



Part of Technoset's ongoing business development



Using the Wogaard Coolant and Oil Saver proves no stone is left unturned

Challenge

Constant pressure from customers to reduce costs and improve efficiencies

Coolant and neat oil dragged into swarf bin was wasted

Busy machine shop producing parts to tight tolerances

Industry and peer pressure to consider environmental issues

Solutions

Wogaard Coolant Saver

Wogaard Oil Saver

Results

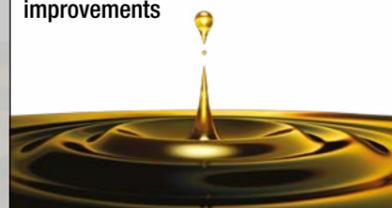
Coolant recovered from swarf bins back to machine tool sumps with no risk of cross contamination

Reduced need to stop machines to top up coolant sump

No risk of machine alarm due to low sump fluid

Dry swarf for responsible recycling and improved housekeeping

Meets plan for environmental improvements



Background

Technoset has an enviable reputation for supplying complex components to the aerospace industry built up over several years. More recently the company has steadily increased its manufacturing capabilities and staff skills to move further up the industry's tiered supply chain. At this level every little detail counts, which is why the Wogaard Coolant Saver plays a part in the ongoing business development.

Part of the Techno Group, Rugby-based Technoset is a precision engineering company specialising in one-hit manufacturing of ultra-high precision turned and milled components. Having continually invested in the latest fixed and sliding head CNC machine tools with up to 13 axes, driven tooling and full turning and milling capabilities, the company is able to offer a high degree of flexibility to its customers.

Challenge

Continued success for the company means investigating and evaluating every potential business advantage. As Managing Director, Kevan Kane, points out: "Even at the high-end of sophisticated parts that we produce for our customers there is still a need to look for efficiencies and enhancements. We are under constant pressure to improve the operation of the business. These pressures could be financial or environmental, or a combination of these key drivers. It could even be peer-pressure from other members of the Midlands Aerospace Alliance or Coventry and Warwickshire Aerospace Forum to do better."

Solution

One of the most recent improvements on the shopfloor has come from the installation of the Wogaard Coolant Saver. The simplistic design and execution of both the Wogaard Coolant and Oil Saver belies the potential benefits it can provide to manufacturing companies. Using very few component elements it efficiently



collects the cutting fluid which is normally dragged out of the machine tool by the swarf that is evacuated by the automatic chip conveyor or swarf auger and wasted. The neat oil or water miscible (soluble oil) cutting fluid is reclaimed by siphoning it from the chip-container and returning it to the machine tools main coolant tank for reuse.

Using a vacuum generated within its body to draw the fluid out of any container the Wogaard unit is powered by the machine's coolant pump, so no additional power source is required, and fitting remains a straightforward operation requiring just a few pipe joints that can be specified in an optional fitting kit available for most popular machine tools.

"You must consider with coolant you are not only buying coolant, but you need to pay to dispose of it. So, waste is a great consideration," explains Kevan Kane. "We initially tested the Coolant Saver on one machine, and the benefits were both clear and immediate. It was then a case of fitting a unit to all of our milling machines and all of the fixed-head turning centres. We also fitted the new Oil Saver to our sliding head machines, where the savings on neat oil and disposal of waste have an impact on the business bottom line that is even more dramatic."

Results

The downtime for any machine tool waiting for the coolant levels to be replenished has been reduced to a minimum, and the operators appreciate not having to fill the sump so often. "We run a core day with overtime," Kevan Kane says. "The nature of the material we machine plus the tight tolerances required do not lend themselves to running 'lights out'. However, we often leave the batch running on the machine at the end of the day, which we can now do confidently knowing that the sumps will not alarm out because the coolant level is low."



Each of the Coolant and Oil Savers has been installed in-house by Technoset staff. While the initial investment required to purchase and fit the units is very reasonable the benefits are very long lasting. As Kevan Kane states: "In a year or so we will have the accurate figures on the savings achieved, but right now it is just making life much more simple for all of us."



Today, except for one, each of the machine tools on our shopfloor has a Wogaard unit fitted and the housekeeping on the shopfloor is much improved. "We like to think that we are a forward-thinking company. As such, no stone should be unturned; you should look at the business from every facet.

"There is simply no way we would go back to a shopfloor without the Coolant and Oil Savers fitted to the machines. Walk around now and the swarf bins are dry with material that is ready to be responsibly recycled. And we know the coolant, be it oil or water-based, is getting reclaimed and recycled quickly and efficiently back into the same machine tool's sump so there is never any worry about cross contamination," Kevan Kane concludes.



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