



### Features

Tesca Torsional Oscillations Apparatus enables to illustrate and investigate the torsional oscillations of single rotor, multi-rotor and geared systems.

The unit basically consists of a rigid frame that have some fasteners which enable to situate its different elements. It also has a set of helical springs to simulate long flexible shafts, and a set of discs of varying mass moment of inertias. Suitable gears of various sizes are also provided to change the gear ratio.

Fasteners offer the possibility to modify the arrangement of discs and gears, as well as the use of different types of spring. That enables the study of the different existing systems.

The natural frequencies are of low order and can be counted. Besides, a line drawn axially on the spring serves to illustrate the elastic line and facilitates the experimental location of the nodes.

The unit can be wall mounted.

### Specifications

- The MOT unit is assembled in a metallic structure.
- Tesca Torsional Oscillations Apparatus unit basically consists of:
  - 3 helical torsion springs of different torsion constant.
  - 8 metallic discs of different diameter.
  - 6 metallic gears with different number of teeth.

Note: Specifications are subject to change.

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- 2 closure plates.
- Fastening and anchoring elements.
- Manuals: This unit is supplied with the following manuals: Required services, Assembly and Installation, Starting up, Security, Maintenance and Practices Manual.

### Experiment Possibilities

1. Single rotor connected to the free end of a torsionally flexible member
2. Single rotor connected to the free end of a series of torsionally flexible members.
3. Two rotors connected to the free ends of a torsionally flexible member.
4. Two rotors connected to the free ends of a series of torsionally flexible members.
5. Three rotors connected by two torsionally flexible members.
6. Two rotors joined to the free end of two flexible members which are connected by gears whose inertia is appreciable