

WELDING TECHNOLOGY Training Course

TR1611/IO2/001

APPLICATION FIELD - TARGET GROUP

Study of the basic knowledge on the functioning principles of welding technologies and processes. deep understanding of the characteristics and different aspects of various welding technologies with integration of practical exercising and visual learning in laboratory experience.

This training module is devoted to improve the basic knowledge of field technical persons with refreshing of the know-how and verification of learning results.

TOPICS

Introduction to the concept of security, use of protective equipment and how to use them in the correct manner. Basic concepts of metallurgy to understand the process and practical knowledge of the equipment, the correct setting of welding parameters, material preparation and the proper performance of the weld.

Introduction to the welding of generic and specific materials (stainless steels, special alloys, carbon steels, low alloy steels or aluminum alloys)

Development of manual operations

Introduction to welding technologies:

- > Technology T.I.G. (Tungsten Inert Gas)
- > Technology MIG / MAG (Inert Gas Manual / Manual Active Gas) - "seam welding"
- > Technology O.A.W. (Oxyacetylene Welding) - "brazing or welding torch"
- > SAW (Submerged Arc Welding) - "submerged arc welding"

Tutorials:

- > Welding work in various positions: suspended horizontal, vertical, lateral and overhead.
- > Critical observation of weld samples already prepared in different materials: iron, stainless steel, aluminum, copper, conformed in both plates that tubes with different diameters and thicknesses

SKILLS

Expert in understanding process and execution of welding with different methods and tools. Proficiency level in the evaluation the welding characteristics and verification of the good result of the welding executed (NDT).

DURATION

100 hours

SESSION OF COURSE

General:	7 sessions of 5 hrs each
T.I.G.:	2 sessions of 5 hrs each
MIG/MAG:	2 sessions of 5 hrs each
OAW:	2 sessions of 5 hrs each
SAW:	2 sessions of 5 hrs each
Lab:	6 sessions of 5 hrs each

ENTRY REQUIREMENTS FOR PARTICIPANTS

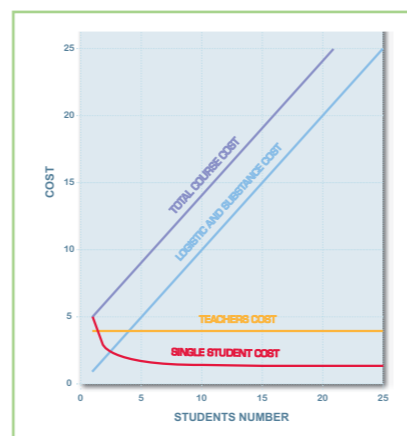
Vocational schools diploma of mechanical science. Null or short employment experience.

MAXIMUM NUMBER OF STUDENTS PARTICIPATION

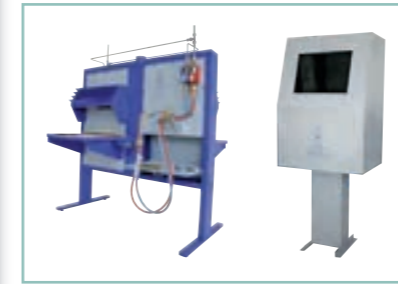
As you may see from the diagram, the costs of the course have their best efficiency with a number of participants ranging from 10 up to 25 units.

It is consequently suggestible to perform a teaching course with a minimum of 8 students up to a maximum of 25.

The diagram on the side in only indicative



LABORATORIES / TOOLINGS / INDIVIDUAL EQUIPMENTS



- Training equipment
- Dual work station for oxyacetylene welding
- Cabinet station for electric



Welding machines and tools
Accessories and consumables



Full scale cutaways and demonstrative models.



TEACHING & LEARNING MATERIALS / ASSESTMENTS METHODS / CERTIFICATES



- Theory manuals,
- Workbooks,
- Users manuals.
- Schematics presentations and tables.



Evaluation questionnaire at the end of the course



Certificate of attendance at the end of course



RECEPTION PACKAGE

WELCOMING SERVICES FEES:

- Visa issuing, consular expenses for entrance to Italy and residence permit (issued by Ministry of Interior Affairs) for study purposes
- Flight ticket to Italy and return

BOARDING AND ACCOMMODATION SERVICES

- Reception at the organized lodging facilities hotel
- Board including: breakfast, lunch and dinner, drinks included

TRAINING COURSE ANCILLARIES SERVICES:

- Laundry service
- Daytime service of fixed telephone through operator at Prodit premises
- Mobile prepaid telephone service - 50 Euro/month for each student
- Shuttle service from hotel to Prodit Engineering training center and return;
- Service of initial care for illness or injuries, available during the course time;
- Individual ordinary life and accident insurance, and national health service

TRAINING COURSE PACKAGE

DIDACTIC ACTIVITIES for 5 (five) days per week, as follows:

- Theoretical activities performed in classroom
- Practical activities performed in workshops and laboratories, equipped with didactic equipment
- Individual endowment for the student made up of text books, stationery and backpack
- Periodical tests for assessing student's learning
- Final examination
- Attendance Certificate (issued on the basic requirement of a minimum percentage of participation hours, equal to the 95% of the whole duration of the course)



COURSE LOCATION

These courses will be held at PRODIT ENGINEERING training center in Italy.