

COST-EFFECTIVE MILLING FOR STAINLESS AND TITANIUM ALLOYS

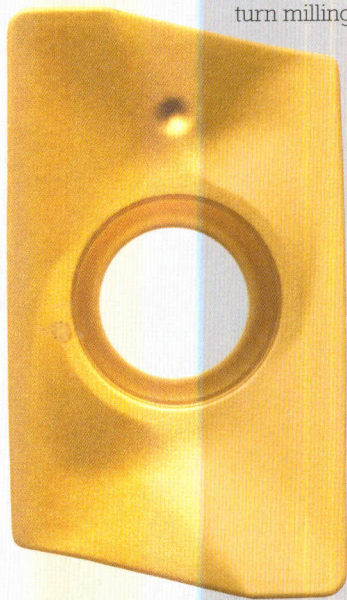
Seco has launched the new M06 geometry as part of its Turbo 10 Square shoulder milling range of inserts. The new geometry delivers high productivity and is a cost effective solution for the machining of Stainless Steels and titanium alloys.

The new M06 geometry, part of the company's XOEX10T3 insert range, is now available in grades F40M, T350M, MP2500, MP1020, MM4500, MS2500 and MS2050, and with corner radii from 0.4 to 3.1mm.

All Turbo 10 cutters feature precision milled pocket seats that improve run-out, stability and tool life by providing stable and rigid contact between the tool body and insert.

The tools have through-coolant channels that improve productivity, reduce heat generation and ensure excellent chip evacuation.

Turbo 10 cutters provide precision component manufacturers with a reliable and flexible solution when machining tough materials and are a suitable choice for slotting, shouldering, ramping, facing, pocketing, plunging and turn milling.



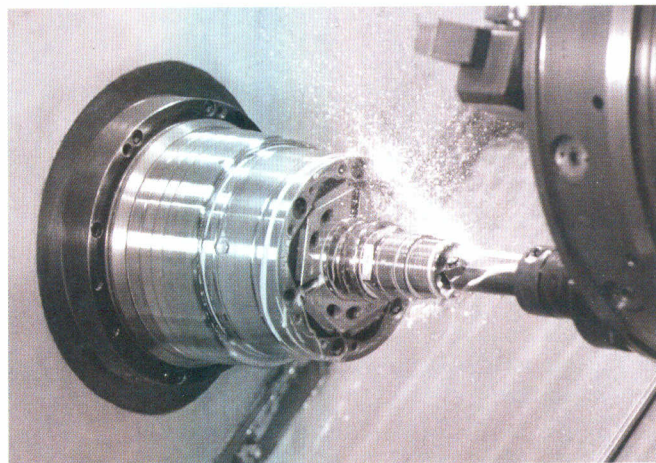
SMALLER, LIGHTER CHUCKS FOR EFFICIENCY

Available from Leader Chuck Systems, the new chucks in the TOPlus Mini Range have a 38% smaller mass, are one third shorter and one third smaller in diameter than previous models of the same capacity. This means reduced energy consumption during operation and better cutting tool accessibility.

The reduced mass and size means that a broader range of tools can be employed. The tools used can be shorter and, therefore, more stable – for both the main and sub-spindles. This is particularly key where installation space is limited and in batch production operations where part-to-part consistency is vital. TOPlus Mini is suitable for lowering energy consumption, providing dynamic spindle acceleration and shorter cycle times to lower the cost per workpiece.

Managing director, Mark Jones, says, "A typical CNC lathe has a 20 to 30kW spindle motor, which costs around £1000 per month to run. By reducing the mass of the chuck you can directly reduce the power drawn, which will result in ongoing energy savings. With industrial electricity costs only going up, every step you take towards energy efficiency is rewarded within the business profits. The TOPlus Mini range supports these goals."

The TOPlus Mini is available in two variants; pull-back and deadlength. The pull-back TOPlus Mini features a vulcanised clamping head with pull-back and hexagonal geometry for optimum chuck sealing and a 25% higher clamping force. The fixed base end-stop for clamping with pull-back effect, or central mounting thread for component-specific end-stops makes it perfect for clamping workpieces with shorter collars or shoulders. Additionally, this can be removed when necessary to facilitate a through-bore for bar work. A bespoke mounting thread for drawtube connection is also provided.



For radial clamping without axial movement of the clamping head the deadlength TOPlus Mini is suitable for component transfer between spindles such as horizontally opposed twin spindle lathes, also known as kissing-spindle lathes, and for vertical turning pick-up spindles. Again, the chuck can be used for through-bore work with bar fed raw material.

Providing a concentricity of 0.025mm there are five TOPlus Mini deadlength chucks in the range, 26, 40, 52, 65 and 100, the figure denoting the maximum workpiece diameter.

The smallest chuck is rated up to 10,000rpm and a radial clamping force of 35kN. The Mini 40 and 52 are rated to 7000 rpm, and offer radial clamping forces of 103kN and 108kN and axial compression force of 33kN and 40kN respectively.

The rotational mass of much larger workpiece capacity of the TOPlus Mini 65 and 100 means these chucks are rated at 6000rpm and 5000rpm, and accordingly the clamping forces have also been increased. The 65 has a radial clamping forces of 120kN and an axial compression force of 45kN, while the largest chuck in the range has a radial clamping forces of 172kN and an axial compression force of 65kN.

Covering the same five workpiece diameter ranges, with equivalent speed ratings, radial and compression forces, the TOPlus Mini pull-back chuck range increases concentricity to 0.015mm.