

# CALIBRATION BATH

## With Black Body Cavity

OB-15/2 BB  
OB-15/2 BBLT

Special Calibration baths-metrology performance:

- Perfect solution for calibrating IR thermometers and other thermographic equipment
- Various shapes Black Body Cavities available
  - Uniformity and stability in mK range
  - Fluid ensures perfect heat transfer
    - Unique vertical flow design
      - State of the art solution
      - Two temperature ranges





Over temperature shut off device"

Vertical fixture – one included as standard

Special double cylinder design with unique vertical flow across entire working volume

15L working chamber with immersion depth 270 mm

Touch screen based controller with user friendly interface, history graph advance settings options RS-232, USB or Ethernet communication ports

Black Body Cavity – available in various types

Full 4 side maintenance access

Extensive high performance chamber heat insulation

All exterior in stainless steel AISI 304 SB With rounded corners

Air cooled conventional compressor based refrigeration system (BBLT version)

Mobile standalone unite, with built on swivel wheels with brakes

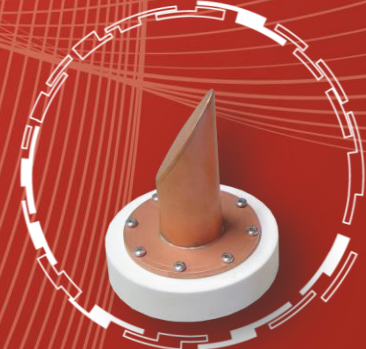
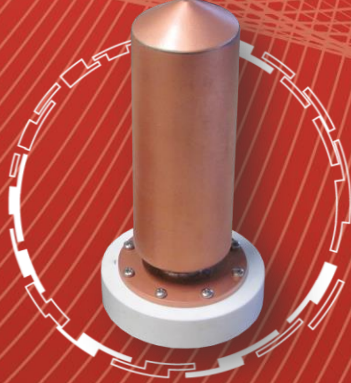
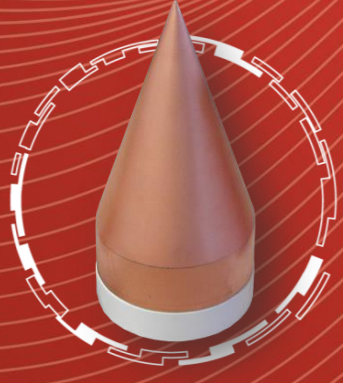
Overflow drain with catch pot and fluid drain valve neatly hidden behind the front cover panel

**Black Body Cavity types:**

- ASTM Designation E 1965-98

- JIS T 4207:2005

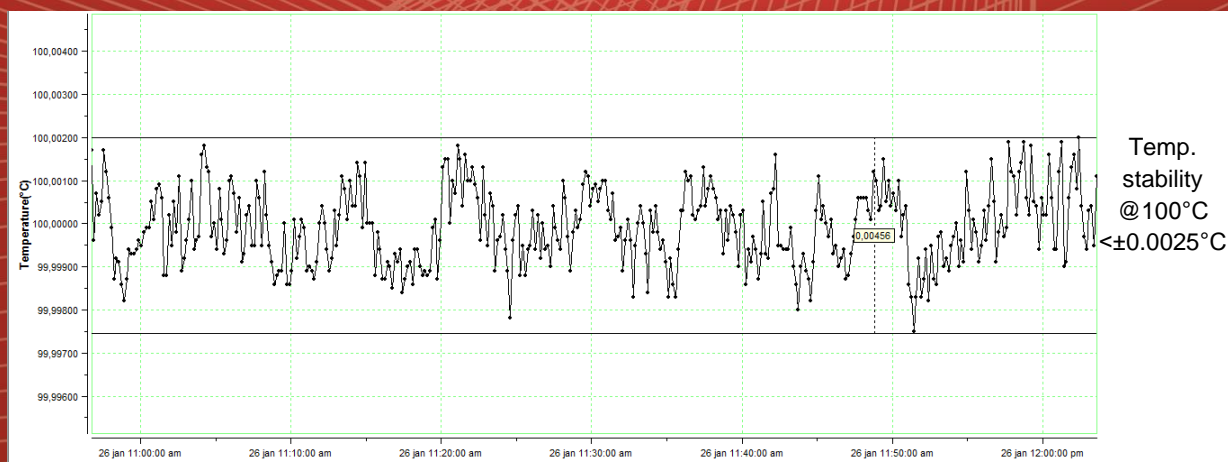
- CEN 2003 EN 12470-5



**Controller functions:**



**Bath's temperature stability graph at 100°C:**



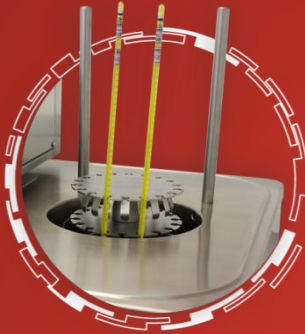
## Technical data:

|   | OB-15/2 BB  | OB-15/2 BBLT  |
|---|---|---|
|   |  |  |
| External dimensions (WxHxD) in mm                   | 530 x 1090 x 470  | 530 x 1090 x 470  |
| Internal dimensions (cross x immersion depth) in mm | 225 x 270   | 225 x 270   |
| Volume (L)  | ~15   | ~15   |
| Temperature range (°C)                              | 40 ... +250   | -20 ... +130  |
| Temperature display resolution (°C)                 | 0.001   | 0.001   |
| Temperature set resolution (°C)                     | 0.001   | 0.001   |
| Temperature stability (°C)                          | ±0.003 @ 100°C  | ±0.006 @ -20°C<br>±0.005 @ 0°C<br>±0.003 @ 100°C                                    |
| Temperature uniformity (°C)                         | ±0.007 @ 100°C  | ±0.007 @ -20°C  |
| Heating rate  | 33 min<br>(40°C to 100°C)   | 33 min<br>(40°C to 100°C)   |
| Cooling rate  | N/A   | 63 min<br>(100°C to 0°C)  |
| Temperature Control                                 | PID   | PID   |
| Noise level (dBA)                                   | < 48  | < 58  |
| Cooling   | Natural   | Compressor Cooling System   |
| Power supply  | 230 V 50/60 HZ<br>(± 10%)   | 230 V 50/60 HZ<br>(± 10%)   |
| Wattage (W)   | 1100  | 2500  |
| Interface   | RS 232 or USB or Ethernet   | RS 232 or USB or Ethernet   |
| Weight (kg)   | 63  | 88  |

\*All performance data with fluid KDC 200.05

## Accessories:

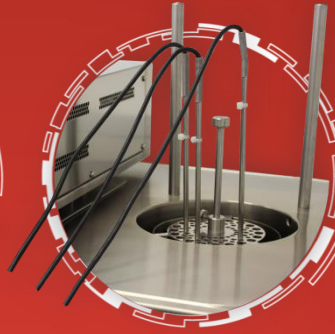
- LIG thermometer holder



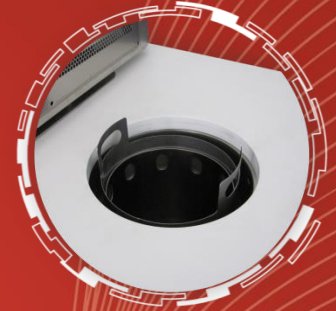
- Vertical fixture



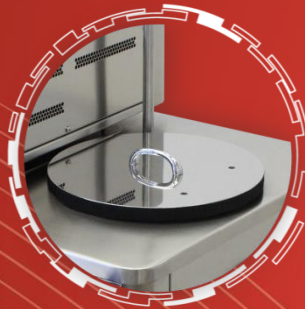
- Adjustable multiple probe fixture



- External fluid level for LIG



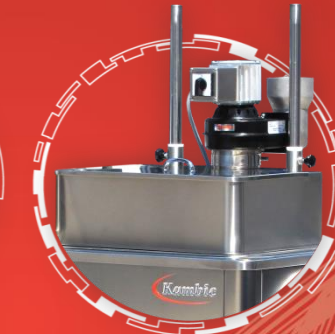
- Additional lid



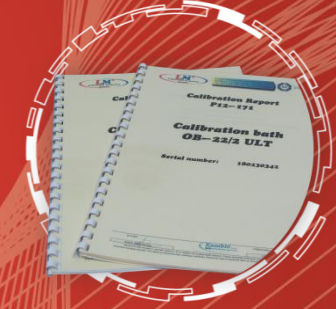
- Foldable shelf



- Fume hood

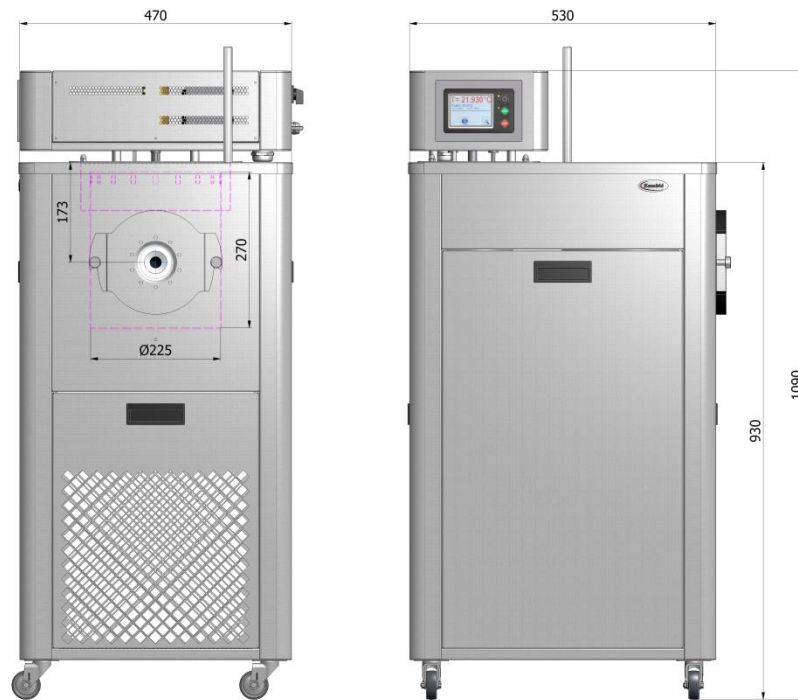


- Evaluation report



## Ordering information and accessories:

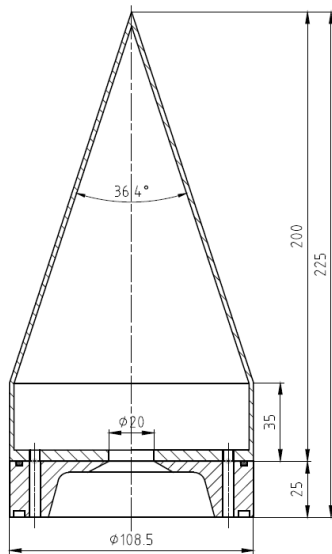
| Description  | Part no. |
|--|----------|
| Calibration bath OB-15/2 BB  | 1623     |
| Calibration bath OB-15/2 BBLT  | 1624     |
| Black Body cavity ASTM standard  | 1654     |
| Black Body cavity JIS T standard   | 1661     |
| Black Body cavity CEN EN standard  | 1660     |
| USB interface  | 1466     |
| Ethernet interface   | 1716     |
| Evaluation report  | 1719     |
| Monitoring and data collection software                                    | 104      |
| External fluid level for LIG   | 1655     |
| Vertical fixture   | 1657     |
| Adjustable multiple probe fixture  | 1733     |
| LIG (liquid in glass thermometer) fixture                                  | 1735     |
| Local fume hood with fan   | 1656     |
| Foldable shelf   | 1658     |
| Black body mounting flange cover (for operating without black body cavity) | 2118     |
| Extra lid for OB-15/2  | 2116     |
| Extra side insulation lid for OB-15/2                                      | 2117     |
| Silicone oil fluid KDC 200.50 (30°C...278°C)                               | 631      |
| Silicone oil fluid KDC 200.05 (-40°C..130°C)                               | 645      |
| Silicone oil fluid KDC ULT (-100°C...30°C)                                 | 700      |



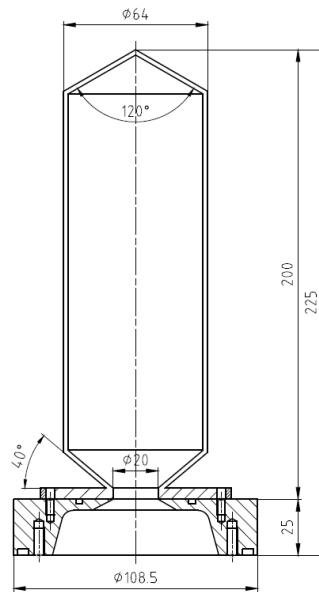
**SHIPPING**  
 W 660 mm  
 H 1330 mm  
 D 630 mm  
 WEIGHT 73/107 kg \* we reserve the right to modifications

|                        |  |                         |
|------------------------|--|-------------------------|
| DIMENSIONAL<br>DRAWING | PRODUCT                                    | MODEL                   |
|                        | CALIBRATION BATH<br>With Black Body Cavity | OB-15/2<br>OB-15/2 BBLT |
|                        |  |                         |

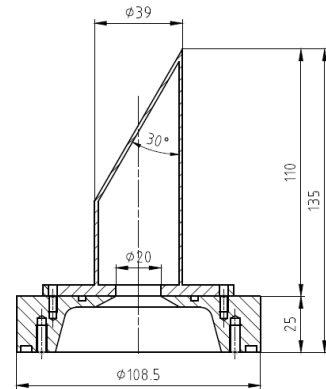
ASTM, Designation E 1965 - 98



JIS T 4207: 2005



CEN 2003 EN 12470-5



|         |            |       |                |     |                 |                     |
|---------|------------|-------|----------------|-----|-----------------|---------------------|
| Aparat: | Merilo:    | 1:1,3 | Kosa:          | --- | Naziv:          | BLACK BODY CAVITY   |
| OB-15/2 | Material:  | Čoper | Šnč:           | --- | Številka risbe: | DIMENSIONAL DRAWING |
|         | Projektor: | ---   | Šnč in primop: | --- |                 |                     |