Jayasree Reva Phoenix Metrology Pvt. Ltd.

Calibration | Inspection | Testing | Training | Services

ISO 9001:2015 Certified | ISO/IEC 17025:2017 Accredited

Mass Metrology | Training Brochure

INTRODUCTION

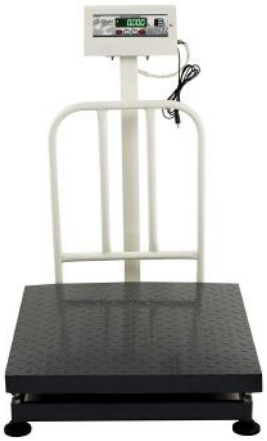
Mass calibration is the process of verifying the accuracy of a weighing instrument by comparing it to a standard mass. This is an important step in ensuring that the instrument is measuring weights accurately and reliably, which is essential in a wide range of industries and applications where precise measurements are necessary. Mass calibration is equipped with high precision micro balance for calibration of high accuracy E1 class weights.

COURSE FEATURES

Training course covers the following contents:

- Practical & Theoretical Training of Mass Calibration
- Specific Criteria & Guidelines Mass Calibration
- Estimation and Expression of Uncertainty in Measurement as per NABL 141
- Calibration and Measurement Capability (CMC) and Measurement Uncertainty in Calibration as per NABL 143
- Participation in Proficiency Testing Activities as per NABL 163
- Guidelines for Interlaboratory Comparison as per NABL 164

Ultra Micro Balance



Weighing Balance

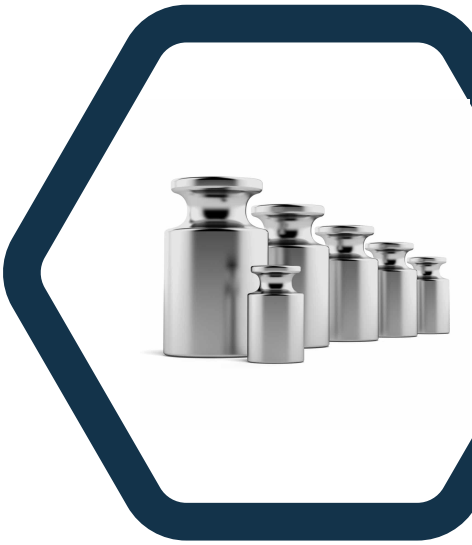
Micro Balance

Table Top Balance

TRAINING MATERIAL

Material in soft for Mass metrology as per ISO/IEC 17025: 2017, NABL oriented best-in-class training material traceable to National and International Standard requirements.

PRINCIPLE | THEORY



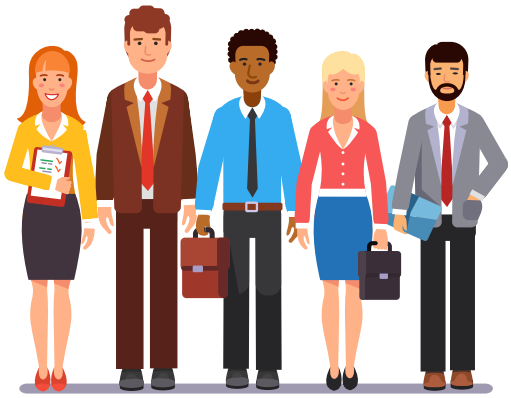
Mass Calibration, the test weights derived from the calibrated items are compared to specified measurement standards. The process will determine if the accuracy of measurements is being maintained. Adjustments can be made to instruments to bring measurements within tolerances or weights can be replaced as needed.

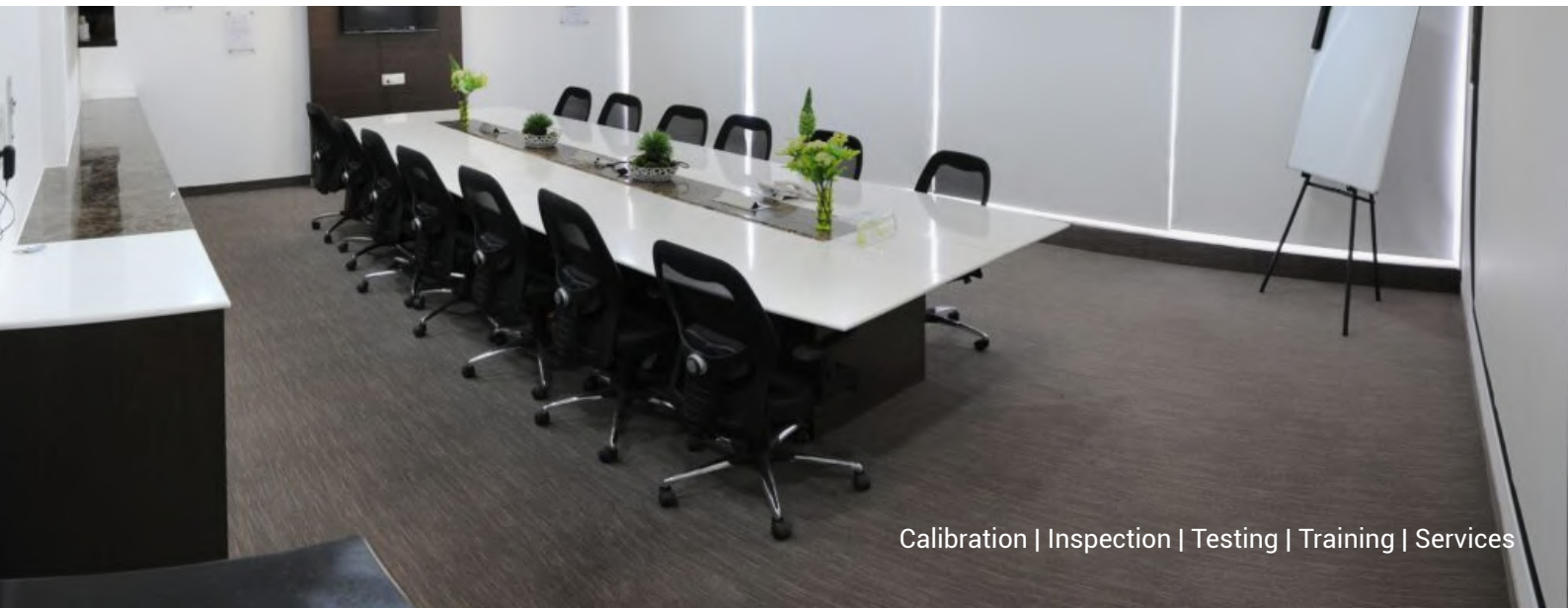
CALIBRATION RANGE

- E1 Class Weights (1mg to 20 Kg)
- Ultra Micro Balance (1mg to 2.1 g)
- Micro Balance (1 mg to 21 g)
- Semi Micro Balance (1 mg to 220 g)
- Table Top Balance (1 mg to 36 Kg)
- Weighing Balance (50 g to 2000 Kg)

EXPECTED PARTICIPANTS

- Laboratory Managers
- Calibration and Testing Engineers
- Laboratory Engineers
- Quality Managers
- Metrology Professionals
- NABL Lab Engineers





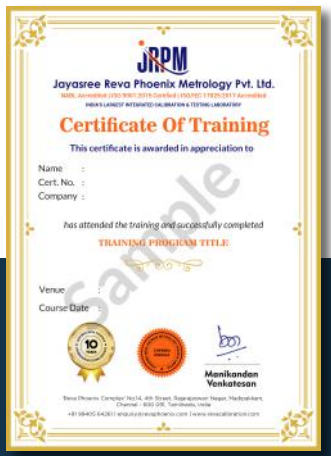
OBJECTIVES OF MASS WORKSHOP

- Basic knowledge of calibration such as requirements of calibration, why do we need calibration, equipment selection, types of equipments, metrological traceability, selection of calibration agency etc.
- Understand requirement of ISO/IEC 17025:2017 requirements for measurement uncertainty.
- Understand theory of uncertainty of measurement, selection of uncertainty measurement factors, and calculation of measurement uncertainty.
- Understand the relevance of instrument measurement, including the use of instrument.
- Understand technical requirements and calibration method for relevant instruments.
- Preparation of calibration certificates and work sheet.

COURSE CONTENT

Course content covers the following topics:

- Comprehensive Trainer's Guide
- Power Point Presentation: Mass Metrology
- Introduction to Measurements, Fundamental & Derived Units
- Standards Organizations and Document Standards
- Calibration Procedures | Methods | Processes
- Practical example from the trainer selecting the best solution
- Documentation Training as per ISO/IEC 17025: 2017
- Measurement Uncertainty
- Questions & Answers
- Practical examples from your business (In-house courses only)
- Summary & Review



WORKSHOP METHODOLOGY

TRAINING SESSION

Theoretical training on the basics of the subject.

- Mass Laboratory

WORKSHOP & TEAM EXERCISES

Case studies from relevant industry samples taken up in line with the guidelines and formats.

- Mass Laboratory

GRADED EXERCISE

Graded exercises to evaluate individual participant's progress during the course.

- Mass Laboratory

FINAL EXAMS

Business as usual, we have a final examination to evaluate and certify the participants.

CONTINUING SUPPORT

We provide continuing support to new projects and provide project assistance based on client requirements.

CERTIFICATION

- Certificate of course completion to successful participants.
- Attendance for the entire duration of the course is compulsory.

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Dimensional | Pressure | Torque | Force | Hardness | Impact | Mass | Volume | Electro-Technical | Thermal | Acoustics | Acceleration & Speed | Fluid Flow | Optical | UTM | TTM | Tachometer | Anemometer | Durometer | Lux Meter | Push Pull Gauge | Rockwell | Brinell | Vickers | Micro Vickers | Mechanical Testing | Impact Testing : Mechanical Properties of Metals and Non-Metals

JAYASREE REVA PHOENIX 10 YEARS CALIBRATION & TESTING SERVICES

CONTACT US

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