Hilite-E Filter Cartridges

For Synthetic Fluids and Oils
Ion Exchange removes acids not additives: longer fluid life.

Description
The Hilite-E ion exchange cartridge line is based on the existing filled cartridges. Instead of a traditional activated adsorbent, the cartridge canister is filled with a dust-free ion exchange resin specifically selected for acid adsorption.

Users report increased life between changeouts to be many times greater than other activated adsorbents.

How It Works
The ion exchange media consists of resin beads .3 to 1.2 mm in diameter. They offer low pressure drop and no dust. Best of all, they contribute no other mineral salts to the system. Total acid number (TAN) reduction is greater than Selexsorb® media, with a much longer life reported by users. The ion exchange resin works as an adsorption bed to capture acid ions. A Hilsorb trap filter or Hilco coalescer may be used downstream to remove excess water. Low acid numbers can be maintained without water control. Optional water control allows the maximum fluid and cartridge life.

Does Not Remove Additives
Hilite-E ion exchange is an alternate method of treating phosphate ester fluids and hydrocracked petroleum-based oils for acid reduction and removing oxidation components.

It is used instead of Selexsorb, fuller’s earth, or activated alumina in fluids that contain additives. Ion exchange does not remove additives as the activated adsorbents do.

Features and Benefits
- Much longer life
- Will not remove additives
- Does not react with fluid
- Will not contribute salts
- No dust migration
- Low pressure drop

Where Used
Ciba-Geigy and Monsanto phosphate ester-based fluids are prime candidates for ion exchange purification because of their additive content. Canada and Europe favor ion exchange treatment.

Ion exchange resin can be used for acid reduction in virtually any application where fuller’s earth, activated alumina, or Selexsorb is used. It works especially well in Akzo’s Fyrquel® and other polar fluids.

Applications
- Phosphate ester lube oil
- Phosphate ester hydraulic oil
- Synthetic based lube oil
- Synthetic based hydraulic oil
- Compressor lube oil
- Transformer insulating oil
System Sizing

To determine the equipment and cartridge(s) required, reservoir size and type of fluid must be known. For typical acid reduction in phosphate ester EHC fluids, less than one pound of ion exchange media is required to treat each 100 gallons of fluid to reduce a TAN of .2 to .02. Because acid removal is typically accomplished by off-line systems, due consideration must be paid to the amount of time required to circulate the entire sump. For reservoirs above 1000-gallon capacity, the factory should be consulted to optimally determine the equipment required.

Typical Flow Chart

* Maximum flow per cartridge
** Shipping weight per case

<table>
<thead>
<tr>
<th>Cartridge (Data Sheet)</th>
<th>Dimensions (in)</th>
<th>Maximum Flow * (GPM)</th>
<th>Media Weight (lbs.)</th>
<th>Case Quantity</th>
<th>Shipping Weight ** (lbs.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ET718-00-CRN (DD-700-52)</td>
<td>Outside Diameter 6.25 Length 18 Inside Diameter 2.09 Housing Nominal Centerpost 1-1/2</td>
<td>0.5</td>
<td>7.7</td>
<td>4</td>
<td>49</td>
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<td>ET718-00-CN (DD-700-52)</td>
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<td>7.7</td>
<td>4</td>
<td>49</td>
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<tr>
<td>ET119-00-03ZXC0 (DD-700-58)</td>
<td>Outside Diameter 11 Length 19 Inside Diameter 2.09 Housing Nominal Centerpost 1-1/2</td>
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<td>35</td>
<td>1</td>
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<td>ET119-00-CRD (DD-700-71)</td>
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<td>1</td>
<td>35</td>
<td>1</td>
<td>44</td>
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** Shipping weight per case

The Hilliard Corporation reserves the right to change specifications and dimensions at any time. Please contact the factory for the most current information.