Part of the Enginuity Group

Qualification Manual

EAL Level 2 Diploma in Advanced Manufacturing Engineering (Foundation Competence)
Qualification Number: 601/7179/0

Issue H

Part of the Enginuity Group

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1.0 About EAL

For over fifty years, EAL has been the specialist awarding organisation for engineering, manufacturing, building services and related sectors. Developed to the highest technical standards, our qualifications reflect ever-changing industry and regulatory needs. We support the providers of our qualifications with an unparalleled level of service to ensure that learners are well prepared to take the next step in their journeys, whether study, an apprenticeship or work.

Through industry partnerships with EAL centres and training providers, decades of experience supporting our core sectors, and our role as part of the Enginuity Group, we have built unrivalled knowledge and understanding of employer skills needs. As a result, EAL's skills solutions, including apprenticeship End-Point Assessment, External Quality Assurance and qualifications are respected and chosen by employers to deliver real lifelong career benefits for all our learners. That's why in the last ten years, 1.2 million people across the UK have taken EAL qualifications.

1.1 Equal Opportunities and Diversity

EAL expects its centres to enable learners to have equal access to training and assessment for qualifications in line with equalities legislation. Further details can be located in the EAL Equal Opportunities and Diversity Policy:
http://www.eal.org.uk/centre-support/centre-support/policies-and-important-documents

1.2 Customer Experience and Feedback

Customer Experience is a fundamental part of EAL's commitment to you. EAL aims to ensure that all customers receive a high-quality efficient service. We are always interested in feedback and if you have any comments or feedback on our qualifications, products or services, please contact the Customer Experience team:

EAL Customer Experience
Tel: +44 (0)1923 652 400
Email: Customer.Experience@eal.org.uk

2.0 Introduction to the Qualification

2.1 Qualification Support Materials

The following assessment support materials are available for this qualification:

- Units of competence

This qualification is made up of a number of units of competence, which EAL has derived from the Employer Units of Competence (EUC) which set out the collective performance and skills requirements and underpinning knowledge requirements. These documents allow both the apprentices and the assessor to record the progress through the qualification. The units contain the performance to be assessed, the knowledge to be assessed and the evidence required from the apprentices to demonstrate their skills.

All units in this qualification contain the following information:

- Apprenticeship sector and unit title
- Unit summary
- Performance and skills to be assessed and evidenced
- Underpinning knowledge to be assessed and evidenced.

2.2 Learner's Portfolio Building and Referencing

For guidance to assessment and exemplars on completing documentation including assessment planning documentation refer to EAL centre guidance.
For further information please contact:

EAL Customer Experience
Tel: +44 (0)1923 652 400
Email: Customer.Experience@eal.org.uk

2.3 Achievement of the Qualification

The qualification is achieved when all the necessary units have been completed. The centre will then be able to apply for the learner's certificate of achievement. The learners will also receive a certificate of unit credit, listing all the units they have achieved.

This manual must be used in conjunction with the delivery and assessment of any individual units to ensure that assessment requirements and methodologies are consistently applied.

In order to articulate the specific level of skills, knowledge and behaviours required to be achieved and assessed to demonstrate full occupational competence in the Foundation Phase of the apprenticeship, the employers in the Trailblazer group have developed a more detailed Employer Occupational Brief (EOB).

The overarching EOB informs awarding organisations of the required elements of both knowledge and vocational skills within the apprenticeship Standard. It also provides a clear basis for the development of the assessment of the apprenticeship and enables the sector to maintain world class levels of quality to ensure that the credibility and consistency of the apprenticeship outcome is maintained.

The EOB comprises of a number of documents including the rules of combination and the qualification assessment strategy requirements both of which are included in this manual. The EOB also contains the units of competence that make up the qualification.

Also contained within the EOB are the apprenticeship Standard and the accompanying Assessment Plan and both these documents should be read in conjunction with this manual.

EAL Level 2 Diploma in Advanced Manufacturing Engineering (Foundation Competence)

Apprenticeship standards covered by this qualification manual are:

(ST0457) Engineering Technician - Level 3 Occupational roles:

1. Machinist - Advanced Manufacturing Engineering
2. Mechatronics Maintenance Technician
3. Product Design and Development Technician
4. Toolmaking and Tool and Die Maintenance
5. Technical Support Technician
6. Electrical/Electronic Support Engineer - Level 6
7. Control/Technical Support Engineer - Level 6
8. Manufacturing Engineer - Level 6
9. Product Design and Development Engineer - Level 6

The apprenticeship Standard and the Assessment Plan for these apprenticeships can be found here:

https://www.instituteforapprenticeships.org/apprenticeship-standards/?

3.0 Qualification Structure

3.1 Rule of Combination

This qualification is a level 2 Diploma and has a minimum of **800** Guided Learning Hours (GLH) and a Total qualification Time (TQT) value of **800.**

The learner is required to complete the required number of mandatory units of competence, followed by the required number of optional units of competence.

Group A: Mandatory Units:

The learners must complete **all** of the following units:

EAL Code	Unit Title	GLH	Ofqual Code
AUEC2-001	Complying with statutory regulations and organisational safety requirements	50	H/507/6927
AUEC2-002	Working efficiently and effectively in an engineering environment	50	K/507/6928
AUEC2-003	Using and communicating technical information	40	M/507/6929
One of the following units must be selected:			
AUEC2-004	Conducting business improvement activities	80	H/507/6930
AUEC2-004A	Demonstrating personal accountability in an engineering environment	80	D/617/0895
Group B: Optional units: learners must complete at least **six** of the following units: **Note:** the **six** optional units are a minimum requirement. Therefore, employers may require their learners to achieve more units in order to meet their specific apprenticeship standard and business needs.			
AUEC2-005	Producing components using hand fitting techniques	140	K/507/6931
AUEC2-006	Maintaining mechanical devices and equipment	140	M/507/6932
AUEC2-007	Assembling and testing fluid power systems	140	T/507/6933
AUEC2-008	Maintaining fluid power equipment	140	A/507/6934
AUEC2-009	Maintaining electrical equipment/systems	150	F/507/6935
AUEC2-010	Wiring and testing electrical equipment and circuits	140	J/507/6936
AUEC2-011	Wiring and testing programmable controller-based systems	150	L/507/6937
AUEC2-012	Producing mechanical assemblies	150	R/507/6938
AUEC2-013	Preparing and using lathes for turning operations	150	Y/507/6939
AUEC2-014	Preparing and using milling machines	150	L/507/6940

AUEC2-015	Preparing and using semi-automatic MIG, MAG and flux cored arc welding equipment	150	R/507/6941
AUEC2-016	Assembling and testing electronic circuits	140	Y/507/6942
AUEC2-017	Maintaining electronic equipment/systems	150	D/507/6943
AUEC2-018	Preparing and using industrial robots	140	H/507/6944
AUEC2-019	General turning, milling and welding applications	180	K/507/6945
AUEC2-020	Forming and assembling pipework systems	140	M/507/6946
AUEC2-021	Preparing and proving CNC machine tool programs	140	T/507/6947
AUEC2-022	Producing sheet metal components and assemblies	140	A/507/6948
AUEC2-023	Maintaining and testing process instrumentation and control devices	150	F/507/6949
AUEC2-024	Producing components by rapid prototyping techniques	110	T/507/6950
AUEC2-025	Wiring and testing vehicle electrical equipment and circuits	140	A/507/6951
AUEC2-026	Maintaining vehicle electrical equipment/systems	150	F/507/6935
AUEC2-027	Diagnosing and rectifying faults on vehicle systems	150	J/507/6953
AUEC2-028	Stripping and rebuilding vehicle engines	140	L/507/6954
AUEC2-029	Using computer software packages to assist with engineering activities	80	R/507/6955
AUEC2-030	Producing CAD models (drawings) using a CAD system	110	Y/507/6956
AUEC2-031	Producing electrical or electronic engineering drawings using a CAD system	110	D/507/6957
AUEC2-032	Producing engineering project plans	80	H/507/6958
AUEC2-033	Preparing and using grinding machines	150	F/508/4954
AUEC2-034	Preparing and using CNC turning machines	140	F/508/4968
AUEC2-035	Preparing and using CNC milling machines	140	J/508/4972
AUEC2-036	Preparing and using CNC machining centres	140	R/508/4974
AUEC2-037	Carrying out heat treatment of engineering materials	90	Y/508/4975
AUEC2-038	Producing mechanical engineering drawings using a CAD system	110	D/508/4976
AUEC2-039	Assembling, wiring and testing electrical panels/components mounted in enclosures	140	H/508/4977
AUEC2-040	Forming and assembling electrical cable enclosure and support systems	130	M/508/4979
AUEC2-041	Preparing and using electro discharge machines	150	H/508/4980

AUEC2-042	Preparing and using manual TIG or plasma-arc welding equipment	150	K/508/4981
AUEC2-043	Preparing and using CNC fabrication equipment	140	M/508/4982
AUEC2-044	General welding applications	150	L/508/4987
AUEC2-045	Producing tool and die assemblies	150	F/615/8397
AUEC2-046	Produce composite mouldings using pre-preg techniques	140	J/615/8398
AUEC2-047	Carrying out repairs on composite mouldings	140	T/615/8400
AUEC2-048	General machining, fitting and assembly applications	120	F/615/8402
AUEC2-049	General fabrication and welding applications	120	J/615/8403
AUEC2-050	General electrical and electronic engineering applications	120	L/615/8404
AUEC2-051	General maintenance engineering applications	120	R/615/8405
AUEC2-052	Carrying aircraft detail fitting activities	140	D/615/8407
AUEC2-053	Installing aircraft mechanical fasteners	110	H/615/8408
AUEC2-067	Preparing and using manual metal arc welding equipment	150	F/617/0288
AUEC2-068	Preparing and using manual oxy/fuel gas welding equipment	140	J/617/0289
AUEC2-069	Preparing and using manual flame brazing and braze welding equipment	110	A/617/0290
AUEC2-071	Producing platework components and assemblies	140	J/617/0292
AUEC2-088	Slinging, lifting, and moving materials and components	140	H/617/0896

3.2 Barred Combinations and Optional Unit Selection Requirements

For centres delivering this qualification against the Level 3 Mechatronics Maintenance Technician and Level 3 Product Design and Development Technician Standards they will be required to select a minimum of three units from units AUEC2-05, 06, 08, 09, 010, 011, 012, 013, 014, 016, 019, 021, 025 and 028 within the optional unit selection as these three units will be used for the Foundation Competence gateway assessment.

Only one of the three CAD units AUEC2-030, 031 and 038 may be undertaken as the apprentices' choice of optional units. However, they can be undertaken as additional units if required by the employer.

If either welding units AUCE2-015, 042, 067, 068, 069 and 071 are selected then Unit AUEC2-019, 043 or 049 cannot be undertaken as the apprentices' choice of optional units. However, it can be undertaken as an additional unit if required by the employer.

If Unit AUEC2-019 cannot be undertaken if any of the following machining units have been undertaken as the apprentices' choice of optional units i.e., units AUEC2/013, 014, 034, 035, 036, 048.

Taking into account the barred combinations for the welding units, only one unit from AUEC2-19, 043 or 049 can be selected as the apprentices' choice of optional units.

Only one of the following units AUEC2-012 or 045 may be undertaken as the apprentices' choice of optional units.
However, they can be undertaken as additional units if required by the employer.

Only one of the following units AUEC2-05 or 052 may be undertaken as the apprentices' choice of optional units.
However, they can be undertaken as additional units if required by the employer.

If Unit AUEC2-048 is undertaken then Unit AUEC2-05, 012, 013, 014, 034, 035, 036, 045 or 052 cannot be undertaken as the apprentices' choice of optional units.
However, it can be undertaken as an additional unit if required by the employer.

If unit AUEC2-049 is undertaken then unit AUEC2-015, 019, 022, 040, 042, 043 or 044 cannot be undertaken as the apprentices' choice of optional units.
However, it can be undertaken as an additional unit if required by the employer.

If unit AUEC2-050 is undertaken then Unit AUEC2-010, 011, 16, 025 or 039 cannot be undertaken as the apprentices' choice of optional units.
However, it can be undertaken as an additional unit if required by the employer.

If unit AUEC2-051 is undertaken then Unit AUEC2-06, 08, 09, 011, 017, 023, 026 or 027 cannot be undertaken as the apprentices' choice of optional units.
However, it can be undertaken as an additional unit if required by the employer.

Other units including barred options/combinations will be added as and when other apprenticeship standards are developed for the Advanced Manufacturing Engineering sector.

4.0 Centre and Qualification Approval

Centres wishing to run this qualification will need to comply with this qualification manual and EAL's centre approval criteria for the qualification. Centres must also put in place the appropriate physical and human resources and administration systems to deliver the qualification effectively.

For existing EAL centres to put the qualification on their centre remit, create and complete a qualification approval application form in Smarter Touch and submit to EAL.

For non EAL centres to gain centre approval to run the qualification, EAL Customer Services will be pleased to help. Please contact them on:

EAL Customer Experience
Tel: +44 (0)1923 652 400
Email: Customer.Experience@eal.org.uk

5.0 Profiles and Requirements

5.1 Staff Responsible for Registering and Certification of Learners

Centres are required to appoint a suitable member of staff who can take responsibility for registering learners onto qualifications, submitting entries for assessments to EAL, and taking receipt of external assessment procedures (if appropriate). They may also be responsible for applying to EAL for learner certificates. The role may be undertaken by the same person who undertakes quality assurance.

5.2 Teaching Staff

Teaching staff must:

- Understand the Engineering Technician (UK spec) requirements when providing guidance to learners. They will be required to provide a signed declaration confirming they have read and understood the Engineering Technician UK spec and the evidence requirements to meet the engineering technician (UK spec) criteria.

- Understand the requirements of the specific Apprenticeship Standard – End of Scheme Assessment Recording Document.

- Understand the requirements of the specific Apprenticeship Standard – Behavioural Framework and the review and assessment recording documentation.

5.3 Assessors

Assessor requirements to demonstrate effective assessment practice

Assessment must be carried out by competent Assessors that as a minimum must hold the Level 3 Award in Assessing Competence in the Work Environment. Current and operational Assessors that hold units D32 and/or D33 or A1 and/or A2 as appropriate to the assessment being carried out, will not be required to achieve the Level 3 Award as they are still appropriate for the assessment requirements set out in this Unit Assessment Strategy. However, they will be expected to regularly review their skills, knowledge and understanding and where applicable undertake continuing professional development to ensure that they are carrying out workplace assessment to the most up to date Employer Units of Competence.

Assessor technical requirements

Assessors must be able to demonstrate that they have verifiable, relevant, and sufficient technical competence to evaluate and judge performance and knowledge evidence requirements as set out in the relevant outcomes in the Employer Units of Competence.

This will be demonstrated either by holding a relevant technical qualification or by proven industrial experience of the technical areas to be assessed. The assessor's competence must, at the very least, be at the same level as that required of the Apprentice in the units being assessed.

Assessors must also:

Be fully conversant with the Awarding Organisation's assessment recording documentation used for the Employer Units of Competence, against which the assessments and verification are to be carried out, plus any other relevant documentation and system and procedures to support the QA process.

5.4 Internal Quality Assurers

Internal quality assurance (IQA) must be carried out by competent IQA's that as a minimum must hold the Level 4 Award in the Internal Quality Assurance of Assessment Processes and Practices. Current and operational IQA that hold internal verification units V1 or D34 will not be required to achieve the Level 4 Award as they are still appropriate for the verification requirements set out in this Unit Assessment Strategy. IQA's must be familiar with, and preferably hold, either the nationally recognised Assessor units D32 and/or D33 or A1 and/or A2 or the Level 3 Award in Assessing Competence in the Work Environment.

Internal quality assurers will be expected to regularly review their skills, knowledge and understanding and where applicable undertake continuing professional development to ensure that they are carrying out workplace Quality Assurance (verification) of Assessment Processes and Practices to the most up to date Employer Units of Competence.

Internal quality assurers will also be expected to be fully conversant with the terminology used in the Employer Units of Competence against which the assessments and verification are to be carried out, the appropriate Regulatory Body's systems and procedures and the relevant Awarding Organisation's documentation, systems and procedures within which the assessment and verification is taking place.

Specific technical requirements for internal and external assurers

Internal and external quality assurers for the Employer Units of Competence must be able to demonstrate that have verifiable, sufficient and relevant industrial experience, and must have a working knowledge of the processes, techniques and procedures that are used in the engineering industry.

The following tables show the recommended levels of technical competence for assessors, internal and external assurers.

Technical requirements for assessors and verifiers

Position	Prime activity requirements	Support activity requirements	Technical requirements (see notes)
Assessor	Assessment skills	Internal Quality Assurance Systems	Technical competence in the areas covered by the units being assessed
Internal Quality Assurance (IQA)	Quality Assurance skills	Assessment knowledge	Technical understanding of the areas covered by the qualification
External Quality Assurance (EQA)	Quality Assurance skills	Assessment understanding	Technical awareness of the areas covered by the qualification

Notes

1. Technical competence is defined here as a combination of practical skills, knowledge, and the ability to apply both, in familiar and new situations, within a real working environment.

2. Technical understanding is defined here as having a good understanding of the technical activities being assessed, together with knowledge of relevant Health & Safety implications and requirements of the assessments.

3. Technical awareness is defined here as a general overview of the subject area, sufficient to ensure that assessment and evidence are reliable, and that relevant Health and Safety requirements have been complied with.

4. The competence required by the assessor, Internal Quality Assurer and External Quality Assurer, in the occupational area being assessed, is likely to exist at three levels as indicated by the shaded zones in the following table.

Technical competence / **Job role:**	An ability to **discuss** the general principles of the competences being assessed	An ability to **describe** the practical aspects of the competences being assessed	An ability to **demonstrate** the practical competences being assessed
Assessor			
Internal quality assurance			
External quality assurance			

5.5 Expert Witnesses

Where 'observation' is used to obtain performance evidence, this must be carried out against the unit assessment criteria. Best practice would require that such observation is carried out by a qualified Assessor. If this is not practicable, then alternative sources of evidence may be used.

For example, the observation may be carried out against the assessment criteria by someone else that is in close contact with the apprentice. This could be a team leader, supervisor, mentor, or line manager who may be regarded as a suitable witness to the apprentice's competency. However, the witness must be technically competent in the process or skills that they are providing testimony for, to at least the same level of expertise as that required of the apprentice. It will be the responsibility of the assessor to make sure that any witness testimonies accepted as evidence of the apprentice's competency are reliable, auditable, and technically valid.

6.0 Assessment Strategy

Employers in the Engineering Sector have produced this Assessment Strategy to:

- Support the implementation and delivery of the Apprenticeship Standard
- Provide clarity for Awarding Organisations on what constitutes competent performance
- Encourage and promote consistent assessment of Competence and Technical Knowledge requirements
- Promote cost effective delivery and assessment plans.

This document also provides definitions for:

- The qualifications and experience required for Assessors/Trainers/Teachers and Internal Quality Assurers
- The assessment environment for the Foundation and Development Phase Occupational Competence Qualifications.

Access to assessment and requirements relating to:

- Carrying out occupational competence assessments
- Performance evidence requirements for occupational competence
- Assessing knowledge and understanding
- Use of witness testimonies
- Continuing professional development
- Quality control of assessment.

Assessing Knowledge and Understanding requirements in the Occupational Competence Qualifications

Knowledge and understanding are key components of competent performance, but it is unlikely that performance evidence alone will provide enough evidence in this area. Where the Apprentice's knowledge and understanding is not apparent from performance evidence, it must be assessed by other means and be supported by suitable evidence.

Knowledge and understanding can be demonstrated in a number of different ways. It is recommended that oral questioning and practical demonstrations are used perhaps whilst observing the apprentice undertake specific tasks, as these are considered the most appropriate for these units. Assessors should ask enough questions to make sure that the Apprentice has an appropriate level of knowledge and understanding, as required by the unit.

Evidence of knowledge and understanding will not be required for those items in the skills section of the Employer Units of Competence that have not been selected by the Employer.

The achievement of the specific knowledge and understanding requirements in the units may not simply be inferred by the results of tests, exams or assignments from other units such as in the technical knowledge qualifications or other training programs. Where evidence is submitted from these sources, the assessor must, as with any assessment, make sure the evidence is valid, reliable, authentic, directly attributable to the Apprentice, and meets the full knowledge and understanding requirements of the unit.

Awarding Organisations should be able to provide advice and guidance where evidence from Technical Knowledge qualification tests and/or assignments can be mapped and used to meeting the requirements of the Occupational Competence unit requirements.

Where oral questioning is used, the Assessor must retain a record of the questions asked, together with the Apprentice's answers.

Maximising opportunities to use assessment evidence

One of the critical factors required in order to make this Assessment Strategy as efficient and effective as possible and to ease the burden of assessment, is the Assessors ability and expertise to work in partnership with the apprentice and their employer to provide advice and guidance on how to maximise opportunities to cross reference performance and knowledge evidence to all relevant Employer Units of Competence. For example, if a knowledge statement is repeated in a number of separate Employer Units of Competence and the expected evidence/response to that statement is the same including the context, then the same piece of evidence should be cross referenced to the appropriate units. As stated above evidence from Technical Knowledge qualification test and assignments etc. should be used where this is valid, reliable and can be attributed to the individual apprentice.

6.1 Assessment Environment

Assessment Environment of the Employer Units of Competence in the Foundation Phase of the Apprenticeship

The Employer Units of Competence are intended to have a wide application throughout the Advanced Manufacturing and Engineering Sector. It is necessary therefore to have a flexible approach to the environment in which the Employer Units of Competence are delivered and assessed during the Foundation Phase of the Apprenticeship.

Therefore, there is much to be gained by acquiring the basic engineering competencies required in the Foundation Phase of the Apprenticeship whilst working in a sheltered but realistic environment such as in a Training Centre or College. This is due to an on-going emphasis on safety critical work activities and the need to ensure flexibility of assessment opportunities to both maintain and enhance the provision of competent personnel within the Advanced Manufacturing and Engineering sector. This assessment method will allow a minimum safe level of skills, knowledge and understanding to be achieved and demonstrated by the Apprentice prior to being exposed to the hazards of the industrial environment, thus minimizing the risk of injury to themselves and other employees.

For the above reasons, the assessment of the Apprentice's competence in a sheltered but realistic environment is acceptable for the Employer Units of Competence included the Foundation Stage of the Apprenticeship, where the environment replicates that expected in industry.

Where applicable, the machinery, tools, materials, equipment, and resources used must be representative of industry standards and there must be sufficient equipment/resources available for each Apprentice to demonstrate their competence on an individual basis. Workpieces or work outcomes assessed must be the Apprentice's own work and should be

actual work examples that combine the skills, techniques required by the Employer Units of Competence so that achievement will properly reflect the Apprentice's capabilities. Assessors must therefore ensure that the competency is fully transferable to the workplace. Other aspects that should be considered could include:

- Environmental conditions such as lighting conditions, noise levels and the presence of hazards
- Pressure of work, including time constraints and repetitive activities
- Producing actual workpieces or work outcomes, the consequence of making mistakes, and the effect this has on customer, supplier, and departmental relationships.

Access to assessment

There are no entry requirements for the Employer Units of Competence unless this is a legal requirement of the process or the environment in which the Apprentice is working in. Assessment is open to any Apprentice who has the potential to reach the assessment requirements set out in the relevant units.

Aids or appliances, which are designed to alleviate disability, may be used during assessment, providing they do not compromise the standard required.

Carrying out assessment of the occupational competence qualifications

The Employer Units of Competence have been specifically developed to cover a wide range of activities. The evidence produced for the units will, therefore, depend on the skills and knowledge required by employer and specified in the Apprentice's Training Plan. The Skills section of the Employer Units of Competence refers to a number of optional items listed in the Skills section of the units, (for example, 'any **three** from **five'**). This is the minimum standard set by employers.

Where the unit requirements give a choice of optional areas, assessors should note that Apprentices do not need to provide evidence of the other areas to complete the unit, unless specified by the employer (in this example above, two items) particularly where these additional items may relate to other activities or methods that are not part of the Apprentice's normal workplace activities or required by the employer.

6.2 Performance Evidence

Performance Evidence Requirements of the Occupational Competence Qualifications

Performance evidence must be the main form of evidence gathered. In order to demonstrate consistent competent performance for a unit, a minimum of two different examples of performance of the unit activity will be required in the Foundation Phase. For the Development Phase a minimum of three different examples of performance of the unit activity will be required. Items of performance evidence often contain features that apply to more than one unit and can be used as evidence in any unit where they are suitable.

Performance evidence must be:

- Products of the Apprentice's work, such as items that have been produced or worked on, plans, charts, reports, standard operating procedures, documents produced as part of a work activity, records, or photographs of the completed activity.

Together with:

- Evidence of the way the Apprentice carried out the activities, such as witness testimonies, assessor observations or authenticated Apprentice reports of the activity undertaken.

Competent performance is more than just carrying out a series of individual set tasks. Many of the units in the Foundation Phase contain statements that require the Apprentice to provide evidence that proves they are capable of combining various features and techniques. Where this is the case, separate fragments of evidence would not provide this combination of features and techniques and, therefore, will not be acceptable as demonstrating competent performance.

If there is any doubt as to what constitutes suitable evidence, the internal/external assurer should be consulted.

6.3 Continuing Professional Development

Centres must support their staff to ensure that they have current technical knowledge of the occupational area, that delivery, mentoring, training, assessment, and verification are in line with best practice, technical advancements and that they will take account of any national or legislative developments.

There must be an auditable individual CPD plan in place for all staff assessing and Quality Assuring the qualifications within the apprenticeship foundation and development phases, the plan must meet the relevant provider and employer requirements.

6.4 Additional Assessment Requirements

In order to prove their ability to combine different maintenance operations, at least one of the maintenance activities must be of a significant nature and must cover at least seven of the activities listed in paragraph 4 plus the removal and replacement/refitting of a minimum of five of the components listed in paragraph 5 in the Skills Section.

If there is any doubt as to what constitutes suitable evidence, the internal and/or external Quality Assurer should be consulted.

7.0 Quality Control of Assessments

There are two major points where an Awarding Organisation interacts with the Centre in relation to the External Quality Control of Assessment:

- Approval - when a Centre take on new qualifications/units, the Awarding Organisation, normally through an External Quality Assurer (EQA) ensures that the Centre is suitably equipped and prepared to deliver the new units/qualification.

- Monitoring - throughout the ongoing delivery of the qualification/units the Awarding Organisation, through EQA monitoring and other mechanisms must maintain the quality and consistency of assessment of the units/qualification.

Approval

In granting approval, the Awarding Organisation, normally through its External Quality Assurers (EQA's), must ensure that the prospective Centre:

- Meets the requirements of the Qualification Regulator
- Has sufficient and appropriate physical and staff resources
- Meets relevant health and safety and/or equality and access requirements
- Has a robust plan for the delivery of the qualification/units.

The Awarding Organisation may visit the Centre to view evidence, or it may undertake this via other means.

The Awarding Organisation must have a clear rationale for the method(s) deployed Monitoring. The Awarding Organisation, through EQA monitoring and other mechanisms must ensure:

- That a strategy is developed and deployed for the ongoing Awarding Organisation monitoring of the Centre. This strategy must be based on an active risk assessment of the Centre. In particular, the strategy must identify the Apprentice, assessors, and Internal Quality Assurance sampling strategy to be deployed and the rationale behind this
- That the Centre's internal quality assurance processes are effective in assessment
- That sanctions are applied to a Centre where necessary and that corrective actions are taken by the Centre and monitored by the Awarding Organisation/EQA
- That reviews of Awarding Organisation's external auditing arrangements are undertaken.

Appendix 1: Unit Summaries

All AUEC2 unit summaries are available in the Qualification Specification AUEC2 unit summaries document. For more information, please visit the EAL Qualification Website

Appendix 2: Learner Registration and Certification

Learners must be registered with EAL on a code which relates to the qualification -this must be completed prior to assessment. Both learner registration and certification can be completed online at the EAL website. For paper-based registration and certification use the appropriate forms. These are located on the EAL Website, for guidance on registration and certification please refer to the Registration and Certification User Guide.
To register the learner on the chosen qualification/pathway code:

Qualification Title:	**Code:**
EAL Level 2 Diploma in Advanced Manufacturing Engineering (Foundation Competence)	601/7179/0

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