



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





# Parker Village Marine Water Desalination Systems





ENGINEERING YOUR SUCCESS.



Forward Thinking in Reverse Osmosis Engineering

For over 30 years, Parker Village Marine (VMT) 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 oilrigs, deserts, and disaster areas.

NASA and FEMA relied on Parker Village Marine to develop a self-contained reverse osmosis plant for its disaster relief program. The Navy asked Parker Village Marine for water so pure, it could be used with the nuclear reactors on its submarines. Catalina Island sought our help to ensure a steady water supply in drought conditions. When Hurricane Katrina hit New Orleans, the Army counted on us to keep a hospital open. The research required for high-profile government projects has enabled Parker Village Marine engineers to develop innovative ways to produce the most reliable RO systems in the world.

## Always ready to respond.

Parker Village Marine's entire team is prepared to meet the needs of its customers and distributors at any time. Parker Village Marine's flexibility quickly takes ideas from concept to reality and enables the development of field-proven systems to meet the requirements of any application, in any environment, around the world.

## A legacy of performance.

Parker Village Marine received the prestigious Aegis Excellence Award as the only RO supplier to excel in quality and delivery, surpassing U.S. Navy expectations. After the first Parker Village Marine reverse osmosis system was designed and installed on the U.S. Navy Submarine USS Dolphin in 1983, the systems had to undergo rigorous testing before additional installations could be approved. Passing every test, Parker Village Marine's plants worked flawlessly, 24/7 for 90 days straight.

### 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.

Parker Village Marine's experience in designing RO systems for Navy submarines has helped us create the quietest leisure and commercial watermakers on the market. A five-plunger pump, a pressure regulation system and other carefully chosen components are engineered in as standard in many of the systems to reduce noise and vibration.

# The ultimate barrier to impurities.

Salts, minerals and organics are no match for Aqua Pro<sup>®</sup> spiral wound membranes, which remove impurities from seawater, brackish water, fresh water and tap water. Nano and ultra filtration membranes are also available. Proven processes are used in the design, development, testing and manufacturing of Aqua Pro spiral wound membranes. This dedicated attention to detail includes using the highest grade of polyamide thin-film composite materials for standard and custom membranes to ensure their ultimate performance and integrity. Parker Village Marine also manufactures cartridge and string filters to fit standard and custom filter housings.

### Quality at the source.

The superior quality components that go into Parker Village Marine systems ensure that each one is built to the highest standards for safety, maintainability and reliability. The highest grades of raw materials are precisely machined and thoroughly tested to exacting customer requirements and industry specifications. By controlling the source and processes from the raw material to the final product, lead times are reduced to achieve on-time delivery, every time.

Providing the most innovative and reliable RO purification systems for seawater, brackish water and tap water, from energy-saving 145 GPD watermakers to high-performance 250,000 GPD system is what has established Parker Village Marine 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 Parker Village Marine. A global leader in the innovative application of reverse osmosis technology.



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Parker Village Marine industrial water treatment systems for brackish and tap water applications. See brochure number VMT0041

WARNING – USER RESPONSIBILITY

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

- This document and other information from Parker-Hannifin Corporation, its subsidiaries and authorized distributors provide product or system options for further investigation by users having technical expertise.
- The user, through its own analysis and testing, is solely responsible for making the final selection of the system and components and assuring that all performance, endurance, maintenance, safety and warning requirements of the application are met. The user must analyze all aspects of the application, follow applicable industry standards, and follow the information concerning the product in the current product catalog and in any other materials provided from Parker or its subsidiaries or authorized distributors.
- To the extent that Parker or its subsidiaries or authorized distributors provide component or system options based upon data or specifications provided by the user, the user is responsible for determining that such data and specifications are suitable and sufficient for all applications and reasonably foreseeable uses of the components or systems.

# The Inside Story



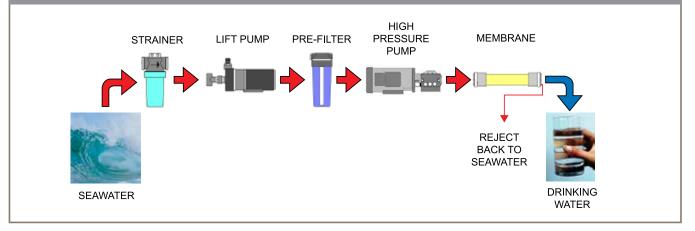
# **STW Series Watermaker**



To maintain peak performance always use genuine Parker Village Marine replacement parts. We reserve the right to change our specifications or standards without notice.



# **Reverse Osmosis System**



# Leisure Marine



# **Stowaway Series**

400-800 GPD (1,500-3,000 LPD) For powerboat and ocean yachts applications



Village Marine - Stowaway (See bulletin no. 7861)

The Stowaway Series offers fresh water independence for ocean crossings, extended fishing trips or cruising where dock supplies are unreliable.

The Stowaway Series features a semi modular frame format, which maximizes installation flexibility. The frame is compact and can be above or below water line. The boost pump and prefilters are supplied as loose items. The watermaker can be operated and monitored from the electronic remote control.

# Key Features:



Aqua Pro® Pump 708-3

Triplex Titanium pump for low vibration and low noise with unsurpassed corrosion resistance.



## Remote Control Panel

Touchscreen panel allows complete watermaker control at your fingertips. Remote control panel is included as standard equipment.

# **Little Wonder Series**

145-200 GPD (550-760 LPD) For sailboat applications



Parker VMT-LWM Modular with Pump/Motor

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 highpressure pump. Result is the most reliable, field serviceable, quiet, efficient and economical source of fresh water available in the industry. Available in modular configurations with water output ranging from 145 to 200 GPD.

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

(See bulletin no. 7829)

# Optional Accessories



Optional salinity monitor and diversion valve available

(See bulletin no. 7972)



Optional remote instrument panel available for modular units

# Sea Quencher Series

145-200 GPD (550-760 LPD) For powerboat and sailboat applications



Parker Village 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. The SQ Series is a best value for the investment and are in operation around the world.

SQ 200 Sea Quencher (760 LPD) (See bulletin no. 7829)

# Leisure Marine (Continued)



# **Pure Water Vertical Series**

800-2,000 GPD (3,000-7,500 LPD) For large yachts, commercial marine applications and seaside properties



VMT-PWV2000 Vertical Frame System with front door open for maintenance access. (7,500 LPD) (See bulletin no. 7913)

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 prefilter 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.



# **LT Series**

400-1,800 GPD (1,500-6,750 LPD) For power boats, sailboats and commercial vessels applications



LT 800 (3,000 LPD) (See bulletin no. 7935)

# **Key Features:**



Models 400 and 600 can be configured with membranes mounted on top or back of frame.



Optional Remote with water quality indicator, comes with 50 ft. cable. P/N 90-0119

The LT desalinator offers fresh water independence for ocean crossings, extended voyages or cruising where dock water supplies are unreliable.

The units feature a semi modular frame format, for installation flexibility. The frame is compact and can be above or below the water line. The boost pump and prefilters are supplied as loose items.



# **Commercial Marine**



# Pure Water Series 400-2,000 GPD (1,500-7,500 LPD)



The Pure Water (PW) Series is designed to provide installation flexibility, superior performance, and extended service life in the most rugged conditions. Designed for 24/7, continuous-duty applications, where reliable fresh water supply is critical.

The fully framed unit is standard, however semimodular and fully modular versions are also available.

# Key Feature



At the core of each PW series watermaker are the AquaPro<sup>®</sup> high rejection seawater membranes to ensure high quality potable water supply.

VMT-PW 400-2,000 GPD (1,500-7,500 LPD) Horizontal Frame System (See bulletin no. 7783)



VMT-PW 400-2,000 GPD (1,500-7,500 LPD) Semi-Modular System (See bulletin no. 7783)



Manual Fresh Water Flush

# **Pure Water Series**

3,000-20,000 GPD (11,000-75,500 LPD)



VMT-PW 3,000-20,000 GPD (11,000-75,500 LPD) Horizontal Frame System (See bulletin no. 7831)

# Key Feature



At the core of each PW series watermaker is the Aqua Pro 3 or 5 plunger titanium high pressure pump.

# LTM Series Modular Watermaker

500-1,800 GPD (1,800-6,800 LPD)



(See bulletin no. 7986)

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 Navy, The United States Coast Guard and The Cousteau Society).

Thousands of installations have proven this series to be the most reliable on the market. They are designed to provide performance and longevity under the most rugged conditions.

# **Modular Configuration**



The LTM Series offers high quality Parker Village Marine engineered components with straightforward manual operation. Driven by AC motors (from genset power), the modular configuration comes in ready to mount modules for flexible installation options. Integral to every LTM unit are a stainless steel pressure regulator and bypass valve.

# Key Feature



Optional salinity monitor and diversion valve system for water quality assurance.

Salinity monitor and diversion valve

(See bulletin no. 7972)

# Commercial Marine (Continued)



# **LT Series**

3000-7000 GPD (11,000-26,000 LPD) Practical and reliable fresh water supply



(See bulletin no. VMT0001)

The LT desalinator offers a simple watermaker package with a compact frame and small footprint.

Parker VMT LT systems have a base frame only 40" wide x 33" deep, allowing a high capacity and high quality watermaker installation in a tight space.

# Key Feature

# Installation Flexibility



LT units can be supplied with an optional media filter system. Also membrane rack can be mounted horizontally or as a module for remote bulkhead mounting.

(See bulletin no. VMT0001)

# **Bilgewater Membrane Separator**

BMS-350, BMS-500, BMS-1000, BMS-2000, and BMS-2500



Parker VMT's oily water separators meet the IMO Resolution MEPC 107(49). Parker VMT units are an advanced three-stage system optimizing the separation and removal of free and emulsified oils.

Heavy duty construction, corrosion resistant materials, permanent oil attractant media, quiet operation, automatic diversion valves and advanced Parker VMT membrane technology result in an easy to use, fully automated, high quality, affordable solution to meet your bilge water treatment needs. (See bulletin no. 7882)

# **Key Features**

- USCG Certified to meet IMO MEPC 107(49 regulations
- MEPC 107(49) certified oil content monitor included
- Advanced three-stage design for maximum oil separation
- Fully automated system
- Parker VMT membrane technology specifically designed for bilge water treatment
- System employs a self-cleaning cycle for prolonged membrane service life
- Certified compliant with European Union Marine Directive 96/98/EC section A.1/2.1 Oil Filtering Equipment

# **Bilgewater Adsorbent Separator**

BAS-500, BAS-1000, BAS-2000, and BAS-2500



Heavy duty construction, corrosion resistant materials, permanent oil attractant media, quiet operation, automatic diversion valves and advanced oil adsorbent media technology result in an easy to use, high quality, affordable solution to meet your bilge water treatment needs. (See bulletin no. VMT0014)

# Key Features

- USCG Certified to meet IMO MEPC 107(49) regulations
  - MEPC 107(49) certified oil content monitor included
- Advanced three-stage design for maximum oil separation
- Automated oil flush system
- Compact design minimizes installation requirement
- Certified compliant with European Union Marine Directive 96/98/EC section A.1/2.1 Oil Filtering Equipment

# Offshore Oil & Gas



# **Offshore PW-XP Series**

Explosion proof desalinators 3,000-20,000 GPD (11,000-75,500 LPD)



Explosion proof configuration available:

- NEC rating, class I, division I, group D
- IEC 60079-10 Electrical apparatus for explosive gas atmospheres Zone 2 hazardous area, gas group IIA, temp class T3

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).

The PW series represents years of refinement to packaged RO system design, and provides a better value over custom designed systems.

# Key Feature



Explosion proof control box with E-stop and metallic cable glands; connected with armored cables

# **Sea Water Series**

24,000-40,000 GPD (91,000-150,000 LPD) For offshore rigs, work camps, seaside properties and cruise ships



SW Series Front side view





Right side view

Back side view

# **CC** Series

2,000-26,000 GPD (7,500-100,000 LPD) For Offshore MODU, FSO, FPSO, and drill 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.

Parker Village Marine - SW32 model is installed on a single skid 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 Parker Village Marine, provide maximum corrosion resistance. Straight-forward, easy to understand controls, result in reliable operation. (See bulletin no. 7832)

The CC Series watermakers provide engineered solutions to meet customer specifications in harsh offshore applications. Each one is configured with all accessories in a single box frame. Various pre-treatment and posttreatment options are available.

(See bulletin no. 7982)



# **Disaster** Relief



# Portable Container Mounted Watermaker

LB-20K



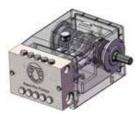
Portable Container Mounted Watermaker LB-20K (See bulletin no. VMT0006)

Parker Village Marine LB-20K is a complete watermaker system to convert seawater, brackish water or contaminated water into drinking water. Comes complete with generator, supply pump and storage tanks to go into operation quickly. Standard 20 foot ISO container can be transported by road, rail or by sea. Ready to deploy wherever temporary or emergency potable water is required.

# **Key Features**



Collapsible storage tanks



Titanium head 5P70 high pressure pump

# **Parker Ultra Filter**

RUF-25 and RUF-30



RUF-25 shown with solar panels





Parker Village Marine RUF units provide fresh water filtration that is truly portable and independent. The RUF-25 or RUF-30 will process 25 or 30 gallons per hour from 12 volt vehicle auxiliary power (cigarette lighter). Optional lightweight folding solar power version provides 25 gallon per hour production from sunlight. Water treatment includes 20 micron sediment filtration, carbon filtration, ultrafiltration membranes and ultraviolet radiation.

Note: the RUF systems are not for seawater or brackish water applications. (See bulletin no. VMT0028)

# Key Features



Solar power option panels fold for stowage on top of the backpack frame



RUF-30 Hard shell case provides convenient storage and transport

RUF-25 with solar Setup time is 5 to 10 minutes after deployment

# Defense



# MIL-SPEC Reverse Osmosis Desalination Systems

For over 30 years Parker Village Marine has been a 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

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)

the quality of life while underway for the men and women who serve. From potable water for drinking and showers to highpurity permeate for various shipboard applications, Parker Village Marine is your choice for fresh water from the sea.

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)

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

**USCG** installations

- POLAR CLASS (WAGB)
- JUNIPER CLASS (WLB)
- KEEPER CLASS (WLM)
- MARINE PROTECTOR CLASS (WPB)
- ISLAND CLASS (WPB)
- RELIANCE CLASS (WMEC)
- FAMOUS CLASS (WMEC)

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

# Fabrication and weld standards

• NAVESEA \$9074-AH-GIB-010/22

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

# Materials and processes

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

Technical support Technical assistance personnel who are factory trained to support the US Navy and USCG fleets.

(See bulletin no. 7845)



# Accessories & Options



# **AquaPro® Membranes and Filters**

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.

Pleated filters are designed for reverse osmosis application and offer superior service life to wound or polyspun cartridges. The cartridge size to flow rate ratio is lower than most filters on the market. A wide range of in-stock sizes and micron ranges fit most standard filter housings on the market today.

(See bulletin no. 7905)





# AquaPro<sup>®</sup> Pumps

Innovative engineering Solid material choices

Provide and the second

Titan Series High pressure titanium pump 708-3



Titan Series High pressure titanium pump 708-5



Quiet and durable, Aqua Pro Titan Series Pumps are dependable and specifically designed for re-

verse 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.

(See bulletin no. 7885)

Titan Series High pressure titanium pump 3P20



Titan Series High pressure titanium pump 5P50HD and 5P100HD



Titan Series High pressure titanium pump 10P200HD

# **Key Features**

- Titanium pump heads ensure reliable operation and minimal maintenance.
- Titanium fluid ends and titaniumbacked nylon valves are impervious to sea water corrosion.
- Heavy-duty industrial drive end and corrosion/wear-resistant plungers ex-

tend service life in high pressure applications.

• The combination plunger pump and pressure regulation design reduces noise and vibration to provide quiet, smooth operation.

# Accessories & Options (Continued)



# Spares and Consumables



Parker Village Marine consumables and spare parts are stocked at Parker marine distributors worldwide. Protect your investment and warranty by using only authorized spares.

(See bulletin no. 7905)

# Stowaway Watermaker Master Control Panel



(See bulletin no. 7972)

Parker Village Marine brings customers a new level of watermaker control and ease of operation. The Parker Watermaker Control Panel delivers advanced Parker technology at your fingertips.

Available now on the Stowaway series of watermakers from Parker Village Marine. (See bulletin 7861)

# Pressure Vessel Assemblies



Ultraviolet Light Germicidal System



# Commercial Media Filtration Systems



# Filter Housings



(See bulletin no. 7940)



100-X

30-S

Parker Village Marine RO membrane pressure vessels feature non-metallic wetted surfaces for excellent corrosion resistance. Simple end plug design allows quick removal for element servicing. If the size you require is not shown please contact us for custom builds.

(See bulletin no. 7898)

Parker Village Marine Ultraviolet Light Germicidal Systems effectively kill bacteria and viruses with a 99.9% efficiency.

Built to last, the VMS-3 is constructed with a stainless steel housing, high purity quartz flow tube and high output, long life bulb.

The VMS-3 is typically installed in the distribution system or near the point of use to ensure safe, pure drinking water. There are no chemicals added to the water and no chemical aftertaste.

(See bulletin no. 7909)

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. System comes complete with boost pump, control box, pressure gauges and valves for easy installation and operation.

(See bulletin no. 7868)

Parker Village Marine offers fiberglass and 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.

(See bulletin no. 7914)

# Accessories & Options (Continued)



# **RMF** Remineralizer Systems



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

(See bulletin no. 7903)

# **IMF Media Filtration Systems**



Parker Village Marine 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.

(See bulletin no. 7862)

# **Racor Products and Systems**



### Fuel 7529 Key Products

# Diesel Spin-on

- Pump Cartridge
- Pump Spin-on
- Turbine Series
- Biodiesel Systems
- Alternative Fuel
- Electric Heaters
- Service Indicators
- Bowl Upgrade Kits



## **Air** 7539

### **Key Products**

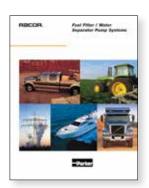
- ECO Spin-on Systems
- Ember Separators
- Pamic High Capacity
- Single Stage Dynacell
- Heavy-Duty Standard Air Filters Small/Medium Applications
- Pre-Cleaners
- Replacement Elements
- Service Kits



## Crankcase 7790

## **Key Products**

- Closed Crankcase
- Open Crankcase
- Hose Kits
- Marine Air Filters
- Hose Adapters
- Bulk Hose
- Conversion Kits
- CCV Heater Kits
- Filter Gauge
- Tap Sleeves



### Pump 7683 Key Products

- Smart Pump System
- Integrated Filter/Separator
   Pump
- Fuel Conditioning Modules
- Turbine Series Electric
   Primer Pump Kits
- Manual Primer Pump



## Fuel Dispensing 7537

## **Key Products**

- Filter Cartridges
- Filter Vessels
- FBO Filters
- RVFS Series Vessels
- Microfilter Vessels
- Industrial Filter/Water Separator Vessels
- Fuel Monitors
- Fuel Conditioning



## Fuel Additives 7518

# Key Products

- Biodiesel Challenges
- Diesel Performance Plus+
- Diesel Conditioner Plus+
- Diesel Biocide
- Diesel Winter Plus+
- Gasoline Conditioner
   Plus+



# Lubrication Filtration 7460

# **Key Products**

- Integrated Oil/Fuel Systems
- Media Research
- Bypass Filtration
- Hydraulic Filtration
- Oil Analysis Kit
- Par Fit Oil Filters
- Engine Oils

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# Sentinel Protection 7330

# **Key Products**

- Master ControlCPV Coolant Valve
- SVK Fuel Solenoids
- SVK Fuel Soleriolus
  STV Self Test Valve
- Orifice Selection
- Testing
- resunç
- Heat Sentinel
- Troubleshooting

# **Parker's Motion & Control Technologies**

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. It 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

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- **Key Markets** Aircraft engines
- Business & general aviation
- Commercial transports
- Land-based weapons systems Military aircraft
- Missiles & launch vehicles
- Regional transports
- · Unmanned aerial vehicles

#### **Kev Products**

- Flight control systems ٠ & components
- Fluid conveyance systems
- Fluid metering delivery & atomization devices
- Fuel systems & components
- Hydraulic systems & components
- Inert nitrogen generating systems
- Pneumatic systems & components Wheels & brakes

#### **CLIMATE CONTROL**

- **Key Markets**
- Agriculture •
  - Air conditioning
    - Food, beverage & dairy Life sciences & medical

    - Precision cooling Processing
    - Transportation

#### **Kev Products**

- ٠ CO<sup>2</sup> controls •
- Electronic controllers Filter driers
- Hand shut-off valves
- Hose & fittings
- Pressure regulating valves .
- Refrigerant distributors ٠
- Safety relief valves Solenoid valves

PNEUMATICS

. Conveyor & material handling

Factory automation

Life science & medical

Packaging machinery

Compact cylinders Field bus valve systems

Transportation & automotive

Food & beverage

Machine tools

Air preparation

Guided cylinders

Miniature fluidics

Rodless cylinders

Rotary actuators

Tie rod cylinders

Pneumatic accessories

Pneumatic actuators & grippers

Vacuum generators, cups & sensors

Pneumatic valves and controls

Manifolds

**Key Products** 

**Key Markets** 

٠ Aerospace

•

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•

• Grippers

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. Thermostatic expansion valves

## ELECTROMECHANICAL

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

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#### Ke y Products AC/DC drives & systems

- Electric actuators
- Controllers
- Gantry robots Gearheads

  - Human machine interfaces Industrial PCs
- Inverters
- Linear motors, slides and stages • Precision stages
- Stepper motors
- Servo motors drives & controls Structural extrusions

PROCESS CONTROL

Food, beverage & dairy

Analytical sample conditioning

Fluoropolymer chemical delivery

High purity gas delivery fittings,

Instrumentation fittings, valves

Process control manifolds

Medium pressure fittings & valves

Chemical & refining

Medical & dental

Microelectronics

Power generation

products & systems

valves & regulators

& regulators

fittings, valves & pumps

Oil & gas

**Key Products** 

**Key Markets** 

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#### FILTRATION

- **Key Markets** Food & beverage
- Industrial machinery
- Life sciences
- Marine
- Mobile equipment
- Oil & das Power generation
- Process
- Transportation

#### **Key Products**

- Analytical gas generators Compressed air & gas filters
- Condition monitoring
- Engine air, fuel & oil filtration
- & systems Hydraulic, lubrication &
- coolant filters Process, chemical, water
- & microfiltration filters
- Nitrogen, hydrogen & zero air generators

**SEALING & SHIELDING** 

Chemical processing

Energy, oil & gas

General industrial

Information technology

**Key Markets** 

Consumer

Fluid power

Life sciences

Semiconductor

Transportation

Dynamic seals

EMI shielding

Elastomeric o-rings

elastomeric shapes

Thermal management

Extruded & precision-cut,

Homogeneous & inserted

fabricated elastomeric seals

High temperature metal seals

Metal & plastic retained composite seals

Telecommunications

Military

**Kev Products** 

• Aerospace

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#### FLUID & GAS HANDLING **Kev Markets**

- Aerospace
- Agriculture
- Bulk chemical handling Construction machinery
- Food & beverage
- Fuel & gas delivery
- Industrial machinery
- Mobile
- Oil & gas
- Transportation
- Weldina

#### **Key Products**

- Brass fittings & valves Diagnostic equipment
- Fluid conveyance systems
- Industrial hose
- PTFE & PFA hose, tubing &
- plastic fittings
- Rubber & thermoplastic hose & couplinas Tube fittings & adapters
- Quick disconnects

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#### HYDRAULICS **Key Markets**

Aerospace

Agriculture

Forestry

Mining ٠

Oil & das

**Key Products** 

Construction machinery

Power generation & energy

Industrial machinery

Truck hydraulics

Diagnostic equipment

Hydraulic motors & pumps

Hydraulic valves & controls

Rubber & thermoplastic hose

Tube fittings & adapters

Hydraulic cylinders & accumulators

Hydraulic systems

Power take-offs

Quick disconnects

& couplings

٠ Aerial lift

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### North America

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www.parker.com/balston

**Finite Airtek Filtration** Airtek/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

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

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

#### Village Marine, Sea Recovery, Horizon Reverse Osmosis

Carson, CA 310 637 3400 www.parker.com/watermakers

### **Hvdraulic 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

Madison, WI 608 824 0500 www.scilog.com

Phoenixville, PA 610 933 1600 www.parker.com/processfiltration

# Aerospace Filtration Velcon Filtration

Colorado Springs, CO 719 531 5855 www.velcon.com

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