COSVR825
Connect solid fuel appliances to flue system

Overview

This standard is about the inspection, preparation and connecting of a solid fuel **appliance** up to 50kW to a domestic, or commercial flue ways or chimney **services and systems** designed to operate under negative flue pressure, those without internal electronic control systems and those not intended to be connected to plastic flue systems

This will include the interpretation of current relevant statutory standards, information, and 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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	Interpretation of information	
Performance criteria *You must be able to:*	**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 and official guidance and/or **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	
Performance criteria *You must be able to:*	**P5**	comply with the contract information to carry out the work efficiently to the required specification by the following: • demonstrating work skills to measure, cut, position, secure, test and connect solid fuel **appliances** to a flue system • using and maintaining hand tools, power tools and ancillary equipment • inspecting and preparing **work areas** and work activities for connecting an **appliance** to a flue system, • inspecting and testing the siting and installation of solid fuel **appliances** in accordance with statutory and manufacturer's requirements including open and inset fires • identifying adequate ventilation to support correct performance • reporting identified defects to the appropriate party • carrying out suitable performance tests to ensure intended function and combustion • advising end user of correct fuels, efficient use of **appliance** and importance of regular servicing and maintenance
	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

	P1 Interpretation of information	
Knowledge and understanding *You need to know and understand:*	K1	why statutory, industry and **organisational procedures** have been developed, to report and rectify inappropriate information and unsuitable resources and how they are implemented
	K2	types of information, their source and how they are interpreted in relation to: • **documentation and specifications** • drawings • schedules • contract information • pre-installation survey • 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_2, foam, powder
	K7	how emergencies should be responded to in accordance with organisational authorisation and personal skills in relation to: • fires, spillages and injuries • emergencies relating to occupational activities • identification of 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

Knowledge and understanding *You need to know and understand:*	K9	how to report risks and hazards identified by the following: • methods of work • risk assessment • personal assessment • manufacturers' technical information • statutory regulations • 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 • when installing solid fuel **appliances**

	P3 Selection of resources	
Knowledge and understanding *You need to know and understand:*	K13	why the characteristics, quality, uses, sustainability, limitations and defects associated with the resources are important and how defects should be recorded 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: • protective equipment and screens • connecting flue pipes and adaptors • heat shields • fixings and fittings • fire cement • mortars • sealants • insulation materials • hand and power tools and ancillary equipment
	K17	how to identify the hazards associated with the resources and methods of work and how they are overcome
	K18	how to calculate the quantity length and area associated with the method and procedure to connect solid fuel **appliances** to the flue **system**
	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

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Knowledge and understanding *You need to know and understand:*	**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 • the relevance of an assessment and how to recognise specific requirements for structures of special interest, traditional construction, hard-to-treat buildings and buildings of historical significance • how to inspect, prepare and connect open and closed solid fuel **appliances** up to 50kW to a flue system, in accordance with statutory and manufacturer's instructions • how to identify the correct heat output from an **appliance** to meet the requirements • why it is important to inspect and test chimney and **appliance** performance and confirm it meets statutory requirements, manufacturers and industry standards • why it is important to ensure there is access for sweeping and inspection • the importance of flue designation and how to check that the flue is compatible with the **appliance** and its intended use • why it is important to confirm that the ventilation requirements meet the statutory and industry standards for the installation • why it is important to make provision in accordance with statutory and manufacturer's instructions for an alert to the release of carbon monoxide • why it is important to ensure permanent access to installation data is available • why it is important to protect the area surrounding the work • how to work safely with, around and in close proximity to plant and machinery • how to use work tools and equipment • how to work at height using access equipment • how and why operative care and maintenance of work and power tools and equipment is carried out • why it is important to ensure the end user understands the correct and safe operation of the **appliance** in accordance with statutory and manufacturer's instructions • how to achieve good solid fuel **appliance** operating practice and efficient combustion

		• how to identify suitable solid mineral and wood fuel and its storage in accordance with manufacturer's instructions • how to identify, report and resolve problems that could affect the installation process • how to complete all records and documentation in line with statutory and organisational requirements • how to work safely with, around and in close proximity to plant and machinery
	K23	the principles of combustion to include: • adequate fuel quality • combustion temperature • sufficient combustion air • combustion performance effects on emissions
	K24	the principles of chimney flue draught and design • mechanical ventilation • natural flue draught (convection) • forced flue draught (mechanical) • effective flue height • effective flue area • impact of bends and restrictions • interaction with building envelope and topography • meteorological effects
	K25	the importance of team-work and communication, **organisational procedures** with respect to site behaviours, and how to challenge inappropriate site behaviours
	K26	the needs of other occupations associated with connecting solid fuel **appliances** to flue **systems**
	P6 Allocated time	
	K27	the programme of work to be carried out including the estimated and allocated time and why deadlines should be kept
	K28	the types of progress charts, timetables and estimated times and the **organisational procedures** for reporting circumstances which will affect the work programme

Glossary		**Organisational procedures** Insurances – public, product and employers liability, professional indemnity Company documents - contract for the work, safety management plan, CDM, 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

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