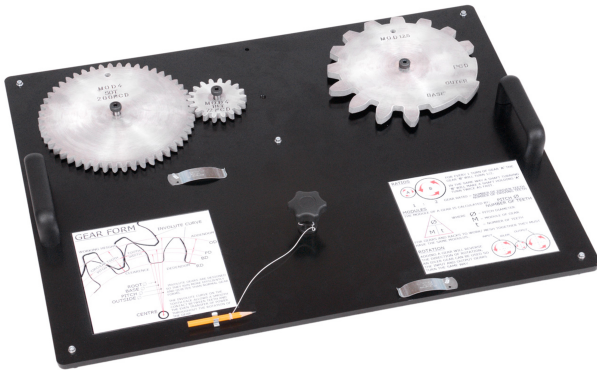




## GEAR TOOTH FORM APPARATUS HTM7



Year 1  
study

### Features

- Bench or Wall mounted apparatus
- Two connecting gears supplied
- One gear for measuring
- Drawing of Involute Gear form
- Theory and terminology clearly labelled on unit

### Description

A bench top base plate contains all elements for this experiment. Three gears are located onto the base plate. A large gear and small gear mesh together and can be rotated to produce analysis of ratios. A third gear is removable to allow students to review its tooth form, pitch circle diameter (PCD) and other key geometry of a tooth form. The apparatus also explains the form of an involute curve and how this is used to create a gear tooth profile. To help describe what an involute curve is, paper can be placed into the apparatus and an involute curve drawn. A set of vernier calipers is provided to allow the removable gear to be measured to help give a practical analysis of the gear form. Labels are used on the unit to help clearly explain gear theory.

### Related Laws/Applications

- Spur Gears
- Involute Gear Form and creation
- Meshing
- Gear Geometry
- Module
- Pitch Circle Diameter (PCD)
- Number of Teeth
- Ratios

### Learning capabilities

- Experimental determination of shape and construction of an involute curve
- Explanation of Gear Form
- Explanation of Gear Ratios
- Explanation of Gear Modules
- Explanation of Gear Trains and Rotational Direction

**Technical Specification**

- Large (Mod 4) gears
- Large gear: 50 tooth, Module 4, 200mm PCD
- Small gear: 18 tooth, Module 4, 72mm PCD
- Removable gear module 12.5

**What's in the Box?**

- 1 x HTM7 Assembly
- 1 x Digital Vernier
- Spare Cord
- 5 x Pencil
- Instruction manual
- Packing list
- Test sheet

**You might also like**

- HTM25
- HTM73
- HTM13
- HTM98

**Weights & Dimensions**

- Weight: 13 kg
- Length: 690mm
- Width: 530mm
- Height: 80mm

**Essential Services**

- Sturdy Bench top

**Operational Conditions**

- Storage temperature: -10°C to +70°C
- Operating temperature range: +10°C to +50°C
- Operating relative humidity range: 0 to 95%, non condensing

**Ordering information**

To order this product, please call PA Hilton quoting the following code:  
HTM7

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