
Overview

This standard is about fabricating sheet metal insulation protection for pipe, duct, vessel and fittings covered by insulation materials, interpreting information, adopting safe and healthy working practices, selecting materials, components and equipment

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

Performance criteria

- You must be able to:*
- P1 interpret the given information relating to the work and resources to confirm its relevance
 - P2 comply with the given, relevant legislation and official guidance to carry out your work and maintain safe and healthy work practices
 - P3 select the required quantity and quality of resources for the methods of work
 - P4 comply with organisational procedures to minimise the risk of damage to the work and surrounding area
 - P5 comply with the given contract information to carry out the work efficiently to the required specification
 - P6 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

Performance Criteria 3

Selection of resources

K9 the characteristics, quality, uses, sustainability, limitations and defects associated with the **resources** and how defects should be rectified

K10 how the **resources** should be used and how any **problems** associated with the **resources** are reported

K11 the organisational procedures to select **resources**, why they have been developed and how they are used

K12 the **hazards** associated with the **resources** and **methods of work** and how they are overcome

Performance Criteria 4

Minimise the risk of damage

K13 how to **protect work** from damage and the purpose of protection

K14 why **disposal of waste** should be carried out safely and how it is achieved

Performance Criteria 5

Meet the contract specification

K15 how **methods of work**, to meet the specification, are carried out and **problems** reported

K16 how **maintenance** of tools and equipment is carried out

Performance Criteria 6

Allocated time

K17 what the **programme** is for the work to be carried out in the estimated, allocated time and why deadlines should be kept

Scope/range

Performance Criteria 1

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

Performance Criteria 2

2 avoidance of risk by complying with the given information relating to at least four of the following

2.1 methods of work

2.2 safe use of health and safety control equipment

2.3 safe use of access equipment

2.4 safe use and storage of materials, tools and equipment

2.5 specific risks to health

Performance Criteria 3

3 selection of resources associated with own work

3.1 materials, components and fixings

3.2 tools and equipment

Performance Criteria 4

4 protection of the work and its surrounding area from damage

5 minimise damage and maintain a clear and tidy work space

6 disposal of waste in accordance with current legislation

Performance Criteria 5

7 demonstration of work skills to draw, measure, mark out, form, shape, fix and finish sheet metal protection components

8 use and maintain hand tools, portable power tools and ancillary equipment

9 fabricate sheet metal protection components to given working instructions for the following

9.1 pipes

9.2 ducts

9.3 vessels

9.4 fittings

Performance Criteria 6

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

**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

2.1 fires, spillages, injuries

2.2 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 prevention for occupational use, types and purpose of each type, work situations and general work environment

4.1 collective protective measures

4.2 personal protective equipment (PPE)

4.3 respiratory protective equipment (RPE)

4.4 local exhaust ventilation (LEV)

Information

5 drawings, specifications, schedules, method statements, risk assessments, manufacturers' information and official guidance

Legislation and official guidance

6 this relates to the operative's responsibilities regarding potential accidents and health hazards 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 and by manual handling and mechanical lifting

Maintenance

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

Methods of work

8 application of knowledge for safe and healthy work practices, procedures and skills relating to the method/area of work and materials used to

8.1 select templates or patterns

8.2 economically transfer patterns or templates onto sheet metal

8.3 identify allowances for bends, folds and forms

8.4 cut and trim geometrical shapes

8.5 form protection for pipes, ducts, vessels and fittings

8.6 join sheet metal, including screws, folds, rivets, stud welding

8.7 use hand tools, portable power tools and equipment

8.8 work at height

8.9 use access equipment

9 team work and communication

10 needs of other occupations associated with fabrication of sheet metal insulation protection

Problems

11 those arising from information, resources and methods of work

11.1 own authority to rectify

11.2 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

15.1 sheet metals

15.2 joining materials

15.3 hand and/or portable powered tools and equipment

16 methods of calculating quantity, length, area and wastage associated with the method/procedure to fabricate sheet metal insulation protection

Security procedures

17 site, workplace, company and operative

Developed by	Construction Skills
Version Number	3
Date Approved	May 2019
Indicative Review Date	May 2022
Validity	Current
Status	Original
Originating Organisation	ConstructionSkills
Original URN	VR323
Relevant Occupations	Construction and Building Trades nec
Suite	Thermal Insulation (Construction)
Keywords	Fabricating; Fabrication; Templates; Pipes; Ducts; Vessels; Flanges; Fittings
