

320R-RAC Series

Gasoline Fuel Filter/Water Separators

Instruction Part Number 22237 Rev. E



320R-RAC series filters are designed for high-performance applications, which means your engine will perform better than ever with clean, water-free fuel.

Features and benefits include:

- The 320R-RAC-02 is UL Listed and USCG approved for inboard marine use
- Includes high-capacity 10 micron Aquabloc® media
- Has a 60 GPH (227 LPH) maximum flow rate
- Has superior corrosion resistance with a electrostatic powder paint coating
- Includes a 3-port die-cast aluminum mounting head with 1/4"-18 NPTF threads
- Removes 99% of free water



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Specifications	320R-RAC-01	320R-RAC-02
Application: Inboard Outboard	No Yes	Yes Yes
Maximum Flow Rate	60 GPH (227 LPH)	60 GPH (227 LPH)
Center Threads	1"-14	1"-14
Port Size	1/4"-18 NPTF	1/4"-18 NPTF
Number of Ports: Inlets Outlets	2 1	2 1
Height	9.3 in. (23.6 cm)	9.0 in. (22.8 cm)
Width	4.0 in. (10.2 cm)	4.0 in. (10.2 cm)
Depth	4.0 in. (10.2cm)	4.0 in. (10.2cm)
Weight (dry)	2.0 lb (0.90 kg)	2.0 lb (0.90 kg)
Clean Pressure Drop	0.61 PSI (4.23 kPa)	0.61 PSI (4.23 kPa)
Maximum Pressure	7 PSI (0.5 bar)	7 PSI (0.5 bar)
Underbowl Clearance	1.0 in. (2.5 cm)	1.0 in. (2.5 cm)
Water Removal Efficiency	99%	99%
Ambient Temperature Range	-40° to +255°F (-40° to +124°C)	
Maximum Fuel Temperature	190°F (32°C)	

Installation Guidelines

Danger! Great care must be exercised to avoid potential fire hazards during installations on gasoline fuel systems. Do not smoke or permit open flames or sparks near the fuel system.

Refer to Installation Diagram on page 4 prior to beginning installation.

1. Any secondary or pressure side filters located between pump and engine should be serviced and left in place.
2. Mount unit vertically on suction side of fuel pump, transfer pump, or non-removable filters, whichever comes first.
3. Ensure a suitable pipe thread sealing compound is used on NPT threads of fitting prior to installation into head. For mounting flexibility, there are two inlet ports and one outlet port. Plated steel fittings are recommended. Plug unused port with provided steel NPT plug—do not use tapes on NPT threads.
4. Use quality fuel hose in maximum fuel line size applicable to reduce potential fuel flow restrictions. Note: USCG accepted hose recommended.

Priming

1. Carefully spin off filter with bowl, then fill with clean fuel (use a strap wrench near top of spin-on filter to remove it).
2. Spin filter with bowl onto mounting head and tighten snugly by hand—do not use tools to tighten.
3. Start engine and check for leaks. If engine is difficult to start or runs rough, check that drain, bowl, filter, and port plug are securely tightened. Check all connections for security and hoses to ensure there are no kinks or sharp bends that would create excessive restriction.

Service

Danger! When servicing gasoline fuel systems, extreme care must be exercised to avoid potential fire hazards. Do not smoke or permit open flames near fuel during servicing procedures.

Draining The Bowl

Water is heavier than fuel and will settle at bottom of bowl and appear different in color. In extremely humid conditions, take a fuel sample (in clear container) frequently, and drain as required if water is present.

1. Place a suitable container below unit to collect contaminants.
2. Close fuel tank valve, if applicable, then open self-venting drain (-01 model) or loosen/remove drain plug (-02 model) at bottom of bowl. Note: a UL Listed drain valve kit is available for -02 models, order part no. RK 19492.
3. Prime fuel system following the manufacturer's procedure - refer to Priming.

Filter Replacement

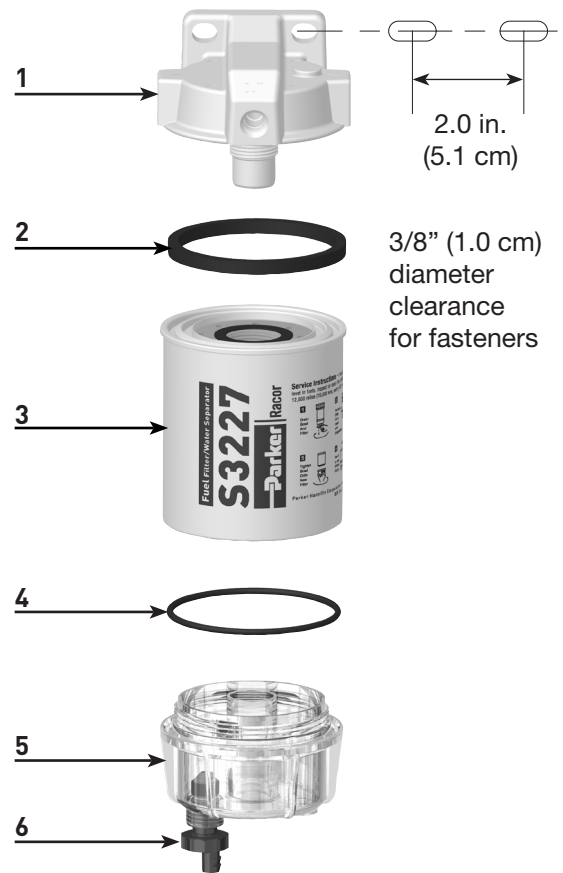
Filter replacement frequency is determined by contamination levels in fuels. Fuel flow to engine becomes restricted as filter slowly plugs with contaminants, resulting in noticeable power loss and/or hard starting. Replace filter annually, every 500 hours, or when there is a noticeable power loss, whichever comes first. Change filter as soon as possible. **Note: always carry extra replacement filters as one tankful of excessively contaminated fuel can plug a filter.**

Clean any debris or dirt away from Racor head/filter joint prior to removal.

1. Place a suitable container below unit to collect contaminants.
2. Close valve at fuel tank, if applicable, open or remove drain (plug) to empty filter of fuel.
3. Spin filter and bowl off together (use a strap wrench on filter), then remove bowl from filter.
4. Clean, bowl O-ring gland and sealing surface of mounting head, of dirt, debris, or gums.
5. Apply lube oil to new seal and bowl O-ring supplied with new filter.
6. Place new seal onto top of new filter and O-ring into bowl gland.
7. Spin bowl onto filter, then both onto head. Tighten snugly by hand - do not use tools to tighten.
8. Prime fuel system following manufacturer's procedure - refer to Priming.

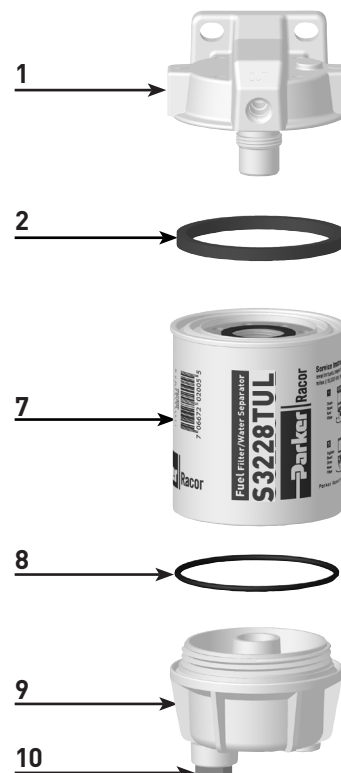
320R-RAC-01 Replacement Parts

<u>Part No.</u>	<u>Description</u>
1. RK 20180	Mounting Head Kit
2. RK20505-01	Gasket Kit
3. S3227	10 Micron Replacement Filter
4. RK33544	Bowl O-ring Kit
5. RK33546	Clear Bowl Kit
6. RK 30476	Self-venting Drain Kit



320R-RAC-02 Replacement Parts

<u>Part No.</u>	<u>Description</u>
1. RK 20180	Mounting Head Kit
2. RK20505-01	Gasket Kit
7. S3228TUL	10 Micron Replacement Filter
8. RK33544	Bowl O-ring Kit
9. RK 30473-02	Metal Bowl Kit
10. 918-N6	Steel Port Plug

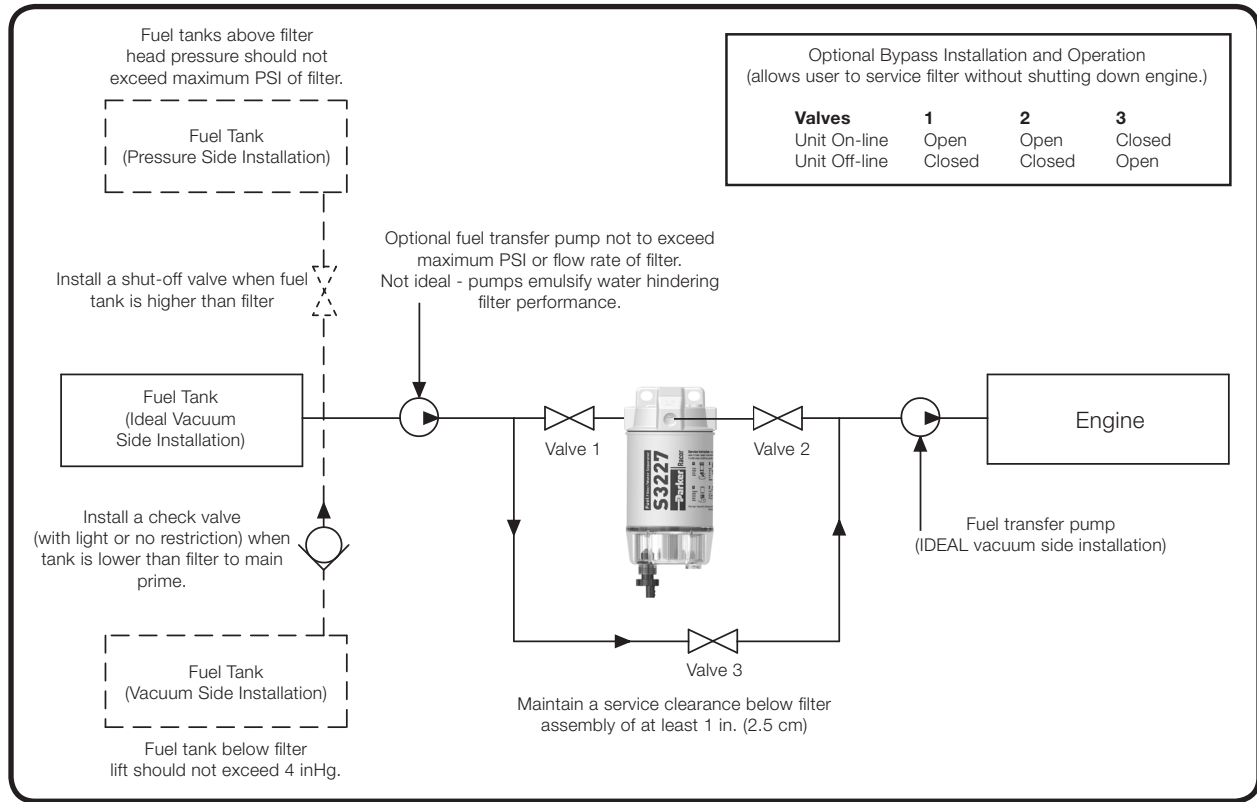


Drain Valve Kit

*UL Listed drain valve kit is available for
-02 models. Part number RK 19492.*



Installation Diagram



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