SCIENTICO INDIA
Manufacturer & Exporter · Ambala, Haryana, India

PRODUCT DATA SHEET
Catalogue reference for product evaluation

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Static and Dynamic Balancing | Vibrano X - 02

Category: Vibration Technology Lab Equipment · **Country of Origin:** India

Product Overview

The Static and Dynamic Balancing - Vibrano X - 02 is a bench top unit for studying the balancing of rotating objects. It features a shaft supported on ball bearings with 4 variable unbalance weights, operating across a speed range of 0 to 1400 RPM. This Static and Dynamic Balancing apparatus includes a transparent protective hood, digital speed display, and integrated angle and length gauge. Two buckets, a detachable pulley, and metallic balls are included for static position unbalance testing. Maximum total unbalance is rated at 840cmg.

View this product online: https://scienticoindia.com/product/static-and-dynamic-balancing-vibrano-x-02/



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

Technical Specifications

Static and Dynamic Balancing - Vibrano X - 02, Technical Specifications

Specification	Detail
Function	Capable of analysing static and dynamic balancing
Balance Blocks	Different balance blocks for range of moments
Measurement Capability	Capable to determine the longitudinal and angular positions of balance blocks accurately
Design	Bench top unit for illustrating the fundamentals of static and dynamic balancing
Process	Balancing process
Power Supply	Equipped with suitable power supply
Speed	Adjustable speed
Speed Display	Digital speed display
Protection	Transparent protective hood
Measurement Gauge	Integrated angle and length gauge

Technical Data

Main Unit

Parameter	Value
Speed range	0...1400rpm

Parameter	Value
Number of unbalance weights	4
Max. total unbalance	840cmg
Weight	approx. 30kg

Additional Masses

Parameter	Value
Weights (big/small)	As supplied (value not specified in source data)
Eccentricity	30mm
Unbalance (big/small)	110/55cmg

Key Features

Key Features

- **Core Function:** this Static and Dynamic Balancing unit analyses static and dynamic balancing of rotating objects
- **Design:** bench top unit
- **Shaft Support:** supported by bearings on both ends
- **Unbalance Weights:** 4, slide along shaft and attain different angles
- **Drive:** pulley connected to motor, powered via function generator
- **Speed Range:** 0...1400rpm, adjustable
- **Speed Display:** digital
- **Max. Total Unbalance:** 840cmg
- **Static Position Testing:** two buckets, detachable pulley, and metallic balls included
- **Moment Determination:** driving belt removable for balance of moments measurement
- **Protection:** transparent protective hood
- **Vibration Control:** elastic elements fasten supporting base to neutralize vibrations
- **Measurement Gauge:** integrated angle and length gauge
- **Weight:** approx. 30kg

Experiments

- Explanation and determination of unbalance
- Investigation of static, dynamic, and basic unbalance

Construction and Design

The Static and Dynamic Balancing - Vibrano X - 02 unit is built around a smooth shaft supported horizontally in ball bearings on both ends. Four variable unbalance weights are attached to the shaft. These weights can slide along the shaft and be set at any angle or distance. A pulley on one side of the shaft connects it to a speed controlled motor, which is powered via a function generator. The rotor speed is measured electronically and shown on a digital display. The driving belt can be removed to determine unbalance weight by measuring the balance of moments. A transparent hood covers the rotating parts, preventing contact while allowing a clear view of the rotor. The supporting base is fastened with elastic elements to neutralize undesirable vibrations. This Static and Dynamic Balancing apparatus also includes two buckets, a detachable pulley, and metallic balls for static position unbalance testing.

Scope of Delivery

- 1 experimental unit
- 1 instruction manual
- 1 set of weights

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 does the Static and Dynamic Balancing - Vibrano X - 02 unit demonstrate?
A: It demonstrates the balancing of rotating objects, including static, dynamic, and basic unbalance.

Q: What is the speed range of the unit?
A: The unit operates from 0 to 1400 RPM with adjustable speed control.

Q: How many unbalance weights does the unit have?
A: The unit has 4 unbalance weights that can slide along the shaft and attain different angles.

Q: What is the maximum total unbalance the unit can handle?
A: The maximum total unbalance is 840cmg.

Q: What safety feature protects users from the rotating parts?
A: A transparent protective hood prevents contact with the rotating parts while allowing a clear view of the rotor.

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