

FILTER
TECHNOLOGY
cleaner fluids mean better business



Products and Technology



**Specialising in full flow and off-line filtration systems
suitable for hydraulics, final drives, gear boxes, engines
and fuel delivery systems**

More Profit for your Bottom Line

Fuel Applications

Local Governments are conscious of the relationship of fuel quality and vehicle performance. Lake Macquarie Council installed two FM40443 fuel pump systems.

Fuel particulate contamination was reduced from 16/13 to 15/12, a 60% reduction. They have extended the life of their OEM filters from 3 to 12 months across their fleet and eliminated in-field breakdowns due to fuel related issues. They have also seen fuel economy increase by 2% across the fleet. The increased life of OEM fuel filters has seen a reduction of these entering landfill, all good news for the environment. Service life of the FM3104 elements is 4 months.



Lower Maintenance Costs

Hydraulic Applications

Injection moulding companies have found that dirty oil affects their machines' performance, availability and component life. They also have trouble restarting their machines once they had been stopped due to sticking servo valves. The ISO before installation was 19/15. A FM40345 bypass system, which filters 20% of the lube tank volume every hour, was installed. The ISO was reduced to 14/11, a 93% reduction. This has greatly increased the machines' availability. FTA elements are changed three times per year.



Reduce Waste Streams

Quarry/Construction Applications

Arguably one of the harshest environments for plant and machinery operation. Extreme pressures are placed on crusher lubrication systems. Hanson Wolfdene Qld operate seven crushers, all fitted with FM40345 systems. Oil drains have been extended from 500 to 12,000 hours. FTA elements are changed on a three monthly basis. Oil analyses taken from site all indicate wear metals and silicon are at acceptable levels.



Reduce Emissions

Transport Applications

Frasers Coaches Dubbo were concerned with extending engine component and fuel injector life in their coaches. Fitting one FM3003 oil filter extended oil drains and OEM oil filter changes from 20,000km to 80,000km, with FTA oil elements being changed at 20,000km intervals.

Installing a FM40443 fuel system to the depots' fuel pump extended the OEM fuel filter life from 20,000km to 100,000km. FTA's fuel FM3104 elements are changed at six monthly intervals.

Increase Machine Availability

Mining Applications

Thiess at Mt Owen implemented a proactive approach to contamination control, including improved breathers on their bulk oil tanks and monitoring cleanliness of the oil being delivered to both the machine and the bulk storage facility on site. Thiess fitted all six of their diggers' hydraulic systems with FTA bypass systems. As a result of the contamination control, all of the diggers hydraulics systems are running at ISO 16/13 or better, pump life has improved from 12,000 to 18,000 hours and cylinder ram life has gone from 5000 to 8000 hours, which relates to lower operating costs and improved availability of the machines.



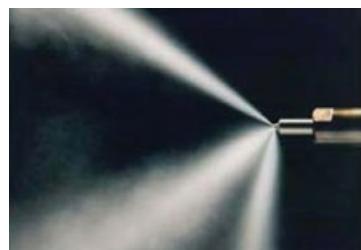
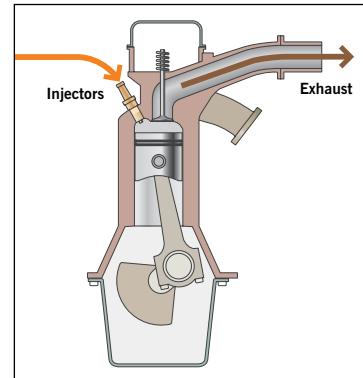
Filter Technology's range of unique fuel and oil filters are used in a wide variety of Industries such as mining, transport, agriculture, marine, construction and print media.

Diesel Engines

Diesel engines work in some of worlds' harshest environments, where oil and fuel cleanliness are critical to a machines' availability and longevity of engine components. The control of particulate contamination (soot) in engines is critical, because increased soot levels lead to higher oil temperature and viscosity.

For every ten degrees Celsius rise in the oil temperature above the recommended operating oil temperature, the oil life is halved. Normal filtration removes particle down to 10 microns.

Research has proven that to reduce engine wear to virtually zero, particles above 3 microns need to be removed. Filter Technology's bypass oil filters will remove most particles down to 2 microns. Removal of these Particles and Soot has seen oil life doubled, and engine life increased.



Fuel Injection Systems

Diesel injector systems of today have changed considerably in the past ten years. The new age of electronically controlled injectors deliver precise measured fuel at exactly the right time. In a life cycle of 10,000 hours, an injector will perform over half a billion cycles. Unless clean fuel is delivered to the injector, it will suffer accelerated wear.

Installing Filter Technology Australia fuel filters to your vehicle will remove most particulate contamination, maintain serviceability and reduce costly repairs to your injectors.

Emission Results - Diesel

Emission tests carried out at Parsons Australia Diesel testing facility in Sydney, Australia on an International Iveco Prime Mover powered by a Caterpillar C12 Euro 3 standard engine fitted with an FM3103 on fuel and an FM3003 on oil, returned a reduction of NOx (Nitric Oxide) by 15%, greenhouse gas CO₂ (Carbon Dioxide) by 4.9%, diesel particulates (PM) by 25.7% and CO (Carbon Monoxide) by 1.2%. Fuel economy increased by 4.9%.

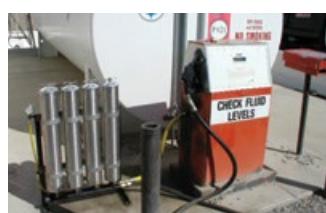
Emission Result - Petrol

Tests conducted at Toyota Australia's testing facility at Altona, Melbourne on a petrol V6 Camry sedan fitted with an FM1000 filter on oil and fuel saw a reduction in CO (Carbon Monoxide) of 14.5% and NOx (Nitric Oxide) by 50.3%.

Automotive

The FM1000 range of automotive filters is suitable for all passenger cars and petrol 4WDs on oil and fuel. Research has proven clean oil and fuel can extend oil drain intervals, extend component life, improve fuel economy and lower emissions.

As diesel fuel quality affects the way in which our diesel light commercials and 4WDs perform, fitting our FM1000 fuel filters will give you the protection your injection system needs, improving performance, economy and emissions.





Industrial Filters

Industrial oil, fuel and solvent applications use FM4 Series filtration systems either singularly or in multiples.

Fuel Applications

A standard FM40443 system consists of 4 x FM3104 units mounted on a stand and is used in fuel pump applications up to 100LPM, the aim being to deliver clean fuel to your equipment by lowering the amount of harmful contaminants.

Dust is the most common contaminant and it is composed of 95% silicon or quartz, which is extremely abrasive. This usually enters the fuel storage tank through inadequate or faulty breathers. These microscopic particles contribute to accelerated wear in the fuel injection system where injector needle and seat tolerances are between 2-5 microns.

Particulate contamination is reduced by 80% after passing through an FM40443. We have also found that when algae is present in your fuel storage, the FM40443 has the ability to trap the algae and prevent it from being transferred to the vehicles fuel tank.

Flow Rates

An FM40443 system maintains a flow rate of up to 100 litres or 28.5 US gal per minute. Systems can be designed to suit higher flow rates, for example an FM41643 will flow at 500 litres or 142.5 US gal per minute.

Hydraulic Applications

Oil filtration systems, like fuel systems, commonly use multiple filters connected in parallel, and are designed to suit your needs. The aim is to filter 20% of the reservoirs' capacity every hour by installing a kidney loop system, which will not affect your machines' performance or operation and ensures trouble free running. This enables the machines to be serviced while running which in itself is a huge benefit to most operations



Recycling Units

Filter Technology's range of filter buggies have been designed to filter hydraulics, final drives, gearboxes and cooking oil, along with a range of solvents and diesel.

Independent tests show that reducing particulate contamination from an ISO code of 19/16 to 14/11 will increase the component life of your machine by 3 times, giving you more production and less down time. Ask for our life extension chart!

Breathers

Filter Technology's range of breathers contain replaceable elements within a permanent housing and are able to capture particles above 2 microns. Efficient breathers are vital to your machines reliability. An understanding of a breathers' ability to capture airborne contaminants is an important part of everyday maintenance practices, one which is often overlooked.

Cooking Oil

Filter Technology produces a range of both recycling units and off-line filtration systems capable of reducing particulate contamination by up to 96% in cooking oils. Achieving this level of cleanliness allows oil life to be extended up to four times giving considerably savings in oil usage and providing substantial cost savings. Another benefit is vastly improved food quality.



Filter Technology filtration systems deliver low cost, compact and easy to maintain systems suitable for use in hydraulics, fuels, final drives, gearbox and engine oils. Filter Technology can tailor a system to suit your needs from the smallest to the largest plant and equipment. In this world of high component costs and expensive downtime, maintaining cleanliness of fuels and oils is the key to improved machine efficiency and lowering maintenance costs.

“Wear Generates Wear”

Filter Technology filtration systems can:

- Increase fuel economy up to 5%
- Hydraulic oil life up to 800%
- Hydraulic Components 150%
- Engine Oil life up to 200%

These huge reduction in waste streams can only be good for the environment with less waste oil and used elements entering the system.

Mobile Filtration Units

Filter Technology specialises in custom designed filtration systems suitable for all types of plant and equipment from fixed to mobile units. Design flexibility stands Filter Technology out from its competitors and is the key to its success in many areas of industry today. Hire units are available to suit your short term needs.





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