

## 1. TITLE OF THE CERTIFICATE (ES)

Certificado de Profesionalidad de nivel 2 en  
FMEH0409 MECANIZADO POR ABRASIÓN, ELECTROEROSIÓN Y PROCEDIMIENTOS ESPECIALES

## 2. TRANSLATED TITLE OF THE CERTIFICATE (EN)

Professional Certificate Level 2 in  
FMEH0409 ABRASIVE AND ELECTRICAL DISCHARGE MACHINING AND SPECIAL PROCEDURES  
(This translation has no legal status)

## 3. PROFILE OF SKILLS AND COMPETENCES

The holder of this certificate will have acquired the **general competence** to carry out abrasive machining, electrical discharge machining and similar special procedures, controlling the products obtained and being responsible for the first-level maintenance of the machines and equipment, using criteria of quality, safety and respect for the environment. This general competence is divided into the following **skills units** (UC):

- Decide on the abrasive machining, electrical discharge machining or special procedures to be used (UC0092\_2).
- Prepare machines and systems for abrasive machining, electrical discharge machining or special procedures (UC0093\_2).
- Machine products by abrasion, electrical discharge or special procedures (UC0094\_2).

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

- Procedures for abrasive machining, electrical discharge machining and special procedures (UC0092\_2).
- Preparation and programming machines and systems for abrasive machining, electrical discharge machining and special systems (MF0093\_2).
- Abrasive machining, electrical discharge machining and special procedures (MF0094\_02).
- Practical training at the workplace in abrasive machining, electrical discharge machining and special procedures (MP0207)

(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:

- Program procedures for machining in different processes and contexts.
- Prepare machine tools for abrasive machining, electrical discharge machining and special procedures.
- Handle machine tools for abrasive machining, electrical discharge machining and special procedures in different processes and contexts.
- 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 preparing machines or systems for abrasive machining, electrical discharge machining and similar procedures (cylindrical rectifier, flat rectifier, sinker EDM, wire EDM and similar), as well as machining using conventional or CNC machines. The holder may work in the electro-mechanical sector, in the subsector of metal transformation industry: construction of machinery and mechanical equipment, electrical, electronic and optical material and equipment, transport material.

The most pertinent occupations and positions are:

- Programmer of numerically controlled machines in general.
- Machine tool fitter, in general.
- Machine tool fitter with CNC for working with metals.
- Grinder.
- Electrical discharge machine operator.
- On-site CNC machine tool programmer.
- Machine fitter (grinder, electrical discharge, transfers, flexible systems, etc.).

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 2 of the National Repertoire of Professional Certificates corresponds to level 3 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 2 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 I, Code: FMEH0409)

## 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	540
Practical training at the workplace	13	80
<b>Total duration of training leading to the certificate</b>		<b>620</b>

### Entry/access requirements:

- Compulsory Secondary Education Diploma (Lower secondary education); or
- Professional Certificate Level 1 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](http://www.sepe.es)

National Europass Centre: [www.oapee.es](http://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

