



DEGEM
SYSTEMS

Tech-Prep

Solar energy training system

Wind energy training system

Solar water heating energy
training system

Polar robot & robotics principles
training system

Conveyors & sorting machines
training system

Cartesian robot & computerized
storage training system

CNC lathe machine training
system

CNC milling machine training
system

Process control training system

Basic electronics training system

Basic communications systems

Basic pneumatics training system

Basic hydraulics training system

Basic mechanics training system

Pressure forming & inflation
training system

Bending & vacuum forming
training system

TP-3725

Basic Mechanics Training System

Objectives

This course introduces the students to the basics of mechanics and to the fundamental physical laws which are the basis of all mechanical technology. The students are exposed, by courseware and experimentation, to the physical rules which interrelate between forces and between force and both linear and rotational motion. Also demonstrated are power transmission and conversion of linear to rotational motion and of rotational to linear motion.

Description

The system includes two equipment panels which are integrated into a common console. The unit includes mechanical elements such as wheels, gears, pulleys and levers. Measurements are carried out by means of a spring scale which is incorporated into the unit. Motion is implemented either manually or by means of a compact motor built into the module.



Specifications

LEARNING PROGRAM

- Tech Prep pedagogical guidelines
- Introduction to mechanics
- Forces and laws of motion
- Inclined plane
- The lever
- The pulley
- Wheels 1
- Wheels 2
- Gears 1
- Gears 2
- Gears 3

TECHNICAL CHARACTERISTICS

- General dimensions (300 x 455 x 490 mm)

Panel 1 components:

- Weight lever (260 mm long)
- Spring scale (0 to 500g)
- Angular plate (5 angular positions)
- Woven polyester string
- Light duty pulley

Panel 2 components:

- Linear motion (two-diameter wheel driven from 2-point arm)
- Worm gear
- Spur gear (3 different wheels)
- Chain gear (2 different wheels)
- Bevel gear
- DC Motor
- External power supply (230 VAC input, 115 VAC customer option)
- Motor on-off toggle switch

SUPPLIED ACCESSORIES

The learning unit is supplied with the following accessories:

- Wagon with wheel
- Weights (2)
- 2 'O' rings for transmission
- Courseware or soft copy electronic book for MS-Windows PC (not supplied)

OPTIONAL ACCESSORY

Personal computer with MS Windows (not included)

The courseware or e-book contains the essential theory and detailed procedures for each hands-on activity.