



Filtration

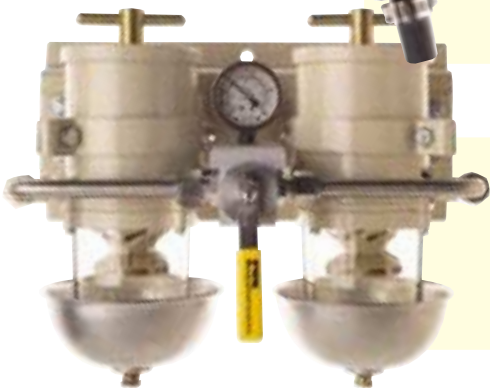


Spin-On Series

Fuel/Air Separators



Turbine Series



Fuel Filter/Water Separators

Gasoline Series	99-102
Diesel Spin-on Series	104-109
Series MC7	110-113
Turbine Series	114-133
Hydraulic Filters	134-137
Liquid Transfer Systems	139-141
Fuel/Air Separators	142-143
Drinking Water Filters	144-145
Air Filtration	146-147
Marine Accessories	148-150
Discontinued Models	151

■ Selection
 ■ Index

SELECTION - SECTION 2

DIESEL, KEROSENE AND GASOLINE FUEL FILTERS:

Note: Most products in this section are Underwriters Laboratories Listed for Marine use and many are U.S.C.G. Accepted or meet A.S.T.M. Specification F-1201. Documentation or certification is available upon request.

1. Find the **application**: Diesel #2, Kerosene or Gasoline.
2. Find the **installation**. Will the unit be installed on the suction (vacuum) or pressure side of the fuel pump? Racor units are most efficient when installed on the suction side of the fuel system. If the filter is a replaceable engine spin-on type, go directly to the 320 Engine Spin-on Series.
3. Find the **total fuel flow rate**. **This is the total flow that will pass through the filter. You may obtain this information from your engine or equipment manufacturer or your Racor dealer.** Use this information to select a Racor filter that has a greater flow rating than your equipment's total fuel flow rate.

If this information is not available use the following formula for estimating.

Diesel or kerosene fuel systems:

*Gallons per Hour is Engine Horsepower (maximum) multiplied by 18% or **GPH = HP X 0.18***

Gasoline fuel systems (carbureted):

*Gallons per Hour is Engine Horsepower (maximum) multiplied by 10% or **GPH = HP X 0.1***

Gasoline fuel systems (fuel injected):

Use a straight 40 GPH figure. Smaller outboards will use a 25 GPH figure.

4. **What other conditions apply?**

Water contamination. A water detection package should be added to inform the operator of water build-up and necessary servicing. Water detection packages are available for use with all models in diesel fuel applications, only.

Does the engine need to run continuously, not allowing a shut-down for needed servicing, such as a generator? If so, see 'Turbine' models with the '75, or 79' prefix in the part number.

What type of filter element best suits your vessel? The 'Turbine' series have element cartridges that are serviced from the top and all other units in this section have a removeable spin-on type canister that is serviced from the bottom.

A convenient feature may be a head mounted, hand operated priming pump. See models 215MAM, 230MAM, and 245RMAM as well as 445MAM, 460MAM, 490MAM and 4120MAM models.

5. **With the above information, review the models suggested that best fit your installation.** Most of the Model Groups have additional information to help in identifying the exact model for your needs. Call your Racor distributor or Racor customer service if you need additional assistance at: (800) 344-3286, or e-mail us from our website at www.parker.com/racor.

HYDRAULIC FILTERS, LIQUID TRANSFER SYSTEMS, FUEL / AIR SEPARATORS and DRINKING WATER FILTERS:

1. **Go directly to those Sections for specific selection information.**

Marine Products Index

Fuel Filter/Water Separators

Gasoline Series	Application	Installation	Flow Rate		Page
025-RAC-01, 02	Outboards	Suction	25 GPH	95 LPH	95-96
025-RAC-05	In/Outboards	Suction/Pressure	25	95	95-96
B32013, B32014	Outboards	Suction	60	227	95, 97
B32020MAM, 21MAM	In/Outboards	Suction	60	227	95, 97
120R-RAC-01	Outboards	Suction	30	114	98-99
320R-RAC-01, 02	Outboards /Both	Suction	60	227	98, 100
660R-RAC-01, 02	Outboards /Both	Suction	90	341	98, 101
3120R-RAC-32	Both	Suction	120	454	98, 102

Diesel Spin-on Series

110A	Diesel	Suction/Pressure	15	57	105-106
120RMAM	Diesel	Suction	15	57	105, 107
215, 230, 245RMAM	Diesel	Suction	15/30/45	57/114/170	105, 108
445MAM, 460MAM	Diesel	Suction	45/60	170/227	105, 109
490MAM, 4120MAM	Diesel	Suction	90/120	341/454	105, 109

Series MC

60MC, 90MC, 180MC	Diesel	Suction	60/90/180	227/341/454	111-112
7590MC, 75180MC, 79180MC	Diesel	Suction	180/360/540	681/1363/2044	111-113

Turbine Series

500MA	Diesel	Suction	60	227	115-117
900MA	Diesel	Suction	90	341	115, 118-119
1000MA	Diesel	Suction	180	681	115, 120-121
73/1000MA	Diesel	Suction	360	1363	115, 122-123
75/500MAX	Diesel	Suction	120	454	115, 124-125
75/900MAX	Diesel	Suction	180	681	115, 126-127
75/1000MAX	Diesel	Suction	360	1363	115, 128-129
77/1000MA	Diesel	Suction	540	2044	115, 130-131
79/1000MAV	Diesel	Suction	540	2044	115, 132-133

Hydraulic Filters

Racor Marine Hydraulic Filters		Pressure	See product listings		135-137
Reservoir Breathers & Adapters					137

Liquid Transfer Systems

Guardian Fuel/Oil Filter/ Transfer System		Suction/ Pressure	240	908	139-141
----------------------------------------------	--	----------------------	-----	-----	---------

Fuel / Air Separators

LG50	Gasoline	Fuel tank vent line	12 CFM	90 GPM	142-143
LG100	Diesel/Gasoline	Fuel tank vent line	17 CFM	127 GPM	142-143

Drinking Water Filters

WFA12-S5	Sediment Removal	Pressure	6 GPM	23 LPM	144-145
WFA12-T5	Taste and Odor	Pressure	3 GPM	12 LPM	144-145

Marine Engine Air Filters/Silencers

AF M408512, AF M501012, and AF M601212			See product listings		146-147
----------------------------------------	--	--	----------------------	--	---------

Discontinued Models /

Marine Accessories					148-151
---------------------------	--	--	--	--	---------

Selection Information

Power Boats with Inboard Gasoline Engines:

1. Power boats with inboard gasoline engines must use units equipped with metal bowls.
2. Stock carbureted engines can use all units.
Fuel-injected or high performance engines (or severe service applications) should use units with a flow rate between 40 to 120 gallons per hour (GPH).
Consult the engine manufacturer for the exact fuel filter flow rate.
3. For boats where a fuel filter/water separator is already installed:
This is generally a MerCruiser or OMC style filter (fuel ports on top of filter head).
Use the B32020MAM (MerCruiser) or B32021MAM (OMC).
If there are no filters already installed, specify the 120R-RAC-01, 320R-RAC, or 660R-RAC units. For high-performance boats the 3120R-RAC-32 is recommended.

IMPORTANT: All units must be installed on the suction (vacuum) side of the fuel or transfer pump.

Power Boats with Outboard Gasoline Engines:

1. Power boats with outboard gasoline engines can use either see-thru blue bowls or metal bowls.
2. Stock carbureted engines can use all units.
High performance engines (or severe service applications) should use units with a flow rate between 40 to 90 gallons per hour (GPH).
3. For boats where a fuel filter/water separator is already installed:
This is generally a Quicksilver or OMC style filter (fuel ports on top of filter head).
Use the B32013 (Quicksilver) or B32014 (OMC).
If there are no filters already installed, specify the 120R-RAC-01, 320RRAC, or 660RRAC units. For high-performance boats the 3120R-RAC-32 is recommended.

IMPORTANT: All units must be installed on the suction (vacuum) side of the fuel or transfer pump.

Gasoline Powered Boats-Continuous Operation:

1. For engine(s) that must run continuous and/or cannot be shut-down for servicing, specify only MAVM or MAXM units (with metal bowls) found under 'Fuel Filter/Water Separators, Turbine Series', which follows this series.
All other boats that are routinely serviced daily may specify any series model with a metal bowl.

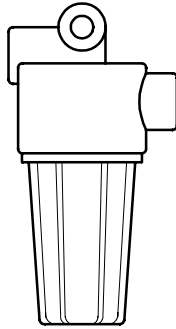
SELECTION:

1. Along with the information you obtained in SECTION 2, SELECTION (page 94), consider the following: Are there any space limitations in the available location? The location should provide adequate space for removing the element, draining off contaminants from the bowl.
2. What filtration rating is needed? Gasoline spin-on filters are standard with 10 micron media. Turbine models can be ordered with 2, 10 or 30 micron media.

Using this information, select a unit from the next page, or check the models which follow to find just the right unit for your application.

For additional information, call your Racor dealer or call Racor customer service: (800) 344-3286, 6 AM to 5 PM, Pacific Time, or e-mail us from our website, www.parker/racor.

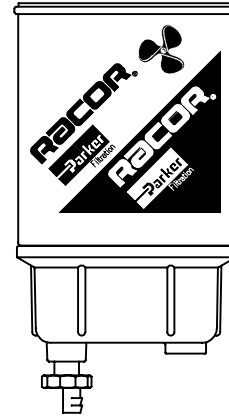
Model Illustrations



025-RAC-01,
025-RAC-02



025-RAC-05



B32013,
B32014,
B32020MAM,
B32021MAM

2

Special Notes

- 025-RAC-01 and 025-RAC-02 configurations are for outboard engine applications **only**.
- B32013 & B32014 model configurations with blue, see-thru bowls, are for outboard engine applications **only**.
- MAM metal bowl units are approved for gasoline service. UL Recognized.
- For additional information and availability, contact customer service: (800) 344-3286, 6 AM to 5 PM, Pacific Time, or e-mail us from our website, www.parker.com/racor.



Specifications

BASIC MODELS		025-RAC-01, 025-RAC-02	025-RAC-05	B32013, B32014	B32020MAM, B32021MAM
Maximum Flow Rate	GPH LPH	25 95	25 95	60 227	60 227
Filter Element Part Numbers		S2501/ S2502	N/A	S3213/ S3214	S3220UL S3220UL
Filter Element Center Threads		N/A	N/A	11/16-16	11/16-16
Head Port Size		N/A	N/A	1-12	1-12
		1/4-18NPTF(2)	N/A	N/A	N/A
Height	in. mm	4.31 109	4.75 121	6.75 171	6.75 171
Width	in. mm	2.25 57	2.30 Dia. 58 Dia.	3.75 Dia. 95 Dia.	3.75 Dia. 95 Dia.
Depth	in. mm	2.10 53	2.30 Dia. 58 Dia.	3.75 Dia. 95 Dia.	3.75 Dia. 95 Dia.
Weight (dry)	Lbs. kgs.	0.3 0.14	0.27 0.12	1.2 0.54	1.6 0.73
Clean Pressure Drop	PSI kPa	0.26 / 0.35 1.8 / 2.4	2.5 17.2	0.61 ¹ 4.23 ¹	0.61 4.23
Max Pressure	PSI	100	30		
Element Removal Underbowl Clearance	in. mm	1 25.4	N/A	1 25.4	1 25.4
Operating Temperature		Temp. ²	-40° / +255° F	/ -40° / +121° C	

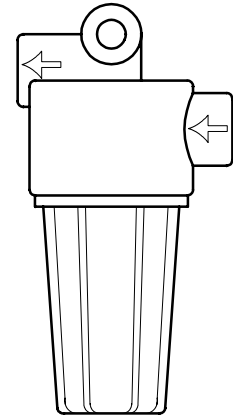
¹ Acquired using 320R-RAC mounting head.

² 025-RAC Series: Operating Temperature: -10° / +180° F / -23° / +82° C

SPECIFICATIONS are found on the introduction page.

How to Order -The example below illustrates how the part numbers are constructed.

025-RAC	-02
25 GPH (optimum flow rate) Cast aluminum mounting head with 1/4"NPT inlet and outlet fuel ports. Features one hole for mounting with up to a 1/4" diameter capscrew. Reusable, spin-on see-thru collection bowl.	Filter Media: '-01' 250 micron plastic fuel straining element (#S2501 Not for water removal). '-02' 10 micron Aquabloc™ filter element (#S2502).
WARNING! FOR OUTBOARD ENGINES, PERSONAL WATER CRAFT AND OTHER APPLICATIONS. DO NOT USE THIS FILTER WITH INBOARD ENGINES OR STERN DRIVE BOATS - USE RACOR U.L. LISTED MARINE FILTERS. SEE INDEX.	

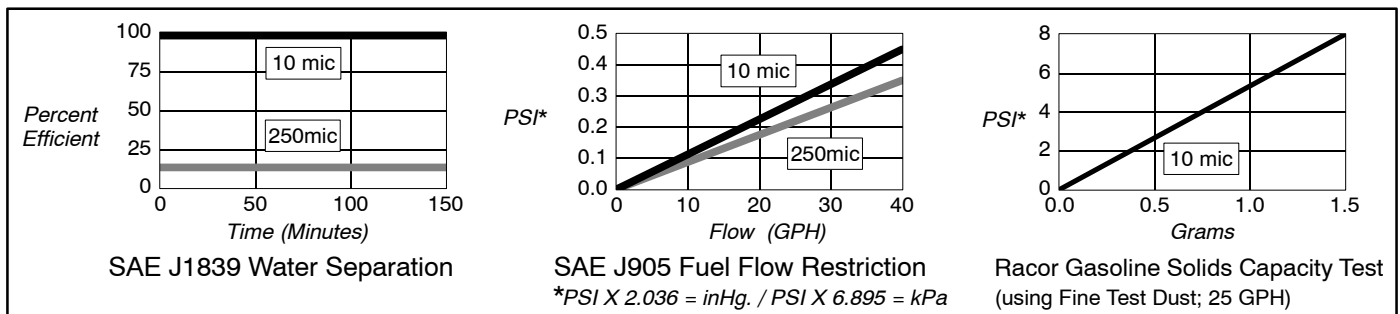


025-RAC-01/02

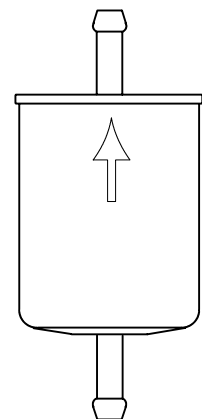
Replacement Service Parts -Elements include replacement bowl O-ring.
Note: Replace filter annually or at the first indication of power loss, whichever comes first. Always keep an extra filter element on hand.

025-RAC-01	use S2501 250 micron plastic fuel straining element.
025-RAC-02	use S2502 10 micron Aquabloc™ filter element.
31391	Replacement See-thru Bowl
31185	Replacement Bowl O-ring only (for both models).

Performance Graphs -Results are from controlled laboratory tests. Field results may vary.



025-RAC-05	Features:
In-line Filter, 25 GPH. 5/16" Hose beads on inlet and outlet fuel ports with 10 micron filtering media. Secure hoses with hose clamps (not provided).	<ul style="list-style-type: none"> • All Stainless Steel construction • Black 'E' coating for corrosion protection • Only 2.5 PSI restriction @ 25 GPH. • Can withstand up to 30 PSI.



025-RAC-05

Replacement Information

This filter may be used in all suction (vacuum) side fuel system installations or in pressure side installations up to 30 PSI.
The filter should be replaced annually or if there is a noticeable loss of power, whichever comes first. Always carry a spare filter onboard as one tank full of contaminated fuel can easily plug a filter.

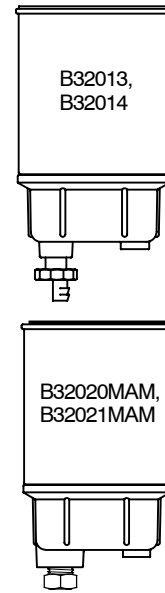
SPECIFICATIONS are found on the introduction page.



Underwriter's Laboratories
Recognized Component

How to Order - The blocks below detail the features of these units.

B32013	B32014	B32020MAM	B32021MAM
60 GPH. Fits 11/16"-16 Quicksilver heads. S3213 10 micron Aquabloc™ media & blue see-thru collection bowl. For outboard engine applications only.	60 GPH. Fits 1"-12 OMC heads. S3214 10 micron Aquabloc™ media & blue see-thru collection bowl. For outboard engine applications only.	60 GPH. Fits 11/16"-16 Mercury mounting heads. S3220 10 micron Aquabloc™ media with metal collection bowl and 3/8" drain plug. <i>UL Recognized Component</i>	60 GPH. Fits 1"-12 OMC mounting heads. S3221 10 micron Aquabloc™ media with metal collection bowl and 3/8" drain plug. <i>UL Recognized Component</i>
		For inboard or outboard engine applications.	For inboard or outboard engine applications.



2

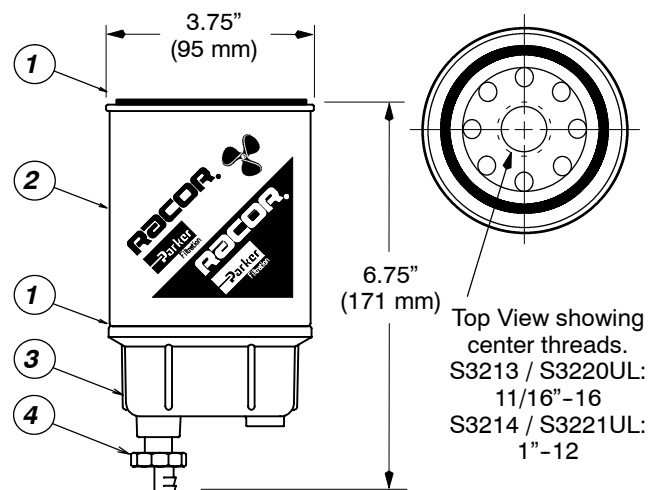
Quick Cross Reference Chart - for Racor units with bowls

Note: For replacement filter elements only, see item 1 in parts list below.

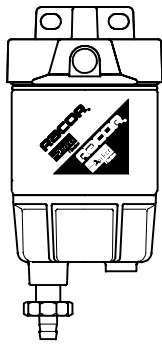
<u>Aquapower</u>	<u>RACOR</u>	<u>PCM</u>	<u>RACOR</u>
6001	B32013	R080020	S3228UL (without bowl)
6031	B32020	<u>Sierra</u>	
6040	B32014 / B32021	18-7845	B32013
		1807850	B32020MAM
<u>Baldwin</u>		<u>Suzuki US</u>	
BF791	B32013 / B32020MAM	99105-2004	S3227 (without bowl)
<u>Fram</u>		<u>Volvo</u>	
PS3808	B32013 / B32020MAM	855686-0 / -2	B32020MAM
<u>Quicksilver (Mercury Marine)</u>		<u>Wix</u>	
35-807172 / 35-60494-1	B32020MAM	33225	B32013 / B32020MAM
35-805269-1 / 35-807172 / 35-805269-1	B32013	<u>Yamaha</u>	
<u>OMC</u>		ABA-FUEL-FLTR	B32013
502905	B32014	MAR-23452-00-00	S3220UL (without bowl)
174144	B32021MAM		

Parts List

Item/Part No.	Description	Case Qty.
1 20707	O-ring / gasket pack: all units	1
2 S3213	'B32013' Element -10 micron	12
S3214	'B32014' Element -10 micron	12
S3220UL	'B32020' Element -10 micron	12
S3221UL	'B32021' Element -10 micron	12
3 RK30747	See-thru Blue Bowl (shown)	1
RK30473-02	Metal Bowl & NPT plug, white powder 'paint' coating (MAM)	1
4 RK30476	Plastic Drain Knob	1
RK22099	Drain Gasket	
918-N6	Metal Plug, 3/8" NPT (MAM)	1



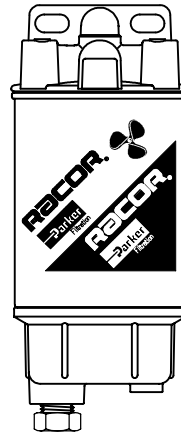
Model Illustrations



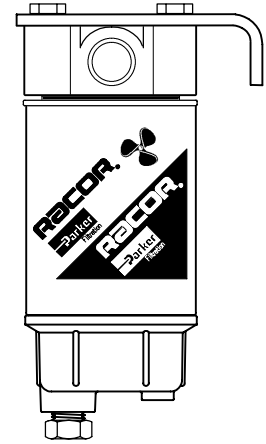
120R-RAC-01



320R-RAC-01,
320R-RAC-02



660R-RAC-01,
660R-RAC-02



3120R-RAC-32
(side view)

Special Notes

1. 120R-RAC-01, 320R-RAC-01, and 660R-RAC-01 configurations with blue, see-thru bowls, are for outboard engine applications **only**.
3. MAM metal bowl units are approved for gasoline service. UL Recognized.
4. 320R-RAC-02, 660R-RAC-02 and 3120R-RAC-32 configurations are approved for inboard engine or outboard engine gasoline service. UL Listed.
5. For additional information and availability, contact customer service: (800) 344-3286, 6 AM to 5 PM, Pacific Time, or e-mail us from our website, www.parker.com/racor.



Specifications

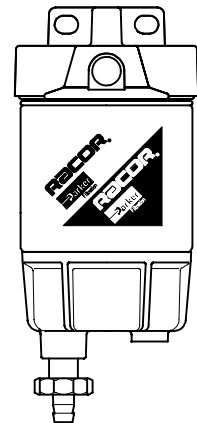
BASIC MODELS		120R-RAC-01	320R-RAC-01 320R-RAC-02	660R-RAC-01 660R-RAC-02	3120R-RAC-32
Maximum Flow Rate	GPH LPH	30 114	60 227	90 340	120 454
Filter Element Part Numbers		S3240	S3227/ S3228UL	S3232/ S3232UL	S3232UL
Center Threads		M18 X 1.5	1-14	1-14	1-14
Head Port Size		1/4-18NPTF(4)	1/4-18NPTF(3)	3/8-18NPTF(4)	1/2-14NPTF(2)
Height	in.	6.5	9.38	11.00	10.38
	mm	166	238	280	264
Width	in.	3.2	4	4.2	4
	mm	81	102	106	102
Depth	in.	3.2	4	4.5	5
	mm	81	102	114	127
Weight (dry)	Lbs.	1.1	2	3	2
	kgs.	0.5	0.90	1.4	0.90
Clean Pressure Drop	PSI	0.15	0.61	0.61	0.15
	kPa	1.03	4.23	4.23	1.03
Max Pressure	PSI	7			
Element Removal					
Underbowl Clearance	in. mm	1 25.4	1 25.4	1 25.4	1 25.4
Operating Temperature		-40° / +255° F / -40° / +124° C			Temp. ¹
¹ 3120R-RAC-32 Operating Temperature: -10° / +180° F / -23° / +82° C					

SPECIFICATIONS are found on the introduction page.

How to Order

120R-RAC-01

Fuel Filter / Water Separator Assembly. This unit is designed for smaller gasoline applications and may handle fuel flows up to 30 gallons per hour (GPH). The assembly has an anodized base plating and is then coated with a durable electrostatically applied powder coating for superior corrosion resistance. The spin-on filter design is simple to replace and the reusable plastic contaminant collection bowl features a self-venting drain valve for removing unwanted water.



120R-RAC-01

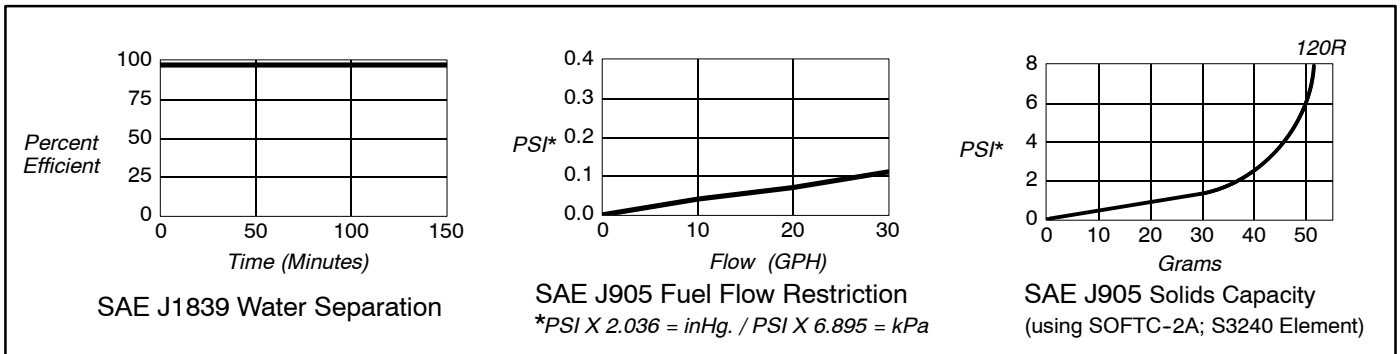
2

Replacement Service Element -12 per case, element seals included.

Element Part No.	Micron Rating
S3240	10

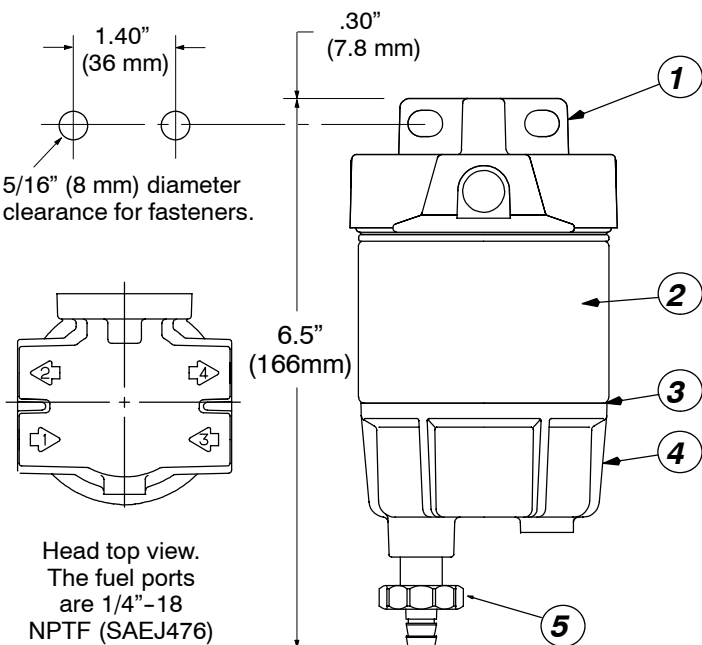
Performance Graphs

-These results are from controlled laboratory tests. Field results may vary.



Mounting Pattern / Parts List

-The circled number corresponds to the item number shown below.

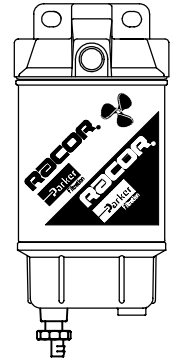


Item/Part No.	Description	Case Qty.
1	RK10214-01 Head, 1/4" NPTF Ports	1
	918-N4 1/4" steel port plugs	1
2	S3240 Service Element, 10 micron	12
3	RK10012 Bowl O-ring	1
4	RK10222 See-thru Bowl / Drain	1
5	RK30476 Drain Valve Assembly	1
	10223 Installation Instructions	

SPECIFICATIONS are found on the introduction page.

How to Order -The example below illustrates how the part numbers are constructed.

320R-RAC	-01
<p><u>Basic Model</u> 60 GPH. Three port head with 1/4" NPT tapered pipe threads, anodized base plating, and white powder 'paint' coating.</p>	<p><u>Bowl Configuration:</u> '-01' for See-thru bowl (outboard engine use only) '-02' for Metal bowl (inboard or outboard engine use). UL MARINE LISTED</p>



320R-RAC-01

Replacement Service Elements

SERVICE ELEMENT INCLUDES REPLACEMENT TOP AND BOTTOM SEAL.

320R-RAC-01 use **S3227**, 10 micron.

320R-RAC-02 use **S3228UL**, 10 micron. UL Recognized element.



320R-RAC-02



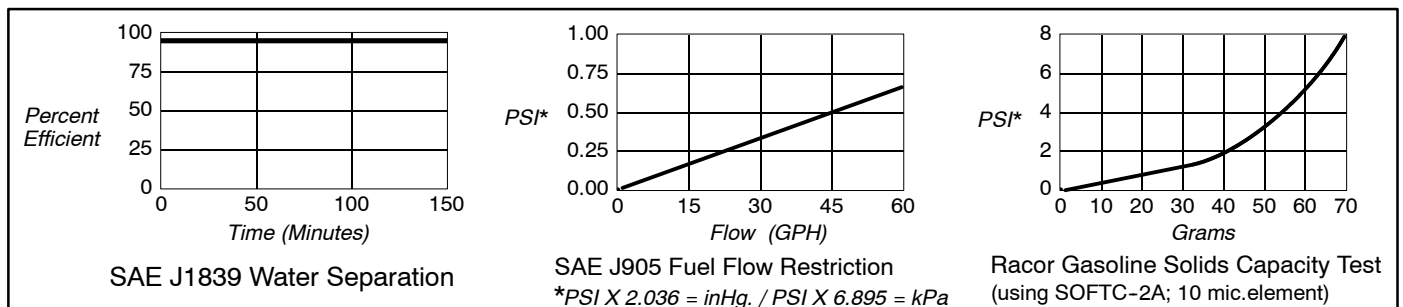
Mounting Hole Pattern / Parts List

Item/Part No.	Description	Case Qty.
1	RK20180 Mounting Head	1
2.	20707 O-ring / gasket pack: all units	1
3.	S3227 '01' Element (10 micron)	12
	S3228UL '02' Element (10 micron)	12
4	RK30747 '01' See-thru Blue Bowl (shown)	1
	RK30473-02 '02' Metal Bowl and NPT plug, White powder 'paint' coating	1
5	RK30476 '01' Drain Knob	1
	918-N6 Steel port Plug, 3/8" NPT	1
	22237 Installation Instructions	

Head top view. Fuel ports are: 1/4"-18 NPT (SAEJ476)

Performance Graphs

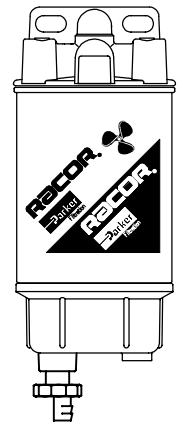
These results are from controlled laboratory tests. Field results may vary.



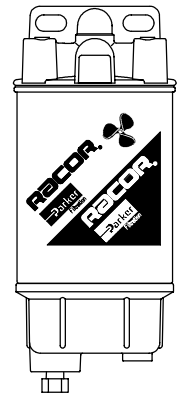
SPECIFICATIONS are found on the introduction page.

How to Order -The example below illustrates how the part numbers are constructed.

660R-RAC	-01
<p><u>Basic Model</u> 90 GPH. Four port head with 3/8" NPT tapered pipe threads, anodized base plating, and white powder 'paint' coating.</p>	<p><u>Bowl Configuration:</u> '-01' for See-thru bowl (outboard engine use only) '-02' for Metal bowl (inboard or outboard engine use). UL MARINE LISTED</p>



660R-RAC-01



660R-RAC-02

Replacement Service Elements

SERVICE ELEMENT INCLUDES REPLACEMENT TOP AND BOTTOM SEAL.

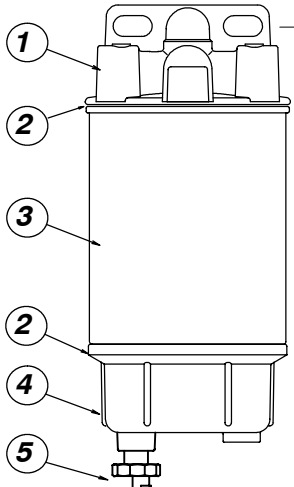
660R-RAC-01 use **S3232**, 10 micron.

660R-RAC-02 use **S3232UL**, 10 micron. UL Recognized element.



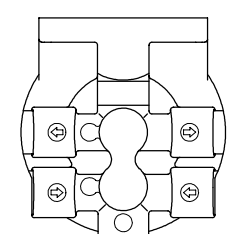
Mounting Hole Pattern / Parts List

Item/Part No.	Description	Case Qty.
1 RK21411	White Mounting Head	1
2 20707	O-ring / gasket pack: all units	1
3. S3232	'01' Service Element	12
S3232UL	'02' Service Element	12
4 RK30747	'01' See-thru Blue Bowl (shown)	1
RK30473-02	'02' Metal Bowl & NPT plug	
	White powder 'paint' coating	1
5 RK30476	'01' Drain Knob (shown)	1
918-N6	Steel port plug, 3/8" NPT	1
21385	Installation Instructions	



2.25" (57 mm)

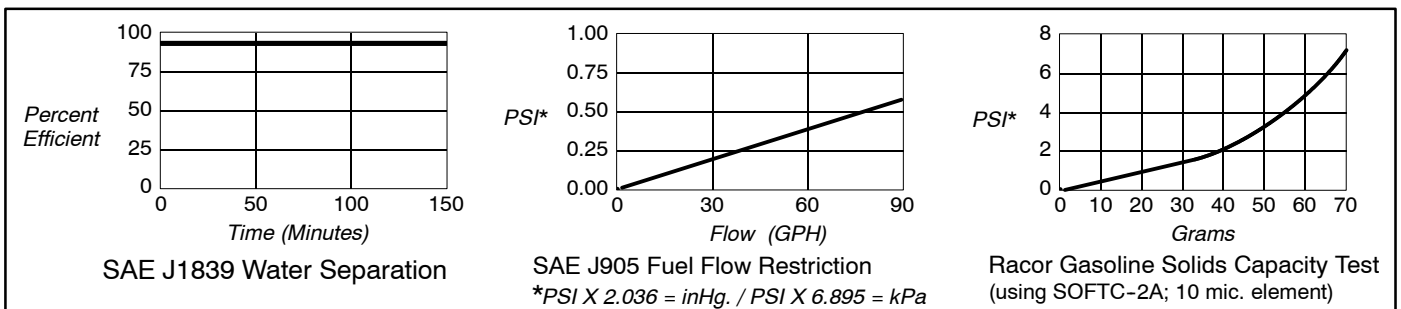
3/8" (10mm) diameter clearance for fasteners.



Head top view. Fuel ports are: 3/8"-18NPTF (SAEJ476)

Performance Graphs

These results are from controlled laboratory tests. Field results may vary.

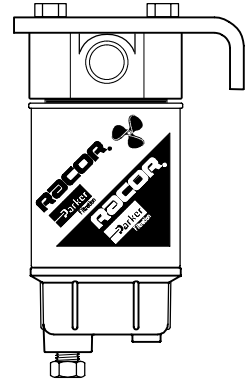


SPECIFICATIONS are found on the introduction page.

How to Order

3120R-RAC-32

Fuel Filter / Water Separator Assembly. This unit is designed for high-performance gasoline applications and may handle fuel flows up to 120 gallons per hour (GPH) or 2 gallons per minute. The assembly is coated with a durable electrostatically applied powder coating that resists corrosion. The spin-on filter design is simple to replace and the reusable metal contaminant collection bowl features a plug for removing unwanted water.



3120R-RAC-32

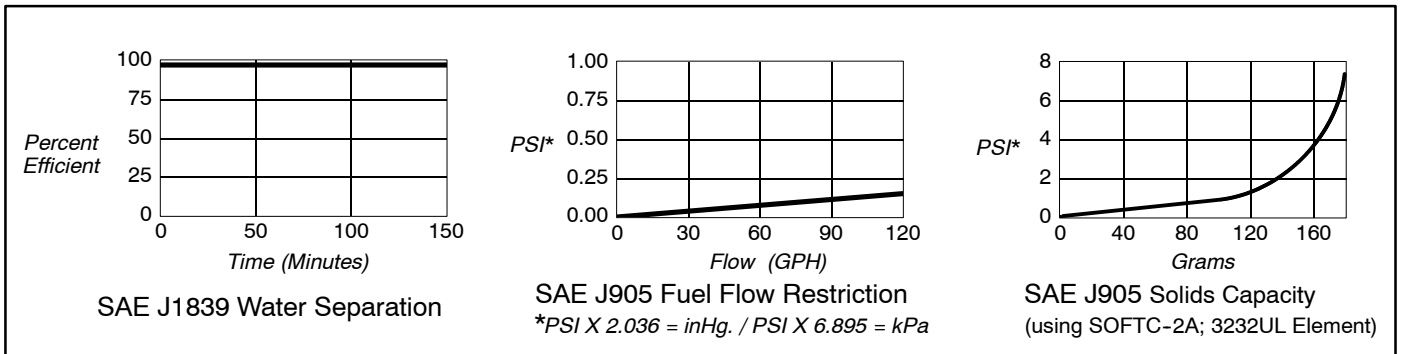
Replacement Service Element -12 per case, element seals included.

Element Part No.	Micron Rating	Element Height	Overall Height
S3232UL	10	5-1/2"	10-3/8"



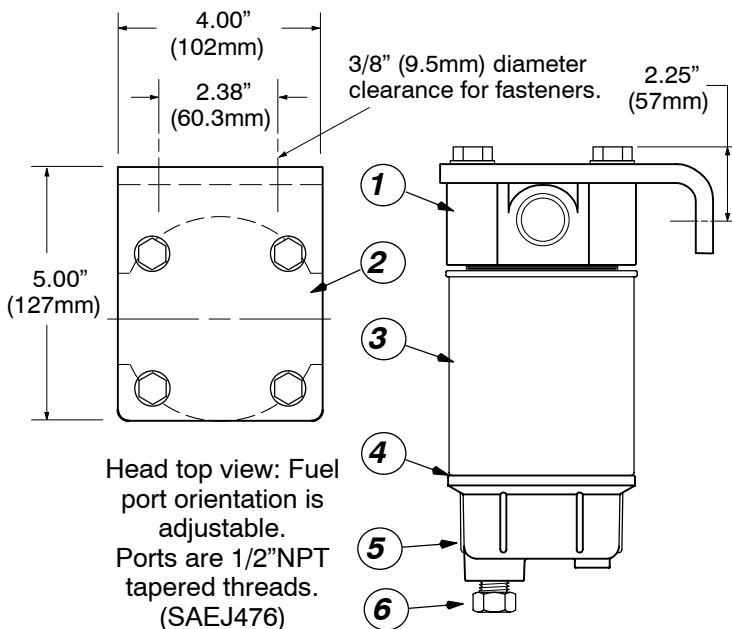
Performance Graphs

-These results are from controlled laboratory tests. Field results may vary.



Mounting Pattern / Parts List

-The circled number / corresponds to the item number shown below.



Item/Part No.	Description	Case Qty.
1 RK30308-01	Filter Head with 1/2" NPT fuel ports and white powder 'paint' coating.	1
2 RK30288-01	Mounting Bracket with white powder 'paint' coating & fasteners.	1
3 S3232UL	Replacement Spin-on Element, 120 GPH, 10 micron.	12
4 RK30076	Bowl O-ring	20
5 RK30473-02	Replacement Metal Bowl. White powder 'paint' coating.	1
6 918-N6	Steel Plug, 3/8" NPT	1

Selection Information

General

The Racor Marine Diesel Spin-on Series feature a variety of compact sizes to fit most installations and cramped engine compartments.

Mounting Heads:

These units feature multiple fuel ports and many have more than one inlet or outlet. All have a unitized mounting bracket. The 200 and 400 Series heads feature a built-in, hand operated fuel priming pump to simplify servicing procedures.

Filters:

All units feature spin-on replaceable filters and contaminant collection bowls except for the high-pressure 110A. All units may be specified with an in-bowl water probe when used with diesel or kerosene applications.

High-capacity Aquabloc™ filter elements stop water and remove solid contamination. A 10 micron filter (or secondary and even final) is used to filter fuel which is known to be of good quality. A 2 micron filter, used with the 120R model, (or final filter) is the finest filtration available and is the last filter used prior to engine ingestion.

A simple rule to remember is the finer the filtration, the more frequent the filter change. (*Carry extra filters on board*).

Reusable Collection Bowls:

The metal bowls used with these models feature an NPT tapered thread plug for removing contaminants. An optional UL Listed shut-off drain valve may be ordered to simplify servicing.

Options -Available for Diesel fuel systems only.

Water Probe RK21069. When used with a Racor Water Detection Module, the operator can be alerted of a high-water condition, even while the equipment is operating. The bowl is then drained of water at the earliest convenience. Note: A Racor Water Detection Module is needed to work with this probe. See Accessories. Water Probe RK30880. Same features as above, except the 12 or 24 vdc electronic detection module is built-in the probe housing. Includes a detachable connector. See Accessories. **Danger! Do not use water probes with gasoline applications. This could cause an explosion.**

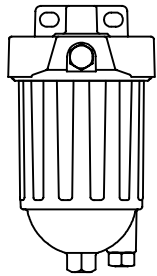
SELECTION

1. Along with the information you obtained in SECTION 2, SELECTION (page 94), consider the following: Are there any space limitations in the available location? The location should provide adequate space for removing the element, draining off contaminants from the bowl (and operating the primer pump on 200 and 400 Series models).
2. What filtration rating is needed? 2, 10 or 30 micron?
3. What options are needed? Water probe and/or a bowl shut-off drain valve?

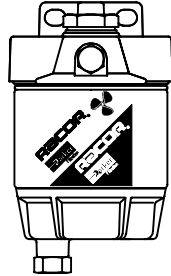
Using this information, select a unit from the next page, or check the models which follow to find the right unit for your application.

For additional information, call your Racor dealer or call Racor customer service at (209) 521-7860 or (800) 344-3286, 6:00 AM to 5:00 PM, Pacific Time, or e-mail us from our website, www.parker.com/racor.

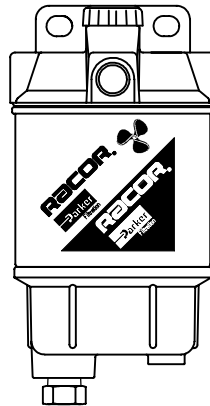
Model Illustrations



110A



120RMAM



200RMAM Series



400MAM Series

2

Special Notes

1. Above units feature metal bowls and are approved for diesel service and are UL Listed, USCG Accepted.
2. Model 110A may be used in pressure applications (up to 100 PSI) and gasoline service. UL Listed.
3. The 200RMAM and 400MAM Series units include the head mounted hand priming pump as standard.
4. The 4120MAM model features large 3/4" UNF ports for high-flow, low-restriction applications.
5. Allow at least 2 inches (51 mm) clearance under the units for element replacement and water collection.
6. For additional information and availability, contact customer service: (800) 344-3286, 6 AM to 5 PM, Pacific Time.



Specifications

BASIC MODELS		110A	120RMAM	215RMAM	230RMAM	245RMAM	445MAM	460MAM	490MAM	4120MAM
Maximum Flow Rate	GPH / LPH	15 / 35 ¹ 57 / 132 ¹	15 57	15 57	30 114	45 170	45 170	60 227	90 341	120 454
Port Size		1/4"NPT	1/4"NPT	1/4"NPT	1/4"NPT	1/4"NPT	3/8"NPT	3/8"NPT	3/8"NPT	3/4"UNF
Number of Ports		4	4	3	3	3	4	4	4	4
Filter Element		R11T	R12SUL	R15TUL	R20TUL	R25TUL	S3204TUL	S3211TUL	S3201TUL	S3201TUL
Center threads		N/A	M18 X 1.5	1"-14	1"-14	1"-14	1"-14	1"-14	1"-14	1"-14
Height	in./mm	6/152	5.7/145	8.3/211	9.0/229	10.5/267	9.4/239	10.8/275	12.8/324	12.8/324
Width	in./mm	3.2/81	3.2/81	4/102	4/102	4/102	4.5/114	4.5/114	4.5/114	4.5/114
Depth	in./mm	3.2/81	3.2/81	4/102	4/102	4/102	4.8/121	4.8/121	4.8/121	4.8/121
Weight	Lbs./kgs.	1.3/0.59	1.3/0.59	1.8/0.80	2/0.90	2.2/1	2.9/1.3	3.1/1.4	3.3/1.5	3.3/1.5
Clean Press.Drop	PSI / kPa	0.15 1.08	0.15 1.08	0.12 0.83	0.31 2.14	0.61 4.21	0.17 1.20	0.30 2.07	0.35 2.41	0.45 3.10
Max.Allowable Pressure	PSI / kPa	100 689	7 48	30 207	30 207	30 207	15 103	15 103	15 103	15 103
Bowl Water Capacity	ml	36	52	58	58	58	58	58	58	58
Operating Temperature		- 40° / +255° F / - 40° / +121° C								

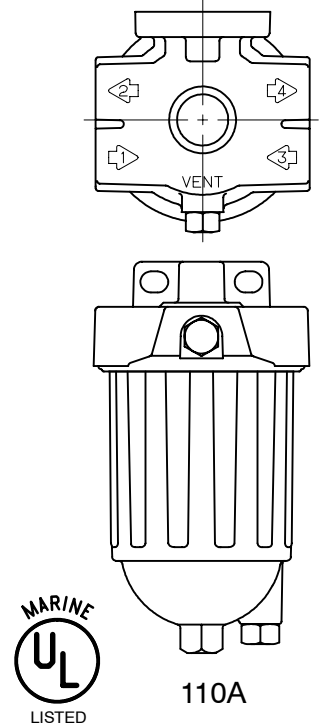
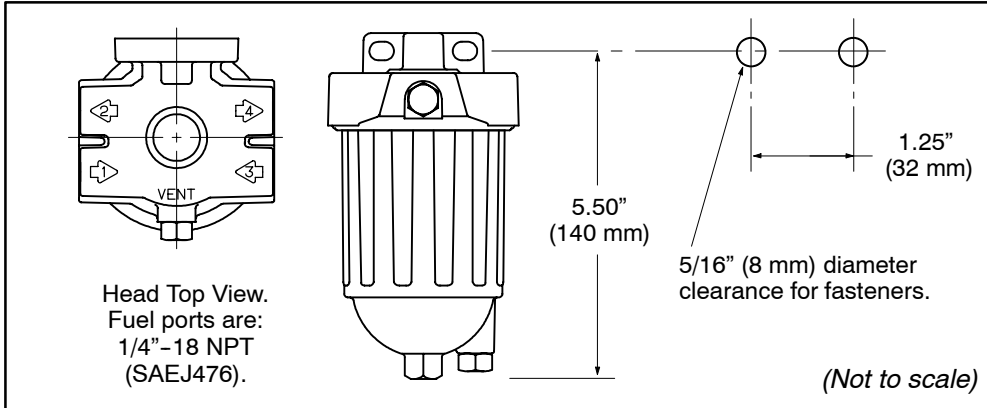
¹ Flow rate for gasoline applications.

SPECIFICATIONS are found on the introduction page.

110A	Replacement Service Element SERVICE ELEMENT INCLUDES LID SEAL.
<u>Basic Model</u> 15 GPH Diesel / 35 GPH Gasoline Two piece die-cast aluminum construc- tion.	R11T 10 Micron -Recommended for Primary or Secondary* Filtration *Consult engine manufacturer or Racor Distributor.

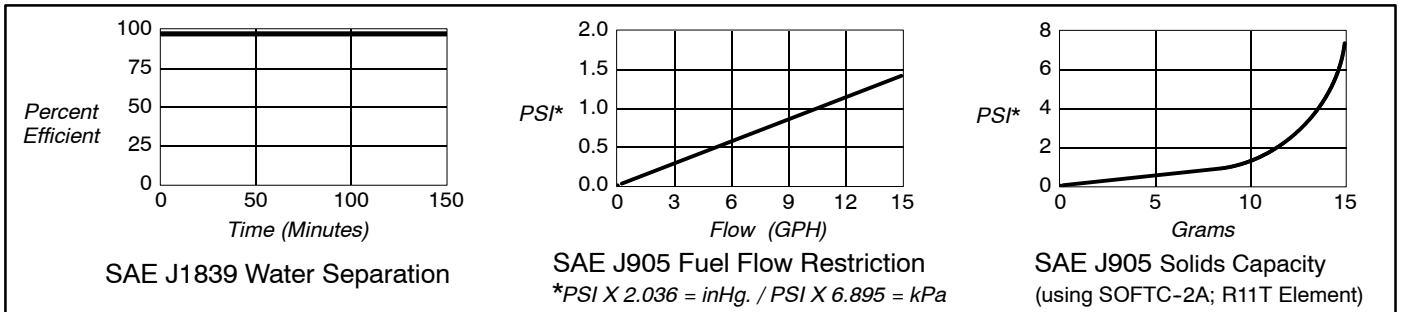
Mounting Hole Pattern

-Refer to Diesel Spin-on Series introduction page for filter dimensions.



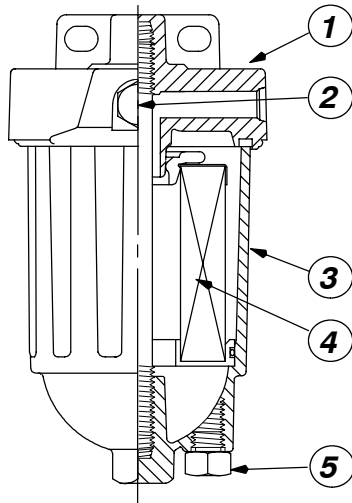
Performance Graphs

-These results are from controlled laboratory tests. Field results may vary by application.



Parts List

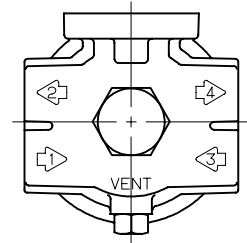
The circled number corresponds to the item number shown in the parts list below.



Item/Part No.	Description	Case Qty.
1 RK21361	110A Head, 1/4"NPT Ports	1
2 RK10110	Metal Vent Plug, 3/8"-24 UNF	1
3 RK21364	110A Housing	1
4 R11T	Replacement Element	12
5 RK20022	Metal Plug, 1/2"-20 UNF	1
RK21363	110A Gasket/O-ring Kit	1
21410	Installation Instructions	

SPECIFICATIONS are found on the introduction page.

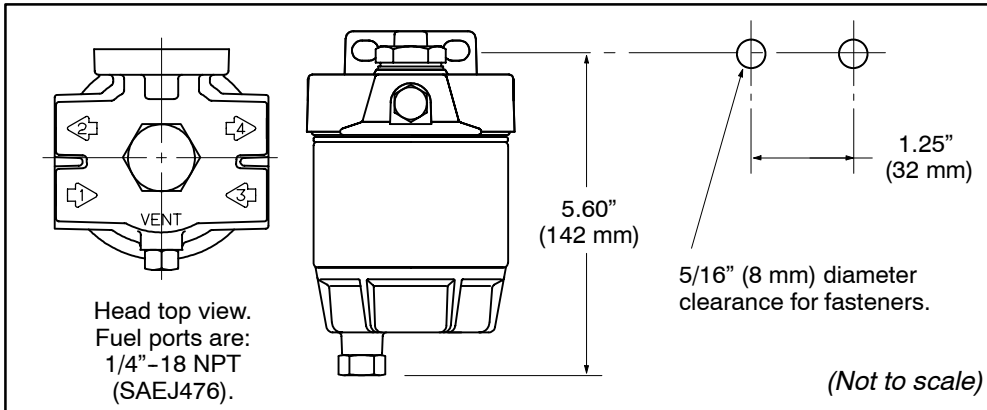
120RMAM	Replacement Service Element SERVICE ELEMENT INCLUDES SEALS.
<u>Basic Model</u> 15 GPH Head and bowl are die-cast aluminum.	R12SUL 2 Micron -Recommended for Secondary (Final) Filtration <i>*Consult engine manufacturer or Racor Distributor.</i>



2

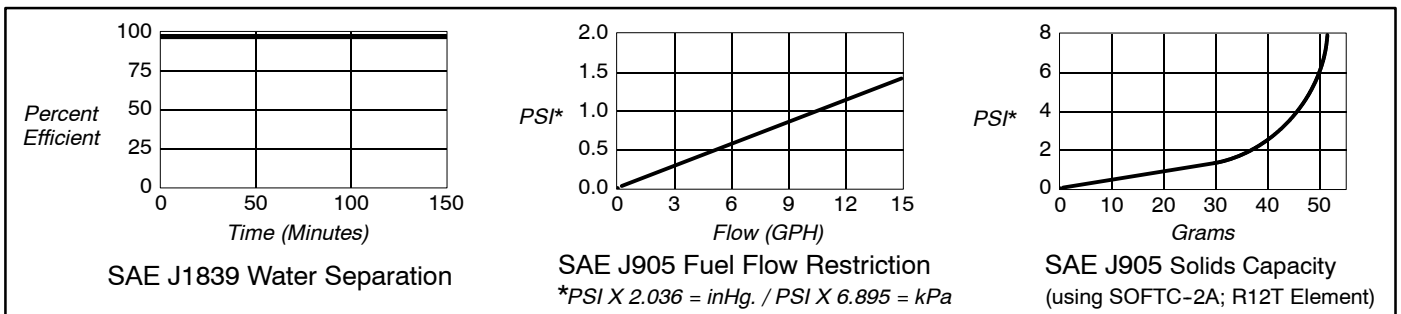
Mounting Hole Pattern

-Refer to Diesel Spin-on Series introduction page for filter dimensions.



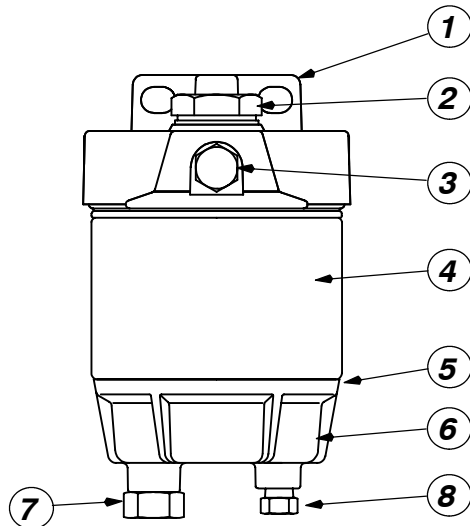
Performance Graphs

-These results are from controlled laboratory tests. Field results may vary by application.



Parts List

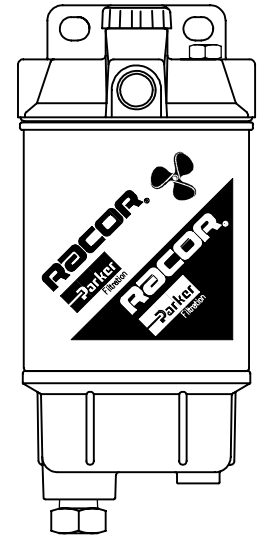
The circled number corresponds to the item number shown in the parts list below.



Item/Part No.	Description	Case Qty.
1 RK10117	Head, 1/4" NPT Ports	1
2 RK10006	Head Bolt Assembly	1
3 RK10110	Metal Vent Plug, 3/8"-24 UNF	1
4 R12SUL	Replacement Element	
	2 Micron, UL Recognized	20
5 RK10012	Bowl O-ring	1
6 RK10109	Metal Bowl	1
7 RK20022	Metal Plug, 1/2"-20 UNF	1
8 918-N2	Steel Drain Plug, 1/8"NPT	1
	RK12041 Metal Plug, 1/4" NPT	1
	RK10063 Gasket/O-ring Kit	1
	10218 Installation Instructions, 120RMAM	

SPECIFICATIONS are found on the introduction page.

245RMAM	Replacement Service Element SERVICE ELEMENT INCLUDES SEALS.
215RMAM: 15 GPH 230RMAM: 30 GPH 245RMAM: 45 GPH Includes primer pump and metal bowl.	215 use R15TUL (10 Micron) 12/case 230 use R20TUL (10 Micron) 12/case 245 use R25TUL (10 Micron) 12/case

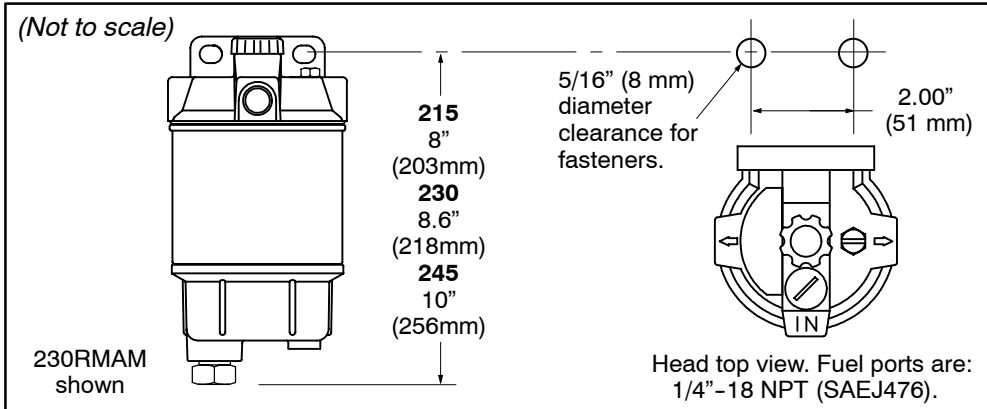


245RMAM shown



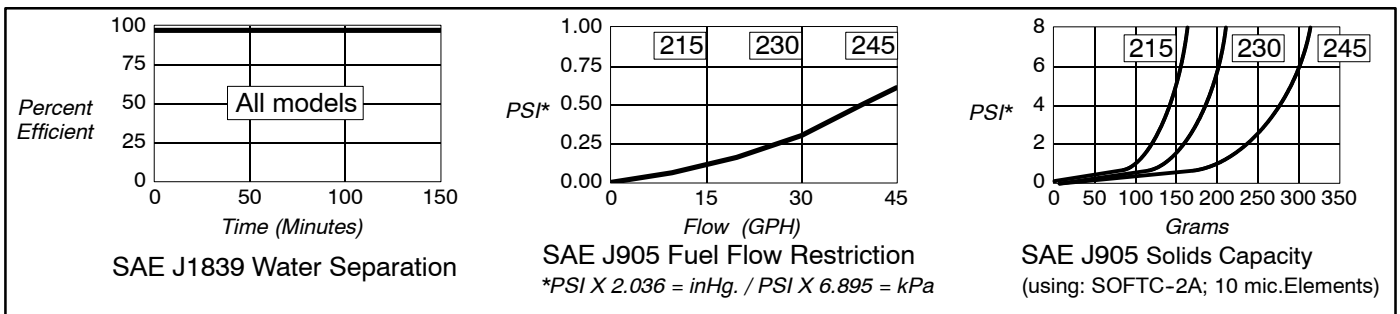
Mounting Hole Pattern

-Refer to Diesel Spin-on Series introduction page for filter dimensions.



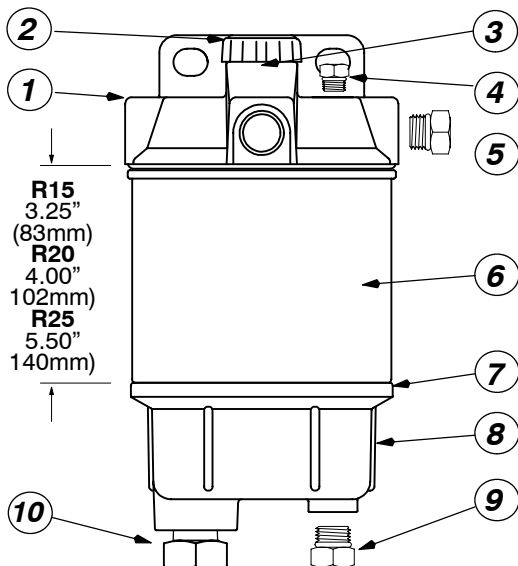
Performance Graphs

-These results are from controlled laboratory tests. Field results may vary by application.



Parts List

The circled number corresponds to the item number shown in the parts list below.



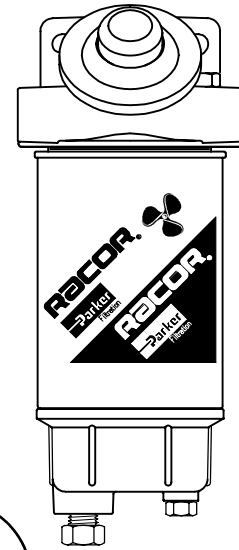
Item/Part No.	Description	Case Qty.
1	RK20046 Head, 1/4" NPT Ports	1
2	RK20025 Primer Pump Assembly	1
3	RK20011 Check Ball and Plastic Cap	1
	RK20742 Metal Check Ball Cap	1
4	RK10110 Metal Vent Plug, 3/8"-16 UNF	1
5	RK12041 Metal Plug, 1/4" NPT	1
6	See 'Replacement Service Element' box above	
7	RK22244 Bowl O-ring	20
8	RK22368 Beige Metal Bowl (with 3/8 NPT drain and 1/2"-20 probe ports)	1
9	RK20022 Metal Plug, 1/2"-20 UNF	1
10	918-N6 Steel Plug, 3/8" NPT	1
	RK20075 Complete Gasket/O-ring Kit	1
	22360 Installation Instructions, 200 Series	

Marine Diesel Spin-on Series Models 445, 460, 490, 4120MAM

SPECIFICATIONS are found on the introduction page.

How to Order -The example below illustrates how the part numbers are constructed.

445MAM	P	10
445MAM: 45 GPH 460MAM: 60 GPH 490MAM: 90 GPH 4120MAM: 120 GPH The powder coated head includes a hand primer pump with 2 inlets & outlets. The metal bowl is standard.	<u>Water Probe:</u> ¹ Specify 'P' for an in-bowl water probe. (Racor part number RK21069). Omit 'P' if not desired.	<u>Element Filtration Rating:</u> These units are standard with a 10 micron element. Add '10' to the part number.
¹ Order a water detection module separately from the Marine Accessories Section.		



490MAM

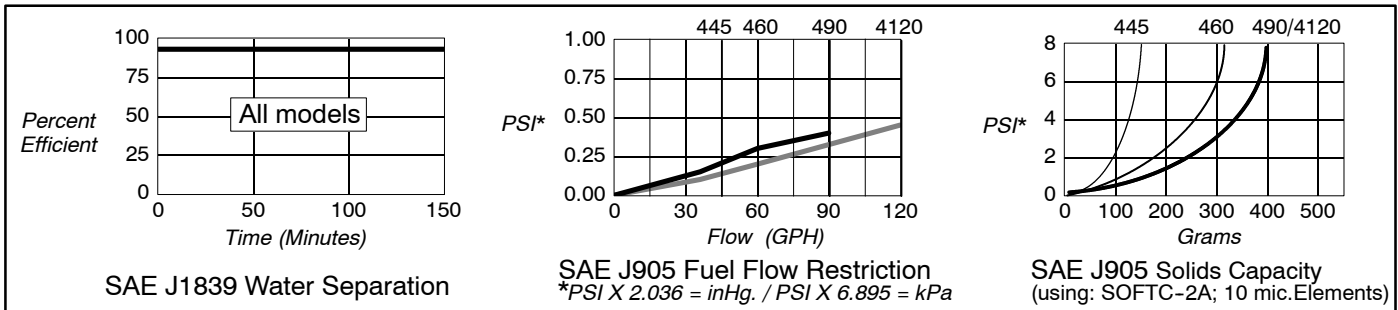
Replacement Service Elements -Service elements include seals.

445MAM	use	S3204TUL (10 Micron) 12 per case
460MAM	use	S3211TUL (10 Micron) 12 per case
490MAM	use	S3201TUL (10 Micron) 12 per case
4120MAM	use	S3201TUL (10 Micron) 12 per case



Performance Graphs

-These results are from controlled laboratory tests. Field results may vary by application.

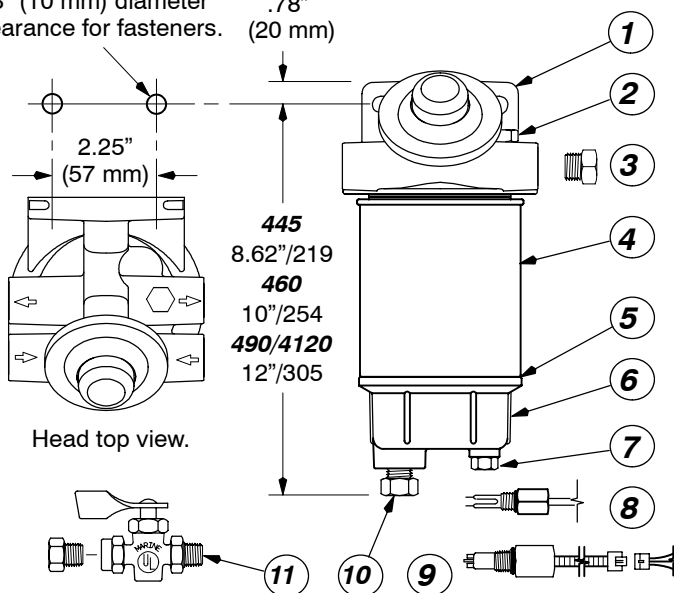


Mounting Hole Pattern / Parts List

The circled number corresponds to the item number shown.

3/8" (10 mm) diameter clearance for fasteners.

.78" (20 mm)



Item/Part No.	Description	Case Qty.
1	RK22425 Mounting Head, 3/8"NPT	1
	RK22270 4120 Mounting Head, 3/4"UNF	1
2	RK10110 Vent Plug (metal)	1
3	01SP-6S Metal Plug, 3/8" NPT	1
4	S3204TUL 445 Service Element, 10 micron	12
	S3211TUL 460 Service Element, 10 micron	12
	S3201TUL 490/4120 Service Element, 10 mic.	12
5	RK30076 Bowl O-ring	20
6	RK30495 Beige Metal Bowl, 1/4"NPT & 1/2"UNF Ports	1
7	RK20022 Metal Plug, 1/2"-20 UNF	1
8	RK21069 ¹ Water Probe, 1/2"-20 UNF	1
9	RK30880 Water Probe with Electronics	1
10	918-N4 Steel Plug, 1/4" NPT	1
11	RK19492 UL Listed Marine Shut-off Valve	1
	22490 Installation Instructions, 400 Series	

¹ Use with water detection module. See Accessories Section.

Selection Information

General

Racor's heavy-duty Series MC Marine Fuel Filter/Water Separators protect engines from water, dirt, foulants and other contaminants with superb efficiency and filter life. The primary 10 or 30 micron fuel filters last by as much as 1000 hours with average fuel quality.

The units are designed for installation on the suction (vacuum) side of the fuel transfer pump for best efficiency. The Series MC filters are normally installed as your primary filtration. Do not remove the engine secondary or final filter if one is present.

Compliance and Certification for Marine Use

All Racor Series MC units meet 33 CFR (Code of Federal Regulations) Part 183, subpart J (pleasure craft) and 46 CFR, Part 56.50-75 (commercial shipping) for diesel fuel systems. Additionally, Series MC units meet or exceed A.S.T.M. Specification F-1201-88 which has been adopted by the United States Coast Guard for inspected vessels. The unit label is ASTM formatted for identification and individual model certification is available upon request.

Filters:

High-capacity replaceable cartridge elements stop water and remove solid contamination and are available in 2, 10 or 30 micron. Equipment owners can specify their filtration needs based on application, fuel quality, operating climates and maintenance schedules.

A 30 micron filter (or primary filter) is used to filter raw fuel (or poor quality fuel) before it can be further filtered by finer medias such as a 10 or 2 micron.

A 10 micron filter (or primary/secondary filter) is used to filter fuel which is known to be of good quality.

A final filter, such as a 2 micron filter is the finest filtration available and should be the last filter in the fuel delivery system before the fuel is ingested by the engine.

A simple rule to remember is the finer the filtration, the more frequent the filter change. (*Carry extra filters with your equipment*).

Water Collection:

The Series MC collection sump stores water and contaminants until it is drained by the operator. All units feature a rugged, 1/4 turn drain valve for easy service.

Optional Water Probe -Available for Diesel fuel systems only.

All units may be ordered with a water probe to alert the operator of a high-water condition, even while the equipment is operating. The unit is then drained of water at the earliest convenience.

Note: The RK30880 Water Probe features built-in electronics to detect the presence of water. An indicator lamp is supplied for in or under dash mounting.

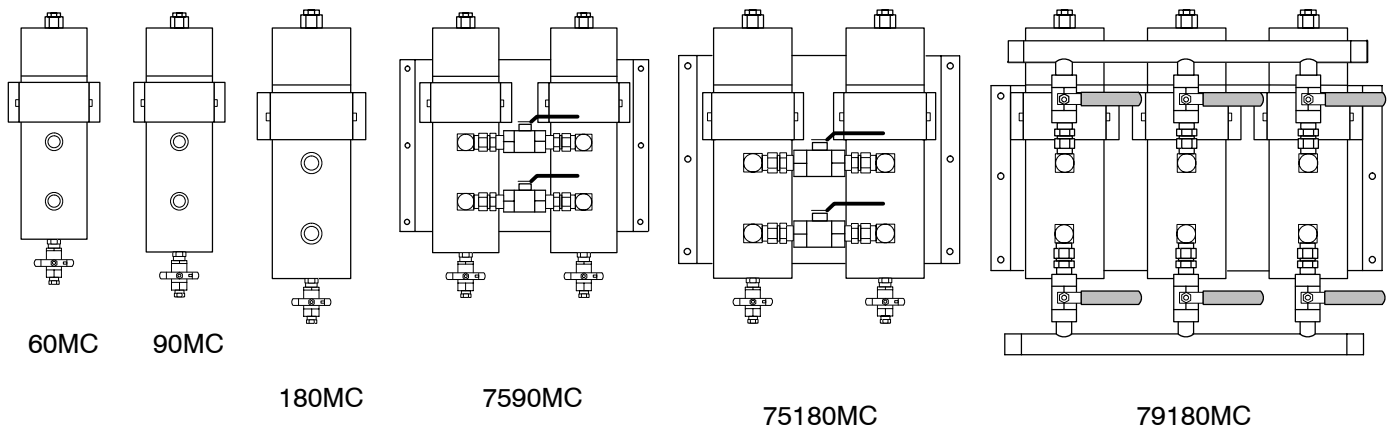
SELECTION

1. Along with the information you obtained in SECTION 2, SELECTION (page 94), consider the following:
Are there any space limitations in the available location? The location should provide adequate overhead space for removing the element and underneath space for draining off contaminants.
2. What filtration rating is needed? 2, 10 or 30 micron?
3. Is a water probe option needed?
4. Can the engine be shut down for servicing?
For engine(s) that cannot be shut-down if servicing becomes necessary, specify only multiplex valved units.

Using this information, select a unit from the following page for your application.

For additional information, call your Racor dealer or call Racor customer service at (209) 521-7860 or (800) 344-3286, 6:00 AM to 5:00 PM, Pacific Time, or e-mail us from our website, www.parker.com/racor.

Model Illustrations



Special Notes

1. A water probe option is available.
2. Allow at least 2 inches (51 mm) clearance under the units for draining water.
3. Allow at least 5 inches (127mm) clearance above the units for element replacement.
4. Maximum allowable pressure for all models is 50 PSI / 345 kPa.
5. These units comply with ASTM Specification F1201-88 which is accepted by the USCG for inspected vessels.
6. For additional information and availability, contact customer service at: (800) 344-3286, 6 AM to 5 PM, Pacific Time.
7. Note: '75' models do not have the option for both filters to be on-line at the same time.

Specifications

BASIC MODELS		60MC	90MC	180MC	7590MC	75180MC	79180MC
Maximum Flow Rate	GPH LPH	60 227	90 341	180 681	180 681	360 1363	540 2044
Port Size,	NPT	1/2"-14	1/2"-14	3/4"-14	3/4"-14	1"-11 1/2	3/4"-14
Service Filter Element		48006 Series	48006 Series	48008 Series	48006 Series	48008 Series	48008 Series
Height	in./mm	18.75/476	19.75/502	21.75/552	19.75/502	21.75/552	21.75/552
Width	in./mm	6.31/160	6.31/160	6.4/163	17.25/438	17.5/445	25/635
Depth	in./mm	6.69/170	6.69/170	7.1/180	10.5/267	11/279	11/279
Weight (dry)	Lbs./kgs.	8.5/3.86	9/4.1	14.4/6.53	28/12	41/18.6	60/26.8
Clean Element Pressure Drop	PSI kPa	0.40 2.76	0.81 5.58	1.25 8.61	1.51 10.41	2.57 17.72	5.77 39.78
Operating Temperature		- 40° / +150° F / - 40° / +66° C (Max. temperature as tested under ASTM F1201)					

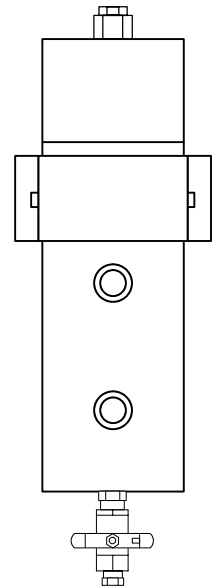
Marine Diesel Series MC

Models 60MC, 90MC, 180MC

SPECIFICATIONS are found on Series MC introduction page.

How to Order -The example below illustrates how the part numbers are constructed.

180MC	P	2
60MC: 60 GPH / 227 LPH 90MC: 90 GPH / 341 LPH 180MC: 180 GPH / 681 LPH	<u>Water Probe</u> ¹ Add P for an in-unit water probe. (Omit if not desired)	<u>Element</u> <u>Filtration Rating.</u> Specify one: 2 for 2 micron 10 for 10 micron or 30 for 30 micron



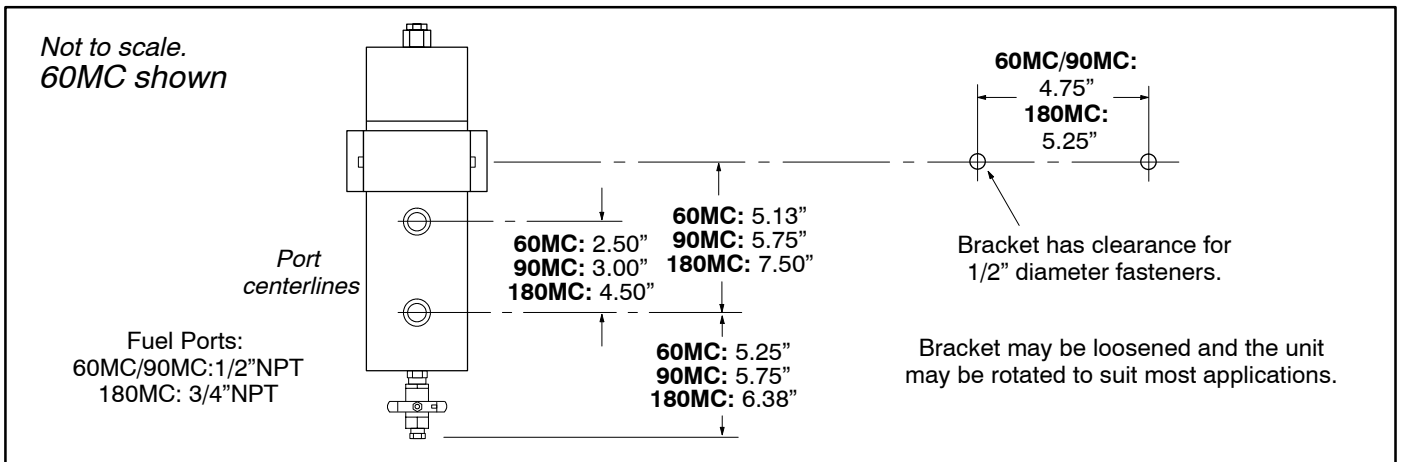
180MC Shown

Replacement Service Elements -12/case, for all Series MC Models. SERVICE ELEMENT DOES NOT INCLUDE LID SEALS.

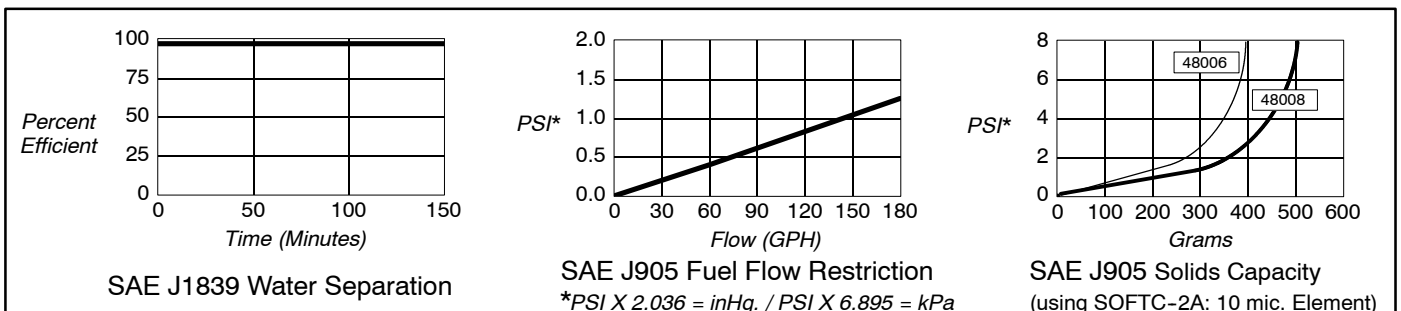
Basic Model	Final Filtration	Secondary Filtration	Primary* Filtration
60 & 90MC	2 micron	10 micron	30 micron
180MC	48006-02	48006-10	48006-30
	48008-02	48008-10	48008-30

*A secondary/final filter is required downstream.

Mounting Hole Pattern -Refer to Series MC models introduction page for filter dimensions.



Performance Graphs -These results are from controlled laboratory tests. Field results may vary by application.



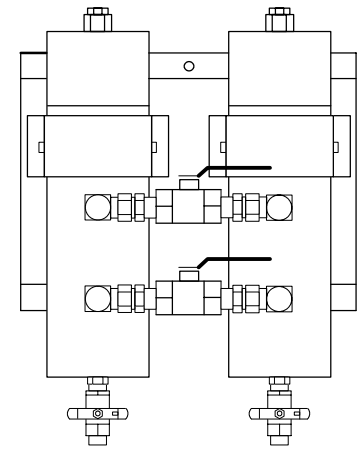
Marine Diesel Series MC

Models: Multiplex

SPECIFICATIONS are found on Series MC introduction page.

How to Order -The example below illustrates how the part numbers are constructed.

7590MC	P	
Basic Model 7590MC: ¹ Duplex unit, 180 GPH / 681 LPH 75180MC: ¹ Duplex unit, 360 GPH / 1363 LPH 79180MC: Triplex unit, 540 GPH / 2044 LPH	Water Probe. Specify P for an in unit water probe. Includes detection module. ²	Element Filtration Rating. All units are equipped with 30 micron filters. Final filters required downstream.
¹ '75' models do not have the option for both filters to be on-line at the same time. ² Contact Racor Customer Service for additional information, if necessary.		



2

Replacement Service Elements -12/case, for all Series MC models.

SERVICE ELEMENT DOES NOT INCLUDE LID SEALS.

Basic Model	Filters used/ model	Final Filtration 2 micron	Secondary Filtration 10 micron	Primary* Filtration 30 micron
7590MC	2	48006-02	48006-10	48006-30
75180MC	2	48008-02	48008-10	48008-30
79180MC	3	48008-02	48008-10	48008-30

*A secondary/final filter is required downstream.

7590MC
Shown

Mounting Hole Pattern -Refer to Series MC introduction page for filter dimensions.

Not to scale.
79180MC
shown

7590MC/75180MC:16.50"
79180MC:23.50"

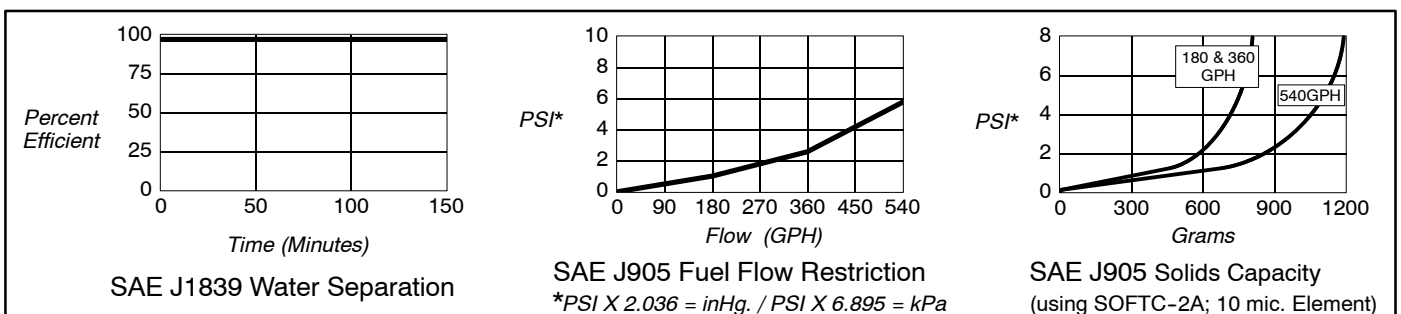
ALL: 5.25"
ALL: 10.50"

Clearance for 3/8" diameter fasteners.

Item/Part No.	Description
1	180MC Fuel filter / water separator 90MC Fuel filter / water separator
2	063005 79180MC Main bracket 063002 75180MC Main Bracket 063000 7590MC Main Bracket
3	631013 180MC Clamp bracket assy. 631012 90MC Clamp bracket assy.
4	063009 79180MC Selector valve 063011 79180MC Inlet/Outlet tube 063008 75180MC Selector valve 063007 7590MC Selector valve
5	061017 Drain valve (not shown)

For parts not listed, contact Racor Customer Service.

Performance Graphs -These results are from controlled laboratory tests. Field results may vary by application.



Selection Information

General

Racor Turbine Series Fuel Filter/Water Separators have been protecting engines from water, dirt, foulants and other contaminants for over 30 years using a patented three-stage process:

- 1. Separation.** The turbine centrifuge separates solids and 'free' water through centrifugal action. Although the turbine has no moving parts, over 30% of the contaminants are removed here.
- 2. Coalescing.** Smaller water droplets and solids coalesce on the specially designed conical baffle and fall to the collection bowl.
- 3. Filtration.** Engines benefit from near 100% water separation and fuel filtration with Racor's proprietary Aquabloc™ water repelling media.

The units are designed for installation on the suction (vacuum) side of the fuel transfer pump for best efficiency but may be installed on the pressure side up to 15 PSI.

Filters:

High-capacity Aquabloc™ replaceable cartridge elements stop water and remove solid contamination and are available in 2, 10 or 30 micron. Boat owners can specify their filtration needs based on application, fuel quality, operating climates and maintenance schedules.

A 30 micron filter (or primary filter) is used to filter raw fuel (or poor quality fuel) before it can be further filtered by finer medias such as a 10 or 2 micron. A 10 micron filter (or secondary and even final) is used to filter fuel which is known to be of good quality. A 2 micron filter (or final filter) is the finest filtration available and is the last filter used prior to engine ingestion.

A simple rule to remember is the finer the filtration, the more frequent the filter change. (*Carry extra filters on board*).

Collection Bowls:

The see-thru bowls used with these models won't discolor from alcohol, additives or UV light and feature NPT tapered thread plug for removing contaminants. An optional UL Listed shut-off drain valve may be ordered to simplify servicing. For gasoline or severe service in diesel applications, specify metal bowls, only.

Options -Available for Diesel fuel systems only.

Water Probe RK21069. All units may be ordered with an in-bowl water probe to alert the operator of a high-water condition, even while the equipment is operating. The bowl is then drained of water at the earliest convenience. Note: A Racor Water Detection Module is needed to work with this probe. See Accessories.

Water Probe RK30880. Same features as above, except the 12 or 24 vdc electronic detection module is built-in the probe housing. Includes a detachable connector. See Accessories.

Accessories

The condition of the filter may be monitored using a vacuum restriction gauge. See the Accessories Section.

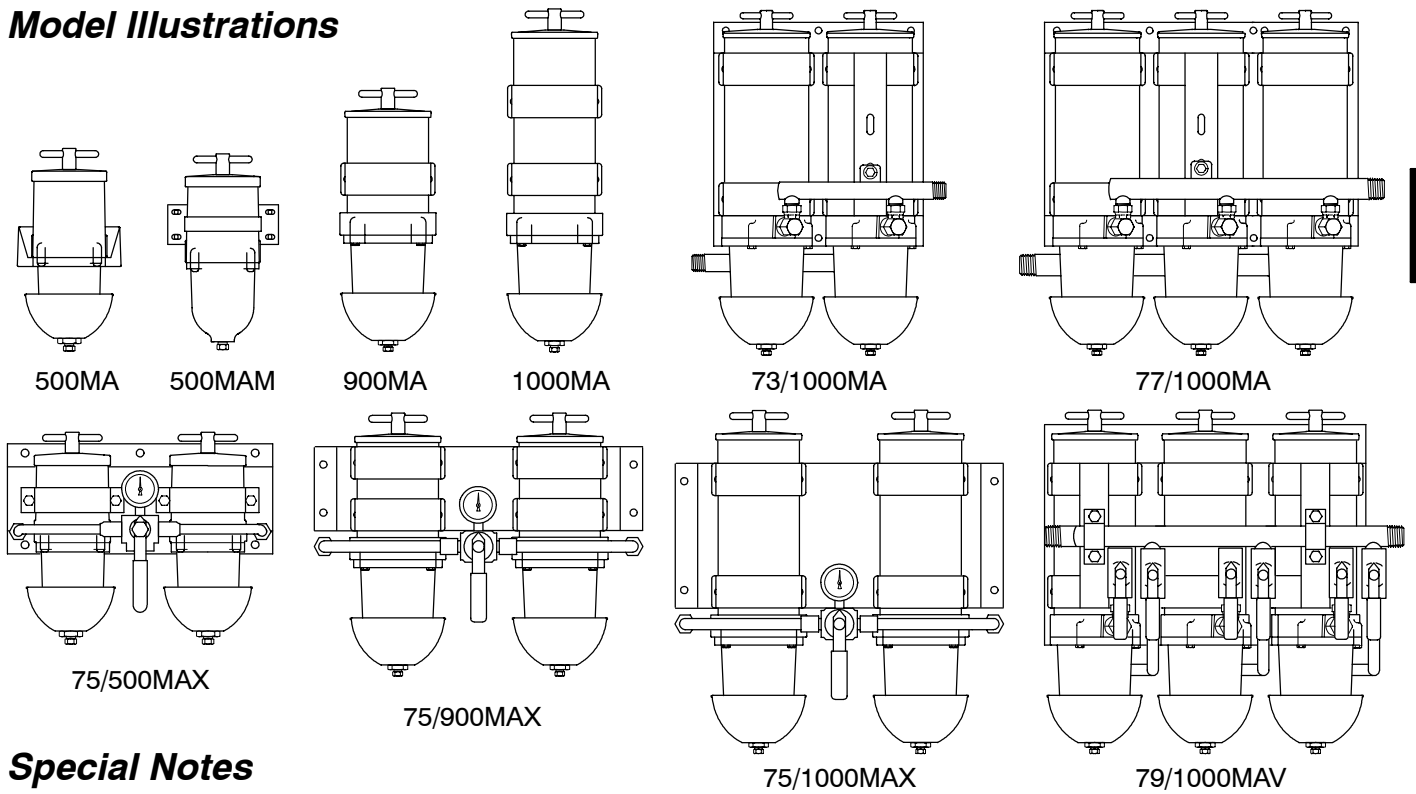
SELECTION

1. Along with the information you obtained in SECTION 2, SELECTION (page 94), consider the following:
Are there any space limitations in the available location? The location should provide adequate overhead space for removing the element and underneath space for draining off contaminants from the bowl.
2. What filtration rating is needed? 2, 10 or 30 micron?
3. What options are needed? Water probe and/or a bowl shut-off drain valve?
4. Can the engine be shut down for servicing?
For engine(s) that cannot be shut-down if servicing becomes necessary, specify only MAV or MAX units.

Using this information, select a unit from the following page for your application.

For additional information, call your Racor dealer or call Racor customer service at (209) 521-7860 or (800) 344-3286, 6:00 AM to 5:00 PM, Pacific Time, or e-mail us from our website, www.parker.com/racor.

Model Illustrations



2

Special Notes

1. See-thru bowl MA / MAX / MAV units are approved for Diesel service only. UL Listed, USCG Accepted.
2. Metal bowl MAM / MAXM units are approved for Gasoline and Diesel service. UL Listed, USCG Accepted.
3. For additional info. and availability, contact customer service at: (800) 344-3286, 6 AM to 5 PM, Pacific Time.



Specifications

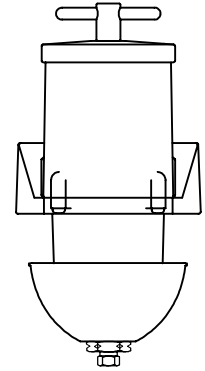
BASIC MODELS		500MA	900MA	1000MA	73/1000MA	75/500MAX	75/900MAX	75/1000MAX	77/1000MA	79/1000MAV
Maximum Flow Rate	GPH	60	90	180	360	120	180	360	540	540
	LPH	227	341	681	1363	454	681	1363	2044	2044
Port Size		3/4"-16 ^{1,2}	7/8"-14 ¹	7/8"-14 ¹	3/4"-14 ³	3/4"-16 ¹	7/8"-14 ⁴	7/8"-14 ⁴	1"-11 1/2 ³	3/4"-14 ³
Filter Element		2010 Series	2040 Series	2020 Series	2020 Series	2010 Series	2040 Series	2020 Series	2020 Series	2020 Series
Height	in./mm	11.5/292	17/432	22/559	22/559	11.5/292	17/432	22/559	22/559	22/559
Width	in./mm	5.8/147	6/152	6/152	16.5/419	14.5/368	18.8/476	18.8/476	21.5/546	21.5/546
Depth	in./mm	4.8/122	7/178	7/178	12/305	9.5/241	11/279	11/279	12/305	11.8/300
Weight	Lbs./kgs.	4/1.7	6/2.7	10/4.5	26/11.8	17/7.7	23/10.4	30/13.6	39/17.7	52/23.6
Clean Pressure Drop	PSI	0.25	0.34	0.49	1.7	0.70	1.7	3.7	1.7	2.5
	kPa	1.72	2.4	3.4	11.7	4.83	11.7	25.5	11.7	17.2
Max. Allowable Pressure	PSI	15	15	15	15	15	15	15	15	15
	kPa	103	103	103	103	103	103	103	103	103
Bowl Water Capacity	ml	110	305	305	610	220	610	610	915	915
Overhead Clearance ⁵	in.	4	5	10	10	4	5	10	10	10
	mm	102	127	254	254	102	127	254	254	254
Operating Temperature		- 40° / +255° F / - 40° / +121° C								

¹ SAEJ1926 O-ring boss ² Effective 1/15/96, call factory for other sizes. ³ SAEJ476 (NPT) National Pipe Tapered thread
⁴ SAEJ514 (JIC) Joint Industry Council, 37° male flare ⁵ Required for element removal / servicing.

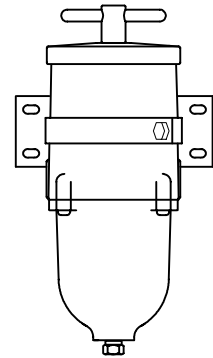
SPECIFICATIONS are found on Turbine Series introduction page.

How to Order -The example below illustrates how the part numbers are constructed.

500MA	P	10
Basic Model 60 GPH Add 'M' for metal bowl Example: 500MAM	Water Probe. ¹ Add 'P' for an in-bowl water probe. (Omit if not desired).	Element Filtration Rating. Specify one: '2' for 2 micron '10' for 10 micron or '30' for 30 micron
¹ Must be used with Water Detection Kit. See Accessories Section.		



500MA

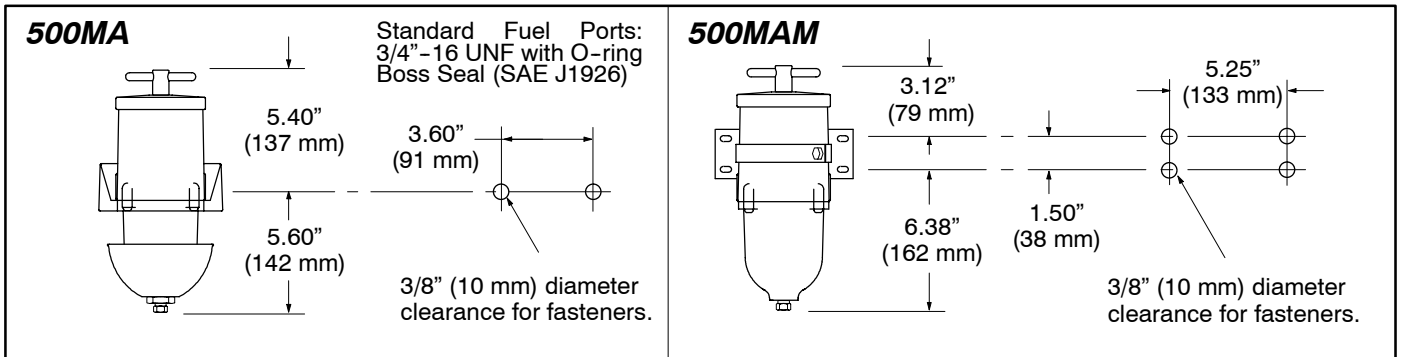


500MAM

Replacement Service Elements -For all Model 500 Series
 SERVICE ELEMENT INCLUDES LID SEAL AND T-HANDLE O-RING.

2010SM-OR	2 Micron (Brown end caps) Recommended for Final /Secondary Filtration
2010TM-OR	10 Micron (Blue end caps) Recommended for Primary or Secondary Filtration
2010PM-OR	30 Micron (Red end caps) Recommended for Primary Filtration* Only. *A secondary/final filter is required downstream.

Mounting Hole Patterns -Refer to Turbine Series introduction page for filter dimensions.



Performance Graphs -These results are from controlled laboratory tests. Field results may vary by application.

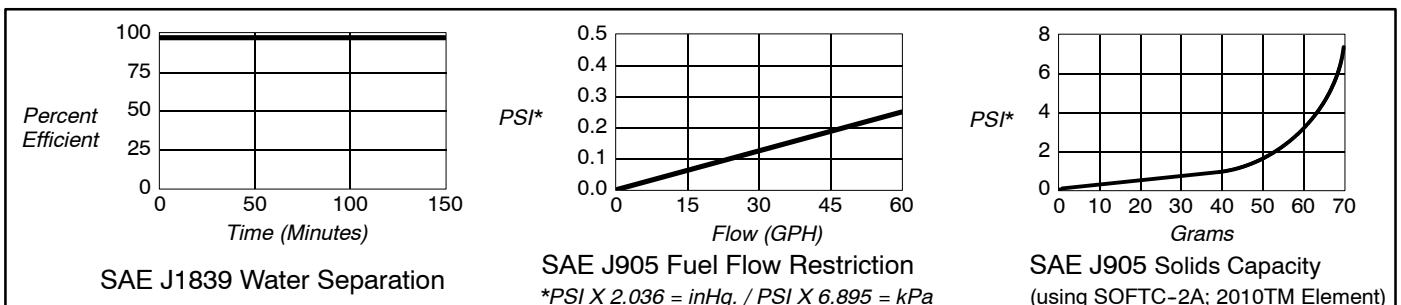
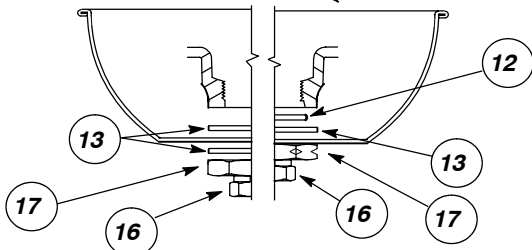
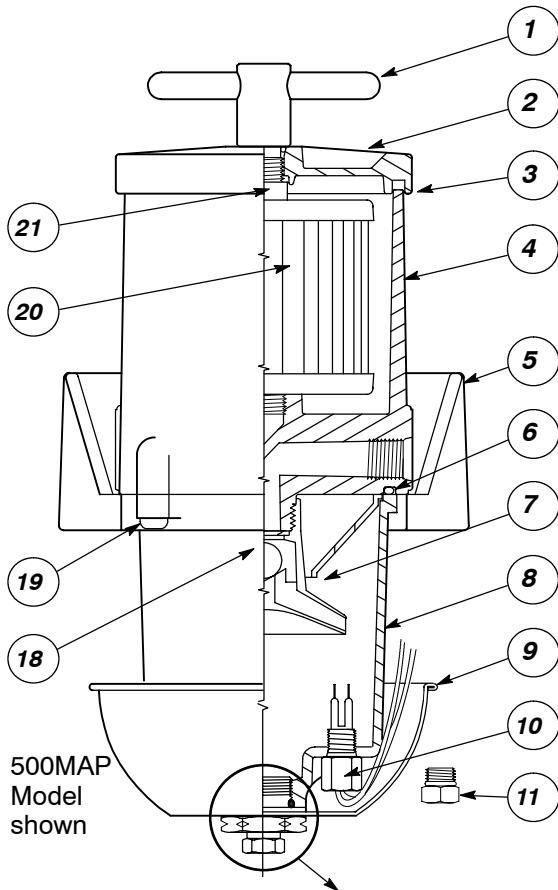
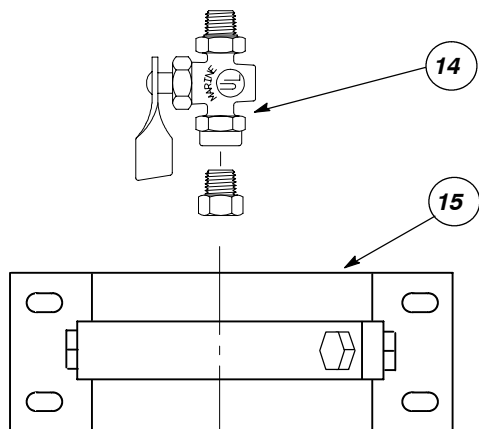


FIGURE 1. 500MA Series Cutaway View. The circled number corresponds to the item number shown below.



Old Style⁴ New Style
Drain Fitting Configurations



500MAM 3-Piece Bracket

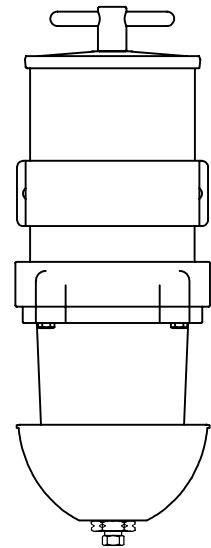
Item	Part No.	Description	Case Qty.
1	RK11888	T-handle	1
	11350	T-handle O-ring	10
2	RK15078	Lid	1
3	15005	Lid Gasket	10
4	RK15377-01	Body, 3/4"-16 UNF Ports (MA, effective 1/15/96)	1
	RK15082	Body, 9/16"-18 UNF Ports (prior to 1/15/96)	1
5	RK15090	Mounting Bracket, unitized with Bowl Ring (MA)	1
6	15374	Bowl Gasket (supercedes 15009 O-ring-All models)	10
7	RK15013D	Turbine Centrifuge / Conical Baffle	1
8	RK15279-01	See-thru Bowl w/ Water Probe Plug, (MA)	1
	RK15301-01	Metal Bowl w/1/4"NPT Drain & Water Probe Port	1
9	RK15104 ¹	Heat Deflector Shield (MA)	1
10	RK21069 ²	Water Probe Assembly	1
11	RK20022	Metal Water Probe Port Plug	1
12	11340	Drain Fitting O-ring (New Style)	1
13	11041	Bowl Drain Washer (New and Old Style)	10
14	RK19492	Diesel Marine Shut-off Valve Kit.	1
15	RK15300	Mounting Bracket, 3-piece (MAM)	1
16	918-N4	Bowl plug, 1/4" NPT (Old and New Style)	1
17	11-1910	Bowl Drain Fitting (New Style)	1
	RK11-1910	Complete Bowl Drain Fitting Kit (New Style)	1
	11040	Bowl Drain Fitting (Old Style)	10
18	RK15010B	Check Ball w/ Seal	1
19	RK15081-01 ³	Phillips Head Capscrews 10-24 x 1" (4)	1
	RK15081 ³	Hex/Washer Head Capscrews 10-24 x 7/8" (4)	1
20	2010SM-OR	2 Micron Element w/ Seals	12
	2010TM-OR	10 Micron Element w/ Seals	12
	2010PM-OR	30 Micron Element w/ Seals	12
21	RK15079	Return Tube (w/ tapered pipe base threads)	1
22	RK15211	Seal Service Kit (all models- not shown)	1
	15335	Installation Instructions, 500MA	

- 1 For replacement only. The Coast Guard does not accept 'FG' units converted to 'MA' configurations.
 - 2 For diesel service only. Must be used with a Water Detection Kit.
 - 3 Models built prior to 2/96 use RK15081-01, after 2/96 use RK15081. (Fuel ports have 1 1/4" square boss on models made after 2/96).
 - 4 Units built prior to Fall, 1998.
- See Accessories Section.

SPECIFICATIONS are found on Turbine Series introduction page.

How to Order -The example below illustrates how the part numbers are constructed.

900MA	P	10
<u>Basic Model</u> 90 GPH Add 'M' for metal bowl Example: 900MAM	<u>Water Probe.</u> Add 'P' for an in-bowl water probe. ¹ (Omit if not desired).	<u>Element Filtration Rating.</u> Specify one: '2' for 2 micron '10' for 10 micron or '30' for 30 micron
¹ Must be used with Water Detection Kit. See Accessories Section.		



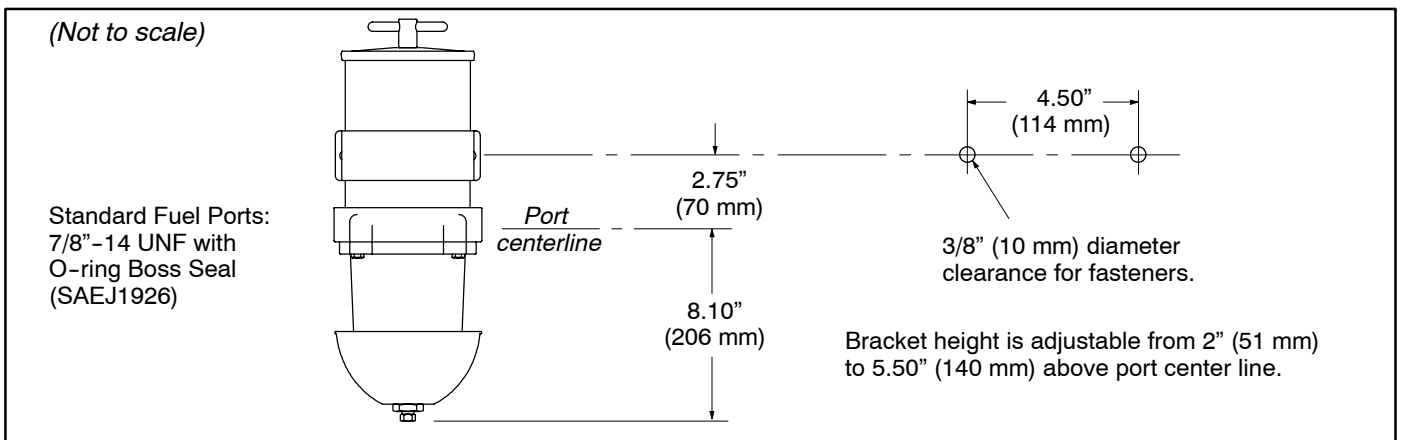
Replacement Service Elements -For all Model 900 Series
 SERVICE ELEMENT INCLUDES LID SEAL AND T-HANDLE O-RING.

2040SM-OR	2 Micron (Brown end caps) Recommended for Final /Secondary Filtration
2040TM-OR	10 Micron (Blue end caps) Recommended for Primary or Secondary Filtration
2040PM-OR	30 Micron (Red end caps) Recommended for Primary Filtration* Only. *A secondary/final filter is required downstream.

900MA



Mounting Hole Pattern -Refer to Turbine Series introduction page for filter dimensions.



Performance Graphs -These results are from controlled laboratory tests. Field results may vary by application

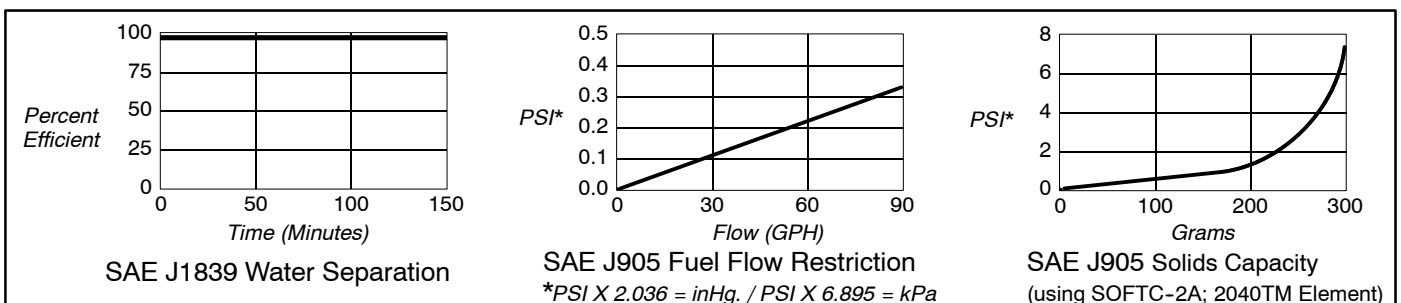
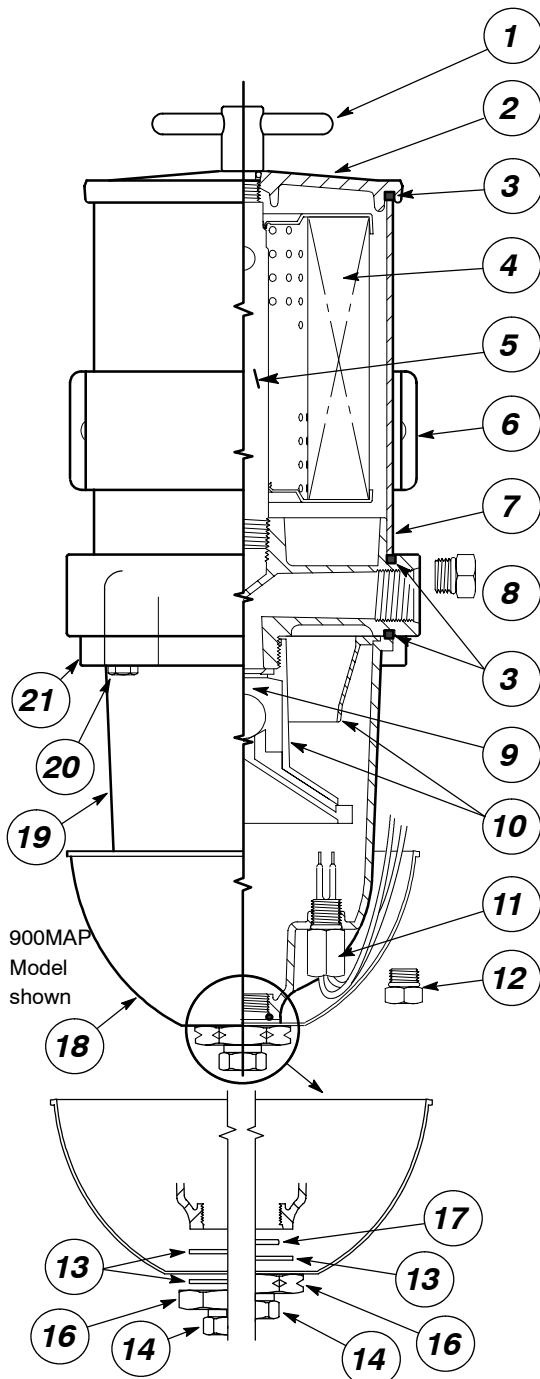
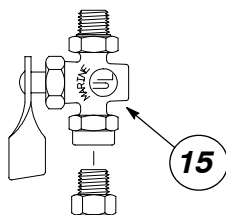


FIGURE 1. 900MA Series Cutaway View. The circled number corresponds to the item number shown below.



900MAP
Model
shown

Old Style³ New Style
Drain Fitting Configurations



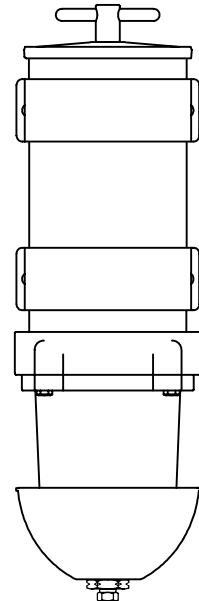
Item	Part No.	Description	Case Qty.
1	RK11888	T-handle	1
	11350	T-handle O-ring	10
2	RK11005B	Lid	1
	RK11005B-02	Lid with Vent Port and Plug Kit (not shown)	1
3	11007	Square-cut Gasket (Lid & Bowl ring)	10
4	2040SMOR	2 Micron Element with Seals	12
	2040TMOR	10 Micron Element with Seals	12
	2040PMOR	30 Micron Element with Seals	12
5	RK19001	Return Tube (w/ tapered pipe body-end threads)	1
	RK19474	Return Tube (w/ straight body-end threads)	1
6	RK11815-101	Body Clamp Bracket	1
7	RK19002	Outer Cylinder	1
8	RK11-1679	Plastic Body Plug	1
9	RK11028B	Check Ball and Seal	10
10	RK11026D	Turbine Centrifuge / Conical Baffle	1
11	RK21069 ¹	Water Probe Assembly	1
12	RK20022	Metal Water Probe Port Plug	1
13	RK11341	Bowl Drain Gasket Kit (for New and Old Styles)	10
	11041	Bowl Drain Washer (New and Old Style)	1
14	918-N4	Bowl Plug, 1/4" NPT (New and Old Style)	1
15	RK19492	Diesel Marine Shut-off Valve Kit.	1
16	11-1910	Bowl Drain Fitting (New Style)	10
	RK11-1910	Complete Bowl Drain Fitting Kit (New Style)	1
	11040	Bowl Drain Fitting (Old Style)	10
17	11340	Drain Fitting O-ring (New Style)	1
18	RK11868 ²	Heat Deflector Shield (MA)	1
19	RK11-1606-1	Clear Bowl with Water Probe Port	1
	RK11734	Metal Bowl (MAM -not shown)	1
	RK11734-01	Metal Bowl w/ 1/4"NPT Drain & Water Probe Port	1
20	RK11542	Hex/Washer Head Capscrew, 1/4"-20 x 1" (4)	1
21	RK11037A	Bowl Ring	1
22	RK11-1404	Seal Service Kit (all models- not shown)	1
	19466	Installation Instructions, 900/1000MA	

- ¹ For diesel service only. Must be used with a Water Detection Kit.
² For replacement only. The Coast Guard does not accept 'FG' units converted to 'MA' configurations.
³ Units built prior to Fall, 1998
 See Accessories Section.

SPECIFICATIONS are found on Turbine Series introduction page.

How to Order -The example below illustrates how the part numbers are constructed.

1000MA	P	10
<u>Basic Model</u> 180 GPH Add 'M' for metal bowl Example: 1000MAM	<u>Water Probe.</u> ¹ Add 'P' for an in-bowl water probe. (Omit if not desired).	<u>Element Filtration Rating.</u> Specify one: '2' for 2 micron '10' for 10 micron or '30' for 30 micron
¹ Must be used with Water Detection Kit. See Accessories Section.		



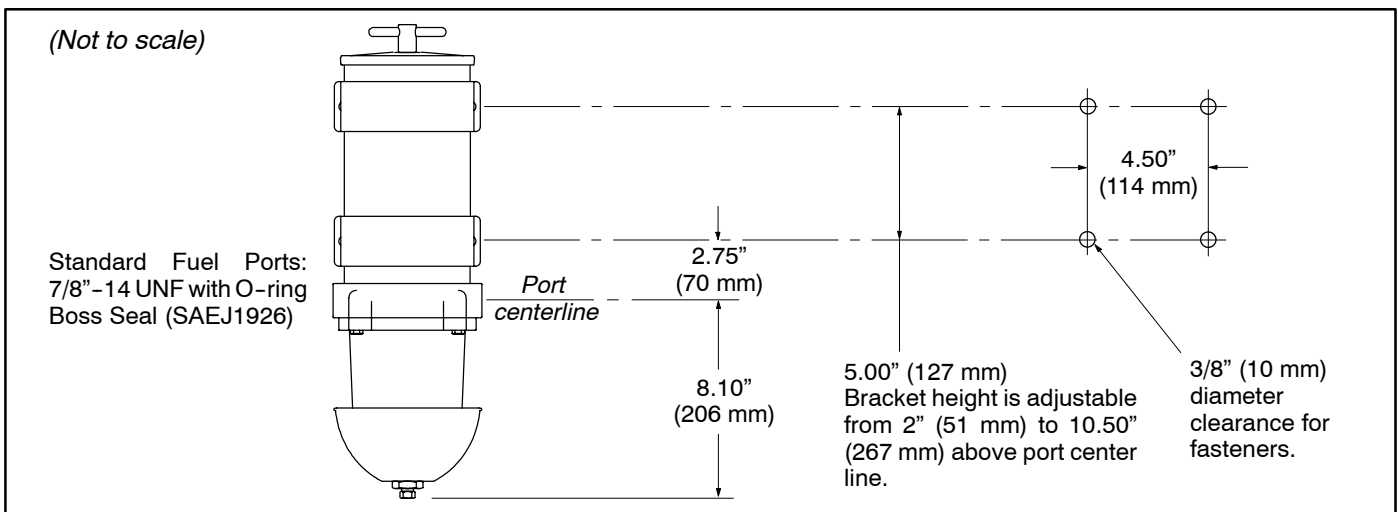
1000MA



Replacement Service Elements -For all Model 1000 Series
 SERVICE ELEMENT INCLUDES LID SEAL AND T-HANDLE O-RING.

2020SM-OR	2 Micron (Brown end caps) Recommended for Final /Secondary Filtration
2020TM-OR	10 Micron (Blue end caps) Recommended for Primary or Secondary Filtration
2020PM-OR	30 Micron (Red end caps) Recommended for Primary Filtration* Only. *A secondary/final filter is required downstream.

Mounting Hole Pattern -Refer to Turbine Series introduction page for filter dimensions.



Performance Graphs -These results are from controlled laboratory tests. Field results may vary by application.

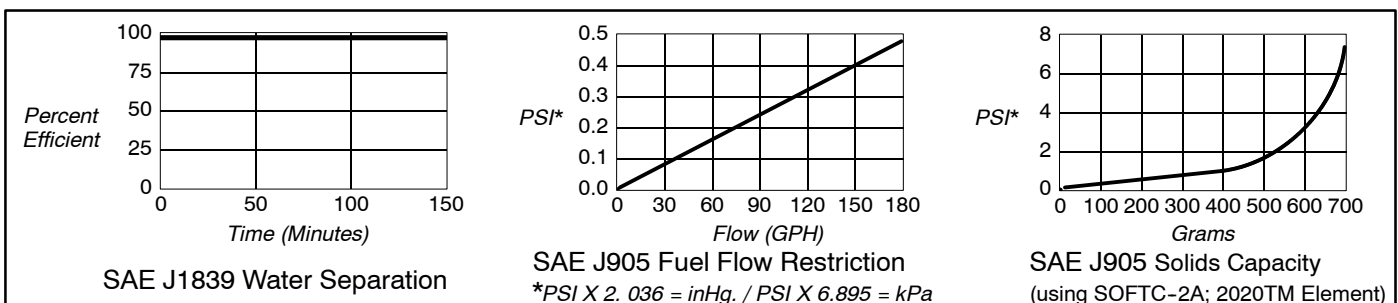
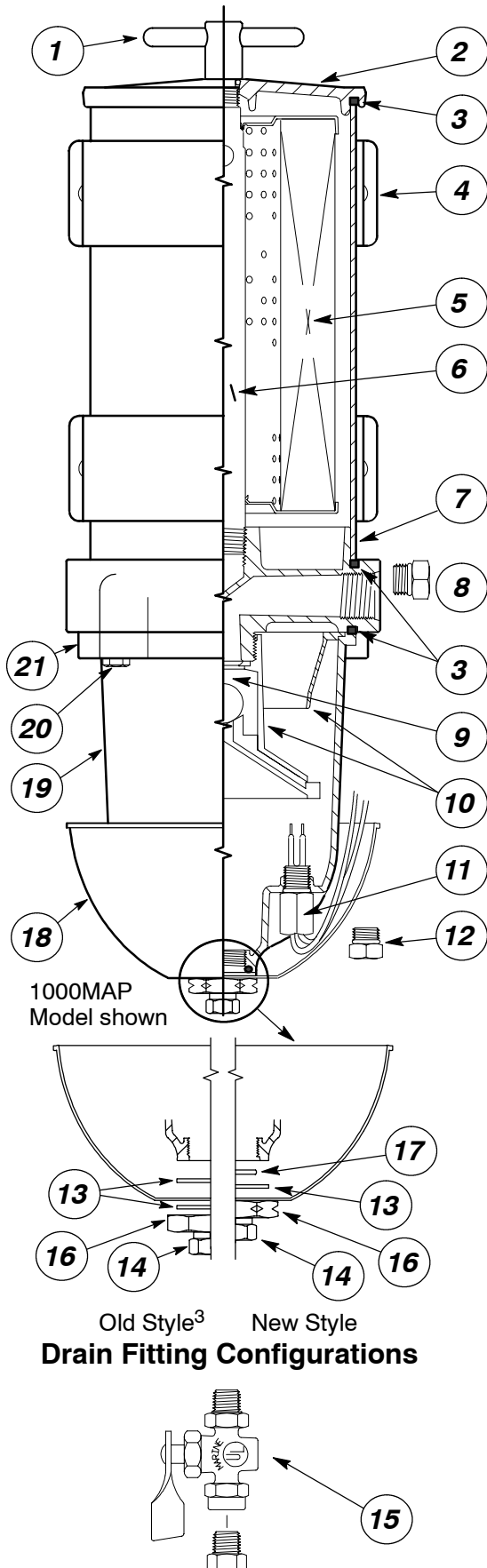


FIGURE 1. 1000MA Series Cutaway View. The circled number corresponds to the item number shown below.



Item	Part No.	Description	Case Qty.
1	RK11888	T-handle	1
	11350	T-handle O-ring	10
2	RK11005B	Lid	1
	RK11005B-02	Lid with Vent Port and Plug Kit (not shown)	1
3	11007	Square-cut Gasket (Lid & Bowl ring)	10
4	RK11815-101	Body Clamp Bracket	1
5	2020SMOR	2 Micron Element with Seals	12
	2020TMOR	10 Micron Element with Seals	12
	2020PMOR	30 Micron Element with Seals	12
6	RK11008	Return Tube (w/ tapered pipe body-end threads)	1
	RK11-1775	Return Tube (w/ straight body-end threads)	1
7	RK11021	Outer Cylinder	1
8	RK11-1679	Plastic Body Plug	1
9	RK11028B	Check Ball and Seal	10
10	RK11026D	Turbine Centrifuge / Conical Baffle	1
11	RK21069 ¹	Water Probe (MA Bowls)	1
12	RK20022	Metal Water Probe Port Plug	1
13	RK11341	Bowl Drain Gasket Kit (for New and Old Styles)	10
	11041	Bowl Drain Washer (New and Old Style)	1
14	918-N4	Bowl Plug, 1/4" NPT (New and Old Style)	1
15	RK19492	Shut-off Drain Valve Kit (for diesel use, only)	1
16	11-1910	Bowl Drain Fitting (New Style)	10
	RK11-1910	Complete Bowl Drain Fitting Kit (New Style)	1
	11040	Bowl Drain Washer (Old Style)	10
17	11340	Drain Fitting O-ring (New Style)	1
18	RK11868 ²	Heat Deflector Shield (MA)	1
19	RK11-1606-1	Clear Bowl with Water Probe Port	1
	RK11734	Metal Bowl (MAM -not shown)	1
	RK11734-01	Metal Bowl w/ 1/4"NPT Drain & Water Probe Port	1
20	RK11542	Hex/Washer Head Capscrew, 1/4"-20 x 1" (4)	1
21	RK11037A	Bowl Ring	1
22	RK11-1404	Seal Service Kit (all models- not shown)	1
	19466	Installation Instructions, 900/1000MA	

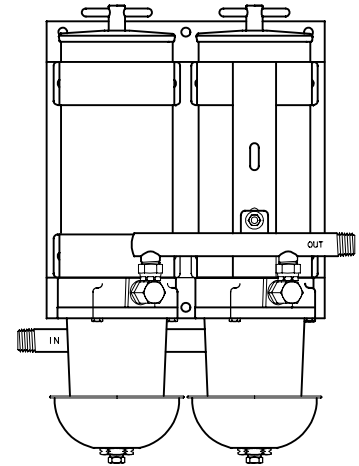
¹ For diesel service only. Must be used with a Water Detection Kit.
² For replacement only. The Coast Guard does not accept 'FG' units converted to 'MA' configurations.
³ Units built prior to Fall, 1998
 See Accessories Section.

2

SPECIFICATIONS are found on Turbine Series introduction page.

How to Order -The example below illustrates how the part numbers are constructed.

73/1000MA	P	10
<u>Basic Model</u> 360 GPH Add 'M' for metal bowl Example: 73/1000MAM	<u>Water Probe.</u> ¹ Add 'P' for an in-bowl water probe. (Omit if not desired).	<u>Element Filtration Rating.</u> Specify one: '2' for 2 micron '10' for 10 micron or '30' for 30 micron
¹ For use with Water Detection Kit only. See Accessories Section.		



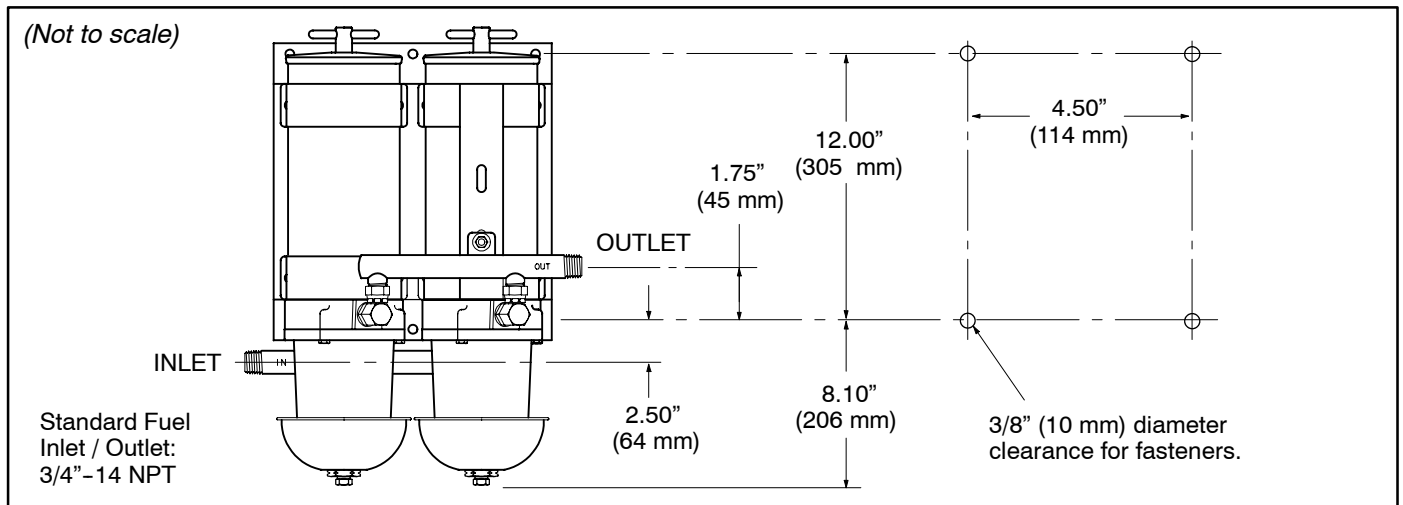
73/1000MA



Replacement Service Elements -Order two (2) per unit.
SERVICE ELEMENT INCLUDES LID SEAL AND T-HANDLE O-RING.

2020SM-OR	2 Micron (Brown end caps) Recommended for Final /Secondary Filtration
2020TM-OR	10 Micron (Blue end caps) Recommended for Primary or Secondary Filtration
2020PM-OR	30 Micron (Red end caps) Recommended for Primary Filtration* Only. *A secondary/final filter is required downstream.

Mounting Hole Pattern -Refer to Turbine Series introduction page for filter dimensions.



Performance Graphs -These results are from controlled laboratory tests. Field results may vary by application.

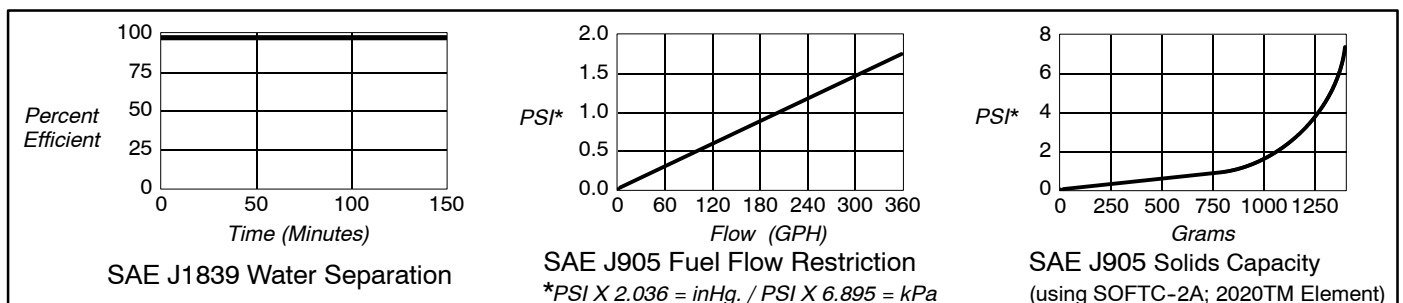
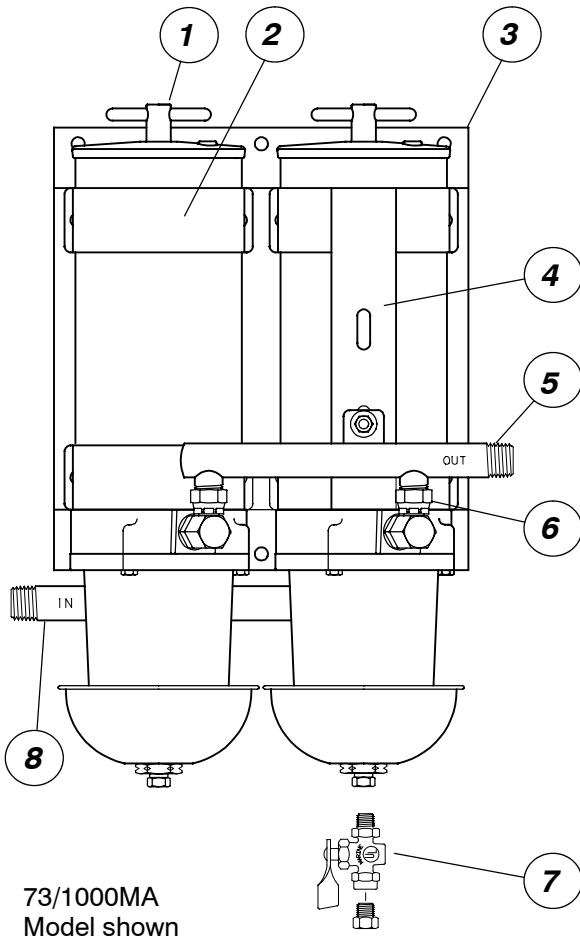


FIGURE 1. 73/1000MA Series. The circled number corresponds to the item number shown in the parts list below.



Item	Part No.	Description	Case Qty.
1	1000MA	Shell. Refer to Model 1000MA for a complete parts list	
2	RK11895	Clamp Bracket	1
3	11-1629	Dual unit Bracket	1
4	11895	Clamp Bracket Assembly	1
5	11923	Outlet Manifold	1
6	11072	Elbow Fitting, Parker #2507-10-8	1
7	RK19492	UL Listed Marine Drain Valve (order two for use with this unit)	1
8	11892	Inlet Manifold	1
	11-1831	Installation Instructions, 73/1000MA	

For Water Detection Kits and Manifold Conversion Kits, see the Accessories Section.

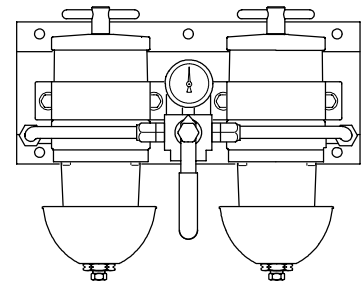
For parts not listed, call Racor customer service: (800) 344-3286, 6 AM to 5 PM, Pacific Time.

2

SPECIFICATIONS are found on Turbine Series introduction page.

How to Order -The example below illustrates how the part numbers are constructed.

75/500MAX	P	10
Basic Model 120 GPH Add 'M' for metal bowl Example: 75/500MAXM Note: All standard bowls include probe port plug.	Water Probe.¹ Add 'P' for an in-bowl water probe. (Omit if not desired).	Element Filtration Rating. Specify one: '2' for 2 micron '10' for 10 micron or '30' for 30 micron
¹ Must be used with Water Detection Kit only. See Accessories Section.		



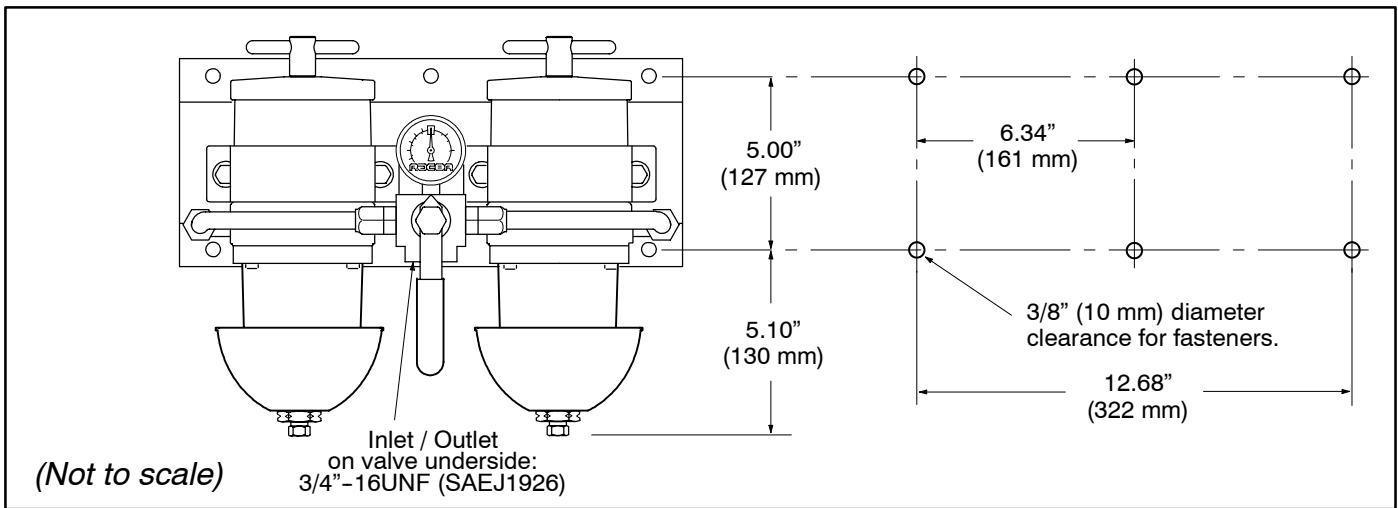
75/500MAX

Replacement Service Elements -Order two (2) per unit.
 SERVICE ELEMENT INCLUDES LID SEAL AND T-HANDLE O-RING.

2010SM-OR	2 Micron (Brown end caps) Recommended for Final /Secondary Filtration
2010TM-OR	10 Micron (Blue end caps) Recommended for Primary or Secondary Filtration
2010PM-OR	30 Micron (Red end caps) Recommended for Primary Filtration* Only. *A secondary/final filter is required downstream.



Mounting Hole Pattern -Refer to Turbine Series introduction page for filter dimensions.



Performance Graphs -These results are from controlled laboratory tests. Field results may vary by application.

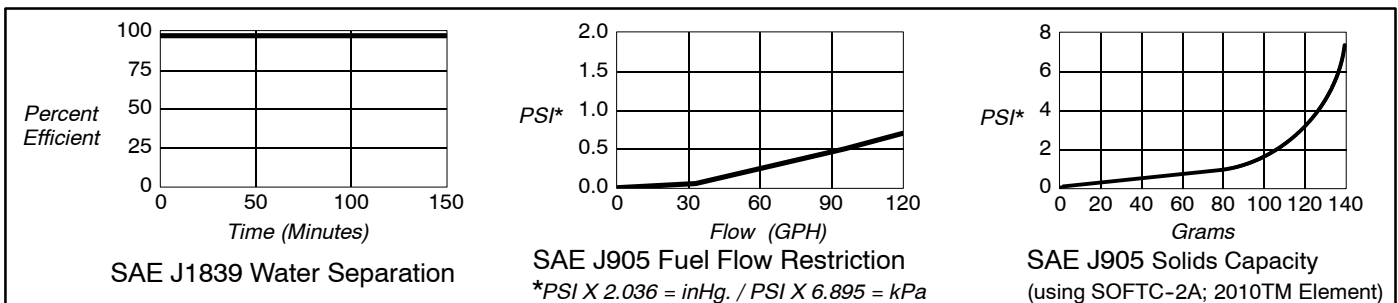
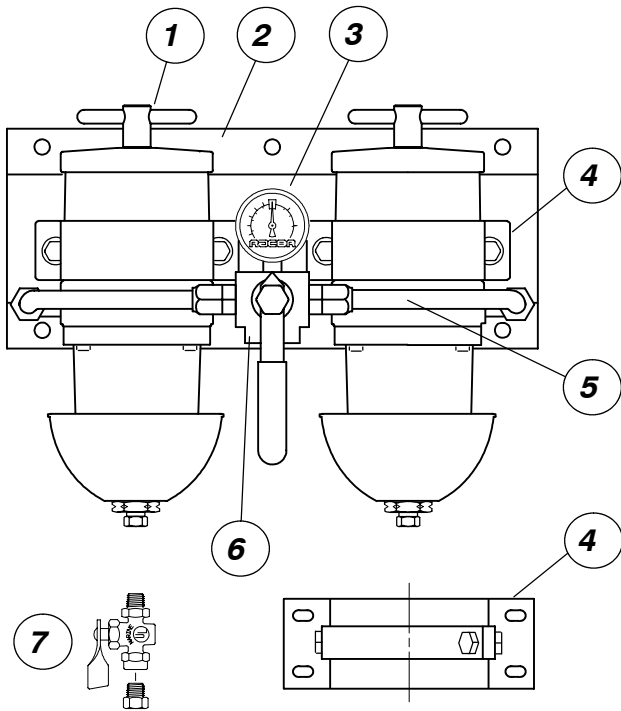


FIGURE 1. 75/500MAX Series. The circled number corresponds to the item number shown in the parts list below.



RK15300 Three-piece bracket

75/500MAX
Model shown

Item	Part No.	Description	Case Qty.
1	500MA	Shell. Refer to Model 500MA for a complete parts list	
2	RK15329	Main Bracket (will not accommodate piece body clamp brackets)	1
3	RK19476	Gauge Assembly	1
4	RK15378	Body Clamp Bracket, One-Piece	1
	RK15300	Body Clamp Bracket, Three-Piece (See illustration below)	1
5	RK15344	Rigid Tubing Assembly	1
6	RK15321	Valve Assembly	1
	RK15389	Valve Service Kit	1
7	RK19492	UL Listed Marine Drain Valve (order two for use with this unit)	1
	15350	Installation Instructions, 75/500MAX	

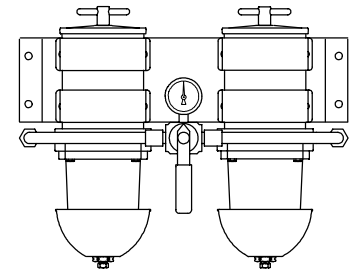
For Fuel Port Adapter Fittings, Water Detection Kits and Manifold Conversion Kits, see the Accessories Section.

For parts not listed, call Racor customer service: (800) 344-3286.

SPECIFICATIONS are found on Turbine Series introduction page.

How to Order -The example below illustrates how the part numbers are constructed.

75/900MAX	P	10
<u>Basic Model</u> 180 GPH Add 'M' for metal bowl Example: 75/900MAXM	<u>Water Probe.</u> ¹ Add 'P' for an in-bowl water probe. (Omit if not desired).	<u>Element Filtration Rating.</u> Specify one: '2' for 2 micron '10' for 10 micron or '30' for 30 micron
¹ Must be used with Water Detection Kit only. See Accessories Section.		



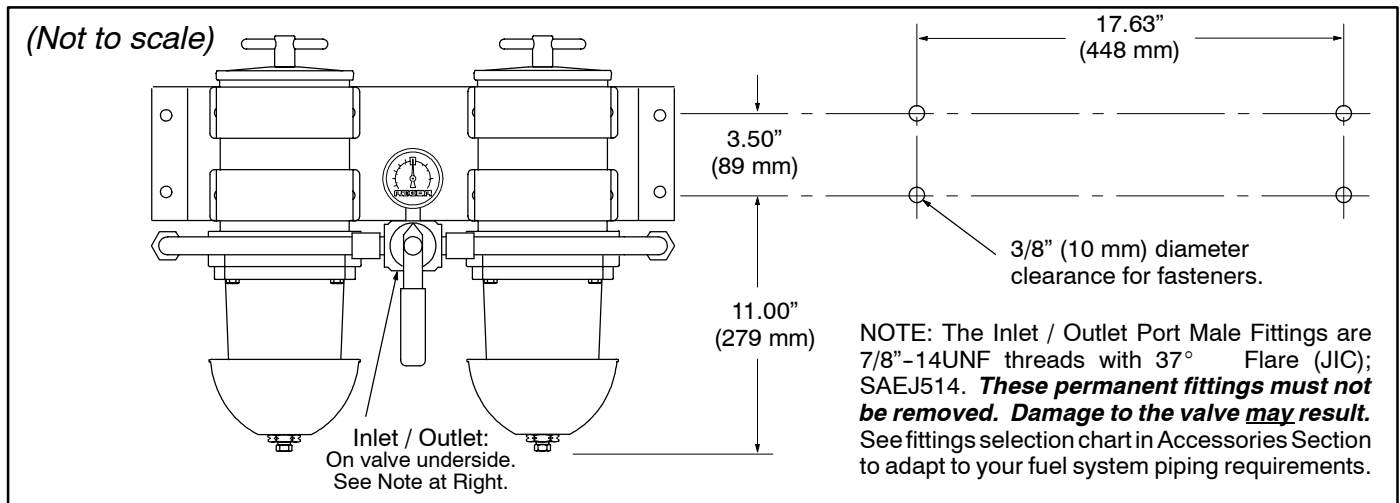
75/900MAX

Replacement Service Elements -Order two (2) per unit.
 SERVICE ELEMENT INCLUDES LID SEAL AND T-HANDLE O-RING.

2040SM-OR	2 Micron (Brown end caps) Recommended for Final /Secondary Filtration
2040TM-OR	10 Micron (Blue end caps) Recommended for Primary or Secondary Filtration
2040PM-OR	30 Micron (Red end caps) Recommended for Primary Filtration* Only. *A secondary/final filter is required downstream.



Mounting Hole Pattern -Refer to Turbine Series introduction page for filter dimensions.



Performance Graphs -These results are from controlled laboratory tests. Filter results may vary by application.

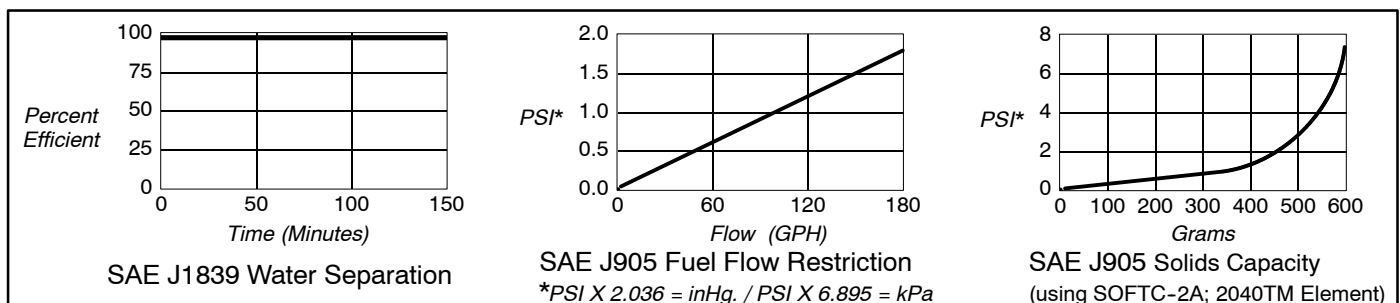
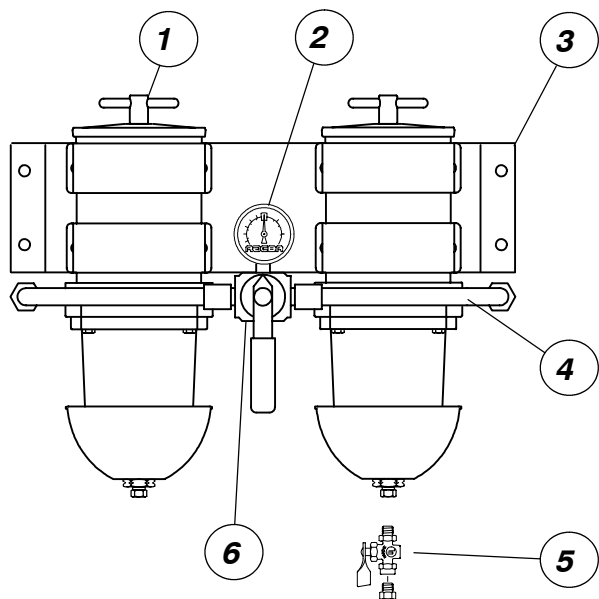


FIGURE 1. 75/900MAX Series. The circled number corresponds to the item number shown in the parts list below.



75/900MAX Model shown

Item	Part No.	Description	Case Qty.
1	900MA	Shell. Refer to Model 900MA for a complete parts list	
2	RK19476	Gauge Assembly	1
3	RK19486	Dual unit Bracket	1
4	RK19475	Rigid Tubing Assembly	1
5	RK19492	UL Listed Marine Drain Valve (order two for use with this unit)	1
6	RK19473	Valve Assembly	1
	RK19506	Valve Service Kit	1
	19485	Installation Instructions, 75/900MAX	

For Fuel Port Adapter Fittings, Water Detection Kits and Manifold Conversion Kits, see the Accessories Section.

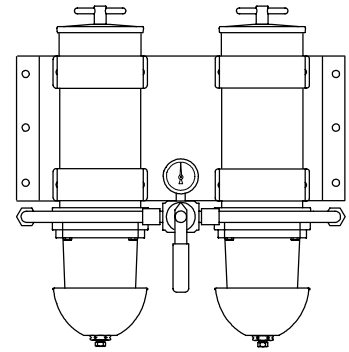
For parts not listed, call Racor customer service: (800) 344-3286, 6 AM to 5 PM, Pacific Time.



SPECIFICATIONS are found on Turbine Series introduction page.

How to Order -The example below illustrates how the part numbers are constructed.

75/1000MAX	P	10
<u>Basic Model</u> 360 GPH Add 'M' for metal bowl Example: 75/1000MAXM	<u>Water Probe.</u> ¹ Add 'P' for an in-bowl water probe. (Omit if not desired).	<u>Element Filtration Rating.</u> Specify one: '2' for 2 micron '10' for 10 micron or '30' for 30 micron
¹ Must be used with Water Detection Kit only. See Accessories Section.		



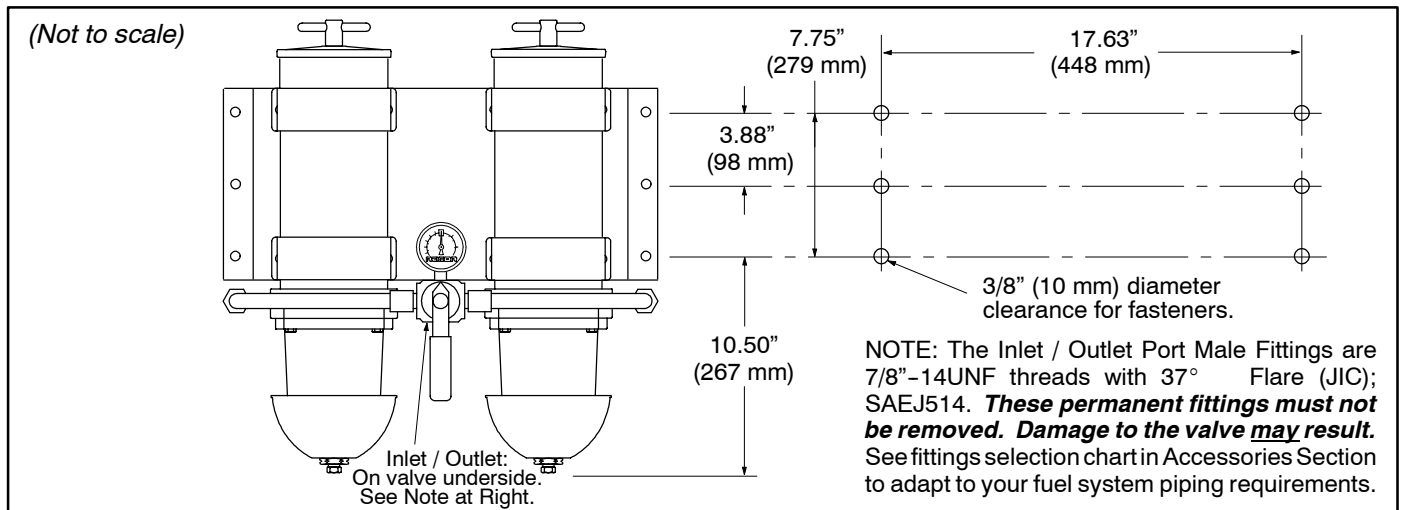
75/1000MAX

Replacement Service Elements -Order two (2) per unit.
 SERVICE ELEMENT INCLUDES LID SEAL AND T-HANDLE O-RING.

2020SM-OR	2 Micron (Brown end caps) Recommended for Final /Secondary Filtration
2020TM-OR	10 Micron (Blue end caps) Recommended for Primary or Secondary Filtration
2020PM-OR	30 Micron (Red end caps) Recommended for Primary Filtration* Only. *A secondary/final filter is required downstream.



Mounting Hole Pattern -Refer to Turbine Series introduction page for filter dimensions.



Performance Graphs -These results are from controlled laboratory tests. Field results may vary by application.

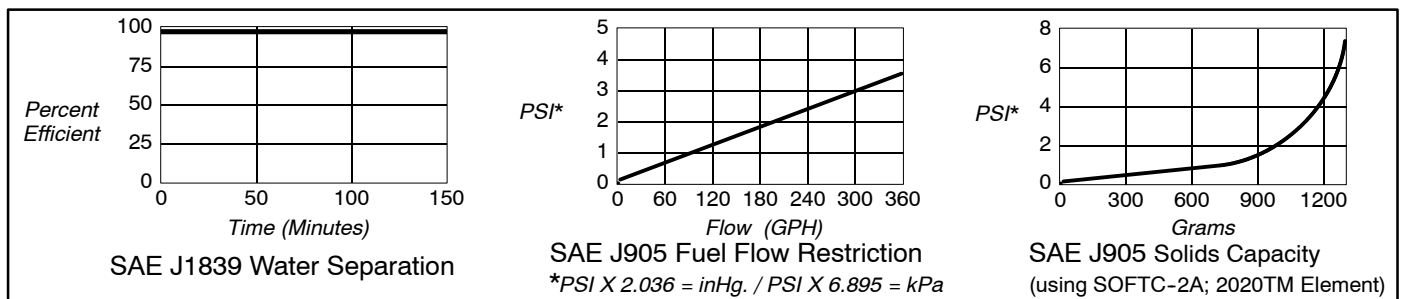
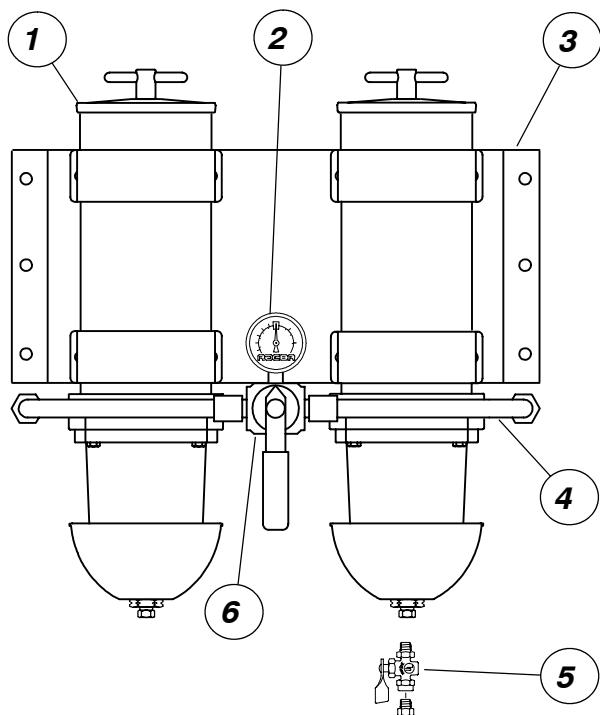


FIGURE 1. 75/1000MAX Series. The circled number corresponds to the item number shown in the parts list below.



75/1000MAX Model shown

Item	Part No.	Description	Case Qty.
1	1000MA	Shell. Refer to Model 1000MA for a complete parts list	
2	RK19476	Gauge Assembly	1
3	RK11-1777	Dual unit Bracket	1
4	RK19475	Rigid Tubing Assembly	1
5	RK19492	UL Listed Marine Drain Valve (order two for use with this unit)	1
6	RK19473	Valve Assembly	1
	RK19506	Valve Service Kit	1
	19485	Installation Instructions, 75/1000MAX	

For Fuel Port Adapter Fittings, Water Detection Kits and Manifold Conversion Kits, see the Accessories Section.

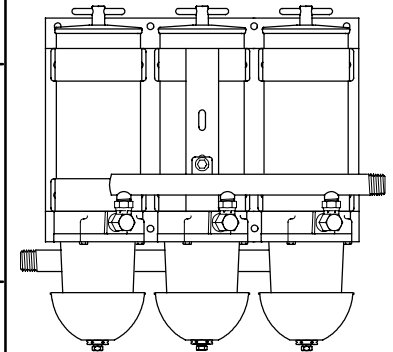
For parts not listed, call Racor customer service: (800) 344-3286, 6 AM to 5 PM, Pacific Time.



SPECIFICATIONS are found on Turbine Series introduction page.

How to Order -The example below illustrates how the part numbers are constructed.

77/1000MA	P	10
<u>Basic Model</u> 540 GPH Add 'M' for metal bowl Example: 77/1000MAM	<u>Water Probe.</u> ¹ Add 'P' for an in-bowl water probe. (Omit if not desired).	<u>Element Filtration Rating.</u> Specify one: '2' for 2 micron or '10' for 10 micron or '30' for 30 micron
¹ Must be used with Water Detection Kit only. See Accessories Section.		



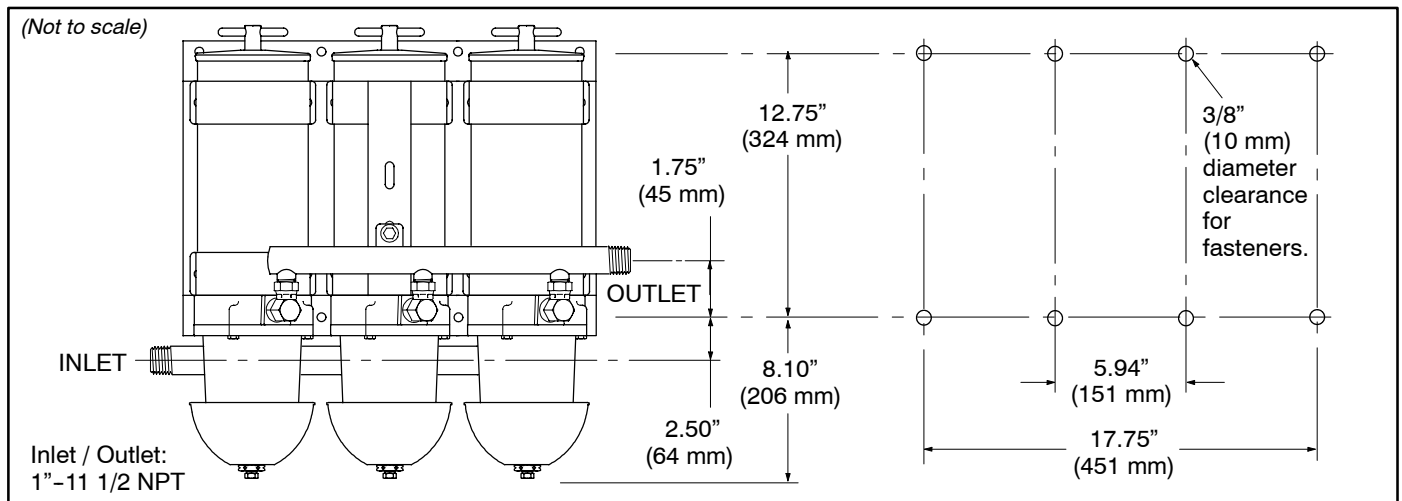
77/1000MA

Replacement Service Elements -Order three (3) per unit.
 SERVICE ELEMENT INCLUDES LID SEAL AND T-HANDLE O-RING.

2020SM-OR	2 Micron (Brown end caps) Recommended for Final /Secondary Filtration
2020TM-OR	10 Micron (Blue end caps) Recommended for Primary or Secondary Filtration
2020PM-OR	30 Micron (Red end caps) Recommended for Primary Filtration* Only. *A secondary/final filter is required downstream.



Mounting Hole Pattern -Refer to Turbine Series introduction page for filter dimensions.



Performance Graphs -These results are from controlled laboratory tests. Field results may vary by application.

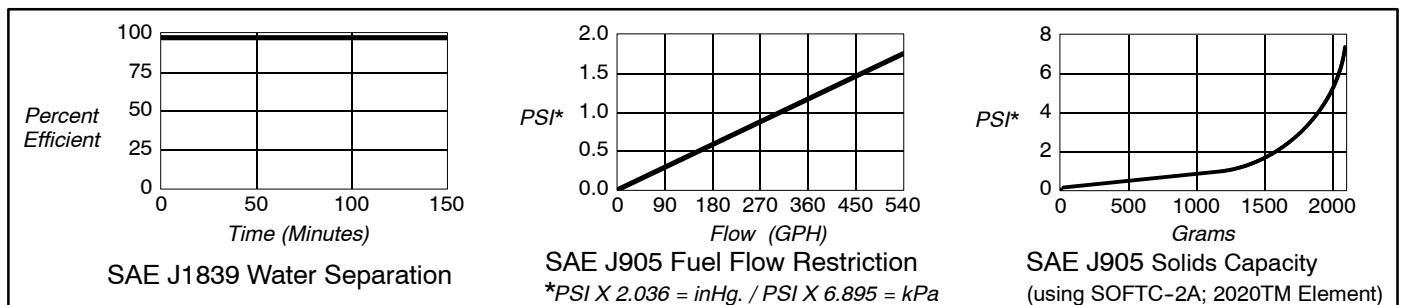
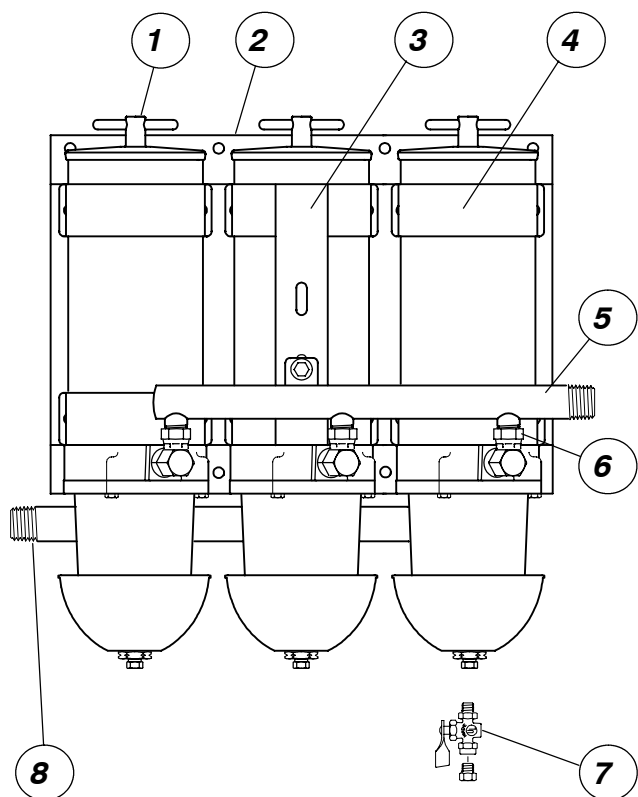


FIGURE 1. 77/1000MA Series. The circled number corresponds to the item number shown in the parts list below.



Item	Part No.	Description	Case Qty.
1	1000MA	Shell. Refer to Model 1000MA for a complete parts list	
2	11-1632	Triple unit Bracket	1
3	11895	Clamp Bracket Assembly	1
4	RK11895	Clamp Bracket	1
5	11902	Outlet Manifold	1
6	11072	Elbow Fitting, Parker #2507-10-8	1
7	RK19492	UL Listed Marine Drain Valve (order three for use with this unit)	1
8	11893	Inlet Manifold	1
	11-1831	Installation Instructions, 77/1000MA	

For Water Detection Kits and Manifold Conversion Kits, see the Accessories Section.

For parts not listed, call Racor customer service: (800) 344-3286, 6 AM to 5 PM, Pacific Time.

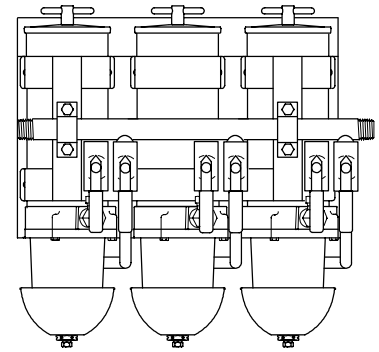
77/1000MA Model shown



SPECIFICATIONS are found on Turbine Series introduction page.

How to Order -The example below illustrates how the part numbers are constructed.

79/1000MAV	P	10
Basic Model 540 GPH Add 'M' for metal bowl Example: 79/1000MAVM	Water Probe. ¹ Add 'P' for an in-bowl water probe. (Omit if not desired).	Element Filtration Rating. Specify one: '2' for 2 micron '10' for 10 micron or '30' for 30 micron
¹ For use with Water Detection Kit only. See Accessories Section.		



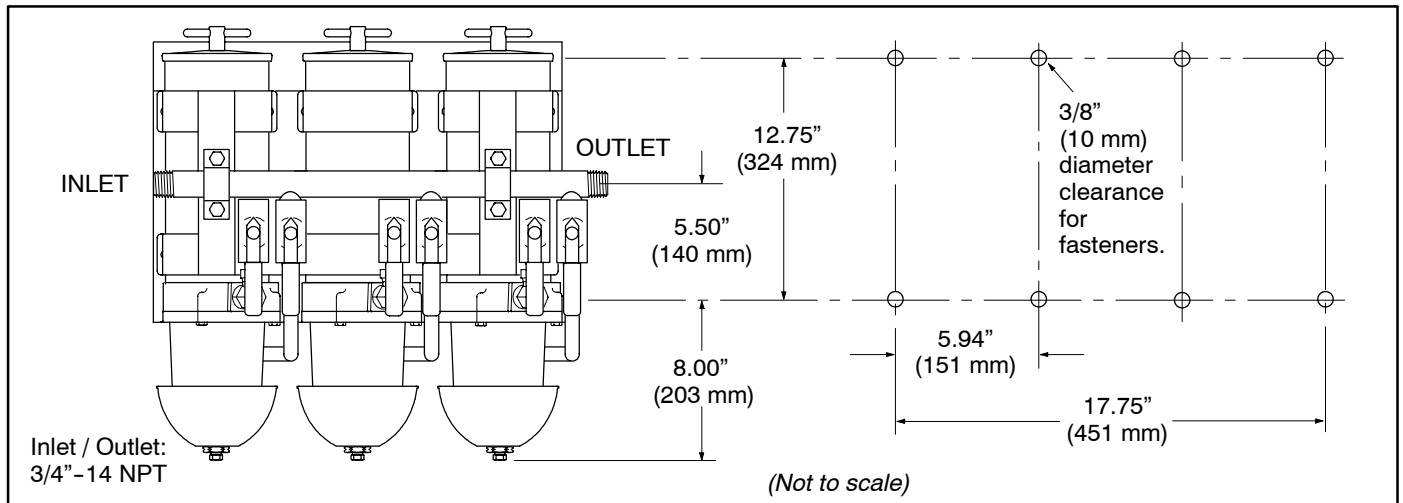
79/1000MAV

Replacement Service Elements -Order three (3) per unit.
SERVICE ELEMENT INCLUDES LID SEAL AND T-HANDLE O-RING.

2020SM-OR	2 Micron (Brown end caps) Recommended for Final /Secondary Filtration
2020TM-OR	10 Micron (Blue end caps) Recommended for Primary or Secondary Filtration
2020PM-OR	30 Micron (Red end caps) Recommended for Primary Filtration* Only. <i>*A secondary/final filter is required downstream.</i>



Mounting Hole Pattern -Refer to Turbine Series introduction page for filter dimensions.



Performance Graphs -These results are from controlled laboratory tests. Field results may vary by application.

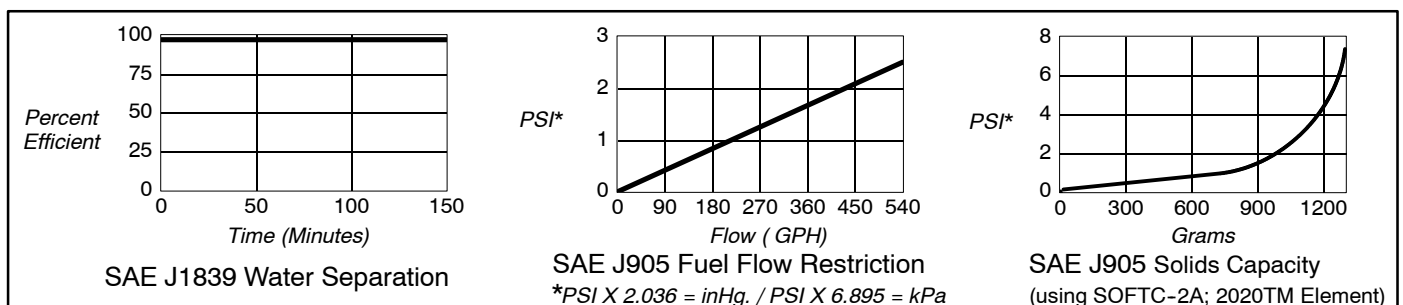
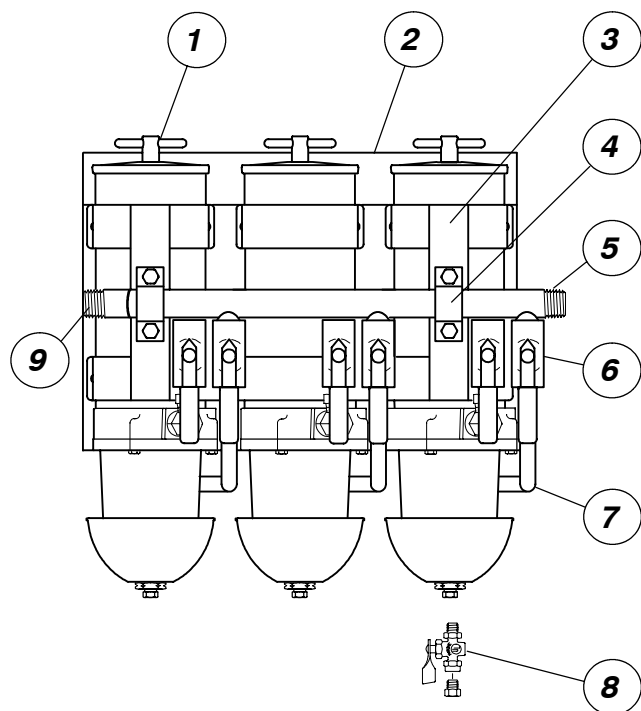


FIGURE 1. 79/1000MAV Series. The circled number corresponds to the item number shown in the parts list below.



Item	Part No.	Description	Case Qty.
1	1000MA	Shell. Refer to Model 1000MA for a complete parts list	
2	11-1632	Triple unit Bracket	1
3	11895	Clamp Bracket	1
4	11-1761	'U' Bracket	1
5	19461	Outlet Manifold	1
6	RK11073	1/2" Ball Valve	1
7	11-1626	Formed Tubing Assembly	1
8	RK19492	UL Listed Marine Drain Valve (order three for use with this unit)	1
9	19460	Inlet Manifold	1
	11-1821	Installation Instructions, 79/1000MAV	

For Water Detection Kits and Manifold Conversion Kits, see the Accessories Section.

For parts not listed, call Racor customer service: (800) 344-3286, 6 AM to 5 PM, Pacific Time.

79/1000MAV Model shown



Selection Information

General

The Racor Marine Hydraulic Fluid Filters feature low and high pressure models in a variety of compact sizes and capabilities to fit most installations and systems.

Low Pressure Spin-On Filters (<175 PSI):

These Racor water absorbing filters feature a specially designed media that traps solid contaminants like dirt and rust, and damaging water. As the element fills with water and plugging occurs, flow slows and the head goes into a bypass mode. Water absorbing spin-on hydraulic fluid filters are available in a 10 micron rating. Typical applications include return line filtration and other low pressure (under 175 PSI) fluid circuits.

Low Pressure Filter Heads:

To make monitoring of the element easy, Racor offers a range of heads with pressure restriction gauges, including large diameter heads with standard, color coded bar gauges.

High Pressure Cartridge Type Filters (<3,000 PSI):

Racor hydraulic filters for medium pressure applications are rated to 3,000 PSI and are crafted from corrosion resistant anodized aluminum. An optional pop-up indicator signals the bypass condition and need for element replacement, however a built-in bypass valve allows the system to continue operating in an unfiltered condition.

Two flow rates and housing lengths accept a 10 micron element -with extended lengths providing longer element life and larger sump capacity.

Typical applications include all medium pressure system circuits under 3,000 PSI.

Reservoir Breather Filter:

A reservoir breather filter provides precision hydraulic components with special protection against wear particles and destructive moisture. The use of a reservoir breather filter is especially critical in high humidity areas or where moisture is present near hydraulic systems. Racor's filter contains a dual-purpose, ten micron media which removes both dirt and moisture from hydraulic reservoir air. The spin-on design provides ease of service. Adapters are available to fit most applications.

SELECTION

1. Identify the hydraulic fluid circuit system pressure:

Under 175 PSI: Use a Racor low-pressure spin-on filter with a stationary head.

Under 3,000 PSI: Use a Racor high-pressure model.

2. Are there any space limitations in the available location? The location should provide adequate space for removing the element.

For a Reservoir Breather, refer to the selection table in the applicable page that follows.

Using this information, select a unit from the next page, or check the pages which follow to find the right unit for your application.

For additional information, call your Racor dealer or call Racor customer service at (209) 521-7860 or (800) 344-3286, 6:00 AM to 5:00 PM, Pacific Time, or e-mail us from our website, www.parker.com/racor.

Model Illustrations



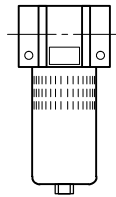
RAC3510



RAC5710



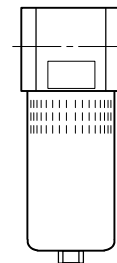
RAC51110



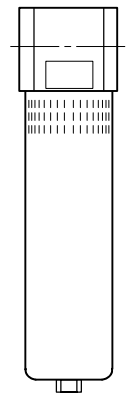
HP60077



HP60080



HP60083



HP60086

LOW PRESSURE SERIES

HIGH PRESSURE SERIES

2

Special Notes

1. Racor low pressure filters fit most standard filter heads in service. See available heads from Racor on the following pages.
2. Allow 2 inches of free space below each unit for element removal.
3. For additional information and availability, contact customer service: (800) 344-3286, 6 AM to 5 PM, Pacific Time.

Specifications

BASIC MODELS		RAC3510	RAC5710	RAC51110	HP60077	HP60080	HP60083	HP60086
Maximum Flow Rate	GPH LPH	900 3407	3000 11355	3000 11355	1200 4542	1200 4542	3000 11355	3000 11355
Filter Element	Cellulose Cartridge Microglass	RAC3510 NA	RAC5710 NA	RAC51110 NA	FC60078 FC60079	FC60081 FC60082	FC60084 FC60085	FC60087 FC60088
Center Threads		1"-12	1 1/2"-16	1 1/2"-16	NA	NA	NA	NA
Head Port Size ¹		NA	NA	NA	1 1/16"-12UN	1 1/16"-12UN	1 5/16"-12UN	1 5/16"-12UN
By-pass Setting	PSI	NA	NA	NA	25	25	25	25
Width (Diameter)	in./mm	(3.70/94)	(5.00/127)	(5.00/127)	4.00/102	4.00/102	4.50/114	4.50/114
Height	in./mm	5.50/140	7.00/178	11.00/280	7.7/195	11.4/291	10/254	14.3/363
Weight	Lbs./kgs.	1.3/0.6	2.3/1.0	3/1.4	3.5/1.6	4.6/2.1	6.4/2.9	8.7/3.9
Clean Pressure Drop @ Max.Flow	PSI bar	25 1.7	25 1.7	17 1.2	22 1.5	20 1.4	25 1.7	25 1.7
Maximum Allowable Working Pressure	PSI bar	175 12	175 12	175 12	3000 206	3000 206	3000 206	3000 206
Typical Beta Rating:								
(2/20) Cellulose uM		10/18	10/18	10/18	8/14	6/16	4/12	6/17
(2/20) Microglass uM		NA	NA	NA	2/5	2/6	2/6	3/7
Operating Temperature		- 40° / +225° F / - 40° / +107° C						

¹ SAE O-ring Boss Type (SAE J1926)

SPECIFICATIONS are found on Hydraulic Fluid Filters introduction page.

How to Order -The example below illustrates how the part numbers are constructed.

RAC57	10	
Maximum Pressure: 175 PSI/12.1 bar.	<u>Nominal</u>	Mounting Head Selection.
RAC35: 900 GPH / 3407 LPH (3.7" diameter x 5.5" long)	<u>Micron</u>	See the table below.
RAC57: 3000 GPH / 11355 LPH (5" diameter x 7" long)	<u>Rating</u>	RAC35 = Use type 1
RAC511: 3000 GPH / 11355 LPH (5" diameter x 11" long)	Specify:	RAC57 = Use type 2
	10 only	RAC5111 =Use type 2



Replacement Service Elements -Service elements include seal.

Service Element No.	Micron Rating	(Solids Capacity) Water / Dirt	Case Quantity
RAC3510	10	221ml / 12.2 grams	12
RAC5710	10	842ml / 47 grams	6
RAC51110	10	842ml / 47 grams	6

RAC51110 shown

Hydraulic Mounting Head Selection

Type 1
07500 Series

Type 2
12500 (L or R) Series
(IN HH12515L Shown)

Type 2
12500MP Series
(Multi-port head)

IN HG15LF Gauge
(Not to scale)

1 1/2" (38mm)

Part Number	Head Type	Port Sizes	Center Thread	By-pass Setting (PSID)	Filter Application	Case Quantity
Maximum flow rate for the heads below is 15 GPM / 900 GPH and up to 175 PSI / 12.1 bar.						
IN HH 07503	1	3/4"NPT	1"-12 UN	3	Use with	1
IN HH 07515	1	3/4"NPT	1"-12 UN	15	3510	1
IN HH 07525	1	3/4"NPT	1"-12 UN	25	filter	1
Maximum flow rate for the heads below is 50 GPM / 3000 GPH and up to 175 PSI / 12.1 bar.						
IN HH 12515 ¹	2	1 1/4"NPT	1 1/2"-16 UN	15	Use with	1
IN HH 12525 ¹	2	1 1/4"NPT	1 1/2"-16 UN	25	5710	1
					and	
IN HH 12515MP ²	2	1 1/4"NPT	1 1/2"-16 UN	15	51110	1
IN HH 12525MP ²	2	1 1/4"NPT	1 1/2"-16 UN	25	filters	1

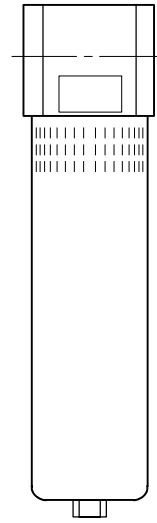
¹ Specify **L** or **R**. L provides the standard color-coded bar restriction gauge on the side of the head with the flow direction going to your *left*. R has the flow going to the *right*. See center head illustration, above.

² MP signifies a multi-port head. The multi-ports are for an optional in-head gauge, such as the IN HG15LF liquid filled, 1.5" diameter, compound pressure/vacuum gauge (1/8"NPT). See right illustration, above.

SPECIFICATIONS are found on Hydraulic Fluid Filters introduction page.

How to Order -The example below illustrates how the part numbers are constructed.

HP60086	C
Maximum Pressure: 3000 PSI/206 bar. HP60077: 1200 GPH / 4542 LPH HP60080: 1200 GPH / 4542 LPH HP60083: 3000 GPH / 11355 LPH HP60086: 3000 GPH / 11355 LPH	<u>Filter Element Media:</u> Specify one: C for Cellulose or M for Microglass



2

HP60086
Shown

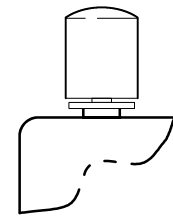
Replacement Service Elements -Service elements include seal.

Model No.	Service Element No.	Micron Rating	(Beta Rating) Typical, 2/20	Case Quantity
HP60077C	FC60078	10	8 / 14	6
HP60077M	FC60079	10	2 / 5	6
HP60080C	FC60081	10	6 / 16	6
HP60080M	FC60082	10	2 / 6	6
HP60083C	FC60084	10	4 / 12	6
HP60083M	FC60085	10	2 / 6	6
HP60086C	FC60087	10	6 / 17	6
HP60086M	FC60088	10	3 / 7	6

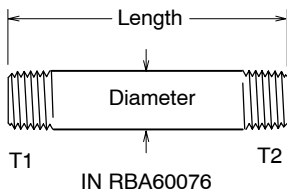
Reservoir Breather

Reservoir Breather & Adapters

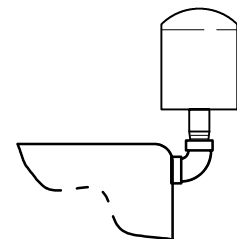
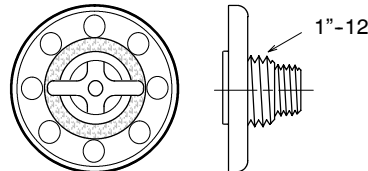
Breather Part Number	Center Threads	Breather Diameter	Breather Length	Recommended Adapter(s) See below	Case Qty.
RAC35RB	1"-12UN	3.00"	5.00"	IN RBA60076/ IN RBA3416	12



Replaces existing filler cap.



INRBA3416 End View. This adapter replaces the existing breather cap (or fill cap).

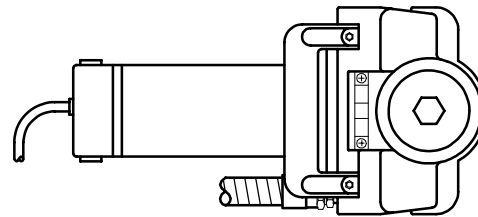
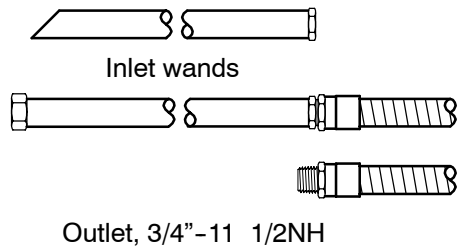


Typical installations mounted on side or top of reservoir

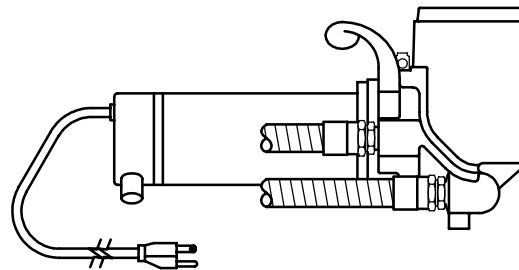
Adapter Part Number	Thread T1	Thread T2	Adapter Diameter	Adapter Length	Case Qty.
IN RBA60076	1"-12UN	3/4"NPT	1.05"	2.63"	1
IN HRBA3416	1"-12UN	Tank Cap	3.26"	1.27"	1

Model Illustration

GUARDIAN LIQUID
TRANSFER SYSTEM



Top view



Side view

Special Notes

1. WARNING: Explosion hazard. Do not pump flammable fluids such as gasoline, alcohol, solvents, etc.
2. The 1/4 HP, 115 VAC motor is Underwriters Laboratories Recognized and CSA Listed.
3. For additional information and availability, contact customer service at: (800) 344-3286, 6 AM to 5 PM, Pacific Time.



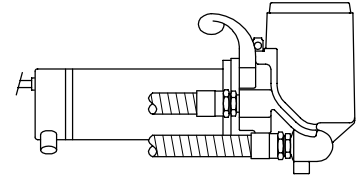
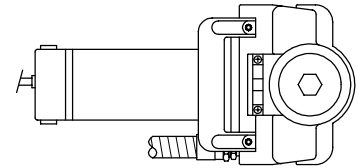
Specifications

BASIC MODEL	GLT60006
Recommended Fluids	Petroleum based and Water emulsions
Filter Elements	74W, 40W, 25W, 20C, 10C, 10B, 03B, WR
Maximum Flow Rate	
Gallons per minute (GPM)	4
Liters per minute (LPM)	15
Maximum Pressure (allowable)	
PSI	50
bar	3.5
Port Thread, Inlet / Outlet	1/2"-14 NPTF
Hose Connection Thread	3/4"-11 1/2 NH
Height	
in.	8.50
mm	216
Width	
in.	7.75
mm	197
Length	
in.	15.75
mm	400
Weight (dry)	
lbs.	24
kgs.	11
Operating Temperature	- 15° / +120° F / +26° / +49° C

SPECIFICATIONS are found on Liquid Transfer System introduction page.

How to Order -The Racor Guardian Liquid Transfer System can be ordered with a broad selection of options. The example below illustrates how the part numbers are constructed.

GLT	60006
<u>Basic Model</u> 240 GPH. Includes: visual differential indicator, hoses and wands Note: All seals are of Viton* rubber.	<u>Element Filtration Media</u> 60006 , 10 Micron, Cellulose is Standard. For other medias, order from 'Replacement Service Elements' block, below.
*Viton is a registered trademark of DuPont.	



Replacement Service Elements - The element end cap (cover) O-ring is reusable and is NOT included with service elements.

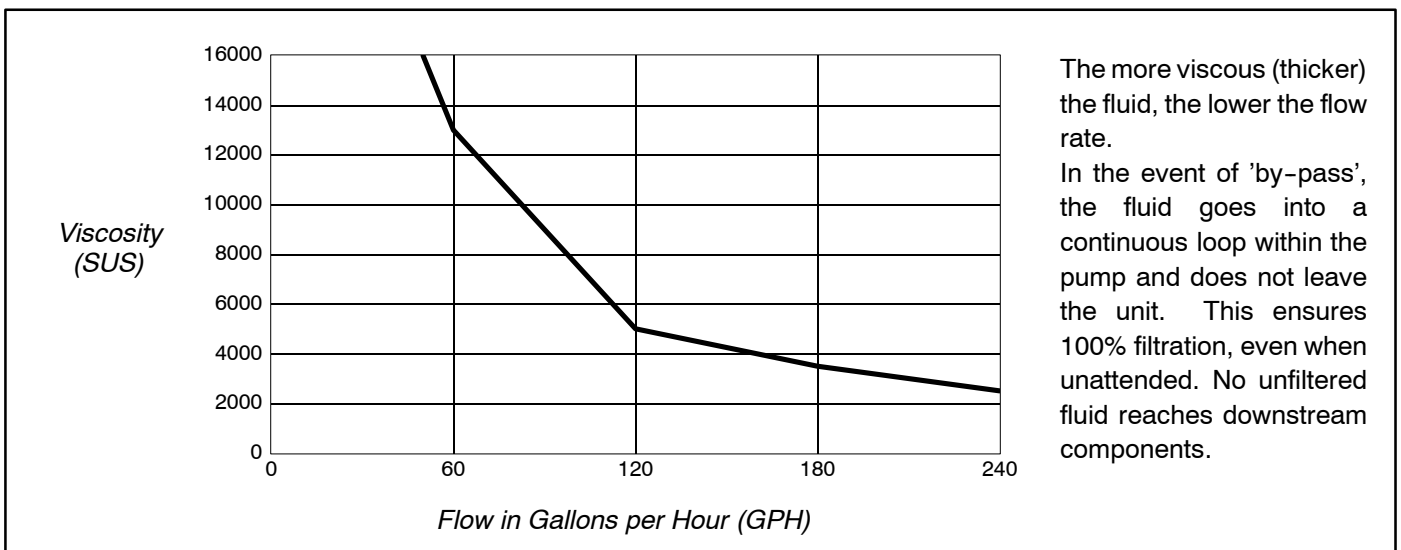
<u>Part number</u>	<u>Media</u>	<u>Description</u>	<u>Case Qty.</u>
ING60000	74W	74 Micron, Wire Mesh	1
ING60002	40W	40 Micron, Wire Mesh	1
ING60001	25W	25 Micron, Wire Mesh	1
ING60010	20C	20 Micron, Cellulose	2
ING60006	10C	10 Micron, Cellulose	2
ING60007	10B	10 Micron, Microglass	2
ING60008	03B	3 Micron, Microglass	2
ING60009	WR	Water Removing Media -water capacity is 1.5 fluid ounces (45milliliters)	2

For optional extended length elements, see parts list, on next page.



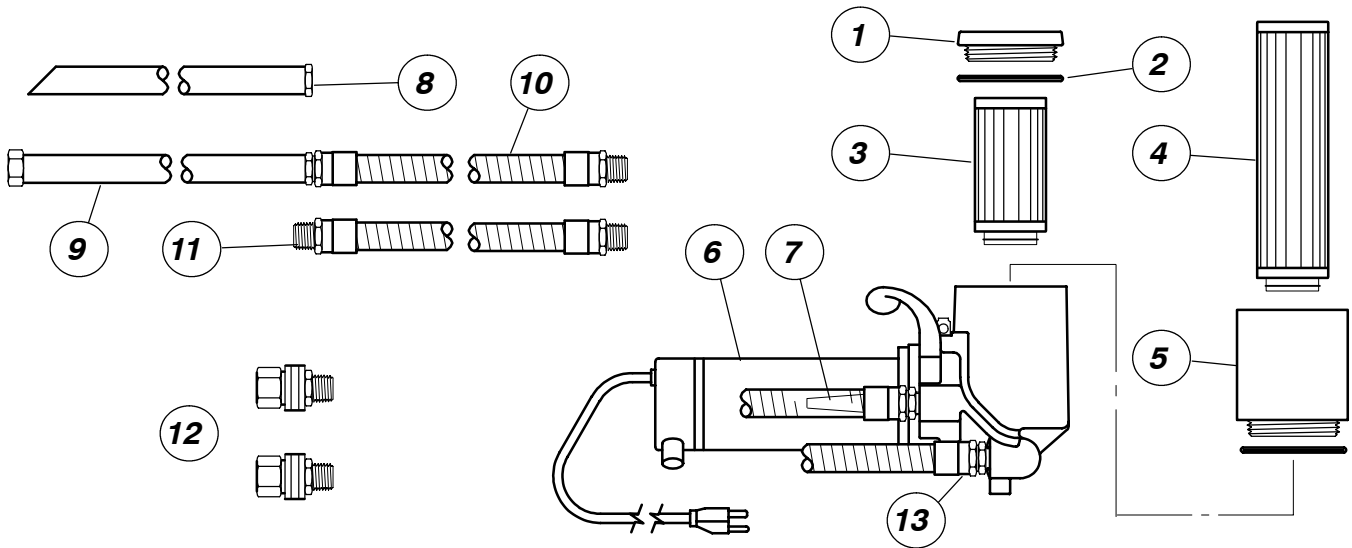
The 1/4 HP, 115 VAC motor is Underwriters Laboratories Recognized, CSA Listed and features replaceable brushes.

Flow vs. Viscosity Performance -Note: Do not use unit with fluid viscosities greater than 16,000 SUS



The more viscous (thicker) the fluid, the lower the flow rate. In the event of 'by-pass', the fluid goes into a continuous loop within the pump and does not leave the unit. This ensures 100% filtration, even when unattended. No unfiltered fluid reaches downstream components.

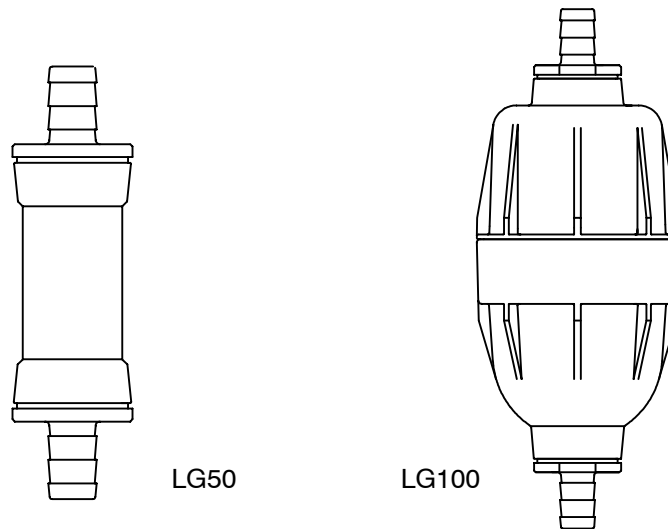
FIGURE 1. GLT View -The circled numbers correspond to the item numbers shown in the parts list below.



2

Item/Part No.	Description	Case Qty.	Item/Part No.	Description	Case Qty.
1. ING60014	End Cap for element	1	SERVICE PARTS		
2. ING60026	End Cap O-ring (Viton)	1	6. ING60035	115 VAC Motor Assembly	1
STANDARD ELEMENTS			7. ING60036	Inlet Screen	1
3. ING60000	74W, 74 micron, Woven wire	1	8. ING60020	18" Wand Crevice Assembly	1
ING60002	40W, 40 micron, Woven wire	1	9. ING60021	18" Wand Adapter Assembly	1
ING60001	25W, 25 micron, Woven wire	1	10. ING60004	63" Inlet Hose Assembly	1
ING60010	20C, 20 micron, Cellulose	2	11. ING60005	63" Outlet Hose Assembly	1
ING60006	10C, 10 micron, Cellulose	2	12. ING60023	Quick Disconnect Kit	2
ING60007	10B, 10 micron, Microglass	2	13. ING60019	Hose Gasket (Viton)	1
ING60008	03B, 3 micron, Microglass	2	PUMP SERVICE PARTS -Not shown		
ING60009	WR, Water Removing	2	14. ING60013	Gerotor Set	1
EXTENDED LENGTH ELEMENTS			15. ING60015	Shadow Plate	1
4. ING60027	40W, 40 micron, Woven wire	1	16. ING60016	Outlet Plate	1
ING60028	40SA, 40 micron, Synthetic	1	17. ING60017	Gerotor Ring	1
ING60029	25W, 25 micron, Woven wire	1	18. ING60018	PolyPak Seal	1
ING60030	20C, 20 micron, Cellulose	1			
ING60031	10B, 10 micron, Microglass	1			
INHP60087	10C, 10 micron, Cellulose	1			
ING60033	03B, 3 micron, Microglass	1			
ING60034	03C, 3 micron, Cellulose	1			
5. ING60022	Element Extension Tube	1			

Model Illustrations



LG50

LG100

Selection Information

- GASOLINE** Model LG50 The fill flow rate capacity is 12 cubic feet (air) per minute (90 GPM) and can handle most commercial fuel dispensing nozzles. The vent line connections are for standard 5/8" I.D. rubber hose.
- DIESEL OR GASOLINE FUEL** Model LG100 The fill flow rate capacity is 17 cubic feet (air) per minute (127 GPM) and handles commercial fuel dispensing nozzles. The vent line connections are for standard 5/8" I.D. rubber hose.

Special Notes

- Exercise caution to avoid fuel splash if fueling nozzle is not equipped with automatic shut-off capability. Wrap an absorbant cloth around fill port/nozzle to ensure no spillage.
- Order Adapter Kit No. RK50033 (1/2"NPTF fittings) to accommodate all other vent line hose sizes.
- UL Listing pending, meets U.S.C.G. pleasure craft requirements.
- For additional information and availability, contact customer service at: (800) 344-3286, 6 AM to 5 PM, Pacific Time.

Specifications

BASIC MODELS	LG50	LG100
Fuel type	Gasoline	Diesel/Gasoline
Maximum Flow Capacity		
Cubic feet (air) per minute (CFM)	12	17
Gallons per minute (GPM)	90	127
Liters per minute (LPM)	341	481
Hose fitting size, I.D.	5/8"	5/8"
Optional adapter RK50033	1/2"NPTF	1/2"NPTF
Height	6 in.	9 3/4 in.
Diameter	1 3/4 in.	4 in.
Weight (dry)	44.5 lbs.	101.6 lbs.
	0.54 kgs.	0.73 kgs.
Operating Temperature	-40° / +255° F / -40° / +121° C	

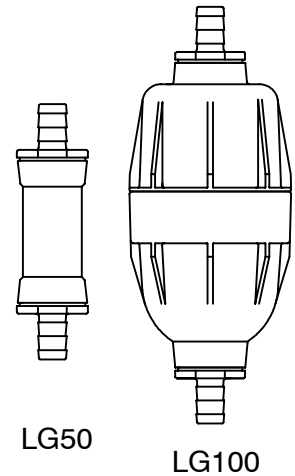
SPECIFICATIONS are found on Fuel / Air Separator introduction page.

LG50 & LG100

LG50: 12 CFM, Gasoline.
LG100: 17 CFM Gasoline & Diesel Applications.
 Each unit includes standard 5/8" male hose barbs, hose clamps and instructions.

FEATURES

- Meets USCG pleasure craft requirements.
- Allows fuel tank top-off without overboard spillage.
- Prevents overboard spillage due to agitation.
- Saves fuel costs and prevents possible fines.
- Contains thermal expansion up to 2.4 PSI.
- Prevents maintenance due to fuel stains on vessel.



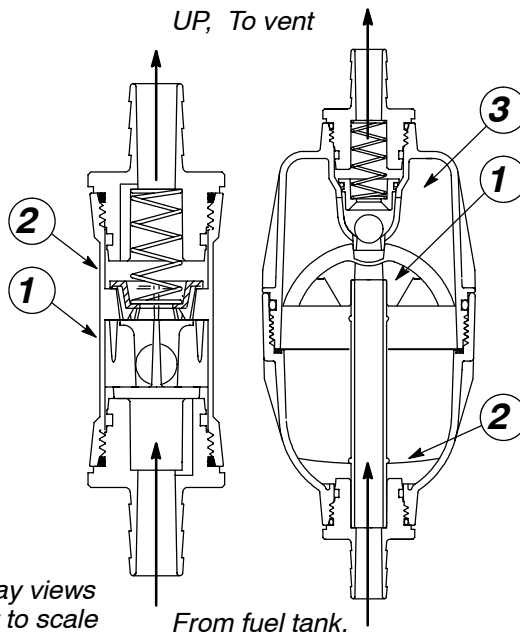
2

How the Lifeguard Works

LG50: 1. In the First Stage the venting tank fuel is diffused by the Flow Diverter. Air is allowed to bypass the diverter but fuel is directed back to the tank.

2. In the Second Stage, vapor collects on the interior surfaces and coalesces. The fuel returns downward by gravity and air continues up and out of the unit.

The Safety Relief Valve includes a floating check ball which will not permit a large in-rush of fuel to bypass. In the event of internal pressure reaching 2.4 PSI, the spring will compress and open the safety seat.



Cutaway views are not to scale

From fuel tank.

LG100: 1. In the First Stage the venting tank fuel is deflected by the Flow Diverter. Fuel is directed down to the drain ports and air is allowed to bypass and continue traveling up.

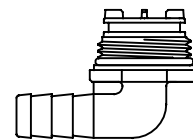
2. The Second Stage defoams the fuel through a fine wire mesh screen which filters out large contaminants. Under the screen, the fuel collects temporarily until it can flow back down to the fuel tank.

3. In the Third Stage, vapor collects on the interior surfaces and coalesces. The fuel returns downward by gravity and air continues up and out of the unit. The Safety Relief Valve includes a floating check ball which will not permit a large in-rush of fuel to bypass. In the event of internal pressure reaching 2.4 PSI, the spring will compress and open the safety seat.

General Information

The LG50 has no serviceable parts. See the Parts List below for fitting alternatives:

Part No.	Description	Qty.
RK50021	LG100 Replacement screen, spring, check ball & seals.	1
RK50023	LG100 2-piece Steel Mounting Bracket (not shown)	1
RK50033	Straight Fitting Adapter, 1/2" NPT female (not shown)	1
RK50003	Elbow Fitting, 5/8" hose barb (see view at right)	1



Note: Use only one elbow fitting with each unit as fitting orientation is random. (Two elbow fittings may not point to the directions you wish).

Troubleshooting

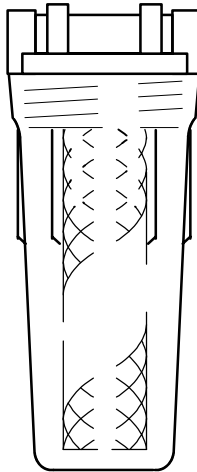
INSPECT FUEL SYSTEM COMPONENTS AND THE OVERBOARD VENT OF OBSTRUCTIONS, ANNUALLY.

These units must be installed vertically (or up to 60° from vertical) in the vent line with the arrow pointing UP (towards vent). Do not allow loops or low spots where fuel may pool. Flying insects may build nests in vent ports which may also obstruct the escaping vapors. These situations may be evident by premature tripping of the fuel nozzle automatic shut-off during refueling or constant fuel filling splash-ups.

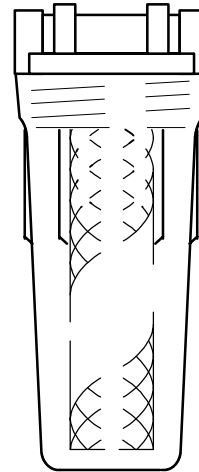
In the event of severe fuel tank biological contamination, the units may be fouled and require inspection or cleaning. To disassemble, simply unthread the fittings from the housing and clean only in a fresh solvent bath. Coat the seals with motor oil and reassemble the unit in reverse order.

Model Illustrations

WFA12-S5, S30, S60



WFA12-T5



Selection Information

1. The Sediment Removal units can handle up to 6 GPM, 125 PSI and are available in 5, 30 and 60 micron filter ratings. *Five (5) micron elements trap fine particles, sixty (60) micron elements trap larger particles but have a longer life.*
2. The Taste and Odor Removal unit can handle up to 3 GPM, 125 PSI and is rated at 5 microns.

Special Notes

1. Sediment filters (WFA12-S5,S30 & S60) remove rust, sand, algae and other suspended solids.
2. The Taste and Odor filter (WFA12-T5) removes rust, sand, algae, suspended solids and also features an activated carbon core to remove contaminants which cause undesirable taste and odor.
3. Both units above feature the same housing. Only the filter element and unit label are different.
4. These units are for 'cold' drinking water filtration and are not intended to be used with 'hot' water, sea (salt) water, microbiologically unsafe water or water of unknown quality.
5. For additional information and availability, contact customer service at: (800) 344-3286, 6 AM to 5 PM, Pacific Time.

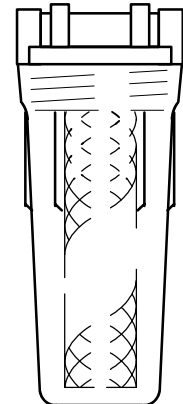
Specifications

BASIC MODELS	WFA12-S5,S30,S60	WFA12-T5
Fluid Filtered Filter Element	Drinking water WFC-S5, S30, S60	Drinking water WFC-T5
Maximum Flow Capacity Gallons per minute (GPM) Liters per minute (LPM)	6 23	3 12
Maximum Pressure Port Size, Inlet / Outlet	125 3/4"-14 NPTF	125 3/4"-14 NPTF
Height in. mm	12.50 318	12.50 318
Diameter in. mm	5.25 133.4	5.25 133.4
Weight (dry) lbs. kgs.	3.1 1.4	3.1 1.4
Operating Temperature (cold water only)	+33° / +100° F / +0.6° / +38° C	

SPECIFICATIONS are found on Drinking Water Filter Series introduction page.

How to Order -The example below illustrates how the part numbers are constructed.

WFA12	-S30
For cold water filtration only. WFA12 is the basic model and includes mounting head, cartridge and transparent sump. Flow Rates: with T5 element: 3 GPM/180GPH, all others: 6 GPM/360 GPH.	Filtration / Removal Type Rating. Specify one: - T5 for 5 Micron / Taste & Odor. - S5 for 5 Micron / Sediment. - S30 for 30 Micron / Sediment. - S60 for 60 Micron / Sediment.

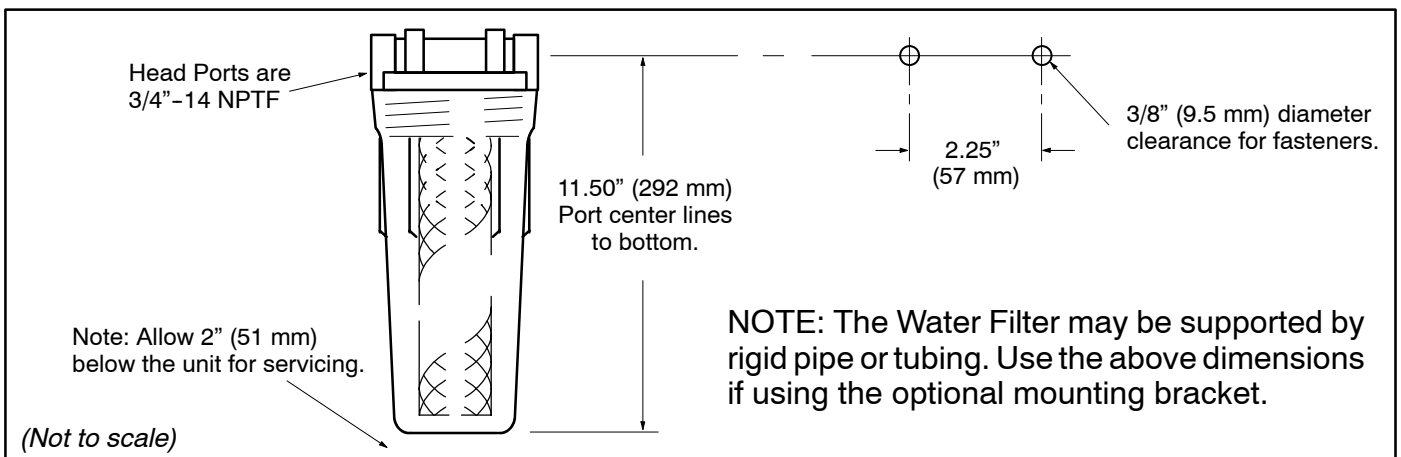


Replacement Cartridges -Service cartridges DO NOT include head seal.

WFC-T5	5 Micron, Taste and Odor Removal Cartridge
WFC-S5	5 Micron, Sediment Removal Cartridge
WFC-S30	30 Micron, Sediment Removal Cartridge
WFC-S60	60 Micron, Sediment Removal Cartridge

WFA12-T5
WFA12-S5
WFA12-S30
WFA12-S60

Mounting Hole Pattern -Refer to Drinking Water Filters introduction page for filter dimensions.



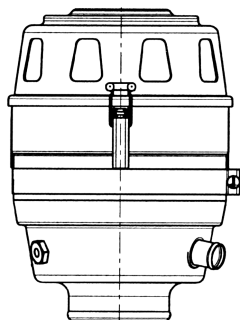
Parts List The circled number corresponds to the item number shown in the parts list below.

Filter design prior to June 1, 1998	Item/Part No.	Description	Case Qty.
	1.	WFH12 Water Filter Head/Sump (new design)	6
	2.	WF-037 Head/Sump Seal (new design)	1
	3.	WFC-T5 5 Micron Taste and Odor Cartridge	20
		WFC-S5 5 Micron Sediment Cartridge	20
		WFC-S30 30 Micron Sediment Cartridge	20
		WFC-S60 60 Micron Sediment Cartridge	20
		4.	WF-035 Optional Mounting Bracket Kit
	5.	WF-039 Optional Bowl Wrench (new design)	1
	6.	WF-010 Optional Bowl Wrench (old design)	1
	7.	WF-009 Head/Sump Seal (old design)	1

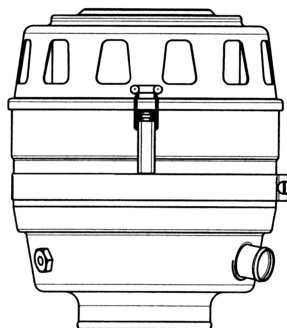
For parts not listed, call Racor customer service: 800/344-3286, PT.

Model Illustrations

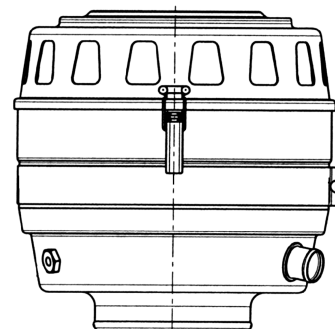
Marine Air Filters/Silencers



AF M408512



AF M501012



AF M601212

Special Notes

1. For additional information and availability, contact customer service at: (800) 344-3286, 6 AM to 5 PM, Pacific Time.

Specifications

BASIC MODELS		AF M408512	AF M501012	AF M601212
Max. Air Flow*	CFM	800	1200	1600
	L/s	377.6	566.4	755.2
Outlet Diameter	in.	4.00	5.00	6.00
	mm	101.6	127.0	152.4
Filter Element		AF M8040	AF M8050	AF M8060
Length	in.	12.50	12.50	12.50
	mm	317.5	317.5	317.5
Depth	in.	9.59	11.14	13.51
	mm	243.5	282.8	343.2
Hose Barb size	in.	1.00	1.25	1.25
	mm	25.4	25.4	31.75
Weight (dry)	Lbs.	4.16	5.03	8.00
	kgs.	1.89	2.28	3.63
Operating Temperature		-40° / +240° F / -40° / +116° C		
* Values given are cubic feet per minute (CFM) and liters per second (L/s).				

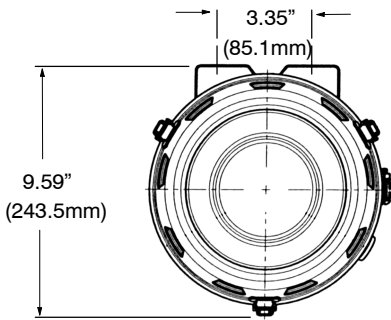
Marine Air Filtration

Marine Air Filters

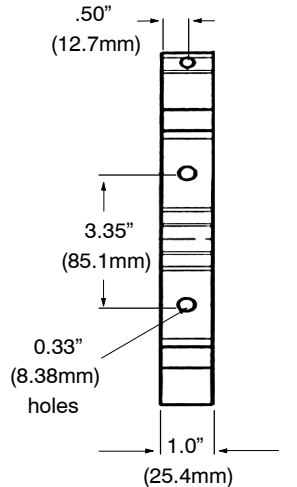
Specifications are found on the Introduction page.

AF M408512

Replacement Element: AF M8040

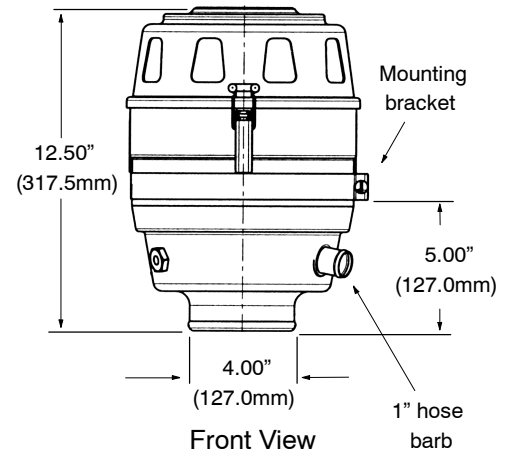


No Scale Top View



Mounting Bracket

4" clearance (min.)
needed for element removal

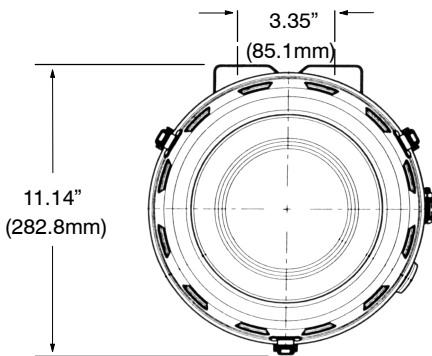


Front View

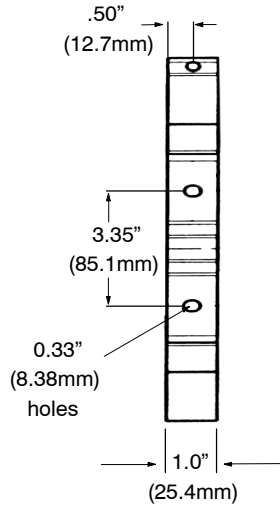
2

AF M501012

Replacement Element: AF M8050

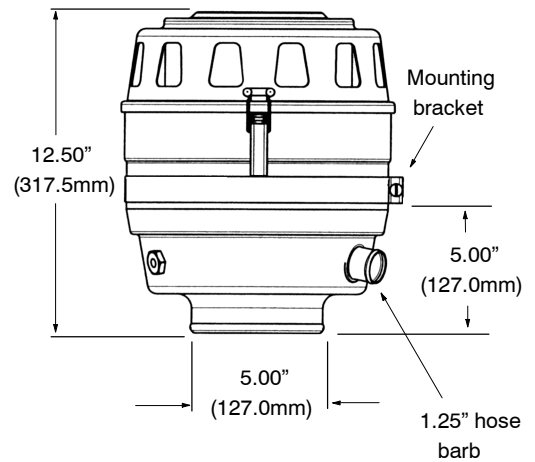


No Scale Top View



Mounting Bracket

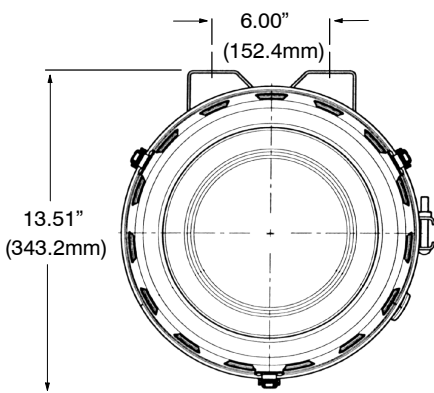
4" clearance (min.)
needed for element removal



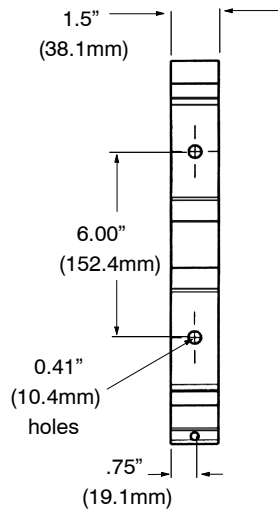
Front View

AF M601212

Replacement Element: AF M8060

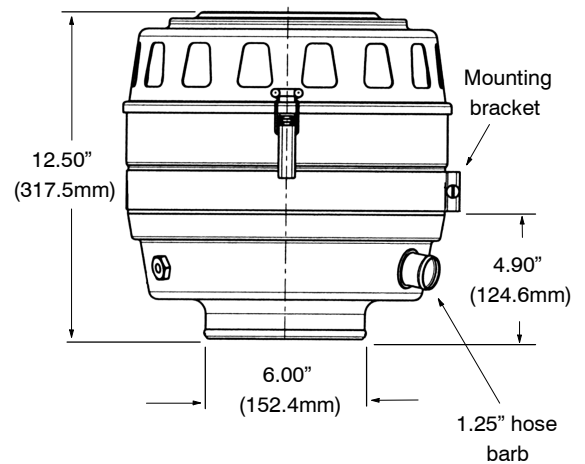


No Scale Top View



Mounting Bracket

4" clearance (min.)
needed for element removal

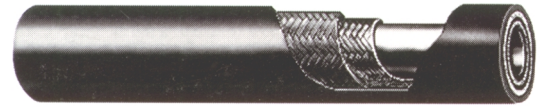


Front View

USCG-rated hose for gasoline, diesel, lube oil, and hydraulic systems for commercial and recreational applications.

How to Order:

CGH	- 5	- 50														
USCG Accepted Hose	<table border="1"> <thead> <tr> <th>Number</th> <th>Hose I.D. size</th> </tr> </thead> <tbody> <tr> <td>-5</td> <td>1/4"</td> </tr> <tr> <td>-6</td> <td>5/16"</td> </tr> <tr> <td>-8</td> <td>13/16"</td> </tr> <tr> <td>-10</td> <td>1/2"</td> </tr> <tr> <td>-12</td> <td>5/8"</td> </tr> <tr> <td>-16</td> <td>7/8"</td> </tr> </tbody> </table>	Number	Hose I.D. size	-5	1/4"	-6	5/16"	-8	13/16"	-10	1/2"	-12	5/8"	-16	7/8"	Standard length is a 350 foot roll. Specify '-50' for a 50 foot roll.
Number	Hose I.D. size															
-5	1/4"															
-6	5/16"															
-8	13/16"															
-10	1/2"															
-12	5/8"															
-16	7/8"															



Specifications

Part Number	Hose I.D.		Hose O.D.		Working Pressure		Burst Pressure		Minimum Bend Radius		Weight		InHg	
	inch	mm	inch	mm	psi	MPa	psi	MPa	inch	mm	lbs/ft	kg/m	Inches of Hg	kPa (abs)
	CGH-5	1/4	6.3	0.58	15	500	3,5	2000	14,0	1	25	0.19	0,28	20
CGH-6	5/16	8	0.68	17	500	3,5	2000	14,0	1 1/4	30	0.23	0,34	20	33
CGH-8	13/16	10	0.77	20	500	3,5	2000	14,0	1 3/4	45	0.28	0,42	20	33
CGH-10	1/2	12.5	0.92	23	500	3,5	2000	14,0	2 1/4	55	0.39	0,58	20	33
CGH-12	5/8	16	1.08	27	500	3,5	2000	14,0	2 3/4	70	0.47	0,70	20	33
CGH-16	7/8	22	1.23	31	500	3,5	2000	14,0	3 1/2	90	0.41	0,61	20	33

Racor marine hose for fuel, oil, and hydraulic fluids is fire resistant and meets SAE J1527 Type A class and SAE J1942 standards. This hose delivers test-proven performance in a wide operating temperature range, constant working pressure in popular sizes, long-lasting reinforced construction, kink and cut resistance, and compatibility with a variety of standard 100R5 fittings.

Construction

Fuel and oil-resistant synthetic rubber tube with one braid of high-tensile steel wire, and a weather and fire resistant synthetic blue rubber cover. The layline is embossed for permanent identification.

No Skive

1. Assembly of No-Skive hose and fittings does not require removal of outer cover of hose. This eliminates premature hose failure caused by skiving too long or short and protects vulnerable wire wrap during fitting assembly.
2. Cushion grip increases hose life - supporting cushion of compressed rubber between gripping threads on fitting reduces wire movement, minimizing stress.
3. Corrosion protection - steel wire braid of No-Skive hose is never exposed because outer rubber cover is not removed before assembling fitting.
4. No-Skive fittings are designed to allow socket threads to penetrate outer cover of hose and grip the wire braid of the hose.
5. Simple two step assembly - attached socket to hose, thread nipple to socket.

Application and Temperature Range

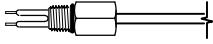
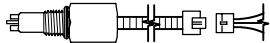
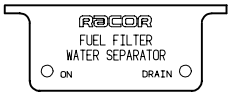
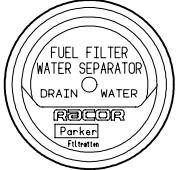
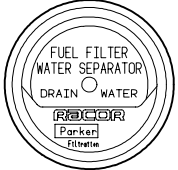
Low pressure service hose for use with gasoline, ethanol blends, diesel fuels, petroleum-base hydraulic fluids and lubricating oils within a temperature range of -4°F to 212°F (-20°C to 100°C). Water, water/glycol and water/oil emulsion hydraulic fluids up to 185°F (85°C). Meets Class 1 permeation requirements with gasoline and gasoline/ethanol blends, and passed a 2 1/2 minute fire test. USCG accepted for commercial and recreational vessel applications.

Hose Fittings

Part Number	Hose Size	Part Number	Hose Size
20820-5-5	SAE-5	20820-8-8	SAE-8
20820-6-6	SAE-6	20820-10-10	SAE-10

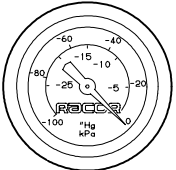
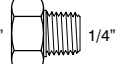
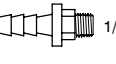
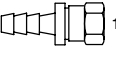
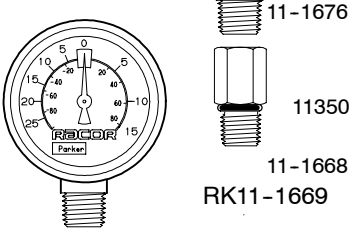
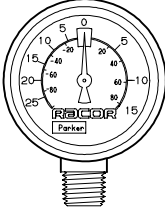
Plated Steel Fuel Port Fittings are now available - see the following page.

Water Probe & Detection Kits -Not for use with gasoline applications.

Kit Part No.	Description / Notes	Use with:	Qty.	
RK21069	Water Probe Kit, 1 each.	For all models with Heat shield or metal bowl	1	 RK21069
RK30880	Water Probe with Built-in 12 or 24vdc Detection Electronics and Connector Kit Includes underdash warning light kit. UL. Approved for use with diesel only.	For all models except 500MA & 500MAP	1	 RK30880
RK20725	Underdash mount Water Detection Module. 12 vdc, light only. Probe not included	For all models	1	 RK20725
RK20726	2" Gauge Water Detection Module. 12 or 24 vdc, light and audio. Probe not included.	For all models	1	
RK30056	2" Gauge Water Detection Module (RK20726) and Water Probe (RK21069)	For all models with water sensor port in bowl	1	 RK20726
RK30743	2" Gauge Water Detection Module (RK20726) and Water Probe (RK21069) and Metal Bowl.	For Engine Spin-on Series	1	 RK20726

2

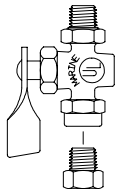
Vacuum / Compound Gauge Kits

Kit Part No.	Description / Notes	Use with:	Qty.	
1606B	Vacuum 0-30 Hg. 2" dial Silicone dampened with 1/4"NPT back mount. For instrument panel installation. #4 hose not included. ¹	For vacuum applications	1	 1606B
0102-4-2	Adapter fitting, straight 1/4"NPTM X 1/8"NPTF	7232-4/7234-4	1	
7232-4	Adapter fitting, 1/8"NPTM X #4 hose ¹	0102-4-2	1	
7234-4	Adapter fitting, 1/4"swivel X #4 hose ¹	For all gauges	1	
RK11-1669	'T-Handle' Replacement Vacuum Gauge Kit. Includes Silicone dampened gauge (11-1676) 0-30 inHg., lid fitting (11-1668) and O-ring (11350). Replaces original 'T'-Handle.	For vacuum applications	1	 11-1676 11350 11-1668 RK11-1669
RK19476	Compound Vacuum 0-25/ Pressure 0-15. 2" dial. 1/4"NPT bottom mount. UL Approved replacement.	MAX / all applications	1	 RK19476

¹ Rubber hose is suitable for 15 feet or less, otherwise rigid plastic tubing is recommended to obtain accurate readings.

Diesel Shut-off Drain Valve Kit

-Underwriters Laboratories Marine Listed / USCG Accepted.

Kit Part No.	Description / Notes	Use with:	Qty.	
RK19492	Diesel Marine Shut-off Valve Kit. All brass construction. Features 1/4"NPTM to bowl or adapter with a 1/4"NPTF bottom port for use with provided 1/4"NPTM plug. (Plug must be in valve unless servicing).	For all diesel applications	1	 RK19492

100, 200, 300, 400 & 600 Series Fittings -Package quantity is 10 pcs.

Plated Steel Plugs-

(Yellow Zinc Di-chromate)

Part No.	Old Part No.	Thread 1
918-N4	None	1/4"-18
918-N6	None	3/8"-18

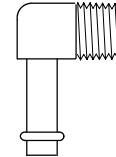


T1 '918' NPT Plug

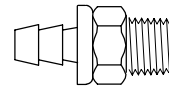
Plated Steel Fittings-

(Yellow Zinc Di-chromate)

Part No.	Old Part No.	Thread 1 (SAEJ476)	Hose 2	Tube or Hose Size Number
913-N4-H6	New	1/4"-18	3/8"	6
913-N6-H6	New	3/8"-18	3/8"	6
911-N4-H6	New	1/4"-18	3/8"	6
911-N6-H6	New	3/8"-18	3/8"	6
911-N6-H8	New	3/8"-18	1/2"	8



T1 '913' NPT Beaded Elbow

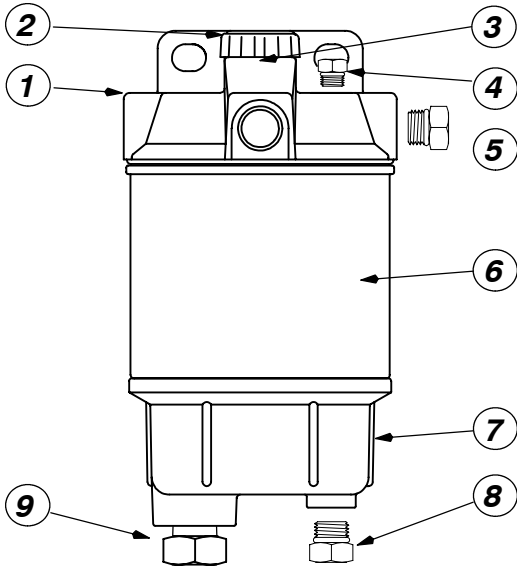


H2 T1 '911' NPT Barbed Straight

Discontinued Models

Models 220RMAM, 225RMAM

The 220RMAM has been replaced by the new 200 Series. The circled number corresponds to the item number shown below.



Item/Part No.	Description	Case Qty.
1 RK20046	Head, 1/4" NPT Ports	1
2 RK20025	Primer Pump Assembly	1
3 RK20011	Check Ball and Plastic Cap	1
5 RK20742	Metal Check Ball Cap	1
4 RK10110	Metal Vent Plug, 3/8"-16 SAE	1
5 RK12041	Metal Port Plug, 1/4" NPT	10
6 R24SUL	220RMAM Replacement Element 2 Micron, UL Recognized (shown)	12
R26SUL	225RMAM Replacement Element 2 Micron, UL Recognized	12
7 RK20357	Metal Bowl and 3/8" NPT (standard)	1
8 RK20022	Metal Plug, 1/2"-20 SAE	1
9 01SP-6S	Metal Plug, 3/8" NPT	1
RK20128	Metal Drain Knob & Seal	1
RK20075	Complete Gasket/O-ring Kit	1
7238	Installation Instructions, 220RMAM, 225RMAM	

