ASME B16.34 Valves Construction Standard and Valve Technology

Course general description:

knowledge and experience in valves technology field considering all construction aspects such as materials, design, manufacturing, and testing. The course presents the required practical information needed in daily work activities in engineering and production companies such as material serviceability, end preparation suitability, supplementary requirements and purchasing techniques.

Audience:

Piping engineers, pipeline engineer, construction engineers, maintenance engineers, production engineers, process engineers, mechanical engineers.

Course objectives:

At the end of this course the participant should be able to,

- Distinguish different types of valves
- Select the suitable pressure temperature rating based on process considerations
- Apply ASME B16.34 considerations
- Read and review valves datasheet and fabrication DWGs
- Review different required test procedures on different valves type

Course Level

Fundamental level

Fundamental: covers concepts and skills in the topic being studied (Usually 0-3 years in the field)

Intermediate: Individuals with some engineering experience will learn to apply their existing engineering knowledge and skills to problems (Usually 3-5 years in the field)

Advanced: Participants analyze and critique information about complex problems or newly emerging areas, includes mastery of skills, evaluation, management, and supervision. (Usually over 5-10 years in the field)

Participant evaluations

	Points	Frequent
Exercise sheets	60	one exercise sheet per week for online instructor led method. one exercise sheet per two days for live interactive instruction method
Case study/ final exam	40	Final course integrated case study will be submitted at the end of the course and/or final exam (MCQ)

- The above plan can be modified as required

Course duration:

Five days

Course location:

Dubai

Course equivalent ASME standard PDH = 25 Hr.

6 DAYS for live interactive instruction method OR		
8 lectures, twice per week for online instructor led method		
5 hours	• Classifications of valves • Types & sub types of valves	Delivery Method: Presentation

	• Introduction to ASME B16.34 & B16.10	Discussion Exercise sheets Case study Final exam
5 hours	• Pressure–Temperature Ratings. • API valves standards (600, 602, 6D, etc.…) • Material specifications and selection	
5 hours	• Valves fabrication and manufacturing methods • Valves design and specifications • Pipeline valves requirements	
5 hours	• valves considerations & *serviceability for:* Gate, Globe, ball, check & butterfly • Valves purchasing techniques • valves supplementary specifications based on engineering companies	
5 hours	• valves tests & inspection methods • acceptance criteria of different tests • Discussion and case study demonstrating engineering deliverables on recent project	

Notes:

- The course is developed and accredited by ASME certified regional instructor based on ASME international training policy
- The Course is equivalent to ASME standard PDH = 25 Hr.
- The course is a part of ASME professional program "specialization diploma in piping and pressure vessels"
- The Course category (A)

Methodology:

- 50% lectures & concepts
- 10% Videos
- 10% Case studies
- 10% Exercises
- 10% Discussions
- 10% Software (if applicable or examples)

Course code: (TEME011)