ICB™ FILTERS
ION CHARGE BONDING FILTER UPGRADES

Overview

Ion Charge Bonding (ICB™) filters are specialized ion exchange products developed by EPT™ that not only remove acids, but more importantly remove the dissolved contamination responsible for servo valve sticking. The ability to remove this contamination is critical for phosphate ester based EHC fluid maintenance.

With 100s of installations operating since 1992, and over 1000 global installations to date, EPT’s ICB™ filters have achieved over 50 million hours of operating performance history on some of the largest power stations and turbine fleets in the world. ICB™ filters have a published ROI of 680%, saving one large turbine fleet an average of 1 million dollars per turbine.

EPT’s ICB™ filter products are supported by a team of world class experts, who are specialists in the maintenance of phosphate ester fluids. ICB™ filters offers unmatched performance that will resolve servo valve problems and, when used as part of our phosphate ester fluid maintenance and testing program, will significantly reduce the related risk of production losses.
**Key Benefits of ICB™ Filters**

- Removes the dissolved breakdown products that are responsible for servo valve failures
- Dramatically increase fluid resistivity values which eliminates a common servo valve failure mode referred to as electrokinetic wear or valve erosion
- Unlike conventional products, ICB™ filters do not contribute fine particulate, or add dissolved metals that contribute to increased rates of fluid breakdown
- ICB™ filters are available in standard sized filter cartridges or as part of a complete EHC fluid treatment system (see SVR™ systems)
- Complete stainless steel construction featuring robotic, spiral welding which provides maximum filter integrity, adding a new fail-safe in the EHC fluid conditioning system

---

**ICB™ Filters**

<table>
<thead>
<tr>
<th>ICB PART NUMBERS BY TURBINE TYPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>600502</td>
</tr>
<tr>
<td>600503</td>
</tr>
<tr>
<td>600504</td>
</tr>
<tr>
<td>600508</td>
</tr>
<tr>
<td>600511</td>
</tr>
<tr>
<td>600524</td>
</tr>
</tbody>
</table>

* Requires adapter component p/n 600245.

---

**Additional Resources**

2. ICB™ Filter Specification Sheets p/n 600502-600524
3. Article “Thirty-Seven Years of Fleet Operating and Maintenance Experience Using Phosphate Ester Fluids for Bearing Lubrication in Gas-Turbine/ Turbo-Compressor Applications”, ASTM STP1573, 2014

---

ICB™ is a trademark of EPT.
© 2016 EPT. All rights reserved.