

New equipment

Large floor-type HMC

Asquith Butler Ltd, Brighouse (Tel: 01484 726620), is launching a new large-capacity floor-type horizontal machining centre based on its successful Power Centre. The new machine, known as the Power Centre-S, has been designed to meet the demand for rigid high performance in a model of mid-range capacity.

This is the first new horizontal machining centre to be developed by the re-formed company ('revitalised' by managing director Paul Hinchcliffe in combination with the Kingsbury Jig and Tool Group nearly five years ago), and it follows customer feedback which showed that there was strong demand for a sturdy machine larger than Asquith Butler's standard Power Centre, but with less complexity than the substantial Power Centre 500. The design team in West Yorkshire used the best



of both designs to create a new competitively priced modular machine with the right capacity and rigidity.

Ideal for manufacturing medium-size components, the Power Centre-S has a work envelope of $6.0 \times 2.5 \times 1.25\text{m}$.

The longitudinal (X) axis benefits from a 6m ballscrew drive as standard, but it can be specified with twin synchronised gearbox drives if required. The machine accepts heads and rams from both the standard and 500 machines, to provide maximum

versatility. The first machine will be completed in time for its official launch at the *IMTEX* exhibition in Bangalore, January 2009.

Compact marker

The TF420 fibre laser marking system from Technifor Ltd, Leamington Spa (Tel: 01926 884422), is twice as compact as the previous-generation unit. However, it offers the same levels of marking quality and provides a writing speed of up to 2.5m/sec with a skipping speed of up to 5m/sec.

The unit is designed for medium- to large-volume marking applications in the motor vehicle, medical, electrical and mechanical component sectors; it can also mark a wide range of materials, including plastics, metals and ceramics.

This laser-based system, which has a light source operating at $1.06\mu\text{m}$ (diode) and placed remotely in the control unit, features new electronics and a reduced number of optical components — hence its small size. The light beam travels to the marking head along an optical fibre. Diode service life with the TF420 is 100,000hr, which compares favourably with the 10,000hr period recommended for a standard diode-pumped laser. The reduced number of optical components in the

High-speed face mill

By incorporating a small, compact insert cartridge into its latest Feed-Jet multiple-tooth milling-cutter system, LMT's Kieninger division has developed a cutter that can run at double the speed of a standard face mill. This is due to the number of inserts it can carry maintaining the same rate of feed per tooth. The cutter is available from LMT (UK) Ltd, Coventry (Tel: 024 7636 9770).

In addition, the new cutter requires lower torque from the machine spindle drive; it also has a high-precision body, while the PCD-cartridge design enables special requirements to be defined, such as high cutting depth, surface roughness and percentage contact area. The cutter body has been designed to have a minimum number of separate components, and it uses high-precision stress-free clamping, which gives a simple but fine adjustment of each cutting edge for perfect 'flat' running and minimal creation of rags or burrs.

The Feed-Jet cutter bodies, which are all made from aluminium, range in diameter from 63mm (with eight teeth) up to 125mm (with 16 teeth). The largest cutter can also be specified with two more teeth, depending on the application. Each PCD cartridge unit features positive interlocking and requires only a low torque setting; this feature prevents the cartridge from moving on final tightening and ensures that each unit is set to precisely the same height. Available with each cutter body are three main cartridge configurations, namely those for face milling, shoulder milling and for wiper inserts.

These milling cutters have recently completed extensive trials in automotive applications, to produce joint faces on transmission housings, cylinder heads and crankcases, as well as the milling of valve bodies, where the demands of surface finish and highly predictable life contribute to higher spindle utilisation and minimal down-time.

