



# Industrial Hydraulic Fundamentals

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This three-day course provides participants with an excellent understanding of hydraulic theory, hydraulic components, and hydraulic systems.

### I. Hydraulic Theory

- Hydraulic Development
- Physics of Hydraulics
- Hydraulic Symbols

### II. Hydraulic Components

- Hydraulic Liquids
- Piping and Connectors
- Sealing Devices
- Hydraulic Reservoirs
- Accumulators
- Hydraulic Pumps
- Control Valves
- Cylinders/Actuators

### III. Hydraulic Systems

- Basic Hydraulic System
- Hydraulic Circuits

### IV. Common Causes of Failure

- Dirt
- Heat
- Misapplication
- Improper Fluids
- Maintenance
- Improper Design or Installation

### V. Plant-specific Applications