Install combined kerb-drain systems



Overview

This standard covers the installation of combined kerb-drain systems that are used within the hard-landscaping industries.

It is suitable for operatives working under limited supervision and focuses on the skills required to both understand the structure and to undertake the installation of combined kerb-drain systems while working to specifications.

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

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Performance criteria

You must be able to:

- P1 assess the risks associated with the site and the proposed work
- P2 select, prepare, use and maintain tools and equipment that are appropriate for the work safely and effectively
- P3 set out for line and level
- P4 place and prepare a suitable bed
- P5 lay units to the correct line and level
- P6 cut-in units to required specifications
- P7 maintain correct joint width
- P8 seal joints to meet specifications
- P9 connect the kerb-drains to suitable outfalls
- P10 check completed system for compliance and rectify any problems
- P11 haunch units
- P12 keep damage, unnecessary waste, unwanted impact on the environment and pollution to a minimum
- P13 keep the site in a clean and tidy condition
- P14 clean and store tools and equipment promptly and securely
- P15 protect working areas effectively against weather and use until they are in a suitable condition
- P16 leave the site safe, tidy and suitable for intended use
- P17 maintain effective working relations with relevant people throughout
- P18 carry out all work in accordance with relevant environmental and health and safety legislation, risk assessment requirements, codes of practice and company policies

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Knowledge and understanding

You need to know and understand:

- K1 the weather conditions that are appropriate for installation
- K2 how to interpret specifications
- K3 how to measure to ensure work is within tolerances
- K4 how falls, lines and levels are determined and set out
- K5 how to select the correct tools and equipment for the work including PPE and RPE
- K6 how to use the required tools and equipment safely and efficiently
- K7 how to carry out a risk assessment for the installation and decide on safe working methods
- K8 the range of systems available and their suitable applications
- K9 the importance of robust edge restraints
- K10 the importance of using the correct type of bed material
- K11 how the bed is placed and prepared, and how it is shaped to follow summits, hollows and transitions
- K12 the pros and cons of using fresh windrow bedding and pre-placed races
- K13 how to calculate the number of units required
- K14 how units should be stored on site, how they are delivered to the laying face, and how they are positioned for the laying operative
- K15 how units are manoeuvred into position using mechanical and/or vacuum lifting aids
- K16 how units are consolidated to the required line and level
- K17 how units are jointed
- K18 how systems are connected to outfalls
- K19 how kerb-drain systems are checked for accuracy in alignment along both straights and curves
- K20 how cutting is achieved following the principles of minimum unit size
- K21 use of cutting tools including guillotine, saw and trimming tools
- K22 the importance of dust-suppression and RPE when using a cut-off saw
- K23 the importance of using the correct jointing method and its role in the performance of the completed kerb-drain system
- K24 removal and replacement of defective units
- K25 your responsibilities under current environmental and health and safety legislation, codes of practice and company policies

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Glossary

Instructions: verbal or written.

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

PPE: Personal Protective Equipment.

RPE: Respiratory Protective Equipment.

Tools and equipment:

- · appropriate mechanical lifting aid
- · cut-off saw
- maul and/or mallet
- · appropriate PPE and RPE

Installation tasks:

- · set out for line and level
- place a suitable kerb race
- · lay units onto a mortar bed on a pre-existing race
- lay units to a straight line (windrow)
- · lay units to a true arc
- · lay units to a free curve
- · install a dropped crossing
- · lay transitions between kerbs and kerb-drain units
- lay an edge restraint to a right-angled return using internal/external angle units and quadrants
- · lift and repair

Kerb-drain:

- · single piece systems
- · multiple-piece systems

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