

The new S33 – The productive machine for individual requirements

Universal and flexible. These are the features of the new S33, the CNC universal cylindrical grinding machine from STUDER. With distances between centers of 400, 650, 1000 and 1600 mm and a center height of 175 mm, it can be used for grinding small, medium-sized and large workpieces up to 150 kg in individual, small batch and high volume production. The changeover from grinding between centers to live spindle grinding is achieved in record time. Complex workpieces are ground in a single clamping without any problem.

The foundation of the S33 universal cylindrical grinding machine is the machine bed made from solid Granitan®S103. Thanks to its favorable thermal behavior this provides high dimensional stability, while short-term variations in temperature are largely equalized by the mineral casting. STUDER has redesigned the machine base geometry and added an innovative base temperature control. This ensures quick and stable production. The fixing of the dressing device on the double T-slot of the longitudinal slide drastically reduces the complexity of setup and changeover.

Wide range of wheelhead variants

The S33 is based on the STUDER T-slide concept. It now has an extended X-axis stroke of 370 mm. STUDER offers a number of wheelhead variants. The turret wheelhead can take up to two external and one internal grinding spindle and enables automatic swiveling with a 1° Hirth coupling. It is also equipped with the latest generation of gap control. The external wheelhead with a wheel on the right can be set to 0°, 15° and 30°. Setup and changeover costs can be reduced thanks to the turret wheelhead with several grinding wheels and quick setup with the Quick-Set software. Internal, external and surface grinding in a single clamping is child's play for the S33 and leads to even higher efficiency in complete machining operations. Grinding of forms and threads is made possible by the C-axis with indirect or direct measuring system. The S33 can also be equipped with a chuck workhead for grinding chuck components.

Impressive software

Over a hundred years of grinding experience are invested in StuderWIN, which enables reliable programming and efficient operation. StuderTechnology also automatically calculates the exact grinding parameters in a matter of seconds, based on just a little information. This means good quality and a stable process at the first attempt. The optional integrated modules such as StuderForm, StuderThread or StuderContourBasic extend the functionality of the machine.

The PCU manual control unit enables setup of the machine close to the grinding process. Non-productive times can be reduced to a minimum with the electronic contact detection function. In addition, the standardized loader interface enables automation of the S33.

The Art of Grinding.

Advantages at a glance

- Distances between centers 400, 650, 1000, 1600 mm
- Center height 175 mm
- Maximum workpiece weight 150 kg
- Thermal stability thanks to innovative base temperature control (dbc 650 to 1600)
- Double T-slot for dressing systems
- Numerous grinding head variants
- Motor spindle including frequency converter for turret wheelhead
- Constant cutting speed as standard
- StuderWin software with StuderTechnology
- Reduced setup and resetting times with STUDER Quick-Set
- Can be flexibly extended with integrated software modules
- Automatable



The new Studer S33 here with distance between centers 1000 mm.

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