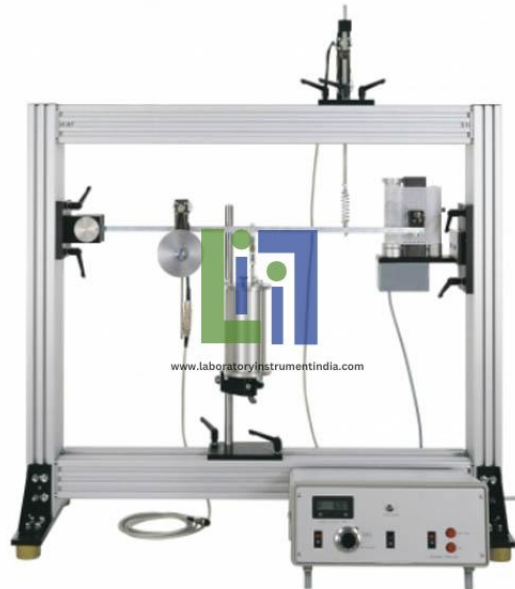




Email : sales@laboratoryinstrumentindia.com

**Product Name :**  
Free And Forced Vibration Apparatus

**Product Code :**  
LBNY-0005-14000034



#### **Description :**

The vibrating mass, constrained by an externally pressurised air bearing system, has an undamped natural frequency of about 1Hz and maximum amplitude of about 20 mm so that the motion of the mass can be readily observed and recorded directly on the pen recorder (Teledeltos paper) system incorporated in the apparatus. The apparatus enables a number of experiments to be carried out on the free and forced vibration of a single degree-of-freedom system with viscous damping. Both steady state and transient conditions can be investigated. The uncontrolled damping of the vibrating mass is very small (equivalent to a damping ratio of 0.003) and the viscous damping generated by the eddy current system is continuously variable up to a damping ratio of about 1.5.

#### **Experimental Capabilities:**

The effect of viscous damping on free vibration and the determination of the damping ratio  
Experimental on the variation of undamped natural frequency with vibrating mass  
The response of the vibrating mass to forcing, illustrating the decay of the transient vibration and the establishment of the steady state vibration  
Forced vibrations excited by rotating out-of-balance forces  
Forced vibrations excited by oscillating the support.

#### **Technical Specification :**

Data Acquisition system for  
Oil Free Air Compressor  
Apparatus for Free and Forced Vibrations with Viscous Damping.



**Laboratory Instrument India**