ADDITIVE MANUFACTURING: STEREOLITHOGRAPHY

eLearning courses designed to increase productivity and profits



Learning made Simple, Visual, and Interactive

The Additive Manufacturing: Stereolithography course is an informative, entry-level overview of the stereolithography additive manufacturing process. In this course, learners are presented with the basics of stereolithography, its process, and the necessary process considerations. Learners in the quality and manufacturing fields will find value in this course.



Learning Objectives

- Ø Differientate between the different light source approaches.
- Understand the various applications, advantages, and limitations of stereolithography.
- Ø Discuss the process materials used in Stereolithography to produce different objects.
- O Understand and breakdown the whole Stereolithography process.
- Ø Examine the cost drivers of Stereolithography.

Table of Contents

I. Stereolithography Basics

- Light Source Approaches
- Support Structure
- Applications
 - o Common Applications
 - Concept Models
 - Prototypes
 - Functional Prototypes
 - Patterns
 - o Production Applications
 - Patterns
 - Tools
 - Parts
- Advantages and Limitations of Stereolithography
- Process Materials



II. Stereolithography Process

- Design
- Pre-Process
- Build
- Post Process

III. Process Considerations

- Cost Drivers
 - o Design
 - Size
 - Orientation
 - Complexity
 - o Equipment and Raw Materials
- o Post Processing
- Quality Concepts

BUILD PROCESS

o System Capabilities





- o System Calibration
- and Maintenance
- o Material Selection
- o Material Age
- o Object Design
- o Object Orientation
- o Object Size
- o Build Parameters
- o Post Processing