**METAV 2018, Düsseldorf**

**Hall 14, stand C46**

**Toodle high-speed spindles for the DS system**

Precision milling with diameters ranging from 0.1 to 3 mm (0.0039 to 0,1181")

HORN presents high-speed Toodle spindles from SFI, which have recently been added to its portfolio. With this addition, users do not just benefit from the advantages of these world-renowned spindles – in particular, they can reap the rewards of combining them with the solid carbide milling cutters from Horn's DS series. More than 600 DS milling cutters with diameters ranging from 0.1 to 3 mm (0.0039") can be supplied with a pre-mounted Toodle spindle within the space of one week. The milling cutters can be adapted to meet specific requirements more than simply in terms of their diameter. Thanks to the numerous versions with various geometries, coatings and carbide substrates, the tool can be perfectly matched to the application. The advantages of the high-speed spindles include low purchase costs, simple mounting and consistently high concentricity. DS milling cutters cannot fail to impress with their concentricity of 0.005 mm (0.0002") and long service life.

High-speed spindles with various drives and speeds are available for machining tasks such as profile milling, high-feed milling and trochoidal milling, as well as chamfering and engraving. The TB131 and TB131-90 models, which are turbine driven with coolant at 10 to 60 bar, achieve speeds of between 40,000 and 75,000 rpm. The turbine of the TG131 model is driven by compressed air at 3 to 7 bar and is designed for speeds of between 35,000 and 60,000 rpm. For special tasks, the milling cutters, bearings and drive can be adapted to the particular requirements.

The spindles can also be used in a stationary machine spindle. The high-speed spindles can be clamped with ease in standard tool holders, such as hydraulic expansion chucks, collet chucks and Weldon shank adapters, as well as in boring bar holders. h5 or h6 tool shanks with diameters of 3, 4 and 6 mm (0.1181, 0.1575 and 0.2362") can be clamped. These product features – along with various others – provide customers with a set of high-speed spindles and milling tools that deliver major benefits when performing complete machining tasks on turning or milling centres, even at low machine spindle speeds.

*2,219 characters incl. spaces*

**Image captions:**

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**Image 1:** The high-speed Toodle spindle is compatible with standard tool holders.

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**Image 2:** More than 600 Horn DS milling cutters can be supplied with a pre-mounted Toodle spindle.

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