Introduction to Plant Design

Course Length: 5 days

In this training course, you learn how to use the AutoCAD P&ID, AutoCAD Plant 3D, and Autodesk Navisworks software products to complete a plant design project. This learning guide includes five chapters comprised of lessons, exercises, and review questions. The training course provides a comprehensive overview that includes all common workflows for plant design plus a focus on project setup and administration.

Topics Covered

- Introduction to AutoCAD Plant 3D.
- Using AutoCAD P&ID.
- Using Navisworks.
- Setting up and administering a Plant project.

Prerequisites

Students are required to have a working knowledge of the AutoCAD software.
Training Guide Contents

Chapter 1: Introduction to AutoCAD Plant 3D

▪ Lesson: Working in a Project
▪ Lesson: Opening a Drawing
▪ Lesson: Exploring the User Interface
▪ Lesson: Managing Layers and Colors

Chapter 2: AutoCAD P&ID

▪ Lesson: Creating and Adding Existing Drawings
▪ Lesson: Equipment and Nozzles
▪ Lesson: Piping
▪ Lesson: Instruments and Instrument Lines
▪ Lesson: Tagging Concepts
▪ Lesson: Annotation Concepts
▪ Lesson: Editing Techniques
▪ Lesson: Data Manager and Reports
▪ Lesson: Custom One-off Symbols
▪ Lesson: Offpage Connections
▪ Lesson: Advanced Topics and Troubleshooting
▪ Lesson: P&ID Admin for Users
▪ Lesson: Generating Reports

Chapter 3: AutoCAD Plant 3D – Mixed Metric

▪ Lesson: Creating Project Folders and Drawings
▪ Lesson: Steel Modeling and Editing
▪ Lesson: Equipment Modeling and Editing
▪ Lesson: Piping Basics
▪ Lesson: Piping Editing and Advanced Topics
▪ Lesson: Working with P&ID Data in Plant 3D
▪ Lesson: Creating and Annotating Orthographic Views
▪ Lesson: Creating Isometric Drawings

Chapter 4: Autodesk Navisworks

▪ Lesson: File Handling
▪ Lesson: Basic Navigation and Walkthrough
▪ Lesson: Clash Detection
▪ Lesson: Highlights of Scheduling and Rendering

Course description shown for Autodesk AutoCAD P&ID, AutoCAD Plant 3D, and Autodesk Navisworks 2018.
Topics, curriculum, and/or prerequisites may change depending on software version.
Chapter 5: Setting Up and Administering a Plant Project

- Lesson: Overview of Project Setup
- Lesson: Overview of Project Structure and Files
- Lesson: Setting Up Larger Projects
- Lesson: Defining New Objects and Properties
- Lesson: Customizing Data Manager
- Lesson: Creating and Editing Drawing Templates and Data Attributes
- Lesson: Specs and Catalogs
- Lesson: Isometric Setup
- Lesson: Troubleshooting
- Lesson: Creating and Managing Report Configurations
- Lesson: Setting Up SQL Express for AutoCAD Plant 3D
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