# Varnish Units VARNISH PROBLEMS SOLVED





#### THE PROBLEM

Varnish is a common problem for a wide range of hydraulic fluids and lubricants, especially in turbine and plastic injection moulding applications. It results in stickiness around the valves, shorter fluid life, shorter filter life and unscheduled downtime.

#### THE SOLUTION

The Varnish Removal System combines highly efficient varnish removal and oil quality monitoring in one modular system. The filter unit acts as a kidneyloop, continuously circulating fluid through the filter media. In addition an Oil Quality Sensor can be used to monitor oil degradation.

### **Benefits of Varnish Units:**

- Removes soluble and insoluble varnish contaminants.
- Prolongs oil health by reducing additive consumption .
- Reduces and prevents servo valve sticking.
- Efficiently cleans without adding water or other by-products to the system.

This is the most complete varnish removal and prevention system on the market. It removes oxidation by-products and prevents varnish formation during the cooldown.



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VX18B - VARNISH REMOVAL SYSTEM



# Filter Systems SUSTAINABLE SOLUTIONS



In recent years RMF Systems have developed a great deal of experience in cleaning and keeping clean hydraulic and lubrication systems in the:

- > steel industry;
- > plastic moulding industry;
- > maritime industry;
- > petro chemical industry;
- > paper industry.

#### By-pass Units:

The By-pass filter comes equipped with an integrated pressure compensated flow control valve. This valve bleeds oil from the main hydraulic system, passes this through the filter after which it is returned to the hydraulic reservoir. The amount of oil extracted from

### PROTECTION OF EXPENSIVE **MAIN STREAM FILTERS**

RMF systems filters are applied in By-Pass or Off-Line configurations and constantly clean the oil from reservoir. The oil which reaches the main stream filter is therefore cleaner and allows longer usage life of this expensive filter. The main stream filter then acts primarily as an emergency filter.

## **Benefits of Filter Systems:**

- Reduced cost of ownership.
- Extremely clean oil due to high filtration efficiency.
- Prevention of channel forming by radial filtration direction.
- Large dirt holding capacity.
- Large water holding capacity.
- Compact and easymaintenance design.
- Longer usage life for oil and components.

the main system at any time is insignificant ensuring that it will not affect the working of the main system. Most commonly used biodegradable oils in the mobile sector are suitable for filtration with RMF filter elements.



# Condition Monitoring PREVENTION IS BETTER THEN CURE

Condition monitoring is an essential part of a healthy hydraulic or lubrication system. When the goal of clean oil has been achieved, maintaining oil cleanliness is essential. For your installation, your production and your profit.

- The CMS in-line contamination monitor automatically measures and displays particulate contamination, moisture and temperature levels in various hydraulic fluids. It is designed specifically to be mounted directly to systems, where ongoing measurement or analysis is required, and where space and cost are limited.
- The Oil Quality Sensor (OQS) from RMF Systems puts you in control with real-time monitoring of oil degradation and water ingress. Expensive oil changes are now based on oil condition, not on historical schedule.





3 Condition Monitoring Center (CMC) combines technology to enable sampling on low pressure hydraulic and lubrication systems where aeration can be an issue. The CMC suppresses the air bubbles so they are no longer counted as particles. It also allows for continuous particle monitoring on systems where no oil pressure is evident.

4 Fluid analysis is a crucial component of any oil management program. Early detection of potential problems can prevent costly repairs and downtime. The Portable Laser Particle Counter makes it possible to detect the ISO Cleanliness levels of the hydraulic media. The Portable Laser Particle Counter is available in different versions.



# Air conditioners

Hydraulic and lubricating oils must be kept free from contamination and water. most fluid reservoirs must be able to breathe, thus allowing water vapour and solid contaminants to enter. Temperatur fluctations in the resevoir will cause this water vapour to condense which will not only cause oxidation of the oil, but can also lead to considerable mechanical damage.



Standard air breathers remove some of the solid particles but allow water vapour in the air to pass freely. The RMF 'Air conditioner' deals effectively with both so reservoirs can breath clean, dry air.

### **Benefits of Air conditioners:**

- Reducing water contamination level prolongs the life of the additive package and reduces oxidation of the oil and bearing surfaces.
- Eliminates rusting due to condensation.
- Reduces machine downtime.
- Extends the machine's useful life.
- Reduces cost of ownership.



**TITAN DESICCANT BREATHERS** 



ANTI-SPLASH DEVICE

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