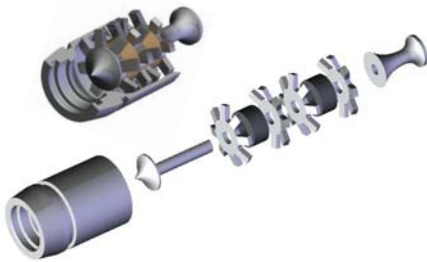


FLUID CONDITIONING SYSTEMS



removing the barriers to fluid cleanliness



Formula 1 solution

FCS has just completed a new Magnum™ design for a front-running Formula 1 team.

The team in question, who have taken exclusivity for the Magnum™ in Formula 1 has worked extensively with FCS' UK Technical Centre to optimize the solution as the only fine filtration in their 2004 transmission.

The 18mm diameter individual cores have quickly been specified by other automotive manufacturers, including a World Rally team, as a simple zero risk insert into fluid lines.

The Magnum™ has improved reliability in these environments dramatically.

High Temperature Transparent Magnoms™ ...

Customer demand has driven FCS to produce a range of high temperature transparent Magnum™ units.

The units, suitable for use up to 80°C, permit condition monitoring of the core through the housing.

The units were originally designed for the heating and cooling systems of injection moulding machines but have recently been successfully applied to wider applications, including domestic central heating, machine tool cutting fluids and industrial washing machines.

The units come with either 5" or 10" bowls and are designed to flow the same as 3/4" pipes without restriction.

FCS signing up world class distributors

FCS is presently signing up distributors globally to ensure an optimum level of service local to customers. FCS will support these distributors by offering full point of sales materials, their own members log-in area on the new FCS website and a series of training seminars.

See us at:

Lubrication Excellence, USA, March 23-25

Mach 2004, UK, April 19-23

Industrie 2004, France, March 22-26

TOTAL Process & Packaging, UK, March 29 - April 1

Technishow, Holland, March 16-20

For information on which stands the Magnum™ will be featured please contact FCS at enquiries@fluidcs.com

Next page:

Magnum™ further successes in power stations

FCS develops suction solution for OEMs...

Magnum™ World Record Success!



Magnum™ in Formula 1 on the road and the high seas!



When the owner of a 1500 bhp, 45ft off shore power boat wanted to ensure that his expensive engine (3 500 bhp Big block Chevrolet) failures where minimised, to deliver this he immediately specified Magnoms.

Previous engine failures had been attributed to high carbon steel contaminant being introduced to the Big End and Main bearing assemblies by the oil flow.

The changing of the oil more often was not desirable as it is particularly challenging in the marine environment. Also finer conventional filters, if available, would only have served to starve oil flow and cause greater problems.

"When you are extracting this kind of horsepower from any power unit, you need the best protection you can get for it, extending oil life and power plant life is absolutely essential".

Magnom™ further successes in power stations



Note that the Magnom's flow channels remain fully clear even when it is fully laden with over 4kg of contaminant

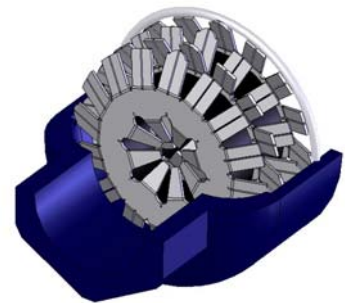
The Magnom™ technology has for some time found successful applications in a variety of power stations as a protection device for large scale transmissions when installed into lubrication circuits. Ironbridge, the 970 MW coal fired power station first commissioned in 1970, recognising the extremely diverse potential of the Magnom™ technology, has trialled and subsequently purchased a Process Unit to clean up the general service water (GSW) supply used for cooling the combustion feed/exhaust fan motors. The extent of debris removal, both ferrous and non ferrous, has been remarkable, leading to significantly reduced maintenance intervals/downtime as well as providing ongoing protection of assets. Power station applications addressed to date include:

- Coal pulverising mill – transmission protection,**
- Combustion feed/exhaust fan motor cooling water,**
- Waste slurry pump protection,**
- Compressor protection, etc.**

FCS develops suction solution for OEMs...

FCS has been approached by a leading global mobile equipment OEM to design a Magnom™ solution for the suction side of the pump in the transmission. The manufacturer has realised the following benefits during the testing program:

- Fine filtration (sub 1 micron) on the suction side
- Virtually no pressure drop
- No risk of cavitation even when fully loaded with contaminant
- Contaminant can be harvested for analysis and condition monitoring
- Serviceable or “fit for life” depending on customer’s drivers



All FCS' product developments are CAD modelled for the customer as per the image above showing the suction unit. The level of debris astounded the manufacturer in question (see contaminated core image to the right) and FCS is now in dialogue about specifying the Magnom™ Mobile Hydraulic Pump-Mate into all new platforms of the manufacturer.



Magnom™ world record success!



John Renwick achieved the standing 1/4 mile in his Magnom™ equipped sprinting Vincent in 10.06 seconds with a terminal speed of 130.02 mph, the official world record having been 10.6 seconds set by a supercharged Kawasaki running on nitro methane.

Amazingly, John Renwick's bike is normally aspirated and has run for three seasons without stripdown or mechanical failure.

This success is in part attributed to the Magnom™ technology, which is installed in an oil line between the gearbox and engine and performs a critical job in protecting from ingress of contaminant from the highly stressed gearbox.

FLUID CONDITIONING SYSTEMS

Magnom™ keeps cement plants going...



The Magnom™ technology has played a vital role in system protection and offers significant benefits in extending both asset life but also fluid life with associated cost savings to the plant – both in terms of plant failure but, much more significantly, the heavy premium of plant downtime and lost production.

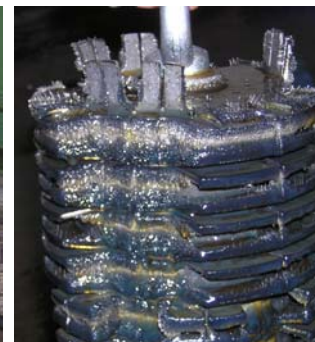
Following on from an initial and dramatic success story with Rugby Cement on a kiln drive, Magnom™ has been utilised in an extremely diverse range of transmission applications within the cement manufacturing industry, typically these include:

- Cement Kiln Drive**
- Cement Mill Drive**
- Coal Pulverising Mill**

and aluminium plants rolling...

Bridgnorth Aluminium have recently, following visual survey by the OEM and oil analysis, identified significant wear on a number of transmissions driving their Hot Rolling Mills. To alleviate this progressive and potentially catastrophic wear, a **Magnom™ Process Unit was specified for installation on a Tandem Mill Lubrication Circuit** (1000 litre capacity, Glycolube) in an offline (dialysis) configuration.

The extent of debris removal witnessed (both ferrous and non ferrous) was truly remarkable, clearly leading to an **extension of transmission life and up time with major associated cost savings at short payback periods.** Magnom™ will now be considered for other applications across site.



FCS signs up new supplier...



FCS has signed up another supplier to help meet increasing demand for the Magnom™ technologies.

Scott Engineers (Wirral) Ltd are based close to FCS' Merseyside Technical Centre.

The accredited supplier is equipped to further increase Magnom™ production...

Contact Details

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 The Innovation Centre
 The University of Warwick Science Park
 Gallows Hill
 Warwick
 CV34 6UW
 United Kingdom
 Telephone +44 (0) 1926 623 170
 Facsimile +44 (0) 1926 623 171



removing the barriers to fluid cleanliness





Please fax to +44 (0) 1926 623 171

Enquiry Form

I am interested in the following: (please check relevant boxes)

The Magnom™ technology in a:

Transmission application

Machining application

Hydraulics application

Water application

Flushing application

Engine application

Distributorship

End customer

Please find my contact details below:

Name

Company

Telephone

Email

Best time to contact.....