



News Release

Filtramag Ensures a Premier Finish

Experts in fluid filtration Eclipse Magnetix recently worked with Pro Cut Tooling to provide a market leading surface finish. Hull based Pro Cut Tooling are one of the UK's leading manufacturers and re-conditioners of precision Carbide cutting tools for woodworking, plastics and engineering industries.

Eclipse specified their Filtramag magnetic filtration system to help Pro Cut achieve high quality "mirror" finish and also provide some significant operational efficiencies.

As part of Pro Cut's continuous improvement policy, Eclipse engineers reviewed the filtration on their Walter Helitronic Power and ANCA RGX and WGX grinding machines. Ineffective filtration systems meant that high volumes of ferrous particles were being circulated in the oil. The build-up of contamination caused regular maintenance and adversely affected the product finish.

A common problem in machine tools is that standard "factory fit" filtration systems are rarely adequate to ensure a "Super-finish" on the machined part. Traditional barrier filters are limited by particle size, as a result they allow quantities of ferrous contamination to remain in the fluid circulation. These particles accumulate around the grinding wheel, causing surface damage to the part and reducing accuracy.

Filtramag FM2.5 units were fitted to enhance existing filtration. Filtramag features high intensity magnetic rods and is designed to ensure that fluids have maximum exposure to the rods on their flow-path. It is able to extract ferrous particles right down to sub-micron size thus ensuring the grinding contact area is kept free from contamination for longer. In this case each Filtramag unit extracts 2Kg of Carbide particles every week and in doing so ensures a "mirror" finish can be achieved. The high intensity rods ensure maximum removal even though carbide only has 20% magnetic permeability compared to mild steel.

Filtramag has also been instrumental in creating several operational and cost saving benefits at the Pro Cut site.

Machine downtime has been reduced, prior to Filtramag each machine had to be cleaned on a weekly basis to remove particle build up from the grinding wheels and polishing heads. This process caused 2 hours of downtime. Fitting Filtramag means the cleaning process now takes place on a monthly basis during routine maintenance. In addition the main holding tank had to be cleaned every 6 months resulting in a full day of downtime. Results to date suggest that Filtramag will reduce this frequency to every 18 months

Results to date show that Filtramag will extend fluid life and reduce fluid costs. Prior to Filtramag 220 litres of fluid were replaced every 2 years at a cost of £1400 per machine. It is estimated that the same fluids will now last for 5 years as Filtramag ensures that fluids are kept cleaner and fluid quality is maintained for longer.

In addition the Walter Helitronic machine is fitted with a De-Misting extractor system. The filters needed to be changed every week at a cost of £30 due to mist being contaminated by ferrous particles. Filtramag has ensured that the filter life has increased tenfold

Steve Weymes , Production Director at Pro Cut stated "We are delighted with our investment in Filtramag it has provided several production efficiencies. We pride ourselves on premium quality and the Filtramags have been vital satisfying the high specification quality standards of the specialist sectors we serve."

Filtramag is available in 2 models for maximum flow rates of up to 500 litres per minute.

For more information visit www.eclipsemagnetics.com or contact info@eclipsemagnetics.com

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For more details please contact nfowler@eclipsemagnetics.com or phone 0787 0515 405

