

# W. M. HUITT CO. TRAINING COURSE - MODULE V

## PIPING SYSTEM DESIGN AND ENGINEERING TRAINING

2 Part Course Synopsis 90 Minutes Each

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**Course Description:** This course will provide the novice or experienced Pipe Designer and CAD Operator with the broad, but specific information they need to perform their job more efficiently and effectively. It will provide plant maintenance personnel with a better understanding of regulatory compliance, system ratings, re-testing modified or repaired piping etc. Mechanical, Process, and Utility Engineers will get the information they need to better understand pipe specifications, the piping design process, and its various elements in their interrelationship with piping.

**Who Should Attend:** This course is useful to the CAD operator with very little experience in piping design to the experienced piping designer who needs to gain more knowledge with Code application and specification development. This course benefits plant maintenance personnel who work with pipelines. It is also of benefit to mechanical, process, and utility engineers who need to gain more detailed knowledge with the various aspects of piping component selection and piping system design.

### **Abstract of the Online Course**

There are four primary segments to this course.

The first 90 minute segment of this 2-Part course will provide the designer, maintenance personnel, and engineer with the basis for understanding industry requirements for Code compliance, Material Standards (ASTM), Manufacturing Standards (ASTM, ASME, MSS), and Government Regulations. It provides a brief history of where industry Standards come from, how they are developed, what their relationship is with the Code of Federal Regulations, and how they affect the specifications and design requirements of a project or an installed system.

The attendee will learn what specifications and guidelines are required for a project, what information is required in those documents, and how to develop them. We will discuss component ratings, component selection, and material selection. Also included will be a discussion on quality self assurance of pipe and components on an international basis.

Some of the topics covered in the second 90 minutes will be corrosion allowance, material selection, flange ratings, pipe routing, pipe bending, slope, steam traps, corrosion allowance, location of process and utility pipe in a pipe rack, welding, supports, cleaning, testing, validation, and other topics.



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### 2 Part 3 Hour Course Agenda

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#### **Part 1**

- I. Codes and Standards
- II. Pipe and Fittings
- III. Material Test Reports (MTR)
- IV. Welding
- V. Manual Valves
- VI. Fluid Service Categories

#### **Part 2**

- I. Corrosion Allowance/Material Selection
- II. Determining Flange Classifications
- III. Leak Testing
- II. Piping Layout Design
- V. Fabrication of metallic pipe
- VI. Installation, Cleaning, and Testing of Piping Systems

\*It will be beneficial to have with you during the online discussion the latest version of ASME B31.3 – Process Piping (2012 for \$420.00US). The Piping Code can be ordered directly from ASME by clicking on the following link or by copying and pasting it to your browser:  
<http://www.asme.org/products/codes---standards/b31-3---2012-process-piping>