Unit 307: Erect masonry cladding

# Delivery guide

Unit information

This unit is about preparing and erecting brickwork and blockwork and/or structures of local materials, incorporating arches, curves, chimneys, battered and decorative features.

Learners may be introduced to this unit by asking themselves questions such as:

* Where will I use masonry cladding?
* How does a wall fix to cladding?
* What types of background are used for masonry cladding?

Learning outcomes

1. Understand resource selection
2. Understand working to a contract specification
3. Comply with the given contract information to carry out the work safely and efficiently to the required specification

Suggested resources

Textbooks

* Jones, M. (2019) *The City & Guilds Textbook: Bricklaying for the Level 2 Technical Certificate & Level 3 Advanced Technical Diploma (7905), Level 2 & 3 Diploma (6705) and Level 2 Apprenticeship (9077)*. London: Hodder Education.

ISBN 978-1-5104-5814-7

* [Merronbrook | Timber frame construction. A useful pocket site guide](https://www.merronbrook.co.uk/wp-content/uploads/2020/10/timberframepocketguide-aug2016.pdf)

Websites

* [Self-Build | Cladding a Timber Frame Home](https://www.self-build.co.uk/timber-frame-cladding-options/)
* [Timber Focus | Cladding for timber frame buildings](https://www.timberfocus.com/cladding-for-timber-frame-buildings/)
* [TRADA | Cladding for timber frame buildings](https://www.trada.co.uk/publications/wood-information-sheets/cladding-for-timber-frame-buildings)

| **Learning outcomes** | **Criteria** | **Delivery guidance** |
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| 1. Understand resource selection | * 1. Characteristics of the resources | * Learners to know how to select resources of the correct quality and quantity that are suitable for the given task of erecting masonry structures. * Learners to be able to identify the characteristics, quality, uses, sustainability and limitations associated with those resources and the defects that can occur by wrong selection. Types of resources and the knowledge required include: * the uses of the various types of bricks * understand the types of blocks and the work that they are used for * mortars – understand gauging methods and consistency of the mix * learners to be aware of the types of window and door frames available and the fixing methods for each, both during and after construction * the uses of full, partial fill, and post applied insulation types * damp-proof barriers- know the uses of DPC, vertical DPC, membranes and barriers * understand the reasons for the use of radon barriers and the way they are fitted * understand the purpose and application of cloak systems * learners to be aware of the different lintel types, including solid, concrete and steel, bearing minimums * know the types of fixings including wall starters and retaining clips * know the types of ties and the applications * trays – understand the positions and purposes * understand the uses and positions of support angles * know the types and applications of soffit systems. * Learners to know how to ensure materials are stored in line with manufacturers’ information. Understand the ways in which materials should be protected against the weather and theft. * Learners to be able to identify defective materials including accessories for poor quality, condition and contamination and to ensure they are removed and set to one side. * Learners to understand the consequences of using the wrong materials or materials in the wrong condition. |
| * 1. Use of resources | * Learners to know how to identify suitable resources for the given task and to know how to use them correctly. * Learners to know how to recognise problems associated with the resources and how to report any problems associated with the materials, components and equipment, relating to types, quantity, quality and sizes. Learners to understand who to report the problems to in order to rectify the problems. * Components and materials include: * components fixings * tools and equipment * bricks * blocks * mortars * frames * insulation * damp-proof barriers * brick slips * cloak systems * cavity closers * fire breaks * lintels * fixings and ties. |
| * 1. Organisational procedures to select resources | * Learners to understand the organisational procedures that are put in place and how they are used to assist them in identifying suitable resources to carry out the work. * Learners to understand the documentation used in industry and know the methods used to report problems. * Learners to know their responsibility and the limitations of their own authority when considering correcting problems. Learners to understand the chain of command and who to report issues to. * Learners to know who within the team they should report discrepancies and errors to. * Learners to know how to work safely and to understand the risks involved in using hand and power tools. They should receive the correct levels of training and understand how to perform safe working risk assessments and method statements. * Learners to know any potential hazards associated with the resources and methods of work. Learners to refer to COSHH and write a sample method statement. |
| * 1. Hazards | * Learners to know how to identify the hazards from the risk assessment and to be able to use a method statement for safe working practices. * Learners to be able to use manufacturers’ technical information and specifications or components and to ensure that materials are selected and used safely. * Learners to understand the types and uses of each piece of equipment, the work situations and general work environment that they are associated with, including: * collective protective measures * personal protective equipment (PPE) * respiratory protective equipment (RPE) * local exhaust ventilation (LEV). * Learners to know the methods used to dispose of waste and why the disposal of waste should be carried out safely in accordance with environmental responsibilities, organisational procedures, manufacturers’ information, statutory regulations and official guidance. * Learners to be shown examples of disposal on actual construction sites and be able to identify materials that are difficult to recycle and understand how to dispose of them. * Learners to know how to respond to emergencies and to know the correct response to situations in accordance with the organisational arrangements. Learners to be made aware of the practice of fire drills and accident reporting procedures. * Learners to know the correct procedures when dealing with fires, injuries and spillages on site. |
| 1. Understand working to a contract specification | * 1. Methods of work | * Learners to carry out practical setting out exercises to learn how to ensure safe and healthy work practices and understand procedures and skills associated with the method/area of work and the materials used to: * measure * mark out * lay * position * plumb * level * fit * fix and secure in relation to erecting masonry cladding. |
| * 1. Tools and equipment | * Learners to know the importance of and the methods used to clean and maintain tools and equipment relating to erecting masonry structures. |
| 1. Comply with the given contract information to carry out the work safely and efficiently to the required specification | * 1. Demonstration of work skills to measure, check, mark-out, lay, position and secure | * Learners to be able to erect masonry cladding, and be able to form openings and apply a range of joint finishes on a range of structures using components and techniques. In order to do this, they should: * be provided with examples of the use of brick slips and how to install them * be given examples of where movement joints are used * understand the importance of clean and accurate construction when forming and maintaining the integrity of cavities and methods of maintaining clean cavities * understand how to install and maintain the integrity of fire barriers and breaks and be provided with examples of where they are fitted * understand how to form joint finishes and understand the difference between pointing and jointing. * understand form openings including the methods of maintaining openings and the use of pinch rods and temporary frames * understand the methods of use and the methods of installation for fixing and integrating brick soffit systems * understand how to install masonry support angles, including why they are used and their positions of use * understand the types, uses and the methods of installation for fixing and bedding damp-proof barriers, cloak systems and cavity trays * understand the reasons for use and the methods of installation when forming and installing weep holes and vents in the correct position * know the reasons for secure fixing and correct installation when using bond and tape installation materials * understand the use, reasons for use and application when installing wind posts. * Materials to include: * full range of brick types * purpose made brick – ensure learners understand the methods of manufacture * solid block * natural stone and their categories: sedimentary, igneous and metamorphic * reconstructed stone – learners should understand the types available and the methods of manufacture. |
| * 1. Use and maintain hand and power tools, and equipment to erect brick and block and/or local material cladding to given working instructions, including the formation of openings and joint finishes, for at least one of the following structures: * pre-erected timber frame * pre-erected concrete * pre-erected steel * existing masonry structure. | * Learners to be able to use and maintain hand and power tools and equipment to carry out the work in erecting brick and block and/or local material cladding to given working instructions, including the formation of openings and joint finishes for at least one of the following structures: * pre-erected timber frame * pre-erected concrete * pre-erected steel * existing masonry structure. * Learners to understand the tools and equipment used in the construction of various types of cladding. |