



Vocational Family: Maintenance and ancillary production services

Educational Level: Intermediate

Workplace practice: 350 hours

Installation and electromechanical maintenance of machinery and production lines

Professional and work areas

- Mining.
- Metalworking and the manufacture of metal products.
- Machine construction and mechanical equipment industries.
- Building and assembly vehicles.
- Textiles.
- Printing and publishing.
- Food and beverages.
- Amusement parks.

Job profile

- Maintain and repair machinery and industrial equipment, to the appropriate standards of quality and safety and within required deadlines.
- Produce on automated production lines items of the necessary quality and quantity and within the required deadlines, co-ordinating human resources and maintaining equipment and systems of production at the required levels of reliability and availability.
- Assemble and install machinery and industrial equipment on the shop floor, carrying out after-sales service in appropriate conditions of quality and safety, within required deadlines.

Activity plan (Once agreed, it must be entered in the student's practice book.)

Formative activities

1 Interpreting technical documentation.

- Interpreting standard work sheets and processes.

2 Establishing the different stages of the work and the operation at each step.

- Choosing the appropriate tools and resources for the different mechanical and electrical tasks.
- Preparing the materials to be used.
- Checking the foundations, constructions and work surfaces.

3 Siting, anchoring and adjusting machines.

- Connecting machines to compressed air and hydraulic supply lines.

4 Assembling piping, equipment and auxiliary components for the production line.

- Connecting equipment and automatic electronic devices in accordance with diagrams.

5 Carrying out standard procedures for commissioning the production line.

- Checking the system functions by carrying out a series of trials and making any necessary adjustments.

6 Interpreting the technical documentation for the production process.

- Relating the production process to the features and equipment on the line.



7 Assembling the necessary tools and devices according to the production process.

8 Installing and/or preparing control programmes.

- Adjusting the devices for operating and controlling machinery.
- Adjusting the parameters of the control programmes.
- Checking the production line functions properly by carrying out a series of trials and making any necessary adjustments.

9 Assembling protective features for the safety of personnel and machines.

10 Interpreting technical documentation for the preventive maintenance programme.

- Interpreting standard work sheets and processes.

11 Preparing material to be used.

- Carrying out checking procedures.

12 Dismantling, component substitution and re-assembly procedures.

- Checking the installation works properly after corrective measures by means of trials and adjustments.

13 Carrying out dummy runs to check symptoms.

- Measuring electrical and mechanical parameters with the appropriate instruments.
- Interpreting instrument readings.
- Establishing a procedure.

14 Determining the causes of any breakdown, following standard procedures.

- Substituting faulty parts.
- Checking the installation works properly after corrective measures by means of trials and adjustments.

15 Identifying the system and the established company quality regulations for the manufacturing process.

- Identifying the characteristics and parameters to be monitored.
- Preparing and making ready parts and test procedures.
- Measuring and testing in accordance with established operational procedures.
- Identifying quality defects in the product.
- Tracing quality defects to the stages in the manufacturing process.
- Compiling quality control reports.
- Drawing up quality control graphs.