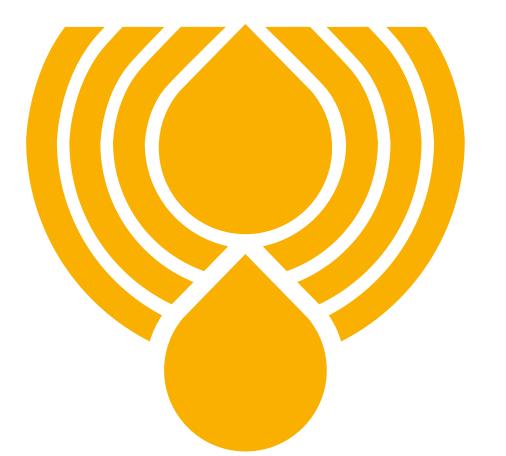


# CONTAMINATION MONITORING PRODUCTS





**PASSION TO PERFORM** 

# **HYDRAULIC FLUID**

Contamination within a system will affect the performance characteristics of the fluid such as a decrease in lubricity and increase in friction. This in turn will result in temperature increases, reduced system efficiency, and increased wear on system components. Contamination can in some cases lead to a complete system failure.

Common issues and problems 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 essential in improving your system's performance and reliability! The latest hydraulic systems are defined by the system specification. These are typically reported in a specific reporting format: eg ISO 4406.

Only 10 grams of test dust (MTD) is needed to turn 10,000 litres of perfectly clean fluid (0/0/0) to ISO 19/17/14 - the level of contamination that could potentially cause breakdowns.



## HOW WE CAN HELP YOU

To facilitate a longer service life for your systems, you need to employ a programme of cleanliness control. MP Filtri can advise and support you on the creation of a protective maintenance strategy for maximising system reliability.

# **PREVENTATIVE MAINTENANCE**

This includes inspecting breather caps and breather filters; checking all filter clogging indicators; and inspecting the hydraulic fluid inside the reservoir for signs of aeration, external contamination, and water ingress.

## **PREDICTIVE MAINTENANCE**

Our range of CMP products enables customers to implement a contamination control programme - safely monitoring the condition and performance of operating fluid online and receiving early warnings of potential mechanical problems.

# BENEFITS

- Cost savings
- Reduced downtime
- Fewer breakdowns
- Flexibility in supply

- Competitive prices
- Increased life of system components
- Local technical expertise
- 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 bespoke engineering solutions for your filtration applications. We have a proud track record for supporting customers in a wide variety of market sectors.

# 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 filtration!



...because contamination costs!



# FEATURES & BENEFITS

The introduction of a complete contamination control programme will not only alert you when the number of particles exceeds your targets, but will also flag up potential problems before they impact on performance. Our filters and elements will deliver clean systems that will not only maintain performance but also extend component and system longevity.

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

# HYDRAULIC SYSTEM FLUID CARE & MAINTENANCE

# **HYDRAULIC SYSTEMS**

Hydraulic systems are designed to transmit power/force from one point to another by pressuring an incompressible fluid. Hydraulic fluid is used for the purposes of lubrication, power transmission, surface protection, heat transfer and surface cleaning. **Hydraulic fluid is the lifeblood of hydraulic systems.** 



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

- Programmable, full-colour, high-resolution, 10.1" touchscreen display
- Simple yet sophisticated software that is easy to master in minutes
- Live trend analysis
- Preventive maintenance technology identifies risks before they impact performance
- Portable and durable enabling users to bring the lab into the field
- Super-fast sample times
- Long-life Lithium ion battery



#### LPA2 - Aviation Edition Laser Particle Analyser

- Airbus-approved for aviation industry
- Portable and lightweight
- Full size QWERTY keyboard and onboard thermal printer
- Calibrated to relevant international ISO standards
- Features specialist Airbus adapter and robust travel case
- Free windows-based software included



#### CML4

#### **Compact Contamination Monitor**

- Intuitive and easy to master
- 7" (18cm) touch-screen technology
- · Created for pressurised systems and ambient testing
- A full day's work on a single charge



#### **ICM 2.0**

**In-line Contamination Monitor** 

- Live real-time monitoring
- Calibrated to relevant international ISO standards
- Manual, automatic and remote control flexibility
- Various communication protocols as standard
- Stores 4000 tests in memory



#### ICM 4.0

In-line Contamination Monitor

- Utilises the latest WiFi technology
- Outstanding connectivity
- Live real-time monitoring
- Calibrated to relevant international ISO standards
- Predictive maintenance technology



#### AZ2

**In-line Contamination Monitor** 

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





## ICU

#### In-line Contamination Monitoring Unit

- In-situ contamination monitor
- Manifold mounting
- Robust hard-wearing construction
- 3-channel contamination monitoring
- Ideal for ongoing analysis where installation space is limited
- 4-20mA analogue output as standard



## ACMU

**Auxiliary Contamination Monitor** 

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



#### 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



#### **UFM** Mobile Filtration Units

- Wide range of high-performance offline filtration and fluid transfer units
- ICM 2.0 options available
- A variety of flow rates available
- Various filtration and reservoir options



#### Patch Imaging Kit Patch sampling and digital imaging kit

- Comprehensive sample testing of fluids
- Full digital analysis of contaminants
- Recording and storage of results direct to a PC



#### **Application Examples**

#### **BACKHOE LOADER - MAINTENANCE AREA**



Hydraulic reservoirs with LMD 431 in-line duplex filters

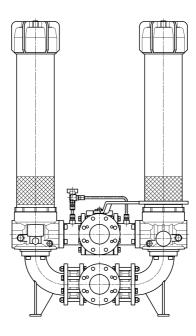


Fluid hose reels with ICM particle counter



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

### **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



# CHINA FRANCE GERMANN INDIA RUSSIAN FEDERATION times work of the second secon WORLDWIDE NETWORK

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HQ ITALY



PASSION