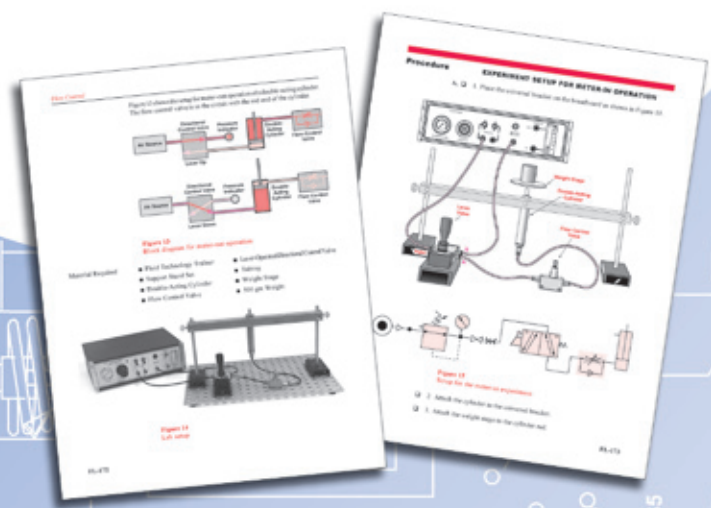


Engineering Principles

Fluid Systems

Science
Technology
Engineering
Math



ENERGY CONCEPTS, INC.



Fluid Systems

The **ECI Model 276S Fluid Systems** is a complete comprehensive trainer that introduces students to fluid technology and applications. The hands-on experiments demonstrate how different pneumatic devices operate and can be combined into systems to do work. The trainer includes industrial grade components, with quick-disconnect fittings and a mechanical breadboarding system for fast circuit construction.

System Components



Manual Lever Valve
Solenoid Valve
Air-Piloted Valve
Relief Valve
Flow Control Valve
Hand Pump

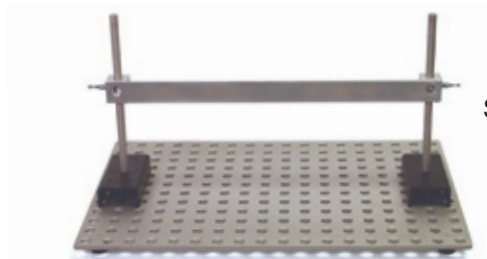
Needle Valve
Single-Acting Cylinder
Double-Acting Cylinder
Pressure Gauge
Vacuum Generator
Air Bearing

Weight Stage
Weight, 500 G
Transformer
Accessory Package
Tubing Package



Fluid Control Panel

The Fluid Control Panel has a System Pressure Regulator and pressure gauge. It also includes two Pressure Control Switches, Pressure Indicator, and Flowmeter. The air ports are provided with quality quick-disconnect fittings.



Support
Stand Set

The Laboratory Manual

The Lab manual is designed to help students develop a thorough understanding of the subject matter. The manual is clearly written and professionally illustrated. It is printed in two-colors and comes in a quality vinyl binder.

System Familiarization

Inventory of Parts and Symbols

Principles of Fluid Power

Blowing In the Wind

Demonstrating Compressibility is Different
Between Liquids and Gasses

Control and Monitoring Pressure

Pressure Regulators

Pressure Relief Valves

Sequence Valves

Air Pressure and System Monitors

Air Pressure

Pressure Gauges, and Indicators

Measuring Air Flow

Directional Controls

Using a Directional Control Valve

The Air-Piloted Directional Control Valve

Solenoid Directional Control Valve

Linear Actuators

Using a Double-Acting Cylinder

Using a Single-Acting Cylinder

Doing Work with a Cylinder

Force in Fluid Systems

Using an Air Bearing

Vacuum

Flow Control

Meter-in and Meter-out Operation

Measuring Power in a
Pneumatic Circuit

Fluid Power Applications

Automating a Drill Press

Measuring Energy

Pick and Place Robot



Instructor's Resource Guide

The Resource Guide includes sample data and answers to quiz questions, as well as a Student Journal CD. The journal provides a convenient way for students to enter and save their data and answers to experiment questions. The instructor can also have the students print paper copies to hand in for grading.

