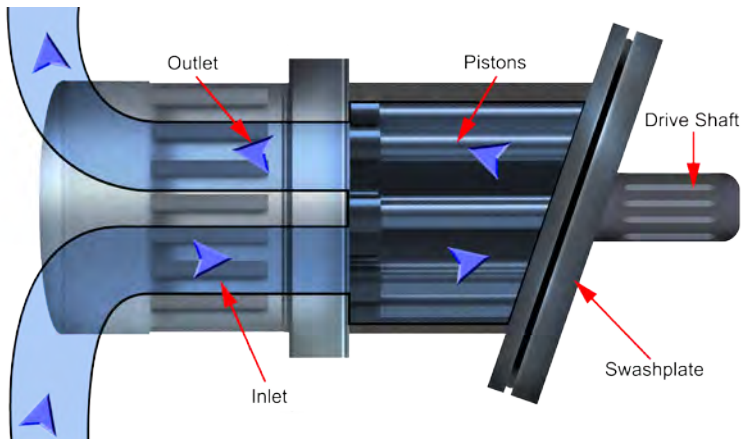


HYDRAULIC SYSTEM FUNDAMENTALS

eLearning courses designed to increase productivity and profits



Learning made Simple, Visual, and Interactive

Hydraulic System Fundamentals examines the various input and output devices and components that make-up a hydraulic system. In addition to learning about the various input and output devices, the learner will understand how control devices are used to regulate the flow of fluid through valving mechanisms. The learner will then be introduced to accessories that are commonly used in hydraulic systems. This course is presented using THORS' visual and interactive format with additional test and learning moments to help solidify concepts.

Credit Hours **2**

Learning Objectives

- 💡 Understand the difference between input and output devices.
- 💡 Differentiate the various types of pumps and motors used in a hydraulic system.
- 💡 Recognize symbols used in a hydraulic schematic.
- 💡 Name the different valves that are manufactured and understand how they function.
- 💡 Recall common accessories and reasons for their use within a hydraulic system.

Table of Contents

I. Input and Output Devices

- **Actuators**
 - o Single-Acting Cylinder
 - o Double-Acting Cylinder
- **Hydraulic Pumps**
 - o Gear Pump
 - o Vane Pump
 - o Piston Pump
 - o Variable Volume Piston Pump
- **Hydraulic Motors**
 - o Fixed Displacement Motor
 - o Variable Displacement Motor
 - o Gear Motor
 - o Vane Motor

- o LSHT Motors
- o Hydraulic Tank
- o Filter

II. Valves

- **Directional Control Valve**
- **Pilot Operated Direction Control Valve**
- **Pressure Control Valves**
 - o Relief Valves
 - o Sequence Valves
 - o Unloading Valves
 - o Counterbalance Valves
- **Pressure Reducing Valves**

III. Hydraulic System Accessories

- **Hydraulic Hoses**
- **Accumulator**
- **Solenoids**
- **Proportional Controls**
- **Control Amplifiers**
- **Pressure Gauge**
- **Pressure Transducers**
- **Flow Meters**

