



STANDARD: FOOD AND DRINK MAINTENANCE ENGINEER (LEVEL 3)

Industry Recommended Design

Title

Must be as defined in the standard Level 3 Diploma in Food and Drink Engineering Maintenance.

Assessment Methodology

This must be based on the performance of learners in the workplace or in an approved food and drink maintenance engineering environment.

Additional assessment methods should be used to support consistent and reliable learner performance and support the end-point assessment requirements of the standard. The assessment of knowledge must use methods appropriate to meet the needs of learners.

Assessment of learners' skills by observation must include a minimum of one observation in a live food and drink engineering maintenance environment, Realistic Working Environments (RWE) are permitted.

Assessors and IQAs must be suitably qualified and have experience that includes occupational expertise, assessment, moderation and grading.

Grading

The qualification must be graded to include Fail, Pass, Merit and Distinction.

Size

The qualification should have a credit value in the region of 230 -260

This is to ensure that the learning and experiential development of learners is appropriate to meet the requirements of the standard.

Core Content

The core content must cover all aspects of the standard including skills, knowledge and behaviours. The qualification must include mandatory units that demonstrate the core content of the standard is being met consistently by all learners.



The qualification must include two pathways; Mechanical and Multi-Skilled to ensure the content as detailed in the Apprenticeship Standard is met.

Optional units to support additional learning may be included within the qualification.

Outline Qualification

The following breaks down the mandatory units for the qualification.

Core Unit	Coverage	Type	GLH
Engineering compliance	Unit must cover the industry standard content which includes understanding statutory and organisational requirements, codes of practice, use of engineering information, responsibilities relating to accident reporting and identification of hazards and risks.	Knowledge	70
Engineering best practice	The unit must cover an understanding of different types of maintenance, planning maintenance of equipment and fault finding.	Knowledge	95
Materials science	The unit must cover an understanding of the behaviour of materials.	Knowledge	70
Mechanical maintenance	This unit must explain the maintenance of health and safety and food safety. It should include the application of a range of maintenance techniques and procedures.	Knowledge	80
Produce replacement components	This unit must cover the understanding and skills required to produce mechanical components.	Skills and Knowledge	210
Fluid power systems	This unit must cover the skills and knowledge required for the maintenance of pneumatic, hydraulic and electro-pneumatic fluid power systems.	Skills and Knowledge	95
Welding technologies	The unit should outline the requirements for welding and cutting. It should include Metal Active Gas, Tungsten Inert Gas and manual Metal Arc.	Knowledge	95
Electrical maintenance	This unit should explain the principles of electrical technology and the requirements for electrical maintenance.	Knowledge	120
Services and utilities	The unit should develop knowledge of utilities and how they are identified from visual checks and scrutiny of distribution plans	Knowledge	95
Thermodynamics	The unit covers the principles of how heat transfer is applied to problems associated with the heating and cooling of process fluids.	Knowledge	80



Maths	The unit should develop the learner's ability to apply mathematical techniques to solve engineering problems.	Skills	100
Mechanical Multi Skilled Pathway			
*Monitoring mechanical maintenance	The unit should assess that a learner has developed the skills required to maintain systems and equipment, including fault finding and condition monitoring	Skills	70
*Repairing and producing replacement components	The unit should cover development of skills to produce and repair mechanical components. Including milling, turning, fitting and grinding.	Skill	60
*Welding skills	This unit must develop learners' skills to use different welding techniques including Metal Active Gas, Tungsten Inert Gas and Manual Metal Arc.	Skill	80
Multi skilled Pathway			
Electrical maintenance and testing	The unit covers the principles of three phase motors and speed drives in electrical maintenance engineering. It should include principles of electrical circuits.	Knowledge	145
Automation	The unit must cover knowledge of process controller equipment working in an integrated system involving two or more interactive technologies.	Knowledge	120
Electrical installation	This unit must cover the understanding of electrical installations and content of BS7671.	Knowledge	40

Please note that before using this outline Awarding organisations should make contact, as this overview is subject to review.