

# Introduction to Plant Design

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## Overview

The Introduction to Plant Design is a combination of AutoCAD Plant 3D and AutoCAD ® P&ID, this course we will teach you how to use this new software solution in your daily work making plant designs, upgrades or expansions at your site. During the course all necessary modules will be taken care of and each trainee will make several exercises behind a training system to test the skills needed to work with the software.

This course also includes how to create P&IDs by placing equipment, connecting equipment with pipelines, and adding valves, reducers and pipe fittings. After creating the P&ID, the generation of reports and extracting data are covered. Also a part of this guide is a topic about validating your P&ID.

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## Prerequisites

It is recommended that delegates have a working knowledge of one or more of the following:

- AutoCAD Essentials
- Knowledge of Process and Instrument diagrams (recommended but not essential)
- Basic knowledge of process industry or piping industry practice (recommended but not essential)

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## Course Outline

### Introduction to AutoCAD Plant 3D

- Working on a project
- Opening a drawing
- Exploring the User Interface

### AutoCAD P&ID

- Creating and adding existing drawings
- Equipment and Nozzles
- Piping
- Instruments and instrument lines
- Tagging concepts
- Annotation Concepts
- Editing Techniques
- Data Manager and Reports
- Custom one-off symbols
- Offpage connections
- Advanced topics and troubleshooting
- P&ID Admin for users
- Generating reports

### AutoCAD Plant 3D

- Creating project folders and drawings
- Steel modeling and editing
- Equipment modeling and editing
- Piping basics
- Piping editing and advanced topics
- Working with P&ID Data in Plant 3D
- Creating and Annotating Orthographic views
- Create Isometric drawings

### Autodesk Navisworks

- File handling
- Basic Navigation and Walkthrough
- Clash detection
- Highlights of scheduling and rendering

### Setting up and Administering a Plant project

- Overview of project setup
- Overview of project structure and files
- Setting up larger projects
- Defining new objects and properties
- Customizing data manager
- Creating and editing drawing templates and data attributes
- Specs and catalogs
- Isometric setup
- Troubleshooting
- Creating and managing report configurations
- Setting up SQL Express for AutoCAD Plant 3D