

# Filter Debris Analysis Kit

## Filter Debris Analysis Kit - 7646313

- Kit includes (1) prepaid testing label and a return kit to send the filter in for FDA.

### What is FDA and why choose it?

Hydraulic oil filters are designed to remove harmful contaminants and wear-causing particles inside hydraulic systems that can sometimes be undetected in traditional oil analysis methods. Filter debris analysis (FDA) can help you understand the types of wear particles that are being captured by the filter and show you the magnitude of the system wear. With FDA, these particles are extracted from the filter itself and isolating them for laboratory analysis to identify type, size, and shape of the contaminant. FDA can be used as a reliable predictive maintenance process alongside traditional oil analysis methods to truly discover the root cause of premature equipment wear and failures.

### What is performed during FDA?

FDA is performed by utilizing the following laboratory testing criteria:

- Analytical Ferrography (ASTM D7690)
- Micropatch Analysis
- Elemental Metals Analysis by ICP (mod. ASTM D5185)
- Acid Digestion
- Gravimetric Solids

**Analytical Ferrography** - Identifies particles by metallic or non-metallic, shape, and color by analyzing particles through a microscope to determine source of wear particles. Digital images of the particles are included within the analysis report

**Micropatch Analysis** - Most particles or contaminants detected by the micropatch test are too small to be detected through common routine testing, in which micropatch testing is recommended after oil analysis is performed. Analytical ferrography micropatch tests are conducted by the use of a powerful microscope, which is critical in determining the wear particles and contaminants not seen by the human eye and or by field oil analysis

**Elemental Metals Analysis** – Using Inductively Coupled Plasma (ICP) and acid digestion, this analysis detects particles less than 10 $\mu$  and reports data on 24 different elemental metals

**Acid Digestion** - Identifies any large particles that accumulated in the filter element using ICP

**Gravimetric Solids** - Determines the total solids in filter based on overall mass

### Implement FDA in Predictive Analysis Programs

Filter debris analysis can be used across a vast range of applications and industrial machinery. Any information collected with FDA is directly relevant to each individual component's exclusive operating environment and overall workload. Whether the goal is to identify the cause of a specific issue, obtaining answers to understand why the equipment has experienced a failure, or to improve your oil analysis program with predictive maintenance, filter debris analysis can be an exceptional and dependable tool for your system.



Filter Debris Analysis Kit - 7646313

**Schroeder**  
**INDUSTRIES**  
Advanced Fluid Conditioning Solutions®

580 West Park Road | Leetsdale, PA 15056  
ph. 724.318.1100 | fax 724.318.1200