

### Heat Equivalent Apparatus

Apparatus for determining the specific heat capacity of aluminium and for confirming the energy conservation law. The robust heat equivalent apparatus consists of a shaft with ball bearings at both ends, an integrated counter for measuring the number of revolutions performed and an attached table clamp for securing the device. The aluminium calorimeter body heats up as a result of frictional work or electrical energy from the integrated heating element. An NTC thermistor, acting as a temperature sensor and located in an aluminium case, determines the temperature. The calculation can be performed easily using the temperature calibration table printed on the apparatus.

- Length: 230 mm
- Span of the table clamp: 10 – 65 mm span
- Cord length: approx. 1.80 m
- Calorimeter body: 50 mm x 48 mm diam.
- Electric heater power: 10 V, 1 A
- Weight calorimeter: 250 g
- Total mass : approx. 1200 g

#### Contents:

- 1 Basic unit
- 1 Aluminum calorimeter
- 1 Temperature sensor
- 1 Pair of adaptor cables with 4 mm safety plugs/2 mm plugs
- 1 Friction belt
- 1 Bucket, 5 l
- 1 Counterweight

#### P-1002658 .....

Additionally required for temperature measurement:

#### P-1002781 Digital Multimeter

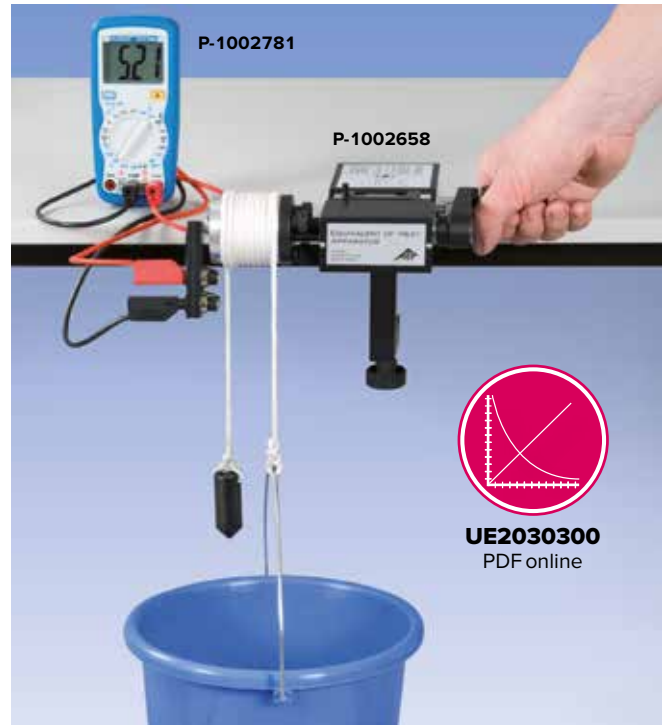
Additionally recommended:

#### P-1003312 DC Power Supply, 0 – 20 V, 0 – 5 A (230 V, 50/60 Hz)

or

#### P-1003311 DC Power Supply, 0 – 20 V, 0 – 5 A (115 V, 50/60 Hz)

#### P-1002659 Copper Calorimeter



**UE2030300**  
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### Calorimeter Bodies

Calorimeter bodies for the heat equivalent device and for determining the specific heat capacity. With borehole for holding temperature sensor and with integrated heating element.

- Electric heater power: 10 V, 1 A
- Heating element connection: via 2-mm sockets
- Dimensions: approx. 50 mm x 48 mm dia.
- Weight: approx. 750 g (Cu) / 250 g (Al)

#### Copper Calorimeter

#### P-1002659 .....

#### Aluminium Calorimeter

#### P-1017897 .....

### Temperature Sensor

Temperature sensor (NTC thermistor) for use with calorimeter bodies (P-1002659 and P-1017897).

#### P-1017898 .....

### Pair of Adapter Cables with 4 mm Safety Plugs/2 mm Plugs

Cables for connection to contacts of heating elements in calorimeter bodies (P-1002659 and P-1017897).

#### P-1017899 .....



**UE2030400**  
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### Calorimeter, 200 ml

For determining temperatures of mixtures, specific heat capacities, conversion energies of substances and heat of fusion of ice. Designed for simple experiments for students. Plastic container with styrofoam inlay.

- Capacity of insulated container: approx. 200 ml
- Weight: approx. 80 g

#### P-1000823 .....

Additionally required:

#### P-1003526 Tube Thermometer, -10 – +100° C

Additionally recommended:

#### P-1000832 Aluminium Shot, 100 g

#### P-1000833 Copper Shot, 200 g

#### P-1000834 Glass Shot, 100 g



P-1000823