



Fundamentals of Laser Marking

Course Description

This course provides a comprehensive understanding of lasers applied to marking, from basic principles to practical applications and specialized maintenance. Participants will gain knowledge of the operation and essentials of lasers, explore laser-matter interaction, specific marking applications and learn safety practices. In addition, they will focus on the maintenance of fiber lasers, including necessary care. Upon completion, students will be equipped with skills to apply and maintain laser marking systems, consolidating their expertise in this technological field.

At the end of the course you will able to:

- Understand the basic operation of lasers.
- Classify the different types of lasers and understand their applications.
- Analyze the essential parameters in the use of lasers for marking.
- Implement safety measures when working with lasers.
- Explore general laser marking applications.
- Perform typical maintenance on fiber lasers.
- Apply care necessary for optimal maintenance and performance of laser marking systems.
- Understand the relevance of laser marking machines within the industry.

Main topics

1 Laser Fundamentals

- Laser definition
- Characteristics and operation
- Laser types
- Parameters and propagation

2 Safety

- Laser and risk
- Damage mechanism
- Other hazards
- Equipment classification
- Control measures

3 Laser Marking

- Laser Marking Applications
- Marking materials

4 Laser source maintenance:

- Typical Maintenance
- Required Care

Contact

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Course features

Instructor Led 

Duration: 8 hours 

Tools and templates 

Simulated learning 

Course certificate 