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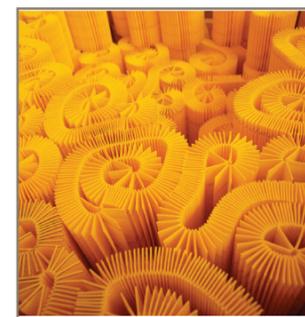
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aerospace
 climate control
 electromechanical
 filtration
 fluid & gas handling
 hydraulics
 pneumatics
 process control
 sealing & shielding



Parker Racor Division

Filtration Solutions and Engineered Systems



ENGINEERING YOUR SUCCESS.

Parker Filtration's Products and Systems



AEROSPACE

Key Products

- Filter Vessels (API/IP)
- Fluid Conditioning Monitors (Fuel & Hydraulic)
- Fuel Filter/Water Separators
- Fuel Inerting Systems (OBIGGS)
- Fuel Loading Filters (API/IP)
- Fuel, Hydraulic, & Lubrication Filters
- Nitrogen Tire Inflation Systems

FOOD & BEVERAGE

Key Products

- Carbon Dioxide Purifiers
- Compressed Air Dryers
- Fiber & Membrane Filters
- Nitrogen Generators
- Stainless Steel Filter Housings
- Steam & Sterile Air Filters
- Validation Test Equipment
- Water Chillers
- Water Filters

INDUSTRIAL & PLANT EQUIPMENT

Key Products

- ASME Coded Vessels
- Compressed Air Filters
- Condensate Management
- Contamination Monitoring
- Desiccant Dryers
- Membrane Filters & Dryers
- Refrigerated Dryers
- Hydraulic Filters
- Oil/Water Separators
- Process Filters
- Portable Hydraulic Systems

LIFE SCIENCES

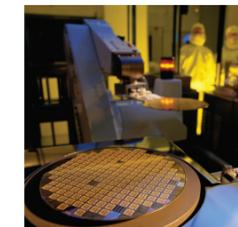
Key Products

- Breathing Air Filters & Systems
- Chillers
- Compressed Air Filters
- Filter Integrity Analyzers
- Gas Sterilization Filters
- High Purity Gas Filters
- Hydrogen Gas Generators
- Nitrogen TriGas Systems
- Sterile Water Filters
- Syringe Filters

MARINE

Key Products

- Air Intake Filters
- ASME High Flow Vessels
- Crankcase Emission Filter Systems
- Fuel Dispensing Filters
- Engine Fuel Filter/Water Separators
- Engine Oil & Coolant Filters
- Gasoline Filters
- Hydraulic Filters
- Hydrocarbon Fluid Filters
- Oil/Water Separators
- Submarine CO₂ Reduction Units
- Water Desalination & Purification Systems



OIL & GAS

Key Products

- Air Intake Filters
- ASME High Flow Vessels
- Compressed Air Filters & Dryers
- Compressed Air Water Separators
- Crankcase Emission Filter Systems
- Engine Fuel Filter/Water Separators
- Engine Oil & Coolant Filters
- Fluid Condition Monitoring Systems
- Fuel Dispensing Filters
- Hydraulic Filters
- Hydrocarbon Fluid Filters
- Integrity Test Equipment
- Nitrogen Generators
- Mechanical Separators
- Membrane & Sterile Air Filters
- Oil/Water Separators

POWER GENERATION

Key Products

- Air Intake Filters
- ASME High Flow Vessels
- Bioenergy Water Chillers
- Crankcase Emission Filter Systems
- Engine Fuel Filter/Water Separators
- Fluid Condition Monitoring Systems
- Fuel Dispensing Filters
- Load Tap Filters
- Hydrogen Generators
- Magnetic Prefilters
- Nitrogen Generators
- Portable Hydraulic Systems
- Water Sensors

PROCESS

Key Products

- Alternative Gas Dryers & Absorbers
- Bag Filters
- Compressed Air Dryers
- Instrumentation Filters
- Nitrogen Generators
- Oil Absorption Filters
- Pleated Filter Cartridges
- Process Filters
- Semiconductor Filter Cartridges
- Stainless Steel Prefiltration Vessels
- Zero Air Generators

TRANSPORTATION & MOBILE EQUIPMENT

Key Products

- Air Intake Filters
- Alternative Fuel Filters
- ASME High Flow Vessels
- Crankcase Emission Filter Systems
- Fuel Delivery Systems
- Fuel Dispensing Filters
- Fuel Filter/Water Separators
- Multi-stage Filter Systems
- High Pressure Natural Gas Filters
- Nitrogen Tire Inflation Systems
- Suction & Return Line Hydraulic Filters
- Transmission Filters
- Truck & Railway Dryers

WATER

Key Products

- Desalination & Purification Systems
- Oil Absorption Filters
- Oil/Water Separators
- Pleated Filter Cartridges
- Stainless Steel Prefiltration Vessels
- Sterile Water Filters

Racor Division

Your Partner in Filtration Technology



Parker Hannifin Corporation, global leader in motion and control technologies, delivers an unmatched breadth of engineered products and solutions. Our commitment to our customers is backed by the strength that comes from over 90 years of knowledge and experience.

About Racor.

For over forty years Parker's Racor Division has been one brand of fuel filtration systems that has earned the confidence and respect of engine and equipment builders, owners and operators around the world.

Leading edge technology and continuous innovation are designed into every system, and genuine Aquabloc® filters have set the global standard.

In every configuration, at every flow rate, and in any operating environment, Racor is the most trusted name in engine protection. Why trust your investment to anything less?



Oil Filtration

Engineered Solutions For Your System



Absolute Bypass



Single Element Oil Filtration

Absolute Bypass



Multi-Element Oil Filtration

Custom Oil Filtration System



Engineered Solutions

Racor engineers have designed a new generation of top load filters to meet the requirements of today's oil-controlled, high pressure fuel injection systems. Racor media meets the variable geometry and variable nozzle turbocharger requirements. An uncompromising, high level of fluid cleanliness is needed to achieve operating efficiency and reach service life. The environmentally-friendly cartridge oil filters are crushable, incinerable and cost-effective to replace.

The top-load oil conditioning module is a prime example of value-added Racor engineering that tailors a filtration system to a specific application.

The Racor Bypass Oil Series removes dirt, varnish, ash, tar, soot and other contaminants that full-flow filters cannot remove from your engine's oil and hydraulic systems. The system also removes condensed water, which forms component-damaging acids if left in the oil. The Racor Bypass Oil Series removes 99.5% of damaging contaminants to minimize wear and extends engine component life.

Racor Absolute is 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 material enables us to achieve ultimate filtration.

The Absolute replacement filter is the heart of the Absolute bypass filtration system.

Made from a special cellulose material wound onto a central core, it combines micro and depth filtration by using the axial filtration principle (flow direction from the top to the bottom).

Racor takes pride in providing oil filtration solutions that save our customer maintenance cost and downtime. Over 40 years of listening to the voice of the customer has earned Racor the position of trusted partner. Why trust your investment to anything else?

Value Added Features Include:

- Extends the miles/hours between oil changes.
- Keeps oil cleaner longer, reducing oil consumption and disposal.
- Removes damaging moisture.
- Solid particle filtration.
- Sludge, resin and oxidation products absorption.
- Eliminates resins and oxidation products.

Innovation

The Value of Filtration Solutions

System Integration.

Racor has some of the best minds creating the best products for your filtration needs. We are committed to being your partner in filtration solutions. Racor collaborates with customers and engineers, at the earliest stages of design, contributing innovative thinking and significant process improvements every step of the way. Racor gets beyond pieces and parts and develops system solutions.

Technology Expertise.

Racor engineers create innovative products thru design and prototype development.

We have the design flexibility to offer a variety of options that will meet or exceed system requirements. Our technical specialists manage all areas of the product life cycle and are uniquely positioned to balance the constraints of cost, schedule, and performance, assuring the most optimized solution for each application.

Quality and Patents.

Racor is ISO-9001:2000, ISO 14001, and TS16949 certified. Our quality reputation is acknowledged by the number of awards received from some of the most respected names in the industry. Quality

starts with the voice of the customer and permeates throughout every business unit. Obtaining patents is an integral part of the design process at Racor. Patents benefit our customers by allowing them to retain profitable market sales and ensuring proper replacement parts are installed on equipment after leaving the factory.



Fuel Filtration

The Most Advance Fuel Delivery Systems in The World



Turbine Series



The Traditional Favorite

Spin-on Series



Easy to Fit
Filtration System

Custom Fuel Filtration System



Innovative Solutions

Racor has quality-certified manufacturing, engineering, and distribution in place around the world, so no matter where you are you can rely on Racor to solve tough filtration problems from the refinery to the engine. Over the years, Racor has kept pace with the increasing demands of fuel filtration, from tough engine requirements for ever-finer particle-removal efficiencies and longer life, to the effective processing of ULSD and biodiesel.

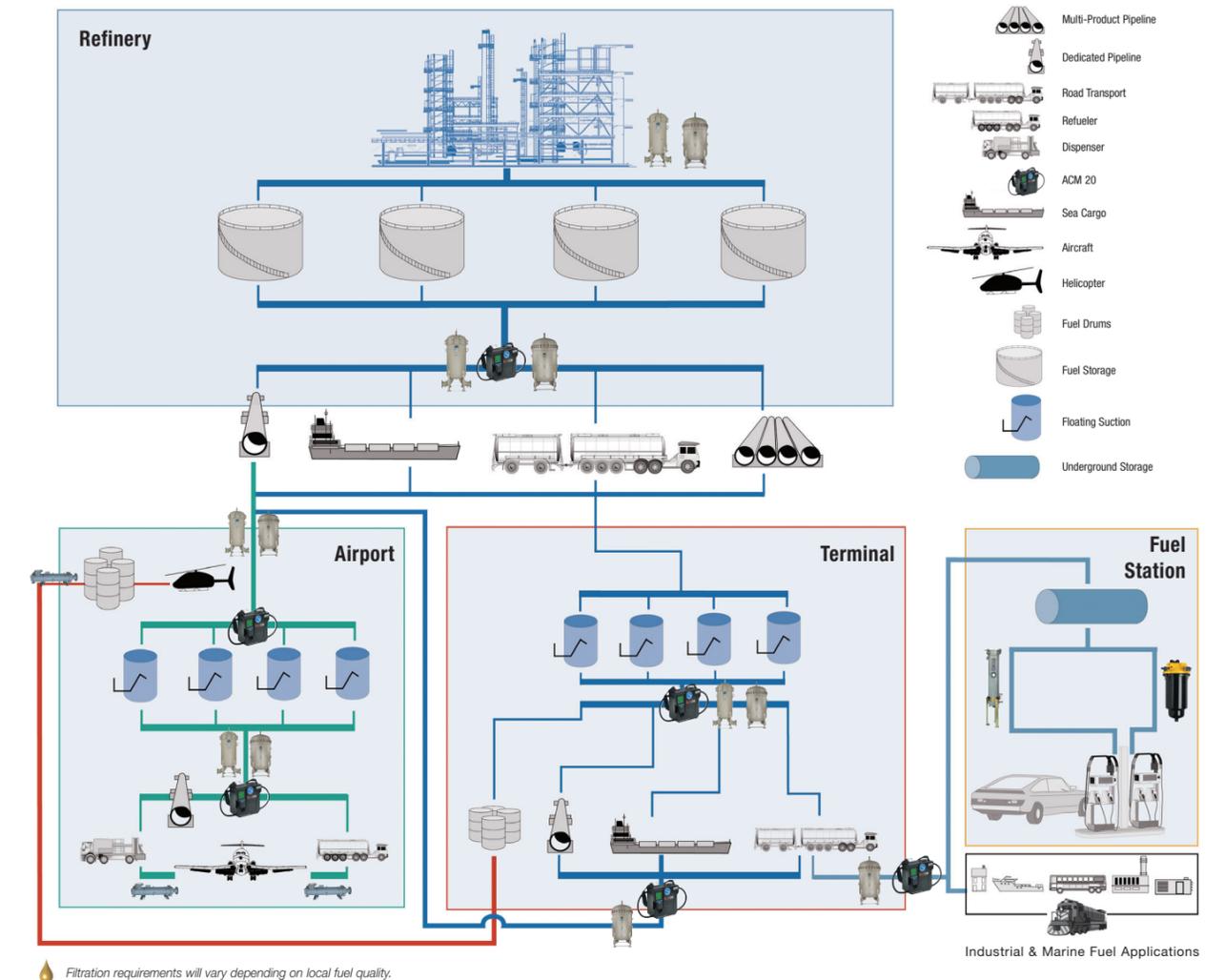
The heart of these advances is in Racor's proprietary engineered filter media families. Our selection of Aquabloc® medias is known worldwide for its combination of high efficiency, long life and unsurpassed water-removal performance, meeting and exceeding the challenges of today's diesel engine requirements in all markets and environments.

Value Added Features Include:

- Reliable time proven protection using Aquabloc® media for all diesel engine applications.
- Maximum fuel system protection in minimum space.
- Biodiesel blend compatible components.
- Hand primer, heater, gauges and water detection available.
- Expert integration of engine components for cost savings and ease of assembly.
- Quality certifications for world class quality and manufacturing.
- Ultra high capacity, high efficient fuel filter.
- High contamination holding capacity combined with high particle removal efficiency.
- Customized system solutions to meet specific operating conditions.

Hydrocarbon Based Fuel Filtration

Refinery/Terminal/Fuel Station



Hydrocarbon Based Fuel Filtration

From the Refinery to the Nozzle



FBO Series



Medium Volume Fuel Delivery Systems

RVFS Series



High Volume Fuel Terminals

Custom Fuel Filtration System



Innovative Solutions

Wherever hydrocarbon based fuels are processed, blended, transferred, stored for short or long term or dispensed, fuel filtration is needed at each point. Fuel filtration protects the increasingly sophisticated distribution systems and ever-tightening engine tolerances.

Racor now has standard products available to filter any fuel at any flow rate and can configure solutions to meet customers requirements for application, environment, and other specific parameters.

By utilizing the latest computer-aided design tools, the engineering team takes specific application requirements and quickly develops the necessary components to manufacture vessels and elements that meet industry codes and customer-specific requirements.

Racor's emphasis on advanced engineering is combined with a company-wide focus on uncompromising quality and premier customer service. This

concentrated effort means that customers receive on-time delivery of the highest quality filtration systems available and that they meet the most demanding requirements for performance and service life.

Value Added Features Include:

- Designed and tested to meet stringent industry standards.
- Rugged construction.
- Fuel filter/water separator.
- Fuel filter/water absorber.
- Marine applications.
- Pressure relief valve.
- Automatic air eliminator.
- Drain valve.
- Water-in-fuel sight glass.
- Differential pressure gauge.
- Easy quick no tool service.
- Viton gaskets are standard.

Pump Filtration Solutions

Delivering Clean Dry Fuel From The Tank to The Engine



Racor filter/separator pump systems are a complete fuel conditioning module with primary and secondary filters, fuel heaters, sensors, and regulators. Systems are engineered to meet any application, any operating environment, and any mounting location. They can be delivered complete with hose, fittings, and connectors to facilitate installation and cost.

Racor pumps are designed to OEM specifications and standards. Durability life of our fuel pumps exceeds 10,000 hours and can be operated in various fuels (ULSD, Biodiesel, JP8, etc). The compact design of our fuel pump filtration systems make them easy to package. Additionally they are designed to be integrated into your existing Racor fuel filtration system. Based on the demand of your engine Racor has a fuel pump filtration system that will deliver clean dry fuel from the tank to your engine.

Value Added Features Include:

- State of the art patented **Smart Pump**.
- Complete fuel management system.
- On-demand priming.
- Retrofit kits available for every upgrade.
- OEM Proven design.
- Robust Design.
- Better fuel management translates into reduced emissions.
- 12 vdc and 24 vdc solutions available.
- Available in a wide range of configurations.

Spin-on Series



Complete Fuel Management System

P Series



Rugged Light-Weight Housing

Custom Fuel Filtration System



Innovative Solutions

Closed Crankcase Ventilation

Provides Cleaner Environment Solutions



CCV Series



The Industry Favorite

Accessories



Provides Flexibility

Custom CCV System



Innovative Solutions

Racor CCV™ systems offer superior protection against contaminated crankcase blow-by and provide engine operators a highly effective solution which is easy to install and maintain. In a robust, compact package, the patented Racor CCV closed crankcase ventilation filter system provide superior oil coalescence and crankcase pressure control under the most severe conditions.

Racor worldwide test and engineering facilities provide customers with the best CCV systems on the market.

Ongoing engineering effort and worldwide collaboration with with customers allow Racor to address customer issues whatever they may be and keep and keep a pulse on customer needs.

Value Added Features Include:

- A truly closed CCV system which effectively eliminates crankcase emissions at all times.
- Improves passenger compartment air quality, which is especially important in all types of buses (school, shuttle, urban, etc.), refuse and municipal fleets.
- Improves air quality for personnel working in the vicinity of an operating piece of equipment.
- Cleaner engine environment .
- Improved vehicle/equipment reliability with less need for maintenance.
- Reduces vehicle operating costs.
- High efficiency media.

Air Filtration

Protect Your Equipment and Environment



ECO Series



Conventional Favorite

EAVLR Series



Economical Choice

Custom Air Filtration System



Cutting Edge Design

Over the years, Racor has kept pace with the increasing demands of air filtration, from tough engine requirements to longer life. Racor is an industry leader in air filtration systems. Our engineers collaborate with customers to design a solution that provides installation flexibility, superior performance ease of service and unmatched customer satisfaction.

ECO III is the newest addition to Racor's complete ECO family of air filtration systems.

ECO systems can be configured to meet a wide range of over-the-road, off-road, and industrial applications.

From ECO Series to a custom designed air filtration system, Racor provides an innovation solution to exceed customer expectations. Racor is the

most trusted name in engine protection. Why trust you investment to anything else?

Value Added Features Include:

- Fast, safe, trouble free service.
- Maximum engine protection.
- Long service life.
- Compact, efficient design.
- Easy to install.
- Variety of sizes available to fit any application.
- Improved horsepower.
- Fuel economy.
- Easy upgrade.
- Rugged Construction.