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**New high-performance grade for thread whirling**

SG3P is the name of the newly developed Horn high-performance grade offering the user new possibilities in terms of performance and tool life when whirling medical screws. The new carbide grade also enables shorter cycle times for thread production thanks to higher cutting values, including when processing materials that are difficult to machine. In addition, the combination of an ultra-fine grain carbide powder and the high temperature resistant coating results in high process reliability and better component quality. The carbide grade is available for all standard Horn thread whirling systems. Furthermore, in-house coating enables fast delivery times.

The production of bone screws must necessarily be carried out using a metalcutting process, as the material for this type of screw must not be compressed, as is the case with thread rolling, for example. Titanium in particular, which is mainly used in the human body because of its good biocompatibility, tends to burn if the material is compressed too much. As a machining process, thread whirling has been established for many years. Conventional thread whirling is a process that is mainly used on Swiss-type lathes to manufacture bone screws, but also on a larger scale for the production of threaded spindles. In the process, the rapidly-rotating whirling head is positioned eccentrically to the workpiece axis in front of the guide bush of the sliding-headstock lathe and the slowly rotating workpiece is guided into the whirling head with an axial feed movement.

*1,532 characters incl. spaces*



**Photo caption:** The new carbide grade from Horn enables shorter cycle times for thread production thanks to higher cutting values, including when processing materials that are difficult to machine.

Source: Horn/Sauermann



**Photo caption:** The carbide grade SG3P is available for all standard Horn thread whirling systems.

Source: Horn/Sauermann

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