

Laser Leveling



Description

This course is designed to teach the participant the correct way to use lasers to setup, layout and level equipment. The participant will learn how to operate laser equipment as well as how to transfer measurements and elevations from blueprints to the floor. A must have course for anyone involved in equipment layout.

Outline

- What is Laser Leveling
- Where and Why Would we use a Laser
- Examples of Laser Leveling Applications
- Layout of Machinery
- Blueprints to Application
- How Do Lasers Operate
- Checking or Setting Grade
- Horizontal Applications for Laser Leveling
- Checking or Setting Grade
- Horizontal Applications for Laser Leveling
- Checking Level or Grade in all Four Directions
- Precision Measurement
- Level is Plumb
- Reading Precision Instrumentation
- Establishing a Plumb Point
- Making Measurements from a Given Point
- Parallels
- Right Angles and other Angles
- Minutes and Degrees
- Using a Laser in Industry
- Vertical Lines
- Self Leveling Instrumentation
- The Plumb Up Beam
- Layout and Leveling of Footers, Foundations and Forms
- Common Layout and Steel Erection
- Tilt Up Walls
- Temporary Wall Installation
- Elevation Control Across the Site
- Slope Work
- Checking Plumb
- Transfer of Control Points
- Metric-vs-English Measurements
- Ceiling and Floor Installations
- Interior Wall Layout
- Using the Laser Receivers
- Checking and Adjusting Elevations
- Accuracy of Common Lasers
- Various Labs to Apply the Classroom Learning

Prerequisites

There are no prerequisites required for this course other than an interest in laser leveling and a willingness to participate in an instructor led hands-on classroom environment.

Course Length

32 hours/ Up to 12 participants.

Performance Objectives

At the completion of this course the participant will be able to:

- Transfer measurements from blueprints to actual applications
- Correctly use laser leveling equipment to set up and layout equipment.
- Transfer grade elevations across long distances ensuring accuracy.
- Read precision instrumentation correctly and use it efficiently.