

SIAS

Engineering Operative (ST0537) Level 2 Apprenticeship Standard

End-Point Assessment Specification





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This specification describes the end-point assessment tests, the test rules and who should be involved. Preparing for end-point assessment including gateway requirements are also covered.

SIAS is the Science Industry Assessment Service. It is part of the Cogent Skills Group. For further information about apprenticeship standards and Trailblazers please contact info@siasuk.com.

In this guide, the term “employer” is used to refer to the host employer, which is the company where the apprentice gains their competency experience. It does not refer to an organisation such as an Apprenticeship Training Agency (ATA) that has the employment contract with the apprentice.

Qualification Objective

The aim of this qualification is to ensure that the apprentice is occupationally competent against the knowledge, skills and behaviours outlined in the assessment plan for this standard.

The Engineering Operative role covers a wide range of common and job specific skills sets that can be transferred across the manufacturing engineering industry sectors during the course of their careers. Dependent on the sector that they are employed in there may be subtle differences in terms of composition and application of the job role specific skills and knowledge they will require, however the core skills and knowledge will be the same regardless of the sector / area they work in.

Prior Learning and Qualifications

There are no requirements for previous knowledge or qualifications before a learner begins this qualification.

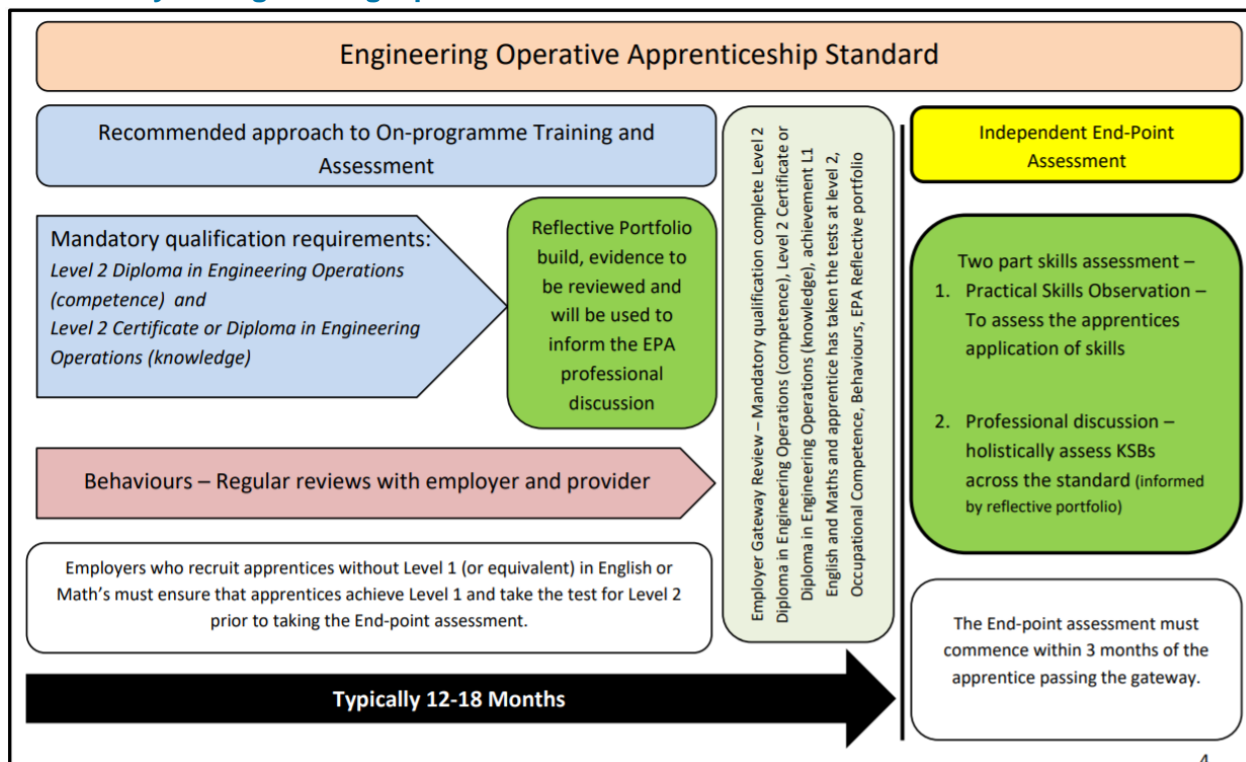
Structure of the Qualification

The standard consists of specified knowledge, skills, and behaviours (KSBs) set out in the assessment plan. Some of these are core and will be assessed for every apprentice, others are specific to the job role pathway the apprentice is following and will only be assessed on apprentices registered for that pathway.

Engineering Operative has the following job role pathways:

- Maintenance
- Mechanical Manufacturing
- Electrical and Electronic Engineering
- Fabrication
- Materials, Processing, Finishing
- Technical Support

A Summary of Engineering Operative End-Point Assessment



On Programme Assessment

The employer and training provider will use the mandatory Level 2 Diploma in Engineering Operations (competence) and Level 2 Certificate or Diploma in Engineering Operations (knowledge) within the Engineering Operative Standard to develop a training plan to ensure that the apprentice receives the appropriate level of knowledge and skills to advance to and successfully complete the Independent End-Point Assessment.

About Competence Evaluation

During the apprenticeship, regular evaluation of the competence of the apprentice against the apprenticeship standard will help to ensure that they achieve full occupational competence by the end of their training, and they are ready for End-Point Assessment. Confirmation from the employer that the apprentice is fully competent is needed before End-Point Assessment can take place.

Competence Evaluation Log (CEL)

The evidence that the apprentice is ready for end-point assessment is the signed SIAS Competence Evaluation Log (CEL). The CEL covers the knowledge, skills and behaviours specified in the apprenticeship standard. The signed log shows that the apprentice has demonstrated to the employer they are fully competent at the end of their training. It has the same status as a qualification certificate. Along with the qualification certificates, a signed completed CEL is one of the requirements for Gateway to prove the apprentice has satisfactorily completed training covering the knowledge, skills and behaviours as described in the standard.

Readiness for End-Point Assessment (EPA) - Gateway

Before going forward for the EPA, the employer must be satisfied that the apprentice has:

- Satisfactorily completed training covering the skills, knowledge and behaviours as described in the standard
- Achieved all Mandatory qualifications – Level 2 Diploma in Engineering Operations (competence) and Level 2 Certificate or Diploma in Engineering Operations (knowledge)
- English and mathematics at level 2 or Apprentices without English and mathematics at level 2 must have achieved level 1 English and mathematics and have taken the tests for level 2. For those with an education, health and care plan or a legacy statement the apprenticeships English and Maths minimum requirement is Entry Level 3 and British Sign Language qualification are an alternative to English qualifications for whom this is their primary language
- Sufficient evidence in the form of a reflective portfolio to allow the apprentice to consistently demonstrate knowledge, skills and behaviours as described in the standard. Guidance on what should be included in the reflective portfolio can be found within the professional discussion section.

End-Point Assessment

There are two graded tests for end-point assessment:

- Practical Skills Observation (PO)
- Professional Discussion (PD).

The Practical Skills Observation must be completed prior to the Professional Discussion.

The **Practical Skills Observation** will take place in the workplace where a SIAS independent End-Point Assessor will observe the apprentice performing on the job tasks. During the process the apprentice will be expected to demonstrate to the assessor the application of the core knowledge, skills and behaviours of specific job-related knowledge and skills from the specification.

The employer will nominate a technical expert to facilitate the Practical Skills Observation and to advise on workplace practices and procedures. The technical expert will not participate in the assessment decision or assist the apprentice in any way.

The Practical Skills Observation will last for 2 hours (+ / - 10 minutes). There may be breaks during the observation to allow the apprentice to move between different work locations. This time will not count towards the overall assessment time. A maximum of three apprentices can be observed at the same time.

The **Professional Discussion** will be led by the SIAS independent End-Point Assessor. The apprentice will refer to their reflective portfolio during the Professional Discussion. The purpose of the Professional Discussion is to enable the apprentice to showcase to the panel how they have carried out the role of an Engineering Operative, integrating the knowledge, skills and behaviours expected and for the review panel to be assured the apprentice has achieved the requirements of the Standard.

The End-Point Assessor will ask the apprentice 5-7 open questions during the Professional Discussion with additional follow up questions allowed. The Professional Discussion will last 40 minutes (+ / - 2 minutes).

Reflective Portfolio

The apprentice will need to submit their reflective portfolio to SIAS as part of their gateway evidence. The reflective portfolio must be submitted with the SIAS referencing matrix. Evidence must cover the full range of criteria within the referencing matrix and must consist of activities carried out by the apprentice. There must be a minimum of 2 activities and a maximum of 3 activities completed by the apprentice within their job role. Evidence should include photographs, images, diagrams, together with on-the-job observations and witness evidence / testimonies. Evidence of difficult or challenging situations and how these were overcome should also be included. For example, equipment breaking down which has resulted in a change in working practice while still adhering to company procedures. Any employer contributions must focus on direct observations of practice and not opinions. Methods of self-assessment or self-appraisal cannot be included.

The apprentice must bring their reflective portfolio to the Professional Discussion.

End-Point Assessment grading

The Practical Skills Observation and Professional Discussion will be individually graded – the Practical Skills Observation is graded Pass or Fail, and the Professional Discussion will be graded Fail, Pass, or Distinction. A Fail in one or more of the assessment methods will result in an overall Fail. Evidence from the reflective portfolio will be used to inform the Professional Discussion but will not be assessed.

Grading Criteria

The apprenticeship will be graded Fail, Pass, or Distinction. The final grade will be determined by collective performance in the two assessments within the End-Point Assessment. The End-Point Assessor will combine the grades from the Practical Skills Observation and Professional Discussion to determine the overall apprenticeship grade in line with the grading criteria below.

EPA Method 1 – Practical Skills Observation	EPA Method 2 – Professional Discussion	Overall Grading
Fail	Any grade	Fail
Any Grade	Fail	Fail
Pass	Pass	Pass
Pass	Distinction	Distinction

Re-takes / re-sits

Apprentices who fail one or more EPA method will be offered the opportunity to take a re-sit / retake. Re-sits / re-takes must not be offered to apprentices wishing to move from Pass to Distinction. A re-sit does not require further learning, whereas a re-take does.

The apprentice's employer will need to agree that a re-sit / re-take is an Apprentices who fail one or more EPA method will be offered the opportunity to take a re-sit / retake. Re-sits / re-takes must not be offered to apprentices wishing to move from pass to distinction. A re-sit does not require further learning, whereas a re-take does.

The apprentice's employer will need to agree that a re-sit / re-take is an appropriate course of action. Apprentices should have a supportive action plan to prepare for the re-sit / re-take.

Resits / retakes should be taken once the apprentice receives sufficient training to address the shortfall in the KSB's required for the standard that have been identified within the result of the EPA. The timing of the resit / retake should be agreed with the employer and SIAS and is dependent on the amount of learning required to meet the KSBs.

The maximum grade awarded to a re-sit / re-take for the practical observation will be graded pass / fail and a re-sit / re-take of the professional discussion will be graded pass / fail / distinction and combined to determine the EPA grade.

SIAS will ensure that apprentices are observed doing different activities within the Practical Skills Observation when taking a re-sit / re-take. If the apprentice is unsuccessful, their employer will decide when the apprentice should re-apply for the EPA once additional training has taken place.

Certification

The outcomes from the End-Point Assessment will be reviewed and a grade conferred by SIAS in accordance with SIAS QA procedures, which are available from SIAS. SIAS will notify the employer of the outcome of each of the assessment.

SIAS will apply for the apprentice's certificate, which will be sent to the employer. The certificate confirms that the apprentice has passed the End-Point Assessment, has demonstrated full competency across the standard and is job-ready.

Assessment Specification

The assessment specification can be found in the published assessment plan for the standard. Details of which elements of the apprenticeship standard will be tested by each test are given in the Assessment Tests section of this document.

The Assessment Tests

Knowledge, Skills and Behaviours to be assessed

Key	
Practical Observation & Questioning	PO
Professional Discussion	PD

Core Skills

No	Standard Competency Statement	Assessment	
S1	Work safely at all times, complying with health and safety legislation, regulations, environmental compliance procedures and systems and other relevant guidelines	PO	PD
S2	Identify and deal appropriately with any risks, hazards, hazardous situations, and problems that may occur within the engineering environment within the limits of their responsibility		PD
S3	Demonstrate effective communication skills which include oral, written, electronic		PD
S4	Complete appropriate documentation accurately, efficiently, and legibly using the correct terminology where required		PD
S5	Obtain and follow the correct documentation, specifications, and work instructions in accordance with time constraints and the roles and responsibilities identified for the engineering activities, extracting the necessary data / information from specification and related documentation	PO	
S6	Select and use appropriate tools, equipment, and materials to carry out the engineering operation	PO	PD
S7	Deal appropriately with any problems that may occur within the manufacturing environment within the limits of their responsibility		PD
S8	Work efficiently and effectively at all times maintaining workplace organisation and minimising waste	PO	
Specialist job role option 1 - Maintenance role: Additional Skills to be assessed			
S9	Carryout fault location on appropriate equipment using suitable maintenance diagnostic techniques	PO	PD
S10	Carryout maintenance activities in line with work instructions	PO	PD
S11	Carryout tests on the maintained equipment in accordance with test schedule / defined test procedures		PD
S12	Follow appropriate completion activities and restore equipment to service by replacing or repairing components		PD
Specialist job role option 2 - Mechanical Manufacturing engineering role: Additional Skills to be assessed			
S13	Plan the mechanical manufacturing operation before they start		PD
S14	Mount and set the required work holding devices	PO	PD
S15	Produce individual components, sub-assemblies or completed assemblies using mechanical manufacturing techniques	PO	PD
S16	Carryout quality checks during and after mechanical manufacturing operations		PD

Specialist job role option 3 - Electrical and Electronic engineering role: Additional Skills to be assessed			
S17	Wire and terminate different types of cabling e.g., single core, multi core, screened, fire resistant, armoured, etc		PD
S18	Assemble and test a range of electrical components e.g., component panels, isolator switches, fuses, circuit breakers, contactors, relays, rail mounted terminal blocks, etc.	PO	PD
S19	Assemble and test a range of electronic components e.g., resistors, capacitors, diodes, transistors, etc.	PO	PD
S20	Assemble and test a range of electronic components e.g., resistors, capacitors, diodes, transistors, etc.		PD
Specialist job role option 4 - Fabrication role: Additional Skills to be assessed			
S21	Shape the materials using the appropriate methods and techniques		PD
S22	Join the materials using the appropriate methods and techniques	PO	PD
S23	Produce components which meet the specification requirements	PO	PD
S24	Carryout quality checks during and after the fabrication activities		PD
Specialist job role option 5 - Materials, processing, finishing role: Additional Skills to be assessed			
S25	Plan the materials, processing, finishing operation before they start		PD
S26	Prepare equipment, tooling, materials, etc. and complete set up activities before carrying out the materials, processing, finishing operation	PO	PD
S27	Carryout the material, processing, finishing operation in line with specific safe working practices and specification requirements	PO	PD
S28	Carryout quality checks during and after the materials, processing, finishing operation		PD
Specialist job role option 6 - Technical support role: Additional Skills to be assessed			
S29	Plan the technical support operation before they start		PD
S30	Prepare equipment, tooling, materials, etc. and complete set up activities before carrying out the technical support activity	PO	PD
S31	Carry out the technical support operation in line with specific safe working practices and specification requirements	PO	PD
S32	Carryout quality checks during and after the technical support operation		PD

Core Knowledge

No	Standard Competency Statement	Assessment	
K1	How to obtain the necessary job instructions, engineering drawings and specifications and how to interpret them	PO	
K2	Relevant statutory, quality, environmental compliance procedures / systems, organisational and health and safety regulations relating to engineering operations		PD
K3	Their individual roles and responsibilities within the organisation and the flexibility required to support the achievement of company targets	PO	
K4	Engineering operational practices, processes, and procedures	PO	PD
K5	Potential problems that can occur within the engineering operations and how they can be avoided	PO	
Specialist job role option 1 - Maintenance role: Additional Skills to be assessed			
K6	Maintenance planning	PO	PD
K7	Diagnostic and fault-finding techniques		PD
K8	Specific safe working practices, maintenance procedures and environmental regulations that need to be observed	PO	
Specialist job role option 2 - Mechanical Manufacturing engineering role: Additional Skills to be assessed			
K9	Specific equipment operating parameters	PO	PD
K10	Mechanical manufacturing techniques		PD
K11	Specific quality specifications for mechanical manufacturing operations	PO	
Specialist job role option 3 - Electrical and Electronic engineering role: Additional Skills to be assessed			
K12	Cable types and where they should be used	PO	PD
K13	Electrical and electronic assembly and testing techniques		PD
K14	Specific safe working practices, isolation procedures and safe reinstating of equipment / system that need to be observed	PO	
Specialist job role option 4 - Fabrication role: Additional Skills to be assessed			
K15	Specific marking out and preparation techniques	PO	PD
K16	Different fabrication and joining techniques		PD
K17	Specific safe working practices, isolation procedures and safe reinstating of equipment / system that need to be observed	PO	
Specialist job role option 5 - Materials, processing, finishing role: Additional Skills to be assessed			
K18	Specific machinery, equipment and tooling required for the materials, processing, finishing operation	PO	PD
K19	Different materials, processing, finishing techniques		PD
K20	Specific quality specifications for materials, processing, finishing operations	PO	
Specialist job role option 6 - Technical support role: Additional Skills to be assessed			
K21	Specific machinery, equipment and tooling required for the technical support operation	PO	PD
K22	Different technical support techniques		PD
K23	Specific safe working practices, procedures and quality requirements that need to be observed	PO	

Core Behaviours

No	Standard Competency Statement	Assessment	
B1	Personal responsibility and resilience – Comply with the health and safety guidance and procedures, be disciplined, and have a responsible approach to risk, work diligently regardless of how much they are being supervised, accept responsibility for managing time and workload and stay motivated and committed when facing challenges.	PO	PD
B2	Work effectively in teams – Integrate with the team, support other people, consider implications of their own actions on other people and the business whilst working effectively to get the task completed		PD
B3	Effective communication and interpersonal skills – An open and honest communicator, communicates clearly using appropriate methods, listen well to others and have a positive and respectful attitude.		PD
B4	Focus on quality and problem solving – Follow instructions and guidance, demonstrate attention to detail, follow a logical approach to problem solving and seek opportunities to improve quality, speed, and efficiency.		PD
B5	Continuous personal development – Reflect on skills, knowledge and behaviours and seek opportunities to develop, adapt to different situations, environments or technologies and have a positive attitude to feedback and advice		PD

Practical Skills Observation assessment criteria

Higher Order Core Skills to be assessed	Lower Order Skills	Fail Criteria	Pass Criteria To achieve a pass the apprentice must achieve all of the core skills pass criteria and all of the pass criteria for one of the specialist job role options as laid out below
<p>Works safely, efficiently, and effectively at all times ensuring that all appropriate legislation, regulation, and environmental compliance has been adhered to in-line with company policies, procedures, and practice.</p>	<p>S1 Work safely at all times, complying with health and safety legislation, regulations, environmental compliance procedures and systems and other relevant guidelines</p> <p>S5 Obtain and follow the correct documentation, specifications, and work instructions in accordance with time constraints and the roles and responsibilities identified for the engineering activities, extracting the necessary data / information from specification and related documentation</p> <p>S6 Select and use appropriate tools, equipment, and materials to carry out</p>	<p>Insufficient evidence of demonstrating they have the ability to work safely in an engineering environment and could potentially put self, colleagues, the environment, or public at risk by their actions.</p> <p>Evidence including:</p> <ul style="list-style-type: none"> · Failure to identify and deal appropriately with any risks, hazards, hazardous situations, and problems · Failure to use relevant PPE · Failure to identify and select the appropriate tools, equipment, and materials · Fails to identify problems within the engineering environment 	<p>Demonstrates their ability to work safely in an engineering environment to approved procedures.</p> <p>Evidence including:</p> <p>P1 Can identify, assess, and control health and safety risks within work environment as per company procedures and guidelines and record the necessary information appropriately.</p> <p>P2 Can select and use appropriate tools, equipment, and materials to carry out the engineering operations</p> <p>P3 Can deal with problems that occur within the engineering environment</p> <p>P4 Can work efficiently and effectively while adhering to appropriate job instructions</p>

Higher Order Core Skills to be assessed	Lower Order Skills	Fail Criteria	Pass Criteria To achieve a pass the apprentice must achieve all of the core skills pass criteria and all of the pass criteria for one of the specialist job role options as laid out below
	the engineering operation S8 Work efficiently and effectively at all times maintaining workplace organisation and minimising waste		
Specialist job role option 1 - Maintenance role: Additional Skills to be assessed			
Carries out fault-finding and maintenance activities in-line with company processes, procedures, and practice	S9 Carry out fault location on appropriate equipment using suitable maintenance diagnostic techniques S10 Carry out maintenance activities in line with work instructions	Insufficient evidence of demonstrating they can follow relevant work instructions and applying correct procedures. Evidence including: · Failure to carry out fault location and does not use suitable diagnostic techniques · Failure to follow work instructions while carrying out maintenance activities	Demonstrates their ability carry out maintenance activities in line with work instructions. Evidence including: P5 Follows the correct work instructions as part of their work commitments and shows an understanding of any operating rules in place within the instruction P6 Carries out fault location using suitable diagnostic techniques P7 Followed the correct work instructions while carrying out the maintenance activities
Specialist job role option 2 - Mechanical Manufacturing engineering role: Additional Skills to be assessed			
Produces parts to the required specification.	S14 Mount and set the required work holding devices S15 Produce individual components, sub-assemblies or completed assemblies using mechanical manufacturing techniques	Insufficient evidence of demonstrating they can produce components sub-assemblies or completed assemblies to the required specification. Evidence including: · Failure to produce individual components, sub-assemblies or completed assemblies using mechanical manufacturing techniques · Failure to mount and set the required work holding devices	Demonstrates their ability to produce components sub-assemblies or completed assemblies to the required specification. Evidence including: P8 Follows the appropriate mechanical manufacturing techniques to produce individual components, sub-assemblies or completed assemblies, showing an understanding of the techniques used P9 Mounts and sets the required work holding devices
Specialist job role option 3 - Electrical and Electronic engineering role: Additional Skills to be assessed			

Higher Order Core Skills to be assessed	Lower Order Skills	Fail Criteria	Pass Criteria To achieve a pass the apprentice must achieve all of the core skills pass criteria and all of the pass criteria for one of the specialist job role options as laid out below
Tests and assembles parts to the required specification.	<p>S18 Assemble and test a range of electrical components e.g., component panels, isolator switches, fuses, circuit breakers, contactors, relays, rail mounted terminal blocks, etc.</p> <p>S19 Assemble and test a range of electronic components e.g., resistors, capacitors, diodes, transistors, etc.</p>	<p>Insufficient evidence of demonstrating they can assemble and test a range of electrical and electronic components.</p> <p>Evidence including:</p> <ul style="list-style-type: none"> · Failure to assemble and test a range of electrical components · Failure to Assemble and test a range of electronic components 	<p>Demonstrates their ability to assemble and test a range of electrical and electronic components.</p> <p>Evidence including:</p> <p>P10 Follows the appropriate electrical assembly and testing, showing an understanding of the techniques used</p> <p>P11 Follows the appropriate electronic assembly and testing, showing an understanding of the techniques used</p>
Specialist job role option 4 - Fabrication role: Additional Skills to be assessed			
Produces parts to the required specification	<p>S22 Join the materials using the appropriate methods and techniques</p> <p>S23 Produce components which meet the specification requirements</p>	<p>Insufficient evidence of demonstrating they can produce components which meet the specification requirements.</p> <p>Evidence including:</p> <ul style="list-style-type: none"> · Failure to produce components which meet the specification requirements · Failure to join the materials in line with work instructions and required specification 	<p>Demonstrates their ability to produce components which meet the specification requirements.</p> <p>Evidence including:</p> <p>P12 Follows the correct work instructions to produce components as part of their work commitments and shows an understanding of any operating rules in place within the instruction</p> <p>P13 Can produce components which meet the specification requirements</p> <p>P14 Can join the materials using the appropriate methods and techniques</p>
Specialist job role option 5 - Materials, processing, finishing role: Additional Skills to be assessed			
Prepare for and carryout material processing finishing operations to the	<p>S26 Prepare equipment, tooling, materials, etc. and complete set up activities before</p>	<p>Insufficient evidence of demonstrating they can carry out material, processing, finishing operations in line with specification requirements.</p> <p>Evidence including:</p>	<p>Demonstrates their ability to carry out material, processing, finishing operations which meet the specification requirements.</p> <p>Evidence including:</p>

Higher Order Core Skills to be assessed	Lower Order Skills	Fail Criteria	Pass Criteria To achieve a pass the apprentice must achieve all of the core skills pass criteria and all of the pass criteria for one of the specialist job role options as laid out below
required specification efficiently.	carrying out the materials, processing, finishing operation S27 Carry out the material, processing, finishing operation in line with specific safe working practices and specification requirements	<ul style="list-style-type: none"> Failure to Carry out the material, processing, finishing operation in line with specific safe working practices and specification requirements Failure to prepare equipment, tooling, materials, and complete appropriate set up activities 	<p>P15 Follows the correct work instructions to carry out material, processing, finishing operation as part of their work commitments and shows an understanding of any operating rules in place within the instruction</p> <p>P16 Can prepare equipment, tooling, materials, and complete appropriate set up activities</p>
Specialist job role option 6 - Technical support role: Additional Skills to be assessed			
Prepare and carryout the technical support activities in line with company procedures, processes, and practices	S30 Prepare equipment, tooling, materials, etc. and complete set up activities before carrying out the technical support activity S31 Carry out the technical support operation in line with specific safe working practices and specification requirements	Insufficient evidence of demonstrating they can carry out technical support operations in line with specification requirements. Evidence including: <ul style="list-style-type: none"> Failure to Carry out the technical support operation in line with specific safe working practices and specification requirements Failure to prepare equipment, tooling, materials, and complete appropriate set up activities 	Demonstrates their ability to carry out technical support role which meet the specification requirements. Evidence including: <p>P17 Follows the correct work instructions to carry out technical support operation as part of their work commitments and shows an understanding of any operating rules in place within the instruction</p> <p>P18 Can prepare equipment, tooling, materials, and complete appropriate set up activities</p>

Higher Order Core Knowledge to be assessed	Lower Order Knowledge to be assessed	Fail Criteria	Pass Criteria To achieve a pass the apprentice must achieve all of the core skills pass criteria and all of the pass criteria for one of the specialist job role options as laid out below
<p>Knows how to complete tasks, solve problems, and implement preventive measures in-line with company procedures, practices, and processes</p>	<p>K1 How to obtain the necessary job instructions, engineering drawings and specifications and how to interpret them</p> <p>K4 Engineering operational practices, processes, and procedures</p> <p>K5 Potential problems that can occur within the engineering operations and how they can be avoided</p>	<p>Insufficient knowledge of how to obtain the necessary job instructions, engineering drawings and specifications and how to interpret them</p> <p>Evidence including:</p> <ul style="list-style-type: none"> · Cannot explain where to obtain the necessary job instructions, engineering drawings and specifications when questioned · Cannot interpret necessary job instructions, engineering drawings and specifications when questioned · Cannot outline the operational practices, processes and procedures when questioned · Cannot outline the potential problems that can occur within the engineering operations when questioned · Cannot explain the actions that can be taken to avoid problems from occurring when questioned 	<p>Demonstrates their knowledge of how to obtain the necessary job instructions, engineering drawings and specifications and how to interpret them</p> <p>Evidence including:</p> <p>P19 Can explain where to obtain the necessary job instructions, engineering drawings and specifications when questioned</p> <p>P20 Can interpret necessary job instructions, engineering drawings and specifications when questioned</p> <p>P21 Can outline the specific operational practices, processes, and procedures relevant to their work activities when questioned</p> <p>P22 Can outline the potential problems that can occur within the engineering operations when questioned</p> <p>P23 Can explain the actions that can be taken to avoid problems from occurring when questioned</p>
<p>Knows how to work towards company targets flexibly</p>	<p>K3 Their individual roles and responsibilities within the organisation and the flexibility required to support the achievement of company targets</p>	<p>Insufficient knowledge of their individual roles and responsibilities and the flexibility required to support the achievement of company targets</p> <p>Evidence including:</p> <ul style="list-style-type: none"> · Cannot explain their individual roles and responsibilities when questioned · Cannot explain the importance of flexibility required to support the achievement of company targets when questioned 	<p>Demonstrates their knowledge of their individual roles and responsibilities and the flexibility required to support the achievement of company targets</p> <p>Evidence including:</p> <p>P24 Can explain their individual roles and responsibilities when questioned</p> <p>P25 Can explain the importance of flexibility required to support the achievement of company targets when questioned</p>
<p>Specialist job role option 1 - Maintenance role: Additional Knowledge to be assessed</p>			
<p>Knows how to plan and carry out tasks in-line with appropriate legislation, regulation and environmental requirements and in-line with company</p>	<p>K6 Maintenance planning</p> <p>K8 Specific safe working practices, maintenance procedures and environmental</p>	<p>Insufficient knowledge of maintenance operations</p> <p>Evidence including:</p> <ul style="list-style-type: none"> · Cannot describe the maintenance planning operation in sufficient detail when questioned · Cannot describe the specific safe working practices, maintenance procedures and environmental regulations that need to be observed when questioned 	<p>Demonstrates their understanding of a maintenance operations</p> <p>Evidence including:</p> <p>P26 Can use of technical language and detail covering the key elements of the knowledge relating to the maintenance activities they have been involved in when questioned</p>

Higher Order Core Knowledge to be assessed	Lower Order Knowledge to be assessed	Fail Criteria	Pass Criteria To achieve a pass the apprentice must achieve all of the core skills pass criteria and all of the pass criteria for one of the specialist job role options as laid out below
procedures and practice	regulations that need to be observed		<p>P27 Can describe the planning carried out prior to the start of the maintenance operation when questioned</p> <p>P28 Cannot describe the specific safe working practices, maintenance procedures and environmental regulations that need to be observed when questioned</p>
Specialist job role option 2 - Mechanical Manufacturing engineering role: Additional Knowledge to be assessed			
Knows the uses of a range of manufacturing equipment and the associated quality outputs of that equipment.	<p>K9 Specific equipment operating parameters</p> <p>K11 Specific quality specifications for mechanical manufacturing operations</p>	<p>Insufficient knowledge of mechanical manufacturing operations</p> <p>Evidence including:</p> <ul style="list-style-type: none"> · Cannot describe the equipment operating parameters when questioned · Cannot describe the specific quality specifications for mechanical manufacturing operations 	<p>Demonstrates their understanding of a mechanical manufacturing operations</p> <p>Evidence including:</p> <p>P29 Can use of technical language and detail covering the key elements of the knowledge relating to the mechanical manufacturing activities they have been involved in when questioned</p> <p>P30 Can describe the specific equipment operating parameters when questioned</p> <p>P31 Can describe the specific quality specifications for mechanical manufacturing operations</p>
Specialist job role option 3 - Electrical and Electronic engineering role: Additional Knowledge to be assessed			
Knows the correct uses cables for a wide range of tasks in-line with safe working practices and procedures.	<p>K12 Cable types and where they should be used</p> <p>K14 Specific safe working practices, isolation procedures and safe reinstating of equipment / system that need to be observed</p>	<p>Insufficient knowledge of electrical and electronic engineering operations</p> <p>Evidence including:</p> <ul style="list-style-type: none"> · Cannot describe the different cable types and where they have used them when questioned · Cannot describe the specific safe working practices, isolation procedures and safe reinstating of equipment / system that need to be observed 	<p>Demonstrates their understanding of electrical and electronic engineering operations</p> <p>Evidence including:</p> <p>P32 Can use of technical language and detail covering the key elements of the knowledge relating to the electrical and electronic engineering activities they have been involved in when questioned</p> <p>P33 Can describe the different cable types and where they have used them when questioned</p> <p>P34 Can describe the specific safe working practices, isolation procedures and safe reinstating of equipment / system that need to be observed</p>
Specialist job role option 4 - Fabrication role: Additional Knowledge to be assessed			

Higher Order Core Knowledge to be assessed	Lower Order Knowledge to be assessed	Fail Criteria	Pass Criteria To achieve a pass the apprentice must achieve all of the core skills pass criteria and all of the pass criteria for one of the specialist job role options as laid out below
Knows how to prepare appropriately for tasks in-line with safe working practices and procedures.	<p>K15 Specific marking out and preparation techniques</p> <p>K17 Specific safe working practices, isolation procedures and safe reinstating of equipment / system that need to be observed</p>	<p>Insufficient knowledge of fabrication operations</p> <p>Evidence including:</p> <ul style="list-style-type: none"> · Cannot describe the marking out and preparation techniques when questioned · Cannot describe the specific safe working practices, isolation procedures and safe reinstating of equipment / system that need to be observed 	<p>Demonstrates their understanding of fabrication operations</p> <p>Evidence including:</p> <p>P35 Can use of technical language and detail covering the key elements of the knowledge relating to the fabrication activities they have been involved in when questioned</p> <p>P36 Can describe the marking out and preparation techniques and where they have used them when questioned</p> <p>P37 Can describe the specific safe working practices, isolation procedures and safe reinstating of equipment / system that need to be observed</p>
Specialist job role option 5 - Materials, processing, finishing role: Additional Knowledge to be assessed			
Knows the uses of a range of equipment and the associated quality outputs of that equipment.	<p>K18 Specific machinery, equipment and tooling required for the materials, processing, finishing operation</p> <p>K20 Specific quality specifications for materials, processing, finishing operations</p>	<p>Insufficient knowledge of materials, processing, finishing operations</p> <p>Evidence including:</p> <ul style="list-style-type: none"> · Cannot describe the machinery, equipment and tooling required for the materials, processing, finishing operation when questioned · Cannot describe the specific quality specifications for materials, processing, finishing operations 	<p>Demonstrates their understanding of materials, processing, finishing operations</p> <p>Evidence including:</p> <p>P38 Can use of technical language and detail covering the key elements of the knowledge relating to the materials, processing, finishing activities they have been involved in when questioned</p> <p>P39 Can describe the machinery, equipment and tooling required for the materials, processing, finishing operation and where they have used them when questioned</p> <p>P40 Can describe the specific quality specifications for materials, processing, finishing operations</p>
Specialist job role option 6 - Technical support role: Additional Knowledge to be assessed			
Knows the uses of a range of manufacturing equipment, the quality requirements of their	<p>K21 Specific machinery, equipment and tooling required for the technical support operation</p>	<p>Insufficient knowledge technical support operations</p> <p>Evidence including:</p> <ul style="list-style-type: none"> · Cannot describe the machinery, equipment and tooling required for the technical support operation when questioned 	<p>Demonstrates their understanding of technical support operations</p> <p>Evidence including:</p> <p>P41 Can use of technical language and detail covering the key elements of the knowledge</p>

Higher Order Core Knowledge to be assessed	Lower Order Knowledge to be assessed	Fail Criteria	Pass Criteria
tasks and the safe working practices.	K23 Specific safe working practices, procedures and quality requirements that need to be observed	<ul style="list-style-type: none"> Cannot describe the specific safe working practices, procedures and quality requirements that need to be observed 	To achieve a pass the apprentice must achieve all of the core skills pass criteria and all of the pass criteria for one of the specialist job role options as laid out below relating to the technical support activities they have been involved in when questioned P42 Can describe the machinery, equipment and tooling required for the technical support operation and where they have used them when questioned P43 Can describe the specific safe working practices, procedures and quality requirements that need to be observed

Core Behaviour to be assessed	Fail Criteria	Pass Criteria
B1 Personal responsibility and resilience Comply with the health and safety guidance and procedures, be disciplined, and have a responsible approach to risk, work diligently regardless of how much they are being supervised, accept responsibility for managing time and workload and stay motivated and committed when facing challenges.	Cannot demonstrate safe working practices	To achieve a pass the apprentice must achieve all of the core skills pass criteria and all of the pass criteria for one of the specialist job role options as laid out below Demonstrates they comply with H&S guidance & procedures Evidence including: P44 Always demonstrates understanding & importance of H&S requirements P45 Dynamically assesses / controls risk in current environment

The Independent Assessor will make the assessment decision, following discussion with the technical expert. The grading criteria are:

FAIL: Does not demonstrate one or more of the criteria required for a pass.

Level 2 Engineering Operative Guide to End-Point Assessment

PASS: Apprentice must meet all the pass criteria.

Professional Discussion assessment criteria

Higher order Core Skill to be Assessed	Lower Order Core Skill to be Assessed	Fails	Pass Criteria To achieve a pass the apprentice must achieve all of the core skills pass criteria and all of the pass criteria for one of the specialist job role options as laid out below	Distinction Criteria To achieve a distinction the apprentices must be able to achieve all of the pass criteria and at least 2 of the 3 core skills distinction criteria as laid out below and the distinction criteria for the specialist job role they are working towards
Works safely at all times ensuring that all appropriate legislation, regulation, and environmental compliance requirements have been adhered to in-line with company policies, procedures, and practice.	<p>S1 Work safely at all times, complying with health and safety legislation, regulations, environmental compliance procedures and systems and other relevant guidelines</p> <p>S2 Identify and deal appropriately with any risks, hazards, hazardous situations, and problems that may occur within the engineering environment within the limits of their responsibility</p> <p>S6 Select and use appropriate tools, equipment, and materials to carry out</p>	<p>Insufficient evidence of demonstrating they have the ability to work safely in an engineering environment and could potentially put self, colleagues, the environment, or public at risk by their actions.</p> <p>Evidence including:</p> <ul style="list-style-type: none"> · Failure to identify and deal appropriately with any risks, hazards, hazardous situations, and problems · Failure to use relevant PPE · Failure to identify and select the appropriate tools, equipment, and materials · Fails to identify problems within the engineering environment 	<p>Demonstrates their ability to work safely in an engineering environment to approved procedures.</p> <p>Evidence including:</p> <p>P1 Can identify, assesses / and controls risk within work environment</p> <p>P2 Can use effective communication using a range of techniques</p> <p>P3 Can complete documentation accurately, efficiently, and legibly using the correct terminology</p> <p>P4 Can select and use appropriate tools, equipment, and materials to carry out the engineering operations</p> <p>P5 Can deal with problems that occur within the engineering environment</p> <p>P6 Can plan and Prepare prior to starting engineering activity</p> <p>P7 Can work efficiently and effectively while adhering to appropriate job instructions.</p>	<p>Demonstrates they have the ability to take on additional safety responsibilities, over and above the expectation of an engineering environment.</p> <p>Evidence including:</p> <p>D1 Challenges other people on H&S compliance, where appropriate</p> <p>D2 Can dynamically assesses / controls risk at all times regardless of environment</p> <p>D3 Can suggest ideas for improvement along with possible solutions</p>

Higher order Core Skill to be Assessed	Lower Order Core Skill to be Assessed	Fails	Pass Criteria To achieve a pass the apprentice must achieve all of the core skills pass criteria and all of the pass criteria for one of the specialist job role options as laid out below	Distinction Criteria To achieve a distinction the apprentices must be able to achieve all of the pass criteria and at least 2 of the 3 core skills distinction criteria as laid out below and the distinction criteria for the specialist job role they are working towards
	the engineering operation S7 Deal appropriately with any problems that may occur within the manufacturing environment within the limits of their responsibility			

Higher order Core Skill to be Assessed	Lower Order Core Skill to be Assessed	Fails	Pass Criteria	Distinction Criteria
<p>Communicates effectively using a wide range of methods</p>	<p>S3 Demonstrate effective communication skills which include oral, written, electronic</p> <p>S4 Complete appropriate documentation accurately, efficiently, and legibly using the correct terminology where required</p>	<p>Insufficient evidence of demonstrating they have the ability to work safely in an engineering environment and could potentially put self, colleagues, the environment, or public at risk by their actions.</p> <p>Evidence including:</p> <ul style="list-style-type: none"> · Does not use effective communication using a range of techniques · Does not complete documentation accurately, efficiently 	<p>To achieve a pass the apprentice must achieve all of the core skills pass criteria and all of the pass criteria for one of the specialist job role options as laid out below</p> <p>Demonstrates their ability to work safely in an engineering environment to approved procedures.</p> <p>Evidence including:</p> <p>P8 Can use effective communication using a range of techniques</p> <p>P9 Can complete documentation accurately, efficiently, and legibly using the correct terminology</p>	<p>To achieve a distinction the apprentices must be able to achieve all of the pass criteria and at least 2 of the 3 core skills distinction criteria as laid out below and the distinction criteria for the specialist job role they are working towards</p>

Specialist job role option 1 - Maintenance role: Additional Skills to be assessed				
<p>Carries out fault-finding and maintenance activities including corrective action in-line with company processes, procedures, and practice.</p>	<p>S9 Carry out fault location on appropriate equipment using suitable maintenance diagnostic techniques</p> <p>S10 Carry out maintenance activities in line with work instructions</p> <p>S11 Carry out tests on the maintained equipment in accordance with test schedule / defined test procedures</p> <p>S12 Follow appropriate completion activities and restore equipment to service by replacing or repairing components</p>	<p>Insufficient evidence of demonstrating they can follow relevant work instructions and applying correct procedures.</p> <p>Evidence including:</p> <ul style="list-style-type: none"> · Failure to carry out fault location and does not use suitable diagnostic techniques · Failure to carry out sufficient tests on the maintained equipment · Failure to follow completion activities and fails to restore equipment to a serviceable condition 	<p>Demonstrates their ability carry out maintenance activities in line with work instructions.</p> <p>Evidence including:</p> <p>P10 Provides evidence of having followed the correct work instructions as part of their work commitments and shows an understanding of any operating rules in place within the instruction</p> <p>P11 Carries out fault location using suitable diagnostic techniques</p> <p>P12 Carries out sufficient tests on the maintained equipment</p> <p>P13 Carries out correct completion activities and restores equipment to a serviceable condition</p>	<p>D4 Demonstrates that they can consistently carryout fault finding and maintenance efficiently and can overcome problems.</p>
Specialist job role option 2 - Mechanical Manufacturing engineering role: Additional Skills to be assessed				

<p>Produces parts to the required specification.</p>	<p>S13 Plan the mechanical manufacturing operation before they start S14 Mount and set the required work holding devices S15 Produce individual components, sub-assemblies or completed assemblies using mechanical manufacturing techniques S16 Carry out quality checks during and after mechanical manufacturing operations</p>	<p>Insufficient evidence of demonstrating they can produce components sub-assemblies or completed assemblies to the required specification. Evidence including: · Failure to plan mechanical manufacturing operation before they start · Failure to mount and set the required work holding devices · Failure to carry out quality checks during and after mechanical manufacturing operation</p>	<p>Demonstrates their ability to produce components subassemblies or completed assemblies to the required specification. Evidence including: P14 Provides evidence of having used appropriate mechanical manufacturing techniques to produce individual components, sub-assemblies or completed assemblies, showing an understanding of the techniques used P15 Mounts and sets the required work holding devices P16 Can plan mechanical manufacturing operation before they start P17 Carries out appropriate quality checks during and after mechanical manufacturing operation to confirm components sub-assemblies or completed assemblies meet the required specification</p>	<p>D5 Demonstrates that they can consistently produce high quality parts efficiently and can overcome problems.</p>
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Specialist job role option 3 - Electrical and Electronic engineering role: Additional Skills to be assessed				
<p>Assemble and test a range of electrical and electronic equipment.</p>	<p>S17 Wire and terminate different types of cabling e.g., single core, multi core, screened, fire resistant, armoured, etc.</p> <p>S18 Assemble and test a range of electrical components e.g., component panels, isolator switches, fuses, circuit breakers, contactors, relays, rail mounted terminal blocks, etc.</p> <p>S19 Assemble and test a range of electronic components e.g., resistors, capacitors, diodes, transistors, etc.</p> <p>S20 Follow appropriate completion activities and restore equipment / system to service after the assembly and testing has been completed</p>	<p>Insufficient evidence of demonstrating they can assemble and test a range of electrical and electronic components.</p> <p>Evidence including:</p> <ul style="list-style-type: none"> · Failure to wire and terminate cables in line with work instructions · Failure to follow completion activities and fails to restore equipment to a serviceable condition · Failure to carry out quality checks during and after the assembly of components 	<p>Demonstrates their ability to assemble and test a range of electrical and electronic components.</p> <p>Evidence including:</p> <p>P18 Provides evidence of having used appropriate assembly and testing, showing an understanding of the techniques used</p> <p>P19 Can wire and terminate different types of cabling</p> <p>P20 Can follow completion activities and restores equipment to a serviceable condition</p> <p>P21 Carries out appropriate quality checks during and after the assembly and testing operation to confirm required specification requirements are met</p>	<p>D6 Demonstrates that they can consistently assemble and test electrical and electronic equipment efficiently and can overcome problems.</p>

Specialist job role option 4 - Fabrication role: Additional Skills to be assessed				
<p>Produces parts to the required specification.</p>	<p>S21 Shape the materials using the appropriate methods and techniques</p> <p>S22 Join the materials using the appropriate methods and techniques</p> <p>S23 Produce components which meet the specification requirements</p> <p>S24 Carry out quality checks during and after the fabrication activities</p>	<p>Insufficient evidence of demonstrating they can produce components which meet the specification requirements</p> <p>Evidence including:</p> <ul style="list-style-type: none"> · Failure to shape the materials in line with work instructions and required specification · Failure to join the materials in line with work instructions and required specification · Failure to carry out quality checks during and after the fabrication activity 	<p>Demonstrates their ability to produce components which meet the specification requirements.</p> <p>Evidence including:</p> <p>P22 Provides evidence of having used appropriate work instructions to produce components as part of their work commitments and shows an understanding of any operating rules in place within the instruction</p> <p>P23 Can shape the materials using the appropriate methods and techniques</p> <p>P24 Can join the materials using the appropriate methods and techniques</p> <p>P25 Carries out appropriate quality checks during and after the fabrication operation to confirm required specification requirements are met</p>	<p>D7 Demonstrates that they can consistently produce high quality parts efficiently and can overcome problems.</p>

Specialist job role option 5 - Materials, processing, finishing role: Additional Skills to be assessed				
<p>Prepare for and carryout material processing finishing operations to the required specification efficiently.</p>	<p>S25 Plan the materials, processing, finishing operation before they start S27 Carry out the material, processing, finishing operation in line with specific safe working practices and specification requirements S26 Prepare equipment, tooling, materials, etc. and complete set up activities before carrying out the materials, processing, finishing operation S28 Carry out quality checks during and after the materials, processing, finishing operation</p>	<p>Insufficient evidence of demonstrating they can carry out material, processing, finishing operations in line with specification requirements. Evidence including: · Failure to plan materials, processing, finishing operation before they start · Failure to prepare equipment, tooling, materials, and complete appropriate set up activities · Failure to carry out quality checks during and after materials, processing, finishing operation</p>	<p>Demonstrates their ability to carry out material, processing, finishing operations which meet the specification requirements. Evidence including: P26 Provides evidence of having used appropriate work instructions to carry out material, processing, finishing operation as part of their work commitments and shows an understanding of any operating rules in place within the instruction P27 Can plan material, processing, finishing operation before they start P28 Can prepare equipment, tooling, materials, and complete appropriate set up activities P29 Carries out appropriate quality checks during and after the material, processing, finishing operation to confirm required specification requirements are met</p>	<p>D8 Demonstrates that they can consistently carryout material processing finishing operations efficiently and can overcome problems.</p>

Specialist job role option 6 - Technical support role: Additional Skills to be assessed				
<p>Prepare and carryout the technical support activities in line with company procedures, processes, and practices</p>	<p>S29 Plan the technical support operation before they start</p> <p>S30 Prepare equipment, tooling, materials, etc. and complete set up activities before carrying out the technical support activity</p> <p>S31 Carry out the technical support operation in line with specific safe working practices and specification requirements</p> <p>S32 Carry out quality checks during and after the technical support operation</p>	<p>Insufficient evidence of demonstrating they can carry out technical support operations in line with specification requirements. Evidence including: · Failure to plan technical support operation before they start · Failure to prepare equipment, tooling, materials, and complete appropriate set up activities · Failure to carry out quality checks during and after technical support operation</p>	<p>Demonstrates their ability to carry out material, processing, finishing operations which meet the specification requirements. Evidence including: P30 Provides evidence of having used appropriate work instructions to carry out technical support operation as part of their work commitments and shows an understanding of any operating rules in place within the instruction P31 Can plan technical support operation before they start P32 Can prepare equipment, tooling, materials, and complete appropriate set up activities P33 Carries out appropriate quality checks during and after the technical support operation to confirm required specification requirements are met</p>	<p>D9 Demonstrates that they can consistently carryout technical support activities efficiently and can overcome problems.</p>

Higher Order Core Knowledge to be assessed	Lower Order Core Knowledge to be assessed	Fails	Pass Criteria To achieve a pass the apprentice must achieve all of the core knowledge pass criteria and all of the pass criteria for one of the specialist job role options as laid out below	Distinction Criteria To achieve a distinction the apprentices must be able to achieve all of the pass criteria and the distinction criteria for the specialist job role they are working towards
Knows how to complete tasks, solve problems, and implement preventive measures in-line with appropriate legislation, regulation and environmental compliance and company policies, procedures, and practices.	K2 Relevant statutory, quality, environmental compliance procedures / systems, organisational and health and safety regulations relating to engineering operations	Insufficient knowledge of the statutory, quality, environmental compliance procedures, systems, organisational and health and safety regulations Evidence including: · Cannot outline the specific statutory, quality, environmental compliance procedures / systems, organisational and health and safety regulations	Demonstrates their understanding of statutory, quality, environmental compliance procedures, systems, organisational and health and safety regulations Evidence including: P34 Able to outline the specific statutory, quality, environmental compliance procedures / systems, organisational and health and safety regulations relevant to their work activities	N / A
	K4 Engineering operational practices, processes, and procedures	Insufficient knowledge of improvement techniques Evidence including: · Cannot outline the operational practices, processes, and procedures	Demonstrates their understanding of improvement techniques Evidence including: P35 Able to outline the specific operational practices, processes, and procedures relevant to their work activities	N / A

Maintenance role: Additional Knowledge to be assessed				
Knows how to carryout maintenance activities and a range of fault-finding techniques	K6 Maintenance planning K7 Diagnostic and fault-finding techniques	Insufficient knowledge of maintenance operations Evidence including: · Cannot describe the maintenance planning operation in sufficient detail · Cannot describe the diagnostic and fault-finding techniques they have used	Demonstrates their understanding of a maintenance operations Evidence including: P36 Use of technical language and detail covering the key elements of the knowledge relating to the maintenance activities they have been involved in P37 Can describe the planning carried out prior to the start of the maintenance operation P38 Can describe the diagnostic and fault-finding techniques they used and the reason for using them	D10 Use of technical language and detail to give an in-depth* explanation the key elements of the knowledge relating to the to the maintenance activities they have been involved in In-depth* = explanation includes detail of key aspects of the work they have carried out and can answer questions using relevant detail e.g., processes, equipment, materials used and the reason behind their use
Mechanical Manufacturing role: Additional Knowledge to be assessed				
Knows how to carryout manufacturing activities using a range of techniques and equipment	K9 Specific equipment operating parameters K10 Mechanical manufacturing techniques	Insufficient knowledge of mechanical manufacturing operations Evidence including: · Cannot describe the equipment operating parameters · Cannot describe the mechanical manufacturing techniques they have used	Demonstrates their understanding of a mechanical manufacturing operations Evidence including: P39 Use of technical language and detail covering the key elements of the knowledge relating to the mechanical manufacturing activities they have been involved in P40 Can describe the specific equipment operating parameters P41 Can describe the mechanical manufacturing techniques they have used	D11 Use of technical language and detail to give an in-depth* explanation the key elements of the knowledge relating to the to the mechanical manufacturing activities they have been involved in In-depth* = explanation includes detail of key aspects of the work they have carried out and can answer questions using relevant detail e.g., processes, equipment,

				materials used and the reason behind their use
Electrical and electronic engineering role: Additional Knowledge to be assessed				
Knows the uses for different cable types for a range of tasks and the techniques used	<p>K12 Cable types and where they should be used</p> <p>K13 Electrical and electronic assembly and testing techniques</p>	<p>Insufficient knowledge of electrical and electronic engineering operations</p> <p>Evidence including:</p> <ul style="list-style-type: none"> · Cannot describe the different cable types and where they have used them · Cannot describe the electrical and electronic assembly and testing techniques they have used 	<p>Demonstrates their understanding of electrical and electronic engineering operations</p> <p>Evidence including:</p> <p>P42 Use of technical language and detail covering the key elements of the knowledge relating to the electrical and electronic engineering activities they have been involved in</p> <p>P43 Can describe the different cable types and where they have used them</p> <p>P44 Can describe the electrical and electronic assembly and testing techniques they have used</p>	<p>D12 Use of technical language and detail to give an in-depth* explanation the key elements of the knowledge relating to the to the electrical and electronic engineering activities they have been involved in</p> <p>In-depth* = explanation includes detail of key aspects of the work they have carried out and can answer questions using relevant detail e.g., processes, equipment, materials used and the reason behind their use</p>
Fabrication role: Additional Knowledge to be assessed				
Knows how to prepare appropriately for tasks in-line with safe working practices and procedures.	<p>K15 Specific marking out and preparation techniques K16</p> <p>Different fabrication and joining techniques</p>	<p>Insufficient knowledge of fabrication operations</p> <p>Evidence including:</p> <ul style="list-style-type: none"> · Cannot describe the marking out and preparation techniques · Cannot describe the different fabrication and joining techniques they have used 	<p>Demonstrates their understanding of fabrication operations</p> <p>Evidence including:</p> <p>P45 Use of technical language and detail covering the key elements of the knowledge relating to the fabrication activities they have been involved in</p>	<p>D13 Use of technical language and detail to give an in-depth* explanation the key elements of the knowledge relating to the to the fabrication activities they have been involved in</p> <p>In-depth* = explanation includes detail of key</p>

			<p>P46 Can describe the marking out and preparation techniques and where they have used them</p> <p>P47 Can describe the different fabrication and joining techniques they have used</p>	<p>aspects of the work they have carried out and can answer questions using relevant detail e.g., processes, equipment, materials used and the reason behind their use</p>
Materials, processing, finishing role: Additional Knowledge to be assessed				
<p>Knows the uses of a range of equipment and the associated quality outputs of that equipment.</p>	<p>K18 Specific machinery, equipment and tooling required for the materials, processing, finishing operation</p> <p>K19 Different materials, processing, finishing techniques</p>	<p>Insufficient knowledge of materials, processing, finishing operations</p> <p>Evidence including:</p> <ul style="list-style-type: none"> · Cannot describe the machinery, equipment and tooling required for the materials, processing, finishing operation · Cannot describe the different materials, processing, finishing techniques 	<p>Demonstrates their understanding of materials, processing, finishing operations</p> <p>Evidence including:</p> <p>P48 Use of technical language and detail covering the key elements of the knowledge relating to the materials, processing, finishing activities they have been involved in</p> <p>P49 Can describe the machinery, equipment and tooling required for the materials, processing, finishing operation and where they have used them</p> <p>P50 Can describe the different materials, processing, finishing techniques</p>	<p>D14 Use of technical language and detail to give an in-depth* explanation the key elements of the knowledge relating to the to the materials, processing, finishing activities they have been involved in</p> <p>In-depth* = explanation includes detail of key aspects of the work they have carried out and can answer questions using relevant detail e.g., processes, equipment, materials used and the reason behind their use</p>
Technical support role: Additional Knowledge to be assessed				
<p>Knows the uses of a range of equipment, the quality requirements of their tasks and</p>	<p>K21 Specific machinery, equipment and tooling required for the technical support operation</p>	<p>Insufficient knowledge technical support operations</p> <p>Evidence including:</p> <ul style="list-style-type: none"> · Cannot describe the machinery, equipment and 	<p>Demonstrates their understanding of technical support operations</p> <p>Evidence including:</p> <p>P51 Use of technical language and detail covering the key</p>	<p>D15 Use of technical language and detail to give an in-depth* explanation the key elements of the knowledge relating to the to the technical support</p>

<p>the safe working practices.</p>	<p>K22 Different technical support techniques</p>	<p>tooling required for the technical support operation · Cannot describe the different technical support techniques</p>	<p>elements of the knowledge relating to the technical support activities they have been involved in P52 Can describe the machinery, equipment and tooling required for the technical support operation and where they have used them P53 Can describe the different technical support techniques</p>	<p>activities they have been involved in In-depth* = explanation includes detail of key aspects of the work they have carried out and can answer questions using relevant detail e.g., processes, equipment, materials used and the reason behind their use</p>
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<p>Core Behaviours to be assessed</p>	<p>Fail Apprentice fails to demonstrate an acceptable level of behaviour.</p>	<p>Pass Criteria Apprentice demonstrated an acceptable level of behaviour and meets the minimum level of behaviour expected. To achieve a pass the apprentice must achieve all of the behaviours pass criteria as laid out below</p>	<p>Distinction Criteria Apprentice demonstrated consistent and positive behaviours. To achieve a distinction the apprentices must be able to achieve all of the pass criteria and all of the distinction as laid out below</p>
<p>B1 Personal responsibility and resilience Comply with the health and safety guidance and procedures, be disciplined, and have a responsible approach to risk, work</p>	<p>Does not comply with health and safety guidance and procedures</p>	<p>Demonstrate they comply with H&S guidance & procedures Evidence including: P54 Always demonstrates understanding & importance of H&S requirements P55 Assesses / controls risk in current environment P56 Can be trusted to work on own when appropriate, knowing who & where to seek help from if needed P57 Can manage own time & workload P58 Stays motivated & committed, when facing small challenges</p>	<p>D16 Can challenge others on H&S compliance D17 Can proactively assesses / controls risk without the need to be prompted D18 Sets an example to others by always working hard even when on own D19 Can reflect on how to do things more effectively</p>

<p>Core Behaviours to be assessed</p>	<p>Fail Apprentice fails to demonstrate an acceptable level of behaviour.</p>	<p>Pass Criteria Apprentice demonstrated an acceptable level of behaviour and meets the minimum level of behaviour expected. To achieve a pass the apprentice must achieve all of the behaviours pass criteria as laid out below</p>	<p>Distinction Criteria Apprentice demonstrated consistent and positive behaviours. To achieve a distinction the apprentices must be able to achieve all of the pass criteria and all of the distinction as laid out below</p>
<p>diligently regardless of how much they are being supervised, accept responsibility for managing time and workload and stay motivated and committed when facing challenges.</p>			
<p>B2 Work effectively in teams Integrate with the team, support other people, consider implications of their own actions on other people and the business whilst working effectively to get</p>	<p>Does not work well within a team</p>	<p>Demonstrate they can work well within a team Evidence including: P59 Makes effort to integrate within a team P60 Will help and support when asked P61 Considers impact of own actions on other people or activities P62 Contributes positively to team deliverables</p>	<p>D20 Proactively & regularly supports others D21 Seeks support & advice and will share learning D22 Provides encouragement as appropriate to keep the team on track</p>

<p>Core Behaviours to be assessed</p>	<p>Fail Apprentice fails to demonstrate an acceptable level of behaviour.</p>	<p>Pass Criteria Apprentice demonstrated an acceptable level of behaviour and meets the minimum level of behaviour expected. To achieve a pass the apprentice must achieve all of the behaviours pass criteria as laid out below</p>	<p>Distinction Criteria Apprentice demonstrated consistent and positive behaviours. To achieve a distinction the apprentices must be able to achieve all of the pass criteria and all of the distinction as laid out below</p>
<p>the task completed.</p>			
<p>B3 Effective communication and interpersonal skills An open and honest communicator; communicates clearly using appropriate methods, listen well to others and have a positive and respectful attitude.</p>	<p>Does not communicate in an efficient and effective way</p>	<p>Demonstrate they can communicate in an efficient and effective way Evidence including: P63 Can communicate open and honestly P64 Communicates clearly using appropriate methods P65 Pays attention & asks relevant questions to clarify understanding P66 Has a positive and respectful attitude</p>	<p>D23 Proactively shares information, openly & honestly D24 Checks understanding of others by asking open questions</p>

<p>Core Behaviours to be assessed</p>	<p>Fail Apprentice fails to demonstrate an acceptable level of behaviour.</p>	<p>Pass Criteria Apprentice demonstrated an acceptable level of behaviour and meets the minimum level of behaviour expected. To achieve a pass the apprentice must achieve all of the behaviours pass criteria as laid out below</p>	<p>Distinction Criteria Apprentice demonstrated consistent and positive behaviours. To achieve a distinction the apprentices must be able to achieve all of the pass criteria and all of the distinction as laid out below</p>
<p>B4 Focus on quality and problem solving Follow instructions and guidance, demonstrate attention to detail, follow a logical approach to problem solving and seek opportunities to improve quality, speed, and efficiency</p>	<p>Does not follow instructions and guidance Does not follow a logical approach to problem solving</p>	<p>Demonstrate they can follow instructions and guidance and can follow a logical approach to problem solving Evidence including: P67 Understands & can follow instructions / processes P68 Demonstrates attention to detail P69 Follows a logical / right approach to problem solving P70 Identifies opportunities to improve, but may need prompting for ideas</p>	<p>D25 Can make suggestions to improve instructions D26 Can escalate issues as appropriate D27 Applies the most appropriate technique for problem solving D28 Can reflect upon lessons learnt after problem solving activity</p>
<p>B5 Continuous personal development Reflect on skills, knowledge and behaviours and seek opportunities to develop, adapt to different</p>	<p>Does not take ownership of their personal development Does not seek opportunities to develop</p>	<p>Demonstrate they can take ownership of their personal development and will seek opportunities to develop Evidence including: P71 Can reflect on Knowledge and seeks opportunities to develop P72 Can reflect on skills and seeks opportunities to develop P73 Can reflect on behaviours and seeks opportunities to develop</p>	<p>D29 Recognises needs and continually seeks learning opportunities D30 Can transfer learning, applying it to different situations D31 Can adapts quickly and effectively to new Situations, Environments or Technologies</p>

Core Behaviours to be assessed	Fail Apprentice fails to demonstrate an acceptable level of behaviour.	Pass Criteria Apprentice demonstrated an acceptable level of behaviour and meets the minimum level of behaviour expected. To achieve a pass the apprentice must achieve all of the behaviours pass criteria as laid out below	Distinction Criteria Apprentice demonstrated consistent and positive behaviours. To achieve a distinction the apprentices must be able to achieve all of the pass criteria and all of the distinction as laid out below
situations, environments or technologies and have a positive attitude to feedback and advice.		P74 Can adapt to different Situations, Environments or Technologies P75 Has a positive attitude to feedback and advice	D32 Proactively seeks feedback & acts upon it

The Independent Assessor will make the assessment decision.

To achieve an overall pass for the apprenticeship, the apprentice must achieve a minimum of a pass in both the Practical Skills Observation and the Professional Discussion in all of:

- the higher order core skills grading descriptors
- the higher order core knowledge grading descriptors
- the core behaviours grading descriptors
- the higher order specialist skills grading descriptors for their job role
- the higher order specialist knowledge grading descriptors for their job role

To achieve an overall distinction for the apprenticeship, the apprentice must meet the criteria for a pass; plus, for the Professional Discussion, the apprentice must achieve a Distinction grade in:

- the higher order core skills grading descriptor (2 out of 3 Distinction criteria)

- the higher order specialist skills grading descriptor for their job role
- the higher order specialist knowledge grading descriptor for their job role
- all of the core behaviours grading descriptors

Further Information

For information about SIAS policies, quality assurance, re-sits, appeals, complaints and general enquiries please see our website: www.siasuk.com

or contact:

SIAS Assessment Services Officer – 01925515211 - info@siasuk.com

The logo for SIAS, consisting of the letters 'SIAS' in a bold, blue, sans-serif font.

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