



## Higher National Unit specification

### General information for centres

**Unit title:** Bricklaying: Installation of Surrounds and Firebacks for Solid Fuel Appliances

**Unit code:** F8MJ 34

**Unit purpose:** This Unit is designed to enable the candidate to develop their knowledge, understanding and skills relevant to the installation of surrounds and firebacks. The candidate will demonstrate their understanding of techniques and practices as well as their practical abilities in the setting out and installation of surrounds and firebacks.

On completion of the Unit the candidate should be able to:

- 1 Explain the techniques used to install surrounds and firebacks.
- 2 Set out and install a fire surround with fireback.

**Credit points and level:** 1 HN credit at SCQF level 7: (8 SCQF credit points at SCQF level 7\*)

*\*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.*

**Recommended prior knowledge and skills:** Access to this Unit is at the discretion of centres. However it is recommended that candidates have completed the Professional Development Award in Bricklaying at SQF level 6 or have the equivalent level of industrial experience and prior learning.

**Core Skills:** There are opportunities to develop the Core Skills of *Communication, Numeracy, Working with Others* and *Problem Solving* all at SCQF level 5 and *Information and Communication Technology* at SCQF level 4 in this Unit, although there is no automatic certification of Core Skills or Core Skills components.

**Context for delivery:** If this Unit is delivered as part of a Group Award, it is recommended that it should be taught and assessed in the subject area of the Group Award to which it contributes. This Unit was developed as part of the Professional Development Award in Bricklaying at SCQF level 7 and is aimed at candidates following a career in brickwork and with current industrial experience.

## Higher National Unit specification: General information for centres (cont)

### **Unit title:** Bricklaying: Installation of Surrounds and Firebacks for Solid Fuel Appliances

**Assessment:** The candidate will be given the opportunity to enhance their skills and knowledge in bricklaying by learning about advanced installation of surrounds and firebacks. Techniques and practices used to set out and install surrounds and firebacks should be integrated in the practical tasks undertaken. The principles and techniques should be explained throughout the practical activities.

This Unit is assessed on the candidates' performance of setting out and installation of surrounds and firebacks and the ability to meet the Evidence Requirements in all Outcomes.

In order to achieve this Unit, candidates are required to present sufficient evidence that they have met all the Knowledge and/or Skills elements for each Outcome. Details of these requirements are given for each Outcome.

The assessment instruments used should follow the general guidance offered by the Scottish Qualifications Authority (SQA) assessment model and an integrative approach to assessment is encouraged. (See references at the end of support notes).

Evidence will be gathered through an assignment for Outcome 1 and observation of work processes and assessment of completed work. Assessment should be carried out under controlled, supervised conditions. Candidates must achieve all of the Knowledge and/or Skills and Evidence Requirements specified for each Outcome to gain this Unit. Centres may use the instrument of assessment which they consider to be most appropriate but are advised to use the Bricklaying Training and Assessment Programme (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.

Accurate records should be made of the assessment instruments used showing how evidence is generated for each Outcome and giving marking schemes, checklists and recorded candidate feedback. Records of candidates' achievements should be retained. These records will be made available for external verification.

## **Higher National Unit specification: statement of standards**

**Unit title:** Bricklaying: Installation of Surrounds and Firebacks for Solid Fuel Appliances

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The sections of the Unit stating the Outcomes, Knowledge and/or Skills, and Evidence Requirements are mandatory.

### **Outcome 1**

Explain techniques used to install surrounds and firebacks.

#### **Knowledge and/or Skills**

- ◆ Setting out techniques for surrounds and firebacks
- ◆ Installation techniques for surrounds and firebacks
- ◆ Safe working practices
- ◆ Sustainability/site waste management
- ◆ Modern bricklaying techniques

#### **Evidence Requirements**

Candidates will need to provide evidence to demonstrate their Knowledge and/or Skills by showing that they can:

- ◆ explain the sequence of operations and techniques used in setting out and installing surround and firebacks
- ◆ identify safe working practices relevant to setting out and installing surround and firebacks
- ◆ outline methods used to minimise waste and onsite disposal
- ◆ compare and contrast modern methods of setting out and installing surrounds and firebacks

All the Evidence Requirements must be met and all items in the knowledge and skills covered. Evidence should be gathered through an assignment outlining the processes, techniques, health and safety and sustainability requirements related to setting out and installing surround and firebacks. Assessment should be conducted under open-book supervised conditions.

#### **Assessment Guidelines**

In the assessment candidates will be required to complete an assignment based on drawings and specifications for an actual work project. This could be conducted as an assignment in a classroom environment lasting up to three hours.

## Higher National Unit specification: statement of standards (cont)

**Unit title:** Bricklaying: Installation of Surrounds and Firebacks for Solid Fuel Appliances

### Outcome 2

Set out and install a fire surround with fireback.

#### Knowledge and/or Skills

- ◆ Setting out surrounds and firebacks
- ◆ Installing the hearth, fire surround and firebacks
- ◆ Safe Working Practices
- ◆ Sustainability/Site Waste Management
- ◆ Working to specifications/tolerances

#### Evidence Requirements

Candidates will need to provide evidence to demonstrate their Knowledge and/or Skills by showing that they can:

- ◆ set out a fire surround with fireback
- ◆ install a fire surround with fireback
- ◆ follow current safe working practices
- ◆ minimise the waste of materials throughout practical work
- ◆ work to specified tolerances identified in the specification

The following specification will assist the assessor in judging the candidate performance against the Evidence Requirements

The selection of equipment is appropriate to the task	as specified
The sequence of setting out is appropriate	as specified
Surround screwed or tied back	as per Codes of Practice
Plumb or lying back in head	±5mm
Level on top and hearth	±5mm
Setting out – to allow for thermal expansion of fire basket	±10mm
Bed thickness	±3mm
Joint thickness	±3mm
Plumb on side cheeks	±5mm
Bevel bricks	±5mm on angle
Packing material	as per Codes of Practice
Cut and trim firebrick as required	
Minimise waste	
Handle components with care	No damage
Leave job in tidy condition	
Wears appropriate Personal Protective Equipment (PPE)	at all times
Current Health and Safety legislation	complies at all times

## **Higher National Unit specification: statement of standards (cont)**

### **Unit title:** Bricklaying: Installation of Surrounds and Firebacks for Solid Fuel Appliances

Evidence will be gathered through observation of work processes and assessment of the completed work. Assessment should be carried out under controlled, supervised conditions. In order to achieve this Outcome, candidates are required to present sufficient evidence that they have met all the Knowledge and/or Skills elements. An assessor observation checklist should be completed to ensure that the candidate has met the required specification and tolerances and this observation checklist should be retained as evidence.

#### **Assessment Guidelines**

This Outcome is assessed on the candidates' actual performance of setting out and installing surrounds and firebacks to a given specification and required tolerances.

Candidates should be provided with drawings and specifications for the practical task. Assessment should be carried out in a suitable workshop environment. Timing for this assessment should be determined prior to commencement. An observation checklist should be completed to ensure the candidate has evidenced all the knowledge and skills included in this Outcome to the specifications and tolerances required.

## Administrative Information

**Unit code:** F8MJ 34

**Unit title:** Bricklaying: Installation of Surrounds and Firebacks for Solid Fuel Appliances

**Superclass category:** TG

**Original date of publication:** August 2010

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### History of changes:

Version	Description of change	Date

**Source:** SQA

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## **Higher National Unit specification: support notes**

### **Unit title: Bricklaying: Installation of Surrounds and Firebacks for Solid Fuel Appliances**

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 an optional Unit in the Professional Development Award in Bricklaying at SCQF level 7 and may be delivered in a sequence suitable to individual candidates and centres.

This Unit is designed to enable the candidate to develop their knowledge, understanding and skills relevant to setting out and installing surrounds and firebacks.

Candidates following a career in brickwork and with current industrial experience will benefit from undertaking this Unit.

The knowledge and skills for this Unit should be incorporated with modern methods of setting out and installing surrounds and firebacks and applied where possible. Terminology commonly associated with bricklaying should also be used throughout this Unit.

It is vitally important that candidates gain an understanding and knowledge of the sequencing of operations with regard to setting out and installing surrounds and firebacks.

Current Health and Safety, sustainability and waste management issues should be fully emphasised throughout the delivery of this Unit.

Working to specified tolerances and methods of checking completed work should be demonstrated and undertaken by the candidate.

### **Guidance on the delivery and assessment of this Unit**

The principles and methods of setting out and installing domestic heat appliances, surrounds and firebacks should be demonstrated to the candidate before summative assessment takes place.

The differing constraints candidates could encounter on site with various construction methods with regard to setting out and installing surrounds and firebacks should be fully explained.

Health and Safety and Sustainability are integral and key to the Construction Industry therefore 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 criteria affecting sustainability, impact of not implementing sustainability on the environment and the legislation promoting sustainability.

## Higher National Unit specification: support notes (cont)

### Unit title: Bricklaying: Installation of Surrounds and Firebacks for Solid Fuel Appliances

Working tolerances should be explained as being the minimum standard which will be accepted and candidates should be encouraged to evaluate their own work.

#### *Opportunities for developing Core Skills*

*Communication* skills at SCQF level 5 may be developed by the completion of the assignment for Outcome 1. Candidates are required to produce a written assignment outlining the processes, techniques, health and safety and sustainability requirements related to setting out and installing surround and firebacks.

*Working with Others* at SCQF level 5 could be developed when working in pairs when installing the surround and hearth. Candidates can agree responsibilities and provide support and information to each other during the assessments. After assessment, they should be encouraged to consider how effectively they supported each other.

*Information and Communication Technology* at SCQF level 4 may be developed by the candidates' carrying out individual research of modern and traditional surrounds and fireback construction techniques, health and safety legislation and sustainability relating to the task.

*Problem Solving* at SCQF level 5 could be developed as candidates compare and contrast modern and traditional surrounds and fireback construction techniques. 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 will enhance the evaluation of efficient working practices.

*Numeracy* could be developed at SCQF level 5 when taking off dimensions from working drawings, measuring, calculating and setting out.

### Open learning

Although this Unit could be delivered by distance learning, it would require a considerable degree of planning by the centre to ensure the sufficiency and authenticity of candidate evidence. Arrangements would have to be made to ensure that:

- ◆ the practical activity in outcome 2 is supervised by a responsible person and clearly recorded (using an assessment checklist, or on video) for the assessor
- ◆ the assessor is, at some point able to question the candidate on the performance (face to face, by telephone, online)
- ◆ the open-book assignment for outcome 1 is conducted in a supervised environment

### 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](http://www.sqa.org.uk/assessmentarrangements)



## General information for candidates

### **Unit title:** Bricklaying: Installation of Surrounds and Firebacks for Solid Fuel Appliances

This Unit is designed to develop your practical skills and knowledge of complex setting out and installation of surrounds and firebacks. You will develop your understanding of modern and traditional practices and techniques and comply with sustainability issues and current Health and Safety legislation throughout the Unit.

You will have to demonstrate the required techniques in setting out surrounds and firebacks and demonstrate your understanding of the traditional techniques and modern techniques of setting out and installing surrounds and firebacks.

You will learn about sustainability issues and how new materials, techniques and systems can have an impact on improving the sustainability in general and you will comply with current Health and Safety regulations and legislation throughout.

#### **Outcome 1**

Explain techniques used to set out and install surrounds and firebacks.

You will be assessed on the completion of an assignment in which you will be required to describe and explain in detail the methods used to set out and install surrounds and firebacks. You will give detail sequence of operations required to set out and install surrounds and firebacks.

The assessment for this Outcome will be open-book and will be carried out in a supervised environment. You will have access to your own notes that you have prepared personally for your own use. You will not be permitted to bring textbooks, handouts or other materials that you have not prepared yourself.

#### **Outcome 2**

Set out and install a fire surround with fireback.

You will be assessed in your ability to:

- ◆ set out a fire surround complete with fireback
- ◆ install the hearth and fire surround complete with fireback
- ◆ work in a safe manner at all times
- ◆ meet given specifications and tolerances

You will be assessed in supervised workshop conditions to specified tolerances contained in an observation checklist. These tolerances should be fully explained and available prior to you commencing the assessment. You will be required to work individually for the assessment and where required in pairs. You will receive both oral and written feedback on your performance from the assessor.

There are opportunities for you to develop your Core Skills of Communication, *Numeracy*, *Working with Others* and *Problem Solving* all at SCQF level 5 and *Information and Communication Technology* at SCQF level 4 in this Unit, although there is no automatic certification of Core Skills or Core Skills components.