

Fast, precise vice positioning system

The choice of the right workholding method has a significant influence on the economic viability of cutting processes used for manufacturing, in particular on machining centres. For fast workpiece set-ups and high clamping density Dimac Tooling is now offering the Swiss-made Triag PowerClamp modular workholding system.

PowerClamp, a rail-mounted, multi-vice system for clamping lots of parts in a small space, is one of the quickest changeable workholding systems available on the market and is ideal for both vertical and horizontal machines.

On the PowerClamp, teeth serrations (2 mm spacing) on the base rail allow exact positioning of the vice and end modules. In contrast to many other clamping systems on the market, in which four hold-down screws are necessary for each module, one transverse spindle screw is used. This central spindle screw, which has a right-handed and left-handed thread, pulls two plates with angled faces together.

These plates then lock the vice modules onto the base rail with a force of 150kN on either side creating a solid bond between the two components. This feature allows very fast repositioning of the vice modules. Therefore, setting up a PowerClamp is accomplished within seconds, particularly if the magnetic scale is being used. The spindle is accessible from both sides, so that the modules can easily be repositioned, even though adjacent clamping systems are very close.

The vice and end modules are available in a variety of standard widths (19 mm – 125 mm). Thus, easy access for machining from three sides on workpieces of various widths is possible. The Triag rail systems allow flexibility in all three axes and offers the highest workpiece density per given machine envelope. High precision component location is based on the vernier effect allowing positioning increments of 2.5mm.

If the batch has only a few parts, Triag multiple workholding systems can also be used as a simple machine vice, as the conventional vice is still the favourite choice for many machining tasks. Should the need for a multiple workholding device arise at a later time, as a larger batch has to be machined for example, it is a matter of adding a few extra vice modules to do the job.

Dimac offers a Triag starter set, and all the components of the starter set may be used for the multiple layout.

Moreover, the PowerClamp system can also be used on a tombstone, on the fourth axis or on a five-axis machine. Five-axis machines are increasingly used by local manufacturers to meet the demands of today's efficient manufacturing in order to remain globally competitive. The Triag five-axis workholding systems' lower base rails serve both as a mechanical zero-point clamping system, but also as a vice.

The Triag system offers fast set-ups, low maintenance and high flexibility: While there might be as many as 50 different clamping modules in use, the interface is always the same, and all parts can be used on horizontal and vertical machines.

Contact:

Dimac Tooling Pty Ltd 61-65 Geddes Street Mulgrave VIC 3170 Australia

www.dimac.com.au

Phone: +61 (03) 9561 6155 Fax: +61(03) 9561 6705

Contacts

Barbara Schulz

0488771477

<mailto:bschulz@com4tech.com.au>