Vertical Machining Center Offers Affordable High-Performance Three-Axis Milling Capabilities

With its new MIKRON HEM 800 three-axis vertical machining center, GF AgieCharmilles brings an excellent price/performance ratio to the high-precision production of medium to large-sized parts for several different industries, from aerospace to electronics to mold and die.

As one of five machines in the company's latest High Efficiency Machining Series, the MIKRON HEM 800 cost effectively places GF AgieCharmilles' best technologies in a modern, reliable and ergonomic machine that brings irreproachable operation to a wide variety of milling applications.

The MIKRON HEM 800 has a 41.34" x 22.05" work table with a maximum payload of 1,760 lbs. Maximum X-Y travels measure 33.46" and 20.87", respectively, with a Z-axis that provides 23.62" of clearance between the table surface and spindle nose. Rapid traverse rate for the X, Y and Z axes is 1,181 ipm.

Furthermore, the MIKRON HEM 800's oversized table offers enough surface area to safely clamp machined workpieces. The table's T-slots, with 3.94" spacing between each one, permit flexible part fastening and quick alignment to the machine

movements.

The machine's highly dynamic 12.75-hp, 14,000-rpm, CAT 40 spindle generates 31 ft-lbs of torque and enables high-powered milling and drilling operations in the Z-axis. The generously sized spindle motor provides uninterrupted production both with high torque at low speeds and high power at high speeds. Overall, the spindle design permits best balance and vibration-free milling performance at full speed. During operations, a closed internal coolant circuit stabilizes and controls temperature drifts of the machine's spindle head.

The MIKRON HEM 800's side-mounted automatic tool changer has a capacity for 30 tools and allows for faster uninterrupted production. GF AgieCharmilles kept the tool changer separate from the working area to protect the tools from chip contamination. And because high-performance machining yields large amounts of chips, the company designed the MIKRON HEM 800 with sharply inclined sidewalls combined with flushing systems that direct chips straight to the evacuation channels. Chip conveyors then efficiently transport the chips out of the work area. Two adjustable high-flow coolant nozzles and air blow-off nozzles ensure good lubrication of the cutting edge, prevent premature tool wear and enhance machining accuracy, as well as facilitate efficient chip evacuation.

The new Heidenhain TNC 620 digital control system on the MIKRON HEM 800 provides quick and reliable machining with high contour fidelity and is recognized for offering best performances and programming comfort. The user-friendly interface supports safer and faster programming and faster data transfer from programming stations. The control also features application-oriented setup functions that help reduce nonproductive time.

GF AgieCharmilles
800-CTC-1EDM; www.gfac.com [1]

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