Slot milling of narrow grooves

Paul Horn GmbH has extended its circular interpolation system for slot milling of grooves. Horn offers the tools in cutting widths from 0.25 mm (0.01”) to 1 mm (0.039”), depending on the diameter. Depending also on tool diameter, the maximum milling depth (tmax) is between 1.3 mm (0.051”) and 14 mm (0.551”). Inserts are available with different coatings to suit the material being machined. Thanks to its mass, the solid carbide tool shank ensures vibration damping throughout the milling process. All variants of tool shank have an internal coolant supply.

Circular milling in general

The circular milling system offers users a host of process advantages: it is fast, reliable and achieves good surface finish. During the process, the tool plunges into the material either at an angle or horizontally and may then be driven on a helical path. This means that threads, for example, can be manufactured to a high level of reproducible quality. When compared to machining using indexable inserts on larger diameters or solid carbide milling cutters on smaller diameters, circular interpolation milling is generally more economical. Circular interpolation milling cutters have a wide range of applications: they are able to machine steel, special steels, titanium and special alloys. These precision tools are especially well suited to groove milling, circular interpolation milling, thread milling, T-slot milling and profile milling.

Photo caption: Fast, reliable and good surface finish - the circular milling system from Horn.

Source: Horn/Sauermann
Photo caption: All variants of tool shank have an internal coolant supply.

Source: Horn/Sauermann