

Purpose of qualification

The qualification provides learners with practical experience of installation activities on gas water heating and wet central heating appliances in both domestic and small commercial premises and an expectation of some of the situations that they could face as an installation engineer in the Utilities sector. More specifically, it provides learners with the required underpinning knowledge and related practical skills they will need to prove competence and to subsequently pursue a career in this occupational area. Key topics include health and safety involved in gas utilisation, scientific principles of gas utilisation, properties of gas and combustion, core principles involved in installation, cold water systems, hot water systems and associated electrical work

What does this qualification cover?

This qualification has nineteen core mandatory units which learners must complete and this will provide learners with the competence to work in the Gas Utilisation sector, the structure is listed on page 3.

Who is this qualification for?

This qualification is predominantly for learners who want to be gas installation engineers working in the gas industry in UK, Isle of Man and Guernsey. The qualification may also be suitable for learners who are interested in gas utilisation and/or are considering a career change. The qualification has been specifically designed as a competence component in the Apprenticeship framework.

It is suitable for learners aged:

- 16-18
- 19+

Who supports this qualification?

This qualification is:

- Accredited by Ofqual at level 3
- Endorsed by employers as facilitating progression to an apprenticeship and/or one or more of the industry recognised qualifications at level 3*

*Letters of endorsement from employers and other organisations can be viewed on the EAL website.

What could this qualification lead to?

Typical job roles include:

Gas Installation Engineer

This qualification relates to:

- EAL Level 3 Diplomas in Gas Utilisation
- EAL Level 3 NVQ Diploma in Plumbing and Heating
- EAL Level 3 NVQ Diploma in Heating

Entry requirements

Learners must be at least 16 years old. There are no formal entry requirements for this qualification. However, learners must have the potential to achieve all aspects of the qualification. In particular, learners should be able to demonstrate that they have the minimum levels of literacy and numeracy required to comply with the health and safety aspects of the scheme, the completion of the learning outcomes, and the assessments.

How is the qualification achieved?

This qualification will be achieved when the learner has successfully completed:

- The NINETEEN mandatory units, including any related Centre marked assignments/practical tests and externally marked exams.

What will be assessed?

This qualification is made up of units to which appropriate assessment methods have been applied. The units contain the learning outcomes and the assessment criteria that the learner is to be assessed against.

All learning outcomes within the qualification will be assessed. In order to meet this requirement, it is advised that centres should maintain an assessment and feedback record for each learner. This will detail the evidence evaluated against the learning outcome and the feedback given to the learner. All learner evidence must be available to the EAL External Verifier.

How will it be assessed?

Where appropriate, learners will be assessed in naturally occurring planned activities carrying out their work tasks. Assessment against the learning outcomes of the qualification may be through practical observation and oral questioning. Performance evidence may be provided by the employer in partnership with the approved centre staff where established performance management processes are used by the employer to monitor staff performance.

The internal assessments will be a combination of on-screen exams, written and short answers and simulated practical assessments

The internal assessments are set by EAL and the on-screen exam is marked by EAL and all other internal assessments are marked by members of the delivery team at the Centre.

Where the assessment takes the form of written/short answer or multiple choice question papers, these must be treated as controlled assessments.

Structure

This qualification will be obtained by the learner once they have successfully completed all the **mandatory units** listed below.

Mandatory units:

Unit	Unit title	Credit value	GLH	Ofqual Code
QDSG3/1.1	Understanding health and safety in gas utilisation	11	70	M/502/8461
QDSG3/1.2	Understanding scientific principles in gas utilisation	4	30	A/502/8463
QDSG3/1.3	Understanding combustion and properties of gas	15	110	M/502/8475
QDSG3/1.4	Understanding buildings, services and structures	12	90	A/502/8480
QDSG3/1.5	Understanding gas safety	15	110	Y/502/8485
QDSG3/2.3	Specific core installation and maintenance	21	120	H/502/8487
QDSG3/3.5	Install, commission and de-commission gas pipework up to 35mm (1 ¼) diameter in domestic and small commercial premises	19	115	T/502/8381
QDSG2/3.6	Tightness test, purge, commission and de-commission gas pipework up to 35mm (1 ¼) diameter in small natural gas installations	3	16	D/503/8628
QDSG3/3.21	Water compulsory core unit	13	90	J/502/8465
QDSG3/3.3	Install Domestic Gas Water Heaters and Wet Central Heating Appliances	18	134	Y/502/8454
QDSG3/3.4	Maintain Gas Water Heating and Wet Central Heating Appliances	16	75	T/502/8459
QDMES2/02	Understand and apply domestic cold water system installation and maintenance techniques	8	62	H/602/2697
QDMES2/03	Understand and apply domestic hot water system installation and maintenance techniques	8	62	F/602/2884
QDMES2/04	Understand and apply domestic central heating system installation and maintenance techniques	10	82	Y/602/2888
QDMES3/05	Understand and apply domestic cold water system installation, commissioning, service and maintenance techniques	9	76	K/502/8930

Structure

Mandatory units (continued):

Unit	Unit title	Credit value	GLH	Ofqual Code
QDMES3/06	Understand and apply domestic hot water system installation, commissioning, service and maintenance techniques	9	76	K/502/9155
QDMES3/07	Understand and apply domestic central heating system installation, commissioning, service and maintenance techniques	12	98	M/502/9156
QDHTG2/02	Install and maintain domestic heating systems	4	4	R/602/2971
QDHTG3/04	Install, commission, service and maintain domestic heating systems	3	4	A/502/8933
QMES3/02	Understand and carry out electrical work on domestic plumbing and heating systems and components	12	102	T/502/9157

Completion of this Qualification Combination will enable Gas Safe Registration in the following categories: CCN 1, CENWAT 1, CPA 1, MET1/2, CoNGLP1 PD