

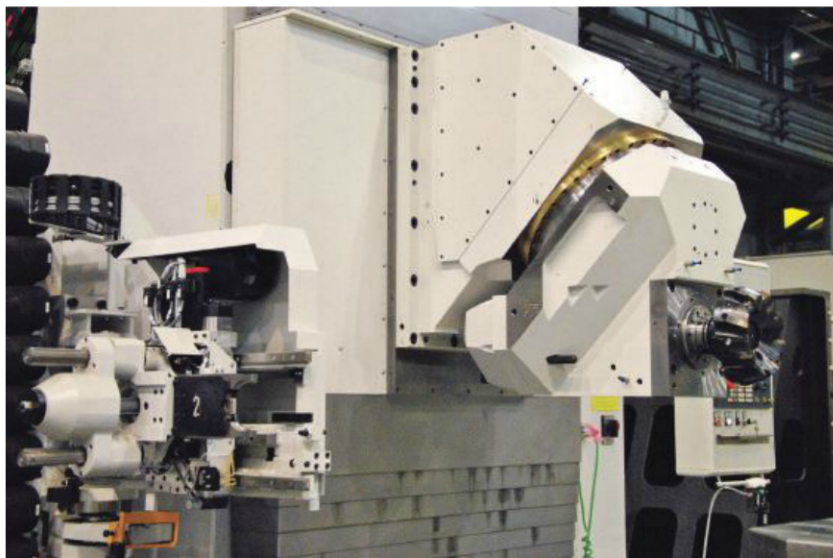
New equipment

Continuous-swivel head offers five-axis machining

Aerospace OEMs and their suppliers are among the target audience for the new Heckert H/V (horizontal/vertical) continuous swivel head for five-axis machining in a single set-up. Just announced by Birmingham-based Starrag UK Ltd (www.starrag.com), the new head extends Heckert's already wide range of spindles for its HEC machine range (1000 to 1800 Athletic), as well as its BHC horizontal machining centres (3500 to 5500).

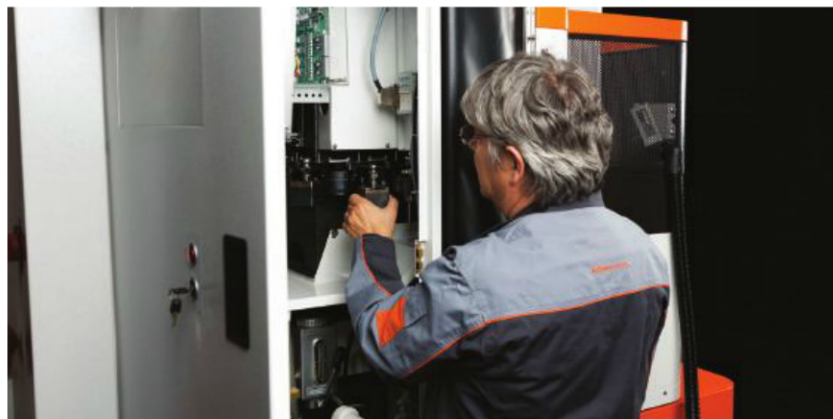
In addition to undertaking milling, drilling and tapping as standard, the new head allows the machining centres to perform turning operations when used in conjunction with a rotating NC rotary table, spindle clamping and an HSK-T 100 tool-holder. As standard, tools up to 800mm long can be used; as an option, tools weighing up to 50kg can be accommodated. A torque of 1,660Nm is available for simultaneous five-axis machining, and hydraulic clamping is provided to ensure stability and security when milling and drilling at any fixed angle.

The H/V head, which can be positioned anywhere within the ± 180 deg swivel angle (0deg is horizontal, 180deg is vertical), has a 66kW (optionally 84kW) 1,860Nm servo motor that drives through a two-speed gearbox. The maximum spindle speed is 6,000rev/min (optionally 8,000rev/min).



Swivel movement is provided by direct drive, and it takes only 0.9sec to traverse 180deg. An absolute direct angle-measuring system offers a resolution of 0.001deg to ensure a high degree of precision.

HSK-A 100 or SK 50 tool-holder types A and B, BT 50 and CAT 50 are available; coolant can be supplied via nozzles at 60 litres per min or via the spindle and tool centre at a maximum pressure of 70 bar.



Solid-sink EDM machines feature tool changers for 'lights out' working

The new Form 20 and Form 30 solid-sink EDM machines from Coventry-based GF Machining Solutions (www.gfms.com) feature integrated, modular, rotary tool changers (RTCs) — with eight to 26 positions — that increase flexibility and allow 'lights out' operation.

Managing director Martin Spencer says: "Machining precision components and mould tools that require multi-electrodes presents productivity challenges and can lead to stop/start production. To physically replace electrodes requires manual intervention. This is a cost; it also interrupts machining operations."

The Form 20 and 30 machines with their in-built automation address these problems, as pre-set electrodes are loaded into the machines'

electrode magazines ready for machining. The Form 20's magazine has a capacity for eight electrodes with diameters up to 150mm, or 16 electrodes with diameters up to 70mm. The larger Form 30 can accommodate 13 electrodes up to 150mm in diameter, or 26 electrodes up to 70mm in diameter.

In addition to their RTCs, the machines incorporate iQ technology that is designed to reduce electrode wear at faster machining speeds. This builds a protective layer on the electrodes, maintaining their edges and detail capabilities throughout the entire 'burn'. This is especially advantageous for electrodes that produce the same cavity shape a number of times, as it helps manufacturers to reduce the time spent making replacement electrodes.

New bar-feeder for sliding-head lathe applications

The Swiss LNS Group — well known for its Tryton, Express and Sprint bar-feeders — has introduced a model designed for use with sliding-head machines, as used by high-precision industries such as medical, connectors and electronics.

The Express 112 — available in the UK from the manufacturer's subsidiary LNS Turbo UK Ltd (www.lns-europe.com) — accommodates bar from 0.8 to 12mm in diameter.

Yann Jakob, sales director (Western Europe), says: "The Express 112 is very compact — barely longer than the maximum bar length.

"Moreover, two patented systems guarantee excellent performance at high rotational speeds. The side-loading magazine has a maximum capacity of 30 bars."

