
Overview

This standard is for those who install containment for communications cables internally and externally for network systems.

The individual installer undertaking this work must be able to comply with the relevant procedures and methods for installing containment for communications cables, in accordance with the current versions of the relevant industry standards and regulations, the specification, industry recognised working practices, the working environment and the natural environment.

Installers must know and understand the different types of containment for communications cables, their limitations, applications and the techniques for the positioning, fitting, fixing and connection of the containment, and their components and accessories.

Performance criteria

You must be able to:

1. access current information about the work requirement as it applies to the installation of containment and supports systems for communications cables from relevant documentation and other sources of information
2. confirm before the work commences that the work location and area can be accessed safely and has been checked for risks to all personnel on the site, and take the required action if a risk is identified
3. produce a risk assessment and method statement for the work to be undertaken including the identification and use of personal protective equipment (PPE)
4. verify that the job information and documentation are current and that the plant, instruments, access equipment and tools are fit for purpose
5. confirm with the relevant others
 - the work to be undertaken
 - the relevant procedures for amending diagrams and drawings
 - the variations to the planned programme of work that may have the potential to introduce a hazard and/or impact
 - the correct actions to be undertaken to confirm that any variations to the planned programme of work will not introduce a hazard and have minimum impact on the installation work
6. select the required containment and support system and confirm that they are:
 - of the correct type and size
 - fit for purpose in accordance with the system design
7. confirm at the start of the job, that the plans for positioning and fixing the components and accessories of the selected containment and support system are in accordance with:
 - Network system design
 - manufacturer instructions
8. comply with industry practices and organisational procedures to confirm the co-ordination of site services and the activities of other trades

9. measure and mark out the locations for fitting and fixing the selected containment and support systems components and accessories in accordance with:

- Network system design
- recognised industry methodology
- manufacturer instructions

10. fit, fix and connect the selected containment and support systems and its components and accessories in accordance with:

- Network system design
- recognised industry methodology
- manufacturer instructions

11. complete the specified the installation of containment and supports systems for communications cables in accordance with industry recognised methods and practices

12. provide relevant information to relevant others about the containment and support system and equipment in terms of:

- use, safety and control
- hand over to the customer/client
- any variations to the original system and/or its equipment
- customer/client acceptance of the completed work in accordance with organisational procedures
- relevant documentation being completed and recorded in the appropriate information systems in accordance with organisational procedures

13. complete and safely store all relevant documentation in accordance with organisational requirements

14. deal promptly and effectively with any problems within the scope and limitations of your own competence, responsibilities and accountability and report those which cannot be solved

15. implement organisational procedures for the safe transport and/or disposal of waste materials, substances and liquids in accordance with suppliers' and manufacturers' instructions and relevant legislation

Knowledge and understanding

You need to know and understand:

1. the current legislation, standards, guidelines, policies, procedures and protocols which are relevant to your work practice and to which you must adhere
2. the scope and limitations of your own competence, responsibilities and accountability as it applies to your job role
3. the principles and practice of network systems including their operation, applications, advantages and limitations
4. the site access requirements
5. how to produce a risk assessment and method statement for the work to be undertaken including the identification and use of personal protective equipment (PPE), in accordance with:
 - the Network system design
 - organisational procedures
6. how to confirm that the job information and documentation is current and that the plant, instruments, access equipment and tools are fit for purpose
7. the applications, advantages and limitations of the different types of personal protective equipment used when installing containment and support systems
8. the applications, advantages and limitations of the different types of containment and support systems
9. the industry recognised methods for determining the type and size of containment and support systems
10. how to interpret diagrams and drawings for the Network system to locate site services
11. how to interpret diagrams and drawings for the Network system to identify the planned location of the containment and support systems
12. the methods and techniques for fitting, fixing and connecting the

selected containment and support systems and their components and accessories in accordance with:

- the Network system design
- recognised industry methodology
- manufacturer instructions

13. when and how to apply the correct procedures for safe isolation

14. the relevant procedures for amending diagrams and drawings whose procedures

15. the organisational procedures for confirming with the relevant others the required actions to be taken to confirm that any variations to the planned programme of work will not introduce a hazard and have minimum negative impact on the installation work to be undertaken

16. the organisational procedures for:

- communicating the use, safety and control of the system to relevant others
- confirming with relevant others those necessary variations to the planned programme of work that may have the potential to introduce a hazard and/or impact on the installation work to be undertaken
- confirming with relevant others the correct actions to be taken to confirm that any variations to the planned programme of work will not introduce a hazard and have minimum impact on the installation work to be undertaken
- obtaining customer/client acceptance of the installed system and its associated equipment, accessories and components post work activity and how to deal with cases where acceptance is not received
- the safe transport and/or disposal of any waste material, substances and liquids in accordance with suppliers' and manufacturers' instructions and legislation

17. how to complete and safely store all relevant documentation in accordance with organisational requirements

Scope/range

Working environments (internal and/or external)

- domestic
- non-domestic
 - commercial
 - industrial
 - agricultural
 - horticultural
 - leisure and entertainment
 - residential medical and care facilities
 - public highways and parks
 - public services establishments
 - pre-1919 traditional/historic buildings

System

- Local Area Networks (LAN)
- Wide Area Networks (WAN)
- Other

Site

- an existing building or structure (including retro-fit)
- external service environment
- new build construction – building or structure

Site services

- data transmission either underground or overhead
- drainage
- electricity
- gas
- oil
- telecommunications
- water

Organisation procedures

- accident reporting
- communication with relevant people
- customer services
- emergencies
- implementing and monitoring health and safety requirements and issues
- implementing and monitoring issues relating to the natural environment
- information management

- project management
- risk assessment (Health & Safety)

Plant

- access equipment
- excavation equipment
- generators
- lifting equipment
- transformers for low voltage hand-tools

Pathways

- Overhead routing
- Raised access floors
- Risers
- Under floor routing
- Wall/partition routing

Containment and support systems

- Aerial cable support
- basket and ladder systems
- bus-bar trunking
- cable tray
- ducting systems
- pre-fabricated conductor, cable and wiring systems
- PVC and steel conduit
- PVC and steel trunking
- underfloor cable matting
- underground ducting

Equipment, accessories and components

- Hand tools
- Power tools
- Access equipment
- Safety equipment (including PPE)

Relevant people

- client representatives
- customers/clients
- members of the public
- other contractors/trades
- service providers
- site/contract manager
- supervisors
- work colleagues

Developed by	BSE Skills
Version Number	1
Date Approved	30 Mar 2022
Indicative Review Date	30 Mar 2027
Validity	Current
Status	Original
Originating Organisation	BSE Skills
Original URN	n/a
Relevant Occupations	Installation Engineer
Suite	Communication Technology Practitioners and Professionals
Keywords	Install; containment; support; systems; communication; cables