## Module

# Solar Technical Training Installation

STTI (12h 15min)







Aim: The aim of this Solar Technical Training Installation Module is to give the participants the knowledge and skills to carry out basic installation tasks under supervision, using safe working procedures and the correct PPE.

#### PROGRAM: STTI Solar Technical Training Installation

- 1. Introduction to the training
- 2. Introduction to solar systems and mechanical components
- 2.1 Main components of the structure
- 2.2 Main mechanical systems
- 2.3 How solar systems works
- 3. Mechanical safety
- 3.1 Why mechanical safety?
- 3.2 Safety signs
- 3.3 Types of PPE
- 3.4 Hand tool awareness
- 4. The principles of bolted and welded connections
- 4.1 The principles of bolted connections
- 4.2 The locations of important bolted and welded connections
- 4.3 Inspection of welded connections
- 4.4 Bolt connections and correct tightening tools
- 5. Use of manual tightening and measuring tools
- 5.1 Metric system
- 5.2 Selecting and using the correct manual tightening tools
- 5.3 Correctly setting and using a torque wrench
- 6. Introduction to installation
- 6.1 Installation overview
- 6.2 Why installation safety?
- 6.3 The importance of appropriate isolation
- 7. Component Assembly
- 7.1 Inspection, preparation and assembly
- 7.2 Examples of mechanical completion
- 8. General procedures for working onsite with installation
- 8.1 Checklists and work instructions
- 8.2 Housekeeping
- 9. Installation environments
- 9.1 Installation environments
- 10. Handling and storing
- 10.1 Risks and hazards associated with handling and storing
- 10.2 Reception/Inspection
- 10.3 Unloading, storing and transport of solar components
- 10.4 Tools and equipment
- 10.5 Return of goods and components
- 11. Introduction to electrical assembly
- 11.1 Introduction to electrical completion
- 11.2 Examples of electrical assembly
- 11.3 Risks and hazards associated with handling and working with cables
- 11.4 Different types of cables
- 11.5 Simple installation diagrams
- 11.6 Cutting and crimping cables
- 11.7 Marking, routing and termination of all cable types

- 11.8 Solar PV connectors
- 12. Summary and theoretical test
- 12.1 Summary
- 12.2 Theoretical test
- 13. Training review

## STTI Module (Solar Technical Training Installation)

**Duration:** 12h 15min (2 day) **STTI Program:** Sections 1 to 13

Maximum students: 12 people per Edition.

**Prerequisites:** -

**Certificate validity:** Permanent if actively working in a photovoltaic installation

environment

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