

## Install rigid block surfaces

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### Overview

This standard is for those who install rigid block surfaces.

This standard is one of a series of six aimed at those who install the various forms of hardstanding surfaces that are used within the landscaping industries.

This standard is targeted at operatives working under limited supervision and focuses on the skills required both to understand the structure and to undertake the installation of hard surfaces while working to specifications.

You will be expected to understand the impact of the installation on the immediate environment, and the impact of the environment on the structure.

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### Performance criteria

#### You must be able to:

1. assess the risks associated with the site and the proposed work
2. select, prepare and use tools and equipment for the installation of rigid block surfaces, including personal protective equipment (PPE) and respiratory protective equipment (RPE) safely and correctly
3. keep damage, unnecessary waste, unwanted impact on the environment and pollution to a minimum
4. set out for line and level
5. place and prepare a suitable laying course lay rigid blocks by hand to a suitable pattern
6. check completed rigid block surface for compliance and rectify any problems
7. cut-in blocks to required standard
8. fill and point joints to required finish
9. maintain a clean surface, free from cement or mortar stains keep the site in a clean and tidy condition
10. clean, maintain and store tools and equipment promptly and securely after installing rigid block surfaces
11. protect working areas correctly against weather and use until they are in a suitable condition
12. leave the site safe, tidy and suitable for intended use
13. maintain working relations with all those involved in, or affected by, the installation of rigid block surfaces
14. maintain communication with all those involved in, or affected by, your work
15. carry out your work in accordance with relevant environmental and health and safety legislation, risk assessment requirements, codes of practice and organisational policies

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### Knowledge and understanding

#### You need to know and understand:

1. the weather conditions that are appropriate for installation of rigid block surfaces
2. how to carry out a risk assessment for installation of rigid block surfaces and decide on safe working methods
3. how to interpret rigid block surface installation specifications
4. how to measure to ensure work is within tolerances
5. how falls, lines and levels are determined and set out
6. how to select and prepare the correct tools and equipment for the task, including personal protective equipment (PPE) and respiratory protective equipment (RPE)
7. how to use, maintain, clean and store the required tools and equipment safely and correctly
8. use of cutting tools including splitter, saw and trimming tools
9. the importance of dust-suppression and respiratory protective equipment (RPE) when using a cut-off saw
10. the importance of edge restraints
11. how to calculate the quantity of paving materials required
12. how paving materials should be stored on-site, how they are delivered to the laying face, and how they are positioned for the laying operative
13. the range of blocks available and their suitable applications
14. how a rigid laying course is prepared, the working life of the bed material, and the importance of not preparing too large an area in advance of the laying face
15. the range of block patterns commonly used on-site, their relative strengths and weaknesses, and how they are established
16. the importance of mixing and randomising blocks from three or more packs prior to laying
17. how surfaces are continuously checked for compliance to line, level, joint width and block competence during the laying process
18. how cutting-in is achieved following the principles of minimum block size and inboard cutting techniques
19. the importance of using the correct jointing material and its role in the performance of the completed surface
20. the range of jointing materials available, how they are prepared, their working life and how they are used within rigid surfaces
21. the importance of maintaining a clean and stain-free surface
22. removal and replacement of defective blocks
23. the importance of final compliance checks
24. the importance of maintaining communication with those involved in, or affected by, your work and how this should be done
25. the importance of following relevant environmental and ecological best practice to help minimise the impact of your work on the environment

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26. your responsibilities under relevant health and safety legislation,  
codes of practice and organisational policies

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### Scope/range

- A. select and use the following types of tools and equipment when installing rigid block surfaces:
  - 1. hand tools
  - 2. pointing/jointing tools and surface cleaning equipment
  - 3. guillotine splitters
  - 4. cut-off saws
- B. undertake the following construction tasks when installing rigid block surfaces:
  - 1. block laying
  - 2. cutting-in
  - 3. compaction
  - 4. compliance checks
  - 5. jointing
  - 6. lift and repair
- C. use the following types of material:
  - 1. conventional concrete blocks
  - 2. conventional clay blocks
- D. work with the following block patterns:
  - 1. stretcher/running bond
  - 2. 90° herringbone
  - 3. 45° herringbone
  - 4. basket weave

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## Glossary

**Block patterns:**

- stretcher/running bond
- 90° herringbone
- 45° herringbone
- basketweave

**Construction tasks:**

- block laying
- cutting-in
- compaction
- compliance checks
- jointing
- lift and repair

Instructions: verbal or written.

**Materials:**

- conventional concrete blocks
- conventional clay blocks

RPE: Respiratory Protective Equipment.

PPE: Personal Protective Equipment.

Specifications: drawings, schedules, method statements, Standard Operating Procedures (SOPs), manufacturers' guidelines, organisational policies.

**Tools and equipment:**

- hand tools such as floats and trowels, brick/scutch hammers, paving hammer/maul/
- mallet, block extractor, alignment bar, string lines, line pins
- pointing/jointing tools and surface cleaning equipment
- guillotine splitters
- cut-off saws
- appropriate PPE and RPE

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Developed by	Lantra
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Originating Organisation	Lantra
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Suite	Horticulture
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