

HIGH REVOLUTION TRAVELING SPINDLE



Motivation

The technical design of the traveling spindle with the highest possible speed is difficult to implement in practice. There are contradictory requirements for the bearing of the traveling spindle. Our aim was to solve this technical problem and create a unique solution by combining the advantages of a conventional boring machine and a modern machine tool with high spindle speed.

Description

The WHT 110/130 machines are equipped with centrally guided headstock (optimal in terms of uniform thermal and force load on the frame). The base of the headstock is a solid plate that supports the spindle jib, main motor and other groups. The main bearing consists of a nitrided hollow spindle and working spindle assembly, seated with minimum backlash. The hollow spindle is supported by a set of high-precision preloaded bearings with angular contact.

The maximum travel of the full-fledged spindle is 650 mm (spindle \varnothing 112 mm) or 800 mm (spindle \varnothing 130 mm).

The maximum continuous spindle is 6,000 or 5,000 rpm (WHT 110 or WHT 130), even with the spindle slided-out.

The machine thus has a high spindle speed with a full-fledged travelling spindle, which offers a continuous working torque of up to 1,375 / 1,718 Nm (S1).

Benefits

- Implementation of full-fledged boring operations
- Long reach of the spindle into the machine working area
- High spindle speed for high cutting parameters application
- Versatile and efficient use of the machine