

AEROSPACE WIRING FITTER



RNCP CODE: 41138

JOB DESCRIPTION

Aerospace Wiring Fitters are specialised in the precise assembly and wiring of embedded electrical systems. They work on both sub-assemblies and the entire aircraft as a whole, ensuring reliable installations that meet the requirements of the aerospace sector.

MAIN TASKS

- Precise wiring and assembly of electrical components.
- Carrying out rigorous visual checks and verifications to ensure compliance.
- Ensuring the total traceability of operations, tools and materials used.
- Ensuring strict compliance with aeronautical standards and procedures.
- Working on installations that are subject to environmental constraints (vibrations, temperature variations).
- Ensuring the performance, safety and reliability of on-board equipment.

TRAINING PROGRAMME

OBJECTIVES

This course aims to prepare trainees for the job of Aerospace Wiring Fitters.

The course content is designed to give trainees the skills needed to become an Aerospace Wiring Fitter, in order to validate the 6 specialisations required for the French Professional Qualification in Metallurgy (CQPM) "Aerospace Wiring Fitter" - MQ 2001 0206 R. For more information, please consult the *France Compétences* website (<https://www.francecompetences.fr>), specifying the French National Register of Professional Qualifications (RNCP) code corresponding to the course, which can be found in the downloadable programme available on the specific page devoted to the course. This will provide you with detailed information about the certification.

At the end of the course, trainees will be able to:

- Prepare the various components needed to install a harness, electrical sub-assemblies and/or furniture and/or bays in the aircraft;
- Prepare equipment or sub-assemblies for fitting in the aircraft;
- Integrate and route the wiring harnesses in the aircraft;
- Carry out electrical bonding, screw locking, torque tightening and protection operations;
- Carry out or remove electrical connections in the aircraft;
- Protect and enclose harnesses, equipment, sub-assemblies and their environment in the aircraft.

TARGET AUDIENCE

This course is open to all types of profiles.

AEROSPACE WIRING FITTER



RNCP CODE: 41138

PREREQUISITES, enrolment conditions and deadlines

Candidates must be interested in manual trades in the aeronautical industry.

- French: Equivalent competence level "Elementary A2" (CEFR Global scale of common reference levels for skills)
- Mathematics: Equivalent level of competence to "Cycle 3" according to the French government gazette (*Bulletin Officiel*) of 26/11/2015.

The Recruitment and Training Department reserves the right to accept any application that does not fully meet these pre-requisites, based on a study of the application and the candidate's interview.

DURATION

- Theoretical and practical training: 435 hours of on-site training.
- Practical internship: according to the schedule.
- Dates: according to the course schedule.

ORGANISATIONAL ARRANGEMENTS

- Continuous on-site training – Course divided into modules.
- Minimum number of trainees: 8 – maximum number of trainees: 12.
- Location: 3 rue Jules Védrières, 31400 TOULOUSE or on the customer's site.

DISABLED ACCESS

For people with disabilities, tailor-made support can be provided to facilitate the training period. For any requests or information, please contact the Disability correspondent on the following number: +33 (0)6 21 67 66 25.

TEACHING RESOURCES/METHODS

A classroom equipped with a video projector and interactive screen is provided for the duration of the training course. Trainees are given a summary of the course content.

For practical sessions, two aircraft sections and fully-equipped mechanical workshops are made available, as well as specific workshops for: two A380 doors, RAT, landing gear, etc.

A warehouse area is set aside to provide shared tools and consumables in order to ensure that the course runs smoothly; each trainee is provided with an individual toolbox.

The training centre also has: changing rooms for men/women/disabled persons, a canteen, a rest room and resource room equipped with 5 computer stations.

Please note that there is a defibrillator in the training centre.

AEROSPACE WIRING FITTER

RNCP CODE: 41138

COURSE CONTENT

Trade-specific technology:

Manufacturing harnesses

Materials

Wiring
Cylindrical and rectangular connectors

End components

Crimping of contacts
Crimping of terminals
Crimping of extensions
Grounding connections

Tools and resources:

Bundling and protecting harnesses
Making a harness on a fun board
Identifying the electrical elements

Installing electrical elements:

General aircraft principles:

Principles concerning the segregation of electrical harnesses
Aircraft installation rules

Specific technologies and documents:

Electric bonding
The principle of wire-locking electrical components
Manufacturing documents
Reference documents

Quality

Golden rules
Inspecting - Self-checking

Electrical calculations and laws

Basics of electricity
The different measures: I-U-R-P (current, voltage, resistance, potential)
Simple equations - Ohm's Law
Electrical calculations
Measurements

Electrical safety

Raising awareness about electrical hazards
Safety rules
Collective and Individual Protection

Raising awareness of foreign object damage (FODs)

Practical implementation

Wire bundling
Crimping of contacts
Terminals and extensions
Grounding connections
Harnesses on tools
Box and VU meters
Installation of electrical assemblies on aircraft
Brushing for electrical bonding, protecting metal bonds
Installing wire-locking on electrical components
Correcting anomalies to comply with specifications

Tests - Revision - Exercises - Mock oral exams

Practical exam for the French Vocational Diploma (CQPM)

AEROSPACE WIRING FITTER



RNCP CODE: 41138

TRAINER BACKGROUND

Our trainers, who have significant experience in the aerospace sector and are experts in the area covered by the course, will be responsible for designing, developing and delivering the technical modules.

COURSE ASSESSMENT AND SUPERVISION

The course is supervised by the Training Coordinator under the management of the Operations Manager at Derichebourg Aeronautics Training.

Continuous assessment of knowledge is carried out throughout the course via MCQs and practical simulations in workshops. Regular assessments are organised every 4 weeks, and the assessment tables can be sent to the parties responsible for funding of the course. The trainees take the CQPM examination, involving an interview with a panel of professionals.

COURSE MONITORING SYSTEM

- Attendance sheet
- Course assessment by the trainees
- Training certificate