PROJECTX Nº 003

"MAKING A PORTABLE WORKBENCH"

PRESENTATION

Promoting school:

XABEC, Vocational Training Centre
Valencia. Spain

A. GENERAL DESCRIPTION

Title of the ProjectX

MAKING A PORTABLE WORKBENCH

Core area

GENERAL / KNOWLEDGE	**MECHANICAL**
PARTICULAR / ACTIVITIES:	**ASSEMBLY, QUALITY AND MEASUREMENT**

Promoting school

XABEC – VOCATIONAL TRAINING CENTRE

Schools participants in the revision of the ProjectX

SCCB
SAVO

Reference to ECVET Credit System and EQF / NQF

ECVET	EQF	REFERENCE TO NATIONAL QUALIFICATIONS (NQF)						
		Spain	Finland	Romania	Portugal	UK	Turkey	France
2	4	4	4	3	4	3	4	4

Learning Outcomes achieved (to be developed in the future related with ECVET credit system)

1. MCHWD01 (TopMost). Applying MIG MAG welding procedures and subsequent verification of the welding mechanical properties
2. MCHQL02 (TopMost). Applying non-destructive testing of materials

Time that is necessary to do the ProjectX (in hours)

Theory:	7 hours
Practice:	30 hours

Link to real companies in your region (it is just informative)

1. NAME: Gaudencio Moreno (Spain). WORKPLACE: Metallic carpentry
2. NAME: Industa (Valencia. Spain). WORKPLACE: Labourer in metallic assembly

B. THEORY

Objectives of the theoretical Knowledge

1. Interpretation of plans 2.Draw on the plan the work studied and designed (1) 3. Electric welding and MIG / MAG 4. Cutting 5. Quality control

List of activities

1. Evaluation Questionnaire 2. Draft of an existing portable bench in classroom applying theoretical Knowledge (plans anddesign) 3. Multiple-choice test

C. PRACTICE

Brief description of the Practice

According to a portable bench plan and outline given to the student, he has to make a good interpretation of the plan, pick the necessary materials and elements, do the previous operations to the assembly, prepare properly the workstation, assembly, weld the elements, and do the final quality verifications according with the Quality Plan

Steps or activities to be performed by the student

First:	Interpretation of the portable bench plan (definition): width, length and height
Second:	Collect all the materials and make a budget
Third:	Cutting and preparing the components
Fourth:	Assembling and dotting welding
Fifth:	Welding
Sixth:	Clean and sand
Seven:	Quality check: measurements, tolerances, quality of the welding, etc...

D. DETAILED DESCRIPTION OF LEARNING OUTCOMES.

Learning Outcome:	MCHWD01 Applying MIG MAG welding procedures and subsequent verification of the welding mechanical properties
Knowledge	
- The student knows the necessary occupational safety regulations, accident prevention, regulations and environmental protection regulations - The student can explain the MIG MAG welding process - The student knows the difference between MIG and MAG - The student knows the range of use of application of MIG MAG - The student can explain the different welding parameters and their mutual dependence - The student knows the different welding positions - The student knows the different weld shapes - The student knows the various welding symbols - The student knows the safety precautions when welding - The student explains how the seam thickness is measured - The student knows the procedure for welding mechanical verification	
Skills	
- The student knows the necessary occupational safety regulations, accident prevention, regulations and environmental protection regulations - The student can explain the MIG MAG welding process - The student knows the difference between MIG and MAG - The student knows the range of use of application of MIG MAG - The student can explain the different welding parameters and their mutual dependence - The student knows the different welding positions - The student knows the different weld shapes - The student knows the various welding symbols - The student knows the safety precautions when welding - The student explains how the seam thickness is measured - The student knows the procedure for welding mechanical verification	
Competences	
- The student knows the necessary occupational safety regulations, accident prevention, regulations and environmental protection regulations - The student can explain the MIG MAG welding process - The student knows the difference between MIG and MAG - The student knows the range of use of application of MIG MAG - The student can explain the different welding parameters and their mutual dependence - The student knows the different welding positions - The student knows the different weld shapes - The student knows the various welding symbols - The student knows the safety precautions when welding - The student explains how the seam thickness is measured - The student knows the procedure for welding mechanical verification	

Learning Outcome:	MCHQL02 Applying non-destructive testing of materials
Knowledge	
- The student knows the necessary occupational safety regulations, accident prevention, regulations and environmental protection regulations - The student can explain the MIG MAG welding process - The student knows the difference between MIG and MAG - The student knows the range of use of application of MIG MAG - The student can explain the different welding parameters and their mutual dependence - The student knows the different welding positions - The student knows the different weld shapes - The student knows the various welding symbols - The student knows the safety precautions when welding - The student explains how the seam thickness is measured - The student knows the procedure for welding mechanical verification	
Skills	
- The student applies the measuring tools correctly - The student performs the test procedure by him / herself - The student documents the test methods	
Competences	
- The student applies the measuring tools correctly - The student performs the test procedure by him / herself - The student documents the test methods	