

# 1.03.12 MULTIPLATE GRINDER (GEOLOGY)





### **APPLICATION**

The multiplate grinder with diamond grinding wheel 1 03 12 G permit automatic thining to a determinated thickness of rock bonded on glasses slides.

It is automatic, fast and accurate. It can grind simultaneously up to 20 thin sections 30x45 in a few minutes.

This machine replace the traditional manual techniques. It solves simply, automatically and efficiently the problems of manual sample preparation so familiar to many laboratories.

## **DESCRIPTION**

Samples are stuck onto glass slides and are set on a circular plate which is slightly inclined. They remain in place simply be adhering to the glazed surface of the plate. They are prevented from moving sideways by a metal frame slightly thinner than the glass-slides.

The plate can take up to 3 slides 140x68. It is individually driven and rotates slowly.

A shaft, rigorously parallel with that of the plate, bears the diamond grinding wheel which can move along its shaft. The thin sections are presented facing the grinding wheel.

Using a sliding gauge, the operator brings the grinding wheel in contact with the samples and activates the automatic feed mechanism. This mechanism, moved by the rotation of the plate, ensures the advance of the grinding wheel. It stops automatically when the desired pre-set thickness is reached. The role of the operator is limited to lay out the samples on the plate and to start the machine. No monitoring is necessary. The stop of the automatic feed is indicated by luminous and/ or sound indicator.

## PERFORMANCE

When the samples are carefully stuck on identically-calibrated glass-holders, it is possible to obtain thin sections at the requested thickness in a few minutes.





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### **PARTICULARITY**

This machine is specialized in automatic preparation of the thin section of rock, by grinding. It permits to realize up to 20 samples at the same time. The degree of finish obtained depend on the type of used wheel, and of his grain. We can use diamond grinding wheel with glass binding or metal binding. The choice of the diamond grain is: D91 or D46 for the metal binding, D46 or D30 for the glass binding. The metal binding grinding wheel are used for the roughing, and the glass binding wheel for the finition.

Watering of the wheel is executed thanks to a incorporated recycling system. It ensures the watering and the decantation of water. It is possible to use mains water: a valve on the front permits to switch system.

The adjustment of the final thickness is made by a graduated micrometer in 1/100 mm. The automatic feed is adjustable from 5 to 20  $\mu$  per turn of the plate. The stop of automatic feed is signalled by a warning lights and/or audible warning.

The machine uses 1 diamond metal binding grinding wheel grain D91 or D46.

### **CHARACTERISTICS**

#### **Electrical**

Electrical supply: 230/400 V, Three-phase, 50 Hz

(please specify when ordering) Grinder motor: 2 HP

Grinder motor: 2 HP Plate motor: 1/6th HP Recycling motor: 1/3rd HP.

Power: 1.1 kW.

Recycling: 30L capacity Water in: Ø12 mm Water out: Ø30 mm

## Capacity

Up to 20 thin sections 30x45 mm

## **COMPOSITION STANDARD**

- 1 standard sample holder for 20 slides 30x45 or 12 slides 30x40 + 4 slides 45x60
- Service tool set
- First service spare parts

#### **OPTION**

• Diamond glass binding grinding wheels grain D30 and D46







