

Modernization of heavy machine tools

Cutting down times and expanding peripheries

Processing time can be cut with a high stock loading capacity. One decisive influence on part manufacturing times for many products is downtime, including fitting times and the level of automation. These influencing factors are significantly affected by the addition to and modernization of periphery units on tooling machines. Older conventional machines in their original form on the whole do not meet the requirements for the use of modern tools and measuring media. Large machine tools are being modernized, are having productivity increased and are being outfitted with modern CNC controls. Less attention is being paid in many cases to reserves through the expansion and modernization of periphery units.

Along with the basic modernization of large tooling machines, ROTTLER is also retrofitting periphery units, including tool changers with modular tooling systems and measuring units. During such complex modernization, the construction of the machine tool changes so much that, for example, for a surface lathe the carriage for large, long protruding die carriers was replaced with a new formfitting clamp system for extremely precise and stable automatic changes.

Tools are fitted to the carriers with a CAPTO system. A special CNC controlled measuring unit measures the exact cutting position of the tools and transfers the values as correcting data to the control.

Tool storage offers 12 carriers. With this retrofit, the automation level of the machine was improved significantly, the down times were cut drastically and the clamping times between reduced through the use of new tools. Work room encapsulation, vacuuming and disposal of shavings have been adapted to the new conditions. With this modernization – which incorporated the solid basic design – the entire machine has been so altered to make it technologically up to date.

