40 years of expertise in laser safety and laser technologies, serving your most critical challenges.

Laser Welding Essentials

Ref: AL.2-8

This training course is a must for all project managers tasked with acquiring and bringing into production an automated metal laser welding installation. It is a real opportunity to understand the process and take an active part in negotiations and pre-investment test campaigns. Our aim: to give you the keys to successfully navigate the path that will lead you to the final decision.

Please note: this training course is not suitable for manual laser welding.

Practical information

DATES (INTER-COMPANY)
• 17 September 2026
• 5 November 2026

ORGANISATION
IREPA LASER - Strasbourg / Illkirch or by videoconference

DURATION
1 day (7 hours)

PRICES
450 € excl. VAT

TECHNICAL/TEACHING LEAD:
Teaching: Franck RIGOLET | Technical: Frédérique MACHI

DO YOU HAVE A DISABILITY?
Contact our disability officer at referent.handicap@irepa-laser.com

Key information

PREREQUISITES
curiosity and a drive to innovate.

ACCESSIBLE LASER CLASSES
/

CERTIFICATION
• Assessment of learning
• Training certificate issued

TECHNICAL/TEACHING LEAD:
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Training objectives

- Discover and be able to distinguish between the different laser technologies available on the market.
- Understand the specific features of metal laser welding and its vocabulary.
- Be able to take a full part in welding trials at suppliers' premises.
- Identify the various components of the installation required for high-quality production.
- Harness the advantages of laser welding to optimise production.
- Identify opportunities for innovation and optimisation of your products.
- Understand the safety regulations applicable when integrating a laser machine.

Target audience

Decision-makers, engineers or technicians who will be following metal laser welding trials with a view to an investment and will need to understand and select the various components of the production installation.

Project managers who need to acquire the skills and terminology specific to laser welding to follow an investment project, or who face a technological obstacle to which the laser could be the solution.

Programme

Day 1

Lasers and Technology
• The different laser welding technologies
Principle of laser welding
• Interaction of the laser beam with the material
• Design of welded joints
The components of a production installation
• Optical fibre
• Focusing head
• Tooling
• Monitoring
Quality approach
• Project workflow
• Inspection of welded joints
• Applicable standards
Laser safety
• Regulatory requirements