

MAKE IT

Let's Make It Happen – a Shift into Learning Outcomes in the Welding Sector



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R3.2 EWF Qualifications Competence Matrix

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FOREWORD

The EWF Qualifications Competence Matrix maps the core skills and competences for all EWF qualification levels according to the European Qualifications Framework (EQF). Each qualification referenced to the EQF is described in terms of learning outcomes, having ECVET (European Credit System for Vocational Education and Training) points allocated.

The relational used for the definition of teaching hours, workload and ECVET points was the following:

- **TEACHING HOURS** refer to the minimum hours of face to face training defined in the EWF Guidelines (IAB 252_r3-16 for the European Welding Coordinator & IAB 089r5-14 for the European Welder);
- **WORKLOAD** for the **Coordinator Profiles**, meaning for EWE, EWT, EWS and EWP, was calculated based on the assumption that each teaching hour will imply an additional effort of about the double time of self-learning, meaning 1 teaching hour will correspond to a 2 - 2,5 hours of workload; no workload was estimated for practical training;
- **WORKLOAD** for the **Welders Profiles**, meaning for EW for Tubes, EW for Plates and EW for Fillet, was calculated based on the assumption that 1 teaching hour will imply an additional effort of 0,5 hours of self-learning, so 1 teaching hour will correspond to 1,5 hours of workload. No workload was estimated for practical training;
- **ECVET POINTS** allocation was done considering that 1 credit is attributed for an estimated workload between 25 – 30 hours. A different reasoning was applied for the EWE, EWT and EWS profiles, in which 1 credit was attributed for an estimated workload of 10-11 hours, thus based on former praxis and expertise regarding these qualifications. The rounding rules applied to the credit system was to round up to the closest quarter unit, as follows: [0,25]; [0,50]; [0,75]; [0,00].

It's important to point out some particularities regarding these qualifications in national VET systems:

- In the Portuguese and in the Spanish VET systems, the Welder and the Practitioner qualifications are already included in the national VET qualifications catalogues. In Hungary, the Practitioner qualification was added recently to the national VET system, although the Welder qualification is not. In Norway these qualifications are not included in the national VET system, although parts of the EWF Welder qualification are included in the Journeyman curriculum.
- Qualifications in national qualifications' catalogues may confer a qualification level that is different to the one conferred by the EWF system. For instance, the Welder qualification is considered to be a level 2 qualification in the Portuguese National Qualifications Catalogue, even if there is a direct correlation between the Portuguese NQF and the EQF, while in the EWF system it can range from a level 2 to a level 4 qualification. However, the Practitioner qualification is a Portuguese NQF level 4, as in the EWF system.
- In Spain, the Tube Welder qualification does not exist in the Spanish National Qualifications Catalogue.

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QUALIFICATIONS DESCRIPTION

General description of EWF Qualifications applying EQF (EQF - Council Recommendation, 2017) descriptors in terms of Knowledge, Skills, Autonomy and Responsibility for each qualification and establishing the professional profile.

QUALIFICATION	KNOWLEDGE	SKILLS	RESPONSIBILITY/AUTONOMY	TEACHING HOURS	WORKLOAD (Hours)	ECVET POINTS	EQF LEVEL	NQF PT	NQF ES	NQF HU	NQF NO
EUROPEAN WELDING ENGINEER	Highly specialised and forefront knowledge including original thinking, research and critical assessment of theory, principles and applicability of welding related technologies.	Highly specialised problem-solving skills including critical and original evaluation, allowing to define or develop the best technical and economical solutions, when applying welding processes and related technologies, in complex and unpredictable conditions.	Manage and transform the welding processes and related technologies in a highly complex context. Act as the full responsible person for the definition and revision of the welding and related personnel's tasks.	448	836	28	7	7	7	7	7
EUROPEAN WELDING TECHNOLOGIST	Advanced knowledge and critical understanding of the theory, principles and applicability of welding and related technologies.	Advanced problem-solving skills including critical evaluation, allowing to choose the proper technical and economical solutions, when applying welding and related technologies, in complex and unpredictable conditions.	Manage the applications of welding and related technologies in a highly complex context. Act autonomously as the responsible person for the decision making and the definition of the welding and related personnel's tasks.	309	534	18	6	6	6	6	6
EUROPEAN WELDING SPECIALIST	Specialised, factual and theoretical knowledge of the theory, principles and applicability of the welding and related technologies.	Specialised range of cognitive and practical skills, allowing to develop solutions or choose the appropriate methods, when applying welding and related technologies, in common/regular problems.	Manage and supervise common or standard welding applications and related technologies, in an unpredictable context. Take responsibility with limited autonomy for decision making in common or standard work and supervise the welding and related personnel's tasks.	189	312	10	5	5	5	5	5
EUROPEAN WELDING PRACTITIONER	Factual and theoretical knowledge (basic understanding) of the theory, principles and applicability of the	Fundamental range of cognitive and practical skills required to identify proper solutions, when applying welding and related technologies, in basic and specific problems.	Self-manage within the guidelines of work, the applications of welding and related technologies, in a predictable context, but subject to change.	150	247	8	4	4	4	4	4

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	welding and related technologies.		Take responsibility without autonomy for decision making in basic work and supervise basic tasks of welding and related personnel.									
European Welder for Tube/Pipe	Knowledge of facts principles related with the welding process and general concepts in the welding field, as well as related joining and weld joint fit up activities, that was under the scope of training.	A range of cognitive and practical skills required to accomplish tasks and solve problems, when applying welding process and related technologies.	Take responsibility to perform autonomously welding work on a construction sites, ensuring the appliance of the proper welding practice.	350	375	12,5	3 (4)*	3 (4)*	3 (4)*	3 (4)*	4	
European Welder for Plate	Knowledge of facts principals related with the welding process and general concepts in the welding field, as well as related joining and weld joint fit up-activities, that was under the scope of training.	A range of cognitive and practical skills required to accomplish tasks and solve problems, when applying welding process and related technologies.	Take responsibility to perform autonomously welding work on a construction sites, ensuring the appliance of the proper welding practice.	243	264,5	9	3	3	3	3	3	
European for Welder for Fillet	Basic factual knowledge of the welding field and welding process as well as weld joint fit up-activities, that was under the scope of training.	Basic cognitive and practical skills required to use relevant information in order to carry out welding tasks and to solve related basic problems.	Perform welding under supervision with some level of autonomy.	125	137,5	4,5	2	2	2	2	3	
<i>* Notes:</i>												
<i>*The EQF level for the European Welder Tube qualifications can increase 1 level when using more than one material and/or more than one process.</i>												
<i>The teaching hours for the European Welder qualification include basic theoretical training, supplementary theoretical training in welding process and specific material as well as practical training.</i>												
<i>For the Welder Tube, teaching hours refers to: Theoretical Training (45H) + Minimum contact hours about 1 process (5H) + considering Steel as specific material + Minimum hours of Practical Training in Modules 1 to 6 considering TIG process for steel (300H)</i>												
<i>For the Welder Plate, teaching hours refers to: Theoretical Training (38H) + Minimum contact hours about 1 process (5H) + considering Steel as specific material + Minimum hours of Practical Training 1 to 4 considering TIG process for steel (200H)</i>												
<i>For the Welder Fillet, teaching hours refers to: Theoretical Training (20H) + Minimum contact hours about 1 process (5H) + considering Steel as specific material + Minimum hours of Practical Training 1 to 2 considering TIG process for steel (100H)</i>												

WELDING COORDINATION PROFILES

EUROPEAN WELDING PRACTITIONER - COMPETENCE UNITS & LEARNING OUTCOMES DESCRIPTION

COMPETENCE UNIT 1: INTRODUCTION TO WELDING TECHNOLOGY AND ARC POWER SOURCE

Summary description

QUALIFICATION	KNOWLEDGE	SKILLS	RESPONSIBILITY/AUTONOMY	TEACHING HOURS	WORKLOAD (Hours)	ECVET POINTS	EQF LEVEL	NQF PT	NQF ES	NQF HU	NQF NO
EUROPEAN WELDING PRACTITIONER	Factual and theoretical knowledge (basic understand) of the electric arc, power sources and general electricity principles and characteristics applicable in welding processes	Fundamental range of cognitive and practical skills required to identify/choose the proper solutions for basic and simple arc welding instability and arc magnetic deflection problems	Self-manage the use of the proper power source for a given application. Will act as the responsible person for the supervision of the welding personnel tasks	7	16	0,75	4	4	4	4	4

COMPETENCE UNIT 2: WELDING AND CUTTING PROCESSES

Summary description

QUALIFICATION	KNOWLEDGE	SKILLS	RESPONSIBILITY/AUTONOMY	TEACHING HOURS	WORKLOAD (Hours)	ECVET POINTS	EQF LEVEL	NQF PT	NQF ES	NQF HU	NQF NO
EUROPEAN WELDING PRACTITIONER	Factual and theoretical knowledge (basic understand) of the principles of welding and cutting processes and applications, either manual, mechanized, automatic or robotized.	Fundamental range of cognitive and practical skills required to identify/choose the proper technical and economical solutions when applying welding and cutting processes on basic and specific problems.	Self-manage the welding and cutting processes applications usually predictable but subject to changes. Will act as the responsible person for the supervision of the welding personnel tasks.	25	55	2	4	4	4	4	4

COMPETENCE UNIT 3: INTRODUCTION TO METALLIC MATERIALS

Summary description

QUALIFICATION	KNOWLEDGE	SKILLS	RESPONSIBILITY/AUTONOMY	TEACHING HOURS	WORKLOAD (Hours)	ECVET POINTS	EQF LEVEL	NQF PT	NQF ES	NQF HU	NQF NO
EUROPEAN WELDING PRACTITIONER	Factual and theoretical knowledge (basic understand) regarding classification of structural steels and the influence of the alloying elements on the steel mechanical properties, and how steels storage should be performed.	Fundamental range of cognitive and practical skills required to identify steels according to their classification and to choose technical solutions when applying steels in a certain construction.	Self-manage the structural steels storage, applications and validation to ensure correct conditions and application, usually predictable but subject to changes. Will act as the responsible person for the supervision of the welding personnel tasks	6	14	0.75	4	4	4	4	4

COMPETENCE UNIT 4: MATERIALS, THEIR WELDABILITY and APPLICATION OF STRUCTURAL AND HIGH STRENGTH STEELS

Summary description

QUALIFICATION	KNOWLEDGE	SKILLS	RESPONSIBILITY/AUTONOMY	TEACHING HOURS	WORKLOAD (Hours)	ECVET POINTS	EQF LEVEL	NQF PT	NQF ES	NQF HU	NQF NO
EUROPEAN WELDING PRACTITIONER	Factual and theoretical knowledge (basic understand) regarding materials processing and applications and their behaviour during welding and cutting.	Fundamental range of cognitive and practical skills required to identify/choose the proper technical solutions in terms of materials processing and materials behaviour during welding and cutting on basic and specific problems.	Self-manage the materials applications and their behaviour due to welding and related technologies usually predictable but subject to changes. Will act as the responsible person for the supervision of the welding personnel tasks	14	34	1.5	4	4	4	4	4

COMPETENCE UNIT 5 CONSTRUCTION AND DESIGN

Summary description

QUALIFICATION	KNOWLEDGE	SKILLS	RESPONSIBILITY/AUTONOMY	TEACHING HOURS	WORKLOAD (Hours)	ECVET POINTS	EQF LEVEL	NQF PT	NQF ES	NQF HU	NQF NO
EUROPEAN WELDING PRACTITIONER	Factual and theoretical knowledge (basic understand) of the theory and principles concerning the design and construction related to welding technology.	Fundamental range of cognitive and practical skills required to identify/choose the proper technical and economical solutions in terms of metal fabrication and design when applying welding technology on basic and specific problems.	Self-manage the construction and design of welded products applications usually predictable but subject to changes. Will act as the responsible person for the supervision of the welding personnel tasks.	6	13	0,5	4	4	4	4	4

COMPETENCE UNIT 6: GENERAL FEATURES FOR QUALITY MANAGEMENT

Summary description

QUALIFICATION	KNOWLEDGE	SKILLS	RESPONSIBILITY/AUTONOMY	TEACHING HOURS	WORKLOAD (Hours)	ECVET POINTS	EQF LEVEL	NQF PT	NQF ES	NQF HU	NQF NO
EUROPEAN WELDING PRACTITIONER	Fundamental factual and theoretical knowledge concerning the measuring equipment, health and safety, control of welding parameters and repair welding specifications applied to welding and related technologies.	Fundamental range of cognitive and practical skills required to identify/choose the proper measuring equipment and solutions for monitoring and measuring of welding parameters and minimizing distortion and residual stress on basic and specific problems.	Self-manage within the guidelines of work, the applications concerning safe working, monitoring and repair procedures usually predictable but subject to change. Take responsibility without autonomy for decision-making in basic work and supervise basic tasks of welding and related personnel.	12	22	1	4	4	4	4	4

COMPETENCE UNIT 7: QUALITY ASSURANCE/QUALITY CONTROL ON WELDED JOINTS

Summary description

QUALIFICATION	KNOWLEDGE	SKILLS	RESPONSIBILITY/AUTONOMY	TEACHING HOURS	WORKLOAD (Hours)	ECVET POINTS	EQF LEVEL	NQF PT	NQF ES	NQF HU	NQF NO
EUROPEAN WELDING PRACTITIONER	Fundamental factual and theoretical knowledge concerning the quality assurance and quality control applied to welded joints.	Fundamental range of cognitive and practical skills required to identify/choose the proper solutions for quality assurance and quality control of welded products on basic and specific problems.	Self-manage within the guidelines of work, the applications concerning quality assurance and quality control of welded joints usually predictable but subject to change. Take responsibility without autonomy for decision-making in basic work and supervise basic tasks of welding and related personnel.	8	12	0.5	4	4	4	4	4

COMPETENCE UNIT 8: TESTS USED FOR THE QUALITY CONTROL OF WELDED JOINTS

Summary description

QUALIFICATION	KNOWLEDGE	SKILLS	RESPONSIBILITY/AUTONOMY	TEACHING HOURS	WORKLOAD (Hours)	ECVET POINTS	EQF LEVEL	NQF PT	NQF ES	NQF HU	NQF NO
EUROPEAN WELDING PRACTITIONER	Fundamental factual and theoretical knowledge concerning imperfections, acceptance criteria and destructive tests (DT) and non-destructive tests (NDT) applied to welding and related technologies.	Fundamental range of cognitive and practical skills required to identify/choose solutions on basic and specific problems related with the information given on DT and NDT reports. Implement the use of acceptance standards for weld imperfections.	Self-manage within the guidelines of work, the applications concerning DT and NDT reports. Take responsibility without autonomy for decision-making in basic work and supervise basic tasks of welding and related personnel.	12	21	1	4	4	4	4	4

EUROPEAN WELDING ENGINEER, TECHNOLOGIST AND SPECIALIST COMPETENCE UNITS & LEARNING OUTCOMES DESCRIPTION

COMPETENCE UNIT 1: INTRODUCTION TO WELDING TECHNOLOGY AND ARC POWER SOURCE WELDING

Summary description

QUALIFICATION	KNOWLEDGE	SKILLS	RESPONSIBILITY/AUTONOMY	TEACHING HOURS	WORKLOAD (Hours)	ECVET POINTS	EQF LEVEL	NQF PT	NQF ES	NQF HU	NQF NO
EUROPEAN WELDING ENGINEER	Highly specialized knowledge (able to deduce, detail and explain) and critical assessment of the principles of welding and cutting processes and applications, either manual or mechanized or automatic or robotized.	Advanced skills including critical evaluation (able to predict and deduce), to define the best technical and economical solutions when applying welding processes, in complex and unpredictable conditions.	Manage in detail the welding processes and cutting applications in a highly complex context. Will act as the responsible person for the definition of the welding personnel tasks.	155	250	8	6	6	6	6	7
EUROPEAN WELDING TECHNOLOGIST	Advanced knowledge (able to deduce, detail and explain) and critical assessment of the principles of welding and cutting processes and applications, either manual or mechanized or automatic or robotized.	Advanced skills including critical evaluation (able to predict and deduce), to define the best technical and economical solutions when applying welding processes, in complex and unpredictable conditions.	Manage in detail the welding processes and cutting applications in a highly complex context. Will act as the responsible person for the definition of the welding personnel tasks.	86	129	4	6	6	6	6	6
EUROPEAN WELDING SPECIALIST	Specialized and factual knowledge (able to understand and identify) of the principles of welding and cutting processes and applications, either manual, mechanized, automatic or robotized.	Specialised range of cognitive and practical skills which will allow choosing the proper solutions when applying welding and cutting processes on common/regular problems.	Manage and supervise the welding and cutting processes applications in unpredictable modifications. Will act as the responsible person for the supervision of the welding personnel tasks	53	80	2,75	5	5	5	5	5

COMPETENCE UNIT 2: MATERIALS AND THEIR BEHAVIOUR DURING WELDING

Summary description

QUALIFICATION	KNOWLEDGE	SKILLS	RESPONSIBILITY/AUTONOMY	TEACHING HOURS	WORKLOAD (Hours)	ECVET POINTS	EQF LEVEL	NQF PT	NQF ES	NQF HU	NQF NO
EUROPEAN WELDING ENGINEER	Highly specialized knowledge (able to deduce, detail and explain) and critical assessment regarding materials processing and applications and their behaviour during welding and cutting.	Advanced skills including critical evaluation (able to predict and deduce), to determine the correct technical solutions in terms of materials processing by welding and cutting and be able to find solutions and predict problems due to the materials behaviour during welding in complex and unpredictable conditions	Manage in detail the materials applications and their behaviour due to welding and related technologies in a highly complex context. Will act as the responsible person for the definition of the welding personnel tasks	115	230	8	7	7	7	7	7
EUROPEAN WELDING TECHNOLOGIST	Advanced knowledge (able to deduce, detail and explain) and critical assessment regarding materials processing and applications and their behaviour during welding and cutting.	Advanced skills including critical evaluation (able to predict and deduce), to determine the correct technical solutions in terms of materials processing by welding and cutting and be able to find solutions and predict problems due to the materials behaviour during welding in complex and unpredictable conditions	Manage in detail the materials applications and their behaviour due to welding and related technologies in a highly complex context. Will act as the responsible person for the definition of the welding personnel tasks	96	192	6,5	6	6	6	6	6
EUROPEAN WELDING SPECIALIST	Specialized and factual knowledge (able to understand and identify) regarding materials processing and applications and their behaviour during welding and cutting.	Specialised range of cognitive and practical skills which will allow choosing the proper technical solutions in terms of materials processing by welding and be able to develop solutions due to the materials behaviour during welding on common/regular problems.	Manage and supervise the materials applications and their behaviour due to welding and related technologies in unpredictable modifications. Will act as the responsible person for the supervision of the welding personnel tasks	56	112	3,75	4	4	4	4	5

COMPETENCE UNIT 3: CONSTRUCTION AND DESIGN

Summary description

QUALIFICATION	KNOWLEDGE	SKILLS	RESPONSIBILITY/AUTONOMY	TEACHING HOURS	WORKLOAD (Hours)	ECVET POINTS	EQF LEVEL	NQF PT	NQF ES	NQF HU	NQF NO
EUROPEAN WELDING ENGINEER	Highly specialized knowledge (able to deduce, detail and explain) and critical assessment of the theory, principals concerning the design and construction related to welding technology.	Advanced skills including critical evaluation (able to predict and deduce), to define/determine the best technical and economical solutions that shall be applied in terms of metal fabrication and design when applying welding technology in complex and unpredictable conditions.	Manage in detail the construction and design of welded products applications in a highly complex context. Will act as the responsible person for the definition of the welding personnel tasks.	62	124	4	7	7	7	7	7
EUROPEAN WELDING TECHNOLOGIST	Advanced knowledge (able to deduce, detail and explain) and critical assessment of the theory, principals concerning the design and construction related to welding technology.	Advanced skills including critical evaluation (able to predict and deduce), to define/determine the best technical and economical solutions that shall be applied in terms of metal fabrication and design when applying welding technology in complex and unpredictable conditions.	Manage in detail the construction and design of welded products applications in a highly complex context. Will act as the responsible person for the definition of the welding personnel tasks.	44	88	3	6	6	6	6	6
EUROPEAN WELDING SPECIALIST	Specialized and factual knowledge (able to understand and identify) of the theory and principles concerning the design and construction related to welding technology.	Specialised range of cognitive and practical skills which will allow choosing the proper technical and economical solutions in terms of metal fabrication and design when applying welding technology on common/regular problems.	Manage and supervise construction and design of welded products applications in unpredictable modifications. Will act as the responsible person for the supervision of the welding personnel tasks.	24	36	1	5	5	5	5	5

COMPETENCE UNIT 4: FABRICATION, APPLICATIONS ENGINEERING

Summary description

QUALIFICATION	KNOWLEDGE	SKILLS	RESPONSIBILITY/AUTONOMY	TEACHING HOURS	WORKLOAD (Hours)	ECVET POINTS	EQF LEVEL	NQF PT	NQF ES	NQF HU	NQF NO
EUROPEAN WELDING ENGINEER	Highly specialised knowledge, original thinking, research and critical assessment of the principles and applicability concerning the quality assurance and quality control applied to welding and related technologies.	Highly specialised problem-solving skills, including critical evaluation, allowing to define or develop the best technical and economical solutions for quality assurance and quality control of welded products in complex and unpredictable conditions.	Manage and transform the welding applications concerning the quality assurance and quality control of welded products in a highly complex context. Act as the full responsible person for the definition of the welding and related personnel's tasks.	116	232	8	7	7	7	7	7
EUROPEAN WELDING TECHNOLOGIST	Advanced knowledge and critical understanding of the principles and applicability concerning the quality assurance and quality control applied to welding and related technologies.	Advanced problem-solving skills including critical evaluation, allowing to choose the proper technical and economical solutions for quality assurance and quality control of welded products in complex and unpredictable conditions.	Manage the applications concerning the quality assurance and quality control of welded products in a highly complex context. Act autonomously as the responsible person for decision making and the definition of the welding and related personnel's tasks.	83	125	4	6	6	6	6	6
EUROPEAN WELDING SPECIALIST	Specialised, factual and theoretical knowledge of the theory, principles and applicability concerning the quality assurance and quality control applied to welding and related technologies.	Specialised range of cognitive and practical skills, allowing to develop solutions or choose the appropriate methods for quality assurance and quality control of welded products on common/regular problems.	Manage and supervise common or standard applications concerning the quality assurance and quality control of welded products in an unpredictable context. Take responsibility with limited autonomy for decision making in common or standard work and supervise the welding and related personnel's tasks.	56	84	3	4	4	4	4	5

WELDERS PROFILES - COMPETENCE UNITS & LEARNING OUTCOMES DESCRIPTION

Summary description

THEORETICAL TRAINING

QUALIFICATION	COMPETENCE UNIT	KNOWLEDGE	SKILLS	RESPONSIBILITY /AUTONOMY	TEACHING HOURS	WORKLOAD (Hours)	ECVET POINTS	EQF LEVEL	NQF PT	NQF ES	NQF HU	NQF NO
FILLET WELDER	A	Basic factual knowledge of principles, processes and general concepts about fillet welding and welded joints in plates, including operating principles of welding equipment, principles regarding the use of consumables, as well as health and safety requirements.	Basic cognitive and practical skills required to use relevant information in order to carry out arc welding and visual inspection in a fillet.	Perform arc welding according to a given welding procedure specification, with some level of autonomy.	20	30	1	2	2	2	2	3
PLATE WELDER	B *	Knowledge of facts principals, processes and general concepts related to fillet and butt welding and welded joints in plates, including distortion effects imperfections, testing methods and the need for welding to relate to quality assurance.	A range of cognitive and practical skills required to accomplish butt welding and prepare joints in plates, as well as perform visual inspection of welds, by applying basic welding process and allied technologies.	Take responsibility to perform autonomously welding work on a construction sites, ensuring the appliance the proper welding practice.	18	27	1	3	3	2	3	3
TUBE WELDER	C*	Knowledge of facts principals, processes and general concepts related to welding and welded joint, including methods to avoid failure and harmonised system of welding Standards.	A range of cognitive and practical skills required to accomplish butt welding and prepare joints in pipes, by applying basic welding process, allied technologies and international standards.	Take responsibility to perform autonomously welding work on a construction sites, ensuring the appliance the proper welding practice.	7	10,5	0,5	3(4)	3(4)	a)	3(4)	4
Fillet, Plate, Tube Welder	S – Specific Welding Process:	Basic factual knowledge on welding process regarding the working principles and characteristics, welding	Basic cognitive and practical skills required to use relevant information in order to	Check welding parameters and consumables according to a given welding	22	33	1	2	2	2	2	3

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	MMA MAG FCAW MIG TIG Gas Welding	equipment, the use of consumables, as well as health and safety measures to avoid hazards. <i>(The above statement is applied to a specific welding process)</i>	understand/implement/follow a Welding Procedure Specification (WPS).	procedure specification, with some level of autonomy.								
	P Specific Material Stainless steel Aluminium	Basic factual knowledge about the application of welding process to a specific base material, the use of consumables, weldability and methods to avoid imperfections. <i>(The above statement is applied to a specific material.)</i>	Basic cognitive and practical skills required to use relevant information in order to identify, handle welding specific material in the welding shop floor.	N.A	16	24	1	2	2	2	2	3
<p>* Notes:</p> <p>PLATE WELDER just attends training in Competence Unit B if he/she had previous training in Competence Unit A, if not, he/she must attend both A + B</p> <p>TUBE WELDER just attends training in Competence Unit C if he/she had previous training in Competence Unit A and B, if not, he/she must attend A + B + C</p>												

a) Tube Welder qualification does not exist in the Spanish national catalogue of qualifications.

PRACTICAL TRAINING

QUALIFICATION	COMPETENCE UNIT	KNOWLEDGE	SKILLS	RESPONSIBILITY/AUTONOMY	TEACHING HOURS	WORKLOAD (Hours)	ECVET POINTS	EQF LEVEL	NQF PT	NQF ES	NQF HU	NQF NO
FILLET WELDER	1-2*	N.A	Basic cognitive and practical skills required to perform a fillet weld in plates and tubes, using all different welding positions.	Perform a fillet welding with some level of autonomy.	100	100	3	2	2	2	2	3
PLATE WELDER	3-4*	N.A	A range of cognitive and practical skills required to perform butt welds in plates and fillet weld in plates and tubes, by selecting and applying all different welding positions.	Take responsibility to perform autonomously a butt weld in plates, ensuring the appliance of the proper welding practice.	100	100	3	3	3	3	3	3
TUBE WELDER	5-6*	N.A	A range of cognitive and practical skills required to perform weld, both fillet and butt welds in plates and tubes, by selecting and applying all different welding positions.	Take responsibility to perform a butt weld in pipes ensuring the appliance of the proper welding practice.	100	100	3	3(4)	3(4)	3(4)	3(4)	4
<p>* FILLET WELDER just attends practical training in Competence Unit 1-2. Minimum hours of Practical Training/Workload for Modules 1 (50 H) and 2 (50H) refer to TIG process for steel; PLATE WELDER just attends training in Competence Unit 3-4 if he/she had previous training in Competence Unit 1-2, if not, he/she must attend from 1 to 4. Minimum hours of Practical Training/Workload for Modules 3 (50 H) and 4 (50H) refer to TIG process for steel; TUBE WELDER just attends training in Competence Unit 5-6 if he/she had previous training in Competence Unit 1 to 4, if not, he/she must attend from 1 to 6. Minimum hours of Practical Training/Workload for Modules 5 (50 H) and 6 (50H) refer to TIG process for steel;</p>												