

Construct prefabricated block chimneys

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## Overview

This standard is about preparing to and constructing prefabricated block chimney **services and systems**, inspecting the installation, interpreting information, adopting safe, healthy, and environmentally responsible work practices, selecting, and using materials, components, tools, and equipment, in accordance with the **work area** and the **organisational procedures** which are equal to or exceed the current statutory and legislative **documentation and specifications**. This standard is for people working in the occupational area of Chimney Occupations and can be used by operatives, supervisors and managers.

A description of terms in bold font in this National Occupational Standard can be found in the Glossary which should be used as a reference point.

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### Performance criteria

#### You must be able to:

##### Interpretation of information

**P1** interpret the information relating to the work and resources to confirm its relevance for the following:

- **documentation and specifications**

- drawings
- schedules
- contract information
- pre-installation surveys
- risk assessments
- method statements

##### Safe work practices

**P2** comply with the relevant legislation, official guidance and **organisational procedures**, to carry out your work and maintain safe, healthy and environmentally responsible work practices relating to the following:

- methods of work
- safe use of health and safety control equipment relevant to the task being undertaken and the working environment
- safe use of access equipment and working platforms
- safe use, storage and handling of materials, tools and equipment
- specific risks to health including mental health
- specific risks associated with asbestos containing materials
- specific risks associated with silica dust, mortars and sealants

##### Selection of resources

**P3** select the required quantity and quality of resources for the methods of work:

- materials, components and fixings
- tools and equipment
- access equipment

##### Minimise the risk of damage

**P4** comply with **organisational procedures** to minimise the risk of damage to the work and surrounding area by:

- protecting the work and its surrounding area from damage
- maintaining a safe, clear and tidy **work area** \*
- **disposing of waste in accordance with current legislation and industry best practice**

##### \*Meet the contract specification

**P5** comply with the contract information to carry out the work efficiently to the required specification by the following:

- demonstrating work skills to prepare, inspect, measure, mark out, cut out, fit, finish, position and secure
- using and maintaining all hand and power tools and ancillary equipment
- installing the following to working instructions:
  - prefabricated block chimneys
  - permanent and temporary chimney support

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- inspecting and testing following the installation

### **Allocated time**

**P6** complete the work within the estimated, allocated time in accordance with **organisational procedures**, the programme of work and to meet the needs of other occupations and/or client

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## Knowledge and understanding

## You need to know and understand:

**P1 Interpretation of information**

K1 why **organisational procedures** have been 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 in relation to:

- **documentation and specifications**

- drawings
- schedules
- contract information
- pre-installation surveys
- risk assessments
- method statements

K3 the range of relevant digital services, tools and systems, and how they are used

K4 the importance of **organisational procedures** to record, report and solve problems with the information and why it is important to follow them

**P2 Safe work practices** K5 information for current legislation and official guidance and how it is applied K6 the types of fire extinguishers and how and when they are used in relation to water, CO<sub>2</sub>, foam, powder K7 how emergencies should be responded to and reported in accordance with organisational authorisation and personal skills in relation to:

- fires, spillages and injuries
- emergencies relating to occupational activities
- identification and reporting of asbestos containing materials

K8 the organisational security procedures for tools, equipment and personal belongings in relation to:

- operative
- site
- workplace
- vehicles
- company
- customer
- the general public
- other occupations within the workplace

K9 how to report risks and hazards identified by the following:

- risk assessment
- methods of work
- personal assessment
- manufacturers' technical information
- statutory regulations

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- official guidance
- Control of Substances Hazardous to Health (COSHH)

K10 the accident reporting procedures and who is responsible for making the report

K11 why, when and how health and safety control equipment identified by the principles of prevention should be used in relation to:

- collective protective measures
- personal protective equipment (PPE)
- respiratory protective equipment (RPE)
- local exhaust ventilation (LEV)

K12 how to comply with environmentally responsible work practices to meet current legislation and official guidance when dealing with potential accidents, health hazards and the environment in relation to working:

- in the workplace
- below ground level
- in confined spaces
- at height
- with tools and equipment
- with materials and substances
- whilst moving and storing materials by manual handling and mechanical lifting

### P3 Selection of resources

K13 why the characteristics, quality, uses, sustainability, limitations and defects associated with the resources are important and how defects should be reported and rectified

K14 the **organisational procedures** to select resources, why they have been developed and how they are used

K15 how to confirm the resources and materials conform with the specification

K16 how the resources should be used and how any problems associated with the resources are reported in relation to:

- blocks
- throatings
- exit blocks
- lintels
- fire cement
- cement
- sand
- lime
- additives
- fixings
- fittings
- silicone and other sealant
- adhesives
- tools
- equipment

K17 how to identify the hazards associated with the resources and methods of work and how they are overcome

K18 how to calculate quantity, length and wastage

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**P4 Minimise the risk of damage** K19 how to protect work and its surrounding area from damage and the purpose of protection from general workplace activities, other occupations and adverse weather conditions and how to minimise damage to existing building fabric

K20 why and how the disposal of waste must be carried out safely in accordance with the following

- environmental responsibilities
- **organisational procedures**
- manufacturers' information
- statutory regulations
- official guidance

K21 why it is important to maintain a safe, clear and tidy **work area**

*\*P5 Meet the contract specification\**

K22 how the methods of work, to meet the specification, are carried out and how problems are identified and reported by the application of knowledge for safe, healthy and environmentally responsible work practices, procedures and skills relating to the method and area of work in relation to the following:

- how to install prefabricated block chimneys for all types of energy flue systems, excluding condensing **appliances**
- why it is important to minimise the amount of bends in the system
- why it is important to select the correct flue diameter
- why it is important that the flue terminates in an appropriate position
- how to provide access for inspection and maintenance
- how and why it is important to provide permanent and temporary support
- how to provide suitable connection to existing structures
- how to work safely with, around and in close proximity to plant and machinery
- how to identify and follow the installation quality requirements
- how to use hand and power tools and equipment
- how to work at height using access equipment
- how and why operative care and maintenance of hand and power tools and equipment is carried out

K23 the importance of team-work and communication, **organisational procedures** with respect to site behaviours, and how to respond to inappropriate site behaviours

K24 the needs of other occupations associated with constructing prefabricated block chimneys

**P6 Allocated time**

K25 the programme of work to be carried out including the estimated and allocated time and why deadlines should be kept

K26 the types of progress charts, timetables and estimated times and the **organisational procedures** for reporting circumstances which will affect the work programme

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 Glossary
**Organisational procedures**

Organisational

Insurances – public, product and employers liability, professional indemnity

Company documents

contract for the work, safety management plan, Construction Design and Management regulations, environmental policy, complaints procedure, information privacy and security policy, management structure

**Work area**

The area where the equipment will be installed and all areas affected by the work extending to topographical features and meteorological conditions

**Services and systems**

Chimney and flue systems, appliances, ventilation systems and appropriate utilities

**Documentation and specifications**

Manufacturers' instructions for all equipment that forms part of the work

architect's plans and site-specific documentation

local building rules and regulations

Party Wall legislation

Clean Air Act

Environment Act

Smoke Control Zones

Permitted Development

Conservation Areas

Heritage status

Areas of Outstanding Natural Beauty

Sites of Special Scientific Interest

specific requirements of insurance underwriters

Building regulations in England and Wales, particularly ADJ but also ADA, ADB, ADF, ADL and AD7

Building Standards Technical Handbook in Scotland

Technical Booklets in Northern Ireland, particularly B, D, E, F1, F2, K and L

BSEN's particularly 8303, 15287, 1856, 16510, 1251, 3376, 4834, 12815, 13229, 13240, 15250

**Note:** Technical and BSEN documents may be withdrawn or superseded during review programmes, it is therefore important to check the currency and validity of all such documents to ensure the correct version is being referenced.

**Appliances**

Solid fuel burning appliances up to 50kW output including but not limited to the following:

- open fires
- free standing room heaters
- inset room heaters
- free standing cookers
- independent boilers
- slow heat release stoves

## Construct prefabricated block chimneys

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