SCIENTICO INDIA
Manufacturer & Exporter · Ambala, Haryana, India

PRODUCT DATA SHEET
Catalogue reference for product evaluation

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Advance Dead Weight Apparatus | FluidoSurge-X 173

Category: Fluid Mechanics · **Country of Origin:** India

Product Overview

The Advance Dead Weight Apparatus is designed for high accuracy calibration of pressure measuring instruments. It enables generation of precise and repeatable pressure using a piston manometer principle. Made by Scientico India, ISO 9001:2015 certified, and supplied with a calibration certificate and operation manual.

View this product online: https://scienticoindia.com/product/advance-dead-weight-apparatus-fluidosurge-x-173/



Request a model-specific quotation
Include quantity and delivery country.

Technical Specifications

Parameter	Specification
Model	FluidoSurge-X 173
Type	Advance Dead Weight Apparatus
Application	Pressure Calibration and Instrumentation
Piston Material	Stainless steel
Piston Diameter	7 mm
Piston Area	38.46 mm²
Mass of Piston	Approx. 1 kg
Ancillary Weights	10 x 5 kg
Pressure Gauge Type	Bourdon tube
Pressure Range	0 to 140 bar / 0 to 2000 psi
Gauge Graduation	2 bar / 50 psi
Scale	Bar and PSI
Working Fluid	Hydraulic oil

Key Features

Key Features-

- Advanced dead weight pressure calibrator for high pressure applications
- Precision piston and cylinder assembly without seals
- Generation of accurate and repeatable calibration pressure
- Bourdon tube pressure gauge with transparent dial
- Hydraulic load mechanism with storage tank and bleed system
- Suitable for calibration, error analysis, and instrumentation training

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Applications-

- Calibration of Bourdon type pressure gauges
- Calibration of manometers and pressure transmitters
- Determination of systematic measurement errors
- Study of piston manometer operating principle
- Instrumentation and fluid mechanics laboratory experiments

Construction & Design Details-

The piston and cylinder are accurately fitted without seals to minimize friction and improve long term stability. The piston rod is rotated during operation to reduce friction effects and enhance repeatability. The hydraulic load mechanism includes a storage tank and bleed arrangement for smooth pressure generation. The Bourdon tube mechanism is visible through the transparent gauge dial for instructional clarity.

Export & Supply Capability-

SCIENTICO manufactures the Advance Dead Weight Apparatus FluidoSurge-X 173 for domestic and international supply. The unit is suitable for export to engineering colleges, universities, calibration laboratories, and training institutes. Standard packing, calibrated weights, hydraulic oil, and documentation are provided with each unit.

Ordering & Delivery

- Send the product name, quantity, delivery country and destination with your enquiry.
- Production schedule, freight, payment terms and export documents are confirmed in the written quotation.

Frequently Asked Questions

Q1. What distinguishes the advanced dead weight apparatus from a basic model?
It supports higher pressure ranges and includes a precision piston with smaller area for generating higher pressures.

Q2. What type of pressure gauge can be calibrated using this apparatus?
It is designed primarily for Bourdon tube pressure gauges.

Q3. How is pressure generated in this apparatus?
Pressure is generated by applying known dead weights on a piston of known cross sectional area using hydraulic oil.

Q4. Is data acquisition software included with the apparatus?
Data acquisition software based on LABVIEW environment is available as an optional accessory.

Q5. Is hydraulic oil supplied with the unit?
Yes, hydraulic oil is included in the standard scope of delivery.

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