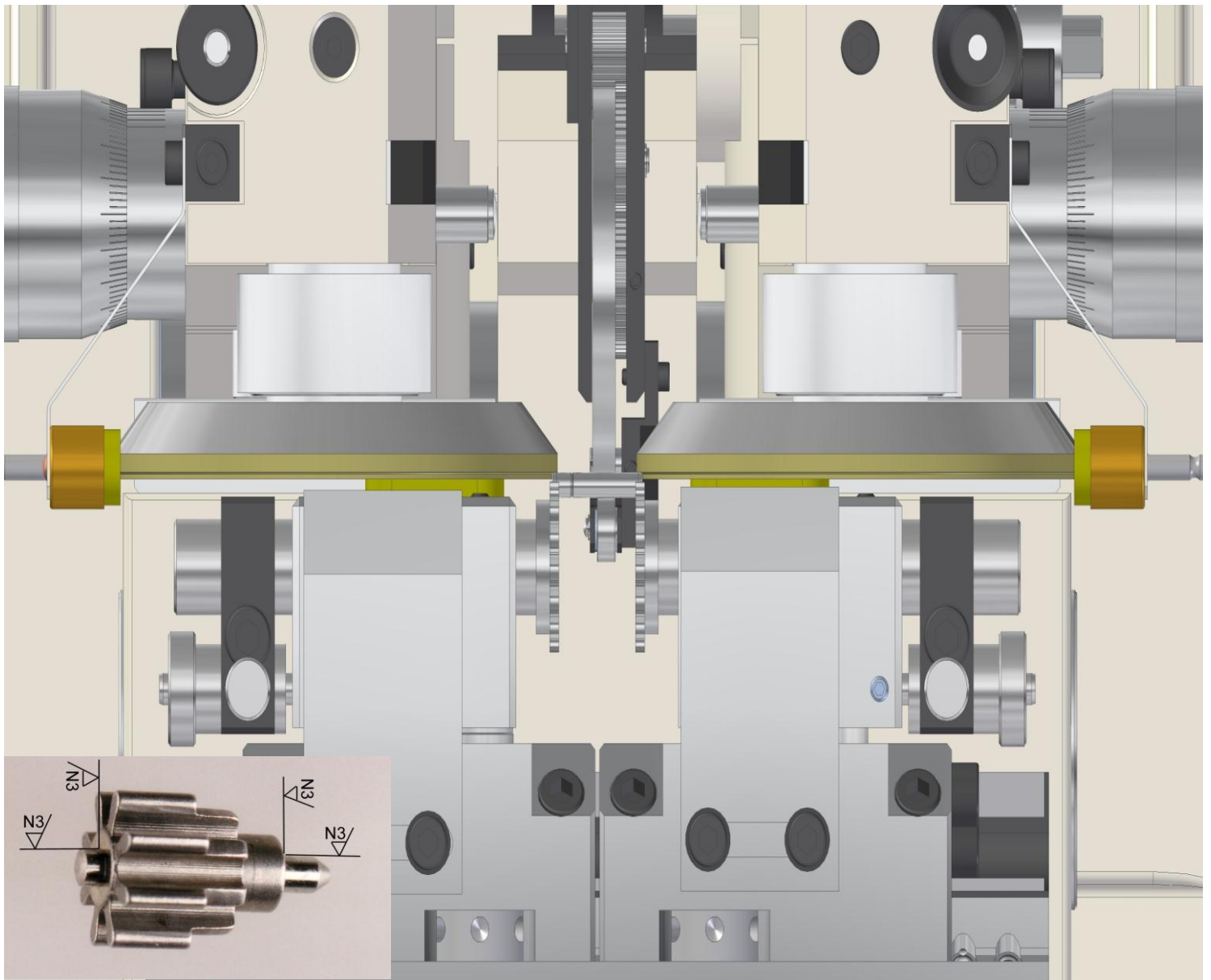


BURNISHING MACHINE ST 119 SPS & AB



APPLICATION



Burnishing is a finishing process for bearing pivots and their shoulders of watch and instrument gears. The workpiece lies with its two pivots which are to be burnished, in profiled notches of tungsten carbide flanges and is driven by a carrier in the correct rotational direction. By means of two rotating, lapped, tungsten carbide discs, the machining process takes place, creating a burnished surface finish. The amount of stock removed depends on the size of the pivot diameter is between 0.005 and 0.01 mm and attains a surface finish of Ra 0,1 und 0,3 μm (N3, N4). When using ceramic or degussit discs the machining method becomes a pure grinding process reaching greater stock removal.

MACHINE AND TECHNOLOGY



DESIGN AND VERSIONS

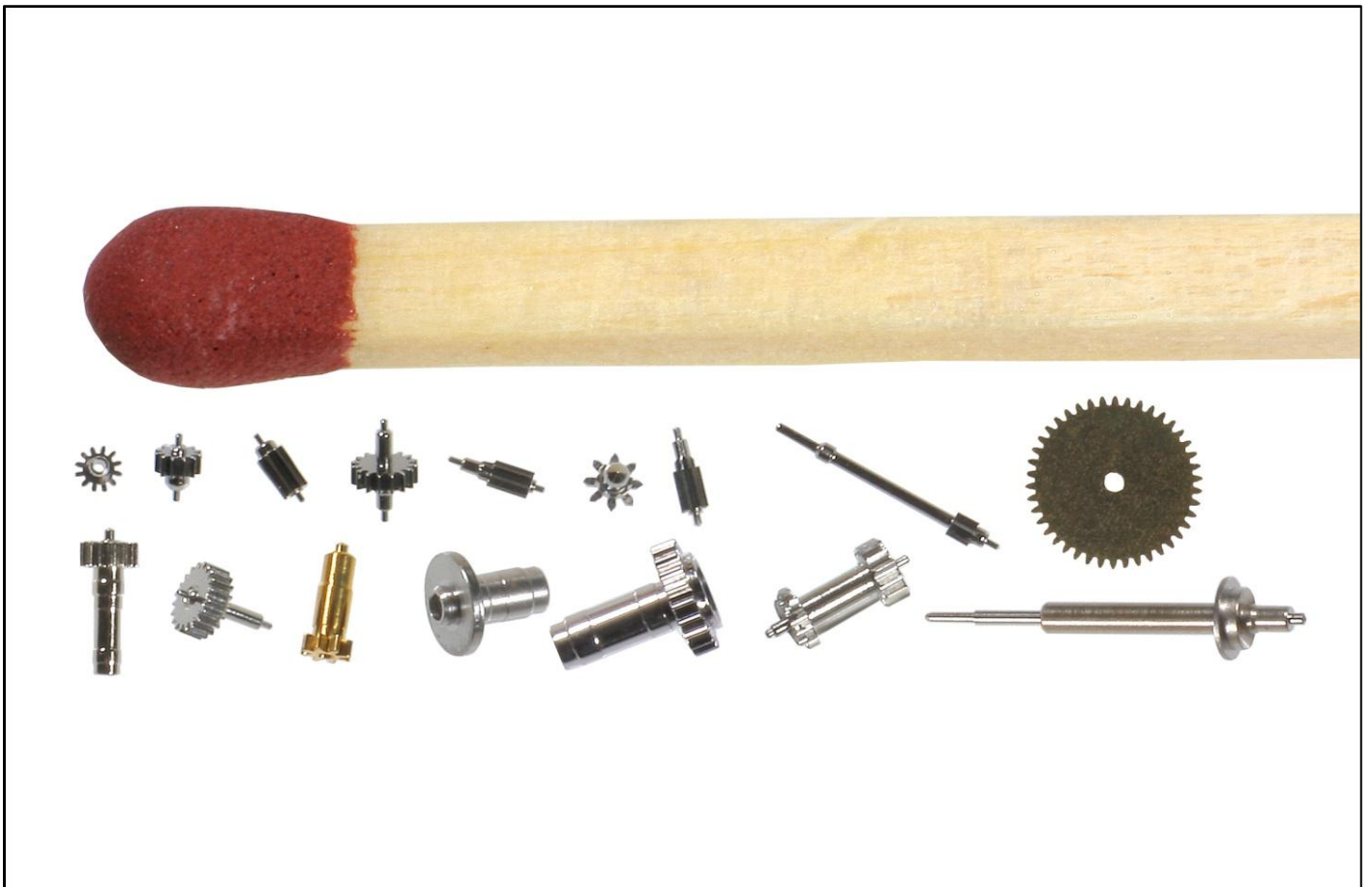
The design of the machines is extremely stable and vibration free. The ST 119 SPS can be ordered on a machine base or as a table mounted version. Two diameters and shoulder can be machined in one operation.

The machine can be offered as an ST 119 AB version. This version has separate driving motors for the burnishing spindles, workpiece drive and for the yolk. All the motors have freely programmable rotational speed allowing unlimited freedom in the burnishing process.

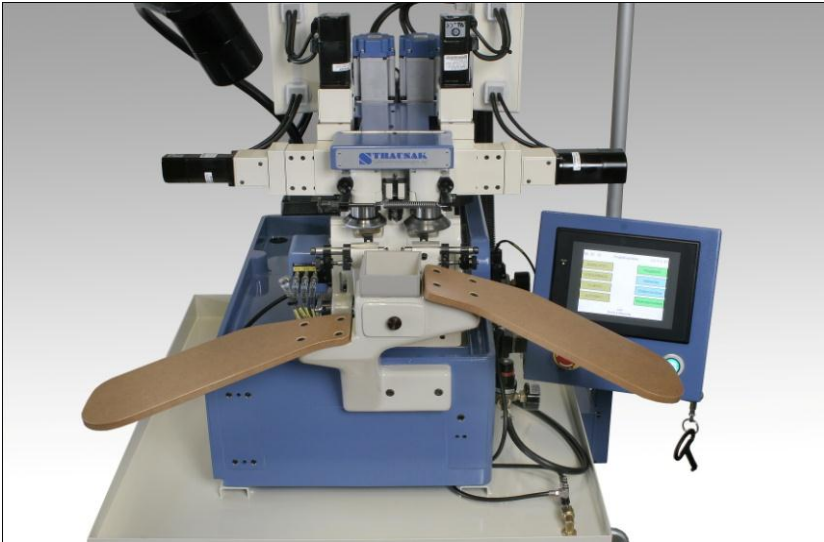


MACHINE CONTROL

The machine is equipped with a Siemens Simatic SPS control, which is remarkable for its reliability. The control, thanks to input masks, operator prompt and graphic display is very simple to use. The control needs a very short tuition time.

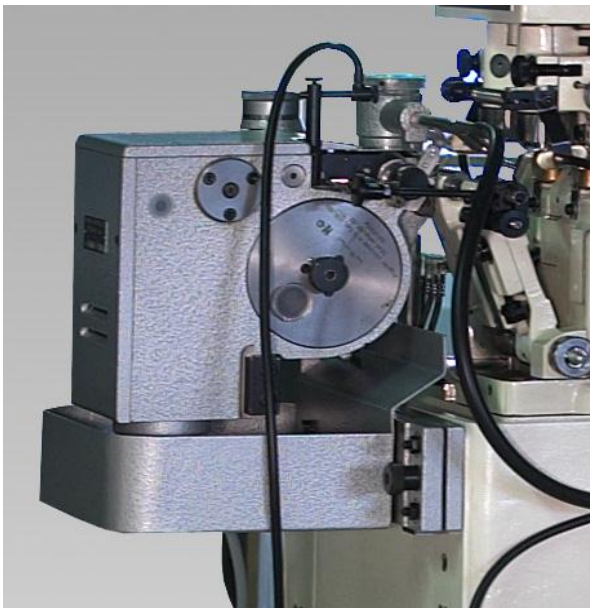


OPTIONS AND LOADING DEVICES



MANUAL LOADING

In the case of small batches, the machine can be loaded manually . The loading system for manual loading, comprises, wooden arm-rests, a box for the parts to be machined and a drawer for the finished parts.



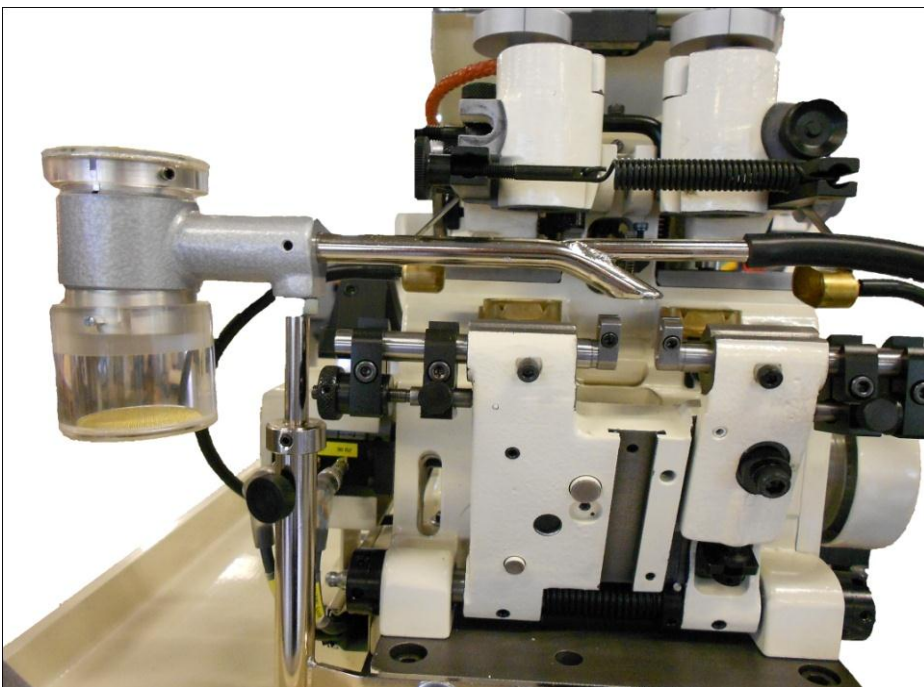
DRUM LOADER W20

This loader is used for shaft type pinions.



STRAUSAK LOADER TYPE 28

With this loader the majority of workpieces can be efficiently and automatically loaded. When the workpiece is changed one merely exchanges the magazine and the gripper on the loading arm.



SUCTION UNLOADING

With the pneumatic suction device, the parts are unloaded without problem.

TECHNICAL DATA

WORKPIECE

Pivot Diameter	mm	0.06 – 2.00
Pivot Length (Maximum)	mm	4.00
Shoulder Distance (Maximum)	mm	25.00
Workpiece Length	mm	40.00

WORKIN RANGE

Burnishing Disc Diameter	mm	62
Speed of Burnishing Discs	rpm	400 – 1'000
Speed of the Workpiece	rpm	200 - 500

MACHINE DIMENSIONS

Length x Width x Height	mm	700 x 800 x 1'800
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WEIGHT

Machine	kg	300
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