# **Hydraulics Level 2**





## Description

The Industrial Hydraulics Level 2 curriculum uses advanced hydraulic components, which allow the students to expand their knowledge of complex industrial circuits. Students learn to work with advanced circuits, pressure regulators, and solenoids, and they also use the FluidSIM program to view how the components and circuits interact.

#### Skills

• Focuses on the development of academic knowledge, employability skills, and technical skills. As students progress through the curriculum, the classroom instructor uses a detailed rubric to subjectively evaluate the student's skill and proficiency.

## Objectives

- · Identify the various types of components contained in the training system.
- · Configure directional control valve characteristics.
- · Build a circuit on the hydraulic trainer.
- Demonstrate a 2-way flow control valve.
- Use the FluidSIM program to demonstrate the types and uses of different nonreturn valves.

#### Activities

- · Lesson 1 Hydraulic System Safety
- Lesson 2 Review of Level 1 Manual 1
- Lesson 3 Review of Level 1 Manual 2
- Lesson 4 Nonreturn Valves
- Lesson 5 Hydraulic Motors
- Lesson 6 2-Way Flow Control Valve
- · Lesson 7 Flow Dividing Valve
- · Lesson 8 Rapid-Traverse Feed Circuit
- Lesson 9 Differential Circuit
- Lesson 10 Hydraulic Reservoirs and Accumulators I
- Lesson 11 Dual Pressure Circuit
- Lesson 12 Rectifier Circuit
- Lesson 13 Inlet and Outlet Lines
- Lesson 14 Sequence Control Circuit
- · Lesson 15 Safety Device for a Tractive Load
- Lesson 16 Pressure Regulator
- Lesson 17 Hydraulic Reservoirs and Accumulators II
- Lesson 18 Solenoid Activated Sequence Control
- · Lesson 19 Troubleshooting
- Lesson 20 Challenge and Review

### Standards

DEPCO courseware is developed from the Manufacturing Skill Standards Council (MSSC) and the National Skill Standards Board (NSSB). Close correlation with these standards will provide students with the skills and knowledge necessary for success in the workplace.

## Module Includes:

Training Manuals, Instructor's Manual, Installation CD, simulation Hydraulics Software, Hydraulics Trainer, Pressure Gauge, Non-Return Valve (5), Pressure Relief Valve (2), Diaphragm Accumulator, Hand Lever Valve, 600 mm Hydraulic Hose (2), 1000 mm Hydraulic Hose (2), 1500 mm Hydraulic Hose, T-Branch Connector (2), Allen Wrench, Pliers

Requires Industrial Hydraulics Level 1 Part#ITC1251 - FESTO

## **Curriculum Specifications**

Hydraulics Level 1 is the prerequisite.

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