

Ref - T-Carb Series 51

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## SGS Carbide Tool launches new T-Carb high performance mill range at MACH 2014

With a global reputation within industry sectors where cutting tool performance and reliability count above all else, the new T-Carb range of six-flute high performance end mills, from SGS Carbide Tool (UK) Ltd, offer exceptional machining performance benefits. The new tool range will be launched at MACH 2014 (Hall 4, Stand 4210).

T-Carb six-flute high performance end mills are designed for aggressive high speed machining using trochoidal and peel milling techniques. The additional flutes allow higher feed rates at reduced tool loads, ultimately preventing breakage and failure. The variable pitch geometry allows the T-Carb to excel in aggressive roughing and finishing operations, resulting in faster cycle times and lower costs.

These new high speed machining end mills are ideal for aggressive milling applications in the most demanding industry sectors, including aerospace structural titanium components; medical implants and devices; automotive mould tools and vehicle interiors; energy and power generation, as well as high end general precision engineering.

Suitable workpiece materials range from common steels to stainless steels, high temperature alloys, and titanium alloys. The T-Carb range is particularly well suited to titanium milling

applications, often found in the aerospace industry. The geometry is suitable for workpiece materials up to 50 HRc.

All T-Carb end mills feature six variable geometry flutes, which are ground in a variable index pattern. The variable pattern helps prevent the onset of chatter by disrupting the rhythmic striking of the cutting edges against the workpiece material.

EU Managing Director, Alan Pearce, states: "This high performance six-flute tool is intended for modern aggressive high speed programming using trochoidal and peel milling techniques. It is intended as a solution for end users embracing advanced CAD/CAM solutions, such as VoluMill, DelCAM's Vortex, SurfCam, Adaptive Milling, and so on, to provide efficient NC cutting tool paths.

"With more cutting edges than a Z-Carb or V-Carb, but not as many as the Multi-Carb, the T-Carb addresses a need from customers preferring high feed milling at reduced radial widths of cut. Radial cut widths of 10 per cent of the diameter, or less, are possible, while axial cut depths can reach twice the diameter."

Offered in a variety of length, neck and corner radius options, the new T-Carb range is coated with Ti-NAMITE-X for ultimate thermal barrier protection. An advanced SGS proprietary coating, it is applied using the HiPIMS High Power Impulse Magnetron Sputter coating process for increased hardness and better resistance to abrasion wear. This ultra-tough coating provides superior adhesion that is critical in high performance applications that encounter extreme levels of mechanical stress. With a denser, more uniform coating structure, Ti-NAMITE-X permits improved performance at elevated temperatures, protecting tools for an even longer tool life.

"Leading companies involved in the motorsport, medical and aerospace industry sectors look to SGS for solutions. Not only are they machining difficult materials, but they also need performance levels that will keep them profitable, retain tight control on geometric form and provide an exceptional surface finish. The new T-Carb range has been developed to meet and even exceed these demands, and the benefits they offer are available to general engineering companies looking for more from their cutting tools," concludes Alan Pearce.

## Caption:



(TC1.jpg) Available from SGS, the new T-Carb six-flute high performance end mills will be launched at MACH 2014



(TC2.jpg)



(TC3.jpg)

## **Note to Editors**

**SGS Carbide Tool** is a premier manufacturer of high performance, precision solid carbide rotary cutting tools, with a metric and an imperial inventory of over 16,000 items, plus an industry leading bespoke special tooling service to meet customer specific requirements. Headquartered in Ohio, USA, SGS has a 25,000 ft<sup>2</sup> European headquarters and manufacturing facility in Wokingham, UK.

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