

1. TITLE OF THE CERTIFICATE (ES)

**Certificado de Profesionalidad de nivel 3 en
FMEM0209 PRODUCCIÓN EN MECANIZADO, CONFORMADO Y MONTAJE MECÁNICO**

2. TRANSLATED TITLE OF THE CERTIFICATE (EN)

**Professional Certificate Level 3 in
FMEM0209 MACHINING, CASTING AND MACHINE MOUNTING
(This translation has no legal status)**

3. PROFILE OF SKILLS AND COMPETENCES

The holder of this certificate will have acquired the **general competence** to decide on the operational processes of machining (cutting, forming and special machining) and assembling mechanical equipment, as well as programming automated manufacturing systems, organising and supervising production, based on technical process documentation, using criteria of quality safety and respect for the environment. This general competence is divided into the following **skills units (UC)**:

- Define machining processes in metal working manufacturing (UC059_3).
- Define casting processes in metal working manufacturing (UC0594_3).
- Define assembly processes in metal working manufacturing (UC0595_3).
- Program Computer Numerical Control (CNC) in machining and mechanical casting machines or systems (UC0596_3).
- Program automated systems in metal working manufacturing (UC0591_3).
- Supervise production in metal working manufacturing (UC0592_3).

The professional skills are acquired through the **learning outcomes** defined within the related Training Modules (MF):

- Machining processes in mechanised manufacturing (MF0593_3).
- Casting processes in mechanised manufacturing (MF0594_3).
- Assembly processes in mechanised manufacturing (MF0595_3).
- Computer Numerical Control in machining and mechanised casting (MF0596_3).
- Automated systems in mechanised manufacturing (MF0591_3).
- Supervision and control of mechanised manufacturing processes (MF0592_3).
- Practical training at the workplace in monitoring of mechanised manufacturing, mechanised casting and assembly (MP0233)

(See legal basis for all learning outcomes information acquired by the holder of this Certificate in each MF).

As a reference the learning outcomes include in the Practical training at the workplace that complete and reinforce the learning outcomes acquired in the other training modules, are:

- Participate in preparing mechanisation processes, deciding on resources and processes for manufacture and production.
- Participate in the development of casting processes, deciding on raw materials, manufacturing procedures, machines and means of production to ensure casting takes place in conditions of quality, safety and environmental protection.
- Propose processes for assembly based on technical product documentation, deciding on the materials, assembly procedures, machines and means of production to enable assembly in conditions of quality, profitability, safety and environmental protection.
- Prepare machine tools for machining or casting, whether by CNC programming or a CAM program.
- Take part in the company's working processes, following the rules and instructions established at the workplace.

4. RANGE OF OCCUPATIONS ACCESSIBLE TO THE HOLDER OF THIS CERTIFICATE

The holder of this certificate may work in companies dedicated to manufacture by machining, casting and assembly: machine cutting, forging, embossing, assembly, maintenance. The holder may work in the production office, within the planning department or workshop, supervising the processes and results. The most pertinent occupations and positions are:

- Programmer of numerically controlled machines in general.
- CNC (computer numerical control) programmer.
- Automated systems programmer in metal working.
- Mechanical technician.
- Foreman at metal processing facilities.
- Assembly machine foreman.
- Forman in charge of metalworking machine operators.

The holder of this professional certificate has recognition of the basic level training in labour risk prevention, according to Annex IV of the Royal Decree 39/1997 of 17 of January approving the Labour Risks Prevention Act.

5. OFFICIAL BASIS OF THE CERTIFICATE

Name and status of the national/regional authority providing accreditation/recognition of the certificate

The Ministry of Employment and Social Security or the corresponding autonomous regional administration within the scope of its competence, in the name of the King. The certificate is valid throughout Spain.

Level of the certificate

The Professional Certificate Level 3 of the National Repertoire of Professional Certificates corresponds to level 4 of the International Standard Classification of Education (ISCED-P 2011).

The European Qualification Framework (EQF) level:

Grading scale/Pass requirements

The grading scale and pass level of the training modules are expressed on a scale of 0 to 10. The minimum score for a pass is 5 in every training module including a pass in the practical training at the workplace module.

The grading system is as follows:

- FAIL: 0 to 4.9
- PASS-SATISFACTORY: 5 to 6.9
- PASS-GOOD: 7 to 8.9
- PASS-EXCELLENT: 9 to 10

Access to next level of education/training

This Professional Certificate Level 3 gives access to Professional Certificate Level 3 within the same professional area and family.

For validation purposes, the educational authorities will recognise the professional module or modules of the VET diplomas corresponding to the skills units included in the training modules of this certificate.

Legal basis

Royal Decree 684/2011 of 13 May, establishing twelve professional certificates in the professional family Metal working, which are included in the National Repertoire of Professional Certificates. (Appendix IX, Code: FMEM0209)

6. OFFICIALLY RECOGNISED WAYS OF ACQUIRING THE CERTIFICATE

This certificate may be acquired by:

1. Training: Completion with a pass grade of the face-to-face or online training programme.
2. Recognition of the professional skills acquired through professional experience or non-formal training (prior learning): Completion of a process of skills evaluation and accreditation in all the skills units making up the professional certificate.
3. Dual training: Completion of a training and apprenticeship contract, which may range from 1 year (or 6 months, if stipulated as such in the collective agreement) to 3 years, during which effective working time is combined with time dedicated to training under the training programme for the professional certificate.

The training method (number 1 above) requires successful completion of the training modules and the practical training at the workplace:

Description of vocational training received	Percentage of total programme (%)	Duration (hours)
Training modules	87	520
Practical training at the workplace	13	80
Total duration of training leading to the certificate		600

Entry/access requirements:

- *Bachiller* Diploma (upper secondary education); or
- Professional Certificate Level 2 in the same professional area.
- If neither of the above or higher certifications are held, a pass in the key skills tests.

Additional information: Professional certificates are instruments for official accreditation of the professional qualifications in the National Catalogue of Professional Qualifications for all economic activities, within the scope of the labour administration. The National Repertoire of Professional Certificates is divided into three qualification levels (Level 1, Level 2 and Level 3), and by sectors into 26 professional families and 102 professional areas. More information is available at: www.sepe.es

National Europass Centre: www.oapee.es

(*) **Explanatory note:** This document is designed to provide additional information about the specified certificate, but has no legal status in itself. The format of the description is based on the following texts: Council Resolution 93/C 49/01 of 3 December 1992 on the transparency of qualifications; Council Resolution 96/C 224/04 of 15 July 1996 on the transparency of vocational training certificates; and Recommendation 2001/613/EC of the European Parliament and of the Council of 10 July 2001 on mobility within the Community for students, persons undergoing training, volunteers, teachers and trainers.

More information is available at: <http://europass.cedefop.eu.int>

Information on Professional Certificates of the Map of Qualifications and Vocational Training in Spain

