Hydraulic & Lube Filters
Filter Elements
Filter Systems & Diagnostics (IoT)
Fuel Filtration
Process Filters
Hydraulic Accessories
Vision Mission Value Quality Statement:

Vision:
We design solutions for industry and for the success of our customers by:
■ Expanding globally to support our customers and stay current with new technologies.
■ Leveraging and sharing our knowledge to meet challenges openly.
■ Nurturing a creative, cooperative culture committed to the individual and to providing the best solutions for the customer.
■ Optimizing the use of technology with applications.
■ Using an efficient, timely customization process to fill specific customer needs.
■ Increasing capacity and streamlining operations.
■ Preserving our reputation for reliability.

Corporate Mission Statement:
Partnerships
Innovative products, processes and services to improve performance and efficiency in our industry.

Core Values:
Honesty
■ Tell the truth at all times, in all matters.
■ Have open lines of communication and share timely, accurate and thorough information with internal and external customers.
■ Do not steal and respect each other's and the Company's property.

Leadership
■ Recognize that we are empowered to act as leaders and participate in the decision making process.
■ Take responsibility for and have pride in our work.
■ Set goals and celebrate the efforts and accomplishments of our teammates.
■ Value our greater community and take leadership roles in our neighborhoods and for the environment.

Teamwork
■ Cooperate within and between departments.
■ Coach and mentor, listen and share knowledge, experience and ideas.
■ Treat others with respect and consideration in all circumstances.
■ Invest in the development and growth of all team members.
■ Keep our work areas safe and clean.

Ingenuity | Innovation
■ Value innovative thinking and the generation and implementation of new ideas to solve customer (internal and external) problems.
■ Be flexible and adapt to new ideas and different ways of doing things.
■ Utilize available resources for new designs and innovations.

Quality Policy:
Continuous improvement in our business to ensure a quality product, shipped on time, without compromise.

Limitations of Liability
The information contained in the catalog (including, but not limited to, specifications, configurations, drawings, photographs, dimensions and packaging) is for descriptive purposes only. Any description of the products contained in this catalog is for the sole purpose of identifying the products and shall not be deemed a warranty that the products shall conform to such description. No representation or warranty is made concerning the information contained in this catalog as to the accuracy or completeness of such information. Schroeder Industries LLC reserves the right to make changes to the products included in this catalog without notice. A copy of our warranty terms and other conditions of sale are available upon request. A placed order constitutes acceptance of Schroeder’s terms and conditions. Failure, improper selection or improper use of the products and/or systems described herein or related items can cause death, personal injury and property damage.
This catalog and other documentation from Schroeder Industries provides product information for consideration by users possessing technical expertise. It is important that the user analyze all aspects of the specific application and review the current product information in the current catalog. Due to the variety of operating conditions and applications for these products, the user is solely responsible for making the final product selection and assuring that all performance, safety and warning requirements of the application are met.
The products described herein, including without limitation, product features, specifications, design, availability and pricing are subject to change at any time without notice.
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### Hydraulic and Lube Filters

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<td>17</td>
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<tr>
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<td>900 (60)</td>
<td>100 (380)</td>
<td>18</td>
</tr>
<tr>
<td>GKF3: Low Pressure Filter</td>
<td>300 (20)</td>
<td>100 (380)</td>
<td>19</td>
</tr>
<tr>
<td>LRT: Tank Mounted Low Pressure Filter</td>
<td>100 (7)</td>
<td>150 (570)</td>
<td>20</td>
</tr>
<tr>
<td>GRT: Tank-Mounted Low Pressure Filter</td>
<td>100 (7)</td>
<td>100 (380)</td>
<td>21</td>
</tr>
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<td>GRTB: Tank-Mounted Return Line Filter</td>
<td>100 (7)</td>
<td>100 (380)</td>
<td>22</td>
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<tr>
<td>GZT: In-Tank Low Pressure Filter</td>
<td>100 (7)</td>
<td>40 (150)</td>
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</tr>
<tr>
<td>PAF1: Spin-On Filter</td>
<td>100 (7)</td>
<td>20 (75)</td>
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### Filter Elements

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### Fuel Filtration

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### Terms & Conditions

For more information, visit: www.schroederindustries.com
Schroeder Industries is pleased to announce the re-launch of the **QuickDelivery program**, which includes some of Schroeder Industries' most popular parts from multiple product lines.

**How Does It Work?**

- Schroeder Industries Distributors place purchase orders with Customer Service and specify "QuickDelivery." Only QuickDelivery parts can be on the Purchase Order (PO).

- If you need to order a quantity larger than the maximum allowed by this program, you may split the quantity and order the maximum QuickDelivery quantity. The balance can then be ordered via less than standard lead time or other standard methods. *For maximum QuickDelivery quantities, please contact the respective Schroeder Industries Product Team.*

- For this program, all parts purchased by Schroeder Industries Distributors will receive the QuickDelivery discount. For parts ordered outside the QuickDelivery program, (i.e. standard and/or stock orders) the best appropriate discount shall apply. Parts ordered as a less than standard lead time shall receive the appropriate less than standard lead time discount.

- All parts in this program will be available to ship within 5 business days (pending availability).

- No expedited carrier is required.

- Our less than standard lead time order policy is unaffected by this program.

- Please see our website for a list of all QuickDelivery parts.

- Filters/Elements, Filter Systems, Fuels and Accessories are all a part of the program.

- Schroeder Industries Standard Return Policy applies on all orders.
Pressure filtration: Pressure filters usually produce the lowest system contamination levels to assure clean fluid for sensitive high-pressure components and provide protection of downstream components in the event of catastrophic failures. Systems with high intermittent return line flows may need only be sized to match the output of the pump, where the return line may require a much larger filter for the higher intermittent flows. See Figure 1(a).

Return line filtration: Return line filters are often considered when initial cost is a major concern. A special concern in applying return line filters is sizing for flow. Large rod cylinders and other components can cause return line flows to be much greater than pump output. Return lines can have substantial pressure surges, which need to be taken into consideration when selecting filters and their locations. See Figure 1(b).

Re-circulating filtration: While usually not recommended as a system’s primary filtration (due to the high cost of obtaining adequate flow rates) re-circulating, or off-line, filtration is often used to supplement on-line filters when adequate turnover cannot be obtained with the latter. It is also often an ideal location in which to use a water removal filter. Off-line re-circulating filters normally do not provide adequate turnover flow rates to handle the high contamination loading occasioned by component failures and/or inefficient maintenance practices. See Figure 1(c).

Suction filtration: Micronic suction filters are not recommended for open-loop circuits. The cavitation these filters can cause significantly outweighs any advantage obtained by attempting to clean the fluid in this part of the system. SKB magnetic suction separators are recommended, as they will protect the pump from large and ferrous particles, without the risks of cavitation.

Breather filtration: Efficient filter breathers are required for effective contamination control on non-pressurized reservoirs and should complement the liquid filtration component.

Multiple filtration: For systems incorporating large total fluid volumes, it may be necessary to employ filters in more than one location. Multiple pressure filters, pressure and return line filters, and recirculating filters are examples of multiple filtration applications.
It is important to keep in mind that all system components have some tolerance for contamination. The key to cost effective contamination control is to maintain the system’s cleanliness level at the tolerance level of the most sensitive component. To filter more stringently just adds unnecessary cost. Little, if any, increase in component life or reliability is obtained by further reducing the contamination level. Once the desired cleanliness level (ISO code) is determined, selecting a cost effective filtration system can be readily accomplished.

<table>
<thead>
<tr>
<th>Step</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Determining desired cleanliness level&lt;br&gt;Step 1. Determine the most sensitive component in the system. Then, determine the desired cleanliness level (ISO code) by using Figures 2 and 3 (page 13) or by contacting the manufacturer directly. Operating pressure levels also have a bearing on cleanliness requirements.</td>
</tr>
<tr>
<td>2.</td>
<td>Selecting correct medium&lt;br&gt;Step 2. Using Tables 6 and 7 (page 20, respectively), identify the proper Schroeder filter media to employ.</td>
</tr>
<tr>
<td>3.</td>
<td>Where to filter&lt;br&gt;Step 3. Determine where to locate the filters, using the information on the previous page, &quot;Filter Location.&quot;</td>
</tr>
<tr>
<td>4.</td>
<td>Selecting filter housing&lt;br&gt;Step 4. Refer to the Filter Product Index in the Table of Contents, pages 3-5 and the individual filter catalog pages to select the specific filter housing that will meet the requirements set forth in Steps 2 and 3 above, as well as the pressure and flow parameters at the particular filter’s location. Consideration should also be given to installation convenience for your particular application. Use the selection charts shown on the catalog page to determine the specific filter model number for the desired media at the required flow rate.</td>
</tr>
<tr>
<td>5.</td>
<td>Selecting filter breather&lt;br&gt;Step 5. For non-pressurized reservoirs, refer to our Accessories Catalog; L-4329 to select the appropriate filter breather.</td>
</tr>
<tr>
<td>6.</td>
<td>Contamination control practices&lt;br&gt;Step 6. Implement the appropriate manufacturing, assembly, and maintenance contamination control procedures. Effective contamination control is achieved through the conscientious use of sound manufacturing and maintenance practices. Some examples are: filtering make-up oil; controlling contamination ingestion during manufacturing, assembly, maintenance, and repair processes; and properly maintaining cylinder wiper seals.</td>
</tr>
<tr>
<td>7.</td>
<td>Verifying results&lt;br&gt;Step 7. Check all filtration systems to determine if the results expected are obtained and maintained during system operation, as operating conditions and maintenance practices may not remain constant. Schroeder distributors and field representatives have access to contamination monitoring equipment that can determine the exact cleanliness level (ISO code) of your system on the spot. Contact your Schroeder distributor or representative for complete details.</td>
</tr>
</tbody>
</table>
**ISO 4406 Code**

Cleanliness levels are defined by three numbers divided by slashes (/). These numbers correspond to 4, 6, and 14 micron, in that order. Each number refers to an ISO Range Code, which is determined by the number of particles for that size (4, 6, & 14μm) and larger present in 1 mL of fluid. Each range is double the range below. Refer to Figure 1 to see the actual ranges.

*Example*

- larger than 4 μm(c) = 22,340
- larger than 6 μm(c) = 1,950
- larger than 14 μm(c) = 43

ISO Code = 22/18/13

**Achieving the Appropriate Cleanliness Level in a System**

The only way to achieve and maintain the appropriate cleanliness level in a hydraulic or lubrication system, is to implement a comprehensive filtration program. Schroeder offers all of the products that are needed to do just that. They include:

**Solid Contamination**
- Pressure filters
- Return line filters
- Offline filtration loops
- Oil transfer units for pre-cleaning of new oil
- Portable and online contamination monitors
- Reservoir breathers and filler/breathers

**Water Content**
- Water content sensors
- Reservoir breathers with silica gel desiccant
- Vacuum dehydration water removal units
- Water removal elements

**Fluid Analysis**
- Bottle sampling kits
- Complete analysis kits

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For more information, visit: www.schroederindustries.com
### ISO Codes

**Finding the cleanliness level required by a system:**

1. Starting at the left hand column, select the most sensitive component used in the system.
2. Move right to the column that describes the system pressure and conditions.
3. Here you will find the recommended ISO class level, and recommended element micron rating.

<table>
<thead>
<tr>
<th>ISO Target Levels</th>
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<th>ISO Target Levels</th>
<th>Micron Ratings</th>
<th>ISO Target Levels</th>
<th>Micron Ratings</th>
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<td>500 to 1500 psi</td>
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<tr>
<td>(moderate conditions)</td>
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<td>(low/medium with severe conditions)</td>
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<tr>
<td>Fixed Gear or Fixed Vane</td>
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<td>20</td>
<td>19/17/14</td>
<td>10</td>
<td>18/16/13</td>
</tr>
<tr>
<td>Fixed Piston</td>
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<td>18/16/13</td>
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<td>17/15/12</td>
</tr>
<tr>
<td>Variable Vane</td>
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<td>17/15/12</td>
<td>3</td>
<td>N/A</td>
</tr>
<tr>
<td>Variable Piston</td>
<td>18/16/13</td>
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<td>17/15/12</td>
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</tr>
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<td>20</td>
<td>20/18/5</td>
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<td>19/17/14</td>
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<tr>
<td>Directional (solenoid)</td>
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<td>19/17/14</td>
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<td>18/16/13</td>
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<tr>
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<td>19/17/14</td>
<td>10</td>
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<tr>
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<td>18/16/13</td>
<td>5</td>
<td>17/15/12</td>
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<td>3</td>
<td>17/15/12</td>
<td>3</td>
<td>16/14/11</td>
</tr>
<tr>
<td>Servo Valve</td>
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<td>3²</td>
<td>16/14/11</td>
<td>3²</td>
<td>15/13/10</td>
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<tr>
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<td>20/18/15</td>
<td>20</td>
<td>19/17/14</td>
<td>10</td>
<td>18/16/13</td>
</tr>
<tr>
<td>Piston Motors, Swash Plate Motors</td>
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<td>18/16/13</td>
<td>5</td>
<td>17/15/12</td>
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<tr>
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<td>3</td>
<td>16/14/11</td>
<td>3²</td>
<td>15/13/10</td>
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<tr>
<td>Test Stands</td>
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<td>15/13/10</td>
<td>3²</td>
<td>15/13/10</td>
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<tr>
<td>Journal Bearings</td>
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<td>N/A</td>
<td>N/A</td>
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<td>N/A</td>
<td>N/A</td>
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<td>Roller Bearings</td>
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<td>3²</td>
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<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

1. Severe conditions may include high flow surges, pressure spikes, frequent cold starts, extremely heavy duty use, or the presence of water.
2. Two or more system filters of the recommended rating may be required to achieve and maintain the desired Target Cleanliness Level.
Product offerings include:

- High Pressure Filters (1,500-6,500 psi)
- Medium Pressure Filters (500-1,500 psi)
- Stainless Steel (up to 1,500 psi)
- Low Pressure Filters (up to 500 psi)
- Suction Filters
- Manifold Cartridge Kits & Filters
- Custom Solutions

Our filter housings are continuously tested using the latest ISO and NFPA test procedures in our Fluid Care Center (FCC). Extensive testing is conducted to verify rated fatigue and burst pressures and to ensure compatibility with various mineral-based fluids.
Specifications

Pressure Rating:
- 6000 psi (415 bar)

Element Media:
- Excellement® Z-Media®

Clogging Indicator:
- Manual reset visual pop-up

Ports:
- SAE-24 straight thread

Seal Material:
- Buna N

Bypass Valve Cracking Pressure:
- Cracking: 40 psi (2.8 bar)

Features

- Top-ported pressure filter
- Model available with bypass
- SAE straight thread
- Element change out from top minimizes oil spillage

50 gpm
190 L/min
6000 psi
415 bar

Dimensions:

Ordering Information:

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Port size</th>
<th>Indicator Type</th>
<th>Max Flow gpm</th>
<th>Micron Rating</th>
<th>Element</th>
<th>SAP Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>CF601CCZ10SD5</td>
<td>SAE-24</td>
<td>Visual Pop-up</td>
<td>50</td>
<td>10</td>
<td>CCZ10</td>
<td>7630209</td>
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</table>

Alternate element options*: CCZ1, CCZ3, CCZ5, CCZ25

*(Not Available for Same Day Shipping)

Element Performance Information:

<table>
<thead>
<tr>
<th>Element</th>
<th>βx ≥ 75</th>
<th>βx ≥ 100</th>
<th>βx ≥ 200</th>
<th>βx(d) ≥ 200</th>
<th>βx(d) ≥ 1000</th>
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</thead>
<tbody>
<tr>
<td>CCZ10</td>
<td>7.4</td>
<td>8.2</td>
<td>10.0</td>
<td>8.0</td>
<td>10.0</td>
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</table>

Dirt Holding Capacity:

<table>
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<tr>
<th>Element</th>
<th>DHC (gm)</th>
<th>SAP Number</th>
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</thead>
<tbody>
<tr>
<td>CCZ10</td>
<td>62</td>
<td>7628755</td>
</tr>
</tbody>
</table>

Element Collapse Rating: 150 psid (10 bar) for standard elements
Flow Direction: Outside In
Element Nominal Dimensions: CC: 3.0” (75 mm) O.D. x 9.5” (240 mm) long

Only elements on page 26 are part of the QuickDelivery Program.
Specifications

Pressure Rating:
- 4000 psi (275 bar)

Element Media:
- Excellement® Z-Media®

Clogging Indicator:
- Pop-up indicator

Ports:
- SAE-16 only

Seal Material:
- Buna N

Bypass Valve Cracking Pressure:
- Cracking: 40 psi (3.4 bar)
- Full Flow: 57 psi (5.7 bar)

Features

- Top-ported high pressure filter
- Aluminum Porting Head & Steel Element Case
- Thread on bowl with optional drain plug for easy element service
- High cyclic fatigue performance

Ordering Information:

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Port size</th>
<th>Indicator Type</th>
<th>Max Flow gpm</th>
<th>Micron Rating</th>
<th>Element</th>
<th>SAP Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>DF401CCZ10SD5</td>
<td>SAE-16</td>
<td>Visual Pop-up</td>
<td>30</td>
<td>10</td>
<td>CCZ10</td>
<td>7608879</td>
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(Not Available for Same Day Shipping)

Element Performance Information:

<table>
<thead>
<tr>
<th>Element</th>
<th>Filtration Ratio Per ISO 4572/NFPA T3.10.8.8</th>
<th>Filtration Ratio per ISO 16889</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Using automated particle counter (APC) calibrated per ISO 4402</td>
<td>Using APC calibrated per ISO 11171</td>
</tr>
<tr>
<td>CCZ3</td>
<td>$\beta_0 \geq 75$</td>
<td>$\beta_0 \geq 100$</td>
</tr>
<tr>
<td></td>
<td>$\beta_0 \geq 100$</td>
<td>$\beta_0 \geq 200$</td>
</tr>
<tr>
<td></td>
<td>$\beta_0 \geq 200$</td>
<td>$\beta_0 \geq 4.0$</td>
</tr>
<tr>
<td>CCZ5</td>
<td>2.5</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>$\beta_0 \geq 4.0$</td>
<td>4.8</td>
</tr>
<tr>
<td>CCZ10</td>
<td>7.4</td>
<td>8.2</td>
</tr>
<tr>
<td></td>
<td>$\beta_0 \geq 6.3$</td>
<td>10.0</td>
</tr>
</tbody>
</table>

Dirt Holding Capacity:

<table>
<thead>
<tr>
<th>Element</th>
<th>DHC (gm)</th>
<th>SAP Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCZ3</td>
<td>58</td>
<td>7630193</td>
</tr>
<tr>
<td>CCZ5</td>
<td>63</td>
<td>7607904</td>
</tr>
<tr>
<td>CCZ10</td>
<td>62</td>
<td>7628755</td>
</tr>
</tbody>
</table>

Element Collapse Rating: 150 psid (10 bar) for standard elements
Flow Direction: Outside In

Only elements on page 26 are part of the QuickDelivery Program.
**Specifications**

Pressure Rating:
- Top-ported pressure filter
- 3000 psi (210 bar)

Element Media:
- Excellement® Z-Media®

Ports:
- SAE Straight Thread

Seal Material:
- Buna N

Bypass Valve Cracking Pressure:
- Cracking: 40 psi (2.8 bar)

**Features**

- Lightweight
- Compact

**Ordering Information:**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Port size</th>
<th>Indicator Type</th>
<th>Max Flow gpm</th>
<th>Micron Rating</th>
<th>Element</th>
<th>SAP Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>NF301NZ10SD5</td>
<td>SAE-12</td>
<td>Visual Pop-up</td>
<td>20</td>
<td>10</td>
<td>NZ10</td>
<td>7617925</td>
</tr>
</tbody>
</table>

Alternate Elements Available: NZ3 & NZ5

*(Not Available for Same Day Shipping)*

**Element Performance Information:**

<table>
<thead>
<tr>
<th>Element</th>
<th>Filtration Ratio Per ISO 4572/NFPA T3.10.8.8 Using automated particle counter (APC) calibrated per ISO 4402</th>
<th>Filtration Ratio per ISO 16889 Using APC calibrated per ISO 11171</th>
</tr>
</thead>
<tbody>
<tr>
<td>NZ3</td>
<td>( \beta_x \geq 75 ) ( \beta_x \geq 100 ) ( \beta_x \geq 200 )</td>
<td>( \beta_x \geq 200 ) ( \beta_x \geq 1000 )</td>
</tr>
<tr>
<td>NZ5</td>
<td>2.5 ( \beta_x \geq 100 ) ( \beta_x \geq 200 ) ( \beta_x \geq 1000 )</td>
<td>4.8 ( \beta_x \geq 200 ) ( \beta_x \geq 1000 )</td>
</tr>
<tr>
<td>NZ10</td>
<td>7.4 ( \beta_x \geq 100 ) ( \beta_x \geq 200 ) ( \beta_x \geq 1000 )</td>
<td>4.8 ( \beta_x \geq 200 ) ( \beta_x \geq 1000 )</td>
</tr>
</tbody>
</table>

**Dirt Holding Capacity:**

<table>
<thead>
<tr>
<th>Element</th>
<th>DHC (gm)</th>
<th>SAP Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>NZ3</td>
<td>12</td>
<td>7628680</td>
</tr>
<tr>
<td>NZ5</td>
<td>12</td>
<td>7631436</td>
</tr>
<tr>
<td>NZ10</td>
<td>11</td>
<td>7628678</td>
</tr>
</tbody>
</table>

Element Collapse Rating: 150 psid (10 bar) for standard elements

Flow Direction: Outside In

Only elements on page 26 are part of the QuickDelivery Program.
Specifications
Pressure Rating:
- 5000 psi (345 bar)
Element Media:
- Excellement® Z-Media®
Clogging Indicator:
- Manual reset visual pop-up
Ports:
- 1 ½" NPTF
Seal Material:
- Buna N
Bypass Valve Cracking Pressure:
- Cracking: 40 psi (2.8 bar)

Features
- Base-ported pressure filter
- Can be installed in vertical or horizontal position
- Element change out from top minimizes oil spillage

Ordering Information:

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Port size</th>
<th>Indicator Type</th>
<th>Max Flow gpm</th>
<th>Micron Rating</th>
<th>Element</th>
<th>SAP Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>KF501KZ10SD5</td>
<td>1 ½&quot; NPTF</td>
<td>Visual Pop-up</td>
<td>100</td>
<td>10</td>
<td>KZ10</td>
<td>7614646</td>
</tr>
</tbody>
</table>

Alternate elements available: Contact Factory
(Not Available for Same Day Shipping)

Element Performance Information:

<table>
<thead>
<tr>
<th>Element</th>
<th>Filtration Ratio Per ISO 4572/NFPA T3.10.8.8</th>
<th>Filtration Ratio per ISO 16889</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Using automated particle counter (APC) calibrated per ISO 4402</td>
<td>Using APC calibrated per ISO 11171</td>
</tr>
<tr>
<td>KZ10</td>
<td>$\beta_n \geq 75$</td>
<td>$\beta_n \geq 100$</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Element</th>
<th>DHC (gm)</th>
<th>SAP Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>KZ10</td>
<td>108</td>
<td>7627464</td>
</tr>
</tbody>
</table>

Element Collapse Rating: 150 psid (10 bar) for standard elements
Flow Direction: Outside In
Element Nominal Dimensions: K: 3.9" (99 mm) O.D. x 9.0" (230 mm) long

Only elements on page 26 are part of the QuickDelivery Program.
Specifications

**Pressure Rating:**
- Base-ported pressure filter
- 3000 psi (210 bar)

**Element Media:**
- Excellement® Z-Media®
- Element change out from top minimizes oil spillage
- Patented GeoSeal® elements

**Clogging Indicator:**
- Manual reset visual pop-up

**Ports:**
- SAE-24 straight thread

**Seal Material:**
- Buna N

**Bypass Valve Cracking Pressure:**
- Cracking: 40 psi (2.8 bar)
- Full Flow: 61 psi (4.2 bar)

**Dimensions:**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Port Size</th>
<th>Indicator Type</th>
<th>Max Flow gpm</th>
<th>Micron Rating</th>
<th>Element</th>
<th>SAP Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>GKF301KGZ10SD5</td>
<td>SAE-24</td>
<td>Visual Pop-up</td>
<td>100</td>
<td>10</td>
<td>KGZ10</td>
<td>7610452</td>
</tr>
</tbody>
</table>

Alternate element options*: KG3, KG10, KG25, KGZ1, KGZ3, KGZ5, KGZ25
*(Not Available for Same Day Shipping)

**Element Performance Information:**

<table>
<thead>
<tr>
<th>Element</th>
<th>$\beta_x \geq 75$</th>
<th>$\beta_x \geq 100$</th>
<th>$\beta_x \geq 200$</th>
<th>$\beta_x(c) \geq 200$</th>
<th>$\beta_x(c) \geq 1000$</th>
</tr>
</thead>
<tbody>
<tr>
<td>KGZ3</td>
<td>&lt;1.0</td>
<td>&lt;1.0</td>
<td>&lt;2.0</td>
<td>&lt;4.0</td>
<td>4.8</td>
</tr>
<tr>
<td>KGZ5</td>
<td>2.5</td>
<td>3.0</td>
<td>4.0</td>
<td>4.8</td>
<td>6.3</td>
</tr>
<tr>
<td>KGZ10</td>
<td>7.4</td>
<td>8.2</td>
<td>10.0</td>
<td>8.0</td>
<td>10.0</td>
</tr>
</tbody>
</table>

**Dirt Holding Capacity:**

<table>
<thead>
<tr>
<th>Element</th>
<th>DHC (gm)</th>
<th>SAP Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>KGZ3</td>
<td>115</td>
<td>7615023</td>
</tr>
<tr>
<td>KGZ5</td>
<td>119</td>
<td>7615026</td>
</tr>
<tr>
<td>KGZ10</td>
<td>108</td>
<td>7615018</td>
</tr>
</tbody>
</table>

Element Collapse Rating: 150 psid (10 bar) for standard elements
Flow Direction: Outside In
Element Nominal Dimensions: K: 3.9” (99 mm) O.D. x 9.0” (230 mm) long

Only elements on page 26 are part of the QuickDelivery Program.
Specifications

Pressure Rating:
- 1000 psi (69 bar)

Element Media:
- Excellement® Z-Media®

Clogging Indicator:
- Manual reset visual pop-up

Ports:
- SAE-20 straight thread

Seal Material:
- Buna N

Bypass Valve Cracking Pressure:
- Cracking: 40 psi (2.8 bar) Standard
- Full Flow: 57 psi (3.9 bar)

Features

- Durable, compact design
- Quick and easy cartridge element changeouts
- Lightweight at 8 pounds

Ordering Information:

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Port size</th>
<th>Indicator</th>
<th>Max Flow gpm</th>
<th>Micron Rating</th>
<th>Element</th>
<th>SAP Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>RLT9VZ10S20D5</td>
<td>SAE-20</td>
<td>Visual Pop-up</td>
<td>70</td>
<td>10</td>
<td>9VZ10</td>
<td>7631537</td>
</tr>
</tbody>
</table>

No Alternate Element Options Currently Available

(Not Available for Same Day Shipping)

Element Performance Information:

<table>
<thead>
<tr>
<th>Element</th>
<th>βx ≥ 75</th>
<th>βx ≥ 100</th>
<th>βx ≥ 200</th>
<th>βx(c) ≥ 200</th>
<th>βx(c) ≥ 1000</th>
</tr>
</thead>
<tbody>
<tr>
<td>9VZ10</td>
<td>7.4</td>
<td>8.2</td>
<td>10.0</td>
<td>8.0</td>
<td>10.0</td>
</tr>
</tbody>
</table>

Dirt Holding Capacity:

<table>
<thead>
<tr>
<th>Element</th>
<th>DHC (gm)</th>
<th>SAP Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>9VZ10</td>
<td>52</td>
<td>7628588</td>
</tr>
</tbody>
</table>

Element Collapse Rating: 150 psid (10 bar)
Flow Direction: Outside In

Only elements on page 26 are part of the QuickDelivery Program.
**Specifications**

**Pressure Rating:**
1400 psi (100 bar)

**Element Media:**
Excellement® Z-Media®

**Clogging Indicator:**
Manual reset visual pop-up

**Ports:**
SAE-12

**Seal Material:**
Buna N

**Bypass Valve Cracking Pressure:**
Cracking: 40 psi (2.1 bar) Standard
Full Flow: 55 psi (3.8 bar)

**Dimensions:**

**Ordering Information:**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Port size</th>
<th>Indicator Type</th>
<th>Max Flow gpm</th>
<th>Micron Rating</th>
<th>Element</th>
<th>SAP Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRL-T6RZ10S12D5</td>
<td>SAE-12</td>
<td>Visual Pop-up</td>
<td>25</td>
<td>10</td>
<td>6RZ10</td>
<td>7623046</td>
</tr>
</tbody>
</table>

No alternate element options currently available

(Not Available for Same Day Shipping)

**Element Performance Information:**

<table>
<thead>
<tr>
<th>Element</th>
<th>Filtration Ratio Per ISO 4572/NFPA T3.10.8.8 Using automated particle counter (APC) calibrated per ISO 4402</th>
<th>Filtration Ratio per ISO 16889 Using APC calibrated per ISO 11171</th>
</tr>
</thead>
<tbody>
<tr>
<td>6RZ10</td>
<td>7.4 ≥ 75, 8.2 ≥ 100, 10.0 ≥ 200</td>
<td>8.0 ≥ 200, 10.0 ≥ 1000</td>
</tr>
</tbody>
</table>

**Dirt Holding Capacity:**

<table>
<thead>
<tr>
<th>Element</th>
<th>DHC (g)</th>
<th>SAP Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>6RZ10</td>
<td>14</td>
<td>7628583</td>
</tr>
</tbody>
</table>

Element Collapse Rating: 150 psid (10 bar) for standard elements
Flow Direction: Outside In

Only elements on page 26 are part of the QuickDelivery Program.
Specifications

Pressure Rating:
725 psi (50 bar)

Element Media:
Excellement® Z-Media®

Clogging Indicator:
Bar indicator, left side

Ports:
SAE-16 straight thread

Seal Material:
Buna N

Bypass Valve Cracking Pressure:
25 psi (1.7 bar)

Features

- Leak proof bar indicator, rugged visual indicator with protective aluminum shield is standard
- Proprietary bowl to element seal - minimizes potential leakage point by use of one seal on element
- Cartridge style element (non spin-on) that is proprietary and patented with integrated bypass valve features

Dimensions:

Ordering Information:

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Port Type</th>
<th>Indicator Type</th>
<th>Max Flow</th>
<th>Micron Rating</th>
<th>Element</th>
<th>SAP Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>GH6GZ10S16L</td>
<td>SAE-16</td>
<td>Bar</td>
<td>35</td>
<td>10</td>
<td>6GZ10</td>
<td>7610389</td>
</tr>
<tr>
<td>GH9GZ10S16L</td>
<td>SAE-16</td>
<td>Bar</td>
<td>35</td>
<td>10</td>
<td>9GZ10</td>
<td>7610428</td>
</tr>
</tbody>
</table>

No Alternate Elements Currently Available
(Not Available for Same Day Shipping)

Element Performance Information:

<table>
<thead>
<tr>
<th>Media Type</th>
<th>Element</th>
<th>Filteration Ratio Per ISO 4572/NFPA T3.10.8.8 Using automated particle counter (APC) calibrated per ISO 4402</th>
<th>Filteration Ratio per ISO 16889 Using APC calibrated per ISO 11171</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellement® Z-Media®</td>
<td>6GZ10</td>
<td>( \beta_x \geq 75 ) ( \beta_x \geq 100 ) ( \beta_x \geq 200 )</td>
<td>( \beta_x(c) \geq 200 ) ( \beta_x(c) \geq 1000 )</td>
</tr>
<tr>
<td>Excellement® Z-Media®</td>
<td>9GZ10</td>
<td>( \beta_x \geq 75 ) ( \beta_x \geq 100 ) ( \beta_x \geq 200 )</td>
<td>( \beta_x(c) \geq 200 ) ( \beta_x(c) \geq 1000 )</td>
</tr>
</tbody>
</table>

Dirt Holding Capacity:

<table>
<thead>
<tr>
<th>Media Type</th>
<th>Element</th>
<th>DHC (gm)</th>
<th>SAP Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excellement® Z-Media®</td>
<td>6GZ10</td>
<td>31</td>
<td>7603830</td>
</tr>
<tr>
<td>Excellement® Z-Media®</td>
<td>9GZ10</td>
<td>49</td>
<td>7604553</td>
</tr>
</tbody>
</table>

Element Collapse Rating: 250 psid (17.2 bar) for standard and non-bypassing elements
Flow Direction: Outside In

Only elements on page 26 are part of the QuickDelivery Program.
Specifications

Pressure Rating:
- 870 psi (60 bar)
Element Media:
- Excellement® Z-Media®
Clogging Indicator:
- Manual reset visual pop-up
Ports:
- 1" NPTF
Seal Material:
- Buna N
Bypass Valve Cracking Pressure:
- Cracking: 40 psi (2.8 bar)

Features
- Extremely versatile
- Top loading for easy access for element change-out
- Allows consolidation of inventoried elements

Dimensions:

Ordering Information:

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Port size</th>
<th>Indicator Type</th>
<th>Max Flow gpm</th>
<th>Micron Rating</th>
<th>Element</th>
<th>SAP Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>K91KZ10BS16NS16ND5</td>
<td>1&quot; NPTF</td>
<td>Visual Pop-up</td>
<td>100</td>
<td>10</td>
<td>KZ10</td>
<td>7613218</td>
</tr>
</tbody>
</table>

Alternate elements available: Contact Factory

(Not Available for Same Day Shipping)

Element Performance Information:

<table>
<thead>
<tr>
<th>Element</th>
<th>Filtration Ratio Per ISO 4572/NFPA T3.10.8.8 Using automated particle counter (APC) calibrated per ISO 4402</th>
<th>Filtration Ratio per ISO 16889 Using APC calibrated per ISO 11171</th>
</tr>
</thead>
<tbody>
<tr>
<td>KZ10</td>
<td>Filter Efficiency:  ß_x ≥ 75, ß_x ≥ 100, ß_x ≥ 200</td>
<td>Filter Efficiency:  ß_x ≥ 200, ß_x ≥ 1000</td>
</tr>
</tbody>
</table>

Dirt Holding Capacity:

<table>
<thead>
<tr>
<th>Element</th>
<th>DHC (gm)</th>
<th>SAP Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>KZ10</td>
<td>108</td>
<td>7627464</td>
</tr>
</tbody>
</table>

Element Collapse Rating: 150 psid (10 bar) for standard elements
Flow Direction: Outside In
Element Nominal Dimensions: K: 3.9" (99 mm) O.D. x 9.0" (230 mm) long

Only elements on page 26 are part of the QuickDelivery Program.
**Specifications**

**Pressure Rating:**
- Meets HF4 automotive standards
- 300 psi (20 bar)

**Element Media:**
- Takes the standard Schroeder K-sized element
- Allows consolidation of inventoried replacement elements by using Schroeder K-sized elements
- Patented GeoSeal® elements

**Clogging Indicator:**
- Visual pop-up indicator

**Ports:**
- SAE-24 straight thread

**Seal Material:**
- Buna N

**Bypass Valve Cracking Pressure:**
- Cracking: 30 psi (2 bar)

**Ordering Information:**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Port size</th>
<th>Indicator Type</th>
<th>Max Flow gpm</th>
<th>Micron Rating</th>
<th>Element</th>
<th>SAP Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>GKF31KGZ10SD5</td>
<td>SAE-24</td>
<td>Visual pop-up indicator</td>
<td>100</td>
<td>10</td>
<td>KGZ10</td>
<td>7610456</td>
</tr>
</tbody>
</table>

Alternate Elements Available: KG3, KG25, KGZ1, KGZ3, KGZ5 KGZ25

*(Not Available for Same Day Shipping)*

**Element Performance Information:**

<table>
<thead>
<tr>
<th>Element</th>
<th>£x ≥ 75</th>
<th>£x ≥ 100</th>
<th>£x ≥ 200</th>
<th>£x(g) ≥ 200</th>
<th>£x(g) ≥ 1000</th>
</tr>
</thead>
<tbody>
<tr>
<td>KG3</td>
<td>6.8</td>
<td>7.5</td>
<td>10.0</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>KG10</td>
<td>15.5</td>
<td>16.2</td>
<td>18.0</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>KGZ1</td>
<td>&lt;1.0</td>
<td>&lt;1.0</td>
<td>&lt;1.0</td>
<td>&lt;4.0</td>
<td>4.2</td>
</tr>
<tr>
<td>KGZ3</td>
<td>&lt;1.0</td>
<td>&lt;1.0</td>
<td>&lt;2.0</td>
<td>&lt;4.0</td>
<td>4.8</td>
</tr>
<tr>
<td>KGZ5</td>
<td>2.5</td>
<td>3.0</td>
<td>4.0</td>
<td>4.8</td>
<td>6.3</td>
</tr>
<tr>
<td>KGZ10</td>
<td>7.4</td>
<td>8.2</td>
<td>10.0</td>
<td>8.0</td>
<td>10.0</td>
</tr>
<tr>
<td>KGZ25</td>
<td>18.0</td>
<td>20.0</td>
<td>22.5</td>
<td>19.0</td>
<td>24.0</td>
</tr>
</tbody>
</table>

**Dirt Holding Capacity:**

<table>
<thead>
<tr>
<th>Element</th>
<th>DHC (g)</th>
<th>SAP Number</th>
<th>Element</th>
<th>DHC (g)</th>
<th>SAP Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>KG3</td>
<td>54</td>
<td>7615012</td>
<td>K1G0</td>
<td>44</td>
<td>7615008</td>
</tr>
<tr>
<td>KGZ1</td>
<td>112</td>
<td>7615017</td>
<td>KGZ3</td>
<td>115</td>
<td>7615023</td>
</tr>
<tr>
<td>KGZ5</td>
<td>119</td>
<td>7615026</td>
<td>KGZ10</td>
<td>108</td>
<td>7615018</td>
</tr>
<tr>
<td>KGZ25</td>
<td>93</td>
<td>7615021</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Element Collapse Rating: 150 psid (10 bar) for standard elements
Flow Direction: Outside In
Element Nominal Dimensions: K: 3.9" (99 mm) O.D. x 9.0" (230 mm) long

Only elements on page 26 are part of the QuickDelivery Program.
Specifications

Pressure Rating:
- Low pressure tank-mounted filter
- Can also be used in return line application (contact factory)

Element Media:
- Excellement® Z-Media®

Clogging Indicator:
- Gauge dial indicator

Ports:
- SAE-24 straight thread

Seal Material:
- Buna N

Bypass Valve Cracking Pressure:
- 25 psi (1.7 bar)

Dimensions:

Ordering Information:

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Port size</th>
<th>Indicator Type</th>
<th>Max Flow gpm</th>
<th>Micron Rating</th>
<th>Element Type</th>
<th>SAP Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>LRT18LZ10S24S-24NY2 (LRT-1820)</td>
<td>SAE-24</td>
<td>Gauge</td>
<td>150</td>
<td>10</td>
<td>18LZ10</td>
<td>7615959</td>
</tr>
</tbody>
</table>

No Alternate Elements Currently Available

(Not Available for Same Day Shipping)

Element Performance Information:

<table>
<thead>
<tr>
<th>Media Type</th>
<th>Element</th>
<th>Filtration Ratio per ISO 4572/NFPA T3.10.8.8</th>
<th>Filtration Ratio per ISO 16889</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional</td>
<td>Excellement® Z-Media®</td>
<td>β_X ≥ 75</td>
<td>β_X ≥ 100</td>
</tr>
<tr>
<td>18LZ10</td>
<td>7.4</td>
<td>8.2</td>
<td>10.0</td>
</tr>
</tbody>
</table>

Dirt Holding Capacity:

<table>
<thead>
<tr>
<th>Media Type</th>
<th>Element</th>
<th>DHC (gm)</th>
<th>SAP Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional</td>
<td>Excellement® Z-Media®</td>
<td>18LZ10</td>
<td>216</td>
</tr>
</tbody>
</table>

Element Collapse Rating:
- 250 psid (17.2 bar) for standard and non-bypassing elements
- Flow Direction: Outside In

Only elements on page 26 are part of the QuickDelivery Program.
Specifications

Pressure Rating:
- 100 psi (7 bar)

Element Media:
- Excellement® Z-Media®

Clogging Indicator:
- Gauge dial indicator

Ports:
- SAE-24 straight thread

Seal Material:
- Buna N

Bypass Valve Cracking Pressure:
- Cracking: 40 psi (2.1 bar) Standard
- Full Flow: 55 psi (3.8 bar)

Features

- Low pressure tank-mounted filter
- Can also be used in return line application (contact factory)
- Patented GeoSeal® elements

100 gpm
380 L/min
100 psi
7 bar

Ordering Information:

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Indicator Type</th>
<th>Max Flow gpm</th>
<th>Micron Rating</th>
<th>Element</th>
<th>SAP Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRT1KBGZ10S20NY2 (GRT-6916)</td>
<td>Gauge</td>
<td>100</td>
<td>10</td>
<td>KBGZ10</td>
<td>7610512</td>
</tr>
<tr>
<td>GRT1KBGZ10S24S-24NY2 (GRT-6915)</td>
<td>Gauge</td>
<td>100</td>
<td>10</td>
<td>KBGZ10</td>
<td>7610509</td>
</tr>
<tr>
<td>Alternate elements available: KBG3, KBG10, KBG25, KBGZ1, KBGZ3, KBGZ5, KBGZ25</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Not Available for Same Day Shipping)

Element Performance Information:

<table>
<thead>
<tr>
<th>Element</th>
<th>Filtration Ratio per ISO 4572/NFPA T3.10.8.8 Using automated particle counter (APC) calibrated per ISO 4402</th>
<th>Filtration Ratio per ISO 16889 Using APC calibrated per ISO 11171</th>
</tr>
</thead>
<tbody>
<tr>
<td>KG3</td>
<td>( \beta_n \geq 75 ) ( \beta_x \geq 100 ) ( \beta_x \geq 200 )</td>
<td>( \beta_x \geq 200 ) ( \beta_x \geq 1000 )</td>
</tr>
<tr>
<td>KG10</td>
<td>6.8 7.5 10.0</td>
<td>N/A N/A</td>
</tr>
<tr>
<td>KGZ1</td>
<td>&lt;1.0 &lt;1.0 &lt;1.0</td>
<td>(&lt;4.0 4.2 )</td>
</tr>
<tr>
<td>KGZ3</td>
<td>&lt;1.0 &lt;1.0 &lt;2.0</td>
<td>(&lt;4.0 4.8 )</td>
</tr>
<tr>
<td>KGZ5</td>
<td>2.5 3.0 4.0</td>
<td>4.8 6.3</td>
</tr>
<tr>
<td>KGZ10</td>
<td>7.4 8.2 10.0</td>
<td>8.0 10.0</td>
</tr>
<tr>
<td>KGZ25</td>
<td>18.0 20.0 22.5</td>
<td>19.0 24.0</td>
</tr>
</tbody>
</table>

Dirt Holding Capacity:

<table>
<thead>
<tr>
<th>Element</th>
<th>DHC (g)</th>
<th>SAP Number</th>
<th>Element</th>
<th>DHC (g)</th>
<th>SAP Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>KG3</td>
<td>54</td>
<td>7615012</td>
<td>KGZ10</td>
<td>44</td>
<td>7615008</td>
</tr>
<tr>
<td>KGZ1</td>
<td>112</td>
<td>7615017</td>
<td>KGZ3</td>
<td>115</td>
<td>7615023</td>
</tr>
<tr>
<td>KGZ5</td>
<td>119</td>
<td>7615026</td>
<td>KGZ10</td>
<td>108</td>
<td>7615018</td>
</tr>
<tr>
<td>KGZ25</td>
<td>93</td>
<td>7615021</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Element Collapse Rating: 150 psid (10 bar) for standard elements
Flow Direction: Outside In
Element Nominal Dimensions: K: 3.9” (99 mm) O.D. x 9.0” (230 mm) long

Only elements on page 26 are part of the QuickDelivery Program.

Dimensions:
GRTB | Tank-Mounted Return Line Filter

Specifications
Pressure Rating:
100 psi (7 bar)

Element Media:
Excellement® Z-Media®

Clogging Indicator:
Visual Gauge

Ports:
SAE-20 straight thread or 1.25" NPT

Seal Material:
Buna N

Bypass Valve Cracking Pressure:
Cracking: 25 psi (1.7 bar)

Dimensions:

Ordering Information:

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Port size</th>
<th>Indicator Type</th>
<th>Max Flow gpm</th>
<th>Micron Rating</th>
<th>Element</th>
<th>SAP Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRTB1KBG-Z10SY2</td>
<td>SAE-20</td>
<td>Gauge</td>
<td>100</td>
<td>10</td>
<td>KBGZ10</td>
<td>7610523</td>
</tr>
<tr>
<td>GRTB1KBG-Z10PY2</td>
<td>1.25&quot; NPT</td>
<td>Gauge</td>
<td>100</td>
<td>10</td>
<td>KBGZ10</td>
<td>7610521</td>
</tr>
</tbody>
</table>

Alternate elements available: KBG3, KBG10, KBG25, KBGZ1, KBGZ3, KBGZ5, KBGZ25
(Not Available for Same Day Shipping)

Element Performance Information:

<table>
<thead>
<tr>
<th>Element</th>
<th>Filtration Ratio Per ISO 4572/NFPA T3.10.8.8 Using automated particle counter (APC) calibrated per ISO 4402</th>
<th>Filtration Ratio per ISO 16889 Using APC calibrated per ISO 11171</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>βx ≥ 75 βx ≥ 100 βx ≥ 200</td>
<td>βx(20) ≥ 200 βx(100) ≥ 1000</td>
</tr>
<tr>
<td>KBGZ5</td>
<td>2.5 3.0 4.0</td>
<td>4.8 6.3</td>
</tr>
<tr>
<td>KBGZ10</td>
<td>7.4 8.2 10.0</td>
<td>8.0 10.0</td>
</tr>
<tr>
<td>KBGZ25</td>
<td>18.0 20.0 22.5</td>
<td>19.0 24.0</td>
</tr>
</tbody>
</table>

Dirt Holding Capacity:

<table>
<thead>
<tr>
<th>Element</th>
<th>DHC (gm)</th>
<th>SAP Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>KBGZ5</td>
<td>119</td>
<td>7613401</td>
</tr>
<tr>
<td>KBGZ10</td>
<td>108</td>
<td>7613394</td>
</tr>
<tr>
<td>KBGZ25</td>
<td>93</td>
<td>7613397</td>
</tr>
</tbody>
</table>

Element Collapse Rating: 150 psid (10 bar) for standard elements
Flow Direction: Outside In
Element Nominal Dimensions: K: 3.9" (99 mm) O.D. x 9.0" (230 mm) long

Only elements on page 26 are part of the QuickDelivery Program.
Specifications
Pressure Rating:
- Low pressure tank-mounted filter
  100 psi (7 bar)
Element Media:
- Excellement® Z-Media®
Clogging Indicator:
- Manual reset visual pop-up
Ports:
- SAE-16 only
Seal Material:
- Buna N
Bypass Valve Cracking Pressure:
  Cracking: 25 psi (1.7 bar)

Features
- Low pressure tank-mounted filter
- Patented GeoSeal® elements

Dimensions:

Ordering Information:

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Port size</th>
<th>Indicator Type</th>
<th>Max Flow gpm</th>
<th>Micron Rating</th>
<th>Element</th>
<th>SAP Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>GZT8GTZZ10SY2</td>
<td>SAE-16</td>
<td>Visual Pop-up</td>
<td>40</td>
<td>10</td>
<td>8Z10</td>
<td>7627519</td>
</tr>
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</table>

No Alternate Elements Currently Available
(Not Available for Same Day Shipping)

Element Performance Information:

<table>
<thead>
<tr>
<th>Element</th>
<th>Filtration Ratio Per ISO 4572/NFPA T3.10.8.8</th>
<th>Filtration Ratio per ISO 16889</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Using automated particle counter (APC) calibrated per ISO 4402</td>
<td>Using APC calibrated per ISO 11171</td>
</tr>
<tr>
<td></td>
<td>$\beta_0 \geq 75$</td>
<td>$\beta_0 \geq 100$</td>
</tr>
<tr>
<td>8GTZZ10</td>
<td>15.5</td>
<td>16.2</td>
</tr>
</tbody>
</table>

Dirt Holding Capacity:

<table>
<thead>
<tr>
<th>Element</th>
<th>DHC (gm)</th>
<th>SAP Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>8GTZZ10</td>
<td>32</td>
<td>7627663</td>
</tr>
</tbody>
</table>

Only elements on page 26 are part of the QuickDelivery Program.
Specifications

- **Pressure Rating:**
  - 100 psi (7 bar)

- **Element Media:**
  - Excellement® Z-Media®

- **Clogging Indicator:**
  - Visual Gauge

- **Ports:**
  - NPT only

- **Seal Material:**
  - Buna N

- **Bypass Valve Cracking Pressure:**
  - Cracking: 30 psi (2 bar)
  - Full Flow: 36 psi (2 bar)

Features

- **Spin-On with full ported die cast aluminum head for minimal pressure drop**

- **Small profile for use in limited space**

Dimensions:

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Port size</th>
<th>Indicator Type</th>
<th>Max Flow gpm</th>
<th>Micron Rating</th>
<th>Element Type</th>
<th>SAP Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAF16PZ-10PY2</td>
<td>¾&quot; NPTF</td>
<td>Visual Gauge</td>
<td>20</td>
<td>10</td>
<td>PZ10</td>
<td>7618905</td>
</tr>
</tbody>
</table>

No alternate element options currently available

(Not Available for Same Day Shipping)

Element Performance Information:

<table>
<thead>
<tr>
<th>Element</th>
<th>Filtration Ratio Per ISO 4572/NFPA T3.10.8.8 Using automated particle counter (APC) calibrated per ISO 4402</th>
<th>Filtration Ratio per ISO 16889 Using APC calibrated per ISO 11171</th>
</tr>
</thead>
<tbody>
<tr>
<td>PZ10</td>
<td>$\beta_x \geq 75$</td>
<td>$\beta_x \geq 100$</td>
</tr>
<tr>
<td></td>
<td>7.4</td>
<td>8.2</td>
</tr>
</tbody>
</table>

Dirt Holding Capacity:

<table>
<thead>
<tr>
<th>Element</th>
<th>DHC (gm)</th>
<th>SAP Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>PZ10</td>
<td>N/A</td>
<td>7628637</td>
</tr>
</tbody>
</table>

Element Collapse Rating: 100 psid (7 bar)

Flow Direction: Outside In

Element Nominal Dimensions: 3.75" (95 mm) O.D. x 5.5" (140 mm) long

Only elements on page 26 are part of the QuickDelivery Program.
Our exceptional elements are tested to ensure fabrication integrity in the manufacturing process. They are also tested for efficiency and dirt holding capacity in a multi-pass test stand, equipped with inline particle capabilities, which are calibrated to ISO standards and exceed industry requirements.

**Product offerings include:**

- Synthetic Media (Z-Media®)
- Patented Grommet & Bushing (GeoSeal®)
- Unique Contaminant Holding (DirtCatcher®)
- Anti-Stat Pleat Media (ASP®)
- Cellulose Media (E-Media)
- Water-Absorbent (W-Media)
- Private Label Branding
- BestFit® Online Cross-Overs
GeoSeal® | KG or KBG

Features
- GeoSeal® is a patented offering from Schroeder that provides a unique way for OEM's to retain replacement element business and to keep a filter's performance at the level that it was supplied.
- GeoSeal® design is available on the K-size element and in the following Schroeder filter series: KF30, KF50, KC50, KC65, MKF50, K9, 2K9, 3K9, KF3, KL3, MLF1, KF5, RT

Ordering Information:

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Micron Rating</th>
<th>Collapse Rating</th>
<th>SAP Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>KBGZ10*</td>
<td>10</td>
<td>150 PSID</td>
<td>7613394</td>
</tr>
<tr>
<td>KGZ3*</td>
<td>3</td>
<td>150 PSID</td>
<td>7615023</td>
</tr>
<tr>
<td>KGZ5*</td>
<td>5</td>
<td>150 PSID</td>
<td>7615026</td>
</tr>
<tr>
<td>KGZ10*</td>
<td>10</td>
<td>150 PSID</td>
<td>7615018</td>
</tr>
<tr>
<td>KGZ25*</td>
<td>25</td>
<td>150 PSID</td>
<td>7615021</td>
</tr>
<tr>
<td>GeoSeal® Element Plastic Connector</td>
<td></td>
<td></td>
<td>7608357</td>
</tr>
</tbody>
</table>

Part Number | Description | SAP Number |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>KKGZ3V**</td>
<td>18” KGZ 3 micron Z-media (GeoSeal®) Viton®</td>
<td>7615301</td>
</tr>
<tr>
<td>KKGZ5V**</td>
<td>18” KGZ 5 micron Z-media (GeoSeal®) Viton®</td>
<td>7615304</td>
</tr>
<tr>
<td>KKGZ10V**</td>
<td>18” KGZ 10 micron Z-media (GeoSeal®) Viton®</td>
<td>7630721</td>
</tr>
<tr>
<td>KKGZ25V**</td>
<td>18” KGZ 25 micron Z-media (GeoSeal®) Viton®</td>
<td>7600062</td>
</tr>
</tbody>
</table>

For more information, visit: www.schroederindustries.com

*Must purchase in case lot quantity of 12. **Must purchase in case lot quantity of 6.
Our fluid conditioning and diagnostic monitoring tools are known for their diversity, capability and precision. As applications become more sophisticated and widespread, the need for highly efficient fluid conditioning, as well as condition monitoring is increasing.

**Product offerings include:**

- De-Watering, De-Gassing & Dehydration Units
- Asset Management Filtration Carts
- Mobile & Stationary Filtration Systems
- EasyTest & Fluid Analysis
- HTB | Test Benches
- HY-TRAX® Series
- Custom Solutions
Specifications

Measuring Range:
- Measures particles in three sizes: >4, >6 and >14 digitally displayed
- Display ISO ranges between 25/24/23 and 9/8/7
- Calibration within the range ISO 13/11/10 to 23/21/18

Contamination Output Code:
- Standard: ISO 4406:1999 or SAE AS 4059(D)

Self-Diagnosis:
- Continuously with error indication via status LED

Max Pressure:
- 3500 psi (241 bar) max

Sensor Flow Rate:
- 30 to 300 mL/min

Permissible Viscosity Range:
- 0 to 4635 SUS (1 to 1,000 cSt)

Fluid Temp. Range:
- 32°F to 185°F (0°C to 85°C)

Power Supply Voltage:
- 9 to 36 VDC residual ripple <10%

Power Consumption:
- 3 Watt max

Electrical Outputs:
- 4 to 20 mA Analog
- RS485 for communication with FluMoS Light Software

Electrical Specifications:
- 4 to 20 mA Analog output (max burden 330 Ω)
- Limit switching output (Power MOSFET): max. current 1.5A

Ambient Temp. Range:
- -22°F to 176°F (-30°C to 80°C)

Storage Temp. Range:
- -40°F to 176°F (-40°C to 80°C)

Relative Humidity:
- 95%, non-condensing max

Seal Material:
- Mineral Oil: Viton®

Electrical Safety Class:
- III (low voltage protection)

IP Class:
- IP67

Features

- Measures particles in three sizes: >4, >6 and >14 digitally displayed
- Display and keypad can be rotated
- ISO or SAE codes can be output in 4-20 mA analog signal
- Compatible with standard mineral fluids

What’s Included

- TCM-D-H-A-M (4-20mA only)
- Manifold, TCM-C-3M
- 2 pcs. 4mm 1620 microflex hose (SAP #7612175)
- TWS-C (optional)
- TCM & TWS-C (optional) Power & Communication Cable(s) and 2 test points (p/n 7622704) for installation into hydraulic system
- FluMoS software

Description

The TCM is designed for connection to hydraulic and lubrication lines with pressures up to 3500 psi (241 bar) and viscosities up to 4635 SUS (1000 cSt). The unit requires that a small flow of oil (between 30 mL/min and 500 mL/min) is diverted for measurement purposes.

Dimensions:

Ordering Information:

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>SAP Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>TCM-FC</td>
<td>Sensor w/display, petroleum based fluids, 4-20 mA w/flow control flange</td>
<td>7623773</td>
</tr>
<tr>
<td>TCM-FC-W</td>
<td>Sensor w/display, petroleum based fluids, 4-20 mA w/flow control flange and water sensor without display</td>
<td>7623774</td>
</tr>
</tbody>
</table>

For more information, visit: www.schroederindustries.com
**Specifications**

Self-Diagnosis:
- Continuously with error indication via status LED and display

Measured Value:
- ISO Code/ SAE Class/ NAS Class/ Saturation level/
- Temp.

Measuring Range:
- Display from ISO code 25/24/23 to 9/8/7
- Calibrate within the range ISO 13/11/10 to 23/21/18
- Saturation level 0 to 100%
- Temperature -13°F to 212°F (-25°C to 100°C)
- Accuracy:
  - ± ½ ISO class in the calibrated range/ ± 2% Full scale max.

Seal Material:
- Viton®

Ambient Temp. Range:
- 32°F to 113°F (0°C to 45°C)

Storage Temp. Range:
- -40°F to 176°F (-40°C to 80°C)

IP Class:
- IP50 in operation IP67 closed

Operating Pressure:
- In: -7.25 to 650 psi (-0.5 to 4.5 bar)
- Out: 0 to 7.5 psi (0 to 0.5 bar)
- Operating Pressure w/ Adapter for Pressure Lines:
  - In: 217 to 5000 psi (15 to 345 bar)
  - Out: 0 to 7.5 psi (0 to 0.5 bar)
- Pressure Max.:
  - 5000 psi (345 bar)
- Maximum suction Ht.:
  - 39” (1 m)
- Permissible Viscosity Range:
  - 46 to 1622 SUS (10 to 350 cSt)

Fluid Temperature Range:
- 32°F to 158°F (0°C to 70°C)

Power Supply Voltage:
- 24 VDC ± 20%, residual ripple < 10%

Max. Power/Current Consumption:
- 100 Watt /4 A

Interface:
- Plug connection, 5 pole, male, M12x1 USB

Weight:
- Approx. 29 lbs (13 kg)

**Features**

- Particulate contamination is detected with an optical measurement cell
- Automatic measurement and display of cleanliness ratings as ISO 4406:1999; SAE AS 4059, and NAS 1638
- Measurement Accuracy +/- ½ ISO code
- Supply voltage 100-240VAC 50-60 Hz
- Integrated pump for automatic control of oil flow
- Viscosity range: 46 to 1622 SUS (10 to 350 cSt)
- Pressure stable up to 5000 psi (350 bar) max
- Water saturation (10 - 100%)
- Measures particles in three sizes: >4, >6 and >14 digitally displayed
- FluMoS software

**Description**

The FCU is a portable service unit and is designed for measurement of solid particle contamination and water saturation in hydraulic systems. It is designed for temporary operation up to a maximum of 30 minutes followed by a rest period of 10 minutes and is not intended for continuous operation.

**Ordering Information:**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>SAP Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>FCU1310-4-U-AS-1</td>
<td>With water sensor, Viton® seals, 100-240VAC 50/60 Hz</td>
<td>3353201</td>
</tr>
</tbody>
</table>
**Specifications**

Flow Rating:
- 10 gpm (37.9 L/min) max

Viscosity Range:
- 46-1,000 SUS (6-216 cSt)

Hose Pressure Rating:
- 30 psi (2.0 bar) @ 150°F (65.6°C)
- Full vacuum @ 150°F (65.6°C)

Fluid Temperature:
- 25°F to 150°F (-4°C to 65°C)

Bypass Valve Setting:
- Cracking: 25 psi (1.7 bar)

Material:
- Element Case: Aluminum
- Buna N

Compatibility:
- All petroleum based hydraulic fluid. Contact factory for use with other fluids.

Motor
- 115 VAC Single phase 1 hp

Weight:
- 102 lbs. (46.3 kg)

**Features**

- Compact size, easily transported
- Top-ported filter provides easy element service
- D10 Auto-Reset Indicator indicates when filter elements require a change
- Drip pan catches oil before it falls to the ground
- Hoses and connection tubes included

**Ordering Information:**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>SAP Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFD-BC-1-09-H10-H05</td>
<td>10 and 5 micron elements, 115 volts</td>
<td>7616423</td>
</tr>
<tr>
<td>Replacement Elements</td>
<td>Description</td>
<td>SAP Number</td>
</tr>
<tr>
<td>9GW</td>
<td>Water Removal Element</td>
<td>7604551</td>
</tr>
<tr>
<td>9GZ3</td>
<td>3-Micron Element</td>
<td>7604564</td>
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<tr>
<td>9GZ5</td>
<td>5-Micron Element</td>
<td>7604569</td>
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<tr>
<td>9GZ10</td>
<td>10-Micron Element</td>
<td>7604553</td>
</tr>
<tr>
<td>9GZ25</td>
<td>25-Micron Element</td>
<td>7604559</td>
</tr>
</tbody>
</table>

Only elements on page 26 are part of the QuickDelivery Program.
### Specifications

**Flow Rating:**
14 gpm (53.0 L/ min) max

**Viscosity Range:**
40-1,000 SUS (4-216 cSt)

**Hose Pressure Rating:**
30 psi (2.0 bar) @ 150°F (65.6°C)
Full vacuum @ 150°F (65.6°C)

**Fluid Temperature:**
25°F to 150°F (-4°C to 65°C)

**Bypass Valve Setting:**
Cracking: 30 psi (2 bar)

**Material:**
- Manifold and cap: Cast aluminum
- Element case: Steel

**Compatibility:**
All petroleum based hydraulic fluid. Contact factory for use with other fluids.

**Motor:**
115 VAC Single phase 1-1/2 hp (14 gpm)

**Element Change Clearance:**
27.5” (698.5 mm)

**Weight:**
MFD: 227 lbs (103 kg)

### Features

- Modular base eliminates hoses between components and minimizes leakage
- Base-ported filter provides easy element service from the top cap
- Drip pan catches oil before it falls to the ground
- D5 Dirt Alarm® indicates when filter element needs changed
- Hoses and connection tubes included

### Description

The Schroeder Mobile Filtration System is a compact, self-contained filtration system equipped with high efficiency, high capacity elements capable of removing particulate contamination and/or water quickly, conveniently and economically. It is perfect for cleaning up existing systems as well as for pre-filtering new fluids, since new fluids often have contamination levels significantly higher than that recommended for most hydraulic systems.

### Ordering Information:

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>SAP Number</th>
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<tbody>
<tr>
<td>MFD-1-27-GXX-B-14</td>
<td>Dual 27” GeoSeal® housings without elements, Buna seals, 115 Volts, 14 gpm. Elements must be ordered as a separate line item.</td>
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<table>
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<tr>
<th>Replacement Elements</th>
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<tbody>
<tr>
<td>27KGZ3</td>
<td>27” KGZ 3 micron Z-Media® (GeoSeal®)</td>
<td>7629165</td>
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<td>27KGZ5</td>
<td>27” KGZ 5 micron Z-Media® (GeoSeal®)</td>
<td>7629166</td>
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<td>27KGZ10</td>
<td>27” KGZ 10 micron Z-Media® (GeoSeal®)</td>
<td>7629163</td>
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<tr>
<td>27KGZ25</td>
<td>27” KGZ 25 micron Z-Media® (GeoSeal®)</td>
<td>7629164</td>
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<tr>
<td>27KGW</td>
<td>27” KG Water Removal (GeoSeal®)</td>
<td>7629161</td>
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</tbody>
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Only elements on page 26 are part of the QuickDelivery Program.
Specifications
Flow Rating:
9 gpm (34 l/min) fixed
Motor:
1.5 HP - 15 amps at 120 volts AC
Viscosity Range:
60-1,000 SUS (10-216 cSt)
Fluid Temperature Range:
-20°F to 150°F (-29°C to 65°C)
Bypass Valve Setting:
Cracking: 30 psi (2 bar) x 2
Compatibility:
All petroleum based hydraulic fluid. Contact factory for use with other fluids.
Element Change Clearance:
8.50” (215 mm) 1K
Weight:
245 lbs (112 kg)
Protection Class:
IP54 (DIN 40050)

Features
- Real time monitoring of ISO cleanliness classes
- Automatic shutdown when user defined ISO codes are reached
- USB port allows the ISO code data to be downloaded for further processing and/or printing
- 30 mesh suction strainer and 230 micron filter are included to protect the particle monitor from clogging
- Water sensor allows real-time water saturation of the fluid to be displayed
- Bypass valve allows cart to be used as a transfer cart
- Single lift point
- Plastic removable drip pan
- Measures particles in three sizes: >4, >6 and >14 digitally displayed
- FluMoS Software

Description
The Filtration Station® (FS) is capable of flushing, filtering, and monitoring ISO cleanliness with user-defined, automatic shutdown features. The FS is designed to transfer fluid through two (2) K9 filters in series for staged particulate or water/particulate removal.

Ordering Information:

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<tr>
<td>FS-A-1-27-G10-G05-V-9-W</td>
<td>Dual 27” elements (10 and 5 micron GeoSeal® elements) Viton® seals, 9 gpm with water sensor, 115 volts</td>
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<table>
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<tr>
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<td>27” KGZ 3 micron Z-Media® (GeoSeal®) Viton®</td>
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<td>27” KGZ 5 micron Z-Media® (GeoSeal®) Viton®</td>
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<td>27KGZ10V</td>
<td>27” KGZ 10 micron Z-Media® (GeoSeal®) Viton®</td>
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<td>27KGZ25V</td>
<td>27” KGZ 25 micron Z-Media® (GeoSeal®) Viton®</td>
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<tr>
<td>27KGWV</td>
<td>27” KG Water Removal (GeoSeal®) Viton®</td>
<td>7603025</td>
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</tbody>
</table>

Only elements on page 26 are part of the QuickDelivery Program.
Description
The HFS-15 Hand Held Portable Filter is used as a portable service unit for filling and flushing hydraulic systems, as well as for cleaning in bypass flow. Solid particle contamination as well as free water can be removed by the filter elements.

Specifications
Flow Rating:
- 4 gpm (15 L/min) max

Pump Type:
Vane pump

Viscosity Range:
- 1,623 SUS (350 cSt) max

Hose Pressure Rating:
- 30 psig (2.0 bar) @ 150°F (65.6°C)
- Full vacuum @ 150°F (65.6°C)

Fluid Temperature:
- 14°F to 176°F (-10°C to +80°C)

Seals:
Viton® (FPM)

Weight:
30.9 lbs.

Features
- Compact, lightweight design
- Improvement in service life for components and system filters
- Viton® (FPM) seals
- Top-ported filter provides easy element service
- Simple operation
- Integrated dry running protection
- Includes 8.2’ hoses with wands

Ordering Information:

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<th>Part Number</th>
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<tbody>
<tr>
<td>HFS-15-9-NX10-E</td>
<td>Single 9&quot; filter housing with 10 micron element. Viton® seal, 120VAC single phase, 60 Hz, 4 gpm flow rate</td>
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<table>
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<td>Water Removal Element</td>
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<td>HFS15-003</td>
<td>3-Micron Element</td>
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<td>HFS15-005</td>
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<td>HFS15-010</td>
<td>10-Micron Element</td>
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<td>HFS15-025</td>
<td>25-Micron Element</td>
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</table>

Only elements on page 26 are part of the QuickDelivery Program.
Description
The Schroeder Handy Filter Systems Basic Cart is a compact, self-contained "light-duty" filtration system equipped with high efficiency, high capacity elements capable of removing particulate contamination and/or water quickly, conveniently and economically. It is perfect for cleaning up existing systems as well as for pre-filtering new fluids, since new fluids often have contamination levels significantly higher than that recommended for most hydraulic fluids.

Specifications
Flow Rating:
4 gpm (15.14 L/ min) max
Viscosity Range:
1,600 SUS (350 cSt)
Hose Pressure Rating:
30 psig (2.0 bar) @ 150°F (65.6°C)
Full vacuum @ 150°F (65.6°C)
Fluid Temperature:
25°F to 150°F (-4°C to 65°C)
Material:
Element case: Aluminum
Compatibility:
All petroleum based hydraulic fluid. Contact factory for use with other fluids.
Motor:
115 VAC Single phase .25 hp
Weight:
Dual housing - 44 lbs.

Features
■ Compact size, easily transported
■ Cartridge elements have 25% higher dirt holding capacity compared to spin-on filters
■ Top-ported filter provides easy element service
■ Can be used as an efficient "tank-topper"solution for drums of mineral-based fluids

Ordering Information:

<table>
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<tr>
<th>Part Number</th>
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<tbody>
<tr>
<td>HFS-BC-A-209-H10-H05-B-E</td>
<td>Dual 9&quot; housings with elements, Buna seals, 120VAC / 1-Phase / 60 Hz, 4 gpm.</td>
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<tr>
<td>9GZ25</td>
<td>25-Micron Element</td>
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Only elements on page 26 are part of the QuickDelivery Program.
Specifications

Flow Rating:
14 gpm (53.0 L/min) max

Viscosity Range:
40-1,000 SUS (4-216 cSt)

Fluid Temperature:
25°F to 150°F (-4°C to 65°C)

Bypass Valve Setting:
Cracking: 30 psi (2 bar)

Compatibility:
All petroleum based hydraulic fluid. Contact factory for use with other fluids.

Motor:
115 VAC single phase 1-1/2 hp (14 gpm)

Weight:
KLD-1-27: 161 lb (73.2 kg)

Features

- Modular base eliminates connections between components and minimizes leakage
- Base-ported filter provides easy element service from the top cap
- Suction strainers to protect pump
- D5 Dirt Alarm® indicates when filter element needs changed
- Two upstream 7/16 – 20 UNF sampling port included on all models

Description

Schroeder’s off-line Kidney Loop System is a stationary version of the Mobile Filtration System. It is a compact, self-contained filtration system equipped with high efficiency, high capacity elements capable of removing particulate contamination and/or water quickly, conveniently and economically. This off-line system can be used to supplement in-line filters when adequate turnover cannot be achieved in the system. It is also ideal for free water removal.

Ordering Information:

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<tbody>
<tr>
<td>KLD-127-GXX-B-14</td>
<td>Dual 27” GeoSeal® housings w/o elements, Buna seals, 115 Volts, 14 gpm. Elements must be ordered as a separate line item</td>
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<table>
<thead>
<tr>
<th>Replacement Elements</th>
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<tbody>
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<td>27” KGZ 3 micron Z-Media® (GeoSeal®)</td>
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<tr>
<td>27KGZ5</td>
<td>27” KGZ 5 micron Z-Media® (GeoSeal®)</td>
<td>7629166</td>
</tr>
<tr>
<td>27KGZ10</td>
<td>27” KGZ 10 micron Z-Media® (GeoSeal®)</td>
<td>7629163</td>
</tr>
<tr>
<td>27KGZ25</td>
<td>27” KGZ 25 micron Z-Media® (GeoSeal®)</td>
<td>7629164</td>
</tr>
<tr>
<td>27KGW</td>
<td>27” KG Water Removal (GeoSeal®)</td>
<td>7629161</td>
</tr>
</tbody>
</table>

Only elements on page 26 are part of the QuickDelivery Program.
Description
The OLF from Schroeder is an off-line filtration system that features unique membrane elements constructed of stacked disks where dirt holding capacity is measured in pounds instead of grams, drastically reducing the amount of time required to clean up highly contaminated fluids.

Specifications
Flow Rating:
10 gpm (37.85 L/min)
Motor:
1 HP 115 VAC single phase
Viscosity Range:
75-5,000 SUS
Fluid Temperature Range:
15°F to 175°F (-10°C to 80°C)

Features
- Effectively cleans hydraulic and cleaning fluids, lubricating oils, and coolants
- Provides excellent dirt removal efficiency, even in single-pass filtration
- Available with pump and motor or can be utilized as an individual filter
- Included framework makes unit ready to install
- Easy to retrofit existing systems
- Test points provided on all models
- Housing drain standard on all units

Ordering Information:

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<th>Part Number</th>
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<td>OLF-30/30-G-L60-N15DM002-E/12</td>
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<tr>
<td>Replacement Elements</td>
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<td>N15DM002</td>
<td>2µm Element</td>
<td>01251590</td>
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<tr>
<td>N15DM005</td>
<td>5µm Element</td>
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<td>N15DM010</td>
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<td>N15DM020</td>
<td>20µm Element</td>
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<tr>
<td>N15DM030</td>
<td>30µm Element</td>
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Only elements on page 26 are part of the QuickDelivery Program.
**Specifications**

**Dimensions:**
- 44"H x 20"W x 37"D

**Dry Mass:**
- 295 lbs (134 kg)

**Inlet Connections:**
- SAE-16

**Outlet Connections:**
- SAE-16

**Flow Rate:**
- 90 gallons/hour or 1.5 gpm

**Inlet Pressure:**
- Atmospheric

**Outlet Pressure:**
- up to 40 psi (2.76 bar)

**Fluid Service Temperature:**
- 40°F to 140°F (4°C to 71°C)

**Fluid Viscosity:**
- 70-1000 SUS (13 - 215 cSt)

**Power Supply:**
- 110 VAC, 60 Hz, 12 amp

**Attainable Water Content:**
- < 50 PPM

**Relative Humidity Display:**
- Standard, 0-99% Range

**Construction:**
- Base Frame and Vessel: Stainless Steel
- Seals: Viton®

---

**Features**

- High Dewatering Rates and particulate removal in one system
- Simple Controls; RUN/DRAIN modes
- Reduce fluid recycling cost
- No expensive vacuum pump to service and replace
- Patented mass transfer technology uses ambient air to optimize and control dewatering rates
- Compact, efficient footprint
- Remove free and dissolved water
- Highly effective in low and high humidity elements

---

**Description**

Water contamination in hydraulic systems can severely reduce the life of hydraulic systems and fluids. The Triton Dehydration Station® is designed to eliminate 100% of free and up to 90% of dissolved water from small reservoirs, barrels, and gear boxes. Using a patented mass transfer process, the Triton Dehydration Station® efficiently removes water and particulate contamination quickly in all environments.

---

**Ordering Information:**

<table>
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<tr>
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<th>Description</th>
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<tbody>
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<td>TDSAVMAB031</td>
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<td>9VZ10V</td>
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<td>PAB3P3N.75AS*</td>
<td>Air Breather Element</td>
<td>7633710</td>
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</table>

*Breathers are not part of the QuickDelivery Program.

Only elements on page 26 are part of the QuickDelivery Program.
**Specifications**

Dimensions:
32"W x 59"L x 70.25" H

Dry Mass:
1000 lbs (453 kg)

Inlet Connections:
1-1/2" MJIC

Outlet Connections:
1-1/2" MJIC

Flow Rate:
900 gallons/hour (15 gpm)

Inlet Pressure:
Atmospheric

Outlet Pressure:
to 125 psi (8.62 bar)

Fluid Service Temperature:
50°F to 175°F (10°C to 79°C)

Fluid Viscosity:
70-2000 SUS (13 -539 cSt)

Power Supply:
460 V/3/60 Hz, 22.5 amps w/heater

Attainable Water Content:
< 50 PPM

Relative Humidity Display:
Standard, 0-99% Range

Construction:
Base Frame: Carbon Steel
Vessel: Stainless Steel
Seals: Viton®

**Features**

- High Dewatering Rates and particulate removal in one system
- Simple Controls
- Reduce fluid recycling cost
- No expensive vacuum pump to service and replace
- Patented mass transfer technology uses ambient air to optimize and control dewatering rates
- Compact, efficient footprint
- Automatic air bleed on filter housing
- Remove free and dissolved water
- Highly effective in low and high humidity elements

**Description**

Water contamination in hydraulic systems can severely reduce the life of hydraulic systems and fluids. The Triton Dehydration Station® is designed to eliminate 100% of free and up to 90% of dissolved water. The Triton-E can handle large quantities of oil from sizeable hydraulic reservoirs, lubricating circuits, totes and large gear boxes due to the high flow rate of the unit. Using a patent pending mass transfer process, the Triton Dehydration Station efficiently removes water and particulate contamination quickly in all environments.

**Ordering Information:**

<table>
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<tbody>
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<td>18&quot; KGZ 5 micron Z-media (GeoSeal®) Viton®</td>
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<td>KKGZ10V</td>
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<td>MFB-3-M-P20*</td>
<td>Air Breather Element</td>
<td>7627930</td>
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</tbody>
</table>

*Breathers are not part of the QuickDelivery Program.

Only elements on page 26 are part of the QuickDelivery Program.
Description
The North American Vacuum Dehydrator (NAV) uses vacuum dehydrating technology to remove both free and dissolved water, and gases, from oil. In addition to water and gas, the NAV also removes solid contaminants from the oil with the use of highly efficient filter elements installed on the unit. The NAV is designed for use with larger applications, such as the conditioning of oil in larger hydraulic and lube reservoirs.

Specifications
- Dimensions: 39"W x 76"L x 74"H
- Dry Mass: 1990 lbs (903 kg)
- Inlet Connections: 2" NPT
- Outlet Connections: 1 ½" NPT
- Flow Rate: 30 gpm (114 L/min)
- Inlet Pressure: 22 in. Hg - 10 psi
- Outlet Pressure: 110 psi (7.6 bar)
- Fluid Service Temperature: 39°F to 170°F (3.8°C to 77°C)
- Fluid Viscosity: 150-3280 SUS (23-700 cSt)
- Power Supply: 460V
- Attainable Water Content < 10 PPM
- Relative Humidity Display: Standard, 0-99%
- Construction: Base Frame: Carbon Steel, Vessel: Carbon Steel, Seals: Viton

Features
- Water Sensor standard on all units to show percent saturation
- Removes 100% of free and over 90% of dissolved water, as well as 100% of free and over 90% of dissolved gases
- Maintenance, operating, troubleshooting instructions are in HMI (touchscreen)
- Automatic mode enables user-defined system shutdowns
- Use of a low maintenance, dry running claw vacuum pump helps to avoid any dangerous, chemically reactive by-products

Ordering Information:

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Only elements on page 26 are part of the QuickDelivery Program.
Our full range of fuel filtration products have revolutionized fuel cleanliness, and serve a diverse range of markets and industries. The designs of our products are a result of many hours of field testing, laboratory research, over 73 years of experience, and partnerships with fuel industry and filtration experts.

**Product offerings include:**

- Fuel Condition Monitoring Equipment
- On-Board, Mobile Diesel Filtration
- Diesel Particulate & Coalescing Solutions
- CNG Filtration Technology
- Biodiesel Treatment & Polishing
- ASME Filtration Vessels
- Custom Solutions
Specifications
Flow Rating: 100 gpm (380 L/min)
Porting: -24 SAE (J1926)
Pressure Rating: 150 psi (10.3 bar)
Temperature Range: -20°F to 225°F (-29°C to 107°C)
Bypass Setting: 40 psi (2.8 bar)
Element Indicators: Visual Pop-Up, Manual Reset
Seal Material: Fluorocarbon Elastomer (FKM, Viton®)
Material of Construction: Porting Head: Cast Aluminum, Anodized
Element Case: Aluminum, Anodized
Element Change Clearance: 2” (51 mm)

Features
- Diesel fuel particulate filter for dispensing, transfer, or kidney-loop filtration applications
- Uses patented GeoSeal® elements
- All-aluminum filter housing is fully compatible with diesel and biodiesel
- Minimal clearance needed for element service, ideal for enclosure installations
- Cartridge style element improves performance and reduces waste compared to spin-on solutions
- Port to port and mounting pattern dimensions match standard spin-on assembly

Description
Developed with Fuel Filtration in mind, the GHPF is designed for high flow, high efficiency particulate removal in today’s ultra-low sulfur diesel (ULSD) fluids. Protects expensive Tier III and Tier IV engine components against failures caused by water and solid contamination transferred from bulk fuel tanks to the vehicle.

Ordering Information:

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>SAP Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>GHPF11GGZ3VS-24D5R</td>
<td>GHPF High-Flow Particulate Filter</td>
<td>7637131</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Elements (Included in GHPF)</th>
<th>Description</th>
<th>SAP Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>11GGZ3V</td>
<td>GeoSeal® Particulate Element, 3 µm</td>
<td>7637150</td>
</tr>
</tbody>
</table>

Only elements on page 26 are part of the QuickDelivery Program.
Specifications
Flow Rating: 25 gpm (95 L/min)
Porting: -24 SAE (J1926)
Pressure Rating: 150 psi (10.3 bar)
Temperature Range: 32°F to 225°F (0°C to 107°C)
Bypass Setting: 40 psi (2.8 bar)
Element Indicator: Visual Pop-Up, Manual Reset
Seal Material: Fluorocarbon Elastomer (FKM, Viton®)
Material of Construction:
Porting Head: Cast Aluminum, Anodized
Element Case: Aluminum, Anodized
Sump: Cast Aluminum, Anodized
Element Change Clearance: 4.5" (114 mm)

Features
- Diesel fuel coalescing filter for dispensing, transfer, or polishing filtration applications
- Uses patented GeoSeal® elements
- All-aluminum filter housing is fully compatible with diesel and biodiesel
- Minimal clearance needed for element service, ideal for enclosure installations
- Cartridge style element improves performance and reduces waste compared to spin-on solutions
- A compact design with reduced dimensions compared to similar cartridge filter and spin-on solutions on the market

Ordering Information:

<table>
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<tr>
<th>Part Number</th>
<th>Description</th>
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<tbody>
<tr>
<td>GHCFG5VS-24D5R</td>
<td>GHCF High-Flow Coalescing Filter</td>
<td>7636799</td>
</tr>
<tr>
<td>Elements (Included in GHCF)</td>
<td>Description</td>
<td>SAP Number</td>
</tr>
<tr>
<td>C125GZ5V</td>
<td>GeoSeal® Coalescing Element, 5 µm</td>
<td>7637143</td>
</tr>
</tbody>
</table>

Description
Developed with Fuel Filtration in mind, the GHCF is designed for high flow, high efficiency water and particulate removal in today’s ultra-low sulfur diesel (ULSD) fluids. Protects expensive Tier III and Tier IV engine components against failures caused by water and solid contamination transferred from bulk fuel tanks to the vehicle.

Only elements on page 26 are part of the QuickDelivery Program.
BDFP | Bulk Diesel Filtration Panel

**Specifications**
- Flow Rating: 14 gpm (53 L/min)
- Porting: -16 SAE (J1926)
- Ambient Temperature Range: 32°F to 104°F (0°C to 40°C)
- Bypass Setting: 40 psi (2.8 bar)
- Element Indicator: Visual Pop-Up, Manual Reset
- Seal Material: Fluorocarbon Elastomer (FKM, Viton®)
- Material of Construction: Filter Housings - Aluminum (Anodized)
- Frame/Mounting Brackets: Carbon Steel (Powder Coated)
- Element Change Clearance: GHCF: 4.5” (114 mm)
- Motor: 115VAC 60Hz Single Phase, 1.5 HP
- Weight: Approximately 150 lbs. (68 kg)

**Features**
- Turn-key coalescing and filtration system, for use as a fuel transfer or polishing solution
- GHPF and GHCF filter housings use patented GeoSeal® elements
- All-aluminum filter housings are fully compatible with diesel and biodiesel
- Minimal clearance needed for element service, ideal for enclosure installations

**Description**
The BDFP provides a turn-key fuel coalescing and filtration system which can be readily integrated into a complex filtration system or used as a basic, stand-alone fuel polishing solution. The BDFP incorporates the GHPF particulate filter and GHCF coalescing filter with a pump/motor group for a basic, turn-key filter system operating at 14 or 25 gpm. With the GeoSeal® bushing integrated on all the filter housings, this ensures quality filtration at every element change and retained aftermarket element business.

**Electric Motor Option**

**Ordering Information:**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
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<tbody>
<tr>
<td>BDFP11GGZ3C-G5VDS14</td>
<td>BDFP 14 gpm Filter System with 3 µm Particulate, C125GZ5V Element, Sight Glass</td>
<td>7637132</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Elements (Included with BDFP)</th>
<th>Description</th>
<th>SAP Number</th>
</tr>
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<tbody>
<tr>
<td>11GGZ3V</td>
<td>Particulate Element, 3 µm</td>
<td>7637150</td>
</tr>
<tr>
<td>C125GZ5V</td>
<td>Coalescing Element, 5 µm</td>
<td>7637143</td>
</tr>
</tbody>
</table>

**Dimensions:**

Metric dimensions in ( ).
Dimensions shown are inches [millimeters] for general information and overall envelope size only.
For complete dimensions please contact Schroeder Industries to request a certified print.

Only elements on page 26 are part of the QuickDelivery Program.
**Description**

The new BDFC provides exceptional particulate filtration and continuous water removal with higher flow rates. The GHPF particulate pre-filter and GHCF coalescing water removal filters feature Schroeder Industries’ GeoSeal® patented aftermarket solution, ensuring quality replacement elements are used with every element change.

**Specifications**

- **Flow Rating:**
  - 14 gpm or 25 gpm (53 L/min or 95 L/min)
- **Ambient Environment Temp. Range:** -20°F to 104°F (-29°C to 40°C)
- **Bypass Indication:**
  - Particulate Filter: 35 psi (2.4 bar)
  - Coalescing Filter: 35 psi (2.4 bar)
- **Bypass Valve Cracking:**
  - Particulate Filter: 40 psi (2.8 bar)
  - Coalescing Filter: 40 psi (2.8 bar)
- **Materials of Construction:**
  - Particulate Filter:
    - Head: Cast Aluminum, Anodized
    - Element Case: Aluminum, Anodized
  - Coalescing Filter:
    - Head: Cast Aluminum, Anodized
    - Element Case: Aluminum, Anodized
    - Sump: Cast Aluminum, Anodized
- **Weight**
  - 131 lbs. (59.4 kg)

**Features**

- Designed with integrated particulate removal pre-filtration for maximum coalescing filter element life in the downstream housing
- Routine element change only needed on GHPF particulate filter, keeping operating costs low
- Patented GeoSeal® elements designed to provide consistent quality with the highest single-pass water and particulate removal efficiencies in today’s ultra-low sulfur diesel (ULSD) fuels
- All aluminum filter housings and plumbing components are fully compatible with diesel and biodiesel
- Sight glass, Y-strainer, and upstream/downstream test points included
- At just under 28” wide, this cart will fit through standard doorways

**Ordering Information:**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>SAP Number</th>
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</thead>
<tbody>
<tr>
<td>BDFC11GGZ3CG5VD525</td>
<td>BDFC 25 gpm Filter Cart with 3 µm Particulate, C125GZV Element</td>
<td>7641138</td>
</tr>
<tr>
<td>Elements</td>
<td>Description</td>
<td>SAP Number</td>
</tr>
<tr>
<td>(Included with BDFC)</td>
<td>Description</td>
<td></td>
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<tr>
<td>11GGZ3V</td>
<td>Particulate Element, 3 µm</td>
<td>7637150</td>
</tr>
<tr>
<td>C125GZ5V</td>
<td>Coalescing Element, 5 µm</td>
<td>7637143</td>
</tr>
</tbody>
</table>

Only elements on page 26 are part of the QuickDelivery Program.
BDC | Bulk Diesel Fuel Filter Cart

Specifications
Flow Rating:
Up to 25 gpm (95 L/min) for ULSD15 & bio diesel blends
Fluid Temperature Range:
32°F to 165°F (0°C to 74°C) Standard
Ambient Environment Temperature Range:
32°F to 104°F (0°C to 40°C) Standard

Bypass Indication:
Particulate Filter: 15 psi (1.03 bar)
Coalescing Filter: 25 psi (1.7 bar)

Bypass Valve Cracking:
Particulate Filter: 20 psi (1.37 bar)
Coalescing Filter: 30 psi (2 bar)

Materials of Construction:
Porting Base: Anodized Aluminum
Element Bowl: Epoxy Paint w/ High-phos Electroless Nickel Plating (Standard)
Cap: Plated Steel
Bag Housing: Stainless
Particulate Filter Housing: Epoxy Paint w/ High-phos Electroless Nickel Plating (Standard)
Coalescing Filter Housing: Epoxy Paint w/ High-phos Electroless Nickel Plating (Standard)

Weight
785 lbs. (356 kg)
Element Change Clearance:
33.8” (858 mm)

Features
■ Great for kidney loop clean-up of highly contaminated reservoirs and single pass transfer
■ Incorporates a bag element pre-filter down to 5 micron, for gross removal of microbial bloom contamination and rust
■ Fuel and water separation media technology in a three-phase element construction for high efficiency, single-pass removal of emulsified and free-water in Ultra-low Sulfur Diesel (ULSD) and blends
■ Designed because prior generation coalescing products no longer provide high-efficiency separation in ULSD and Biofuels
■ 10’ Hoses with 3’ wand ends
■ Pump motor is 115VAC with resettable overload and 7’ power cord
■ Helps protect expensive, vital engine components against failures caused by water contaminated fuel
■ Manual water drains and up and downstream test points

Ordering Information:

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>SAP Number</th>
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</thead>
<tbody>
<tr>
<td>BDC39QPMLZ3VAVM</td>
<td>BDC 25 gpm Filter Cart with 5 µm Bag, 3 µm Particulate, C396Z5V Element, Manual Drain</td>
<td>7605354</td>
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<tr>
<td>PEF5P2PH</td>
<td>Bag Element, 5 µm</td>
<td>7618973</td>
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<tr>
<td>39QPML-Z3V</td>
<td>Particulate Element, 3 µm</td>
<td>7603320</td>
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<tr>
<td>C396Z5V</td>
<td>Coalescing Element, 5 µm</td>
<td>7628638</td>
</tr>
</tbody>
</table>

Only elements on page 26 are part of the QuickDelivery Program.
Description
Mobile machines and commercial vehicles are subject to the toughest working conditions. To ensure smooth running of vehicles, and to protect both the engine and the drive system from damage, optimum diesel fuel conditioning is particularly important. Schroeder Fuel Filtration On-Board Diesel Coalescing filter offers a modern cartridge filter system design available in two configurations, in order to protect equipment operators from failures, breakdowns and expensive service interventions.

Dimensions:

Specifications
Flow Rating:
- HDP-BC: Up to 160 gph (600 lph)
- HDP-HT: Up to 160 gph (600 lph)

Operating Pressure:
- HDP-BC: ~14.5 psia (~1 bar) suction side application
- HDP-HT: Up to 160 gph (600 lph)

Temp. Range:
- HDP-BC: -40°F to 212°F (-40°C to 90°C)
- HDP-HT: -4°F to 212°F (-20°C to 90°C)

Nominal Voltage:
- 24V DC

Rated Power fuel Preheating:
- 300W

Weight
- 340 BC: 5.1 lbs (2.3 kg)
- 600 BC: 6.8 lbs (3.1 kg)
- 600 HT: 9.4 lbs (4.25 kg)

Water Separation Efficiency:
- >95% to ISO CD 16332

Connection Size:
- 340 BC: M22 x 1.5
- 600 BC: M27 x 2.0
- 600 HT: G 3/4” (BSPP)

Features
- HDP-BC: Manual water drain
- HDP-HT: Automatic water drain
- Small envelope size offers greater flexibility in mounting locations
- Low investment cost due the economical design
- Long service life of the element yields low operating costs
- Seamless installation due to the plug and play approach
- Easy adaptation to the on-board power supply
- Unsurpassed water removal for ULSD

Ordering Information:

<table>
<thead>
<tr>
<th>Part Number</th>
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</thead>
<tbody>
<tr>
<td>HDP KF1 340 BC1 10 W 1.1</td>
<td>HDP 90 gph Manual Water Drain Fuel/Water Separator, 10 µm Particulate Removal</td>
<td>1299132</td>
</tr>
<tr>
<td>HDP KF1 600 BC1 10 W 1.1</td>
<td>HDP 160 gph Manual Water Drain Fuel/Water Separator, 10 µm Particulate Removal</td>
<td>1304744</td>
</tr>
<tr>
<td>HDP KF1 600 HT1 10 A 1.1 /-AS1</td>
<td>HDP 160 gph Automatic Water Drain Fuel/Water Separator, 10 µm Particulate Removal</td>
<td>1313769</td>
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<tr>
<td>Replacement Elements:</td>
<td>Description</td>
<td>SAP Number</td>
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<tr>
<td>0340 BC1 010 KF1</td>
<td>Replacement Element, 10 µm Particulate &amp; Coalescing for 90 gph Manual Drain Housing</td>
<td>1299837</td>
</tr>
<tr>
<td>0600 BC1 010 KF1</td>
<td>Replacement Element, 10 µm Particulate &amp; Coalescing for 160 gph Manual Drain Housing</td>
<td>1304959</td>
</tr>
<tr>
<td>0600 HT1 010 KF1</td>
<td>Replacement Element, 10 µm Particulate &amp; Coalescing for 160 gph Automatic Drain Housing</td>
<td>1299319</td>
</tr>
</tbody>
</table>

Only elements on page 26 are part of the QuickDelivery Program.
Specifications
Self-Diagnosis:
■ Continuous with error indication via status LED and display

Measured Value:
■ ISO Code/ SAE Class/ NAS Class/ Saturation level/Temperature.

Measuring Range:
■ Display from ISO code 9/8/7 (MIN) to ISO code 25/24/23 (MAX)
■ Calibrated within the range ISO 13/11/10 to 23/21/18
■ Saturation level 0 to 100%
■ Temperature -13°F to 212°F (-25°C to 100°C)

Accuracy:
■ ± ½ ISO class in the calibrated range/
■ ± 2% Full scale max.

Material of Sealings:
■ FPM seals

Ambient Temp. Range:
■ 32°F to 113°F (0°C to 45°C)

Storage Temp. Range:
■ -40°F to 176°F (-40°C to 80°C)

IP Class:
■ IP50 in operation IP67 closed

Hydraulic Fluid Operating Pressure:
■ In: -7.25 to 650 psi (-0.5 to 4.5 bar)
■ Out: 0 to 7.5 psi (0 to 0.5 bar)

Operating Pressure w/ Adapter for Pressure Lines:
■ In: 217 to 5000 psi (15 to 345 bar)
■ Out: 0 to 7.5 psi (0 to 0.5 bar)

Pressure Max.:
■ 5000 psi (345 bar)

Permissible Viscosity Range:
■ 33 to 1622 SUS (1.5 to 350 cSt)

Fluid Temperature Range:
■ 32°F to 158°F (0°C to +70°C), or up to 113°F (45°C) for diesel fuel

Power Supply Voltage:
■ 24 VDC ± 20%, residual ripple < 10%

Max. Power/Current Consumption:
■ 100 Watt /4 A

Interface:
■ Plug connection, 5 pole, male, M12x1 USB

Features
■ Particulate contamination is detected with an optical measurement cell
■ Automatic measurement and display of cleanliness ratings as ISO 4406:1999; SAE AS 4059, and NAS 1638
■ Measurement Accuracy +/- 1/2 ISO code
■ Supply voltage 24 VDC
■ Integrated pump for automatic control of oil/fuel flow
■ Viscosity range: 33 to 1622 SUS (2 to 350 cSt)
■ Water saturation (0 - 100%)

Description
The FluidControl Unit FCU 1315 series combines the advantages of the portable contamination measurement units with the measurement technology of the TestMate® Contamination Monitor (TCM) and TWS (TestMate® Water Sensor), in a portable, field-ready package for diesel fuel applications.

Ordering Information:

<table>
<thead>
<tr>
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<th>Description</th>
<th>SAP Number</th>
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</thead>
<tbody>
<tr>
<td>FCU1315-4-U-AS-1</td>
<td>With water sensor, FPM seals, 24 VDC</td>
<td>4103386</td>
</tr>
</tbody>
</table>
Fuel analysis can identify potential causes for fuel filter plugging, smoking, loss of power, poor injector performance, malfunctioning throttle position sensors and sticking valves. Testing also confirms a diesel fuel’s sulfur content, biodiesel content and compliance with manufacturer specifications and standards for cleanliness that could affect equipment warranty requirements.

Schroeder Industries offers Diesel Fuel Quality Analysis Kits.

All packages include:
- A pre-paid testing form
- The required number of fuel containers for desired test

### Ordering Information:

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<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>SAP Number</th>
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<tbody>
<tr>
<td>Cleanliness Test</td>
<td>Fuel Test Kit - Particle Count &amp; Karl Fischer</td>
<td>2098008</td>
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<tr>
<td>Contamination Test</td>
<td>Fuel Test Kit - ICP, Flash Point, Thermal Stability, Water &amp; Sediment, Bacteria-Fungi-Mold</td>
<td>2098006</td>
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**Contamination Tests**

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<th>SAP Number: 02098006</th>
<th>Includes</th>
<th>Sample Amount</th>
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<tbody>
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<td>Identifies contamination from external sources - oil, biological growth, water, sediment</td>
<td>ICP</td>
<td>2mL</td>
</tr>
<tr>
<td>Identifies contamination to be the result of a change in the fuel’s physical properties - low thermal stability may require use of an asphaltene conditioner</td>
<td>Flash Point</td>
<td>200mL</td>
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<tr>
<td></td>
<td>Thermal Stability</td>
<td>120mL</td>
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<tr>
<td></td>
<td>Water and Sediment</td>
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<tr>
<td></td>
<td>Bacteria, Fungi, Mold</td>
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**Cleanliness Tests**

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<th>Includes</th>
<th>Sample Amount</th>
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<tbody>
<tr>
<td>Identifies water contamination - can lead to smoking, biological growth and corrosion</td>
<td>Karl Fischer</td>
<td>10mL</td>
</tr>
<tr>
<td>Identifies particulate contamination - can result in extreme wear in high pressure fuel systems which may cause premature injector failure</td>
<td>Particle Count</td>
<td>80mL</td>
</tr>
</tbody>
</table>

For more information, visit: www.schroederindustries.com
1. General Terms

Schroeder Industries: For all purposes hereof, “Schroeder Industries” shall mean, collectively, Schroeder Industries CORP., and Schroeder Industries both Pennsylvania corporations.

Buyer: For all purposes hereof, “Buyer” shall mean the direct purchaser of the Goods.

Goods: These TERMS AND CONDITIONS OF SALE (“Sale Terms”) shall apply to any and all sales of goods (“Goods”) by Schroeder Industries.

Payment Terms: All payments shall be due and payable within thirty (30) days of the invoice date. All amounts payable to Schroeder Industries hereunder, which are not paid within thirty (30) days of the invoice date shall thereafter bear interest at the rate of one and one-half percent (1.5%) per month or the maximum amount permitted by law, whichever is less. Interest on overdue amounts shall be calculated from the original payment due date.

Delivery And Packing: All delivery dates are approximate and are subject to change and extension as Schroeder Industries shall deem necessary and all Goods shall be packaged as separately agreed to by the parties.

Ex-Works: Except as otherwise agreed, delivery of all Goods shall be “Ex-Works” at Schroeder Industries’s designated facility. Buyer shall be solely responsible for all transportation costs, insurance and risk of loss.

Routing: Each purchase order shall specify Buyer’s preferred routing. Buyer will be solely responsible for all freight charges. Buyer will pay all freight charges in accordance with the terms of Buyer’s designated freight carrier, including without limitation, any advance payments required by Buyer’s designated freight carrier. Returned Goods (Warranty Claim): See Section 2 of these Sale Terms for the return of Goods resulting from a warranty claim.

Cancellations: Buyer shall not be permitted to cancel any purchase orders submitted to Schroeder Industries except as follows: (1) Schroeder Industries, in its sole discretion, provides prior written approval of the cancellation to Buyer; and (2) Buyer pays a cancellation charge of at least 25% of the original purchase price of the canceled Goods (as determined by Schroeder Industries, in its sole discretion).

Warranty and Liability: Please refer to the “Schroeder Industries Limited Warranty and Limitation of Liability” and the “Schroeder Industries Intellectual Property Terms and Conditions”, respectively Section 2 and Section 3 of these Sales Terms.

Limitation of Actions: Any action for any loss or damage with respect to the Goods or services covered hereunder must be commenced by Buyer within one year after Buyer’s cause of action has accrued.

Material Costs: If raw material costs increase by more than ten percent (10%), Schroeder Industries reserves the right to deliver notice of such cost increase to Buyer and to renegotiate the product sales prices within a thirty (30) day period from the date of such notice; provided that in the event that Schroeder Industries and Buyer do not agree on the renegotiated sales price within such thirty (30) day period, Schroeder Industries shall have the right to cancel the applicable purchase order(s) and be released from any and all obligations and liabilities under such purchase order(s), including without limitation any obligation to manufacture, deliver and supply the Goods referenced therein, without penalty, payment, premium or other obligation or liability of any kind.

Taxes: Schroeder Industries’s prices for the Goods do not include any sales, use, excise, or any other taxes, or any other charges imposed by federal, state, local or foreign governments on the manufacture, sale, shipment, import, export or use of the Goods or service (other than income taxes) all of which shall be paid by Buyer unless Buyer provides to Schroeder Industries a tax-exemption certificate acceptable to the relevant taxing authorities. Buyer shall defend, indemnify and hold Schroeder Industries harmless from and against all liabilities for such taxes or charges and all attorney’s fees or costs incurred by Schroeder Industries in connection there with.

2. Schroeder Industries Limited Warranty and Limitation of Liability

For the limited purpose of this Limited Warranty and Limitation of Liability, Schroeder Industries both Pennsylvania corporations, are hereinafter referred to collectively as “Schroeder Industries”. However, Schroeder Industries provides this Limited Warranty and Limitation of Liability in their individual capacity, on their own behalf and separate from the other corporation. Each corporation is solely responsible for its products and warranty, and any other obligation pursuant to any agreement or otherwise. Schroeder Industries will not be responsible for the obligations of the other company.

For purposes hereof, “Warranty Period” shall mean: the shorter of: (a) eighteen (18) months from the date of Schroeder Industries’s shipment of the Goods to the Buyer or (b) twelve (12) months from the date the product is first placed in operation ; provided that with respect to repairs made by Schroeder Industries to Goods or any replacement Goods provided by Schroeder Industries pursuant to the limited warranty set forth herein, the Warranty Period shall be the longer of: (i) any remaining portion of the original Warranty Period applicable to such Goods as set forth above or (ii) three (3) months from the repair date or replacement date.

Schroeder Industries warrants that the Goods shall be free from defects in material and workmanship, under normal use and service, during the Warranty Period.

Schroeder Industries will, at its option, refund the purchase price, repair or replace any product, which under normal conditions proves to be defective in material or workmanship during the Warranty Period. No charge will be made for parts or for labor provided by Schroeder Industries with respect to defects covered by this warranty. However, this warranty does not cover any costs, expenses or damages related to the removal and reinstallation of any Goods, whether or not proven defective.

To obtain protection under this warranty, Buyer must provide Schroeder Industries with immediate written notice of the alleged defect in the Goods along with the purchase order number and the date of delivery. Buyer shall take such actions as Schroeder Industries may reasonably request.

Schroeder Industries warrants that the Goods shall be free from defects in material and workmanship, under normal use and service, during the Warranty Period.

Schroeder Industries shall have no obligation for any defective Goods unless and until: (1) Schroeder Industries has completed an inspection of the Goods; (2) Schroeder Industries has determined the existence of a defect during the Warranty Period; and (3) Schroeder Industries has issued a RGA # for the return of the Goods. Buyer shall be obligated for all costs, expenses, charges and risk of loss for shipment of the non-conforming product to Schroeder Industries. However, shipping charges will be credited to Buyer if and to the extent that Schroeder Industries accepts the warranty claim.

Specifically excluded from this warranty are any claims arising as a result of improper application, use, neglect, abuse, or unauthorized service of parts or Buyer’s failure to comply with all installation, operation and maintenance requirements and specifications set forth in any operating manual for the Goods and other documentation related to the Goods provided to Buyer by Schroeder Industries.

Schroeder Industries and/or any affiliate or related company will not be liable under any circumstances for any consequential, incidental, special, punitive, exemplary or other damages (including, but not limited to, damages resulting from commercial or economic loss) or costs and expenses (including, but not limited to, attorneys’ fees and litigation costs), incurred as a result of any claim whether based on breach of warranty or otherwise.

In no event shall Schroeder Industries’s liability exceed the cost of repairing or replacing the Goods which give rise to any claim or refunding the purchase price of the Goods which give rise to any claim.

THE WARRANTY SET FORTH HEREIN IS IN LIEU OF ALL OTHER WARRANTIES, WHETHER EXPRESSED, IMPLIED OR STATUTORY, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

Any USE, sale, resale, lease, assignment or other transfer of Goods is expressly subject to THE ABOVE STATED Schroeder Industries LIMITED WARRANTY AND LIMITATION OF LIABILITY.

No attempt to alter, amend or extend this warranty and limitation of liability shall be effective unless in writing and signed by an executive officer of Schroeder Industries.
3. Schroeder Industries Intellectual Property Terms and Conditions

**Trademarks:** All trademarks, trade names, or other identifying marks (collectively referred to as the “Marks”) now or hereafter registered or used by Schroeder Industries are its property and Buyer’s use of these Marks must be approved in advance in writing by Schroeder Industries and shall be limited to use on or in connection with Schroeder Industries’s products.

Schroeder Industries reserves the right to review, approve or restrict the use of all printed materials bearing any Schroeder Industries Marks. Buyer shall, under no circumstances use any Schroeder Industries Marks as part of a corporate name. If Buyer is required to register under any statute for registration of a fictitious business name bearing any Schroeder Industries Marks, Buyer shall register in a form approved by Schroeder Industries. Any use of any Schroeder Industries Marks shall inure to the benefit of Schroeder Industries.

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4. Prohibited Uses of Goods

Without the prior written consent of an authorized Schroeder Industries executive officer, Buyer shall not use, sell, lease, assign or otherwise transfer any Goods, or otherwise permit any Goods to be used, for purposes of, or in connection with, any of the following applications (hereafter “Excluded Applications”).

1. Manufacturing, assembling or production of aircraft products including, but not limited to:
   - Aircraft (including missile or spacecraft), and any ground support or control equipment used therewith;
   - Any product used in or connected with, or incorporated into aircraft, aircraft parts, aircraft equipment or aircraft accessories including ground handling tools or equipment; and
   - Any products used at an airport for the purposes of guidance, navigation or direction of aircraft.

2. Nuclear Energy applications including, but not limited to:
   - Any furnishing of materials, parts or equipment in connection with maintenance, operation or use of any nuclear facility; and
   - Furnishing products that will be used in any facility that handles, processes, uses, stores, transports or disposes of nuclear material including spent nuclear fuel or waste.

Buyer is encouraged to contact Schroeder Industries to evaluate any potential use of Schroeder Industries Goods for any Excluded Applications. Buyer shall indemnify, defend and hold Schroeder Industries harmless from and against any and all claims and damages incurred as a result of the use of Schroeder Industries Goods for any Excluded Applications unless Buyer receives the prior written approval of a Schroeder Industries executive officer authorizing the use of Goods for any Excluded Applications.

5. Security Agreement: Credit and Collection

To secure payment of all sums due Schroeder Industries hereunder or otherwise, Schroeder Industries shall retain a security interest in the Goods delivered hereunder and this contract shall be deemed a security agreement under the Uniform Commercial Code. Buyer authorizes Schroeder Industries as its attorney to execute and file on Buyer’s behalf all documents Schroeder Industries deems necessary to perfect such security interest. Schroeder Industries is relying upon Buyer's representation of solvency and if Schroeder Industries at any time reasonably believes that Buyer is insolvent or that Buyer's credit is impaired, Buyer shall be in material breach hereof and Schroeder Industries may, without liability to Buyer, withhold performance hereunder, change the payment terms and/or repossess Goods herefore delivered. Title to the Goods covered hereby shall remain in Schroeder Industries until full payment is received. Schroeder Industries may charge Buyer finance, service, or late charges in an amount no greater than allowed by law, and if Buyer fails to make payment when due, Buyer shall be liable to Schroeder Industries for all costs of collection including attorney’s fees.

6. End User Responsibility

Except as otherwise provided in these Schroeder Industries Sales Terms, Buyer shall be solely responsible to all end-users of the Goods for any and all claims and actions related to the use of the Goods. Buyer shall indemnify, defend and hold Schroeder Industries harmless from and against any and all such claims and actions.

Schroeder Industries

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Products Catalog

HYDRAULIC LUBE FILTRATION

• High Pressure Filters (1,500-6,500 psi)
• Medium Pressure Filters (500-1,500 psi)
• Stainless Steel (up to 15,000 psi)
• Low Pressure Filters (up to 500 psi)
• Suction Filters
• Manifold Cartridge Kits & Filters
• Custom Solutions

Element Technology | L-4360

Our exceptional elements are tested to ensure fabrication integrity in the manufacturing process. They are also tested for efficiency and dirt holding capacity in a multi-pass test stand, equipped with in-line particle capabilities, which are calibrated to ISO standards, and exceed industry standards.

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• E-Media
• GeoSeal®
• W-Media
• DirtCatcher®
• Private Label Branding
• ASP® Media
• BestFit® Cross-Over Element Solutions

Filter Systems | L-2681

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• Asset Management Filtration Carts
• Mobile & Stationary Filtration Systems
• EasyTest & Fluid Analysis
• HTB | Hydraulic Test Benches
• TestMate® & HY-TRAX® Series
• Custom Solutions

Fuel Filtration | L-2889

• Fuel Condition Monitoring Products & Equipment
• On-Board, Mobile Diesel Filtration
• High Efficiency Diesel Particulate & Coalescing Solutions
• CNG Filtration Technology
• Biodiesel Treatment & Polishing Products
• ASME Filtration Vessels
• Turn-Key & Custom Fuel Filtration Systems

Process Filtration | L-2728

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• Bag Housings & Elements
• RMF | Rolling Media Filter
• Mining Specific Products
• Automatic Twist Flow
• Cartridge Housings & Elements
• Oil & Gas Filtration Products
• Custom Solutions

Hydraulic Accessories | L-4329

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• ISO Clean Tank Assemblies
• Oil Sight Glasses
• Indicators
• Complete Tank Assembly Solutions
• Test Equipment
• Air & Desiccant Filter Breathers

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