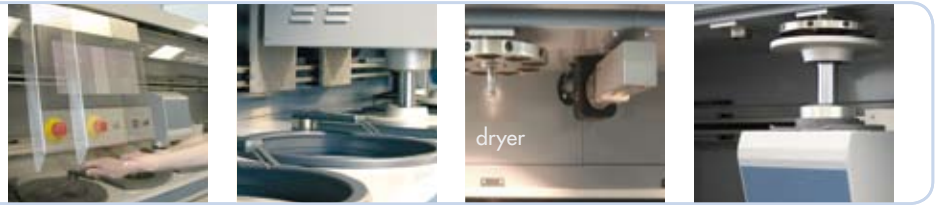




The **Systemautomat** gives you space where there was no room for your sample evaluation. Your samples are prepared, polished and cleaned, all automatically. The results are reproducible and very good quality. The powder-coated Aluminium housing is comprised of elements from the System Lab cabinets/units. The sub-structure or framework is made from powder-coated steel. Between the very robust end-segments, there is the possibility to install 4 - 8 System units (figure shows 5-space) in any configuration desired.

The Automat can be equipped with 2 grinding and polishing heads and the sample holder stack has a capacity for up to 12 sample holders. The machine is closed on 3 sides and the open front side is protected by a photo-electric barrier. This open front side enables visual supervision of all working processes.



TOUCH-SCREEN CONTROL

Simple operation per touch-screen control at the control panel is unique- it can be slid from left to right into any position. In each working phase the user interface shows a graphic demonstration of the working position. You can follow the processing sequence of the sample holder on the monitor in real time. The process sequence of the stations can be first determined and then later called-up as individual programs. A large number of arbitrary programs can be stored individually and then called up. As standard equipment, there is a connection for remote maintenance which enables the recognition and removal of faults/errors. If there is a problem you cannot solve, then we can help at once if you so desire.

GRINDING AND POLISHING STATIONS

Grinding and polishing stations serve the dressing, intermediate or end-polishing of samples. The grinding and polishing mediums are fixed onto the working wheels of the stations either with vacuum or magnetic system. Dosing systems are selected to fit in with the stations. Dosage amount, type and interval can be freely programmed. Stations are integrated into the System spaces. You can equip the polishing stations with cooling for the working wheels and covers for the automatic working wheels.

WARM AIR DRYER

After final cleaning, the warm air dryer dries the samples with the polished surface upwards and then stores the dried samples in the sample holder stack. The drying time is freely programmable.

GRINDING AND POLISHING HEAD

The grinding and polishing head takes the sample holder from the stack, travels from one workstation to the next, performs its sequence or cycle and then takes the finished sample holder back and places it in the holder stack. The use of 2 grinding and polishing heads means an optimum utilisation of the machine.





»WE HAVE A SYSTEM!



SURFACE GRINDING STATION

This station grinds the surface of the sample with the help of an abrasive stone. In the working phase, the abrasive stone is fully enclosed and is dressed automatically in adjustable intervals during the grinding cycle. Our standard abrasive stone with bonded carrier wheel has a 30 mm thick usable layer. If you choose to use commercially available abrasive stones, then we can supply a loose carrier wheel. Circulatory coolant equipment is integrated into the System cabinet.

CLEANING STATION

The cleaning station enables a fully automatic cleaning of the sample. The multi-step cleaning is carried out with water and air. Cleaning times and steps can be set as needed.

ULTRASONIC CLEANING STATION

The ultrasonic cleaning station gives the sample holder its final cleaning. Cleaning time is freely programmable. Element for heating up the bath is included as standard. Optional here is a recirculatory filter system which considerably lengthens the useful life of the cleaning fluid and optimises the final results.

SAMPLE HOLDER STACK

The sample holder stack has up to 12 places where the user can store his sample holders. After starting the machine, the sample holders are taken out automatically for processing and the finished samples with the sample surfaces upwards, are returned to the stack.

FOIL CHANGER

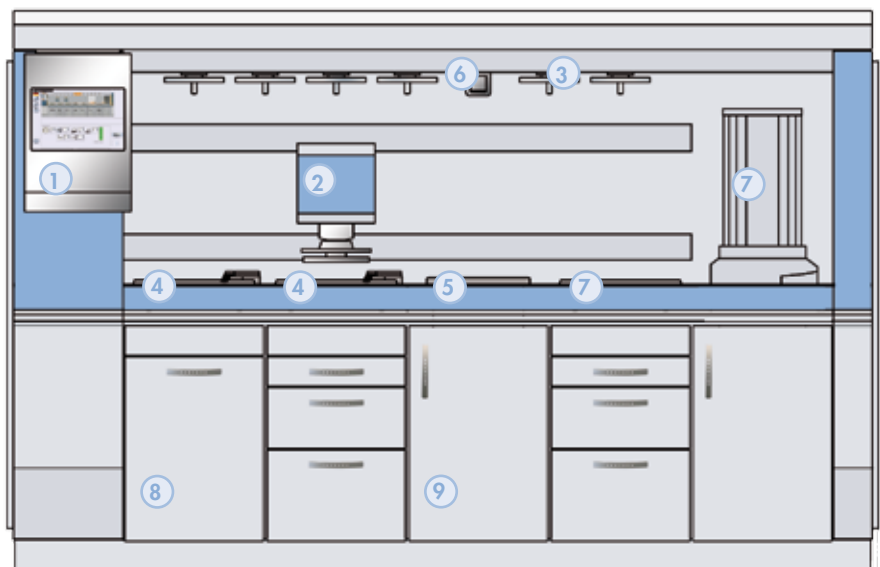
In the storage compartment for the foil changer there is room for 4 grippable grinding media to be stored for use. The vacuum-change arm lays the grinding medium onto the wheel according to the programmed details. They are fixed in position quickly and easily with our Vacu-Jet system. If you want to use the grinding foils again, they can be put back in the storage compartment again. Used foils are deposited in the waste compartment.



SYSTEMAUTOMAT 5-LINE

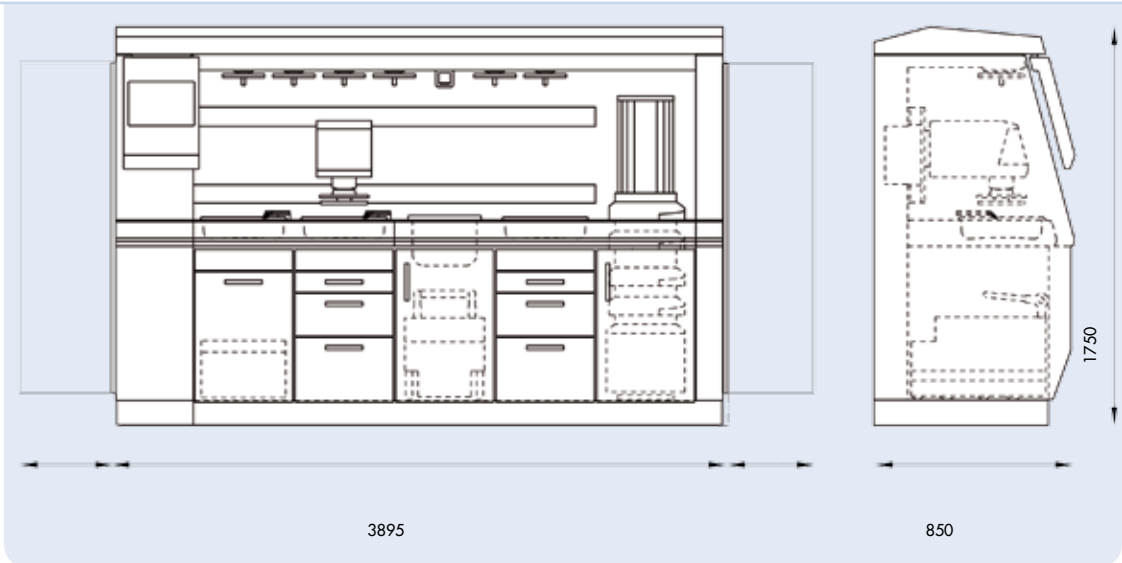
This combination example shows a 5-line Systemautomat

- » 5-line System grinder and polisher automation with polishing head
- ① » Movable control panel (sideway) with touch screen control
- » Individually programmed preparation cycles can be saved
- ② » Polishing head: clockwise/anti-clockwise rotation
- ③ » Holder stack for six sample holders
- ④ » Two grinding and polishing stations
- » Variable speed of working wheels
- ⑤ » Fully-automatic sample cleaning with water, Ethanol, air
- ⑥ » Warm air dryer with timer
- ⑦ » Grinding station with four different grinding media/ grains stored in foil changer
- ⑧ » Dosing drawer for storing of polishing suspensions
- ⑨ » Settling tank
- » Aluminium case, powder coated
- » Cabinets as shown





SPECIFICATIONS



Station lines	4	5	6	7	8
W	2260	2700	3140	3580	4020
x H xD	1750 x 850 mm				
Motor	Depending on equipment 4 - 12,5 kW				
Power supply	400 V / 50 kW				

Grinding and polishing station

Working wheels	Ø 300 mm
Speed	50 - 600 rpm
Lines	one line

Grinding station

Working wheels	Ø 300 mm
Speed	50 - 600 rpm
Lines	one line

Cleaning station

Cleaning media	Air, water, Ethanol (Option)
Process	Time and steps can be set as needed
Lines	one line

Ultrasonic cleaner

Volume	9,7 Ltr.
HF-power	400 W
Lines	one line

Foil changer

Storage	4 different grinding media
grinding paper	Ø 300 mm
Lines	two lines

Grinding and polishing head

Central pressure	50 - 450 N, variable
Speed	20 - 120 rpm, clockwise/anti-clockwise
Controlled removal	automatic
Sample holder	Ø 160/185/204 mm

The pictures show examples of Systemautomat combinations.

The stations and their options can be arranged individually. Please ask for advice.