SCIENTICO INDIA
Manufacturer & Exporter · Ambala, Haryana, India

PRODUCT DATA SHEET
Catalogue reference for product evaluation

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Two Hinged Arch Apparatus | FortiTestX-49

Category: Scientico · **Order Code:** FORTITESTX-49 · **Country of Origin:** India

Product Overview

Two Hinged Arch Apparatus FortiTestX-49 investigates two-hinged arch behavior with automatic data acquisition and PC interface. Captures support reactions, deflection and load distribution. ADA software provides real-time graphing, calculations and theoretical comparison. Premium construction for reliable laboratory performance. Suitable for testing labs and TVET institutions.

View this product online: https://scienticoindia.com/product/two-hinged-arch-apparatus-fortitestx-49/



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

Technical Specifications

Two Hinged Arch Apparatus FortiTestX-49 — Technical Specifications

Specification	Details
Configuration	Two-hinged arch with base supports
Data Acquisition	Automatic digital unit
PC Connection	Standard interface for real-time data transfer
Software	ADA with real-time logging and graphical analysis
Measurements	Support reactions, deflection, load distribution
Support Type	Hinged allowing rotational movement
Load Application	Multiple points for varied loading conditions
Material	Durable engineering-grade construction
Standards	TVET and testing lab certified

Technical Data

Arch Structure

- Two-hinged configuration at base
- Optimized geometry for structural investigation
- Hinged supports enable reaction measurement
- Rigid base frame for stability

Measurement Capabilities

- Vertical and horizontal support reactions
- Deflection at multiple arch locations
- Reaction moments at hinged supports
- Real-time digital sensor data capture

Software and Analysis

- Real-time data logging from all sensors
- Graphical load-reaction plotting
- Automated structural parameter calculations
- Theoretical versus experimental comparison tools
- Data export functionality

Key Features

Key Features

- Two-hinged configuration: Investigates arch behavior with hinged support conditions
- Automatic data acquisition: Digital sensors capture reactions and deflections continuously
- PC interface: Seamless computer connection for real-time analysis
- ADA software: Real-time graphing, calculations and data export
- Premium construction: Durable materials for reliable long-term performance
- Multiple deflection points: Comprehensive arch deformation tracking
- Static and dynamic loading: Investigates varied stress conditions
- Theoretical comparison: Built-in tools validate experimental results against theory
- Modular design: Accommodates varied loading configurations

Experiments

- Load-bearing capacity investigation
- Static and dynamic load distribution analysis
- Support reaction measurement at hinged supports
- Deflection tracking at critical arch locations
- Point and distributed load effects
- Symmetrical and unsymmetrical loading behavior
- Thrust line and internal force distribution
- Experimental versus theoretical result comparison
- Effect of load position on reactions

Construction and Design

Two-hinged arch structure on rigid base frame with hinged support assembly. Sensors at support points and deflection locations. Automatic data acquisition unit connects to PC. Premium materials and advanced manufacturing ensure accurate measurements. Modular design accommodates varied loading configurations. All components engineered for consistent, repeatable results.

Scope of Delivery

- Two-hinged arch structure
- Hinged support assembly with sensors
- Base frame
- Load application system
- Support reaction sensors
- Deflection measurement sensors
- Automatic data acquisition unit
- PC interface module and cables
- ADA software

- Calibration certificates
- User manual
- Installation guide

Required for Operation

- Computer with PC interface (not included)
- Electrical power for data acquisition unit
- Level laboratory bench space
- Software installation on computer

Optional Accessories

- Additional deflection sensors
- Extended load application system
- Advanced analysis software modules
- Data export and reporting packages
- Calibration and maintenance contracts

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

Q: What measurements does the Two Hinged Arch Apparatus FortiTestX-49 capture?
A: Support reactions (vertical and horizontal), deflection at multiple arch locations, and reaction moments at hinged supports through automatic digital sensors.

Q: How does ADA software enhance the Two Hinged Arch Apparatus?
A: Provides real-time data logging, graphical plotting of load-reaction relationships, automated calculations and comparison of experimental results with theoretical predictions.

Q: Is a computer required?
A: Yes, the apparatus connects to a PC via interface module to run ADA software. PC not included.

Q: What load types can be applied?
A: Point loads at different locations, distributed loads across spans, and both static and dynamic loading for comprehensive structural behavior investigation.

Q: Can experimental results be compared to theory?
A: Yes, ADA software includes built-in comparison tools for validating experimental measurements against theoretical calculations.

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