



NARGAN
ACADEMY



Preliminary Detail Design in Piping

CONTACT US:



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WHY CHOOSE THIS TRAINING COURSE?

In this course, the principles of preliminary piping design around of process unit's main equipment including tanks, pumps, etc. will be presented. Also, you'll get familiar with all the basic rules that you need for starting your job.

A significant part of engineering services in projects are related to the design of piping systems. According to this point, learning the design principles and its details have a remarkable impact on the projects' costs.

WHO IS THIS TRAINING COURSE FOR?

This course is proper for mechanical and process engineers who is familiar with main items of piping system.

WHAT ARE THE GOALS?

By the end of this course, you have the knowledge of the main inputs and outputs in piping design. Additionally, you'll achieved the ability of preliminary design and the accurate designing principles' recognition around the mentioned equipment in the syllabus.

COURSE SYLLABUS (24 HOURS)

- Introduction to the main documents in Piping Design
- Major points for equipment layout and plot plan preparation
- Preliminary points for piping design
 - Clearance
 - Valve Accessibility
 - Class Break
 - Vent & Drain & Sample Connection
 - Clearance and Accessibility
 - Branches
 - Strainers
 - Traps
- Piping Design on Pipe way/ Piperack
 - Allowable distance between lines
 - The way of Branching out from lines
 - Priority for layout piping on the Piperack / pipe way
 - Expansion loop
- Control manifolds design
 - Steam
 - Normal
- Piping design around exchangers
 - Nozzle Orientation
 - Spiral
 - Shell & Tube
 - Air cooler
 - Plate
- Piping design around pumps
 - Vertical
 - Horizontal
 - Top-Top
 - Side-Side
 - End Suction
- Design of underground lines
 - Connection
 - Pits
 - Clearance
 - Depth of lines
 - Design of firefighting lines
- Lines design connected to flare and relief system
 - Safety Valve
 - Rupture disk
 - Stack
 - Burn Pit



Behrooz Liravinia

- Ph.D. candidate in industrial management from University of Islamic Azad University Tehran South Branch
- M.Sc. in Mechanical Engineering-Separation energy exchange from Islamic Azad University Science and Research Branch
- Has MBA-Separation project management Certificate from University of Tehran
- More than 15 years' experience in piping design
- More than 5 years' experience of being a head of piping design unit
- Being an instructor of piping engineering courses at Nargan Co., Novin Parsian institute, Research Institute of Petroleum Industry, Abadan, Shiraz, Isfahan, and Kermanshah refineries, ...

THE COURSE CONTENT

Day One

- Introduction to the main documents in Piping Design
- Major points for equipment layout and plot plan preparation
- Preliminary points for piping design of
- Design of underground lines

Day Two

- Piping Design on Pipe way/ Piperack
- Control manifolds design
- Piping design around exchangers

Day Three

- Piping design around pumps
- Lines design connected to flare and relief system