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Manufacturer & Exporter · Ambala, Haryana, India

PRODUCT DATA SHEET
Catalogue reference for product evaluation

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Vibration of Spiral Spring Apparatus | ProDynami - 1296

Category: Theory Of Machines · **Country of Origin:** India

Product Overview

The Vibration of Spiral Spring Apparatus ProDynami - 1296 clamps a cold rolled steel spiral spring between a ball bearing mounted shaft and fixed bracket. This Vibration of Spiral Spring Apparatus uses adjustable sliding weights on levers to form a rotating mass with variable moment of inertia. It features a 1° resolution angle scale for measuring rotation and studying natural frequency. The apparatus is wall-mountable and includes a stopwatch and full weight set.

View this product online: https://scienticoindia.com/product/vibration-of-spiral-spring-apparatus-prodynami-1296/



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

Technical Specifications

Vibration of Spiral Spring Apparatus ProDynami - 1296, Technical Specifications

Specification	Detail
Function	Determines the periodic time for a spiral spring attached to a shaft of vibration moment of inertia
Effective Torque	30mm
Timing	Stop watch included
Accessories	All necessary accessories with list
Documentation	Instruction language provided

Technical Data

Spiral Spring

Parameter	Value
Stiffness	c=238Nmm approximately
Cross-section	10x1mm
Effective length	approx. 800mm
Inside radius	10mm

Levers

Parameter	Value
Material	Stainless steel
Diameter	8mm
Outside radius	50mm

Weights

Parameter	Value
Material	Stainless steel
Mass	0.5kg
Diameter	50mm
Length	154mm

Rotating Mass

Parameter	Value
Arm radius	36...150mm

Angle Measuring Scale

Parameter	Value
Range	0...360°
Resolution	1°

Key Features

Key Features

- **Spiral Spring:** cold rolled steel, stiffness c=238Nmm approximately, effective length approx. 800mm
- **Cross-section:** 10x1mm, inside radius 10mm
- **Levers:** stainless steel, 8mm diameter, 50mm outside radius
- **Sliding Weights:** stainless steel, 0.5kg mass, 50mm diameter, 154mm length
- **Adjustable Moment of Inertia:** achieved via sliding weights secured with clamping screws
- **Arm Radius:** adjustable between 36mm and 150mm
- **Angle Measuring Scale:** 0 to 360°, 1° resolution
- **Effective Torque:** 30mm
- **Mounting:** intended for wall mounting, central to how this Vibration of Spiral Spring Apparatus is set up

Experiments

- Determination of the stiffness of a spiral spring
- Determination of the natural frequency of a spiral spring-rotating mass system: with varying total vibrating mass, with varying mass distribution

Construction and Design

The Vibration of Spiral Spring Apparatus ProDynami - 1296 clamps a spiral spring made of cold rolled steel between a ball bearing mounted shaft and a fixed bracket. The spring has a stiffness of approximately c=238Nmm, a cross-section of 10x1mm, an effective length of approximately 800mm, and an inside radius of 10mm. Two levers, made of stainless steel with an 8mm diameter and 50mm outside radius, are fitted to the shaft diametrically opposite each other. Two sliding weights, made of stainless steel with a mass of 0.5kg, 50mm diameter, and 154mm length, can be securely fixed on the levers using clamping screws, forming a rotating mass with an arm radius adjustable between 36mm and 150mm. The angle of rotation is read off a scale disc attached to the shaft, ranging 0 to 360° with a resolution of 1°. The apparatus has an effective torque of 30mm and is intended for wall mounting.

Scope of Delivery

- 1 Experimental module
- 1 Set of weight
- 1 Stopwatch
- 1 Instruction manual

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 is the Vibration of Spiral Spring Apparatus ProDynami - 1296 used for?
A: It is used to determine the stiffness of a spiral spring and the natural frequency of a spiral spring-rotating mass system, with varying total vibrating mass and mass distribution.

Q: What is the stiffness of the spiral spring?
A: The spiral spring has a stiffness of approximately c=238Nmm.

Q: How is the moment of inertia adjusted?
A: Two sliding weights on the levers can be securely fixed in position using clamping screws, with an arm radius adjustable between 36mm and 150mm, to adjust the moment of inertia.

Q: How is the angle of rotation measured?
A: The angle of rotation is read off a scale disc attached to the shaft, ranging 0 to 360° with a resolution of 1°.

Q: How is the apparatus mounted?
A: The apparatus is intended for wall mounting.

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