

ASSET MANAGEMENT FILTRATION STATION®



Asset Specific Trending & Reporting

Fluid Condition Monitoring

Targeted Cleanliness Levels with Auto Shutdown

Complete Fluid Quality Care in One Unit

The Payoff: In Real Dollars

Hydraulic and lubrication assets that you manage are worth millions. For example, within a six (6) month timeframe, a refuse customer had to change the hydraulic fluid in their fleet of 100 trucks (L-4513). With a fleet size of this magnitude, the customer was looking to reduce costs by extending the service life of their fluid.

The best way to achieve this goal is to set up a predictive maintenance (PM) program. Through PM programs, managers are able to maintain, measure and track results, thus become knowledgeable of the fluid's condition and able to treat the fluid as needed to best prevent unnecessary changes. Schroeder Industries offers the best solution for collecting accurate data and supporting best PM practices.



Asset Management Filtration Station® | AMFS

What is the SMART® Asset Management Filtration Station® (AMFS)?

The Asset Management Filtration Station® (AMFS) is a complete fluid conditioning system designed to manage fluid cleanliness, so that the greatest Return On Investment (ROI) on hydraulic and lube assets are achieved. The AMFS monitors your fluid condition, filters out contaminants and tracks all the necessary data needed for trend analysis and record keeping by asset number or name.

How does the AMFS work?

The rugged, on-board PC records the ISO code and water saturation level, and provides a full-color display of the data in real time. The AMFS shuts down when the user selected cleanliness level is reached. Each asset file is created automatically and is separately labeled and summarized to quickly inform the operator on the condition of the fluid. Each run of the fluid is logged by date and time, providing a complete history of the equipment's fluid cleanliness.

Before the AMFS can run, **four key pieces of asset management data must be entered:**

- 1) Who is operating the filter cart, 2) What equipment and which asset is being tested
- 3) How many hours of operation are logged on the asset that is about to be conditioned and 4) What is the desired ISO Cleanliness Class to filter down to. The motor controllers will not allow the unit to start before the data is entered. The same controller also allows the unit to shut down and log the report automatically when the target cleanliness level is met, leaving the operator available to perform other tasks as needed.

Why is the AMFS beneficial to both the operator and the Maintenance Supervisor?

Asset data **MUST** be entered for each asset cleaned. This data is then logged for maintenance tracking and fluid condition data trending purposes. The AMFS mandates and facilitates better fluid care maintenance practices, and ensures that Fluid Care Managers receive a detailed fluid care history logged and presented by the asset being maintained.

Visibility and traceability of data provides previously unavailable or unmanaged ROI opportunities in every area of predictive maintenance.

Trend, Control, Analyze

With the AMFS, Operation and Fleet Managers can now:

- ◆ Condition, measure and track (trend and correct) each hydraulic/lubrication asset individually
- ◆ Track, measure and manage (control) maintenance routines per operator
- ◆ Track, measure and view the data generated in detail or in a summary report (analytics), while performing PM routines

While maintenance is being performed, critical fluid quality information is gathered and presented by:

- ◆ The operator performing the PM
- ◆ The asset being maintained

FLUID CONDITIONING SOLUTIONS.®

Ease of Use

Only four fields of data must be entered to start the unit. Date and time are automatically entered at the start of the test.

1. **Asset #** - Identifies the hydraulic/lubrication system set for maintenance
2. **Operator ID #** - Distinguishes the operator running the test
3. **Hours of Operation** - On asset at time of test
* Optional notes field for event recording
Ex. Are you running the PM after a scheduled rebuild?
If so, make a note.
4. **ISO Cleanliness Class** - Select class based on most sensitive component in hydraulic system

To start the fluid care process (to physically start the AMFS), The user inputs the above data and any service notes related to the asset being filtered. Then, he/she simply pushes the green "START" button, and the AMFS does the rest.



Data Screens

Fast, Unsupervised, Reliable Fluid Care for Better Asset Management

Critical equipment information must be entered before the AMFS can start. This data input takes less than 30 seconds, and identification of the asset operator controls the motor start function. The AMFS is PC-controlled and data driven. The AMFS stores and reports data in Microsoft® Excel, which makes it very easy to transfer the data to any master Predictive Maintenance Program or PC.

Customers Who Benefit + Return on Investment (ROI)

In-Plant Service - Reliability Specialists, Plant Maintenance Managers and Maintenance Operators (anyone responsible for system reliability/uptime)

Mobile Dealer Networks - Fleet Maintenance Facility Managers, Fleet Directors, Mobile Equipment Service Contractors and Mobile Equipment Dealers

Both can see immediate ROI in the form of extended oil life, excellent fluid quality, lower fluid sampling costs and predictive maintenance that can eliminate loss of production that may cost hundreds of times more than one AMFS.

Predictive vs. Preventative Maintenance

In simple terms, predictive maintenance is using measurement and monitoring tools with equipment or assets in order to "predict" when maintenance needs to be performed (ideal).

The more commonly-used alternative, preventative maintenance, is the periodic shutdown of equipment to perform maintenance, regardless of necessity. Equipment prematurely taken out of service results in lost productivity and an extended return on investment (ROI) for that machinery. Waiting for equipment failures before performing maintenance is even more costly.

Test Results and Cleanliness Trend		Avg. Start ISO Level	Avg. Finish ISO Level
Asset #:	49876	21/20/18	16/15/13
First Test Performed On:	02/16/2012	21/20/18	16/15/13
Most Recent Test Performed On:	03/19/2012		
Start ISO Cleanliness Levels:	22/21/18		
Finish ISO Cleanliness Levels:	16/15/13		
Test Runtime (hrs):	0.3666667		
Total Hours of Operation to Date:	2600		

Monitoring the fluid conditions and maintaining proper fluid cleanliness is imperative to getting the most value out of your equipment. By implementing a predictive maintenance program, even greater cost improvements can be recognized by performing maintenance "as needed" and before a failure occurs.

Summary Report Screen



Trend Data

presented by asset being filtered (Avg. ISO count/clean up time, graph and tabular data)

Live Test Screen



VGA

for sharing data on the shop floor

USB

for easy data transfer from external keyboard

ASSET MANAGEMENT FILTRATION STATION[®] L-4200 | 2017

Touch Screen

to input data + view reports
*unit starts only after data (asset ID + operator ID + ISO Class) is entered

Ergonomic Display

high-mount data entry screen for ease of use

Large Wheels

on rugged frame for ease of movement and component protection
*fits through a standard door frame

PLC

to control motor and sensor monitoring

High Capacity Filter Housing

top-load filters come with auto bleed valves for easy element service with no air-related faults

Aqua Sensor

% saturation with red light for high water levels

Particle Counter

provides ISO cleanliness details, allowing the target cleanliness level to trigger auto shutdown

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Schroeder
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