



DIESEL FUEL FILTER/WATER SEPARATORS & Recycler Systems



DAHL DIESEL FUEL FILTER/WATER SEPARATORS REMOVE DIESEL FUEL SYSTEM PROBLEMS ALONG WITH WATER

Water and solid contaminants displace the diesel fuel's lubricative coating on high precision injection components. The loss of this protection results in wear, erosion, surface pitting and eventual pressure loss.

Many existing fuel filters aren't designed to remove significant amounts of water. They are designed to do their job in a single step. This means they must be porous enough to allow sufficient flow volume which, in turn, limits filtering ability to between 10 and 30 microns. Any tighter media would plug too quickly and result in frequent element changes.

The DAHL system takes care of those shortcomings. DAHL's functional dual-chamber 3-stage diesel fuel filter/water separators provide efficient suction side water separation and contaminant filtration. The key is the unique DAHL patented depressurizer cone which spreads the flow of the fuel. With more area to flow over, greater separation of water and dirt from the fuel is achieved.

DAHL diesel fuel filter/water separators have less mechanical flow resistance than other separators, because the fuel changes direction only twice. The DAHL unit removes virtually 100% of the water and most of the contaminants from the diesel fuel.

Why DAHL Is Right For Your Diesel Equipment

1. The DAHL system eliminates water from fuel before reaching the fuel pump and injectors. This prevents the major cause of diesel fuel injection system failure.
 - a. It prolongs system life by eliminating pump and injector overhauls caused by water contaminated fuel. The cost of shop labor alone, just to repair the injection system on a 6-cylinder rig, exceeds the cost of the DAHL diesel fuel filter/water separator.
 - b. It reduces the need to repair the fuel pump and/or injectors that could easily tie up equipment for one or two days. The loss of income in just a few hours of equipment downtime again would pay for a DAHL diesel fuel filter/water separator.
2. The DAHL system separates solid contaminants from the fuel before reaching the fuel pump and injectors.
3. The DAHL system is easily installed.
 - a. Install it at any location before the fuel pump. (Complete installation instructions are included with each DAHL unit.)
 - b. This system can replace all other primary filters and water separators. It both filters and separates.
 - c. It takes minimal space to install. Clearance space for element removal is between 1 1/2 to 3 1/2 inches. Some models are installed with as few as two easily accessed bolts.
4. The DAHL system is easily serviced.
 - a. Models 150, 200 and 300 are serviced by loosening the T-Bolt handle. They also feature a self-ejecting element.
 - b. The transparent bowl (up to 24 ounce water capacity) makes constant draining unnecessary. The draincock is easy to use. An aluminum bowl is also available.
5. Most of the solid contaminants are separated by the patented depressurizer cone in the bowl BEFORE reaching the filter element. Another factor resulting in less frequent changes is the extra paper in the filter element. Under normal conditions, the element can last up to 40,000 miles.
6. The DAHL system includes a reverse flow valve. This holds the prime in the fuel system by not allowing flow back to the tank during shut-down. (Removable primer plug at top assists where complete priming is required.)
7. The DAHL system helps eliminate air entrapment because the inlet and outlet ports are at the top of the unit. The fuel changes directions only twice (see flow diagram), and so offers less mechanical resistance. Less resistance means longer pump and element life.

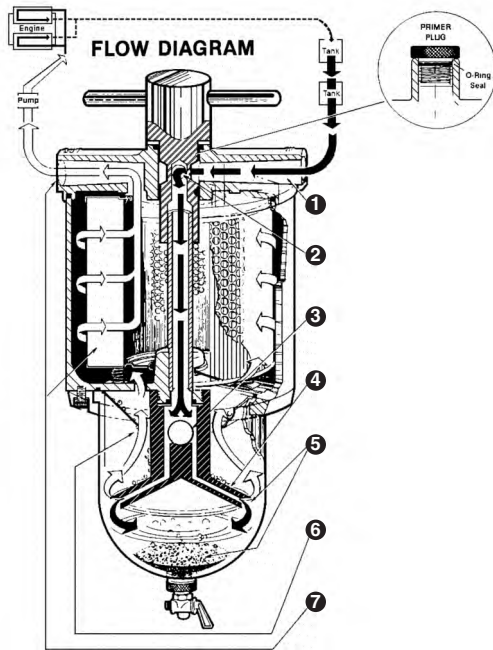
PROVEN PERFORMANCE in the laboratory and in millions of miles/hours of commercial and industrial operation. You can be sure that each DAHL unit is designed right, built right and does its job right.

MARINE DURABILITY is assured. Marine units 75, 100-M, 150-M, 200-M, 200-MMV, 300-M and 300-MMV have passed severe U.L. testing. Tests include fire endurance, vibration fatigue, impact and thermal shock. These filters have also met U.S. Coast Guard requirements for Marine Applications.

CLEAN FUEL provided by a DAHL diesel fuel filter/water separator eliminates nearly all of the engine problems caused by water and solid contaminants in diesel fuel. In addition, you can expect:

- Longer Injection System Component Life
- Full Power Performance
- Lower Element Replacement Cost

Here's How The DAHL System Works



1. The contaminated fuel enters the inlet port.
2. The T-Bolt redirects the fuel downward through the centerpipe.
3. Fuel flows through the reverse flow valve.
4. Fuel flow is spread by the depressurizer cone.
5. As fuel is discharged from the depressurizer cone, 80% of contaminant separation takes place. Most of the solid particles and water settle into the quiet zone of the bowl.
6. As the fuel rises upward, any remaining minute water droplets coalesce on the cone, baffle and bowl surfaces. Droplet size and weight gradually increase, causing downward flow into the sump.
7. Fuel is filtered completely by the element, which contains HydroShield™ media. The clean fuel then continues upward through the outlet port and on to the pump and injection system.

How To Select The Right DAHL Filter

Choose the size which can accommodate the flow rate recommended in the chart. (Maximum flow rate listed is for convenience in comparing with other systems only.) For most efficient separation and filtration, select from the recommended column.

Flow Rates in Gallons Per Hour

The chart is for Fuel/Water Separators. Recyclers are limited by the pump. For example, a single 300 recycler unit has a flow rate limited to 180 GPH (U.S.), and a double 300 recycler unit has a flow rate limited to 360 GPH (U.S.).

Flow Rates

GPH (U.S.)

Model Series	Recommended	Maximum	Sump Capacity
65 & 75	20	30	4 oz.
100	40	65	8 oz.
100 Double	80	130	16 oz.
150	80	100	8 oz.
150 Double	160	200	16 oz.
200	120	200	24 oz.
200 Double	240	400	48 oz.
300	180	325	24 oz.
300 Double	360	650	48 oz.
300 Triple	540	975	72 oz.
500	1800	1920	11 Gallons
500 Double	3600	3840	22 Gallons
All Multiple Units	Multiply Flow Rate and Sump Capacity by Number of Units		

Superior Engineering

- Die cast aluminum
- Impact-resistant large transparent bowl
- Element service life is several times longer than conventional
- Easy to install, service and clean
- Positive air elimination
- Advanced spring design assures positive element seal
- Less mechanical resistance because of streamlined flow path
- Baffle system is designed to stop emulsification and disperse trapped air
- Ball check valve to stop reverse flow
- Six series specifically designed to fit diesel engines of various capacities

65 & 75 Series Compact Fuel Filter/Water Separators



MODEL 65
Diesel Fuel
Filter/Water Separator



MODEL 75
Gasoline or Diesel Fuel
Filter/Water Separator with Aluminum Bowl

Specifications

- **Flow Resistance:**0.75 In. Mercury
- **Maximum Working Pressure:**25 PSI (172 kPa)
- **Temperature Range:**-50° to +225°F (-45° to +107°C)
- **Port Thread:**9/16-18 w/O-Ring Boss
- **Height / 65:**6 3/8 In. (161.9 mm)
- **Height / 75:**6 1/8 In. (155.6 mm)
- **Width:**4 3/16 In. (106.4 mm)
- **Depth:**4 3/4 In. (120.6 mm)
- **Element Removal Clearance:**3 1/2 In. (88.9 mm)
- **Sump Capacity:**4 oz. (118 ml)

Flow Rates

- **Model 65 & 75 Series:**
Recommended:20 GPH (U.S.) (75.7 LPH)
Maximum:30 GPH (U.S.) (113.5 LPH)

Service Parts

- **Elements:**
 - 61.....(For Use on Model 60)
4 Micron Nominal (20 Absolute) Element
 - 61-W.....(For Use on Model 60)
5 Micron Nominal (25 Absolute) Element
 - 66*.....(For Use on Models 65 & 75)
4 Micron Nominal (20 Absolute) Element
 - 66-W.....(For Use on Models 65 & 75)
5 Micron Nominal (25 Absolute) Element
 - 66-30.....(For Use on Model 65, 65-W30 & 75, 75-W30)
9 micron nominal (40 absolute)
- **Gaskets:**
60-GK.....Complete Gasket Kit for 60, 65 & 75
- **Form 4060:**
Installation, Operation, Parts & Service Information
- **DAHL Model 60 Parts:**
Call for Availability

Used On

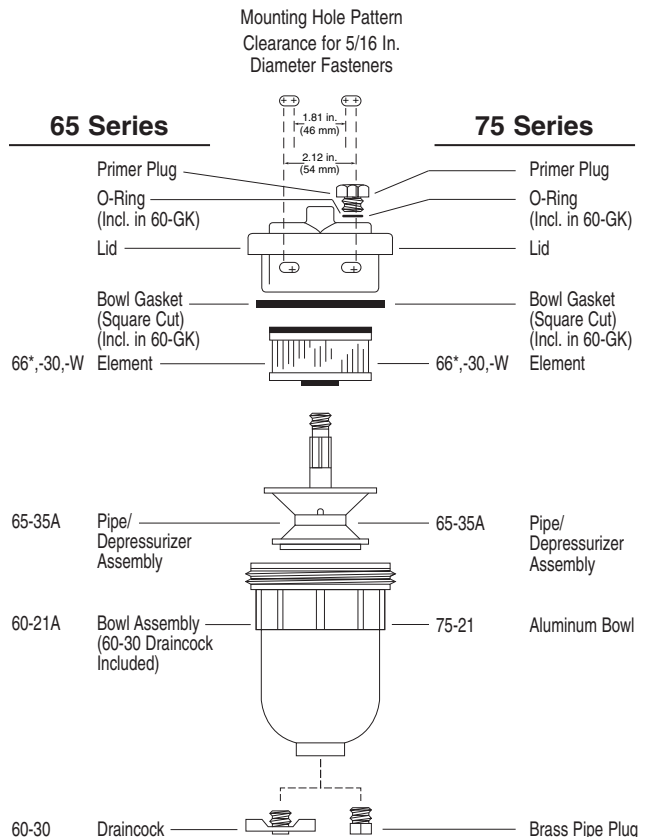
- 65 & 75 — Small Diesel Engines Where Space is Limited
- 75 — Small Gasoline Engines & Marine Applications
- Cars & Light-Duty Trucks

65 & 75 Series Single Units

- 65** Diesel Fuel Filter/Water Separator
- 65-W30** Diesel Fuel Filter/Water Separator — (30 Micron Element)
- 75** Gasoline or Diesel Fuel Filter/Water Separator with Aluminum Bowl — U.L. Listed. Meets U.S. Coast Guard requirements.
- 75-W30** Gasoline or Diesel Fuel Filter/Water Separator with Aluminum Bowl — (30 Micron Element)

Accessories

All Inlet & Outlet Fittings Require O-Ring Seals
Fittings.....See DAHL Fittings Chart



* Standard with Unit Unless Stated. U.L. Listed. Meets U.S. Coast Guard Requirements for Marine Applications.

100 Series Diesel Fuel Filter/Water Separators



MODEL 100
Diesel Fuel Filter/Water Separator



MODEL 100-M
Marine Diesel Fuel Filter/Water Separator



MODEL 100-MFV
Double Manifold Diesel Fuel Filter/Water Separator
with Shut-Off Valves for Continuous Operation



MODEL 100-MMV
Double Marine Manifold Diesel Fuel Filter/Water Separator
with Shut-Off Valves for Continuous Operation

Specifications

- **Flow Resistance:**0.75 In. Mercury
- **Maximum Working Pressure:**25 PSI (172 kPa)
- **Temperature Range:**-50° to +225°F (-45° to +107°C)
- **Port Thread:**
Single Units:9/16-18 w/O-Ring Boss
Double Units:1/4-18 NPT
- **Height:**12 1/2 In. (317.5 mm)
- **Width:**5 1/2 In. (139.7 mm)
- **Depth:**6 1/2 In. (165.1 mm)
- **Element Removal Clearance:**1 1/2 In. (38.1 mm)
- **Sump Capacity:**8 oz. (236 ml)

Flow Rates

- **Single Model 100 Series:**
Recommended:40 GPH (U.S.) (151 LPH)
Maximum:65 GPH (U.S.) (246 LPH)
- **Double Model 100 Series:**
Recommended:80 GPH (U.S.) (302 LPH)
Maximum:130 GPH (U.S.) (492 LPH)

Service Parts

- **Elements:**
101*4 Micron Nominal (20 Absolute) Element
101-W5 Micron Nominal (25 Absolute) Element
101-309 Micron Nominal (40 Absolute) Element
- **Gaskets:**
100-GKComplete Gasket Kit (See Accessories Page)
- **Kits:**
100-DEPR KITDepressurizer Kit (See Accessories Page)
100-MNTG KITMounting Bracket Kit
(See Accessories Page)
- **Form 4100:**
Installation, Operation, Parts & Service Information
- **Form 4123:**
Marine Installation, Operation, Parts & Service Information


100 Series Diesel Fuel Filter/Water Separators Cont'd.

Accessories


All Inlet & Outlet Fittings Require O-Ring Seals

Aluminum Bowl.....	100-21AL
Clear Bowl w/Water Sensor Probes.....	100-21BP
Clear Bowl w/Heater Probes.....	100-21H
Clear Bowl w/Marine Collar for Marine Units.....	100-21M
Fittings	See DAHL Fittings Chart
Heat Deflector Shield for Marine Units	185-DS
Heater Kit	See Accessories Page (Heater Kits & Heater Parts)
Shock Pad Mounting Kit.....	186-SK
Water Sensor Warning Light Kit (Use with 100-21BP) 24 Volt DC	24-WLK

100 Series Single Units

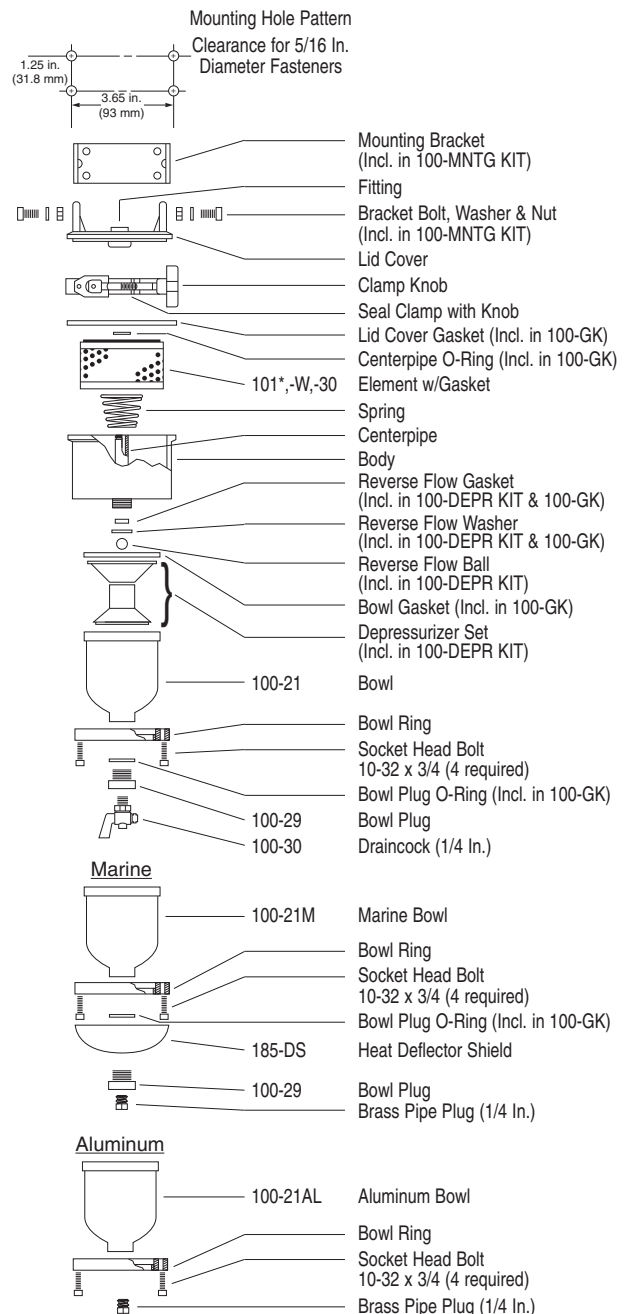
- 100** Diesel Fuel Filter/Water Separator
- 100-BP** Diesel Fuel Filter/Water Separator with Water Sensor Bowl Probes — Order Warning Light Kit separately.
- 100-H** Diesel Fuel Filter/Water Separator with In-Filter Heater — Dash-Mounted Toggle Switch included. Operates on either 12 or 24 Volt systems. (10 Micron Element)
- 100-M** Marine Diesel Fuel Filter/Water Separator — U.L. Listed. Meets U.S. Coast Guard requirements. 
- 100-W** Diesel Fuel Filter/Water Separator — (5 Micron Nominal (25 Absolute) Element)
- 100-W30** Diesel Fuel Filter/Water Separator — (9 Micron Nominal (40 Absolute) Element)

100 Series Double Manifold Units

- 100-MFV** Two Diesel Fuel Filter/Water Separators Manifolded with Shut-Off Valves — Allows continuous operation while servicing.
- 100-MMV** Two Marine Diesel Fuel Filter/Water Separators Manifolded with Shut-Off Valves — Allows continuous operation while servicing. U.L. Listed. Meets U.S. Coast Guard requirements. 
- 100-MMV30** Two Marine Diesel Fuel Filter/Water Separators Manifolded with Shut-Off Valves — Allows continuous operation while servicing. (9 Micron Nominal (40 Absolute) Element)

Used On

- Small Diesel Engines Up to Approx. 200 HP (Except Cummins & Detroit Diesel Engines)
- Cars, Light-Duty Trucks & RV's
- Small Pleasure Crafts & Sailboats
- Caterpillar Engines Thru 3300 Series
- Small Generators & Farm Tractors
- Refrigeration Units
- 5.7L & 6.2L GMC Engines



* Standard with Unit Unless Stated.  U.L. Listed. Meets U.S. Coast Guard Requirements for Marine Applications.

150 Series Diesel Fuel Filter/Water Separators



MODEL 150
Diesel Fuel Filter/Water Separator



MODEL 150-M
Marine Diesel Fuel Filter/Water Separator

Specifications

- **Flow Resistance:**0.75 In. Mercury
- **Maximum Working Pressure:**25 PSI (172 kPa)
- **Temperature Range:**.....-50° to +225°F (-45° to +107°C)
- **Port Thread:**
Single Units:.....7/8-14 w/O-Ring Boss
Double Units:3/4-14 NPT
- **Height:**14 1/4 In. (368.3 mm)
- **Width:**.....6 In. (152.4 mm)
- **Depth:**.....6 11/32 In. (161.1 mm)
- **Element Removal Clearance:**2 In. (50.8 mm)
- **Sump Capacity:**8 oz. (236 ml)

Flow Rates

- **Single Model 150 Series:**
Recommended:80 GPH (U.S.) (302 LPH)
Maximum:100 GPH (U.S.) (378 LPH)
- **Double Model 150 Series:**
Recommended:160 GPH (U.S.) (604 LPH)
Maximum:200 GPH (U.S.) (757 LPH)

Service Parts

- **Elements:**
151*4 Micron Nominal (20 Absolute) Element
151-W5 Micron Nominal (25 Absolute) Element
151-309 Micron Nominal (40 Absolute) Element
- **Gaskets:**
150-GKComplete Gasket Kit (See Accessories Page)
- **Kits:**
100-DEPR KIT.....Depressurizer Kit (See Accessories Page)
- **Form 4025:**Installation, Operation,
Parts & Service Information
- **Form 4123:**Marine Installation, Operation,
Parts & Service Information

150 Series Diesel Fuel Filter/Water Separators Cont'd.

Accessories

All Inlet & Outlet Fittings Require O-Ring Seals

Aluminum Bowl.....	100-21AL
Clear Bowl w/Water Sensor Probes.....	100-21BP
Clear Bowl w/Heater Probes.....	100-21H
Clear Bowl w/Marine Collar for Marine Units.....	100-21M
Fittings.....	See DAHL Fittings Chart
Heat Deflector Shield for Marine Units.....	185-DS
Heater Kit	See Accessories Page (Heater Kits & Heater Parts)
Shock Pad Mounting Kit.....	286-SK
Water Sensor Warning Light Kit (Use with 100-21BP) 24 Volt DC.....	24-WLK

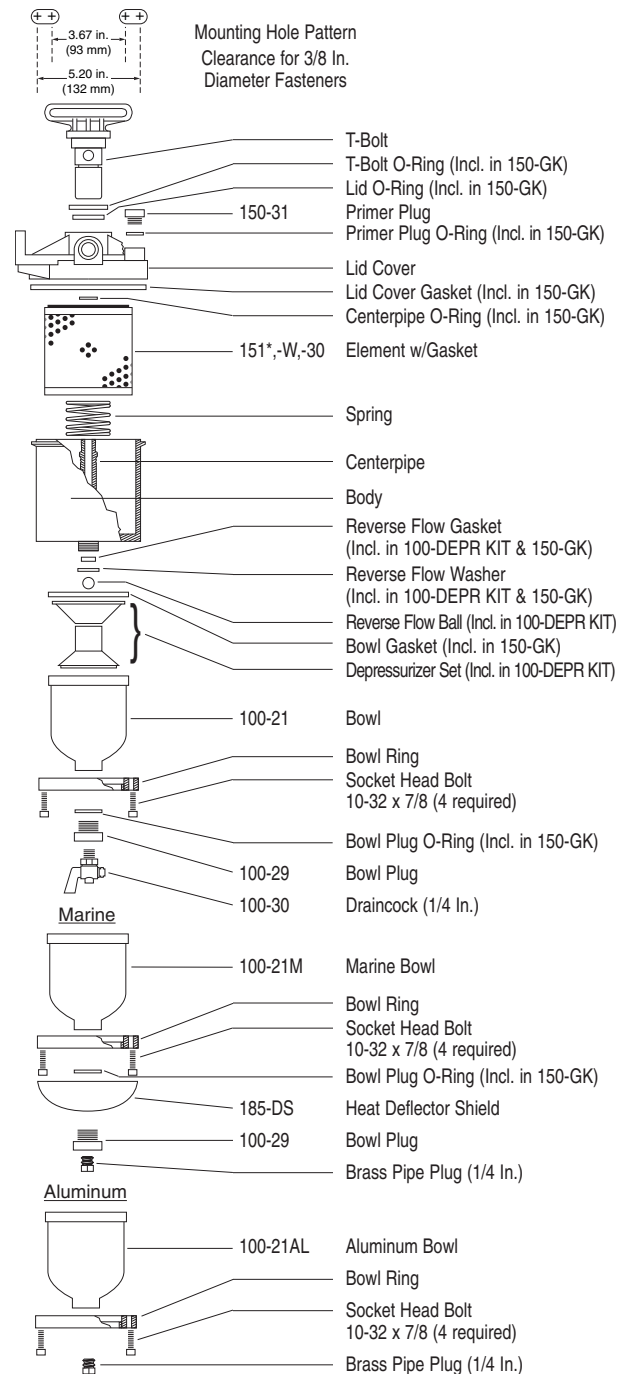
150 Series Units

- 150** Diesel Fuel Filter/Water Separator
- 150-H** Diesel Fuel Filter/Water Separator with In-Filter Heater — Dash-Mounted Toggle Switch included. Operates on either 12 or 24 Volt systems. (5 Micron Nominal (25 Absolute) Element)
- 150-M** Marine Diesel Fuel Filter/Water Separator — U.L. Listed. Meets U.S. Coast Guard requirements.
- 150-W30** Diesel Fuel Filter/Water Separator — (9 Micron Nominal (40 Absolute) Element)



Used On

- Small & Medium Size Heavy-Duty Diesel Engines (Up to Approx. 450 HP)
- Detroit Diesel (53 & Small 71 Series)
- Some Cummins Six Cylinder Engines
- Large Farm Tractors



200 Series Diesel Fuel Filter/Water Separators



MODEL 200
Diesel Fuel Filter/Water Separator



MODEL 200-M
Marine Diesel Fuel Filter/Water Separator



MODEL 200-MFV
Double Manifold Diesel Fuel Filter/Water Separator
with Shut-Off Valves for Continuous Operation



MODEL 200-MMV
Double Marine Manifold Diesel Fuel Filter/Water Separator
with Shut-Off Valves for Continuous Operation

Specifications

- **Flow Resistance:**1.0 In. Mercury
- **Maximum Working Pressure:**25 PSI (172 kPa)
- **Temperature Range:**-50° to +225°F (-45° to +107°C)
- **Port Thread:**
Single Units:7/8-14 w/O-Ring Boss
Double Units:3/4-14 NPT
- **Height:**16 3/4 In. (425.5 mm)
- **Width:**7 1/2 In. (190.5 mm)
- **Depth:**7 3/4 In. (196.9 mm)
- **Element Removal Clearance:**2 1/2 In. (63.5 mm)
- **Sump Capacity:**24 oz. (708 ml)
- **Top to Inlet Clearance:**2 5/8 In. (66.7 mm)
- **Top to Outlet Clearance:**2 5/8 In. (66.7 mm)

Flow Rates

- **Single Model 200 Series:**
Recommended:120 GPH (U.S.) (454 LPH)
Maximum:200 GPH (U.S.) (757 LPH)
- **Double Model 200 Series:**
Recommended:240 GPH (U.S.) (908 LPH)
Maximum:400 GPH (U.S.) (1,514 LPH)

Service Parts

- **Elements:**
201*4 Micron Nominal (20 Absolute) Element
201-W5 Micron Nominal (25 Absolute) Element
201-309 Micron Nominal (40 Absolute) Element
- **Gaskets:**
200-GKComplete Gasket Kit (See Accessories Page)
- **Kits:**
200-DEPR KIT.....Depressurizer Kit (See Accessories Page)
- **Form 4230:**
Installation, Operation, Parts & Service Information
- **Form 4123:**
Marine Installation, Operation, Parts & Service Information

200 Series Diesel Fuel Filter/Water Separators Cont'd.

Accessories

All Inlet & Outlet Fittings Require O-Ring Seals

Aluminum Bowl.....	200-21AL
Clear Bowl w/Water Sensor Probes.....	200-21BP
Clear Bowl w/Heater Probes.....	200-21H
Clear Bowl w/Water Sensor & Heater Probes.....	200-21HBP
Clear Bowl w/Marine Collar for Marine Units.....	200-21M
Fittings.....	See DAHL Fittings Chart
Heat Deflector Shield for Marine Units.....	285-DS
Heater Kit	See Accessories Page (Heater Kits & Heater Parts)
Shock Pad Mounting Kit.....	286-SK
Water Sensor Warning Light Kit (Use with 200-21BP) 24 Volt DC.....	24-WLK

200 Series Single Units

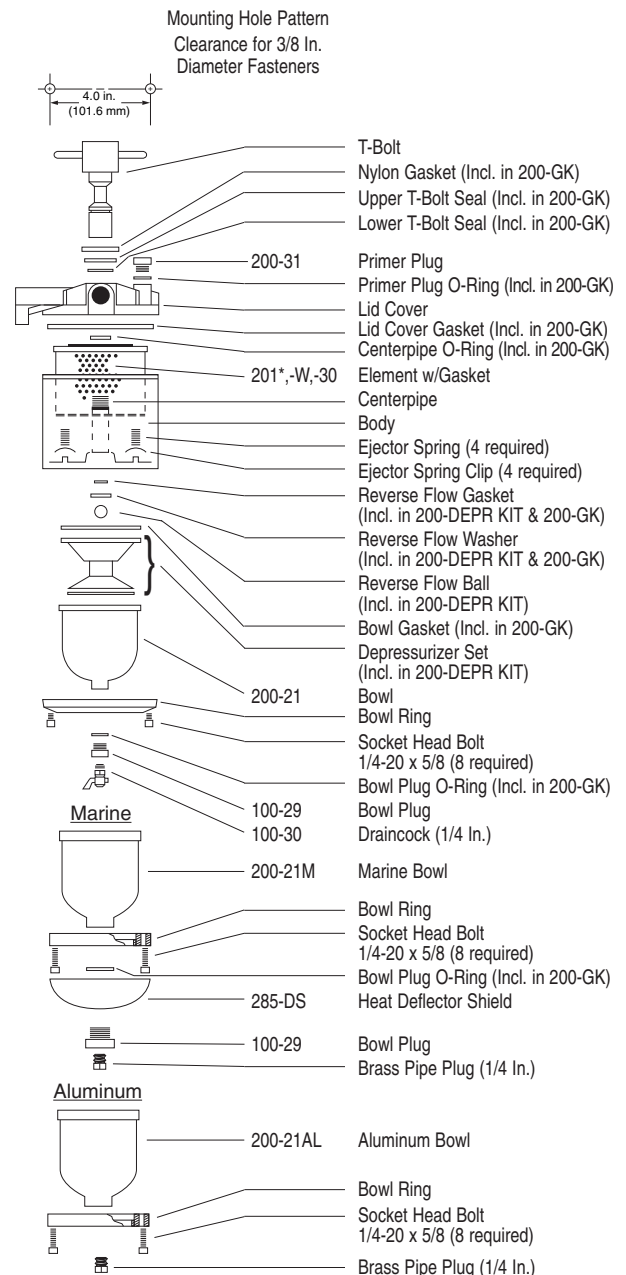
- 200** Diesel Fuel Filter/Water Separator
- 200-H** Diesel Fuel Filter/Water Separator with In-Filter Heater — Operates on either 12 or 24 Volt systems. (10 Micron Element)
- 200-M** Marine Diesel Fuel Filter/Water Separator — U.L. Listed. Meets U.S. Coast Guard requirements.
- 200-W30** Diesel Fuel Filter/Water Separator — (9 Micron Nominal (40 Absolute) Element)

200 Series Double Manifold Units

- 200-MFV** Two Diesel Fuel Filter/Water Separators Manifolded with Shut-Off Valves — Allows continuous operation while servicing.
- 200-MMV** Two Marine Diesel Fuel Filter/Water Separators Manifolded with Shut-Off Valves — Allows continuous operation while servicing. U.L. Listed. Meets U.S. Coast Guard requirements.

Used On

- 8 Cylinder Cummins & Detroit Diesel Engines
- Caterpillar Engines to Approximately 1,000 HP (Including 399)
- Most Other Medium Size Diesel Engines to Approximately 1,000 HP
- Trucks & Buses
- Construction & Farm Equipment
- Medium Size Generators
- Smaller Commercial Boats



* Standard with Unit Unless Stated. U.L. Listed. Meets U.S. Coast Guard Requirements for Marine Applications.

300 Series Diesel Fuel Filter/Water Separators



MODEL 300
Diesel Fuel
Filter/Water Separator



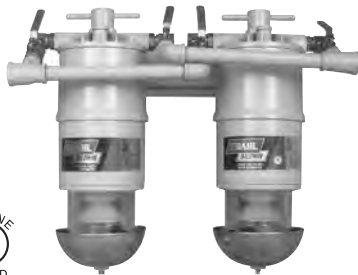
MODEL 300-M
Marine Diesel Fuel
Filter/Water Separator



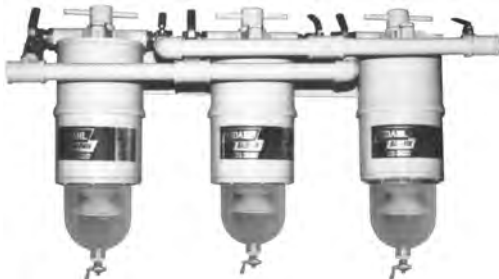
MODEL 300-MMV3
Triple Marine Manifold Diesel Fuel Filter/Water Separator
with Shut-Off Valves for Continuous Operation



MODEL 300-MFV
Double Manifold Diesel Fuel Filter/Water Separator
with Shut-Off Valves for Continuous Operation



MODEL 300-MMV
Double Marine Manifold Diesel Fuel Filter/Water Separator
with Shut-Off Valves for Continuous Operation



MODEL 300-MFV3
Triple Manifold Diesel Fuel Filter/Water Separator
with Shut-Off Valves for Continuous Operation

Specifications

- **Flow Resistance:**1.5 In. Mercury
- **Maximum Working Pressure:**.....25 PSI (172 kPa)
- **Temperature Range:**-50° to +225°F (-45° to +107°C)
- **Port Thread:**
Single Units:1 1/16-12 w/O-Ring Boss
Double Units:1-11 1/2 NPT
Triple Units:.....1-11 1/2 NPT
- **Height:**.....22 1/4 In. (565.2 mm)
- **Width:**7 1/2 In. (190.5 mm)
- **Depth:**.....7 3/4 In. (196.9 mm)
- **Element Removal Clearance:**.....2 1/2 In. (63.5 mm)
- **Sump Capacity:**24 oz. (708 ml)
- **Top to Inlet Clearance:**2 5/8 In. (66.7 mm)
- **Top to Outlet Clearance:**2 5/8 In. (66.7 mm)

Flow Rates

- **Single Model 300 Series:**
Recommended:.....180 GPH (U.S.) (681 LPH)
Maximum:325 GPH (U.S.) (1,230 LPH)
- **Double Model 300 Series:**
Recommended:.....360 GPH (U.S.) (1,363 LPH)
Maximum:650 GPH (U.S.) (2,460 LPH)
- **Triple Model 300 Series:**
Recommended:.....540 GPH (U.S.) (2,043 LPH)
Maximum:975 GPH (U.S.) (3,690 LPH)

Service Parts

- **Elements:**
301*5 Micron Absolute Element
301-W3 Micron Nominal (9 Absolute) Element
301-309 Micron Nominal (40 Absolute) Element
301-CS.....Element with Water Absorbing Media
(for use with Hydraulic Recycler)
300-MPG.....Maximum Performance Glass Element
(for use with Hydraulic Recycler)
- **Gaskets:**
200-GK.....Complete Gasket Kit (See Accessories Page)
- **Kits:**
200-DEPR KIT.....Depressurizer Kit (See Accessories Page)
- **Form 4230:**
Installation, Operation, Parts & Service Information
- **Form 4123:**
Marine Installation, Operation, Parts & Service Information

300 Series Diesel Fuel Filter/Water Separators Cont'd.

Accessories

All Inlet & Outlet Fittings Require O-Ring Seals

Aluminum Bowl.....	200-21AL
Clear Bowl w/Water Sensor Probes.....	200-21BP
Clear Bowl w/Heater Probes.....	200-21H
Clear Bowl w/Water Sensor & Heater Probes.....	200-21HBP
Clear Bowl w/Marine Collar for Marine Units.....	200-21M
Fittings.....	See DAHL Fittings Chart
Heat Deflector Shield for Marine Units.....	285-DS
Heater Kit	See Accessories Page (Heater Kits & Heater Parts)
Shock Pad Mounting Kit.....	286-SK
Water Sensor Warning Light Kit (Use with 200-21BP) 24 Volt DC.....	24-WLK

300 Series Single Units

- 300** Diesel Fuel Filter/Water Separator
- 300-H** Diesel Fuel Filter/Water Separator with In-Filter Heater — Operates on either 12 or 24 Volt systems. (10 Micron Element)
- 300-M** Marine Diesel Fuel Filter/Water Separator — U.L. Listed. Meets U.S. Coast Guard requirements.
- 300-W30** Diesel Fuel Filter/Water Separator — (9 Micron Nominal (40 Absolute) Element)



300 Series Double Manifold Units

- 300-MFV** Two Diesel Fuel Filter/Water Separators Manifolded with Shut-Off Valves — Allows continuous operation while servicing.
- 300-MMV** Two Marine Diesel Fuel Filter/Water Separators Manifolded with Shut-Off Valves — Allows continuous operation while servicing. U.L. Listed. Meets U.S. Coast Guard requirements.

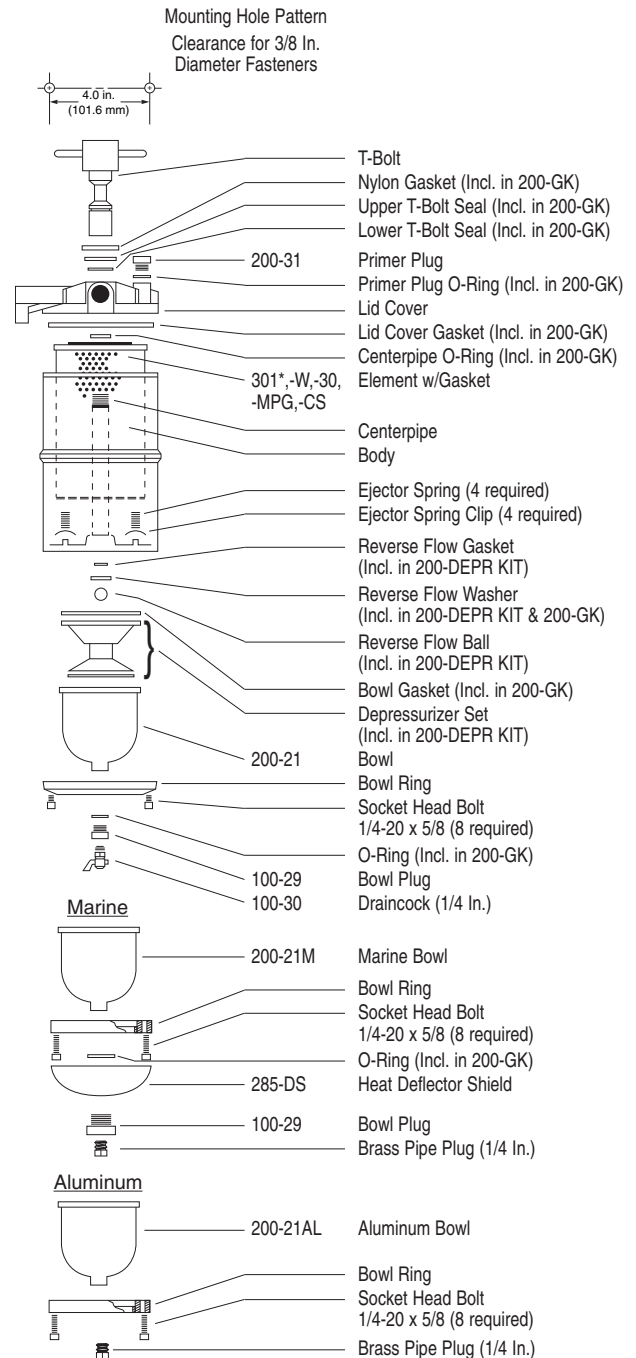


300 Series Triple Manifold Units

- 300-MFV3** Three Diesel Fuel Filter/Water Separators Manifolded with Shut-Off Valves — Allows continuous operation while servicing.
- 300-MMV3** Three Marine Diesel Fuel Filter/Water Separators Manifolded with Shut-Off Valves — Allows continuous operation while servicing. U.L. Listed. Meets U.S. Coast Guard requirements.

Used On

- 12 & 16 Cylinder Cummins & Detroit Diesel Engines
- Caterpillar Engines (800 HP & Up)
- EMD & Alco Engine up to 2,000 HP
- Locomotives
- Large Stationary Engines
- Large Boats & Generators
- Applications Requiring a # 12 Fuel Line



* Standard with Unit Unless Stated. U.L. Listed. Meets U.S. Coast Guard Requirements for Marine Applications.

500 Series Tank Diesel Fuel Filter/Water Separator



MODEL 500-BP
Diesel Fuel Filter/Water Separator

Designed primarily for large marine engines, storage facilities, island fuel pumps and other permanent installations.

Nearly 17,000 square inches (11 square meters) of filtering surface is provided by seven giant DAHL 501-W (10 Micron) elements. Because of the effective separation of water and dirt, the elements will give long service.

Specifications

- **Flow Resistance:**1.0 In. Mercury
- **Maximum Working Pressure:**15 PSI (103 kPa)
- **Temperature Range:**-60° to +250°F (-50° to +121°C)
- **Port Thread:**2 In. NPT
- **Height:**47 In. (1,194 mm)
- **Width:**28 1/2 In. (724 mm)
- **Depth:**22 In. (559 mm)
- **Element Removal Clearance:**10 In. (254 mm)
- **Sump Capacity:**11 U.S. Gallons (41.6 Liters)

Flow Rates

- **Single Model 500 Series:**
Recommended:1,800 GPH (U.S.) (6,813 LPH)
Maximum:1,920 GPH (U.S.) (7,268 LPH)
- **Double Model 500 Series:**
Recommended:3,600 GPH (U.S.) (13,626 LPH)
Maximum:3,840 GPH (U.S.) (14,536 LPH)
- **Multiple Units:**
Multiply Flow Rate and Sump Capacity by Number of Units

Service Parts

- **Elements:**
5014 Micron Nominal (20 Absolute) Element
501-W*5 Micron Nominal (25 Absolute) Element
501-309 Micron Nominal (40 Absolute) Element
- **Gaskets:**See Illustration
- **Form 4500:**
Installation, Operation, Parts & Service Information

Used On

- Large Marine Diesel Engines
- Large Stationary Engines
- Storage Facilities
- Large Capacity Requirements
- Fuel Storage Tank Pumps

500 Series Single Units

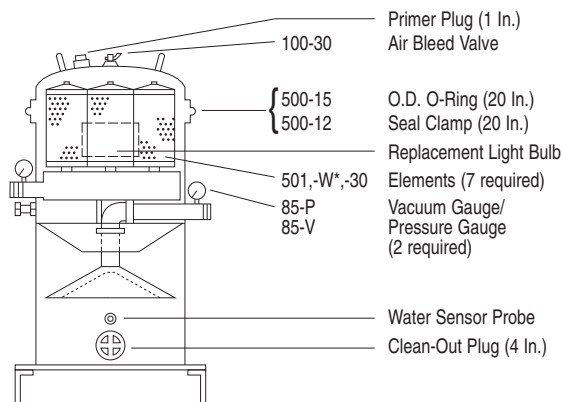
- 500** Diesel Fuel Filter/Water Separator
- 500-BP** Diesel Fuel Filter/Water Separator with Water Sensor Warning Light Kit — Equipped with a 110 Volt Electrical Connector.
- 500-BP22** Diesel Fuel Filter/Water Separator with Water Sensor Warning Light Kit — Equipped with a 220 Volt Electrical Connector. (For Overseas Operation)

500 Series Double Manifold Units

- 500-MFVBP22** Double Manifold Diesel Fuel Filter/Water Separator with Shut-Off Valves — Allows for continuous operation and Water Sensor Warning Light Kit — Equipped with a 220 Volt Electrical Connector. (For Overseas Operation)

Features of 500-BP Unit

- Easy draining with convenient bleed and drain valves.
- Easy to service - simply remove the 20 inch seal clamp to remove the top lid assembly for element replacement.
- Easy priming because primer plug is at the top.
- Easy to clean - handy four inch clean-out hole.
- Ruggedly built of high quality heavy-gauge steel.
- Hand welded and pressure tested.
- Minimum mechanical flow resistance because of the streamlined fuel flow through the seven large centertubes.
- Troubleshooting vacuum/pressure gauges monitor inlet and outlet ports.
- The water sensor kit on the 500-BP alerts the operator by a light when the unit should be drained.



* Standard with Unit Unless Stated.

DAHL Hydraulic Recyclers

The DAHL Hydraulic Recyclers are specifically designed to remove emulsified water from hydraulic oils. Since water emulsified in hydraulic oil is not removed by the normal DAHL coalescing action, Baldwin has designed a special filter element that absorbs water that has been emulsified in oil. The water remains in the filter element until the element is disposed. As the element absorbs water, the filtering media expands, increasing the restriction in the filter. By monitoring the pressure differential of the element, it is possible to determine when the element is saturated.

Two unique DAHL elements have been developed in conjunction with the hydraulic units. The first element is the 301-CS. The 301-CS contains a special polymer enhanced media that absorbs water regardless of emulsification. The element has the capacity to absorb over 1 1/2 quarts of water. (This is dependent upon oil viscosity, temperature

and other factors.) When the element becomes saturated, the water is disposed along with the element.

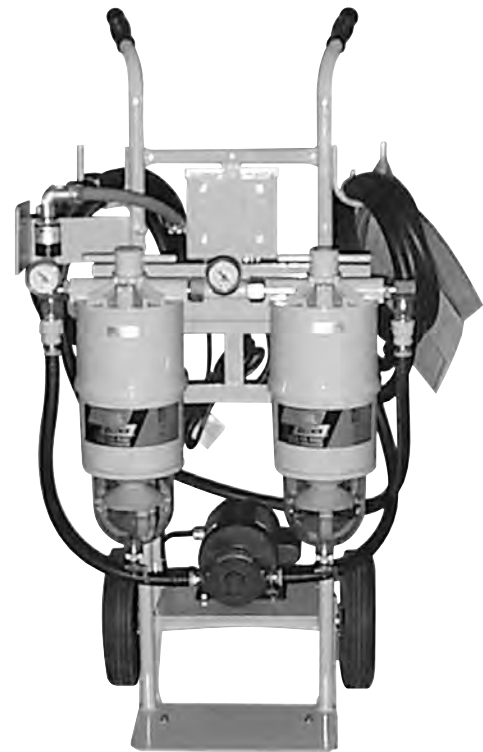
The second element is the 301-MPG. This has a synthetic grade media that is designed as a fine clean-up element. It has a Beta ratio of 2 at 3 micron and 100 at 12 micron, making this element an excellent choice for most hydraulic clean-up applications.

Baldwin has designed two portable clean-up carts based on these hydraulic elements. The 300-DHRAP5 is designed for applications requiring larger quantities of water removal with less concern about contaminant removal. The 300-DHRAS5 is a two stage unit with one absorbing element and one clean-up element. To allow effective removal of emulsified water, these units are best used in multiple-pass applications.



300-DHRAP5 Hydraulic Recycler
Portable Unit

DAHL 300-DHRAP5: Two DAHL 300 units mounted on a convenient dolly. The units are in a parallel arrangement using two of the special water absorbing elements (301-CS). A 5 GPM pump is furnished with the unit. The flow rate for this unit is dependent on the viscosity of the oil, but has been tested at about 200 gallons per hour initially with 20W SAE oil at room temperature. The flow rate will drop off as the element absorbs water. Included with the unit is a vacuum gauge that aids in monitoring the saturation of the filter. An automatic vacuum switch shuts the pump off at a predetermined vacuum setting to prevent pump and motor damage. Element water capacity is about 3 quarts.



300-DHRAS5 Hydraulic Recycler
Portable Unit

DAHL 300-DHRAS5: Two DAHL 300 units mounted on a convenient dolly. The units are connected in a series flow arrangement. The hydraulic oil flows through the first unit where Baldwin's special water absorbing element (301-CS) absorbs the emulsified water. The hydraulic oil next flows to a second DAHL unit where the 301-MPG synthetic media element filters contaminants out of the oil. This unit is furnished with a 3 GPM pump. Two vacuum gauges monitor the pressure drop across both filters. An automatic vacuum switch shuts the pump off at a predetermined vacuum setting. Element water capacity is about 1 1/2 quarts.

Accessories

Heater Kits & Heater Parts

In-Filter Heater Kits

Diesel fuel can become a problem in cold weather. Wax forms, plugging fuel lines and filters. DAHL has models 100-H and 150-H diesel fuel filter/water separators with the 55-EK Heater Kit included and models 200-H and 300-H with the 85-EK Heater Kit included. Or you can retrofit DAHL 100 and 150 series diesel fuel filter/water separators with the 55-EK Heater Kit. DAHL 200 and 300 series diesel fuel filter/water separators can be retrofitted with the 85-EK Heater Kit.

Both sizes feature an electric heating element between the body and the filter element. This simultaneously heats the filter element and the fuel around it.

An illuminated toggle switch conveniently located in the operator's area makes it easy to turn on and off. The unit is simple to install and operate. No seasonal adjustment or other maintenance is needed.

- Operates on 12 or 24 Volt Systems (Negative or Positive Ground)
- Low Amperage Requirements (Only 10 Amps at -40°F)
- Heats Fuel & Element



Use 55-EK for DAHL 100 or 150 Series and 85-EK (shown) for DAHL 200 or 300 Series

55-EK Numbers	Description & (Quantity)	85-EK Numbers
	Heater Element (1)	
100-21H	Heater Probes in Clear Bowl (1)	200-21H
	Bowl Gasket (1)	
	Toggle Switch & Connectors	
	Instructions	

55-EK has Replaced the 45-EK

Sensors

24-WLK Dash-Mounted Water Sensor
24 Volt Warning Light Kit

DAHL Literature

All printed materials are listed here as individual items.

Form 4005 DAHL Catalog
Form 4005-S DAHL Catalog (Spanish)
Form 4011 DAHL 55-EK and 85-EK In-Filter Heater Kit Installation Instructions
Form 4012 Recycler, Recycler/Blender & Fuel Transfer Models - Installation, Operation, Parts & Service Information
Form 4013 DAHL 140-50 Hand Primer Kit
Form 4025 Model 150 - Installation, Operation, Parts & Service Information

Form 4060 Model 65 & 75 - Installation, Operation, Parts & Service Information
Form 4100 Model 100 - Installation, Operation, Parts & Service Information
Form 4123 Marine - Installation, Operation, Parts & Service Information
Form 4230 Model 200 & 300 - Installation, Operation, Parts & Service Information
Form 4500 Model 500 - Installation, Operation, Parts & Service Information

Accessories (Cont'd.)

Vacuum Gauges

Vacuum gauge indicates the remaining life in filter elements. Replacement of the filter should be made when the gauge reading is 2-6 inches greater than the new element reading. (The exact reading depends on the characteristics of the fuel system, such as the engine, normal flow rate, component height, fuel line size, etc.)

To accurately determine when to replace the element, a reading of the gauge should be taken at the first noticeable power loss of the engine. Reduce this gauge reading by 1 inch of mercury for reference of future filter servicing.

The gauge is designed to be connected to the outlet side of the DAHL filter unit and can be mounted directly on the unit or dash-mounted.

- 85-V** Vacuum Gauge
- 85-P** Pressure Gauge

Draincocks

- 60-30** 1/4 In. Draincock (See Model 65)
- 100-30** 1/4 In. Draincock
- 200-30U** 1/4 In. U.L. Approved Draincock

Depressurizer Kits

- 100-DEPR KIT** Includes Depressurizer Set, Reverse Flow Gasket, Reverse Flow Washer and Reverse Flow Ball for 100 Series and 150 Series
- 200-DEPR KIT** Includes Depressurizer Set, Reverse Flow Gasket, Reverse Flow Washer and Reverse Flow Ball for 200 Series and 300 Series

Mounting Bracket Kit

- 100-MNTG KIT** Includes Mounting Bracket, [2] Bracket Bolts, [2] Washers and [2] Nuts for 100 Series

Gasket Kits

- 60-GK** Gaskets for 60, 65 & 75 Models includes Bowl Gasket, Bowl O-Ring, Hub Assembly Gasket and Primer Plug O-Ring
- 100-GK** Gaskets for 100 Series includes Bowl Gasket, [2] Bowl Plug Gaskets (older models), Centerpipe O-Ring, Lid Cover Gasket, Primer Plug O-Ring, Reverse Flow Gasket and Reverse Flow Washer
- 150-GK** Gaskets for 150 Series includes Bowl Gasket, [2] Bowl Plug Gaskets (older models), [2] Bowl Plug O-Rings, Centerpipe O-Ring, Lid Cover Gasket, Lid O-Ring, Primer Plug O-Ring, Reverse Flow Gasket, Reverse Flow Washer and T-Bolt O-Ring
- 200-GK** Gaskets for 200 & 300 Series includes Bowl Gasket, [2] Bowl Plug Gaskets (older models), Bowl Plug O-Ring, Centerpipe O-Ring, Lid Cover Gasket, Lower T-Bolt Seal, Nylon Gasket, [2] Primer Plug O-Rings, Reverse Flow Gasket, Reverse Flow Washer and T-Bolt O-Ring

Hand Primer For DAHL Models 65, 75 & 100

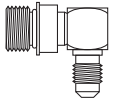
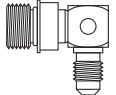
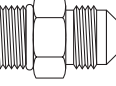

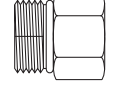
- 140-50 KIT** 3/8 In. Fuel Hose

The DAHL primer is designed to make draining and/or element changing easy. Kit includes primer bulb and 2 hose clamps.

Marine Shield & Shock Pad Kits

- 185-DS** Aluminum Heat Deflector Shield for 100 & 150 Series
- 285-DS** Aluminum Heat Deflector Shield for 200 & 300 Series
- 186-SK** Mounting Bracket Shock Pad Kit for 100 Series
- 286-SK** Mounting Bracket Shock Pad Kit for 150, 200 & 300 Series

DAHL Fittings Chart

FITTING	FOR DAHL UNIT	THREAD 1	THREAD 2
90° Elbow Straight Thread with O-Ring/37° Male JIC 	65, 75 & 100 Series 65, 75 & 100 Series 150 & 200 Series 150 & 200 Series 300 Series 300 Series	9/16-18 UNF 9/16-18 UNF 7/8-14 UNF 7/8-14 UNF 1 1/16-12 UNF 1 1/16-12 UNF	7/16-20 9/16-18 3/4-16 7/8-14 7/8-14 1 1/16-12
90° Elbow Straight Thread with O-Ring/37° Male JIC Drilled & Tapped for #4 Vacuum Gauge Hose 	65, 75 & 100 Series 65, 75 & 100 Series 65, 75 & 100 Series 150 & 200 Series 150 & 200 Series 150 & 200 Series 150 & 200 Series 150 & 200 Series 300 Series 300 Series	9/16-18 UNF 9/16-18 UNF 9/16-18 UNF 7/8-14 UNF 7/8-14 UNF 7/8-14 UNF 7/8-14 UNF 7/8-14 UNF 1 1/16-12 UNF 1 1/16-12 UNF	7/16-20 9/16-18 9/16-18 3/4-16 3/4-16 3/4-16 3/4-16 7/8-14 7/8-14 7/8-14 1 1/16-12
37° Male JIC Straight Thread with O-Ring 	65, 75 & 100 Series 65, 75 & 100 Series 150 & 200 Series 150 & 200 Series 300 Series 300 Series	9/16-18 UNF 9/16-18 UNF 7/8-14 UNF 7/8-14 UNF 1 1/16-12 UNF 1 1/16-12 UNF	7/16-20 9/16-18 3/4-16 7/8-14 7/8-14 1 1/16-12
37° Female JIC Swivel-Push-On Hose Fitting 	65, 75 & 100 Series 150 & 200 Series 150, 200 & 300 Series 300 Series	7/16-20 3/4-16 7/8-14 1 1/16-12	1/4 Hose 1/2 Hose 5/8 Hose 3/4 Hose
Female Pipe Straight Thread with O-Ring 	65, 75 & 100 Series 65, 75 & 100 Series 150 & 200 Series 150 & 200 Series 150 & 200 Series 300 Series 300 Series	9/16-18 UNF 9/16-18 UNF 7/8-14 UNF 7/8-14 UNF 7/8-14 UNF 1 1/16-12 UNF 1 1/16-12 UNF	1/4-18 NPT 3/8-18 NPT 3/8-18 NPT 1/2-14 NPT 3/4-14 NPT 1/2-14 NPT 3/4-14 NPT
90° Swivel Elbow Straight Thread with O-Ring/37° Female JIC	300 Series	1 1/16-12 UNF	3/4-14
90° Swivel Elbow Straight Thread with O-Ring/37° Female JIC Drilled & Tapped for #4 Vacuum Gauge Hose	150 & 200 Series	7/8-14 UNF	1/2-14

Replacement Parts

Filter Bowls



- 60-21A** Amber Bowl for 60 & 65 Series — Draincock included.
- 75-21** Aluminum Bowl for 75 Series
- 100-21** Clear Replacement Bowl for 100 & 150 Series
- 100-21AL** Aluminum Replacement Bowl for 100 & 150 Series
- 100-21BP** Clear Bowl w/Water Sensor Probes for 100 & 150 Series
- 100-21H** Clear Bowl w/Heater Probes for 100 & 150 Series (Part of 55-EK Heater Kit)
- 100-21M** Clear Bowl w/Marine Collar for 100 & 150 Series Marine Units
- 200-21** Clear Replacement Bowl for 200 & 300 Series
- 200-21AL** Aluminum Replacement Bowl for 200 & 300 Series
- 200-21BP** Clear Bowl w/Water Sensor Probes for 200 & 300 Series
- 200-21H** Clear Bowl w/Heater Probes for 200 & 300 Series (Part of 85-EK Heater Kit)
- 200-21HBP** Clear Bowl w/Water Sensor and Heater Probes for 200 & 300 Series (Upper Holes for Heater, Lower Holes for Bowl Probes)
- 200-21M** Clear Bowl w/Marine Collar for 200 & 300 Series Marine Units

Filter Elements



As with all filter elements made by Baldwin, you can be sure that DAHL filter elements are made just right. Not only do we make sure the paper conforms to our exacting requirements, but we also use more paper in a given size filter if this is needed to do the job. (The 10 micron elements are designed for winter or severe conditions.)

- 61** 2 Micron Filter Element for DAHL 60 Series
- 61-W** 10 Micron Filter Element for DAHL 60 Series
- 66** 2 Micron Filter Element for DAHL 65 & 75 Series
- 66-W** 10 Micron Filter Element for DAHL 65 & 75 Series
- 66-30** 30 Micron Filter Element for DAHL 65 & 75 Series
- 101** 2 Micron Filter Element for DAHL 100 Series
- 101-W** 10 Micron Filter Element for DAHL 100 Series
- 101-30** 30 Micron Filter Element for DAHL 100 Series
- 151** 2 Micron Filter Element for DAHL 150 Series
- 151-W** 10 Micron Filter Element for DAHL 150 Series
- 151-30** 30 Micron Filter Element for DAHL 150 Series
- 201** 2 Micron Filter Element for DAHL 200 Series
- 201-W** 10 Micron Filter Element for DAHL 200 Series
- 201-30** 30 Micron Filter Element for DAHL 200 Series
- 301** 2 Micron Filter Element for DAHL 300 Series
- 301-W** 10 Micron Filter Element for DAHL 300 Series
- 301-30** 30 Micron Filter Element for DAHL 300 Series
- 301-CS** Water Absorbing Element for DAHL 300 Series
- 301-MPG** High Performance Glass Media for DAHL 300 Series
- 501** 2 Micron Filter Element for DAHL 500 Series
- 501-W** 10 Micron Filter Element for DAHL 500 Series
- 501-30** 30 Micron Filter Element for DAHL 500 Series

(See Product Guide for filter element specifications)

DAHL Equivalents For Racor Assemblies

Racor Assembly	Racor Flow (Max.)	DAHL Flow (Max.)	DAHL Assembly
200FG	15	30	65
200FGM	15	30	75
500FG	60	65	100
500MA	60	65	100-M
900FG	90	100	150
900MA	90	100	150-M
1000FG	180	200	200
1000MA	180	200	200-M
73/1000FG	360	400	200-MFV*
73/1000MA	360	400	200-MMV*
75/1000FG	360	400	200-MFV*
75/1000M	360	400	200-MMV*
79/1000FG	540	650	300-MFV3*
79/1000MA	540	650	300-MMV*

* Unit includes shut-off valves.

Replacements For Racor Elements

Racor Element	Racor Housing	Baldwin Element
200 Series		
2000SM-OR.....		PF599
2000TM-OR.....		PF599-10
2000PM-OR.....		PF599-30
500FG Series		
2010SM-OR.....		PF598
2010TM-OR.....		PF598-10
2010PM-OR.....		PF598-30
900FG Series		
2040SM-OR.....		PF7889
2040TM-OR.....		PF7889-10
2040PM-OR.....		PF7889-30
1000FG Series		
2020SM-OR.....		PF7890
2020TM-OR.....		PF7890-10
2020PM-OR.....		PF7890-30

BALDWIN FILTERS®

a CLARCOR company

4400 East Highway 30 ■ P.O. Box 6010
Kearney, Nebraska 68848-6010
Phone: (308) 234-1951 ■ Toll Free: (800) 822-5394
Fax: (800) 828-4453 ■ Int'l Fax: (308) 237-9769
Internet: www.baldwinfilter.com

TS 16949
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QUALITY SYSTEM
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Africa
Baldwin Filters, Pty. Ltd.
Ph: 27-21-534-0029
E-mail: africa@baldwinfilter.com

China
CLARCOR Filtration (China) Co., Ltd.
Ph: 86-0536-2606308
E-mail: china@baldwinfilter.com

Middle East
Baldwin Filters
Ph: (308) 237-9782
E-mail: middleeast@baldwinfilter.com

Southeast Asia & Pacific Rim
Baldwin Filters
Ph: (308) 233-9226
E-mail: southeastasia@baldwinfilter.com

Australia & New Zealand
Baldwin Filters Aust., Pty. Ltd.
Ph: 61-3-9353-7300
E-mail: australia-newzealand@baldwinfilter.com

Europe
Baldwin Filters N.V.
Ph: 32 3 328 18 88
E-mail: europa@baldwinfilter.com

Morocco
Baldwin Filters Morocco
Ph: (212) 522 70 00 25
E-mail: morocco@baldwinfilter.com

UK & Ireland
Baldwin Filters Ltd.
Ph: 44-1268-888170
E-mail: uk-ireland@baldwinfilter.com

Central & South America
Baldwin Filters
Ph: (308) 233-9220
E-mail: latinamerica@baldwinfilter.com

Mexico
Baldwin Filters, S. de R. L. de C. V.
Ph: 52-442-227-3400
E-mail: mexico@baldwinfilter.com

Russia
Baldwin Filters
Ph: (308) 237-9749
E-mail: russia@baldwinfilter.com