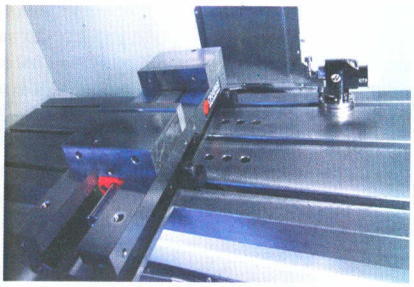
Magnetic workholding solutions from Leader

Leader Chuck Systems (01827 700000) has expanded its product portfolio for workholding through the addition of magnetic fixture systems from Walmag Magnetics of the Czech Republic. These units include permanent magnet, electromagnet and electro-permanent systems for grinding, turning, drilling and milling, as well as EDM machining.

Activated by physically moving a handle, the fixtures require no electrical power supply, making them easy to install and transfer between machines. A permanent magnetic system does not generate any heat, so there is no risk of thermal deformation of the pole plate or the workpiece.

The magnetic field in electromagnet fixture systems is generated by coils supplied with a DC current and activated by a control unit. The control unit also allows the magnetic force to be varied to suit the application, and operation can be manual, automatic or a combination of both.

For EDM applications a special low power magnetic field is used and the chucks are constructed to be submerged in the die-electric fluid.



Orange vice and Carvesmart vice jaw combo

Available from Leader Chuck Systems (01827 700000), the Orange Vise Company range of high quality precision vices from America includes 4- and 6-in dual-station, and 6- by 16-in single-station vices.

The 4-in dual-station vices offer a compact footprint while the larger vice is available in 17.5- and 20-in lengths. Every dual station model features independent jaw stations, so dissimilar-sized workpieces can be clamped with equal force.

Offered with lifetime warranty on materials and workmanship, dual-station vices can be quickly converted into single-station vices without any additional hardware, while the 6- by 16-in single-station vice can similarly be converted to double-station format.

This offering is complemented by the Carvesmart vice jaw range. This takes in quick-change jaw plates with 3-axis locating ability, with bolt-hole patterns to industry standard ensuring compatibility with existing jaw plates. Cast iron, steel, and aluminium sub-plates are available in a variety of sizes and can be customised to fit any machine table.

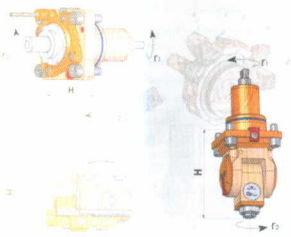
CNC rotary tables and indexing units

ISO 9001-accredited, 180-employee Taiwanese manufacturer Exact has over two decades' experience and produces over 3,000 units each year at the company's 4,800 m² state-of-the-art manufacturing facility.

Available from Leader Chuck Systems (01827 700000), the NCT, TRT and ERT ranges of worm-and-wheel-driven CNC tilt and turn rotary tables come in sizes from 125 to 500 mm diameter and can be mounted horizontally or vertically. They feature a wear-resistant design with high rotational torque and dynamic accuracy, and offer easy installation and maintenance.

The HC range of automatic indexing tables range from 200 to 500 mm diameter as standard, and up to 1,800 by 1,800 mm for the heavy duty models. Rotation is by a worm and wheel via a servo motor, while clamping is hydraulic and achieved via a three-piece coupling that resists high machining forces for outstanding positioning accuracy and rigidity.

A non-lifting Hirth coupling design allows for a solid sealing system to prohibit swarf, chip or cutting fluid ingress into the housing for reliability and longevity.



Newcomer UK offers Mario Pinto live tooling

Newcomer UK is proud to have been appointed as UK distributor for Mario Pinto live tooling (024 7636 3535).

Founded in Turin in 1922, Mario Pinto (MPT) makes a comprehensive range of live tooling for CNC lathes and turning centres, including gear hobbing heads, workpiece handling tools, slotting heads and, new for 2016, BMT static toolholders. All MPT live tools feature patented gear drives, special sealed precision dual-spindle bearings and patented sealing.

Competitor driven tooling employs a drive key on the outside of the shaft and inside the gear, generating a tangential (indirect) transmission. The possible consequences of this are: weakening of the shaft and the gear; low torque transmission; plus vibration, breakage of keys and shafts. MPT's Supercompact drive system eliminates all these issues. This design approach, together with a rigorous testing and inspection procedure, is why all MPT live tools are supplied with a 12-month warranty.

The MPT range further enhances Newcomer's portfolio of high quality toolholding and workholding products, which also includes Albrecht precision milling chucks and drill chucks, ERI tapping heads and MPA angle-heads and speed increasers.

Sunnen launches SSH-1680 'hone of all trades'

US-headquartered honing specialist Sunnen (01442 393939) has introduced the SSH-1680 honing system, with the aim of making the efficiency, accuracy and consistency of power-stroke honing affordable to a wider range of machine shops.

The system features zero shut-off for automatic cycle control with minimal operator attention. Furthermore, the 'rough and finish' honing capability eliminates preliminary reaming, boring and grinding operations to help lower component costs, Sunnen says.

The SSH-1680 is suited to parts with keyways, splines and blind bores. According to its maker, an adjustable spindle allows the operator to eliminate mandrel run-out, making it easy to achieve precision bore geometry.

Multiple land and tandem bores are bridged with Sunnen's long stones, maintaining alignment and consistent size without camber or washout.

The SSH-1680 handles part lengths up to 250 mm at bore diameters from 3-60 mm. The stroke rate is 80-310 spm (adjustable incrementally), while spindle speed is 250-2,500 rpm. The SSH-1680 accepts all standard Sunnen tooling, including K, P20 and P28 mandrels.

Neon series of ultrasonic cleaners

British manufacturer Ultrawave (0845 330 4236) has launched its Neon series of ultrasonic cleaners, designed to deliver precision cleaning performance within a small footprint.

Featuring Ultrawave's Frequency Leap technology to ensure homogeneous cavitation throughout the tank, the Neon Series is said to reduce running costs and detergent consumption, as well as process waste. While designed to use less detergent, it delivers improved component cleanliness.

An integrated jetting system enhances fluid agitation within the tank and increases flushing of contaminant into the Neon's integral sinusoidal overflow weir. This process removes contaminants in the main tank prior to fluid cleaning via the integrated stainless steel pump and twin filtration approach.

Modular in design, the Neon Series can be specified either as a stand-alone unit, or incorporated into a multi-stage system having additional wash, rinse and drying stages. It is available in capacities from 35 to 90 l.

Celebrating its 25th anniversary, Ultrawave has designed, manufactured and supplied over 50,000 ultrasonic cleaning systems for a wide range of industries across the world.