



Ascension Hydraulics Training

Fundamentals of Hydraulics for Technicians-5 Day Course Curriculum Page 1 of 2

- 1) Identifying Hydraulic Symbols
 - a. Pressure Source Graphic Symbols
 - b. Line and Connections Symbols
 - c. Directional Valves
 - d. Pressure Relief Valves
 - e. Flow Controls
 - f. Pumps and Motors
- 2) Hydrostatic Pressure
 - a. Atmospheric Effects on Pressure
 - b. Load Resistance and Pressure
 - c. Static Pressures in a Cylinder
 - d. Pressure and Flow on Hydraulic Cylinders
- 3) Hydraulic System Components
 - a. Conductor Flow Capacities
 - b. Volumetric Efficiency
 - c. Pressure Control Valves
 - d. Pressure Compensated Flow Controls
 - e. Hydraulic Pumps
 - f. Directional Valves
 - g. Flow Dividers
 - h. Accumulators
- 4) Electrical Controls for Hydraulics
 - a. Electrical Symbols and Motor Wiring
 - b. Electrical Controls in Hydraulics

PLEASE NOTE THAT A COURSE CURRICULUM MAY ALWAYS BE MODIFIED TO MAKE THE PRESENTATION MATERIAL AS APPLICABLE AS POSSIBLE

FOR MORE INFORMATION OR
TO SCHEDULE A CLASS

CONTACT :

MARK WHITE

6800 LEGACY LANE

WADSWORTH, OH 44281

mwhite@ascensionhydraulics.com

330-524-3582

www.ascensionhydraulics.com



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5) Basic Circuits

- a. Understanding a Graetz Rectifier
- b. Pressure in Series and Parallel Cylinder Circuits
- c. Pressure Relief Valves and Unloading Valves Used with Fixed Displacement Pumps
- d. Load Holding Circuits
- e. Regenerative Circuits
- f. Accumulator Circuits
- g. Variable Displacement Pumps and Load Sensing
- h. Circuit Synchronization
- i. Filter Locations in Circuits

6) Troubleshooting

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