

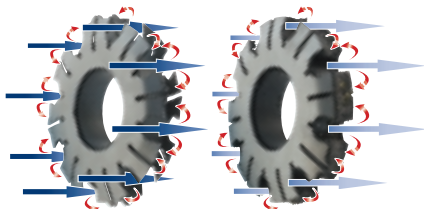
REMOVING THE BARRIERS TO FLUID CLEANLINESS

The Magnum™, as used in Formula 1, is a revolutionary product in advanced fluid conditioning. Using field effect technology, the Magnum™ reduces operating costs and simultaneously benefits the environment.

Through its unique patented design, the Magnum™ removes contaminant particles (including machining debris and rust) of less than one micron.

Unlike conventional fluid conditioning components, the Magnum™ produces minimal pressure drop in the fluid. It has no moving parts and is 100% scaleable. It also functions in a diverse range of fluid pressures, temperatures and flow rates.

The Magnum™ is easily installed in a wide variety of applications - either as part of new systems or as a replacement to enhance existing processes.



Magnum™ - The Process

The Magnum™ has wide flow channels that allow the process fluid to pass with minimal pressure drop. As the fluid flows through the Magnum's™ field effect areas, ferrous contaminants are drawn into special collection zones. These zones hold significantly more contaminant than a conventional filter - without obstructing fluid flow or risking "wash-off". Therefore, the Magnum™ can operate for very long periods without service and - when contaminants need to be removed - is easily cleaned and re-used.

"The Magnum™ filtration system has reduced downtime and made significant impact on tool hot spots"

*Dave Kenny
(Maier UK Ltd)*

"It's brilliant. Within a week of fitting the unit on the cooling circuit I could see the sight glass on the machine clearing. I know it's working because I can see the results"

*Ron Thorne
(Director, Lodent Precision Ltd)*

For case studies relevant to your own application please contact:



For further details or to order
Telephone: +44 (0) 1926 623 170
or visit: www.magnum.com

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PLASTIC PROCESSING APPLICATIONS





MOULDERS -

you can reduce the costs of ownership of your total system further!!!



Contaminant in your cooling system increases the cost of:

Tool maintenance

Pump, heater and chiller maintenance



And causes:

Hot spots

Downtime

Increased cycle times



Magnum™ reduces costs, increases the life and maintains the efficiency of cooling systems by:

Removing the most damaging contaminant including rust and machining debris

(from less than a micron to over 1cm)

With minimal restriction to flow

Without contaminant wash off



With no consumable cost

Magnum™ Cost Savings and Quality Improvements to Injection Moulders

Mould tools represent huge investments to most operators within plastic moulding environments. These tools have fine waterways for cooling which are easily blocked by both rust and machining debris. This leads to a reduction in cooling efficiency and the potential for significant rework costs and downtime and ultimately a dramatic reduction in productivity.

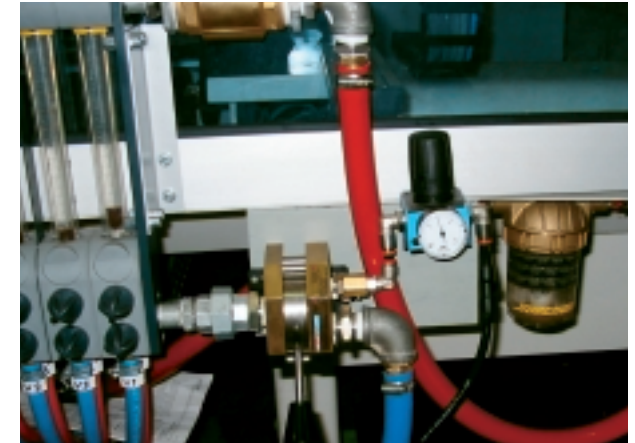
Further costs can also be attributed to contamination within cooling systems; pumps, heaters and chillers are all vulnerable to wear caused by fine ferrous debris. The downtime element alone from the failure of one of these critical components justifies the adoption of Magnum™ technology. Plastic pipework is often seen as a solution but this does not effect the debris created within the most vulnerable area of the system - the mould tool.

Contaminant can be seen in most systems as a discolouring of the water in the sight glasses (often accompanied by leaking bungs). Although it seems relatively fine this contamination causes significant damage and increases the cost of ownership.

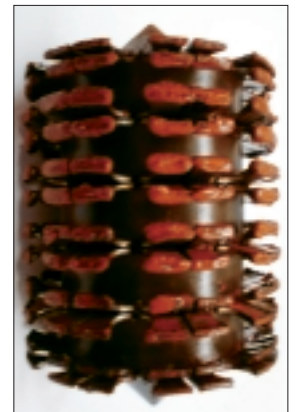
FCS has designed a range of Magnum™ units specifically to meet the needs of 21st Century plastic moulders.

Rust is abrasive, if it is left to pass around the system it causes wear and exposes more nascent metal which in turn can rust, the Magnum™ is essential to stop this chain reaction of rust and wear.

"We don't have a problem with our cooling system" - was the remark made by this customer before the unit below was installed.



As you can see from the image to the right the Magnum™ quickly filled with contaminant. Having now ordered another twenty units the system runs clean for the first time and the customer has experienced huge savings!



The Magnum™ is the preferred insurance policy against unexpected costs for moulders...

"The Magnum™ increased tool efficiency AND reduced maintenance costs"

"Magnum™ efficiency = increased productivity"



5" HT Unit



Clear Process Unit



5" HT Unit Assembly



5" HT Unit Core Assembly

