



WGT 1200 Optimized for Automatic Loading of Large Workpieces

High-precision measuring machines for small and large gears

High-precision measurements even with heavy styluses.



The Liebherr WGT series of gear measuring machines is used in gear manufacturing for a wide range of industries: from the smallest aerospace applications to large gearbox components for wind turbines, tower cranes or commercial vehicles, where some of the gears weigh tons. With the optimized WGT 1200, Liebherr-Verzahntechnik GmbH provides high-precision measurement even for huge workpieces up to a diameter of 1400 mm and a weight of 5 tons.

The WGT range of gear measuring machines is suitable for workpieces with diameters from 5–1,400 mm, starting with the WGT 280 followed by WGT 400 up to the recently updated WGT 1200 for workpieces weighing up to 5 tons.

WGT Series for Diverse Requirements and Strict Demands

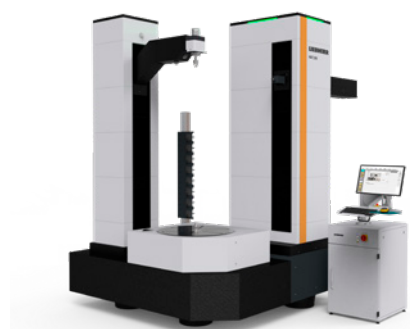
All the models meet the strict requirements of VDI/VDE 2612/2613, Group 1 and can measure gears from a module of 0.1 mm. The base plate, linear guides and tailstock made of lapped natural granite ensure a constant temperature profile, while linear axes with air bearings, precision rotary tables and reliable Renishaw probe systems with touch probes ensure the mechanical accuracy of the machines. Operation is intuitive using the LHIInspect software, which allows the gear cutting machine and the inspection machine to exchange geometrical and measurement data for automatic correction in a closed loop.

An optional, optimized roughness sensor handles even the smallest measuring points. The automatic stylus change rack with up to two six-piece magazines ensures uninterrupted measurement of the workpieces in a single operation. "This makes the measurement not only highly precise, but also efficient and user-friendly," summarizes Matthias Brüderle, product manager for gear measuring machines. Some of the WGT models can be demonstrated in the show rooms in Ettlingen. "We also offer basic and advanced training courses by experienced trainers—on our

customers' own workpieces if they wish," says Brüderle.

WGT 1200: Swiveling Upper Center, Reduced Footprint

The concept of the largest measuring machine, the WGT 1200, has now been revised and optimized. "We benefited from our experience with gear cutting machines, from which we adopted the concept of the tailstock. It is now permanently installed and the upper center swivels sideways," explains Brüderle. This arrangement increases the load area and also saves space. What is particularly interesting is that this makes the WGT 1200 suitable for automatic loading by robots and automatic clamping, which means it is prepared for unmanned operation.



The WGT 1200 in a new design with a swiveling tailstock.

Another highlight of the WGT 1200 is the powerful spindle drive, which ensures optimized power transmission, precise positioning and high load capacity. The machine is also equipped with active damping, which eliminates the need for a separate machine foundation. The Renishaw SP80 probe can also support heavy styluses while maintaining the highest degree of accuracy. The current version of the WGT 1200 was presented to visitors at the international trade fair Control in Stuttgart in May, where it attracted a great deal of interest.

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