

## 2.1 Mechanics

### 2.1.1 Measurement Techniques

P2110105



Details

#### Principle

Caliper gauges, micrometers and spherometers are used for the accurate measurement of lengths, thicknesses, diameters and curvatures. Measuring procedures, accuracy of measurement and reading accuracy are demonstrated.

### Basic measurement techniques

#### What you can learn about

- Length
- Diameter
- Inside diameter thickness
- Curvature
- Vernier

#### Benefits

- Foundation of every practical sciences lab course
- Acquire the skills to measure basic mechanical variables
- Realise the limits of measuring accuracy
- Combine different measurements to determine a quantity of interest
- Determine curvatures using the spherometer

#### Tasks

1. Determination of the volume of tubes with the caliper gauge.
2. Determination of the thickness of wires, cubes and plates with the micrometer.
3. Determination of the thickness of plates and the radius of curvature of watch glasses with the spherometer.



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