

Home > Products > SC 'SpeedMax' Drill

## SC 'SpeedMax' Drill

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For drilling at high feed rates in INOX, tool steels and steel, Inovatools offers the high-performance SC "SpeedMax" drill. With drilling dimensions of 3xD, 5xD and 8xD, the tool specialists cover a wide range of applications.

INOX and all other steel materials covered by this general term are being used more and more frequently in industrial component production thanks to their special characteristics such as very good mechanical and thermal capacity, good corrosion and erosion resistance. To machine this popular material economically and with excellent surface qualities however, high-performance precision tools are required whose substrate, geometry and coating have been optimally designed for high edge zone hardness and material toughness.

With the "SpeedMax" product range (3xD, 5xD, 8xD; Ø 3.00 mm to 20.0 mm in each case), Inovatools provides inner-cooled SC drills



that can very easily master the challenges posed by the material. Douglas Kline, managing director at Inovatools USA LLC: "Maximum machining capacity thanks to high feed rates combined with better quality and a longer service life compared with standard tools was what we focused on when developing SpeedMax. We have succeeded in doing this, and the practical results from our customers, underline the performance of the SpeedMax."

The basis of the tool is formed by selected carbide that gives the tool a strong, robust core and has been optimally adapted to the cutting challenges of the tough material.

The special cutting geometry ensures that high feed rates are possible with reduced cutting forces. Thanks to the special lifting frontal polished section and the six-surface tip, the SpeedMax is self-centering and generates the optimal chip shape required for the ambitious cutting data.

Kline said: "Since the materials are poor heat conductors, the chips and therefore heat must be removed from the cutting zone quickly. This is achieved through accurate inner cooling, the polished and special chip groove as well as the very smooth high-performance coating. As a result, chips that tend to bond or stick together can flow out safely and quickly, and the thermal load is drastically reduced on the workpiece and tool."

The coating has been specifically designed for the materials to be machined. It is extremely temperature- and oxidation-resistant and has an extremely low tendency to stick to metals. According to Inovatools, this can be seen in improved wear behavior and longer service lives compared with conventional drills.

Kline said: "It is no coincidence that we have called this drill series 'SpeedMax'. The many design advantages enable the tool to impress people as a sprinter for INOX and steel materials with its outstanding ratio between machining time, process safety, service life and quality."

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