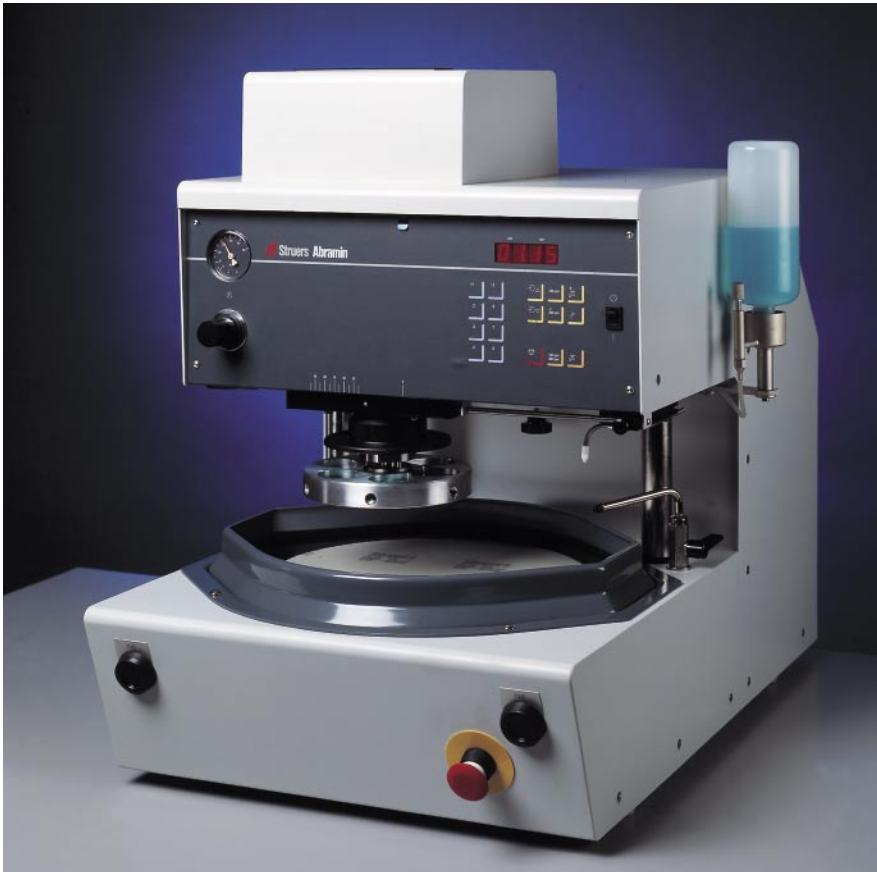


# Abramin



**Microprocessor  
controlled table  
top machine  
for automatic  
grinding, lapping  
and polishing  
of all materials**



- Easy to operate
- Eight microprocessor controlled steps
- Short preparation times
- Optimum reproducibility
- Quick-coupling device for specimen holder
- Microstop can be mounted

## **Abramin is a universal grinding, lapping and polishing machine for preparation of specimens for inspection in microscope.**

The built-in microprocessor facilitates the operation and the programmable methods make the Abramin a versatile tool for the preparation of all materials. Abramin is ideal for quality control facilities with a relatively high sample volume requiring a fast turn-around time. All preparation steps can be carried out on the machine and no additional manual work is needed.

The programming and change of preparation methods is easy and fast because the data selection of the programs is logically organized and the machine is easy to operate.

## **Eight Programmable Preparation Steps**

Abramin is easily programmed on a splash-proof keyboard, on which the functions are indicated by illumination and the preparation time is shown on a display. Eight preparation steps can be programmed by selecting time, rotational speed, water for grinding or lubricant for polishing. These eight steps can be combined in a number of ways to allow preparation of a wide variety of materials without reprogramming.

### **Grinding**

Grinding is carried out with SiC paper in 4 steps. As an alternative, MD-Allegro or MD-Largo can be used for one-step grinding which provides excellent planeness and is even more economical. For grinding sintered carbides and ceramics, MD-Piano is used. All discs are easily interchangeable.

### **Polishing**

Polishing disc and specimen holder of the Abramin rotate with 150 rpm and the holder is eccentrically positioned in relation to the polishing disc. This prevents a preferential direction during

preparation and ensures a fast and good polish without creating comet tails and pull-outs. For diamond polishing, 9-1/4  $\mu\text{m}$  is used on Struers MD- or DP-Cloths. Abramin can perform any type of preparation from a fast one-step polish to a perfect plane polish. For final polishing, without deformation or scratches, oxide polishing suspensions on MD/OP-Chem cloth are used.

### **The Abra System**

Abramin accepts the same specimen holders, grinding and polishing discs, and consumables as the other Abra machines and RotoPol/RotoForce. The accessories are all interchangeable on these machines, making the Abra System extremely flexible and allowing for an increase of capacity at any time, if required.

### **Microstop**

Abramin can be mounted with a microstop so that a certain removal from the specimen can be preset.

### **Design**

Abramin has a pneumatic system for an automatic vertical movement of the



Insertion of the specimen holder is quick and uncomplicated



All preparation parameters are easily programmed on the touch-pad keyboard

specimen holder. The force applied to the specimens is continuously variable from 30 to 450 N, so that pressure sensitive as well as large specimens can be prepared.

A built-in water separator with filter ensures effective valve function. The 160 mm (6.3") dia. specimen holder discs are easy to handle and 3 to 12 specimens can be prepared simultaneously.

The specimen holder is easily clamped in the quick-coupling device, and preparation discs up to 305 mm (12") are placed directly on the turntable without using any tools.

The specimen holder can be displaced horizontally in relation to the grinding and polishing disc with a hand wheel

to allow optimum utilisation of grinding discs and polishing cloths. Abramin conforms with the strict safety standards laid down for machine tools (IEC 204, VDE 0113), and is easy to service.

### Accessories

The Multidoser applies DP-Suspensions, OP-Suspensions and Lubricants automatically, thus saving money as well as time. (See special leaflet) The microstop ensures a preset stock removal.

### Technical data

	3-phased Supply fuse: Max. 12 A Compressed air supply: 6 bar
<b>Power:</b>	Main motor: 300/550 W at 50 Hz, 370/650 W at 60 Hz Specimen holder motor: 50 W Specimen holders: 160 mm (6.3") dia.
<b>Rotational speed:</b>	Turntable: 150/300 rpm Specimen holder: 150 rpm at 50 Hz 180 rpm at 60 Hz
<b>Dimensions:</b>	Height: 650 mm (25.6") Width: 555 mm (21.5") Depth: 780 mm (30.7") Weight: 99 kg (218 lb)

### Specifications

Specifications	Code
Abramin, Microprocessor controlled bench top machine for automatic grinding and polishing. Specimen holders and discs are ordered separately	ABMIN
Recirculation cooling unit	TRECI
MD-Disc, for magnetic fixation of MD-Consumables. 300 mm (12") dia.	DEMAL
Preparation Disc, for consumables with adhesive back. Aluminium. 300 mm (12") dia.	DEDAL
Wet-grinding disc, aluminium, for non-adhesive SiC paper, 300 mm (12") dia.	ROTAL
Microstop for Abramin	ABCIM

Please state voltage and frequency.

Struers' products are subject to constant product development. Therefore, we reserve the right to introduce changes in our products without notice.



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