

**Product Name :**  
Universal Vibration Apparatus**Product Code :**  
Dynamics0017**Description :**

Universal Vibration Apparatus

**Technical Specification :**

The Universal vibration trainer can be used to study many topics from the field of vibration theory through experimentation.

The topics range from simple pendulum swinging forced vibrations with resonance to vibration absorption. The central element of the vibration trainer is a sturdy profile frame, to which the different experimental setups are easily attached.

The extensive accessories are housed in a mobile laboratory table with drawers.

In addition to free vibrations, forced vibrations can also be represented by means of an electric motor imbalance exciter.

The excitation frequency is set and displayed on a control unit.

An oil damper allows the study of damped vibrations with adjustable damping ratios.

Vibration absorbing is demonstrated with a tunable bending oscillator.

A mechanical drum and a polar chart recorder make it possible to record vibrations.

The measured values can be displayed and analyzed on a PC using the optional unit for data acquisition

**FEATURES:**

Detailed, wide-ranging series of experiments on the mechanical vibration theory

Damping, resonance and absorber effects in forced vibrations

Experiments on various pendulums, bar-type oscillators and spring-mass systems

**SPECIFICATION:**

Beam, elastic: LxWxH: 700x25x4mm, 0,6kg

Beam, rigid: LxWxH: 700x25x12mm, 1,6kg

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Tension-pressure springs :

0,75N/mm

1,5N/mm

3,0N/mm

Imbalance exciter :

0...50Hz

100cmg

Oil damper: 5...15Ns/m

Absorber :

Leaf spring: WxH: 20x1, 5mm

Total mass: approx. 1,1kg

Tunable: 5...50Hz

Drum recorder: 20mm/s, width 100mm

Polar chart recorder: Ø 100mm

Required for operation :

230V, 50Hz, 1 phase

230V, 60Hz, 1 phase; 120V, 60Hz, 1 phase

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