SCIENTICO INDIA
Manufacturer & Exporter · Ambala, Haryana, India

PRODUCT DATA SHEET
Catalogue reference for product evaluation

Phone: +91 7015865225 **Email:** info@scienticoindia.com **Web:** scienticoindia.com **Address:** #71, Industrial Area, Ambala Cantt, Haryana, India

Whirling of Shaft | ProDynami 1260

Category: Theory Of Machines · **Order Code:** PRODYNAMI 1260 · **Country of Origin:** India

Product Overview

Whirling of Shaft ProDynami 1260 demonstrates the concept of whirling in shafts and its effects in heavy rotating machinery. This Whirling of Shaft apparatus is a bench top, self contained unit with motor-driven shafts, digital speed display, and speed control from 0 to 6000RPM via AC drive. Steel rotor shafts are available in 3mm, 6mm and 7mm diameters, with lengths of 990mm and 840mm, alongside an 80mm steel rotor disc weighing 400g or 300g. The 1kW motor unit weighs approximately 65kg and supports Laval rotor assembly with optional vibration sensors.

View this product online: https://scienticoindia.com/product/whirling-of-shaft-prodynami-1260/



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

Technical Specifications

Whirling of Shaft ProDynami 1260 — Technical Specifications

Parameter	Value
Unit Type	Bench top, self contained apparatus for demonstration of critical rotational speeds on simply loaded and continuous shafts
Drive	Motor driven, speed controlled through self aligning bearings
Speed Display	Digital display of speed
Shaft Sizes	Set of different shaft sizes in length and diameter
Rotor Disc Material	Steel
Safety	Micro switch power cut off
Rotor Shaft Material	Steel
Rotor Shaft Diameter	3mm, 6mm, 7mm
Rotor Shaft Length	990mm, 840mm
Rotor Disc Material	Steel
Rotor Disc Diameter	80mm
Rotor Disc Weight	400g, 300g
Motor Power	1kW

Parameter	Value
Speed Range	0...6000RPM
Speed Control	Electronically controlled by AC Drive
Unit Weight	Approx. 65kg

Technical Data

Rotor Shafts

Parameter	Value
Material	Steel
Diameter	3mm, 6mm, 7mm
Length	990mm, 840mm

Rotor Disc

Parameter	Value
Material	Steel
Diameter	80mm
Weight	400g, 300g

Motor

Parameter	Value
Power	1kW
Speed	0...6000RPM
Speed Control	Electronically controlled by AC Drive

Unit

Parameter	Value
Weight	Approx. 65kg

Key Features

Key Features

- **Apparatus Type:** Whirling of Shaft unit for demonstrating shaft whirling phenomena
- **Design:** Bench top, self contained apparatus
- **Application Scope:** Critical rotational speeds on simply loaded and continuous shafts
- **Drive System:** Motor driven, speed controlled through self aligning bearings
- **Speed Display:** Digital display
- **Shaft Options:** Set of different shaft sizes in length and diameter
- **Rotor Disc:** Made of steel
- **Safety Cut Off:** Micro switch power cut off
- **Bearing Adapters:** Compensate for different shaft diameters
- **Catch Bearings:** Limit amplitude of oscillation
- **Rotor Freedom:** Assured by elastic coupling
- **Laval Rotor Assembly:** Possible using mass disc
- **Vibration Sensors:** Available as supplement, display rotor path on oscilloscope
- **Rotor Shaft Diameters:** 3mm, 6mm, 7mm

- **Rotor Shaft Lengths:** 990mm, 840mm
- **Rotor Disc Diameter:** 80mm
- **Rotor Disc Weight:** 400g, 300g
- **Motor Power:** 1kW
- **Speed Range:** 0...6000RPM
- **Unit Weight:** Approx. 65kg

Experiments

- Speed-dependent experiments on rotation
- Modes of oscillation of a rotor shaft with individual masses (Laval rotor): critical speed
- Modes of oscillation of a continuous rotor shaft: for varying bearing spacing
- Modes of oscillation of a continuous rotor shaft: for varying shaft diameter
- Modes of oscillation of a continuous rotor shaft: self-centering

Construction and Design

The Whirling of Shaft ProDynami 1260 is a bench top, self contained apparatus for the demonstration of critical rotational speeds on simply loaded and continuous shafts. Shafts are motor driven and speed controlled through self aligning bearings. Speed is shown on a digital display. A set of different shaft sizes in length and diameter is provided. The rotor disc is made of steel. A micro switch provides power cut off. Rotor shafts are made of steel with diameters of 3mm, 6mm and 7mm, and lengths of 990mm and 840mm. The rotor disc has a diameter of 80mm and weighs 400g or 300g. The motor power is 1kW, with a speed range of 0...6000RPM, electronically controlled by an AC drive. The unit weighs approximately 65kg. Adapters in the bearings compensate for different diameters. Catch bearings limit the amplitude of oscillation. The freedom of movement of the rotor is assured by an elastic coupling. This construction allows the Whirling of Shaft apparatus to clearly demonstrate modes of oscillation and resonance in rotors with continuous mass distribution.

Scope of Delivery

- 1 complete experimental unit
- 6 rotor shafts
- 1 rotor disc
- 1 instruction manual

Optional Accessories

- Set of vibration sensors (enable the path of the rotor to be displayed on an oscilloscope)

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 Whirling of Shaft ProDynami 1260 used for?
A: It demonstrates the concept of whirling in shafts and visualizes its effects in heavy rotating machinery, including speed-dependent oscillation and critical speed behavior.

Q: What rotor shaft sizes are available?
A: Diameters of 3mm, 6mm and 7mm, with lengths of 990mm and 840mm.

Q: What is the motor power and speed range?
A: Motor power is 1kW with a speed range of 0...6000RPM, electronically controlled by an AC Drive.

Q: How is safety ensured during operation?
A: A micro switch provides power cut off, and catch bearings limit the amplitude of oscillation.

Q: What does the scope of delivery include?
A: 1 complete experimental unit, 6 rotor shafts, 1 rotor disc, and 1 instruction manual.