

# Ceramographic laboratory

Ing. R. Sedlák, PhD., Institute of Materials Research SAS, rsedlak@saske.sk

## **Grinding and polishing machine TEGRAMIN 30**

Microprocessor controlled machine for grinding and polishing with dosing module for controlled amount of applied diamond suspensions or lubricants.



- individual specimens or specimens clamped in holders
- Force applied on specimen holder: 30-400 N, on individual specimens: 5-65 N
- Measurement of material removal from 50 - 5000  $\mu\text{m}$
- Variable disc speed from 40 to 600 rpm
- Variable specimen mover head speed 50 - 150 rpm
- Bottom cooling of disc

## **Automatic mounting press SIMLIMET 3000**

Electro-hydraulic hot press for mounting of specimens with thermosetting and thermoplastic resins.

- Mold diameters - 25mm and 30mm
- Molding temperature 50°C - 180 °C in 10 °C increments
- Molding Pressure from 80 to 300 bars in 5 bar increments
- Mold cylinders for single or duplex mounting



## **Precision cutting machine SECOTOM 15**

with movable cutting table and motorized positioning of workpiece. OptiFeed function reducing the feed speed to an appropriate value



- Cut-off wheels diameter from 75 to 200 mm
- Cut-off wheel speed 300 - 5000 rpm
- Cutting capacity 165 x 50 mm or rods up to 70 mm with maximal cutting length of 190 mm
- Height adjustment of cut-off wheel in a range of 40 mm
- Manual X-stand with positioning accuracy of 5  $\mu\text{m}$ .

## **Low speed sectioning diamond saw ISOMET 1000**

Diamond saw designed for cutting materials with minimal deformation.

- Automatic stop at predetermined cutting depth
- Gravity feed loading
- Diamond wafering blade up to 178 mm
- Motor with variable arbor speed 100-975 rpm
- Max. dimension of samples - diameter 38.1 mm, 203 mm long
- X-direction capacity - 25 mm
- Digital micrometer for sample positioning



## **Manual Chop Abrasive Cutter DELTA ABRASIMET**

Manual cutting of ceramic and different kinds of materials.

- Wheel speed up to 2830 rpm
- Wheel capacity - 254mm
- Motor Power-3.0kW
- Maximum Cutting Capacity - 95mm
- T-slot bed 210 x 210 mm with 12mm slots accommodated for wide selection of samples holder.