



National Unit specification: general information

Unit title: Roofing: Random Slating to Gabled Roofs (SCQF level 6)

Unit code: H10L 12

Superclass: TG

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Source: Scottish Qualifications Authority

Version: 01

Summary

This Unit is suitable for candidates working towards a Modern Apprenticeship in Roofing Occupations and is designed to provide candidates with competence in the use of tools and equipment to prepare, set out and cover boarded gabled roofs with natural random slates in diminishing courses and the ability to apply these skills in the workplace. It is also designed to enable candidates to develop their knowledge and understanding and use roof slating terminology and traditional techniques and practices when laying and fixing random slates to plain pitched gabled roof surfaces.

Outcomes

- 1 Demonstrate knowledge and understanding of roof types, terminology and sequence of operations for the application of random slating to gabled roofs.
- 2 Prepare and set out a gabled roof surface and slates prior to random slating.
- 3 Position and fix random slates to a gabled roof surface.

Recommended entry

While entry is at the discretion of the centre, candidates undertaking the Professional Development Award in Roofing Occupations at SCQF level 6 must meet the requirements of the Modern Apprentices which include being employed in the relevant craft industry.

Credit points and level

1 National Unit credit at SCQF level 6 (6 SCQF credit points at SCQF level 6*).

**SCQF credit points are used to allocate credit to qualifications in the Scottish Credit and Qualifications Framework (SCQF). Each qualification in the Framework is allocated a number of SCQF credit points at an SCQF level. There are 12 SCQF levels, ranging from Access 1 to Doctorates.*

General information (cont)

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Core Skills

Achievement of this Unit gives automatic certification of the following:

Complete Core Skill None

Core Skill component Critical Thinking @ SCQF level 4

There are also opportunities to develop aspects of Core Skills which are highlighted in the Support Notes of this Unit Specification.

National Unit specification: statement of standards

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Acceptable performance in this Unit will be the satisfactory achievement of the standards set out in this part of the Unit specification. All sections of the statement of standards are mandatory and cannot be altered without reference to SQA.

Outcome 1

Demonstrate knowledge and understanding of roof types, terminology and sequence of operations for the application of random slating to gabled roofs

Performance Criteria

- (a) Identify common roof types.
- (b) Define terminology related to a gable to abutment roof surface.
- (c) Describe the sequence of operations required for covering a gable to abutment roof surface including a Solar Collector.

Outcome 2

Prepare and set out a gable to abutment roof surface and slates prior to random slating.

Performance Criteria

- (a) Prepare roof surface correctly prior to slating.
- (b) Install abutment flashing accurately.
- (c) Set out roof surface correctly.
- (d) Dress, size and grade slates accurately.
- (e) Comply with all current health and safety requirements at all times.

Outcome 3

Position and fix random slates to gable to abutment roof surface.

Performance Criteria

- (a) Fix random slates to roof in diminishing courses.
- (b) Fix Solar Collector in accordance with manufacturer's instructions.
- (c) Fix ridge using performed metal ridge.
- (d) Comply with all current health and safety requirements at all times.

National Unit specification: statement of standards (cont)

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Evidence Requirements for this Unit

Evidence is required to demonstrate that the candidates have achieved this Unit to the standard specified in all the Outcomes and Performing Criteria. All working practices must be in line with relevant and current Health and Safety legislation and regulations.

Written and/or oral evidence is required for Outcome 1 which demonstrates that the candidate can identify common roof types, and describe the terminology and sequence of operations associated with random slate roof coverings in diminishing courses to a gabled roof surface. The evidence for this Outcome will take the form of a question paper and be obtained under closed-book supervised conditions.

Performance and product evidence for Outcome 2 and 3, supplemented with an assessor observation checklist, should be used to confirm the candidate has individually met the standards specified in the Performance Criteria and summary of standards.

Candidates must achieve the following standards:

Check boarding	Removes Protruding nails
Removes roof debris	Brushes roof clean
Install abutment flashing	Fixed to manufacturer's instructions.
Felt roof eave	Overhang 50 mm \pm 5 mm
Horizontal lap	75 mm \pm 5 mm
Vertical lap	150 mm \pm 5 mm
Fix felt	Free from large wrinkles
Fix felt	Free from tears
Fix felt	Nailed in correct position
Strike square lines	Level \pm 3 mm
Make sizestick	Correct to specification
Dress slates	Acceptable appearance throughout
Size slates	Correctly sized
Calculate gauge	States method
Calculate under-eave size	States method
Bonding slates	Correctly bonded
Lay slates	Straight at lines \pm 3 mm
Fix Solar Collector	Fixed to manufacturer's instructions.
Maintain lap	Correct lap maintained throughout
Use square line	Courses level with ridge
Slates at verge	Straight at verge 50 mm \pm 5 mm
Nailing slates	Nailed to lecturer's specification
Cheek nail slates	All slates cheek nailed every third course
Finish at ridge	Finished with correct size of top slate
Working area	Clean at all times
Health and safety	Complies at all times

These Evidence Requirements will be met by the completion of the Roofing Occupations Training and Assessment Programme (TAP).

National Unit specification: support notes

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This part of the Unit specification is offered as guidance. The support notes are not mandatory.

While the exact time allocated to this Unit is at the discretion of the centre, the notional design length is 40 hours.

Guidance on the content and context for this Unit

This Unit has been developed as a mandatory Unit in the Professional Development Award (PDA) in Roofing Occupations at SCQF level 6.

This Unit would be offered to candidates from the construction and related services industries. The skills and knowledge and understanding are transferable within different working environments but the Unit is primarily aimed at candidates whose normal place of work would be a site, workshop, or similar environment. It should be delivered as part of a structured programme of training and orientated to the context of the candidates work and area of responsibility.

The successful completion of this Unit will help provide candidates with the required underpinning knowledge and skills relating to the terminology, preparation and application of random slating in diminishing courses to a gable to abutment roof surface incorporating a Solar collector.

The context of this Unit allows for a holistic integrated approach into other Units within the PDA in Roofing Occupations. Therefore there are opportunities to integrate this Unit with aspects of *Roofing: Regular Sized Slating to Battened Gable to Gable Roof* at SCQF level 6.

Health and Safety and Sustainability are integral and key to the Construction Industry and so throughout the Unit emphasis will be placed where appropriate on the application of Health and Safety and Sustainability. Safety working practices should be looked at in accordance with current safety codes of practice and regulations. Sustainability should include reference to legislation affecting the conservation of the environment and its relevance to this trade and the construction industry in general. Attention should also be drawn to the dangers of not implementing this legislation.

National Unit specification: support notes (cont)

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Guidance on learning and teaching approaches for this Unit

The learning environment for this Unit will be a combination of classroom and workshop based learning. The knowledge element of this Unit would be taught in a classroom environment and put into practice in the workshop in conjunction with practical Outcomes.

The candidate should be given the opportunity to further develop their skills through visual aids, electronic presentations, DVDs, e-learning, reference books classroom exercise and group discussions.

Candidates should be encouraged to consider basic risk assessment **prior** to any practical activities taking place.

Outcome 1

It would be beneficial for candidates to sketch and draw various elements related to random slating in diminishing courses to a gable and abutment roof surface. This will help reinforce candidates' underpinning knowledge for this Unit.

Outcomes 2 and 3

It is recommended that candidates work in pairs for these Outcomes. Candidates should be encouraged in self and peer evaluation of work and achievement standards.

The candidate should be provided with a three-dimensional working drawing and specification outlining the content and Performance Criteria for the practical activities attempted.

Candidates should be made fully aware of current regulations and legislation in relation the roofing activities including Solar installation contained within this Unit.

It would be beneficial for lecturers to reinforce the appropriate disposal and re-use of roofing materials for sustainability considerations.

Candidates should be encouraged to calculate areas and quantities of roofing materials. This could take place in a classroom or a workshop environment. Candidates could take the opportunity to use spread sheets to compile and record information related to material estimating.

Lecturers should provide candidates with constructive feedback in relation to performance and the standard achieved. Areas for improvement should be clearly identified.

National Unit specification: support notes (cont)

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Opportunities should be taken throughout the delivery of this Unit to meet the requirements of the generic Units of the Training and Assessment Programme including:

- ◆ *Conform to Productive Working Practices*
- ◆ *Conform to General Workplace Health, Safety and Welfare*
- ◆ *Move, Handle or Store Resources*
- ◆ *Confirm Work Activities and Resources for the Work*
- ◆ *Develop and Maintain Good Working Relationships*
- ◆ *Confirm the Occupational Method of Work*

Guidance on approaches to assessment for this Unit

The Roofing Occupations Training and Assessment Programme (TAP) provides detailed assessment material for this Unit. It is advised to use the TAP which has been developed centrally by SQA. Any other instruments of assessment used must be comparable to the TAP and have been through prior verification. It is expected that candidates will be given as much practice as possible, prior to being set assessment tasks.

For Outcome 1 a suitable method of assessing the candidate's knowledge and understanding of common roof types, terminology and sequence of operations for random slating in diminishing courses to a gable and abutment roof surface including a Solar collector, would be through a question paper incorporating multiple choice questions.

For Outcomes 2 and 3 the candidate's ability to set out random slating in diminishing courses to a gabled roof surface will be assessed through practical activities. An assessor observation checklist can be used to ensure and record that the candidates have met the given standards and tolerances during the practical activity.

Opportunities for the use of e-assessment

E-assessment may be appropriate for some assessments in this Unit. By e-assessment we mean assessment which is supported by Information and Communication Technology (ICT), such as e-testing or the use of e-portfolios or social software. Centres which wish to use e-assessment must ensure that the national standard is applied to all candidate evidence and that conditions of assessment as specified in the Evidence Requirements are met, regardless of the mode of gathering evidence. Further advice is available in *SQA Guidelines on Online Assessment for Further Education (AA1641, March 2003)*, *SQA Guidelines on e-assessment for Schools (BD2625, June 2005)*.

National Unit specification: support notes (cont)

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Opportunities for developing Core Skills

There are opportunities to develop aspects of the Core Skill of *Problem Solving*. Candidates will need to take account of a range of factors in order to work efficiently and safely, such as the choice of tools, appropriate materials, safety issues, safety equipment and sustainability. Individual discussions with assessors and the use of role play will enhance the evaluation of efficient working practices.

Numeracy skills at SCQF level 4 could be developed through roofing calculations for area and material estimating.

Opportunities also arise for candidates to develop the Core Skill of *Information and Communication Technology (ICT)* at SCQF level 3 through researching roofing terminology and techniques on the internet, spread sheets for materials information, e-learning and e-assessment.

There are opportunities for candidates to develop the Core Skill of *Working with Others* at SCQF level 4 through working in pairs for Outcomes 2 and 3. Candidates can agree responsibilities and provide support and information to each other during the practical group activities.

Candidates will have the opportunity to develop *Communication* skills at SCQF level 4 throughout practical tasks, as they should be expected to communicate with others using the correct terminology, tone and style suited to the workplace.

This Unit has the Critical Thinking component of Problem Solving embedded in it. This means that when candidates achieve the Unit, their Core Skills profile will also be updated to show they have achieved Critical Thinking at SCQF level 4.

Disabled candidates and/or those with additional support needs

The additional support needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments, or considering whether any reasonable adjustments may be required. Further advice can be found on our website www.sqa.org.uk/assessmentarrangements

History of changes to Unit

Version	Description of change	Date

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