SA105 Smart Awards Fibre Blowing to the Customer
QUALIFICATION SPECIFICATION

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Introduction

This qualification covers the installation of a single fibre or fibre bundle to the customer's premises using air-assisted fibre blowing techniques. It focuses on the preparation of existing ducts or micro ducts, the setup and operation of blowing equipment, and the controlled delivery of fibre between a customer termination point and a network access point.

Learners are provided with the knowledge and skills to identify hazards and potential risks, and to work safely and compliantly when carrying out fibre blowing operations. It also develops learners' awareness of relevant health and safety legislation, safe systems of work, and quality standards.

This qualification is aimed at individuals who undertake work in a telecommunications (or similar utility) environment. It tests learners' knowledge, skills and ability in:

- Preparing ducts/micro ducts
- Configuring and operating fibre blowing machinery and compressors
- Monitoring pressure, speed, and blowing distance
- Managing bend radius and friction
- Completing terminations to the required standard.

The Qualification addresses the dangers associated with compressed air systems, pressurised equipment, and on-site civil environments, alongside the safety precautions and workmanship standards required during installation.

This qualification ensures that learners involved in fibre blowing to customer premises are suitably trained and competent to perform these tasks to industry best practice. It does not cover cabling, internal customer equipment installation, or fibre splicing/connectorisation beyond the external termination point, which are addressed in separate qualifications.

Key Information	
Name	Smart Awards Level 2 SA105 Smart Awards Fibre Blowing to the Customer
Accreditation	This qualification is approved by: • Industry qualification SA105
Level	2
Duration	1 day
Guided Learning Hours (Ofqual)	8 hours
Time/Notional Learning Hours (SQA Accreditation)	
Ofqual Total Qualification	
RQF - Ofqual Credit - Credit value represents the size of a unit which is determined by the learning time. One credit = 10 hours of notional learning.	1

Age	16 Plus
Qualification Type	Vocationally Related Qualification
Smart Awards Product Area	Safety and Craft Qualifications
Sector Subject Area	5.2 - Building and construction
Certification	This qualification is valid for a period of three (3) years from the date of certificate issue. To remain compliant and eligible to work on telecommunications networks, individuals must renew their qualification before the expiry date.
Network Operative Passport Scheme (NOPS)	This qualification is fully aligned with the requirements of the Network Operative Passport Scheme (NOPS). Successful completion of this qualification is recorded within the NOPS system, ensuring operatives are visible and verifiable to employers and site access systems across the industry.
Prerequisites and Entry Requirements	Learners must hold valid safety qualifications relevant to the part of the network in which they will be working. This includes safety training for underground and customer premises. These prerequisite qualifications must be completed prior to undertaking this fibre blowing qualification and should reflect the specific network conditions and hazards the learner may encounter during installation activities. • *SA020 or SA029 for working in/at SDUs* • *SA002 or SA006 for underground safety* If working in overhead environments, then additional qualifications may be required, e.g. • *SA001 or SA009 for overhead safety.* There are no formal entry requirements and Smart Awards will not restrict access on the grounds of prior academic attainment, employment, geographic location, or any other grounds. There are no barriers that restrict access or progression, thereby promoting equality. Learners must have a basic understanding of the English language for regulated qualifications that are approved by Ofqual of SQA Accreditation. **Please note:** The New Roads and Street Works Act 1991 (NRSWA) require at least one person on site to hold a Street Works card to work on the highway. This Smart Awards accreditation is based on a pre-requisite that any work on the highway requires appropriate Street Works accreditation to be held by an individual working on site, and that this individual is qualified to check that the planned provision of footways, traffic lanes and safety zones determined by the site survey meets with the requirements of the site

	location and approved procedures and practices required by the NRSWA 1991. Some companies' policies may vary where more than one person on site is required to hold a valid Street Works card.
Mandatory units and optional routes to completion.	Learners must complete the Smart Awards Fibre Blowing to the Customer unit in full to achieve this qualification. No optional units or routes are available.
Additional requirements to achieve this qualification.	None
Methods of Assessment	This qualification will be assessed through a practical and theory test. The aim of the assessment is to ensure successful learners have adequate knowledge and understanding of Fibre Blowing to the Customer. Assessment guidance, assessor requirements and additional qualification documentation is supplied to approved Smart Awards centres via Quartz.
Theory test	Learners are required to pass a 30-question multiple-choice test, with questions randomly selected from a secure question bank to ensure comprehensive coverage of all assessment criteria. The test is timed, and learners will have 45 minutes to complete it. All multiple-choice tests are conducted online via the Smart Awards online assessment platform.
Practical assessment	Learners will be required to demonstrate their practical skills through a series of tasks set by Smart Awards. These will be assessed by direct observation of the learner performing the task under assessment conditions. The assessment area must be equipped sufficiently so that the learner can be assessed in their competencies safely and without anyone providing guidance to help the learner. Assessor Role: To observe, record performance, question learners where clarification is needed, and verify competence against set criteria. Assessors should evaluate learners against the following categories: • Learners must be assessed individually, even in a team simulation. • Use Smart Awards standardised observation checklist for consistency. • Ensure opportunities for questioning are built into the simulation, particularly regarding reasoning behind technique and decision-making. • In cases of unsupervised elements, probe for ownership of work through reflective questioning. • Provide a brief debriefing session after the assessment to give feedback and confirm understanding. The learner will have 3 hours 15 minutes to complete the practical assessment
Grading	Learners will be graded (Fail or Pass) on an achievement or non-achievement basis.

	The final grade will be determined by collective performance in the two assessment tools (theory and practical).
	Learners are required to achieve both the theory and practical assessments to achieve the qualification.
	
	• Theory - To achieve a pass, 80% or more is required.
	• Practical - If one major fault is given the learner will automatically fail.
	  ○ If 6 or more minor faults are given the learner will fail.
	  ○ The learner needs to achieve 5 or less minor faults to pass.
	
	If there are major health and safety failures due to learners' actions or understanding, the assessment MUST be stopped. The learner should be taken to a suitable area to be explained the reason for stopping the assessment and that his assessment is deemed as failed.
	
	Guidance on the major failures that should result in stopping the assessment is provided in the practical assessment.

Reasonable adjustments and special considerations	Smart Awards approved centres that have learners with specific requirements should refer to the Smart Awards Reasonable Adjustments and Special Considerations Policy and Procedure. This document outlines the support available to ensure fair access to assessments. It can be found on the Smart Awards website at www.smartawards.co.uk
Recognition of Prior Learning	Smart Awards is committed to supporting Recognition of Prior Learning (RPL) and has established a dedicated policy and set of procedures to guide and assist approved centres in its implementation. The full policy is available on the Smart Awards website at www.smartawards.co.uk

Required resources and site requirements for delivering this Qualification	The following equipment must be available and in safe working condition for the practical assessment. Use of the specific tools and equipment issued by the learner's employer or utility is encouraged and may be required, depending on operational policy:
	
	• Air compressor (calibrated) with hoses and safety controls
	  ○ Spec: 6–10 bar, matching blowing head/cable/duct.
	  ○ Calibration/condition: Serviced within 12 months; gauges, regulators, relief valves functional.
	  ○ Safety: Pressure regulator, safety valve, emergency stop, auto shut-off.
	  ○ Hoses/fittings: Pressure-rated, secure couplings, whip-checks, suitable length to keep compressor outside exclusion zone.
	  ○ Accessories: Spare hose/couplings, leak detection spray, drain container.
	• Fibre blowing machine (with adjustable pressure and speed settings)
	• Fibre unit (e.g. 1–12 fibre blown bundle or microfibre)
	• Pre-installed microduct or tube system
	• Duct sponge or sponge plug (for proving and airflow testing)
	• Pull cord or draw rope.
	• Tube cutter and de-burring tool.
	• Duct cleaning brush or swab.

	• Tube sealing plugs/caps. • Microduct connector couplings • External Customer Splice/Service Point • Cable ties and cable markers • Fibre coil storage loops or mounts • Measuring tape or distance wheel • Fibre testing equipment (e.g. Power meter, Live Fibre Indicator) • Safety equipment including gloves, safety glasses, and hearing protection

Qualification Structure

The Level 2 Award in Fibre Blowing to the Customer qualification consists of one mandatory unit, which learners must complete to achieve the qualification. Attainment at Level 2 demonstrates the learner's ability to apply relevant knowledge, skills, and procedures to carry out clearly defined tasks and resolve straightforward problems with appropriate direction or supervision.

SMART AWARDS Level 2 Award in Fibre Blowing to the Customer								
Minimum TQT for this pathway = 8 Minimum number of credits = 1 Minimum number of units = 1			Minimum number of GLH = 8 Minimum number of assessment time = 4 Other learning time = 0					
Unit Number	**Unit title**	**Level**	**M/O**	**GLH**	**ASS**	**OTHER LEARNING**	**TQT**	**CREDITS**
	Fibre Blowing to the Customer	2	M	8	4	0	8	1

Learner Support and Assessment Conditions

Learners will have access to support throughout the training period via their trainer. Trainers are responsible for ensuring that each learner is adequately prepared and competent before presenting them for assessment.

No support or assistance may be given to the learner during either the theory or practical assessments, to maintain the integrity and validity of the qualification.

Qualification objectives and requirements

This qualification confirms that the learner has demonstrated the required competence to perform Fibre Blowing to the Customer. To successfully obtain this qualification, the learners will need to demonstrate the knowledge and ability requirements set out in the learning outcomes and assessment criteria.

Unit Title:	Smart Awards Fibre Blowing to the Customer
Unit Reference Number:	SA105

Learning outcomes	**Assessment criteria**
The learner will:	The learner can:
1. Be able to work safely.	1.1. Identify hazards and risks associated with the work area, equipment, and fibre blowing process.

	1.2. Complete work in a way which maintains health and safety and is consistent with relevant legislation and industry good practice. 1.3. Select and use appropriate PPE and safety equipment for the task. 1.4. Carry out pre-use checks on blowing machinery, compressors, and associated tools.
2. Be able to prepare the site and equipment for fibre blowing.	2.1. Prepare the work area and apply site-specific safety measures. 2.2. Inspect and prove the microduct or tube route. 2.3. Demonstrate how to clean and seal microducts or tubes using appropriate tools. 2.4. Select the correct fibre unit for the installation. 2.5. Set up the fibre blowing machine and compressor safely. 2.6. Demonstrate safe handling and feeding of fibre into the blowing machine.
3. Be able to blow a fibre to a customer's premises.	3.1. Demonstrate how to carry out a fibre blowing operation safely and effectively. 3.2. Monitor and adjust air pressure, speed, and blowing distance as needed. 3.3. Identify and respond to signs of resistance or blockage during the blowing process. 3.4. Complete the fibre delivery to the customer termination points without damage.
4. Be able to complete and secure the blown fibre installation.	4.1. Demonstrate how to secure the fibre at the entry and exit points of the microduct or tube. 4.2. Prepare and terminate the blown fibre at a cabinet, using the appropriate method. 4.3. Install fibre into a Toby Box leaving it ready for customer installation. 4.4. Prepare and terminate the blown fibre at an underground node/joint, using the appropriate method. 4.5. Prepare and terminate the blown fibre at the customer's external termination point, using the appropriate method. 4.6. Install sealing caps or plugs to protect open microducts or tubes. 4.7. Label or mark the blown fibre as required. 4.8. Leave the site in a clean, safe, and tidy condition.
5. Be able to test and confirm fibre installation.	5.1. Use test equipment to check for fibre continuity. 5.2. Record power or light level readings where applicable. 5.3. Confirm that the installation meets the job specification and quality requirements.
6. Know relevant health and safety legislation and industry good practice.	6.1. State the key health and safety legislation related to fibre blowing. 6.2. Identify the risks associated with pressurised equipment and how to manage them.

	6.3. Describe how to safely use, maintain, and store fibre blowing tools and equipment. 6.4. State the purpose of risk assessments and safe systems of work.
7. Know how to prepare and install blown fibre to customer premises.	7.1. List the steps involved in preparing a microduct or tube for fibre blowing. 7.2. Identify the equipment and materials required for blown fibre installation. 7.3. Describe how to set up and operate a fibre blowing system safely. 7.4. Identify common signs of a failed or stalled blowing operation. 7.5. State how to secure and protect the fibre at the customer termination point. 7.6. State how to secure, protect and terminate the fibre at a cabinet and underground node/joint. 7.7. Outline how to confirm service continuity using test equipment.