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Heaters

For Diesel Fuel and Coolant Applications



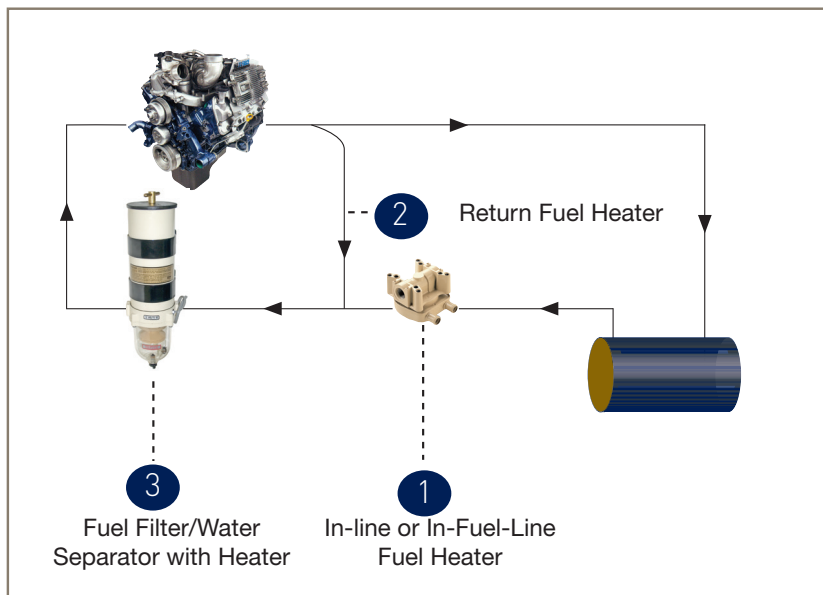
ENGINEERING **YOUR** SUCCESS.

Why You Need A Racor Fuel Heater

All diesel fuels (other than #1 diesel) contain dissolved waxes. At cold temperatures wax crystallizes, leading to fuel gelling and filter plugging. These changes greatly reduce fuel flow, adversely affecting the operability of vehicles.

With increased popularity of biodiesel and ultra low sulfur diesel (ULSD), we are faced with new cold weather challenges. While proper fuel winterization normally avoids trouble, both Biodiesels and USLD may experience wax crystallization and gelling at higher than expected temperatures and contribute to cold fuel flow problems anyway.

Keeping this in mind, it is necessary, now more than ever, to utilize an efficient fuel heating system for all cold weather applications.



Consult application engineer or Racor Product Manager to develop a fuel heat circuit appropriate for your application.

In-Line Coolant Heat Exchangers

Nomad™ Coolant Heat Exchangers 1 3

Plumbed into the fuel line upstream from filters, the coolant heater is another compact way to run through the cold. An optional internal thermostatically controlled valve allows fuel to bypass the heater once it has reached operating temperature. Depending on fuel flow rate, an 89°F heat rise is possible. Like its electric partner, there are no moving parts, nothing to rust or corrode.



Nomad coolant heaters are available with or without an internal thermostat.

Specification	320HTR4	320HTR4T
Engine HP	Up To 300	Up To 200
Internal Thermostat	No	Yes
Fuel Port Size	7/8"-14 UNF	7/8"-14 UNF
Coolant Port Size	5/8"	5/8"
Height	3.8 in. (9.7 cm)	3.8 in. (9.7 cm)
Width	3.9 in. (9.9 cm)	3.9 in. (9.9 cm)
Depth	4.7 in. (11.9 cm)	4.7 in. (11.9 cm)
Weight (dry)	2.1 lbs (0.95 kg)	3.0 lbs (1.4 kg)

In-Line Electric Fuel Heaters

Nomad™ Electric Heaters 1

The Racor Nomad Diesel Fuel Heater is available in 300 and 500 watts and is one of the most compact and efficient ways to heat fuel on the road today. Installation usually takes about an hour. An optional frame rail mounting bracket eliminates drilling and welding.



The Nomad electric heater lets you install a high quality heater with a minimum amount of time, space, and money.

Specification	14278	14279	14257	14261
Engine HP	up to 200	up to 200	200-300	200-300
Power Output	300 watts	300 watts	500 watts	500 watts
Voltage	12 vdc	24 vdc	12 vdc	24 vdc
Amperes Draw	21.4	10.7	35.7	17.9
Alternator Rating ¹	65	40	75	45
Internal Thermostat	Yes		In-Cab Control	
Fuel Port Size	7/8" -14 SAE			
Height	2.6 in. (6.6 cm)			
Width	5.8 in. (14.7 cm)			
Depth	5.4 in. (13.7 cm)			
Weight (dry)	1.7 lbs (0.8 kg)			

¹ For on-highway trucks, assuming all tractor lights and blowers are on. Use of more accessories will require a higher rating.

Thermoline™ In-Fuel-Line Heater 1

The heavy duty Thermoline heater comes installed inside a new fuel line and literally replaces the fuel line between the tank and the primary filter. It prevents power loss and stall and assists starting down to -40°F. This heated path is recommended for extended use in cold weather environments and severe conditions.



Thermoline In-Fuel-Line Heater comes factory pre-wired with all hardware, ready for quick installation.

Specification	HEATER50012V	HEATER50024V
Wattage	500	500
Voltage	12	24
Length	10 ft (3.05M)	10 ft (3.05M)
Fittings	7/8"-14 SAE	7/8"-14 SAE

Fuel Filter/Water Separator With Heaters

300RC Series 2 3

The 300RC Series Diesel Fuel Filter/Heater/Water Separators are specifically designed to handle today's tough cold weather and Biodiesel fuel system problems. These units feature a standard high efficiency coolant heat

exchanger to heat incoming fuel. The 300RC Series features high capacity Aquabloc® media allowing for excellent contaminant removal and water separation. Available in 2, 10, and 30 micron ratings.

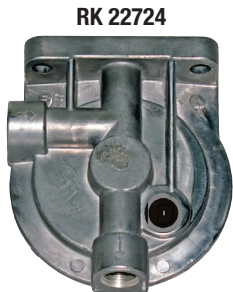


Basic Models	345RC30	360RC30	390RC30
Fuel Ports	3/8" NPTF	3/8" NPTF	3/8" NPTF
Coolant Ports	5/8" Hose Beed	5/8" Hose Beed	5/8" Hose Beed
Replacement Filter	R45 Series	R60 Series	R90 Series
Flow Rate	45 GPH (170 LPH)	60 GPH (227 LPH)	90 GPH (341 LPH)
Height	8.7 in (22.1 cm)	10.4 in (26.4 cm)	11.25 in (28.6 cm)
Width	4.0 in (10.2 cm)	4.0 in (10.2 cm)	4.0 in (10.2 cm)
Depth	4.8 in (12.2 cm)	4.8 in (12.2 cm)	4.8 in (12.2 cm)
Heat Rise	59°F @ 45 GPH	52°F @ 60 GPH	45°F @ 90 GPH
Ambient Temperature Range	-40° to +250°F (-40° to +121°C)		
Maximum Fuel Temperature	190°F (88°C)		

300 Series In-Head Heater 2

The in-head 150W heater is a cold weather aid and is thermostatically controlled when power is provided. The heater will automatically turn on if the fuel temperature drops below 45°F (7°C) and will automatically turn off at 75°F (24°C).

Heat is supplied directly below the inlet port to melt the wax crystals and allow fuel to efficiently pass through the filter. The heater is operated by turning the ignition switch on for a minimum of five minutes prior to starting the engine.



300R Series Head

Fuel Filter/Water Separator With Heaters

Spin-On Series In-Bowl Heaters 2

Racor equips Spin-On Series fuel filter/water separators with optional 200W resistance heaters integrated into the bowl. Placing the heat source just below the filter allows for maximum transfer.

Racor spin-on series in-bowl heaters are available installed in an assembly upon order (call Racor tech support for part numbers) or as retrofit kits which are listed below.



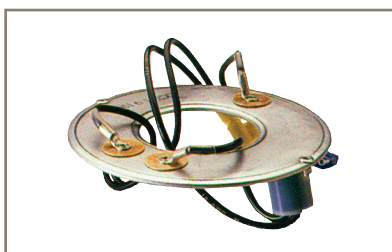
Specification	RK 22354-01	RK 22354-02	RK 30900	RK 30925
Heater Retrofit Kit For	200 Series	200 Series	3150, 3250, 4120, 6120	3150, 3250, 4120, 6120
Wattage	200	200	200	200
Voltage	12V	24V	12V	24V
Bowl Type	Clear	Clear	Clear	Clear

Specification	RK 21113-12-10	RK 21113-24-10	RK 30895	RK 30924
Heater Retrofit Kit For	300RC, 400, 600 Series	300RC, 400, 600 Series	320 Series	320 Series
Wattage	200	200	200	200
Voltage	12V	24V	12V	24V
Bowl Type	Clear	Clear	Clear	Clear

Turbine Series 2

The Racor Turbine Series comes available with a powerful heater which is situated directly below the filter to assist with cold starting. Thermostats are standard to meet the requirements of today's advanced electronic engines. These heaters begin to work in just a few moments and place minimal demand on the battery.

Racor Turbine Series heaters are available installed in assembly upon order or as retrofit kits which are listed below.



Specification	RK15440-01	RK15440-02	RK11-2002	RK11-2001
Heater Retrofit Kit For	500FG	500FG	900FH and 1000FH	900FH and 1000FH
Wattage	150	150	300	300
Voltage	12V	24V	12V	24V

Worldwide Filtration Manufacturing Locations

North America

Compressed Air Treatment

Gas Separation & Filtration Division

Airtek/Finite/dornick hunter/Zander
Lancaster, NY
716 686 6400
www.parker.com/faf

Balston
Haverhill, MA
978 858 0505
www.parker.com/balston

Engine Filtration

Racor

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

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

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www.parkerfarr.com

Velcon
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www.velcon.com

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Oxnard, CA
805 604 3400
www.parker.com/processfiltration

Water Purification

Village Marine, Sea Recovery, Horizon Reverse Osmosis

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

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www.parker.com/dhfn

Parker Gas Separations

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www.parker.com/dhfn

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www.parker.com/hzfd

Padova, Italy
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www.parker.com/hzfd

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Hydraulic Filtration

Hydraulic Filter

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www.parker.com/hfde

Urdala, Finland
+358 20 753 2500

Condition Monitoring Parker Kittiwake

West Sussex, England
+44 (0) 1903 731 470
www.kittiwake.com

Process Filtration

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+44 (0) 191 410 5121
www.parker.com/processfiltration

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