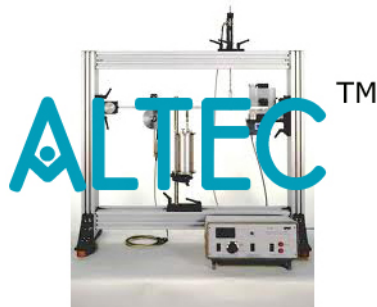


**Product Name :**  
Free and Forced Vibration Apparatus**Product Code :**  
ALABS-A179-066**Description :****Free and Forced Vibration Apparatus**

All set-ups of this experimental unit on the theory of vibrations are rapidly and securely assembled on a double profile frame made of aluminium using slot nuts and clamping levers. The oscillator consists of a beam mounted in ball bearings at one end; a helical spring is hung on the other end of the beam. The attachment of springs, the exciter and a damper to a perforated panel permits a wide range of different set-ups to be reproduced. Either an unbalance exciter or a displacement exciter generate vibrations; the frequency of the vibrations can be adjusted using the electronic control unit. The displacement exciter can be fitted directly to the base of the spring. The vibrations can be damped using the adjustable viscosity damper. To record vibration processes over time, a mechanical drum plotter is included. The experiment also includes an amplitude contact with a TTL output, e.g. for triggering stroboscopes.

**Specification:**

1. Basics of mechanical vibration, natural damped and forced vibrations
2. Bar-type oscillator

3. Three helical springs
4. Unbalance exciter with DC motor, 0,77kg
5. Displacement exciter with DC motor
6. Electronic control unit with digital display, exciter frequency adjustable
7. Oil-filled damper
8. Electrically driven drum recorder
9. Amplitude meter with electric contact for triggering equipment
  
- 10 Storage system to house the components

**Technical Data:**

-Bar-type oscillator: LxWxH: 700x25x12mm, 1,6kg

***Helical springs***

- 0,75N/mm

- 1,5N/mm

- 3,0N/mm

Exciter frequency: 0...50Hz, electronically controlled

Unbalance of the unbalance exciter: 0...1000mmg

Stroke of the displacement exciter: 20mm

Damper constant: 5...15Ns/m, oil-filled

***Mechanical chart recorder***

- feed: 20mm/s

- paper width: 100mm



## Equipments Exporters

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