DAHL®
BALDWIN

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

<table>
<thead>
<tr>
<th>Model Series</th>
<th>Recommended</th>
<th>Maximum</th>
<th>Sump Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>65 &amp; 75</td>
<td>20</td>
<td>30</td>
<td>4 oz.</td>
</tr>
<tr>
<td>100</td>
<td>40</td>
<td>65</td>
<td>8 oz.</td>
</tr>
<tr>
<td>100 Double</td>
<td>80</td>
<td>130</td>
<td>16 oz.</td>
</tr>
<tr>
<td>150</td>
<td>80</td>
<td>100</td>
<td>8 oz.</td>
</tr>
<tr>
<td>150 Double</td>
<td>160</td>
<td>200</td>
<td>16 oz.</td>
</tr>
<tr>
<td>200</td>
<td>120</td>
<td>200</td>
<td>24 oz.</td>
</tr>
<tr>
<td>200 Double</td>
<td>240</td>
<td>400</td>
<td>48 oz.</td>
</tr>
<tr>
<td>300</td>
<td>180</td>
<td>325</td>
<td>24 oz.</td>
</tr>
<tr>
<td>300 Double</td>
<td>360</td>
<td>650</td>
<td>48 oz.</td>
</tr>
<tr>
<td>300 Triple</td>
<td>540</td>
<td>975</td>
<td>72 oz.</td>
</tr>
<tr>
<td>500</td>
<td>1800</td>
<td>1920</td>
<td>11 Gallons</td>
</tr>
<tr>
<td>500 Double</td>
<td>3600</td>
<td>3840</td>
<td>22 Gallons</td>
</tr>
</tbody>
</table>

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

Specifications

- Flow Resistance: 0.75 In. Mercury
- Maximum Working Pressure: 25 PSI (172 kPa)
- Temperature Range: -50°F to +225°F (-45°C 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: 4 Micron Nominal (20 Absolute) Element
  61-W: 5 Micron Nominal (25 Absolute) Element
  66*: 4 Micron Nominal (20 Absolute) Element
  66-W: 5 Micron Nominal (25 Absolute) Element
  66-30: 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

Specs

65 Series
65-35A Pipe/Depressurizer Assembly
60-21A Bowl Assembly (60-30 Draincock Included)
60-30 Draincock

75 Series
65-35A Pipe/Depressurizer Assembly
75-21 Aluminum Bowl
Brass Pipe Plug

**100 Series Diesel Fuel Filter/Water Separators**

**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-W: 5 Micron Nominal (25 Absolute) Element
  - 101-30: 9 Micron Nominal (40 Absolute) Element
- **Gaskets:**
  - 100-GK: Complete Gasket Kit (See Accessories Page)
- **Kits:**
  - 100-DEPR KIT: Depressurizer Kit (See Accessories Page)
  - 100-MNTG KIT: Mounting 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
  - 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-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-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-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

Mounting Hole Pattern Clearance for 5/16 In. Diameter Fasteners

- 100 Series Single Units
- 100 Series Double Manifold Units

150 Series Diesel Fuel Filter/Water Separators

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-W*: 5 Micron Nominal (25 Absolute) Element
  - 151-30*: 9 Micron Nominal (40 Absolute) Element
- Gaskets:
  - 150-GK: Complete 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

* Standard with Unit Unless Stated.
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
- 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-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)
- Large Farm Tractors
- Detroit Diesel (53 & Small 71 Series)
- Some Cummins Six Cylinder Engines

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200 Series Diesel Fuel Filter/Water Separators

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-W: 5 Micron Nominal (25 Absolute) Element
  - 201-30: 9 Micron Nominal (40 Absolute) Element
- 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

* Standard with Unit Unless Stated.
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 .... 200-21HB
- 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

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

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-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.

300 Series Diesel Fuel Filter/Water Separators

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-W ........................................... 3 Micron Nominal (9 Absolute) Element
  - 301-30 ....................................... 9 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 ................. 200-21HP
- 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-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 Series Triple Manifold Units

300-MFV3 Three Diesel Fuel Filter/Water Separators Manifolded with Shut-Off Valves — Allows continuous operation while servicing.


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

500 Series Tank Diesel Fuel Filter/Water Separator

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.) (7,288 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

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 center tubes.
- 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.

500 Series Single Units
- 500 Diesel Fuel Filter/Water Separator
- 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-MFVB22 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)

Service Parts
- Elements:
  501..........................4 Micron Nominal (20 Absolute) Element
  501-W*..........................5 Micron Nominal (25 Absolute) Element
  501-30..........................9 Micron Nominal (40 Absolute) Element
- Gaskets: ..................................................See Illustration
- Form 4500:
  Installation, Operation, Parts & Service Information

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

* Standard with Unit Unless Stated.
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.

**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.

**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

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

55-EK

<table>
<thead>
<tr>
<th>55-EK Numbers</th>
<th>Description &amp; (Quantity)</th>
<th>85-EK Numbers</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>Heater Element (1)</td>
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<tr>
<td>100-21H</td>
<td>Heater Probes in Clear Bowl (1)</td>
<td>200-21H</td>
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<td></td>
<td>Bowl Gasket (1)</td>
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<td></td>
<td>Toggle Switch &amp; Connectors</td>
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<tr>
<td></td>
<td>Instructions</td>
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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
**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

**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

**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

**Mounting Bracket Kit**

### DAHL Fittings Chart

<table>
<thead>
<tr>
<th>FITTING</th>
<th>FOR DAHL UNIT</th>
<th>THREAD 1</th>
<th>THREAD 2</th>
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</thead>
<tbody>
<tr>
<td><strong>90° Elbow</strong></td>
<td>65, 75 &amp; 100 Series</td>
<td>9/16-18 UNF</td>
<td>7/16-20</td>
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<tr>
<td>Straight Thread</td>
<td>65, 75 &amp; 100 Series</td>
<td>9/16-18 UNF</td>
<td>7/16-20</td>
</tr>
<tr>
<td>with O-Ring/37°</td>
<td>150 &amp; 200 Series</td>
<td>7/8-14 UNF</td>
<td>3/4-16</td>
</tr>
<tr>
<td>Male JIC</td>
<td>150 &amp; 200 Series</td>
<td>7/8-14 UNF</td>
<td>3/4-16</td>
</tr>
<tr>
<td></td>
<td>300 Series</td>
<td>1 1/16-12 UNF</td>
<td>7/8-14</td>
</tr>
<tr>
<td></td>
<td>300 Series</td>
<td>1 1/16-12 UNF</td>
<td>1 1/16-12</td>
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<tr>
<td><strong>90° Elbow</strong></td>
<td>65, 75 &amp; 100 Series</td>
<td>9/16-18 UNF</td>
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<td>Straight Thread</td>
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<td>7/16-20</td>
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<tr>
<td>with O-Ring/37°</td>
<td>150 &amp; 200 Series</td>
<td>7/8-14 UNF</td>
<td>3/4-16</td>
</tr>
<tr>
<td>Male JIC</td>
<td>150 &amp; 200 Series</td>
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<td>3/4-16</td>
</tr>
<tr>
<td>Drilled &amp; Tapped</td>
<td>150 &amp; 200 Series</td>
<td>7/8-14 UNF</td>
<td>3/4-16</td>
</tr>
<tr>
<td>for #4 Vacuum Gauge Hose</td>
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<td>7/8-14 UNF</td>
<td>3/4-16</td>
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<td></td>
<td>300 Series</td>
<td>1 1/16-12 UNF</td>
<td>7/8-14</td>
</tr>
<tr>
<td></td>
<td>300 Series</td>
<td>1 1/16-12 UNF</td>
<td>1 1/16-12</td>
</tr>
<tr>
<td><strong>37° Male JIC</strong></td>
<td>65, 75 &amp; 100 Series</td>
<td>9/16-18 UNF</td>
<td>7/16-20</td>
</tr>
<tr>
<td>Straight Thread</td>
<td>65, 75 &amp; 100 Series</td>
<td>9/16-18 UNF</td>
<td>7/16-20</td>
</tr>
<tr>
<td>with O-Ring</td>
<td>150 &amp; 200 Series</td>
<td>7/8-14 UNF</td>
<td>3/4-16</td>
</tr>
<tr>
<td></td>
<td>150 &amp; 200 Series</td>
<td>7/8-14 UNF</td>
<td>3/4-16</td>
</tr>
<tr>
<td></td>
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<td>300 Series</td>
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<td>1 1/16-12</td>
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<tr>
<td><strong>37° Female JIC</strong></td>
<td>65, 75 &amp; 100 Series</td>
<td>7/16-20</td>
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<tr>
<td>Swivel-Push-On</td>
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<td>3/4-16</td>
<td>1/2 Hose</td>
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<td>Hose Fitting</td>
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<td>3/4-16</td>
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<tr>
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<td>300 Series</td>
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<td>3/4-16</td>
</tr>
<tr>
<td><strong>Female Pipe</strong></td>
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<td>1/4-18 NPT</td>
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<tr>
<td>Straight Thread</td>
<td>65, 75 &amp; 100 Series</td>
<td>9/16-18 UNF</td>
<td>1/4-18 NPT</td>
</tr>
<tr>
<td>with O-Ring</td>
<td>150 &amp; 200 Series</td>
<td>7/8-14 UNF</td>
<td>3/8-18 NPT</td>
</tr>
<tr>
<td></td>
<td>150 &amp; 200 Series</td>
<td>7/8-14 UNF</td>
<td>1/2-14 NPT</td>
</tr>
<tr>
<td></td>
<td>150 &amp; 200 Series</td>
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<td>300 Series</td>
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<td>1/2-14 NPT</td>
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<td>300 Series</td>
<td>1 1/16-12 UNF</td>
<td>3/4-14 NPT</td>
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<tr>
<td><strong>90° Swivel Elbow</strong></td>
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<td>3/4-14</td>
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<tr>
<td>Straight Thread with O-Ring/37° Female JIC</td>
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<td>1 1/16-12 UNF</td>
<td>3/4-14 NPT</td>
</tr>
<tr>
<td>Drilled &amp; Tapped</td>
<td>150 &amp; 200 Series</td>
<td>7/8-14 UNF</td>
<td>1/2-14</td>
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</table>
Replacement Parts

Filter Bowls

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
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<tbody>
<tr>
<td>60-21A</td>
<td>Amber Bowl for 60 &amp; 65 Series — Draincock included.</td>
</tr>
<tr>
<td>75-21</td>
<td>Aluminum Bowl for 75 Series</td>
</tr>
<tr>
<td>100-21</td>
<td>Clear Replacement Bowl for 100 &amp; 150 Series</td>
</tr>
<tr>
<td>100-21AL</td>
<td>Aluminum Replacement Bowl for 100 &amp; 150 Series</td>
</tr>
<tr>
<td>100-21BP</td>
<td>Clear Bowl w/Water Sensor Probes for 100 &amp; 150 Series</td>
</tr>
<tr>
<td>100-21H</td>
<td>Clear Bowl w/Heater Probes for 100 &amp; 150 Series (Part of 55-EK Heater Kit)</td>
</tr>
<tr>
<td>100-21M</td>
<td>Clear Bowl w/Marine Collar for 100 &amp; 150 Series Marine Units</td>
</tr>
<tr>
<td>200-21</td>
<td>Clear Replacement Bowl for 200 &amp; 300 Series</td>
</tr>
<tr>
<td>200-21AL</td>
<td>Aluminum Replacement Bowl for 200 &amp; 300 Series</td>
</tr>
<tr>
<td>200-21BP</td>
<td>Clear Bowl w/Water Sensor Probes for 200 &amp; 300 Series</td>
</tr>
<tr>
<td>200-21H</td>
<td>Clear Bowl w/Heater Probes for 200 &amp; 300 Series (Part of 85-EK Heater Kit)</td>
</tr>
<tr>
<td>200-21HBP</td>
<td>Clear Bowl w/Water Sensor and Heater Probes for 200 &amp; 300 Series (Upper Holes for Heater, Lower Holes for Bowl Probes)</td>
</tr>
<tr>
<td>200-21M</td>
<td>Clear Bowl w/Marine Collar for 200 &amp; 300 Series Marine Units</td>
</tr>
</tbody>
</table>

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.)

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
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<tbody>
<tr>
<td>61</td>
<td>2 Micron Filter Element for DAHL 60 Series</td>
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<td>61-W</td>
<td>10 Micron Filter Element for DAHL 60 Series</td>
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<tr>
<td>66</td>
<td>2 Micron Filter Element for DAHL 65 &amp; 75 Series</td>
</tr>
<tr>
<td>66-W</td>
<td>10 Micron Filter Element for DAHL 65 &amp; 75 Series</td>
</tr>
<tr>
<td>66-30</td>
<td>30 Micron Filter Element for DAHL 65 &amp; 75 Series</td>
</tr>
<tr>
<td>101</td>
<td>2 Micron Filter Element for DAHL 100 Series</td>
</tr>
<tr>
<td>101-W</td>
<td>10 Micron Filter Element for DAHL 100 Series</td>
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<tr>
<td>101-30</td>
<td>30 Micron Filter Element for DAHL 100 Series</td>
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<td>201-W</td>
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<td>301-W</td>
<td>10 Micron Filter Element for DAHL 300 Series</td>
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<td>30 Micron Filter Element for DAHL 300 Series</td>
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<tr>
<td>301-CS</td>
<td>Water Absorbing Element for DAHL 300 Series</td>
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<tr>
<td>301-MPG</td>
<td>High Performance Glass Media for DAHL 300 Series</td>
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<td>501</td>
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<td>30 Micron Filter Element for DAHL 500 Series</td>
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DAHL Equivalents For Racor Assemblies

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<thead>
<tr>
<th>Racor Assembly</th>
<th>Racor Flow (Max.)</th>
<th>DAHL Flow (Max.)</th>
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<td>100</td>
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<td>180</td>
<td>200</td>
<td>200-M</td>
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<td>200-MFV*</td>
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<td>400</td>
<td>200-MMV*</td>
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<tr>
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<td>360</td>
<td>400</td>
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<tr>
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<td>650</td>
<td>300-MMV*</td>
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Replacements For Racor Elements

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<th>Racor Housing</th>
<th>Baldwin Element</th>
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<tbody>
<tr>
<td>200 Series</td>
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<tr>
<td>2000SM-OR</td>
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<td>PF599</td>
</tr>
<tr>
<td>2000TM-OR</td>
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<td>PF599-10</td>
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<td>2000PM-OR</td>
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<tr>
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* Unit includes shut-off valves.

There is no association or affiliation between Baldwin Filters and Racor. Racor® is a registered trademark and division of Parker Hannifin Corp.