

WHIRLING OF SHAFTS APPARATUS (EE-1584)

The set up is designed to study the whirling of shafts. The set-up consists of a sturdy M.S. frame, variable speed motor bearing holders etc. Different bearing can be fitted in bearing block to have different end conditions i.e. (i) both end fixed, (ii) one end free and one end fixed etc. A variable speed motor is provided to drive the shaft along with speed control unit. As the test is destructive, hence the shaft can not be used again.

SCOPE OF EXPERIMENTATIONS:

- Display of various modes of whirl for a shaft with:
 - Both ends directionally fixed.
 - One ends fixed and other free
 - Both ends directionally free.
- Modes of vibrations can be studied and frequency can be measured in each case

UTILITIES REQUIRED:

- Floor area of 2m x 0.5m.
- Electric supply of 230V, AC.
- Tachometer/Stroboscope to measure the speed.

TECHNICAL DETAILS:

- **Test Shafts**
- Length : 1000 mm each.
- Diameter : 3.2,4.8mm (approx.)
- Quantity : Two each.
- Kinematics coupling bearing for fixed or free ends without restraint.
- Drive motor: 5000rpm, 1/6HP.
- Supplied with a speed control unit.

