

# Theory of Machines (HTM)



# ROLLER BEARING MODULE HTM90B



#### Features

- A versatile module that can be used in conjunction with other HTM90 modules to extend learning capabilities
- The experiments consists of four different bearing types with specific inbuilt faults allowing students to identify each fault type
- The fault types are; Inner race, Outer race, Bal fault and All faults

## **Description**

This accessory requires slight rearrangement of the HTM90 base unit setup and also an understanding of the HTM90A vibration analysis module. This bearing fault module comprises of four faulty ball bearings. Induced faults are faulty inner race, outer race, ball and all faults. This can be compared to the original HTM90 bearings. With the HTM90A vibration analyser different modes can be selected, when in bearing fault mode jack socket head phones can be inserted into the jack socket output so that bearing fault 'noise' can be listened to by students. This helps to gain an understanding of the sounds of faulty bearings and can be a helpful comparative link when analysing the vibration results. Differing motor speeds can also be used to compare vibration characteristics of the bearing faults as well as how the bearing faults affect vibrations at different locations of the apparatus. It is suggested that use with the HTM90C couplings module is undertaken to see how the different coupling types deal with dampening the bearing faults. This module can be used as an extension to experiments on most of the HTM90 series setups and can constitute as an added variation to several of the module setups to further experiments.

# Learning capabilities

- Change in vibration behaviour due to a particular fault in a bearing
- Detection of bearing faults in rotating shafts systems, identifying characteristics
- Changes of vibrations with changes of speed
- Listening to bearing 'noise'
- Introduction to vibration measurement methods on rotating machinery systems

# **Technical Specification**

- Investigation of different bearing faults
- Four specialist bearings supplied; Inner race fault, Outer race fault, Ball fault and All faults.
- Can connect with other modules to expand experimental capabilities

#### **Essential Ancillaries**

• HTM90 - Machinery Diagnostic Base Unit & Instrumentation

## What's in the Box?

· Four specialist bearings sets

sales@p-a-hilton.co.uk 01794 388 382

www.p-a-hilton.co.uk



#### You might also like

- HTM90C Couplings Module
- HTM90D Load And Brake Module
- HTM90E Elastic Shaft Module
- HTM90F Fan Vibration Module
- HTM90G Belt, Brake and Crank Module
- HTM90H Gear Damage Module

#### **Ordering information**

To order this product, please call PA Hilton quoting the following code: HTM90B - Roller Bearing Module