

# Contamination Control Solutions



**PASSION TO PERFORM**



## Hydraulic Fluid

Contamination within a system will affect the performance characteristics of the fluid such as additive package depletion. This in turn can lead to decrease lubricity and higher friction - resulting in temperature increases, reduced system efficiency, and increased wear on system components.

In worst cases, **contamination can lead to the complete failure of a system.**

Common occurrences associated with contamination:

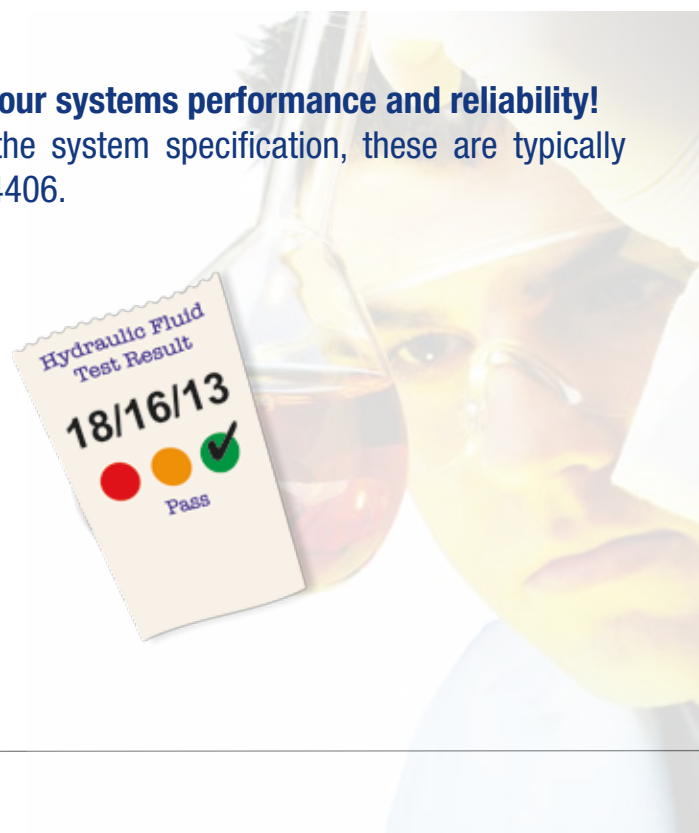
- ✗ Mechanical wear
- ✗ Clogging of nozzles, orifices & valves
- ✗ Corrosion
- ✗ Increase in fluid temperature
- ✗ Change in fluid compressibility
- ✗ Loss of protective coatings on components
- ✗ Internal leakage

## Fluid Cleanliness

**Having clean fluid is imperative to improve your systems performance and reliability!**

The latest hydraulic systems are defined by the system specification, these are typically reported in a specific reporting format e.g. ISO 4406.

Only **10 grams** of Test Dust (MTD) are needed to take **10,000 litres** of perfectly clean fluid (0/0/0) to ISO **19/17/14** (the level which could potentially cause breakdowns)



## HOW WE CAN HELP YOU

In order for a system to have a long service life, you have to employ procedures for cleanliness control.

MP Filtri can advise on a Protective Maintenance Strategy for stabilising the reliability of your system.

## PREVENTATIVE MAINTENANCE:

This include inspecting breather caps, breather filters, checking all filter clogging indicators and inspecting the hydraulic fluid inside the reservoir for signs of areation and contamination by water.

## PREDICTIVE MAINTENANCE:

MP FILTRI'S market leading Contamination Monitoring Products (CMP) will help you determine the condition of the operating fluids and accurately predict when maintenance should be performed. Our CMP range enables customers to manage an Oil Analysis programme - safely monitoring the condition and performance of the operating fluid online and receiving early warnings of possible mechanical problems.

Benefit include:

- ✓ Cost savings
- ✓ Reduced downtime
- ✓ Fewer breakdowns
- ✓ Flexibility in supply
- ✓ Competitive prices
- ✓ Increased life of system components
- ✓ Local technical specialist
- ✓ Onsite analysis & full status report with a customised corrective/preventive action plan

MP Filtri's proven track record for delivering complete contamination control solutions has established it as a global manufacturing leader in the hydraulic market.

Specialising in Particle Counters and Filtrations, MP Filtri provides engineering solutions for filtration applications.

We are application oriented to meet your requirements.

## DON'T LEAVE IT UNTIL IT'S TOO LATE!!

Visit our website or call one of our experts today. We've got over 50 years of experience and expertise in hydraulic systems cleanliness control and filtrations!



*...because contaminations costs!*



- ✓ Increases productivity
- ✓ Lowers repair costs
- ✓ Reduces system downtime
- ✓ Optimizes handling of spare parts
- ✓ Cuts costs associated with downtime
- ✓ Boosts reliability
- ✓ Easy to use

It is no secret that 80% of breakdowns in hydraulic systems are due to contamination. This contamination is generally made up of solid contaminant due to either wear and tear, ingress from adding “new” oil into the hydraulic system or inadequate system cleanliness during the manufacturing process.

## HYDRAULIC SYSTEMS

Hydraulic systems are designed to transmit power/force from one point to another by pressurizing an incompressible fluid.

Hydraulic fluid is used for the purposes of lubrication, power transmission, surface protection, heat transfer and surface cleansing.

The hydraulic fluid is the lifeblood of the hydraulic system.

**To maintain the cleanliness of fluid, the use of filters is critical to remove any contaminant still left in the system.**



## LPA3

### Portable Particle Counter

- Fully programmable to meet end-user applications
- Larger and variable sample volumes (up to 100ml) for optimum accuracy
- Provides live trend analysis via the full color, high-resolution 10.1" touchscreen display
- Greater storage capacity – store up to 4000 tests
- Automatically download test results via USB connection
- Enhanced long-life rechargeable lithium ion battery
- Robust and durable copolymer case



## LPA2

### Twin Laser Particle Analyzer

- Fully portable + lightweight
- Full size QWERTY keyboard + onboard thermal printer
- Calibrated to relevant ISO standards
- Compatible with various hydraulic fluids
- FREE LPA View software Windows based

## CML2

### Compact Laser Particle Analyzer

- Compact + lightweight
- Calibrated to relevant ISO standards
- Compatible with various hydraulic fluids
- Full accessories kit included



## ICM 4.0

### In-line Contamination Monitor

- Utilizes the latest **WiFi** technology
- Outstanding connectivity
- Live real-time monitoring
- Complete eight-channel measurement and display
- Predictive maintenance technology

## ICM 2.0

### In-line Contamination Monitor

- Live real-time monitoring
- Calibrated to relevant ISO standards
- Manual, automatic and remote control flexibility
- Various communication protocols as standard
- Memory of 4000 test records



# AZ2

In-line Contamination Monitor

- Live real-time monitoring
- Calibrated to relevant ISO standards
- Manual, automatic and remote control flexibility
- Various communication protocols as standard
- Atex Zone II 3G



## BS110 & BS500

Bottle Samplers

- Fluid de-aeration capability
- Compatible with the full range of Contamination Monitoring Products
- BS110: designed specifically for portable onsite testing
- BS500: designed for laboratory applications

# ACMU

Auxiliary Contamination Monitor

- Self-priming particle counting via integrated pump and manifold design
- Variants for non pressurized/pressurized systems of lube oil/gear box applications
- Aeration suppression, allows for improved contamination monitoring
- Live real-time monitoring



## VPAF 100

Patch test kit

- Self-contained oil analysis sampling kit
- Visual patch testing
- All-inclusive product

# UFM

Mobile Filtration Units

- Various power options
- ICM 2.0 options available
- Various flow rates available
- Various filtration and reservoir options



...MP Filtri have the solution!

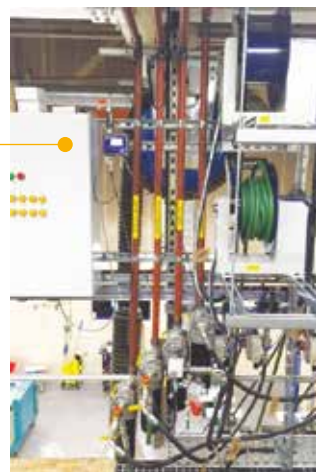
## Backhoe loader - Maintenance area



Hydraulic reservoirs with LMD 431 in-line duplex filters

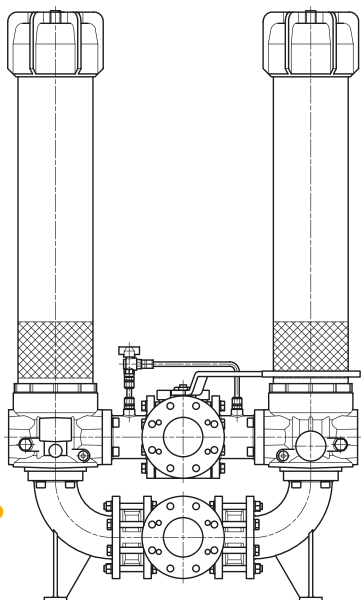


LMP 210 in-line filters and MPS Spin-On for diesel, engine oil, Diesel exhaust fluid



Fluid hose reels with ICM particle counter

## Mobile Crushing & Screening - Maintenance area



LMD 951 series installed on the entry to the bulk oil tank - oil deliveries from the supplier are filtered with a single pass through the duplex filter



Bulk storage tank filtration system with ICM & control box



## WORLDWIDE NETWORK



HEADQUARTERS

8 BRANCHES

OVER 300 DISTRIBUTORS

Germany

France

USA

Russian Federation

China

United Kingdom

India

Canada



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[www.mpfiltri.com](http://www.mpfiltri.com)