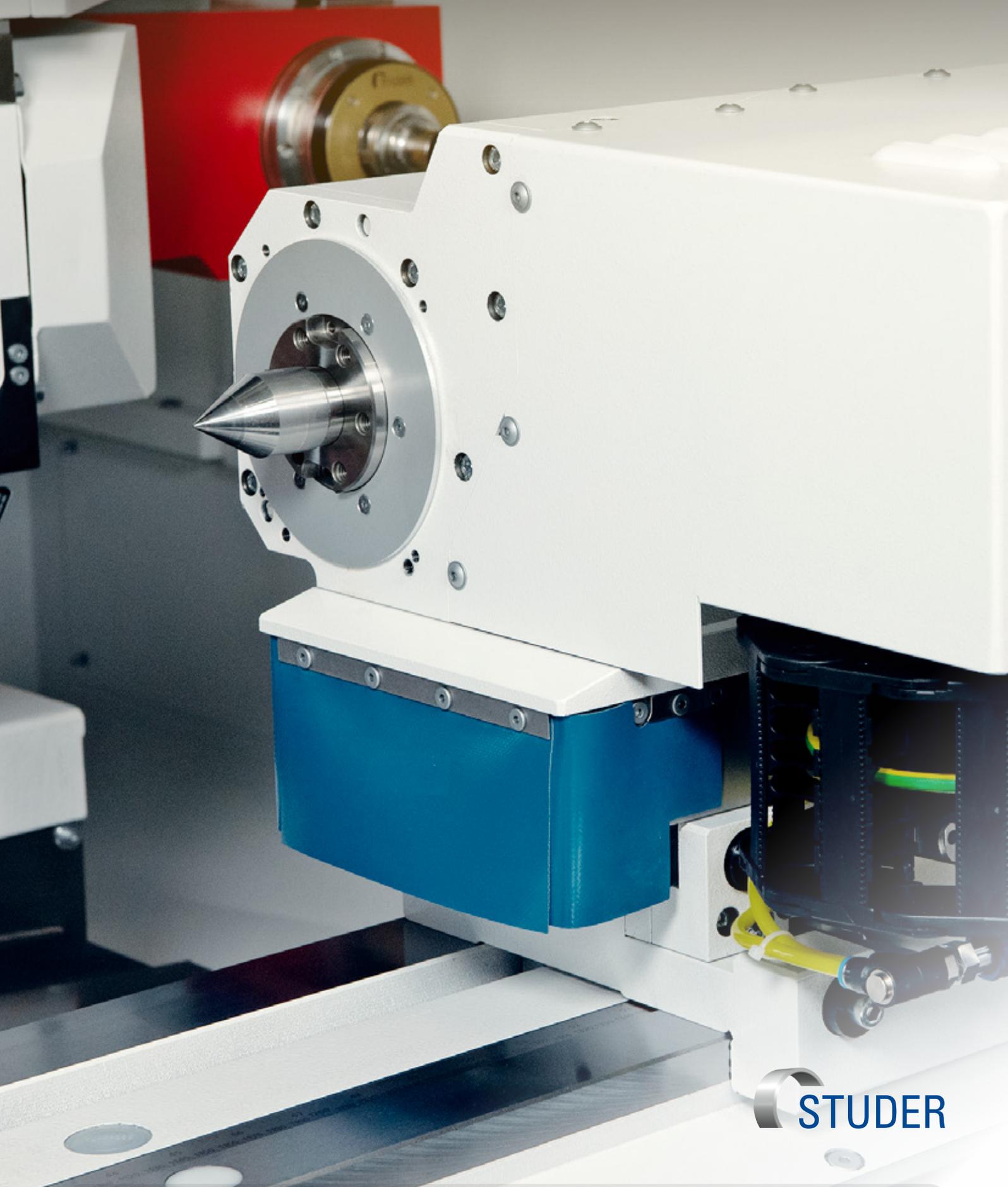


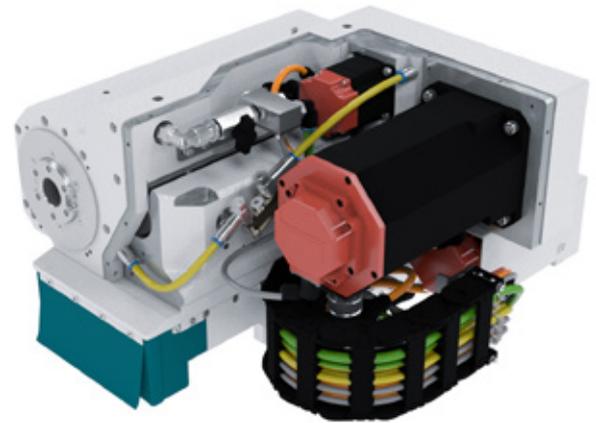
# SYNCHRONOUS TAILSTOCK

GREATER FLEXIBILITY, GREATER PRODUCTIVITY  
WITH A SYNCHRONIZED TAILSTOCK DRIVE



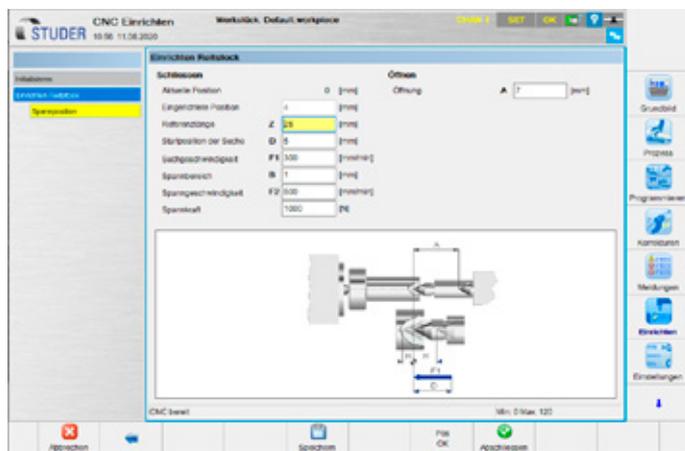
 **STUDER**

The tailstock, which is synchronously driven to the workhead, increases the drive torque using the friction of the centres in the workpiece. In the simplest case two standard centres are sufficient, whether in conventional or high-speed grinding at 140 m/s. The omission of an additional workpiece drive facilitates complete machining of the workpiece in a single clamping. This increases the form and position accuracy on the ground workpiece. Automated workpiece changes are easy to set up. Thanks to the programmable stroke of 120 mm and the definition of reference lengths, part families with a different workpiece length can be ground with little changeover effort. The synchronous tailstock is axially positioned via servomotor. An NC drive with high position repeatability is used for clamping. The positioning speed, as well as the centre-search speed function and the clamping speed can be individually controlled. The clamping force is generated by means of exchangeable springs and can be programmed progressively. The synchronous tailstock has an air lift for easy movement.



## INTEGRATION OF THE SYNCHRONOUS TAILSTOCK IN StuderWIN OPERATING SOFTWARE

- Programmable clamping force
  - correct spring stiffness is suggested
- Simple changeover within a family of parts thanks to definition of a reference length
- Freely definable search and clamping speed



## TECHNICAL DATA\*

Can be used on STUDER machines	S22 / S33 / S31 / S41
Height of centres	175 mm (6.9") (225 mm (8.9") with intermediate plate)
Max. workpiece weight between centres	80 kg (176 lbs)
Spindle drive	max. 1,6 kW (2.2 hp)
Fitting taper	MT4
Stroke (W-axis)	120 mm (4.7")
Travel speed	0–6 m/min (0–236 ipm)
Clamping principle	electromechanical with springs
Clamping force	250–4000 N (55–880 lbs)
Adjustable clamping force	progressive (2 exchangeable spring pairs)
Spindle speed (optionally with motor brake)	1-1500 rpm
Spindle front	dia. 70 mm h5
Spindle end	dia. 60 mm h5
Spindle bore	dia. 26 mm (1.02")
Fine adjustment for cylindricity corrections (manual or optionally motor-driven)	± 80 µm (0.0032")

## USE WITH

- Stationary centers
- Rotating centers
- Spring collets

## LIMITATIONS

- Usable distance between centers is reduced (depending on machine type and wheelhead variant)
- Mounting of dressers on tailstock not possible

