



# kaloMAX II

Spherical cap grinder for the determination of layer thickness

- Measurement of single layer and layer systems
- Measurement independent of the material
- Comfortable operation
- Precise measurement without calibration



## kaloMAX II

Spherical cap grinder for the determination of layer thickness of coatings and layer systems

The ball crater test is a well established method for the determination of layer thickness. With a rotating steel ball and an abrasive slurry, a spherical cap is ground through the coating into the base material of the sample. When examined with a microscope, the layer/base material interface appears as a circle or, in case of a multilayer coating, a system of concentric circles. The layer thickness can be calculated from the diameters of these circles and the diameter of the grinding ball.

This purely geometrical method gives highly accurate results even for layer thicknesses in the range of micrometers.

Evaluation and documentation can be further simplified by the software kaloSOFT and a camera-equipped microscope.



### Range of application:

Layer thicknesses
Diameter of the spherical cap
Measurement accuracy

#### Characteristics:

Ball diameter Clamping range for plane samples Clamping range for round samples

Cross table travel Incline of sample level LED displays (14 mm height)

Number or revolutions of the drive shaft

Running periods

Input voltage range Input frequency range Dimensions Weight approx.  $0.3 - 30 \mu m$ approx. 0.1 - 2 mm1 - 5 % (dependent on surface roughness)

15 – 30 mm 50 mm

3 – 30 mm (clamping jaw for other dimensions on request) 25 x 25 mm

60 degrees

4 digits number of revolutions

4 digits runtime

1 digit program number

100, 200, 300, 400, 500, 600, 700, 800, 900, 1000, 1100,

1200 1/min

5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 70, 80, 90, 100,

110, 120, 150, 180 s

85 – 264 VAC 47 – 63 Hz

 $300 \times 295 \times 235 \text{ mm (w/d/h)}$ 

approx. 8 kg

#### Options:

- Detachable vice
- · Grinding paste of various granulation
- · Various microscopes equipped with high resolution cameras
- Evaluation software kaloSOFT
- · All-in-one solutions
- Automated models



