



**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-3723

Basic Pneumatics Training system

Objectives

Pneumatics is the engineering field which deals with the flow and pressure of gasses. This course develops a basic level of student comprehension on the subject of pneumatics, providing the student with a first time exposure to this field. The students will gain an understanding of the physical and scientific aspects of pneumatics and their interrelationship with various commonly found technological applications.

Elementary pneumatic components are introduced and exercised. Industrial applications are demonstrated and explained.

Description

The system includes two equipment panels which are mounted on a common desktop console. The unit includes various types of pneumatic valves and cylinders, pressure gauges, a flow meter and assorted hosing accessories. All measurements are carried out within the unit.



Specifications

LEARNING PROGRAM

- Tech Prep pedagogical guidelines
- Introduction to pneumatics
- Fluids and energy
- The TP-3723 training system
- Advanced pneumatic elements 1
- Advanced pneumatic elements 2
- Laboratory activities 1
- Laboratory activities 2

TECHNICAL CHARACTERISTICS

- Pressure regulator
- Manual valve (3)
- Pressure gauge (2)
- One-way flow control (restrictor) valve (2)
- Directional control valve; 3/2 muscular spring
- Directional control valve; 3/2, mushroom type
- Directional control valve; 5/2 air/muscular spring
- Flow meter
- Single-acting pneumatic cylinder returned by spring
- Double-acting pneumatic cylinder
- Roller valve; 3/2 (3 pieces)
- Air bearing
- General dimensions 350(w) x 455(l) x 490(h) mm
- Compressed air supply (minimum pressure: 4 bar; maximum working pressure: 6 bar, maximum pressure: 10 bar; maximum air flow: 10 L/min.)
- Quick fitting for main air supply (8x6 mm)

SUPPLIED ACCESSORIES

The learning unit is supplied with the following accessories:

- A set of plastic pneumatic tubes
- Fittings
- T-connectors
- Courseware or soft copy electronic book for MS-Windows PC

REQUIRED ACCESSORIES

Air compressor (one per lab, 2.5 HP, 24 liters, 10 bars; not included)

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.