Smart Awards Level 2 SA004 – Abrasive Wheels

SPECIFICATION

Introduction

This qualification covers 1 module

- **Correct selection and mounting of Abrasive Wheels**

The course content covers the general characteristics of abrasive wheels used, specified health and safety legislation, the selection, inspection, handling, and storage of abrasive wheels within the workplace.

It provides learners with the knowledge of specified hazards and potential risks involved in working with and around abrasive wheels and materials being worked, helping to identify the needs for correct collective and personal control measures. The accreditation provides learners with the required information for them to confidently select an appropriate abrasive wheel for their task and correctly mount the wheel on to the cut-off or grinding device.

The qualification is achieved by being successful in the multiple-choice theory test and the practical assessment. This accreditation ensures that successful learners selecting and mounting abrasive wheels are suitably trained and accredited to industry and National Occupational Standard (NOS).

This accreditation is aimed at those selecting, mounting, and working with abrasive wheels. This accreditation does not cover specific training on the cut-off saws or grinding or any other abrasive wheel device.

For Specific cut-off saw abrasive wheel qualifications please refer to the Smart Awards qualification catalogue.

Key Information	
Name	Smart Awards Level 2 SA004 Abrasive Wheels
Accreditation	This qualification is approved by: • Industry qualification SA004
Level	2
Duration	4 hours
Guided Learning Hours	4
Total Qualification Time	7
Credit	1
Age	16 Plus
Qualification Type	Vocationally Related Qualification
Smart Awards Product Area	Safety Qualifications
Sector Subject Area	6.1 – Digital technology (practitioners)
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	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. It is expected however that learners will have a level of literacy adequate to cope with both the theory and practical assessments
Mandatory units and optional routes to completion.	Learners must complete the Abrasive Wheels 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 Abrasive Wheels. 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 20-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 30 minutes to complete it. All multiple-choice tests are conducted online via the Smart Awards online assessment platform.
Practical assessment	During the practical assessment, the learner will have 20 minutes to demonstrate how to correctly and safely fit an abrasive wheel and conduct pre-use inspections on the device.
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. • Learners must receive fewer than six minor faults to pass the practical assessment.

	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	To ensure a safe and effective learning and assessment environment, the following site requirements must be met for the delivery of the SA004 Abrasive Wheels: • A safe work area for the demonstration and learner's practical assessment of mounting and testing abrasive wheels • Manufactures instruction for using and assembling the equipment. • A safe guarded and ventilated area for the assessor demonstration and learner's practical assessment of fitting, starting and stopping of abrasive wheels.

Qualification Structure

The Level 2 Abrasive Wheels 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 in SA004 Abrasive Wheels								
Minimum TQT for this pathway = 7 Minimum number of credits = 1 Minimum number of units = 1				Minimum number of GLH = 4 Minimum number of assessment time = 1 Other learning time = 3				
Unit Number	**Unit title**	**Level**	**M/O**	**GLH**	**ASS**	**OTHER LEARNING**	**TQT**	**CREDITS**
	Abrasive Wheels	2	M	4	1	3	7	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 in Abrasive Wheels. 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 Reference	
Learning outcomes	Assessment criteria
The learner will:	The learner can:
1. Be able to work safely	1.1. Work safely at all times, complying with health and safety and other relevant regulations and guidelines. 1.2. Carry out pre-use inspections, ensure all the safety mechanisms are in place and that the equipment is set correctly for the required operations.
2. Be able to fit and stabilize an abrasive wheel safely	2.1. Correctly select and securely fit a cutting/grinding wheel for the prescribed application. 2.2. Start and stop the machine in normal and emergency. Situations. 2.3. Confirm correct balance fitting of the cutting/grinding wheel. 2.4. Remove the cutting/grinding wheel from the machine and store correctly.
3. Know how to recognize hazards	3.1. Outline the hazards associated with cutting and grinding machines (such as moving parts of machinery, handling the saw/grinder, lifting and moving workpieces, wheel breakage, insecure components, airborne particles, sparks and fire hazards), and how to minimise them and reduce risks. 3.2. Describe how to check that the cutting/grinding wheels are in a safe and serviceable condition (such as free from damage, cracks, correctly balanced)
4. Know relevant health and safety legislation and industry good practice	4.1. Outline the importance of wearing the appropriate protective clothing and equipment, and of keeping the work area clean and tidy. 4.2. Outline the types of PPE to be selected and used when using abrasive wheels. 4.3. Outline the legislation that governs the mounting, dressing and balancing of grinding wheels (eg. Abrasive Wheels Regulations), and how this applies to you. 4.4. Describe the specific safety precautions to be taken when setting up work holding devices, tools and cutters on a tool and cutter grinding machine. 4.5. Outline the importance of ensuring that the machine is isolated from the power supply before mounting cutting/grinding wheels, workpieces and work holding devices. 4.6. Outline safety control measures to be implemented before, during and post abrasive wheel tool use.

Unit Reference	
Learning outcomes	Assessment criteria
The learner will:	The learner can:
5. Know how to use an abrasive wheel	5.1. Outline the basic principles of operation of the cutter/grinding machine and typical operations that they can perform. 5.2. Describe the problems that can occur with setting up the cutter/grinder machine, work rest, holding devices and machine operating parameters, your responsibility and whom to report to if problems occur. 5.3. Outline methods of mounting an abrasive wheel to a cutter/grinder machine 5.4. State the different types of abrasive wheels and their purpose. 5.5. Describe how to use an abrasive wheel and their limitations. 5.6. Interpret the abrasive wheel marking system. 5.7. Outline environmental considerations, and conditions for storage of abrasive wheels. 5.8. Explain the types of wheels that require to be dressed and the reasons.