

# Craft Skills

## Hydraulics and Pneumatics Fundamentals Course Description

### COURSE AGENDA

#### *Day One*

- Listing the Advantages Of Hydraulics and Pneumatics.
- Discuss Hydraulic and Pneumatic Components.
- Disassembling, Cleaning, Inspecting, And Reassembling a Hydraulic And/Or Pneumatic Control Valve.
- Operating A Hydraulic And/Or Pneumatic Cylinder Using A Given Medium.

#### *Day Two*

- Operating Multiple Hydraulic Cylinders Using A Hydraulic Medium.
- Disassembling, Cleaning, Inspecting, And Reassembling a Hydraulic And/Or Pneumatic Control Valve.

#### *Day Three*

- Operating a Pneumatic Cylinder Using a Pneumatic Medium.
- Operating Multiple Pneumatic Cylinders Using a Pneumatic Medium.
- Lab
- Review And Exam



### COURSE NUMBER: MMS-125

#### *Course Purpose*

This course provides information on the concepts associated with hydraulics, hydraulic systems and components, fluid principles, hydraulic system design, and hydraulic schematic symbology.

Upon completion of this course, you should be able to:

- Describe the basic principle of fluid dynamics.
- State the relationship between force, pressure, and area.
- List and describe the major components of a hydraulic system.
- Identify the symbols used to identify hydraulic components in a schematic.
- List and describe the major components of a pneumatic system.
- Identify the symbols used to identify pneumatic components in a schematic.

### ***Who Should Attend***

- This course is designed for mechanical technicians.

### ***Prerequisites***

To successfully complete this course, the following prerequisites are required:

- Understanding of mechanical theory and mechanical systems

### ***Technology Requirements***

All technology is provided for student use in the classroom by Rockwell Automation. It is not necessary for students to bring any technology with them when attending this course.

### ***Student Materials***

To enhance and facilitate your learning experience, the following materials are provided as part of the course package.

- *Student Manual*, which contains the key concepts, definitions, and examples presented in the course
- *Lab Guide* which includes the hands-on exercises.

### ***Hands-On Practice***

Throughout this course, you will have the opportunity to practice the skills you have learned through a variety of hands-on exercises. These exercises focus on the skills introduced in each lesson.

You will also have the opportunity to combine and practice groups of key skills by completing multiple integrated practices during the course.

### ***Next Learning Level***

Once you have mastered the skills covered in this course, you may want to attend specific training, such as:

- Centrifugal Pumps

### ***Course Length***

- *This is a 3 day course*

### ***Course Number***

- *The course code is MMS-125.*

### ***To Register***

To register for this or any other Rockwell Automation training course, contact your local authorized Allen-Bradley Distributor or your local Sales/Support office for a complete listing of courses, descriptions, prices, and schedules.

You can also access course information via the Web at

<http://www.rockwellautomation.com/training>

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