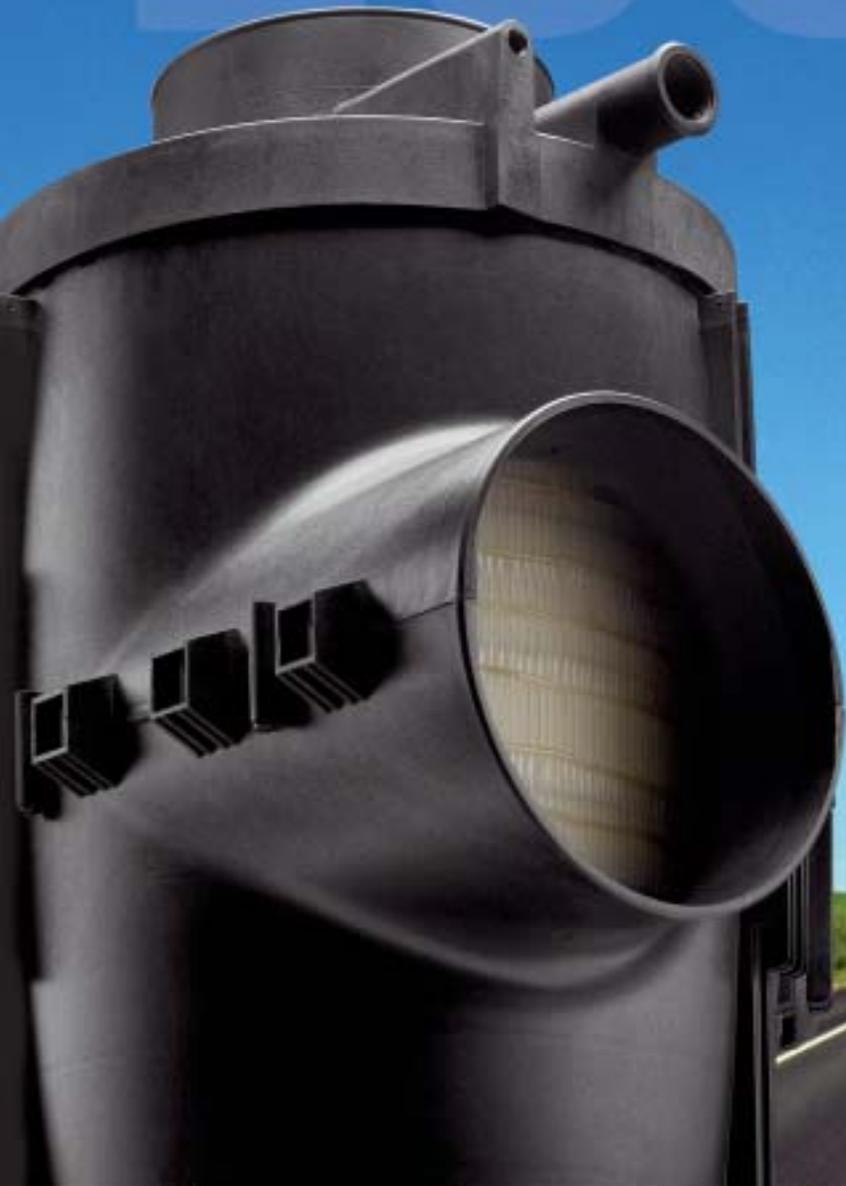


Air Filtration. Reinvented by Racor.

ECO III[®]



RACOR[®]

Parker
anything possible



ECO III IS A QUANTUM LEAP IN AIR FILTRATION SYSTEM DESIGN.

ECO III is the result of a focused, collaborative effort between Racor engineering and our customers. On-highway, real-world testing and laboratory certification has resulted in the advanced ECO III product line. State-of-the-art materials and design features result in installation flexibility, superior performance, ease of service and unmatched customer satisfaction.

SMALLER. AND BETTER.

ECO III is designed for 250-400 horsepower engines for over-the-road vehicles, including buses and specialty applications. Because ECO III delivers high efficiency in a small overall package design, the air filtration system can be located closer to turbochargers for increased performance. Furthermore, the smaller unit size frees valuable space in the engine compartment.

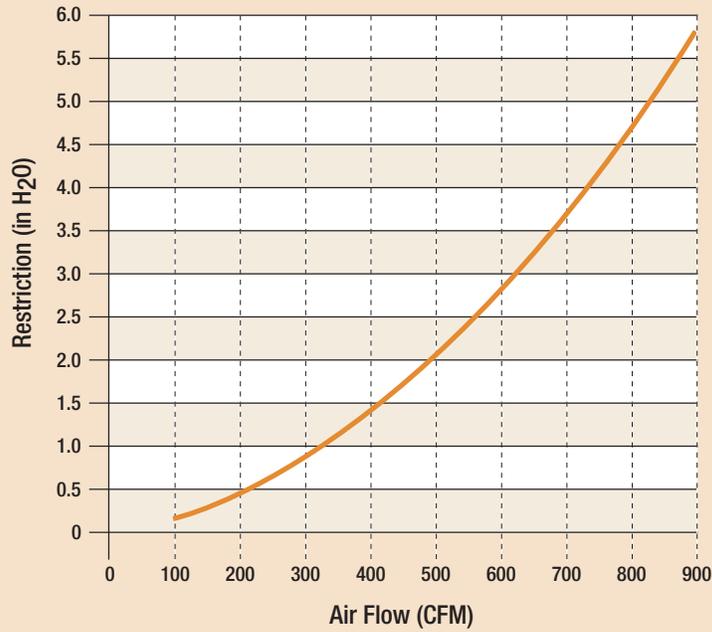
THE EASIEST TO SPECIFY, EASIEST TO INSTALL, EASIEST TO SERVICE AIR FILTER EVER.

With ECO III Racor engineers have not only revolutionized the performance of air filtration, but also how the unit is installed and serviced. It's a mounting system invented for flexibility and convenience. The reversible base mounting bracket and included hardware mounts quickly, in any direction to frame rail or firewall. This complete mounting system eliminates the need for custom made, field-engineered and installed brackets — a significant savings of time and money.

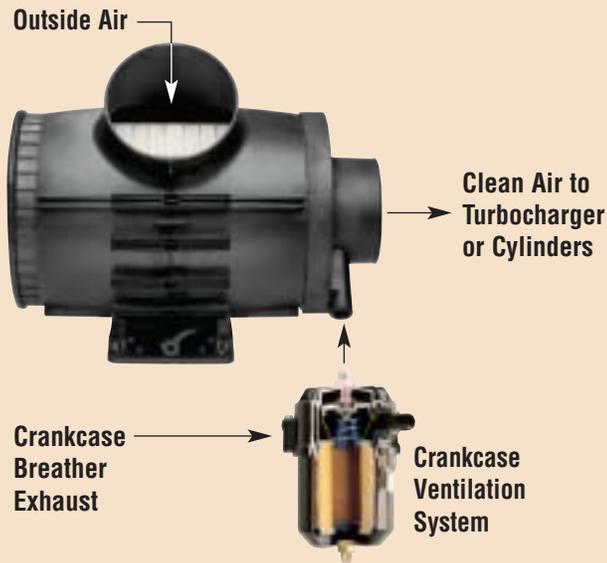
ECO III is the newest addition to Racor's complete ECO family of air filtration systems. ECO systems can be configured to meet a wide variety of over-the-road, off-road and industrial applications. For more information, visit www.parker.com/racor or request the #7539 Air Filtration Systems brochure.



ECO III PRESSURE DROP



ECO III IN A TYPICAL CLOSED AIR FILTRATION SYSTEM CONFIGURATION



Part Number	Description
Housing	
500250012	Housing, Base with Secondary
500251012	Housing, Base without Secondary
Service Elements	
500247012	Primary Element
500233000	Safety Element
Replacement Parts	
500187012	Base
500192012	Outlet Pan
500229000	Clip (8 per package)

For additional information regarding custom manufacturing and Eco III configurations for larger horsepower ratings, please contact Racor Division.



To simplify element changeouts, two molded handles, and an extended edge lip let hands firmly grasp and remove the integral end pan filter element... with no contact or contamination to the skin.

A key feature of the ECO III housing is the tangential orientation of the 7" inlet, which directs air flow evenly around the element. Element life is increased because the entire filter is engaged in the process.



Because contaminated airflow is dispersed around the element, dust loading and pressure drop are improved. Systems where the contaminated airflow enters the unit at a right angle can experience loading at the single intake point.

INSTALLATION & SERVICE – NO TOOLS. FLEXIBLE. FAST.

- The entire ECO III system is serviced with four quick release stainless perimeter clamps.
- ECO III is a model of flexibility.

The housing can be rotated 180° on the base. The outlet port is field reversible, and the orientation of the inlet port is adjustable in 20° increments.

- The reversible base mounting bracket and included hardware mounts quickly, in any direction, to frame rail or firewall. This complete mounting system eliminates the need for custom made, field engineered and installed brackets – a significant savings of time and money.
- “Quick Key”, integral to the mounting base, securely locks the ECO III housing after the filtration unit has been precisely positioned.



The solid injection molded glass-filled nylon polymer housing is corrosion-free, a durable construction that increases the temperature operation range to 250°F. The rugged assembly provides heavy duty structural strength proven to dependably withstand severe vibration.

Simple, clean, toolless service was a design imperative, and a major ECO III benefit. Simple snap clamps secure the housing and integrated filter element components.



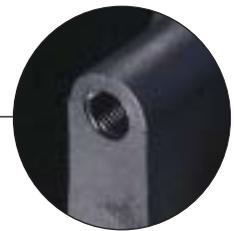
At both ends of the housing, keyed channels lock the element outlet component securely into place – to prevent element misalignment and rotation.

A secondary filter, or safety filter, can be specified for severe service operating conditions. See next page for additional details.

The standard, integral CCV™ port enables direct plumbing of a Closed Crankcase Ventilation exhaust line into the ECO III – creating an entirely closed, environmentally sound air system. By 2007 stringent legislation will mandate additional emission reductions.

Drain outlets are provided at both ends of the unit to allow channeled water to drain from the unit.

Standard Restriction Indication Port.



For ease of installation, both the CCV and Restriction Indicator Ports can be rotated 360° in 10° increments.

The ECO III features an enlarged 6" radiused outlet to further reduce overall system restriction. This leak-free outlet port can be positioned on either end of the ECO III housing to simplify installation.

4 LEVELS OF PROTECTION MEAN ECO III IS SEALED FOR MAXIMUM ENGINE PROTECTION

The introduction of contamination during operation and at service time is of course a significant maintenance issue. ECO III provides four progressive levels of sealing.



A sealing surface allows removal of the safety filter and wipes and captures dirt on the surface as it is removed.

A continuous ring seal (if a safety element is employed) is provided at the interface between the primary and safety element.

Interior seal adds a second level of protection.

An external radial seal rings the outlet of the filter housing to prevent contamination from escaping into the engine.

PARKER RACOR ENGINEERING HAS RAISED THE BAR ON AIR FILTRATION MEDIA TECHNOLOGY.

- Proprietary treated moisture-bloc media is water resistant, which, when combined with Racor water-separating intake scoops provides an exceptional, fast-draining air filtration system.
- This new ECO III filter element is computer design optimized to provide maximum efficiency at lowest possible long term cost per mile.
- In severe duty, or when an extra measure of protection is desired, Racor provides a secondary, or safety filter. Its inverted cone design adds surface area helping to reduce pressure drop significantly without affecting flow. In addition to adding insurance in the unlikely event of a primary element failure, the safety filter remains in place during primary element service, further reducing the opportunity for contaminants to reach the turbocharger and engine components.
- With a full 2" pleat depth total capacity is approximately 100 square feet of media providing a flow range of up to 900 CFM.
- Proven Racor pleat separation technology system supports the pleats in and outside for overall strength and durability. There are no metal components that can cause wear damage.
- There is no metal in either the primary or safety (secondary) filter elements – they are completely incinerable.
- ECO III media is sealed with adhesive urethane to the end cap which eliminates the chance of contaminants leaking during operation or service.
- Systems where the contaminated airflow enters the unit at a right angle can experience dust loading on the element intake. Because the ECO III housing disperses contaminated airflow around the element, dust loading is uniform across the entire area of the element resulting in a longer change-out interval.

CCV™ Crankcase Ventilation Systems

Crankcase blow-by is produced when combustion gases under high pressure are blown past the piston rings into the crankcase. As these blow-by gases pass through the crankcase, they become contaminated with oil mist. Racor's crankcase ventilation system removes these contaminations. The exhaust can then be allowed to be vented in the atmosphere.



Heavy Duty Combination Air Filters & Pre-Cleaners

Racor Combination Air Filters and Pre-Cleaners are designed to be connected to the air intake or to replace the existing standard air cleaner on diesel and gasoline engines. There is a wide range of centrifugal pre-cleaners and combination air filter/centrifugal pre-cleaners for agricultural and earth-moving equipment; stationary engines; generator sets and vehicular applications.



Low-Resistance Flexible Air Inlet Fitting & Clamps

Flexible air inlet fittings are made of high-quality EPDM rubber and provide minimum airflow restriction between the air cleaner and engine air inlet. Their flexibility simplifies both installation and service. Stainless steel adjustable clamps assure a positive seal and ease of service.



Custom Designed Air Intake Scoops

Racor has worked with chassis manufacturers to design custom intake systems that remove in excess of 80% of free water before entering the air filter. By providing custom designed air intake scoops, customers are afforded maximum use of available area, lowest system pressure drop and maximum water removal resulting in improved air filter life.

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