Aircraft Fluid Monitoring

Lufthansa Technik operates a one-stop shop for MRO Laboratory Services covering analytical investigations across all aviation materials and substances. Aircraft Fluid Monitoring constitutes a basic segment in this service spectrum.

Lufthansa Technik offers laboratory services tailored to aircraft maintenance requirements. Our laboratory team in Frankfurt/Main specializes in quality control of aircraft fluids demanded and/or recommended by aircraft manufacturers.

For the examination of aircraft on-board fluids:
- Hydraulic fluid
- Engine oil
- Fuel
- MCD and filter debris/metal chips
- Potable water

The laboratory has a comprehensive spectrum of in-house capabilities. It offers root cause investigations e.g. by identification of chemical and physical fluid contaminants such as traces of non-system fluids or by isolation and successive identification of particles from fluids and filters. Specific monitoring programs enable customers to optimize fluid and filter change intervals to prevent filter clogging, O-ring hardening and cracking or other undesirable effects. All steps are designed to be quick, easy and reliable. Taking samples cleanly and efficiently is supported by a handy Fluid Sample Kit.

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laboratory-services
<table>
<thead>
<tr>
<th>Products &amp; Services</th>
<th>Description</th>
<th>Required Sample Volume</th>
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<tbody>
<tr>
<td>Hydraulic fluid</td>
<td><strong>Hydraulic Fluid Test Suite</strong>&lt;br&gt;In-service monitoring of hydraulic fluids:</td>
<td>250 ml/sample</td>
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<td></td>
<td>• Appearance&lt;br&gt;• Acid number&lt;br&gt;• Viscosity&lt;br&gt;• Density&lt;br&gt;• Water content&lt;br&gt;• Conductivity&lt;br&gt;• Particle contamination&lt;br&gt;• Chlorine content&lt;br&gt;• 3 certified low particulate sample bottles&lt;br&gt;• 3 sampling tubes (Airbus system)&lt;br&gt;• 1 graduated waste bottle&lt;br&gt;• 1 return package</td>
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<td></td>
<td><strong>Including: Hydraulic Fluid Sample Kit</strong></td>
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<tr>
<td>Engine oil</td>
<td><strong>Engine Oil Test Suite</strong>&lt;br&gt;In-service monitoring of engine oils:</td>
<td>250 ml/sample</td>
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<td></td>
<td>• Appearance&lt;br&gt;• Elemental analysis (SOAP)&lt;br&gt;• Acid number&lt;br&gt;• Viscosity&lt;br&gt;• Density&lt;br&gt;• Water content&lt;br&gt;• Particle filtration</td>
<td>(25 ml/sample)</td>
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<tr>
<td>Fuel</td>
<td><strong>MicrobMonitor</strong>&lt;br&gt;Test procedure by ECHA Microbiology Ltd. for microbes in jet fuel recommended by IATA.</td>
<td>1l/sample</td>
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<td><strong>HYLITE 2</strong>&lt;br&gt;Rapid detection of microbiological contamination in jet fuel</td>
<td>1l/sample</td>
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<tr>
<td>Contamination analysis</td>
<td>Identification of contaminants in lubricants and jet fuel</td>
<td>On request</td>
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<tr>
<td>MCD and filter debris</td>
<td><strong>Potable Water Test Suite</strong>&lt;br&gt;Potable water sampling and microbiological analysis in accordance with German Drinking Water Ordinance (TrinkWV).&lt;br&gt;In cooperation with accredited laboratories</td>
<td>On request</td>
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</table>

**How-to guide**<br>If your task or aircraft fluid is not listed, please contact our laboratory team. Together we will identify a customized analysis suite that meets your specific requirements. Please send your samples in firmly sealed and properly labelled PE bottles. Make sure that your shipment declaration complies with the Dangerous Goods Regulations (DGR).