 (0) 191 402 9000
www.parker.com/dhfns

**Parker Gas Separations**
Etten-Leur, Netherlands
+31 76 508 5300
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