

## Temperature Calibration Bath

An improved constant temperature bath has been developed in the range of  $-20^{\circ}\text{C}$  to  $+300^{\circ}\text{C}$  with temperature stability of  $\pm 0.01^{\circ}\text{C}$  to  $\pm 0.05^{\circ}\text{C}$  and temperature uniformity of  $\pm 0.002^{\circ}\text{C}$  to  $\pm 0.005^{\circ}\text{C}$ . The bath is suitable for calibration of precision temperature measuring sensors and long stamped thermometers used in the standards and metrology labs.

NATIONAL PHYSICAL LABORATORY

# Temperature Calibration Bath

### Technology

CONSTANT TEMPERATURE BATHS ARE USED FOR CALIBRATION OF THERMOMETERS AND OTHER TEMPERATURE SENSORS. METROLOGY LABORATORIES REQUIRE THESE. THE INDIGENOUS DESIGN COVERS FEATURES LIKE VERTICAL ISOTHERMAL ZONE AND HIGH STABILITY INCREASED DEPTH OF IMMERSION, LESS QUANTITY OF BATH FLUID AND PROVISION FOR OVERFLOW OF EXPANDED HOT LIQUID REQUIRED FOR HIGH PRECISION CALIBRATION ETC., THIS DESIGN IS ECONOMICAL & COST EFFECTIVE COMPARED WITH IMPORTED BATHS.

### Specifications

- Range:  $-20^{\circ}\text{C}$  to  $300^{\circ}\text{C}$
- Display Resolution:  $0.01^{\circ}\text{C}$  up to  $100^{\circ}\text{C}$ ,  $0.1^{\circ}\text{C}$  up to  $300^{\circ}\text{C}$
- Temp. Controller: PID with RTD sensor
- Cover plate of Bath: 52 mm thick Hytrem sheet
- Bath material: SS304 Grade, thickness 3mm
- Bath Dimensions:  $400 \times 400 \times 1000\text{mm}$
- Bath Chamber dia: 300mm

Licensee: M/s Labco Scientific Instruments, New Delhi

### Potential Users

- ✓ NPL, Accredited Laboratories
- ✓ Manufacturers of Thermometers
- ✓ Pharmaceutical Laboratories
- ✓ Petroleum Oil Industries
- ✓ Defense Laboratories



*Protected through Indian Patent Application No: 0610/DEL/2009*

 **National Physical Laboratory**  
Dr. K.S. Krishnan Marg, New Delhi - 1100 12

[Procedure for Technology Transfer](#)

[Technology Request Form](#)

### Contact:

Head, Industrial Liaison Group (ILG)  
Room No. 46-A, Main Building  
CSIR-National Physical Laboratory  
Dr. K.S. Krishnan Marg

New Delhi 110012, INDIA.

Email: [headilg@nplindia.org](mailto:headilg@nplindia.org)

Tel: +91-11-4560-8247/9385

Fax: +91-11-4560-9310