

## Filtermist chosen for Hardinge Bridgeport's powerful FGC2



### PROJECT SUMMARY

#### Application

5 axis grinding centre used in the aerospace industry uses large amounts of coolant and generates significant oil mist

#### Solution

Machine tool was purpose designed to allow integration of FiltermistXcel2 oil mist extraction unit. 33 systems supplied to overseas client with no problems.

## FILTERMIST CASE STUDY

### HARDINGE BRIDGEPORT

Machine Tool OEM

United Kingdom

The powerful machining combination of Hardinge Bridgeport's new FGC2 (5 axis Flexible Grinding Centre) and Rolls Royce's patented VIPER process, has been further enhanced with the inclusion of the internationally renowned FiltermistXcel2 oil mist removal system.

Bridgeport has used oil mist removal products from Shropshire-based Filtermist for nearly 2 decades with consistent success, so when the question of oil mist removal in the FGC2 arose, Filtermist were the natural choice.

The FGC2 is a fast and powerful flexible grinding centre that can remove metal extremely quickly. With a large amount of coolant being pumped at the work piece (at up to 90 bar) the oil mist extraction unit needed to be equally as powerful and efficient. Filtermist recommended its top of the range FiltermistXcel2 FX7000 units, which extract contaminated air at a rate of 2750 m<sup>3</sup>/hour. The filter separates the oil from the mist using centrifugal impaction vanes; returning the oil safely back to the coolant reservoir and pumping clean air back into the workshop.

Ben Jermy – FGC2 Project Engineer at Bridgeport explains “We have total faith in Filtermist's products, with many years of good reliable service and proven technology behind us, we purposely designed the extraction unit into the machine. It is located at the rear and has ducting to the machining area at the front. We simply telephone Filtermist during the build process and their engineers come in and install a unit for us.”

Ben continues: “We have a significant overseas client in the Aerospace industry who has ordered 33 FGC2's all with Filtermist units fitted as standard and we have had no problems whatsoever.”

Bridgeport – world famous for its Turret Milling Machine and engineering excellence, became part of the Hardinge group in 2004. Renamed 'Hardinge Bridgeport', the division employs around 100 staff in the UK between its Leicester and Exeter plants and provides a range of horizontal, vertical and high speed machining centres; lathes, turning and grinding machines; and work holding equipment.

The FGC2 multi-axis grinding machine is the company's latest flagship model. It uses multiple aluminium oxide grinding wheels as CNC tools to machine pre-hardened tool steels and high-temperature super alloys. It provides many advantages over traditional creep-feed grinding and can do the work of several machines in one.