

Overview

This standard is about prefabricating reinforcement steel sections for concrete structures, bracing and preparing prefabricated sections of reinforcement steel for lifting and movement to installation, interpreting information, adopting safe, healthy and environmentally responsible work practices, selecting and using materials, components, tools and equipment

This standard is for people working in the occupational area of steelfixing and can be used by operatives, supervisors and managers

Performance criteria

You must be able to:

1. interpret the given information relating to the work and resources to confirm its relevance
2. comply with the given, relevant legislation and official guidance to carry out your work and maintain safe and healthy work practices
3. select the required quantity and quality of resources for the methods of work
4. comply with organisational procedures to minimise the risk of damage to the work and surrounding area
5. comply with the given contract information to carry out the work efficiently to the required specification
6. complete the work within the allocated time, in accordance with the programme of work

Knowledge and understanding

You need to know and understand:

Performance Criteria 1

Interpretation of information

- K1 the organisational procedures developed to report and rectify inappropriate **information** and unsuitable **resources**, and how they are implemented
- K2 the types of **information**, their source and how they are interpreted
- K3 the organisational procedures to solve **problems** with the **information** and why it is important they are followed

Performance Criteria 2

Safe work practices

- K4 the level of understanding operatives must have of **information** for relevant, current **legislation and official guidance** and how it is applied
- K5 how **emergencies** should be responded to and who should respond
- K6 the organisational **security procedures** for tools, equipment and personal belongings
- K7 what the accident reporting procedures are and who is responsible for making the report
- K8 why, when and how **health and safety control equipment** should be used
- K9 how to comply with environmentally responsible work practices to meet current **legislation and official guidance**

Performance Criteria 3

Selection of resources

- K10 the characteristics, quality, uses, sustainability, limitations and defects associated with the **resources** and how defects should be rectified
- K11 how the **resources** should be used and how any **problems** associated with the **resources** are reported
- K12 the organisational procedures to select **resources**, why they

have been developed and how they are used

K13 the **hazards** associated with the **resources** and **methods of work** and how they are overcome

Performance Criteria 4

Minimise the risk of damage

K14 how to **protect work** from damage and the purpose of protection

K15 why **disposal of waste** should be carried out safely and how it is achieved

Performance Criteria 5

Meet the contract specification

K16 how **methods of work**, to meet the specification, are carried out and **problems** reported

K17 how **maintenance** of tools and equipment is carried out

Performance Criteria 6

Allocated time

K18 what the **programme** is for the work to be carried out in the estimated, allocated time and why deadlines should be kept

Prefabricate reinforcement steel sections

**Scope/range related
to performance
criteria****Performance Criteria 1**

1 interpret drawings, specifications, schedules, method statements, risk assessments and manufacturers' information related to the work to be carried out

Performance Criteria 2

2 avoid risk by complying with the given information relating to at least five of the following

1. methods of work
2. safe use of health and safety control equipment
3. safe use of access equipment
4. safe use, storage and handling of materials
5. safe use and storage of tools and equipment
6. specific risks to health

Performance Criteria 3

3 select resources associated with own work

1. materials, components and fixings
2. tools, plant and equipment

Performance Criteria 4

- 4 protect the work and its surrounding area from damage
- 5 maintain a clear and tidy work space
- 6 dispose of waste in accordance with current legislation

Performance Criteria 5

- 7 demonstration of work skills to measure, mark out, fit, position, brace and secure
- 8 use and maintain hand tools, portable power tools and ancillary equipment
- 9 prefabricate reinforcement steel sections to given working instructions in order to form the following

1. beams or columns
2. bases or slabs
3. walls

10 prefabricate reinforcement steel sections to given working instructions utilising the following

Prefabricate reinforcement steel sections

1. slash tie
2. hairpin tie
3. crown tie
4. splice tie
5. ring tie

11 incorporate at least two of the following into prefabricated steel sections

1. temporary construction bars
2. bracing
3. lifting points

Performance Criteria 6

12 complete own work within the estimated, allocated time to meet the needs of other occupations and/or client

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Scope/range related to knowledge and understanding

Disposal of waste

1 environmental responsibilities, organisational procedures, manufacturers' information, statutory regulations and official guidance

Emergencies

2 operative's response to situations in accordance with organisational authorisation and personal skills when involved with

1. fires, spillages, injuries
2. emergencies relating to occupational activities

Hazards

3 those identified by risk assessment, method of work, manufacturers' technical information, statutory regulations and official guidance

Health and safety control equipment

4 identified by the principles of protection for occupational use, types and purpose of each type, work situations and general work environment

1. collective protective measures
2. personal protective equipment (PPE)
3. respiratory protective equipment (RPE)
4. local exhaust ventilation (LEV)

Information

5 drawings, specifications, site instructions, specifications, schedules, method statements, risk assessments, manufacturers' information, current regulations and organisational guidance associated with prefabricating reinforcement steel sections

Legislation and official guidance

6 this relates to the operative's responsibilities regarding potential accidents and health hazards and the environment whilst working in the workplace, below ground level, in confined spaces, at height, with tools and equipment, with materials and substances, with movement and storage of materials by manual handling and mechanical lifting

Maintenance

7 operative care of hand tools and/or portable power tools and ancillary equipment

Methods of work

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8 how to apply knowledge of safe and healthy work practices, procedures and skills relating to the method/area of work and materials used to:

- 1. extract details from steel fixing, temporary works drawings and schedules (hardcopy or digital systems)
 2. complete work to given tolerances and agreed quality criteria
 3. identify and select shaped steel in accordance with bending schedules
 4. prefabricate reinforcement from pre-cut and bent components to form sections for beams or columns, bases or slabs and walls
 5. follow construction sequence including temporary works design
 6. identify the characteristics and use of the following ties; slash, hairpin, crown, splice, ring, clamps, U bolts
 7. install mesh, steel bar, position chairs, spacers, cover block and ties
 8. fix, secure and remove temporary construction bars
 9. fix and secure bracing for section movement
 10. fix and secure lifting points for section movement
 11. incorporate embedment's into prefabricated steel sections
 12. incorporate reinforcement coupler and continuity systems
 13. move and position steel
 14. fix prefabricated reinforcement steel sections for horizontal and vertical elements
 15. sort, store, protect steel and fixings
 16. provide information for digital systems
 17. recognise and determine when specialist skills and knowledge are required and report accordingly
 18. work with, around and in close proximity to plant and machinery
 19. use hand tools, portable power tools and equipment
 20. work at height
 21. use access equipment
- 9 team work and communication
- 10 needs of other occupations associated with prefabrication of

Prefabricate reinforcement steel sections

reinforcement steel sections

Problems

- 11 those arising from information, resources and methods of work
1. own authority to rectify
 2. organisational reporting procedures

Programme

- 12 types of progress charts, timetables and estimated times
- 13 organisational procedures for reporting circumstances which will affect the work programme

Protect work

- 14 protect work against damage from general workplace activities, other occupations and adverse weather conditions

Resources

- 15 materials, components and equipment relating to types, quantity, quality, sizes and the sustainability of standard and/or specialist:
1. pre-cut and bent components, reinforcement steel, tie wire and spacers
 2. hand tools, portable power tools and equipment
- 16 confirm resources and materials conform with the specification
- 17 methods of calculating quantity, length, area and wastage associated with the method/procedure to prefabricate reinforcement steel sections

Security procedures

- 18 site, workplace, company and operative

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