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Wogaard and Seco Tools technical partnership based on trusted values

For Seco Tools the significant results from the installation of a Wogaard Coolant Saver on the company's Technical Centre 5-axis machining centre led to the units being installed across all of the production machine tools and the formation of an engineering partnership between the two businesses.

Initially installed, using the Wogaard fitting kit, on a DMG Mori DMU 85 Monoblock 5-axis machining centre that provides Seco Tools with the ability to demonstrate its range and the high performance capability of its cutting tool solutions, as well as support specific project work undertaken for customers in the aerospace, motorsport, medical, marine, power generation and general precision engineering sectors.

Production Manager, Richard Smith, explains: "With its large machining envelope we installed the DMG Mori DMU 85 to provide us with the capacity and functionality to run cutting tool trials that closely reflect the customers' machining operations. So we can clearly highlight the efficiency and productivity gains that our tooling can achieve. The machine has been very busy cutting every conceivable exotic super alloy and difficult to cut metallic material, and we noticed the swarf was dragging the coolant out into the bin."

Aesthetically this was important to Seco; any visitor walking in to the reception area at the impressive facilities can immediately see the production area and Technical Centre through a glass wall. "It is the heartbeat of what this company is all about," Richard Smith states.

He continues: "Like most production machine shops, prior to installing the Coolant Saver we had not focused on coolant other than to select a water miscible product that performs well. The two major issues we identified were environment and cost. There are two elements to the environmental consideration; first is the internal part where we achieve better housekeeping, with fewer chances of leaks and spills, and less material handling as the machine's coolant sump does not require topping up so often and the pH balance of the fluid is more easily managed."

Part two of the environmental issue is external as Richard Smith says: "The whole manufacturing industry in the UK has raised its game environmentally; it no longer has the old oily rag and boiler suit image that it used to. To meet the 'dry' swarf requirements of our recycling parts we had to leave our swarf bins to drain for a few hours before the Coolant Saver was installed. This has been negated as the coolant is syphoned directly back to the machine tool's sump via a vacuum created by the coolant pump. It does not even require an external power supply. "

Although the second major consideration is cost the company has not spent too much time analysing the savings. "The savings are so significant and the return on the investment is so fast there is no requirement to spend time drilling down into the fine details," Richard Smith says. "We are returning in excess of 5 litres of coolant to the sump from every swarf bin, and the time wasted draining the bins has been removed."

Developed and optimised specifically for use with CNC machining centres, lathes and mill-turn centres equipped with automatic chip conveyors, the Wogaard Coolant Saver consists of a stainless steel vacuum cup that is simply placed on the bottom surface of the swarf bin, and a venturi-unit that branches off the pipe supplying coolant or cutting fluid to the CNC machine tools spindle or coolant nozzles. The venturi-unit uses a constriction in a bore which is designed to cause a pressure drop when a liquid or gas flows through it, generating the vacuum required. Developed

specifically for this single purpose the inside geometry of the venturi and nozzle is optimised for cutting fluid which often contains small particles from machining operations. A polyurethane hose mounted to the bottom of the venturi-unit returns the collected liquid back to the CNC machine's main coolant reservoir.

With so few elements and no moving parts the Wogaard Coolant Saver is easy to install and is virtually maintenance free. The positive results achieved on the Technical Centre machine tool prompted the production staff at Seco to install the Coolant Saver on the rest of the Hermle multi axis machining centres used to manufacture customer specific bespoke cutting tool solutions.

The technical partnership provides a synergy between Seco Tools and Wogaard, allowing both companies to highlight the benefits of each other's products to visitors attending the Technical Centre. Richard Smith concludes: "Like every production manager in the UK I have to focus on the key issues in the machine shop. Having the Wogaard Coolant Saver in place deals with some of these issues and allows me to focus in the more depth on key performance parameters for the business.

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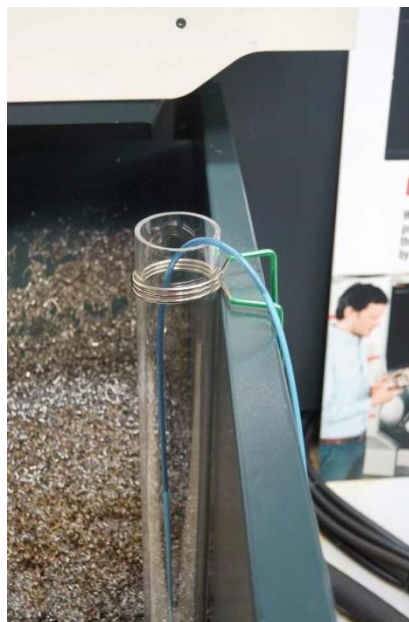
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