

About Racor

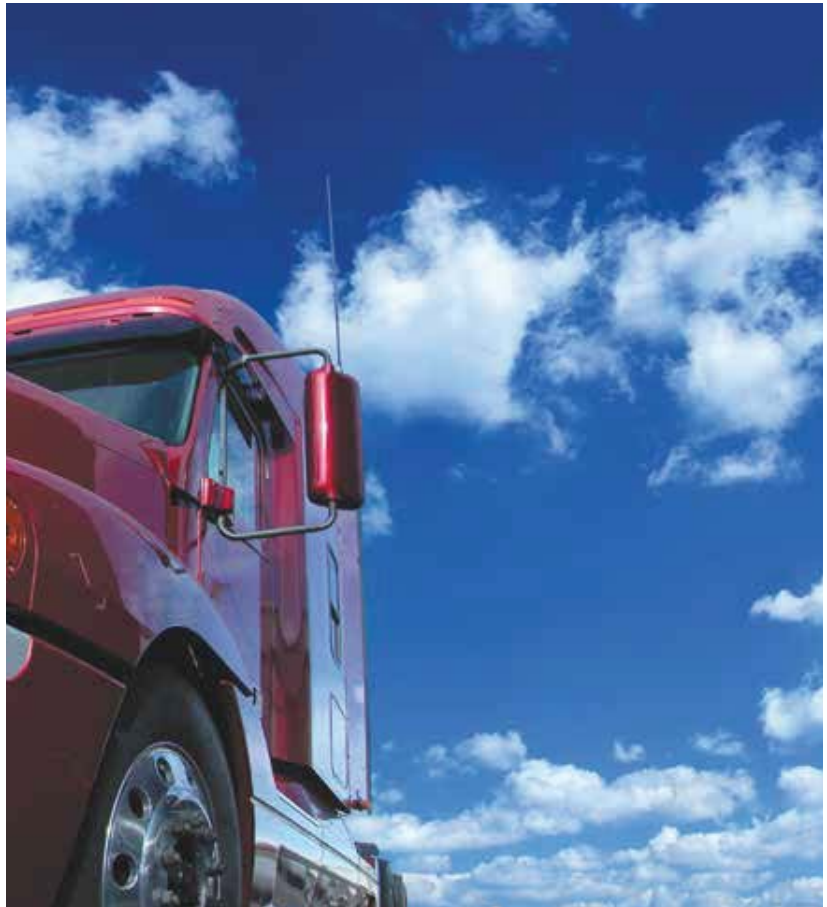
Parker Hannifin Corporation, global leader in motion and control technologies, delivers an unmatched breadth of engineered products and solutions. Our commitment to our customers is backed by the strength that comes from over 100 years of knowledge and experience.

About Racor.

For over fifty years Racor 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® Synergy 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.



A World of Fuel Challenges

Fuel contamination, either in the form of dirt or water, will find its way into your fuel system no matter how careful you are.

With modern engines injecting fuel at pressures up to 30,000 PSI, and injector tolerance being measured in microns, even a small amount of dirt or water corrosion can start problems. Water or particulates can cause microscopic surface damage that is then focused on by the high-pressure fuel flow, which causes wear that will eventually lead to reduced efficiency and complete breakdown. With this in mind, managing fuel delivery and system cleanliness through proper filtration becomes an absolute imperative for economical engine operation.



Racor Solutions For Your Future

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® Synergy 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.

Using Aquabloc® Synergy media, Racor Engineering develops innovative solutions to become integral components in complex engine fuel systems designed by the world's leading OEM engine manufacturers. Racor develops new solutions using ISO, SAE, JIS and other world-recognized testing procedures to conform to any specifications required by our OEM customers. Racor performs on-engine, on-vehicle and laboratory diesel system testing to further the advancement of diesel filtration for today and into the future. All diesel engine users benefit from this ongoing demand for the latest technology in fuel filtration and fuel system designs.



The future of the diesel engine relies on increasingly stringent exhaust emission requirements, while the quality of diesel fuel worldwide is never assured. New diesel engines require extraordinary fuel cleanliness and freedom from water contamination to meet these requirements. Ultra low sulfur diesel (ULSD) and the use of biodiesel pose ongoing filtration challenges due to their tendency to dissolve existing deposits, absorb water, and support the growth of bacteria. Even cold weather operation is compromised by these fuels; leading to filter clogging and unscheduled downtime.



Cost-Effective Visual Inspection

See-thru collection bowls allow a water-in-fuel condition to be immediately visible.

Environmentally Friendly

Engineered polymer bowls are reusable, impact-resistant and very durable. When it's time for service, only the filter element is replaced - the see-thru bowl and drain valve assembly are reused. The long life cycle of the bowl saves money and reduces the environmental impact through disposal of less material.

Easy Upgrades

See-thru bowls provide connection ports for upgrades that enhance engine performance and reliability. Powerful in-bowl heaters can be added to improve operation in colder climates and electronic sensors alert the operator to drain water in the bowl.

Corrosion-Free Construction

Advanced polymer technology means bowls will resist deterioration from water collection, alcohol-blended fuels, exposure to harsh additives and UV light.

High quality gaskets and O-rings for consistent, sure seals.

Die cast aluminum mounting heads with multiple ports make installation as easy as adding options.

Durable hand primer pumps are integrated into mounting heads.

The heart of every Racor filter is the engineered filter media. Aquabloc® Synergy is known around the world for its combination of high efficiency, long life and unsurpassed water-removal performance.

Polymer bowls are highly durable. They won't discolor from exposure to alcohol, additives or UV light - a see-thru that stays see-thru. A die cast aluminum bowl is available for most models.

Water sensor and vacuum indicators to signal service are valuable options available for most models.

Positive seal self-venting drain eliminates leaks and expedites service.





Model 460R

445 - 460 - 490

A powerful, integral primer pump makes service quick and easy

The standard equipment primer pump tops the list of extensive options that allow bus fleets, truck fleets, RV owners and others to tailor a filter/separator system specifically to their operating requirements. These options include a choice of a three-micron rating for the Aquabloc® Synergy filter element, 200-watt in-bowl resistance heater, water sensor and flow rates up to 120 gph.



Model 660R

645 - 660 - 690

Maximize engine protection with a low-profile, easy-to-fit filtration system

With all the features of the 400 Series, the 600 Series offers engine owners an economical system for applications where an integral primer pump is not needed. Flow rates up to 120 gph, in-bowl heater and water sensor are all available options.



MEDIUM FLOW						
MODEL ¹	445R2 /10 /30	460R2 /10 /30	490R2 /10 /30	645R2 /10 /30	660R2 /10 /30	690R2 /10 /30
Maximum Flow Rate	45 gph / 170 lph	60 gph / 227 lph	90 gph / 341 lph	45 gph / 170 lph	60 gph / 227 lph	90 gph / 341 lph
Gasoline or Diesel	Diesel	Diesel	Diesel	Both	Both	Both
Vacuum Installation	Yes	Yes	Yes	Yes	Yes	Yes
Pressure Installation	Yes	Yes	Yes	Yes	Yes	Yes
Maximum PSI / kPa	30 psi / 207 kPa	30 psi / 207 kPa	30 psi / 207 kPa	30 psi / 207 kPa	30 psi / 207 kPa	30 psi / 207 kPa
Clean Pressure	0.17 psi	0.39 psi	0.95 psi	0.01 psi	0.05 psi	0.29 psi
Drop PSI / kPa	1.2 kPa	2.7 kPa	6.5 kPa	0.07 kPa	0.34 kPa	2.0 kPa
No. of Ports	4	4	4	7	7	7
Port Size	3/8" NPT / 16 mm	3/8" NPT / 16 mm	3/8" NPT / 16 mm	3/8" NPT / 16 mm	3/8" NPT / 16 mm	3/8" NPT / 16 mm
Integral Primer Pump ³	Yes	Yes	Yes	No	No	No
Replacement Element No. ⁴	R45	R60	R90	R45	R60	R90
Bowl / See-Thru	Yes	Yes	Yes	Yes	Yes	Yes
Bowl / Metal	No	No	No	No	No	No
Drain Type	Self-Vent	Self-Vent	Self-Vent	Self-Vent	Self-Vent	Self-Vent
Water Sensor Option ⁵	Yes	Yes	Yes	Yes	Yes	Yes
Electric Heater Option ⁵ (12V/24V)	Yes	Yes	Yes	Yes	Yes	Yes
Height	9.3 / 236 mm	11 / 279 mm	11.8 / 300 mm	8.46 / 215 mm	10.2 / 259 mm	11.2 / 284 mm
Width	4.5 / 114 mm	4.5 / 114 mm	4.5 / 114 mm	4.5 / 114 mm	4.5 / 114 mm	4.5 / 114 mm
Depth	4.8 / 121 mm	4.8 / 121 mm	4.8 / 121 mm	4.5 / 114 mm	4.5 / 114 mm	4.5 / 114 mm
Weight	2.5 lbs / 1.1 Kg	2.7 lbs / 1.3 Kg	2.9 lbs / 1.4 Kg	2.35 lbs / 1.07 Kg	2.58 lbs / 1.17 Kg	2.65 lbs / 1.2 Kg

Notes:

- (1) Assemblies can be specified as 2 for 2 micron, 10 for 10 micron, or 30 for 30 micron. Example part number: 445R2.
- (2) Pressure installations are applicable up to the maximum PSI/ kPa shown.
- (3) Models with integral primer pumps are not recommended for gasoline applications.
- (4) Replacement element micron rating can be specified as "S" for 2 micron, "T" for 10 micron, or "P" for 30 micron. Example P/N: R45S.
- (5) Not for use with gasoline applications.

110A - 120A - 140



Model 120AT

Maximum protection in minimum space

The 110A is designed for fuel-injected gasoline engines with high working pressures and also can be used on diesel engines. A metal housing is standard. Other models in the 100 Series, the 120A and 140, offer reliable protection for smaller diesel and gasoline engines used in generator sets, pressure washers and other equipment. Their compact size fits tight mounting locations and multiple ports offer installation flexibility.



Model 230R2

215 - 230 - 245

Improved for greater versatility

The 215, 230 and 245 filter/separators come standard with an integral priming pump and a see-thru contaminant bowl, which can operate in applications up to 30 psi. Another design upgrade is the optional 200-watt in-bowl heater for colder operating conditions. Applications include light-duty and medium-duty trucks and vehicles, construction, agricultural and other diesel-powered equipment.



LOW FLOW

MODEL	110A (10 micron)	120AS / T / P	140R (10 micron)	215R2 / 10 / 30	230R2 / 10 / 30	245R2 / 10 / 30
Maximum Flow Rate	15 gph / 57 lph Diesel 35 gph / 132 lph Gas	15 gph / 57 lph	15 gph / 57 lph	15 gph / 57 lph	30 gph / 114 lph	45 gph / 170 lph
Gasoline or Diesel ¹	Both	Both	Both	Diesel	Diesel	Diesel
Vacuum Installation	Yes	Yes	Yes	Yes	Yes	Yes
Pressure Installation	Yes	Yes	Yes	Yes	Yes	Yes
Maximum PSI ² / kPa	100 psi / 690 kPa	7 psi / 48 kPa	7 psi / 48 kPa	30 psi / 207 kPa	30 psi / 207 kPa	30 psi / 207 kPa
Clean Pressure	0.15 psi	0.15 psi	0.01 psi	0.12 psi	0.31 psi	0.61 psi
Drop PSI/kPa	1.03 kPa	1.03 kPa	0.07 kPa	0.83 kPa	2.14 kPa	4.21 kPa
No. of Ports	4	4	2	3	3	3
Port Size	1/4" NPT/ M14 x 1.5	1/4" NPT/ M14 x 1.5	1/4" NPT/ M14 x 1.5	1/4" NPT/ M14 x 1.5	1/4" NPT/ M14 x 1.5	1/4" NPT/ M14 x 1.5
Integral Primer Pump ³	No	No	No	Yes	Yes	Yes
Replacement Element No. ⁴	R11	R12	R12	R15	R20	R25
Bowl/See-Thru	No	Yes	Yes	Yes	Yes	Yes
Bowl/Metal ¹	STD	Yes	Yes	Yes	Yes	Yes
Drain Type	Positive Seal	Positive Seal	Positive Seal	Positive Seal	Positive Seal	Positive Seal
Water Sensor Option ⁵	Yes	Yes	Yes	Yes	Yes	Yes
Electric Heater Option ⁵ (12V/24V)	No	No	No	Yes	Yes	Yes
Height	6" / 152 mm	6.5" / 166 mm	6" / 152 mm	8.3" / 211 mm	9" / 229 mm	10.5" / 267 mm
Width	3.2" / 81 mm	3.2" / 81 mm	3.2" / 81 mm	4" / 102 mm	4" / 102 mm	4" / 102 mm
Depth	3.2" / 81 mm	3.2" / 81 mm	3.2" / 81 mm	4" / 102 mm	4" / 102 mm	4" / 102 mm
Weight	1.3 lbs / 0.59 Kg	1.1 lbs / 0.50 Kg	1.1 lbs / 0.50 Kg	1.8 lbs / 0.80 Kg	2 lbs / 0.90 Kg	2.2 lbs / 1.0 Kg

- Notes: (1) Metal bowls should be used for gasoline installations.
 (2) Pressure installations are applicable up to the maximum PSI/kPa shown.
 (3) Models with integral primer pumps are not recommended for gasoline applications.
 (4) Replacement element micron rating can be specified as "S" for 2 micron, "T" for 10 micron, or "P" for 30 micron, except for R11.
 (5) Not for use with gasoline applications.

Racor Quality in One Easy Spin

- High-capacity, on-engine primary or secondary filtration
- Fits most existing mounting heads
- See-thru bowl with water sensor option
- Mounting heads available, contact Racor or your distributor

4125 - 6125 - 3150 - 3250

High flow applications need not suffer with high maintenance... and Racor offers a range of ultra-high capacity, highly efficient fuel filter/water separators that also deliver spin-on convenience. As you'd expect, Aquabloc® Synergy media is standard and all units provide flexibility in options to customize and meet specific operating conditions.



Model 3250R



H I G H F L O W

MODEL	4125R2 /10 /30	6125R2 /10 /30	3150R (10 mic)	3250R (10 mic) /2 /30
Maximum Flow Rate	120 gph / 454 lph	120 gph / 454 lph	150 gph / 570 lph	250 gph / 946 lph
Gasoline or Diesel ¹	Diesel	Both	Diesel	Diesel
Vacuum Installation	Yes	Yes	Yes	Yes
Pressure Installation	Yes	Yes	Yes	Yes
Maximum PSI ² / kPa	15 psi / 103 kPa	15 psi / 103 kPa	7psi / 50 kPa	7 psi / 50 kPa
Clean Pressure	0.85 psi	0.35 psi	0.68 psi	1 psi
Drop PSI				
No. of Ports	4	7	2	2
Port Size	3/4" SAE / 18 mm	3/8 NPT	0.875" X 14 SAE	0.875" X 14 SAE
Integral Primer Pump ³	Yes	No	No	No
Replacement Element No. ⁴	R125	R125	S3238P	S3207
Bowl / See-Thru	Yes	Yes	Yes	Yes
Bowl / Metal ¹	No	No	Yes	Yes
Drain Type	Self-Vent	Self-Vent	Self-Vent	Self-Vent
Water Sensor Option ⁵	Yes	Yes	Yes	Yes
Electric Heater Option ⁵ (12V/24V)	Yes	Yes	Yes	Yes
Height	15 / 381 mm	14.12 / 359 mm	13.6 / 345 mm	17.25 / 438 mm
Width	4.5 / 114 mm	4.5 / 114 mm	5 / 127 mm	5 / 127 mm
Depth	4.8 / 121 mm	4.5 / 114 mm	5.5 / 140 mm	5.5 / 140 mm
Weight	3.9 lbs / 1.8 Kg	3.9 lbs / 1.8 Kg	3.6 lbs / 1.6 Kg	4.6 lbs / 2.08 Kg

- Notes:
- (1) Metal bowls should be used for gasoline installations.
 - (2) Pressure installations are applicable up to the maximum PSI/ kPa shown.
 - (3) Models with integral primer pumps are not recommended for gasoline applications.
 - (4) Replacement element micron rating can be specified as "S" for 2 micron, "T" for 10 micron, or "P" for 30 micron.
 - (5) Not for use with gasoline applications.



Racor filter materials and seals are compatible with ultra-low sulphur diesel (ULSD) fuel and B2 to B20 Biodiesel.

The Racor 700 Series is equipped with state-of-the-art fuel pumps with either brush or brushless DC motors. DC motor makes this product the most reliable filter and pump assembly on the market. The brushless pump assembly is ideal for tough on-engine applications. For off-engine mounting, brushed pumps are a more economical alternative.

This complete fuel management system isolates contaminants present in diesel fuels and traps them prior to reaching the fuel injection system, protecting against costly and premature failure.

700 Series Integrated Filter/Separators



Model 790R30

The heart of every Racor filter is the engineered filter media. Aquabloc® Synergy is known around the world for its combination of high efficiency, long life and unsurpassed water removal performance.

Bowls are highly durable. They won't discolor from exposure to alcohol, additives or UV light.

Water sensor and vacuum gauges to signal service are valuable options available for most models.

Positive seal self-venting drain.



MODEL	760R30	790R30 ¹
Maximum Flow Rate Gasoline or Diesel	60 gph / 227 lph Diesel	90 gph / 341 lph Diesel
Replacement Element	R60P	R90P
Clean Pressure Drop	0.25 psi / 1.7 kPa	0.25 psi / 1.7 kPa
Port Size	3/8" NPT	3/8" NPT
Water Sensor Option	Yes	Yes
Height	11.8 / 28.4 cm	12.8 / 31.2 cm
Width	4.3 / 11.0 cm	4.3 / 11.0 cm
Depth	6.5 / 16.5 cm	6.5 / 16.5 cm

For additional information about Racor Filter/ Separator Pump Systems, request brochure #7683.

¹The 700 Series comes in standard with a 12 volt brushed pump assembly. To order the 24 volt brushless pump assembly, insert 24 at the end of the 790 part numbers. (example:790R3024)