ASSET MANAGEMENT FILTRATION STATION®

Complete Fluid Quality Care in One Unit

AMFS

Asset Tracking

Fluid Condition Monitoring

Fluid Quality & Maintenance Reporting

The Payoff: In Real Dollars

Hydraulic and lubrication assets that you manage are worth millions. Downtime caused by failures can cost well over $100,000 in lost operating revenue per minute/hour/week.

Poor maintenance practices occur when the people responsible for managing high-value hydraulic and lubrication assets cannot confirm if their PM schedules are being executed. The problem becomes even worse when the manager cannot maintain, measure or track results (cannot act), due to lack of accurate information.

Asset Management Filtration Station® | AMFS

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

The AMFS is an automated filter cart with a touch screen PC, interfacing a PLC, enabling a mandatory data entry screen that drives an auto run/auto shut off target cleanliness driven filtration and preventive maintenance process. The AMFS delivers detailed fluid condition reports, ISO fluid cleanliness, % water in oil, oil temp and processes this data to deliver asset health trends in individual and summary reports. All fluid quality maintenance activities and maintenance/asset health data is measured, reported and logged by the asset being filtered.

How does the AMFS work?

Before the AMFS can run, three key pieces of asset management data must be entered: 1) who is running the filter cart, 2) what equipment and which asset is being tested and 3) how many hours of operation are logged on that asset that is about to be conditioned. Motor controllers will not allow the unit to start when the data is not entered. The same controller also allows the unit to shutdown and log the report automatically when the target cleanliness level is met, allowing the operator to perform other tasks.

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

This data MUST be entered for each asset cleaned, and the data is then logged for maintenance tracking and fluid condition data trending purposes. The AMFS mandates and facilitates better fluid care maintenance practices, and insures 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
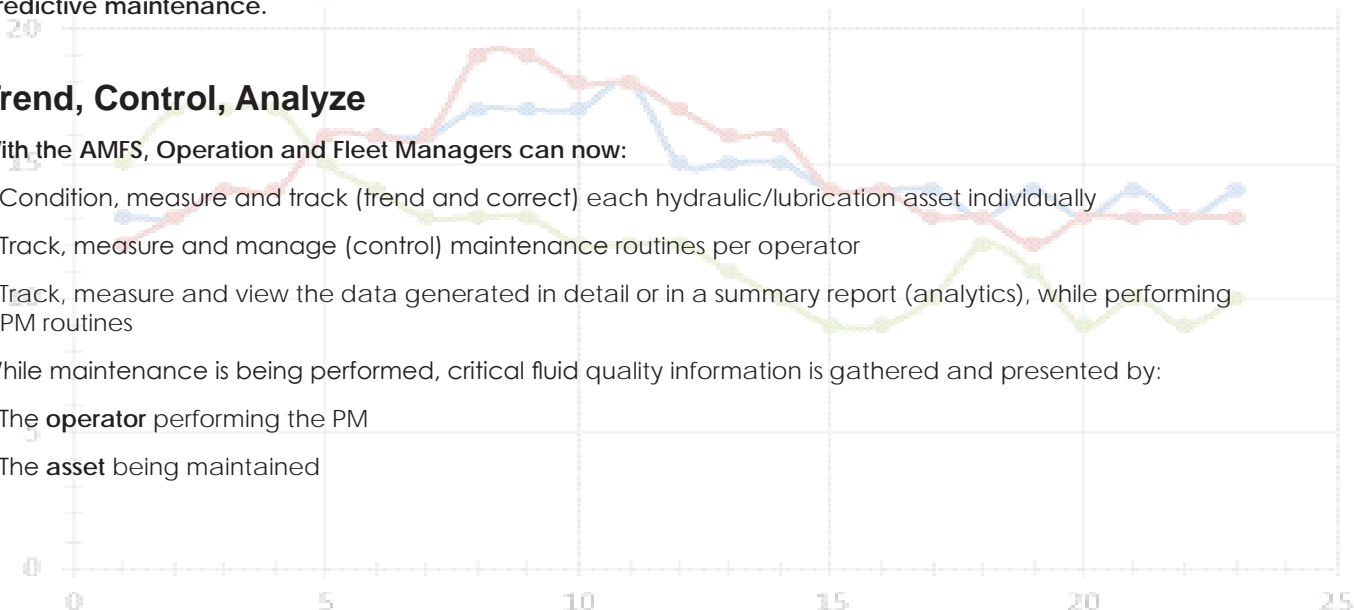
Ease of Use

Only three 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.

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.
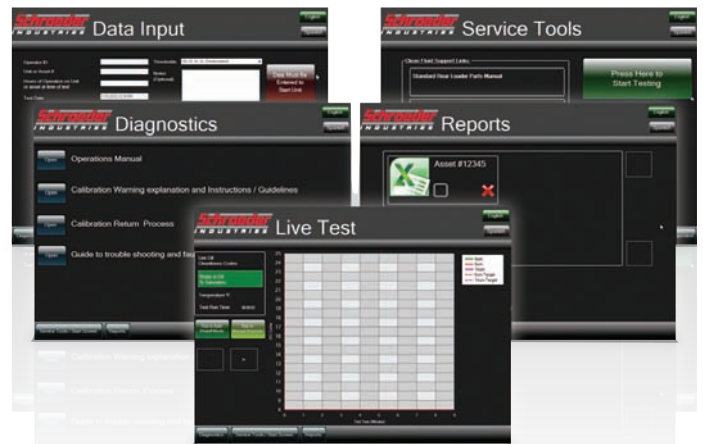
Data Screens

Fast, Unsupervised, Reliable Fluid Care for Better Asset Management

Critical equipment information must be entered before the cart 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. Stored and reported on the AMFS in Microsoft® Excel, data is easily transferred 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
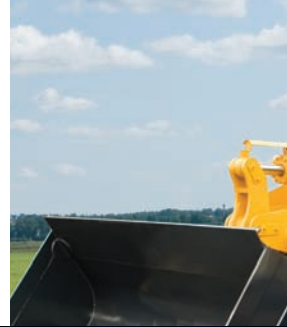count/clean up time,
graph and tabluar data)

Live Test Screen

VGA
for sharing data on
the shop floor

USB
for easy data transfer
from external keyboard

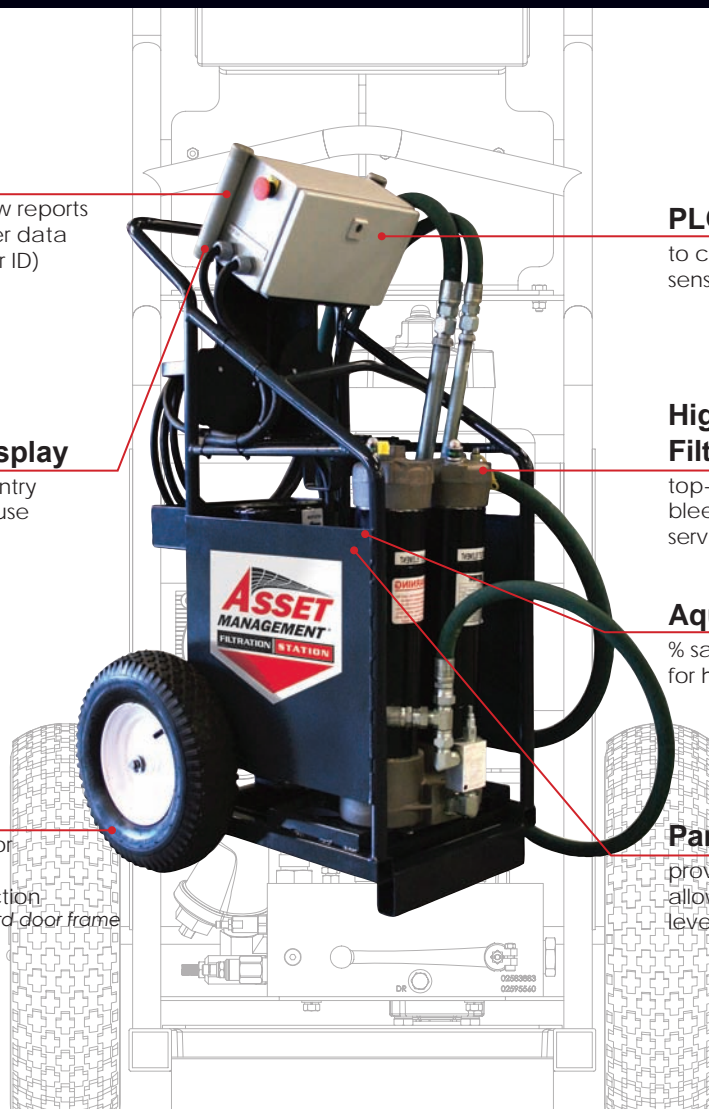## Asset Management Filtration Station® | AMFS

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

Ergonomic Display
high-mount data entry
screen for ease of use

Large Wheels
on rugged frame for
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

For more information, please contact filtersystemsmanager@schroederindustries.com

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