

# CUT-OFF, GRINDING & POLISHING MACHINES

## Kemet Geological Sample Preparation

The Kemet range of Geological sample preparation equipment can cater for high or low volume production. The details below will help to determine the most suitable system for your application:

### Step 1

Impregnate porous samples using the Vacumet, or mount samples directly onto glass slides using the KEPT resin.



### Step 2

Use the Geoform to first section the mounted sample, and then grind to the required thickness.



### Step 3

For polishing up to 3 specimens, use the Forcipol 300-1V with the Forcimat TS head.



### OR

For high volumes, use the Kemtech 15 Geo to produce flat lapped thin sections, followed by the Kemet 300 LVAC for polishing.



## Kemet



### Geoform Thin Section Cutting and Grinding Machine

#### Specification

The Geoform is a precision thin sectioning machine for mineralogy, combining cutting and grinding functions. With the cutting module, using Diamond or CBN wheels up to 200mm diameter, the specimen is mounted on the holder by way of a vacuum and sectioned to a thickness of approx 0.5 micron. Water cooling avoids deformation.



The grinding module is designed for precision grinding. A universal vacuum holder accepts different sizes of glass slides by changing the location pins. A vacuum pump delivered as standard holds the glass slide fixed on the holder during the grinding process. A built-in digital micrometer ensures high precision and the specimen is ground with an accuracy of microns.

### Kemtech 15 Geological Lapping Machine

**new**

The Kemtech 15 Geological lapping machine is able to accurately lap thin sections mounted on glass slides down to 30 microns. Silicon carbide can easily be applied to the cast iron serrated lapping plate for lapping. Polishing of thin sections can be achieved using a polishing pad.

#### Features

- Cast iron Serrated Lapping Plate
- Variable Speed up to 70 rpm
- Water Trap and Filter
- Capacity for up to 3 vacuum jigs with diamond faced stoppers
- Vacuum pump
- Integrally mounted high torque drive unit with 0.37kW (0.5HP) motor
- Sealed maintenance free reduction gearbox
- Three adjustable conditioning ring roller bearing yoke assemblies
- Abrasive Slurry Distribution System using rotating drum
- Electronic digital timer with variable time ranges
- Electrical: 230V-single phase-50Hz



## Kemet 300LVAC Polishing Machine

**new**

The Kemet 300LVAC special purpose-polishing machine is designed to work alongside the Kemtech 15 Geological lapping machine for polishing geological mounted samples.

The basic machine has a 300mm diameter polishing plate. All drive elements are mounted on a heavy-duty aluminium alloy casting, giving vibration free operation and silent running. Water inlets with control valve are standard features.

The control panel has a process timer, variable speed control and forward / reverse control switch and its own vacuum pump and connectors to suit Kemet vacuum jigs (not supplied with the machine).



## Kemet Vacuum Jigs

**new**

The **KEMET VACUUM JIG** is a precision workholding and sizing fixture for use with KEMET and other Flat Lapping Machines.

The Jig is suitable for accurately sizing Geological thin sections, wafers, crystals and any precision parts where parallelism and precision finish are required.

A range of face plates are available making the Jig suitable for holding all popular Glass Slide sizes. Special holding profiles can be supplied to accommodate wafers crystals and precision parts.

Any components and specimens can be held which can be located inside a diameter of 110mm and are under 6mm in thickness. Special versions for larger sizes are available on application. The basic Jig is supplied in a protective wooden case complete with rotary union and tubing suitable for a Vacuum Pump. The work locating faceplate is provided to suit the application.

### Kemet Vacuum Jig

Code 362072                      Height including Rotary Union – 250mm  
 Nett weight - 6.5 kg              Outside Diameter – 157mm

### Options include:-

1. A setting jig complete with Dial indicator. This enables accurate size setting to a few microns.
2. A stand to enable easy loading and unloading of the Jig - Code 362077.
3. Setting stand - Code 361986.
4. Setting test block - Code 361773.

