

# End-point assessment plan for surface finisher apprenticeship standard

Apprenticeship standard reference number	Apprenticeship standard level	Integrated end-point assessment
ST0963	3	No

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### Introduction and overview

This document sets out the requirements for end-point assessment (EPA) for the surface finisher apprenticeship standard. It explains how EPA for this apprenticeship must operate.

It provides the EPA design requirements for end-point assessment organisations (EPAOs) for this apprenticeship standard. It will also be useful for apprentices undertaking this apprenticeship, their employers and training providers.

EPA must be conducted by an EPAO approved to deliver EPA for this apprenticeship standard. Each employer should select an approved EPAO from the Register of end-point assessment organisations (RoEPAO).

Surface finisher is a core and options apprenticeship standard. Apprentices must be trained and assessed against the core and one option:

- 1. Marine surface finisher
- 2. Aviation surface finisher
- 3. Automotive surface finisher

Full-time apprentices will typically spend 42 months on-programme (before the gateway) working towards this occupational standard. All apprentices must spend a minimum of 12 months on-programme. All apprentices must complete the required amount of off-the-job training specified by the apprenticeship funding rules.

Before starting the EPA, an apprentice must meet the gateway requirements. For this apprenticeship they are:

- the employer must be content that the apprentice is working at or above the occupational standard
- achieved English and maths qualifications in line with the apprenticeship funding rules
- apprentices must have compiled and submitted a portfolio of evidence to underpin the EPA structured interview

The EPAO must confirm that all required gateway evidence has been provided and accepted as meeting the gateway requirements. The EPAO is responsible for confirming gateway eligibility. Once this has been confirmed, the EPA period starts. This EPA should then be completed within an EPA period lasting typically for 3 months.

This EPA consists of 3 discrete assessment methods.

It will be possible to achieve the following grades in each end-point assessment method:

Assessment method 1: Structured interview underpinned by a portfolio of evidence

- fail
- pass
- distinction

### Assessment method 2: Multiple-choice test

- fail
- pass
- distinction

### Assessment method 3: Observation with questioning

- fail
- pass

Performance in these assessment methods will determine the overall apprenticeship standard grade of:

- fail
- pass
- distinction

### **EPA** summary table

On-programme (typically 42 months)	Training to develop the knowledge, skills and behaviours (KSBs) of the occupational standard.  The apprentice must complete training towards English and maths qualifications in line with the apprenticeship funding rules.  Compiling a portfolio of evidence.	
End-point assessment gateway	The employer must be content that the apprentice is working at or above the level of the occupational standard.  The apprentice must have achieved English and maths qualifications in line with the apprenticeship funding rules.  Apprentices must submit:  • a portfolio of evidence compiled during the onprogramme period of the apprenticeship, containing sufficient evidence to demonstrate the knowledge, skills and behaviours (KSBs) that will be assessed by the structured interview.	
End-point assessment (typically 3 months)	End-point assessment method 1: Structured interview underpinned by a portfolio of evidence  • fail  • pass • distinction  End-point assessment method 2: Multiple-choice test  • fail  • pass • distinction  End-point assessment method 3: Observation with questioning  • fail  • pass Overall EPA and apprenticeship can be graded:	

	<ul><li>fail</li><li>pass</li><li>distinction</li></ul>
Professional recognition	Institute for Marine Engineering Science and Technology (IMarEST) for Marine Technician (MarTech) associate member – Marine option only

### Length of end-point assessment period

The EPA will be completed within an EPA period lasting typically 3 months, starting when the EPAO has confirmed that all gateway requirements have been met.

Any supporting material which underpins an EPA assessment method must be submitted at the gateway.

### Order of end-point assessment methods

The assessment methods can be delivered in any order.

The result of one assessment method does not need to be known before starting the next.

### **EPA** gateway

The apprentice should only enter the gateway once the employer is content that the apprentice is working at or above the level of the occupational standard. In making this decision, the employer may take advice from the apprentice's training provider(s), but the decision must ultimately be made solely by the employer.

The EPAO determines when all other gateway requirements have been met, and the EPA period will only start once the EPAO has confirmed this.

In addition to the employer's confirmation that the apprentice is working at or above the level of the occupational standard, the apprentice must have completed the following gateway requirements prior to starting EPA:

- achieved English and maths qualifications in line with the apprenticeship funding rules for the structured interview
- the apprentice must have compiled and submitted a portfolio of evidence see requirements below

For the structured interview underpinned by a portfolio of evidence, the portfolio requirements are:

- apprentices must compile a portfolio of evidence during the on-programme period of the apprenticeship
- it must contain evidence related to the KSBs that will be assessed by the structured interview
- the portfolio of evidence will typically contain 15 discrete pieces of evidence
- evidence must be mapped against the KSBs assessed by the structured interview
- evidence may be used to demonstrate more than one KSB; a qualitative as opposed to quantitative approach is suggested
- evidence sources may include:

- workplace documentation, records, policies, or procedures. For example, specific records of the work undertaken by the apprentice including any relevant quality, compliance, fault, reports or documents used or produced as part of the normal work activity, training records and internal certificates
- evidence of the way the apprentice carried out the activities to meet the requirements of the standard, such as technical expert observation records
- witness statements
- annotated photographs
- video clips (maximum total duration 10 minutes); the apprentice must be in view and identifiable

This is not a definitive list; other evidence sources are possible.

- it should not include reflective accounts or any methods of self-assessment
- any employer contributions should focus on direct observation of performance (for example witness statements) rather than opinions
- the evidence provided must be valid and attributable to the apprentice; the portfolio of evidence must contain a statement from the employer and apprentice confirming this
- the portfolio of evidence must be submitted to the EPAO at the gateway

The portfolio of evidence is not directly assessed. It underpins the structured interview and, therefore, should not be marked by the EPAO. EPAOs should review the portfolio of evidence in preparation for the structured interview but are not required to provide feedback after this review of the portfolio.

The EPAO must ensure they have copies of the workplace policies and procedures required to carry out this assessment method.

For the multiple-choice test:

no specific requirements

For the observation with questioning:

• no specific requirements

### **End-point assessment methods**

The apprentice will be assessed against the KSBs assigned to the assessment methods outlined below, as shown in the mapping section of this EPA plan.

## End-point assessment method 1: Structured interview underpinned by a portfolio of evidence

#### **Overview**

This assessment method has one component. A structured interview consists of an independent assessor asking an apprentice a series of questions to assess their competence against the KSBs. The independent assessor leads this process to obtain information from the apprentice to enable a structured assessment decision-making process.

The rationale for this assessment method is:

- it allows the apprentice to be assessed against KSBs which may not naturally occur during the observation with questioning.
- it is underpinned by a portfolio of evidence, enabling the apprentice to demonstrate the application of skills and behaviours as well as knowledge.
- it allows for testing of responses where there are a number of potential answers that couldn't be tested through a multiple-choice test.
- it can be conducted remotely, potentially reducing cost.

### **Delivery**

The independent assessors will conduct and assess the structured interview underpinned by a portfolio of evidence.

The structured interview must last for 75 minutes. The independent assessor has the discretion to increase the time of the structured interview by up to 10% to allow the apprentice to complete their last answer.

The structured interview will have a minimum of 10 open questions. During this method, the independent assessor must combine questions from the EPAO's question bank and those generated by themselves.

The purpose of the questions will be to cover the following themes:

- communications
- quality and inspection
- surface finishing tasks
- servicing and maintenance
- the apprentice's chosen option, either:
  - o marine surface finishing; or
  - aviation surface finishing; or
  - automotive surface finishing

The structured interview, underpinned by a portfolio of evidence, will be conducted as follows.

EPAOs must make arrangements for the structured interview with the apprentice's employer.

Apprentices must be given at least 2 weeks' notice of the date and time of the structured interview.

Independent assessors must use the question bank as a source for questioning and are expected to use their professional judgment to tailor those questions appropriately, following a review of the portfolio of evidence. Independent assessors are responsible for generating suitable questions in line with the EPAO's training and standardisation process. Additional follow up questions are allowed, to seek clarification and to make a judgement against the grading descriptors.

The independent assessor should receive the portfolio of evidence from the EPAO a minimum of 5 working days prior to the structured interview.

Apprentices must have access to their portfolio of evidence during the structured interview. Apprentices can refer to and illustrate their answers with evidence from their portfolio of evidence, however the portfolio of evidence is not directly assessed.

Apprentices are expected to understand and use relevant occupational language that would be typical of a competent person in this occupation.

Evidence from the structured interview must be assessed using the grading criteria for this assessment method.

KSBs met and answers to questions, must be recorded by the independent assessor.

The independent assessor will make all grading decisions.

#### **Assessment location**

The structured interview underpinned by a portfolio of evidence should take place in a quiet room, free from distractions and influence.

The structured interview can take place in any of the following:

- employer's premises
- a suitable venue selected by the EPAO, for example a training provider's premises

Video conferencing can be used to conduct the structured interview, but the EPAO must have processes in place to verify the identity of the apprentice and ensure the apprentice is not being aided.

#### **Question and resource development**

EPAOs must write an assessment specification and question bank. The specification must be relevant to the occupation and demonstrate how to assess the KSBs shown in the mapping. It is recommended this is done in consultation with employers of this occupation. EPAOs should maintain the security and confidentiality of EPA materials when consulting employers. The questions must be unpredictable. A question bank of sufficient size will support this. The

assessment specification and questions must be reviewed at least once a year to ensure they remain fit-for-purpose.

EPAOs will develop purpose-built question banks and ensure that appropriate quality assurance procedures are in place, for example, considering standardisation, training and moderation. EPAOs will ensure that questions are refined and developed to a high standard.

EPAOs must ensure that apprentices have a different set of questions in the case of re-sits or re-takes.

EPAOs must produce the following materials to support the structured interview:

- independent assessor assessment materials which include:
  - o training materials
  - administration materials
  - moderation and standardisation materials
  - guidance materials
  - o grading guidance
  - question bank
- EPA guidance for the apprentice and employer

## Assessment method 2: Multiple-choice test (This assessment method has 1 component.)

A multiple-choice test is a controlled assessment which consists of a series of questions in which apprentices are asked to provide a response.

#### **Overview**

The rationale for this assessment method is:

- it allows for the efficient testing of knowledge and skills where there is a right or wrong answer
- it does not require independent assessor time, reducing cost
- it allows for flexibility in terms of when, where and how it is taken
- it allows for larger volumes of apprentices to be assessed at one time

#### **Delivery**

#### **Test format**

The test can be:

- computer based
- paper based

It will consist of 25 multiple-choice questions.

These questions will consist of:

- 20 closed response questions
- 5 scenario-based questions

#### **Test administration**

Apprentices must have 60 minutes to complete the test.

The test is closed book which means that the apprentice cannot refer to reference books or materials.

Apprentices must take the test in a suitably controlled environment that is a quiet space, free of distractions and influence, in the presence of an invigilator. The invigilator may be the independent assessor, or another external person employed by the EPAO or specialised (proctor) software, if the test can be taken on-line. The EPAO is required to have an invigilation policy that will set out how the test is to be carried out. This will include specifying the most appropriate ratio of apprentices to invigilators to best take into account the setting and security required in administering the test.

The EPAO is responsible for ensuring the security of testing they administer to ensure the test remains valid and reliable (this includes any arrangements made using online tools). The EPAO is responsible for verifying the validity of the identity of the person taking the test.

This assessment method will be carried out as follows:

This is a multiple-choice test. There will be 4 responses, one of which will be the only correct answer.

There will be 25 questions in total. There must be 5 scenario-based questions and 20 closed response questions in the test. To ensure consistency of assessment of the option knowledge statements, there must be 2 scenario-based questions and 3 closed response (multiple choice) questions that will cover option specific knowledge (5 questions in total assigned to the option chosen).

The EPAO must verify the suitability of the venue for taking the test.

#### **Marking**

Tests must be marked by an independent assessor or markers employed by the EPAO following a marking guide produced by the EPAO. Alternatively, marking by computer is permissible where question types allow this, to improve marking reliability.

Correct answers will be awarded one mark.

Any incorrect or missing answers must be assigned 0 marks.

#### **Question and resources development**

The EPAO must write a test specification and question bank. The specification must be relevant to the occupation and demonstrate how to assess the KSBs mapped to this assessment method. It is recommended this is done in consultation with employers of this occupation. The EPAO should maintain the security and confidentiality of EPA materials when consulting employers. The questions must be unpredictable. A question bank of sufficient size will support this. The test specification and questions must be reviewed at least once a year to ensure they remain fit-for-purpose.

The EPAO must develop purpose-built question banks and ensure that appropriate quality assurance procedures are in place, for example, considering previous item performance data, item analysis, standardisation, training and moderation. EPAOs must ensure that questions are refined and developed to a high standard.

The EPAO must ensure that apprentice has a different set of questions in the case of re-sits or re-takes.

The EPAO must produce the following materials to support the multiple-choice test:

- independent assessor assessment materials which include:
  - training materials
  - administration materials
  - moderation and standardisation materials
  - guidance materials
  - grading guidance
  - test specification
  - sample test and mark schemes
  - live tests and mark schemes
  - question bank
- EPA guidance for the apprentice and the employer

## **Assessment method 3: Observation with questioning** (This assessment method has 1 component.)

#### **Overview**

In the observation with questioning, an independent assessor observes the apprentice in their workplace and asks questions. The apprentice completes their day-to-day duties under normal working conditions. Simulation is not permitted. It gives the apprentice the opportunity to demonstrate the KSBs mapped to this assessment method.

The EPAO will arrange for the observation to take place, in consultation with the employer.

The rationale for this assessment method is:

- this is a practical role, best demonstrated through completing tasks in a real work setting
- observation makes use of employer resources and equipment, which will be familiar to the apprentice and thus allow them to perform at their best
- employers will have specific facilities that are too expensive to be replicated in a training venue
- questioning allows for the assessment of the breadth and depth of underpinning knowledge against the grading descriptors
- It is a holistic assessment method

### **Delivery**

The observation with questioning must be structured to give the apprentice the opportunity to demonstrate the KSBs mapped to this assessment method to the highest available grade. An independent assessor must conduct and assess the observation with questioning. The independent assessor must only observe one apprentice at a time to ensure quality and rigour. They must be as unobtrusive as possible.

The EPAO must give an apprentice 2 weeks' notice of the observation with questioning. The observation must take 4 hours.

The independent assessor can increase the time of the observation with questioning by up to 10%. This time is to allow the apprentice to complete a task or respond to a question if necessary.

The observation may be split into discrete sections held on the same working day. The length of a working day is typically considered to be 7.5 hours. Where breaks occur, they will not count towards the total assessment time.

The EPAO must manage invigilation of the apprentice during the assessment, to maintain security of the EPA, in line with their malpractice policy. This includes breaks and moving between locations during the working day.

The independent assessor must explain to the apprentice the format and timescales of the observation with questioning before it starts. This does not count towards the assessment time.

The independent assessor should observe the following during the observation:

- Selecting and using appropriate resources correctly, including tools
- Working safely and complying with legislation and regulations
- Following approved industry and manufacturer's guidance
- Completing relevant preparation techniques
- Conducting required tests and checks
- Completing required documentation
- Correctly disposing of waste
- Restoring the work area to a safe and tidy condition

- Using spray facilities to apply coats to substrates
- Adhering to SRM painting instructions (aviation option only)

These activities provide the apprentice with the opportunity to demonstrate the KSBs mapped to this assessment method.

The independent assessor must ask questions. Questioning can occur during the observation. The time for questions asked during the observation is included in the overall assessment time. The independent assessor must ask at least 5 questions during the observation. To remain as unobtrusive as possible, the independent assessor should ask questions during natural stops between tasks rather than disrupting the apprentice's flow. Follow-up questions are allowed where clarification is required. The independent assessor must use the questions from the EPAO's question bank or create their own questions in-line with the EPAO's training.

The independent assessor must ask questions about KSBs that were not observed to gather assessment evidence. These questions are in addition to the set number of questions for the observation with questioning and should be kept to a minimum.

The independent assessor must make the grading decision. The observation and responses to questions must be assessed holistically by the independent assessor when they are deciding the grade.

The independent assessor must keep accurate records of the assessment. They must record:

- the KSBs observed
- the apprentice's answers to questions
- the KSBs demonstrated in answers to questions
- the grade achieved

#### **Assessment location**

The observation with questioning must take place in the apprentice's normal place of work (for example their employer's premises or a customer's premises). Equipment and resources needed for the observation must be provided by the employer and be in good and safe working condition.

#### **Question and resource development**

The EPAO must develop a purpose-built assessment specification and question bank. It is recommended this is done in consultation with employers of this occupation. The EPAO should maintain the security and confidentiality of EPA materials when consulting employers. The assessment specification and question bank must be reviewed at least once a year to ensure they remain fit-for-purpose.

The assessment specification must be relevant to the occupation and demonstrate how to assess the KSBs mapped to this assessment method. The EPAO must ensure that questions

are refined and developed to a high standard. The questions must be unpredictable. A question bank of sufficient size will support this.

The EPAO must produce the following materials to support the observation:

- independent assessor assessment materials which include:
  - training materials
  - o administration materials
  - moderation and standardisation materials
  - guidance materials
  - grading guidance
  - question bank
- EPA guidance for the apprentice and the employer

The EPAO must ensure that the EPA materials are subject to quality assurance procedures including standardisation, training, and moderation.

### Reasonable adjustments

The EPAO must have in place clear and fair arrangements for making reasonable adjustments to the assessment methods for the EPA for this apprenticeship standard. This should include how an apprentice qualifies for reasonable adjustment and what reasonable adjustments will be made. The adjustments must maintain the validity, reliability and integrity of the assessment methods outlined in this EPA plan.

### **Overall EPA Grading**

All assessment methods are weighted equally in their contribution to the overall EPA grade.

Performance in the EPA will determine the apprenticeship grade of fail, pass or distinction.

Independent assessors must individually grade the structured interview and observation with questioning, according to the requirements set out in this plan.

EPAOs must combine the individual assessment method grades to determine the overall EPA grade.

### **Grading**

For assessment methods 1 and 3, see mapping and grading tables later on within this document.

### **Assessment method 2: Multiple-choice test**

KSBs	Fail	Pass	Distinction
Core: K3, K4, K5, K7, K8, K11	Answers 0 to 17 questions correctly	Answers 18 to 21 questions correctly	Answers 22 to 25 questions correctly
Marine: K22, K23, K24, K25			
Aviation: K33, K34			
Automotive: K40, K46			

In addition to the grade boundaries above, out of the correct marks awarded, apprentices must achieve 4 correct answers out of the 5 questions within their option in order to pass the MCT.

Apprentices must gain a pass in all three assessment methods, or a pass in two methods and a distinction in the other method, in order to achieve an overall pass. Apprentices must pass all assessments methods and gain a distinction in the structured interview underpinned by a portfolio of evidence and the multiple-choice test in order to gain an overall distinction.

Apprentices who fail one or more assessment methods will be awarded an overall EPA fail.

Grades from individual assessment methods should be combined in the following way to determine the grade of the EPA as a whole:

Structured interview Assessment method 1	Multiple-choice test Assessment method 2	Observation with questioning Assessment method 3	Overall grading
Fail	Any grade	Any grade	Fail
Any grade	Fail	Any grade	Fail
Any grade	Any grade	Fail	Fail
Pass	Pass	Pass	Pass
Distinction	Pass	Pass	Pass
Pass	Distinction	Pass	Pass
Distinction	Distinction	Pass	Distinction

Any grade = fail, pass, or distinction

### Re-sits and re-takes

Apprentices who fail one or more assessment methods will be offered the opportunity to take a re-sit or a re-take at the employer's discretion. The apprentice's employer will need to agree that either a re-sit or re-take is an appropriate course of action.

A re-sit does not require further learning, whereas a re-take does.

Apprentices should have a supportive action plan to prepare for a re-sit or a re-take.

The timescale for a re-sit or re-take is agreed between the employer and EPAO. A re-sit is typically taken within 2 months of the EPA outcome notification. The timescale for a re-take is dependent on how much re-training is required and is typically taken within 3 months of the EPA outcome notification.

All assessment methods must be taken within a 3 month period, otherwise the entire EPA will need to be re-sat or re-taken.

Re-sits and re-takes are not offered to apprentices wishing to move from pass to a higher grade.

Where any assessment method is to be re-sat or re-taken, the apprentice will be awarded a maximum EPA grade of pass, unless the EPAO determines there are exceptional circumstances requiring a re-sit or re-take.

### **Roles and responsibilities**

Role	Responsibility	
Apprentice	<ul> <li>As a minimum, apprentices should:</li> <li>participate in and complete on-programme training to meet the KSBs as outlined in the occupational standard for a minimum of 12 months</li> <li>complete the required amount of off-the-job training specified by the apprenticeship funding rules and as arranged by the employer and training provider</li> <li>understand the purpose and importance of EPA</li> <li>understand the EPA including meeting all gateway requirements</li> </ul>	
Employer	<ul> <li>As a minimum, employers should:</li> <li>select the EPAO and training provider</li> <li>work with the training provider (where applicable) to support the apprentice in the workplace and to provide the opportunities for the apprentice to develop the KSBs</li> <li>arrange and support off-the-job training to be undertaken by the apprentice</li> <li>decide when the apprentice is working at or above the occupational standard and so is ready for EPA</li> <li>ensure that all supporting evidence required at the gateway is submitted in accordance with this EPA plan</li> <li>remain independent from the delivery of the EPA</li> <li>confirm arrangements with the EPAO for the EPA (who, when, where) in a timely manner (including providing access to any employer-specific documentation as required, for example company policies)</li> <li>ensure that the EPA is scheduled with the EPAO for a date and time which allow appropriate opportunity for the KSBs to be met</li> <li>ensure the apprentice is well prepared for the EPA</li> <li>ensure the apprentice is given sufficient time away from regular duties to prepare for and complete all post-gateway elements of the EPA, and that any required supervision during this time (as stated within this EPA plan) is in place</li> </ul>	

•	where the apprentice is assessed in the workplace, ensure
	that the apprentice has access to the resources used on a
	daily basis

- determine if a resit or retake is appropriate, should the apprentice fail
- pass the certificate to the apprentice
- maintain the confidentiality of the observation

#### **EPAO**

### As a minimum, EPAOs should:

- conform to the requirements of this EPA plan and deliver its requirements in a timely manner
- conform to the requirements of the Register of End-Point Assessment Organisations (RoEPAO)
- conform to the requirements of the external quality assurance provider (EQAP) for this apprenticeship standard
- understand the occupational standard
- make all necessary contractual arrangements, including agreeing the price of the EPA
- develop and produce assessment materials including specifications and marking materials (for example mark schemes, practice materials, training material)
- appoint suitably qualified and competent independent assessors
- appoint administrators (and invigilators where required) to administer the EPA as appropriate
- provide training for independent assessors in terms of good assessment practice, operating the assessment tools and grading
- provide adequate information, advice and guidance documentation to enable apprentices, employers and training providers to prepare for the EPA
- arrange for the EPA to take place, in consultation with the employer
- where the apprentice is not assessed in the workplace, ensure that the apprentice has access to the required resources and liaise with the employer to agree this if necessary
- develop and provide appropriate assessment recording documentation to ensure a clear and auditable process is in place for providing assessment decisions and feedback to all relevant stakeholders

- have no direct connection with the apprentice, their employer or training provider. In all instances, including when the EPAO is the training provider (i.e. HEI), there must be no conflict of interest
- have policies and procedures for internal quality assurance (IQA), and maintain records of regular and robust IQA activity and moderation for external quality assurance (EQA) purposes
- deliver induction training for independent assessors, and for invigilators and/or markers (where used)
- undertake standardisation activity on this apprenticeship standard for all independent assessors before they
- conduct independent assessor training for an EPA for the first time, if the EPA is updated and periodically as appropriate (a minimum of annually)
- manage invigilation of apprentices in order to maintain security of the assessment in line with the EPAO's malpractice policy
- verify the identity of the apprentice being assessed
- use language in the development and delivery of the EPA that is appropriate to the level of the occupational standard
- provide details of the independent assessor's name and contact details to the employer
- have and apply appropriately an EPA appeals process
- request certification via the Apprenticeship Service upon successful achievement of the EPA

### Independent assessor

As a minimum, independent assessors should:

- have the competence to assess the apprentice at this level and hold any required qualifications and experience in line with the requirements of the independent assessor as detailed in the IQA section of this EPA plan
- understand the occupational standard and the requirements of this EPA
- have, maintain and be able to evidence up-to-date knowledge and expertise of the subject matter
- deliver the end-point assessment in-line with the EPA plan
- comply with the IQA requirements of the EPAO
- have no direct connection or conflict of interest with the apprentice, their employer or training provider; in all instances, including when the EPAO is the training provider (i.e. HEI)

	<ul> <li>attend induction training</li> <li>attend standardisation events when they begin working for the EPAO, before they conduct an EPA for the first time and a minimum of annually for this apprenticeship standard</li> <li>assess each assessment method, as determined by the EPA plan, and without extending the EPA unnecessarily</li> <li>assess against the KSBs assigned to each assessment method, as shown in the mapping of assessment methods and as determined by the EPAO, and without extending the EPA unnecessarily</li> <li>make all grading decisions</li> <li>record and report all assessment outcome decisions, for each apprentice, following instructions and using assessment recording documentation provided by the EPAO, in a timely manner</li> <li>use language in the development and delivery of the EPA that is appropriate to the level of the occupational standard</li> </ul>
Training provider	<ul> <li>As a minimum, training providers should:</li> <li>work with the employer and support the apprentice during the off-the-job training to provide the opportunities to develop the knowledge, skills and behaviours as listed in the occupational standard</li> <li>conduct training covering any knowledge, skill or behaviour requirement agreed as part of the Commitment Statement (often known as the Individual Learning Plan).</li> <li>monitor the apprentice's progress during any training provider led on-programme learning</li> <li>advise the employer, upon request, on the apprentice's readiness for EPA</li> <li>remain independent from delivery of the EPA. Where the training provider is the EPA (i.e. a HEI) there must be procedures in place to mitigate against any conflict of interest</li> </ul>
Marker	As a minimum, markers should: <ul> <li>attend induction training and standardisation training where appropriate</li> <li>have no direct connection or conflict of interest with the apprentice, their employer or training provider in all instances including when the EPAO is the training provider (i.e. HEI)</li> </ul>

	mark multiple-choice test answers accurately according to the EPAO's mark scheme and procedures	
Invigilator	As a minimum, the invigilator should:	
	<ul> <li>attend induction training and standardisation training</li> <li>have no direct connection or conflict of interest with the apprentice, their employer or training provider; in all instances, including when the EPAO is the training provider (i.e. HEI)</li> <li>invigilate and supervise apprentices during tests and in breaks during assessment methods to prevent malpractice</li> </ul>	

### **Internal Quality Assurance (IQA)**

Internal quality assurance refers to the strategies, policies and procedures that EPAOs must have in place to ensure valid, consistent and reliable end-point assessment decisions. EPAOs for this EPA must adhere to all requirements within the Roles and Responsibilities section and:

- have effective and rigorous quality assurance systems and procedures that ensure fair, reliable and consistent assessment across employers, places, times and independent assessors
- appoint independent assessors who hold or are working towards a recognised assessment qualification
- appoint independent assessors who have recent relevant experience of the occupation/sector at the same level or higher as the apprentice gained in the last three years or significant experience of the occupation/sector
- appoint independent assessors who are competent to deliver the end-point assessment
- provide training for independent assessors in terms of good assessment practice, operating the assessment tools and grading
- operate induction training for independent assessors when they begin working for the EPAO on this standard and before they deliver an updated assessment method for the first time
- ensure independent assessors attend standardisation events on an ongoing basis and at least once per year
- undertake standardisation activity on this apprenticeship standard for all independent assessors:
  - o before they conduct an EPA for the first time
  - if the EPA is updated
  - o periodically as appropriate (a minimum of annually)
- conduct effective moderation of assessment decisions and grades
- conduct appeals where required, according to the EPAO's appeals procedure, reviewing and making final decisions on assessment decisions and grades

### Value for money

Affordability of the EPA will be aided by using at least some of the following practice:

- using an employer's or training provider's premises
- assessing multiple apprentices simultaneously in the multiple-choice test
- using technology for example video conferencing where applicable

### **Professional body recognition**

This apprenticeship is designed to prepare successful apprentices to meet the requirements for registration with the Institute for Marine Engineering Science and Technology (IMarEST) for Marine Technician (MarTech) associate member—Marine option only

### Mapping of knowledge, skills and behaviours (KSBs)

## Assessment method 1: Structured interview underpinned by a portfolio

### Knowledge

**K1**: Characteristics and features of the national and international industry and the surface finisher's role and placement within the industry, and who surface finishers interact with in order to perform their work operations

**K2**: Communication techniques, their role and features, along with the advantages and disadvantages of each when communicating with different customers and stakeholders (internal and external). Organisational processes and procedures regarding communication channels, techniques and how communications and their outcomes are recorded and documented

**K6**: Organisational policies, processes and procedures for the design, planning and set up, and delivery of surface finishing activities including tools, materials, equipment and environment

**K9**: Ways of ensuring quality of surface finishing processes and work products, including continuous business improvement techniques and how they are integrated into surface finishing work processes and procedures

**K17:** The common types of defects (for example, sags, seeds, runs) and contamination effects found at inspection and their potential causes

**K19**: Basic operational principles of surface finishing equipment and their servicing and maintenance requirements

**K20**: Importance of customer service and effective customer service principles and techniques

**K21:** Human factors and how they can affect an individual's performance while carrying out maintenance and surface finishing activities

**K26 (Marine):** Working practices, hazards, associated risks and the emergency preparedness when carrying out work in an operational marine environment (including on or near the water) in line with legislative and company requirements, including the use of electrical power tools and requirements for PPE such as life jackets

**K27 (Marine)**: Flexible work practice and how marine paint operations effect the workflow and schedule of other trades to accommodate work processes and COSHH requirements such as to meet product overcoating timeframes

**K28 (Marine)**: Local restrictions in relation to work operations such as site of special scientific interest (SSSI) restrictions in harbours and rivers and consideration for environmental protection of watercourses

**K29 (Marine)**: Products, techniques and various methods of applying coatings by hand such as roll and tip and hand varnishing

**K30 (Marine)**: Products, techniques, requirements and various methods of polishing and finishing such as French polishing and gel coat finishing

**K35 (Aviation)**: Military or civil regulations as applicable to aircraft refinishing

**K36 (Aviation)**: Critical areas on an aircraft and how these can be affected by refinishing including Reduced Vertical Separation Minima (RVSM) requirements

**K37 (Aviation)**: Inspection techniques used when inspecting the aircraft post paint strip such as inspecting for corrosion, identifying types of corrosion, treatment of corrosion and techniques used for inspecting for delamination

K39 (Aviation): Process and safety requirements for working in confined spaces.

**K41 (Automotive):** Various types of coatings used in automotive including anti-chip blackouts, base coats and their characteristics and application techniques

**K43 (Automotive):** The various methods used for masking out product, types of masking materials, application techniques

**K44 (Automotive):** Methods of demasking, common concerns and defects arising from incorrect demasking

**K45 (Automotive):** Techniques, tools, materials and methods used in polishing and finishing of automotive vehicle finishes

#### **Skills**

- **S1**: Prepare for and contribute to meetings and hold discussions. Use appropriate communication and interpersonal techniques and terminology to aid effective interactions with colleagues, contractors, suppliers and others, to achieve required surface finishing task outcomes
- **S2**: Deliver appropriate customer service principles and techniques, in accordance with organisational policy and processes
- **S4**: Consider sustainability and environmental impacts and apply environmental best practice when planning and performing surface finishing work operations
- **S8:** Follow quality improvement principles, techniques, and methods and identify any areas for improvement, consulting internally and externally as appropriate
- **\$12**: Check and identify surface defects and contamination issues to company and industry standards, using appropriate and relevant documentation
- **\$14**: Carry out required rework using approved materials and techniques, adhering to required specifications and instructions
- **S15**: Perform routine maintenance and servicing on relevant equipment
- **\$16**: Deal with any problems that may present themselves within their own area of responsibility
- **S17 (Marine)**: Adhere to work at height regulations and requirements for safe access and egress from or around a vessel and utilise appropriate PPE when working at height ensuring pre-use checks, operation and maintenance activities are carried out correctly

- **S18 (Marine)**: Setup work platforms to requirements and current regulations including staging, towers and mobile elevated work platforms (MEWP) to ensure safe use
- **S19 (Marine)**: Carry out lifting operations in accordance with lifting operations and lifting equipment regulations (LOLER)
- **S20 (Marine)**: Identify hazards and control their associated risks when working on or near the water using techniques such as risk assessment, and use the correct emergency preparedness and procedures when carrying out work in an operational marine environment (including on or near the water) in line with legislative and company requirements
- **S21 (Marine)**: Adapt working practices to support marine paint operations which affect the workflow. Schedule work to accommodate other trades processes and COSHH requirements such as to meet product overcoating timeframes
- **S22 (Marine)**: Use products, techniques and various methods of applying coatings by hand such as roll and tip and hand varnishing
- **S23 (Marine):** Use the correct products, techniques and various methods of polishing and finishing such as French polishing and gel coat finishing
- **S25 (Marine)**: Set up spray facilities in accordance with the manufacturer's product data sheets and differing temperature and humidity requirements when applying coatings to wooden, composite or metal vessels
- **S26 (Marine):** Carry out masking and demasking of large or complex shapes, demonstrating correct procedures and avoidance of causing surface finish defects during the demask process
- **S27 (Aviation)**: Follow the approved ground handling procedures in place to ensure the aircraft is correctly positioned in the hangar, ensuring safe working systems are in place to allow access prior to commencement of agreed works
- **S29 (Aviation)**: Inspect, identify and report surface defects, contamination and quality issues using appropriate and relevant documentation and in accordance with the manufacturer's and the regulators requirements
- **S30 (Aviation)**: Complete relevant task staging documentation to the work carried out, ensure this has been signed for and any materials used recorded and provide reference for technical data used
- **S31 (Aviation)**: Inspection of the aircraft to the required acceptance criteria, recording and rectification of listed defects using the appropriate and relevant documentation. Ensuring compliance to appropriate technical data and measuring methods for example dent and buckle charts, structural repair manual and standard practices
- **S35 (Automotive):** Apply various types of spray coating correctly, such as base coats, lacquer coats, anti-chip
- S36 (Automotive): Carry out masking of product correctly using appropriate materials
- **S37 (Automotive):** Carry out demasking of product demonstrating correct procedures and avoidance of causing surface finish defects during the demask process

**S38 (Automotive):** Carry out polishing and finishing of vehicle coatings, selecting the correct materials and methods in order to meet specifications

#### **Behaviours**

- **B2**: Embrace an environmentally sustainable working culture, taking responsibility for the appropriate use of resources and own actions
- **B3**: Demonstrate commitment to quality, commercial awareness and continuous improvement
- **B4**: Focus on the requirements of the customer (internal and external), seeking to provide outstanding customer service, meeting customer requirements
- **B5**: Work individually and as part of a team, communicating effectively at different levels to achieve positive work results
- **B6**: Treat everyone with respect and courtesy, valuing diversity
- **B7**: Motivated, meticulous, proactive and adaptable, with a focus on continuous personal development and knowledge sharing
- **B9**: Demonstrate due consideration of human factors in performing maintenance and surface finishing activities

### **Assessment method 2: Multiple-choice test**

#### **Knowledge**

- **K3**: Surface finishing and other general terminology and their meanings. Uses of information technology relevant to surface finishing work operations
- **K4**: Different problem-solving and testing techniques and methods used to resolve surface finishing problems relevant to their area of responsibility
- **K5**: Sourcing of materials and equipment, costing, pricing and budgeting principles and identifying and addressing discrepancies and quality issues
- **K7**: Legislation, regulations, industry guidance, practices and procedures that direct health and safety and environmental sustainability at work and the importance of complying with control of substances hazardous to health (COSHH). Personal protective equipment (PPE) and respiratory protective equipment (RPE)
- **K8:** The requirement for personal responsibility and regular health surveillance and the importance of properly adhering to disposal of hazardous waste principals ensuring protection of the environment
- **K11**: Mathematical techniques and calculations that underpin surface finishing work **K22 (Marine)**: Work at height regulations and requirements for safe access and egress from a vessel such as engineering controls (handrails, guard rails, guard wires etc.) and PPE to be worn during the work at height activity and its care and correct use (e.g. harnesses and lanyards)

K23 (Marine): Process and safety requirements for working in confined spaces

**K24 (Marine):** Regulations and requirements to setup work platforms, staging, towers and mobile elevated work platforms (MEWP) and training requirements to ensure safe use

**K25 (Marine)**: Requirements of lifting operations and lifting equipment regulation (LOLER) in relation to MEWPs and harnesses

**K33 (Aviation)**: Processes used to prepare an aircraft for refinishing including aircraft bonding, inspection techniques and protection of vital components

**K34 (Aviation)**: Composite and substrates used in aviation and the preparation techniques used with these materials

**K40 (Automotive)**: Properties of substrates and impact of substrates related to the automotive sector including plastics, metals and carbon fibres on surface finish, including changes in colour match and variations in techniques to be used for varying substrates

**K46 (Automotive):** Types of spot repair, techniques, tools, materials and methods used to carry out spot repairs

### **Assessment method 3: Observation with questioning**

### Knowledge

**K10**: Different sources of information and guidance that directs surface finishing work operations, typically including drawings and technical specifications, where this information and guidance can be found and when and where it should be used

**K12**: Range and purpose of tools, materials and equipment used when setting up and when performing surface finishing operations, their characteristics, features, their safe use, movement and operation and the consequences of using inappropriate tools and techniques for the correct surface finish

**K13**: The relationship between different substrates, materials and complex shapes

**K14**: Importance of accurately completing surface finishing documentation and information that needs to be recorded during different stages of surface finishing work operations

**K15**: Importance of restoring the work area to a tidy and safe state on completion of surface finishing work operation and what this entails

**K16**: Necessary checks, tests and inspections undertaken before, during and after performing different surface finishing work operations, how these are undertaken and any remedial action required

**K18**: Application principles and techniques for different surface finishing materials

**K31 (Marine)**: Products, techniques and requirements for spraying a variety of large complex shapes, structures and components including the need to maintain a wet edge whilst spraying, team-based application methods such as multiple sprayers, pot men and spotters to safely spray hulls and large structures

**K32 (Aviation)**: Specific coatings and metal treatments used in aviation painting, including types of finish, measurement of coating thickness and the application techniques for matt and gloss finishes

**K38 (Aviation)**: Processes used in applying and positioning both mandatory and customer selected external markings

**K42 (Automotive):** The defect recording, processing and completion requirements required at automotive paint inspection stages

#### **Skills**

- **S3**: Maintain the safety of self along with others by following safe systems of work and complying with all relevant legislation, regulations, codes of practice and other relevant information and guidance
- **S5**: Follow approved industry and manufacturer's guidance and techniques, operational work methods, practices, processes, principles and procedures when undertaking different surface finishing work operations, within required time frames
- **S6**: Select, use, and store appropriate resources safely and correctly including tools, materials, equipment, machinery and consumables in line with appropriate regulations and relevant manufacturers guidance as applicable
- **S7**: Carry out the correct preparation techniques when working with a substrate
- **S9**: Conduct required tests and checks when performing surface finishing work operations
- **\$10**: Restore work area to a safe and tidy condition in accordance with organisational and legislative policy and procedures
- **\$11**: Complete records and documentation relevant to surface finishing work operations, in accordance with requirements such as legislative or regulatory
- **\$13**: Dispose of waste materials, in accordance with safe working and environmental practices and approved procedures
- **S24 (Marine)**: Use the correct products, techniques, methods and equipment for spraying complex shapes, structures and components such as maintaining a wet edge whilst spraying and team-based application methods (multiple sprayers, pot men and spotters to safely spray hulls and large structures)
- **S28 (Aviation)**: Comply with the manufacturer's guidance notes on specific aircraft types using the Aircraft Maintenance Manual, structural repair manual and procedures when preparing and finishing aircraft substrates along with in-house quality documentation and procedures
- **S32 (Aviation)**: Interpret and understand Original Equipment Manufacturer (OEM) and customer data for application and position of external markings, both mandatory and customer selected
- **S33 (Automotive):** Use the correct materials, equipment and techniques to achieve acceptable finishes on substrates such as plastics, metals and composites used in automotive manufacture
- **S34 (Automotive):** Apply spray coatings correctly across varying parts of a vehicle shell including vertical, horizontal and internal aspects of the vehicle

#### **Behaviours**

**B1**: Embrace a safety culture and situational awareness including being hazard and risk aware when working

**B8**: Manage own time efficiently to complete work operations within the confines of job responsibility

### **Appendix A: Grading**

## Assessment method 1: Structured interview underpinned by a portfolio of evidence

KSBs	Pass – All pass criteria must be met	Distinction – All pass and all distinction criteria must be met
Communications K2, K20, S1, S2, B4, B5, B6	Explain the advantages and disadvantages of different communication techniques and how they use communication and interpersonal techniques and terminology in line with organisational procedures to aid interactions with internal and external stakeholders to achieve required surface finishing task outcomes, including how outcomes from communications are recorded and documented (K2, S1, B5)  Explains how they apply organisational policies and processes to deliver customer service principles and techniques and focus on the requirements of the customer (K20, S2, B4)  Explains how they establish an approach to dealing with customers and co-workers which follows the organisational guidelines on respect, courtesy and diversity (B6)	Justifies their choice of communication technique(s) with coworkers and external stakeholders (K2, S1)
Quality and inspection K9, K17, S8, S12, S16, B3, B7	Describes how they follow and are committed to quality improvement principles, techniques, and methods including continuous business improvement and describes how they	Evaluates surface finishing processes and work products through quality improvement

identify any areas for improvement and principles and how they are integrated into processes, techniques and procedures and work products, consulting identifies areas for internally and externally as appropriate improvement (K9, S8) and being aware of the commercial impact (K9, S8, B3) Describes how they inspect work and identify common defects and contamination effects to company and industry standards, recording them and their possible causes using the correct documentation (K17, S12) Outlines how they proactively deal with problems within their area of responsibility, adapting and sharing knowledge and focusing on their personal motivation and continuous development (S16, B7) Surface finishing Explains the characteristics and features tasks of the national and international industry and the surface finisher's role and K1, K6, K21, S4, placement within the industry, and who S14, B2, B9 surface finishers interact with in order to perform their work operations (K1) Explains how they adhere to organisational policies, processes and procedures for the design, planning and Explains the impact set up, and delivery of surface finishing on the product of not activities including required rework with using approved consideration to tools, specifications, materials and instructions, approved materials, appropriate tools (K6, equipment and environment (K6, S14) S14) Explains how they consider sustainability Explains how the and environmental impacts and how they application of apply environmental best practice when environmental best planning and performing surface finishing practice benefits both work operations (S4, B2) the organisation and the wider community Describes how human factors can affect (S4, B2) an individual's performance at work and how they ensure that human factors are considered and addressed in their maintenance and surface finishing activities (K21, B9)

Servicing and maintenance K19, S15	Explains how they perform routine maintenance and servicing on the equipment used for surface finishing activities (K19, S15)	Justifies the need for servicing and maintenance of equipment used for surface finishing activities (K19, S15)
Marine Surface Finishing		
K26, K27, K28, K29, K30, S17, S18, S19, S20, S21, S22, S23, S25, S26	Explains how they identify hazards and control their associated risks in line with legislative and company requirements when working on or near the water, including the use of electrical power tools, the requirements for PPE, and the use of emergency preparedness procedures (K26, S20)	
	Describes how they use products, techniques and various methods of applying coatings by hand such as roll and tip and hand varnishing (K29, S22)	Evaluates different methods of applying coatings by hand (K29, S22)
	Describes how they use the correct products, techniques and various methods of polishing and finishing such as French polishing and gel coat finishing (K30, S23) Explains how they adapt working practices to support marine paint operations which affect the workflow and how they schedule work to accommodate other trades processes and COSHH requirements (K27, S21) Explains how they adhere to work at height regulations and requirements for safe access and egress from or around a vessel and how they utilise appropriate PPE when working at height ensuring preuse checks, operation and maintenance activities are carried out correctly (S17) Describes how they setup work platforms to requirements and current regulations including staging, towers and mobile	Analyses how the choice of products for polishing and finishing techniques affects operations' (K30, S23)
	including staging, towers and mobile elevated work platforms (MEWP) to ensure safe use (S18)	

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	Explains how they carry out lifting operations in accordance with lifting operations and lifting equipment regulations (LOLER) (S19)	
	Describes how they set up spray facilities in accordance with the manufacturer's product data sheets and differing temperature and humidity requirements when applying coatings to wooden, composite or metal vessels (S25)	
	Describes how they ensure awareness of local restrictions in relation to work operations such as site of special scientific interest (SSSI) restrictions in harbours and rivers and consideration for environmental protection of watercourses (K28)	
	Explains how they carry out masking and demasking of large or complex shapes, using correct procedures to avoid causing surface finish defects during the demask process (S26)	Evaluates methods which minimise surface finish defects when demasking (S26)
Aviation Surface Finishing		
K35, K36, K37, K39, S27, S29, S30, S31	Describes regulations as applicable to aircraft refinishing (K35)	
	Explains how they identify critical areas on an aircraft and explains how these can be affected by refinishing including Reduced Vertical Separation Minima (RVSM) requirements (K36)	
	Describes how they complete inspection of the aircraft to the required acceptance criteria, recording and rectification of listed defects using the appropriate and relevant documentation (K37, S31)	
	Explains the process and the safety requirements for working in confined spaces (K39)	
	Explains how they follow the approved ground handling procedures in place to	

	ensure the aircraft is correctly positioned in the hangar, ensuring safe working systems are in place to allow access prior to commencement of agreed works (S27)	Analyses how ground handling and safe working systems varies between aircraft of different types (S27)
	Explains how they inspect, identify and report surface defects, contamination and quality issues using appropriate and relevant documentation and in accordance with the manufacturer's and the regulators requirements (S29)	Evaluates the importance of inspection, identification and reporting of surface defects, contamination and quality issues to the aviation industry (S29)
	Describes how they complete relevant task staging documentation to the work carried out, how they ensure this has been signed for and any materials used are recorded and provide reference for technical data used (S30)	Evaluates the importance of recording both the materials used and a reference to technical data employed in task staging documentation (S30)
Automotive Surface Finishing		
K41, K43, K44 K45, S35, S36, S37, S38	Explains how they perform masking operations for products using appropriate materials, methods and application techniques (K43, S36)	Justifies the choice of material, method and or application techniques for the masking out of specific products (K43, S36)
	Explains how they perform demasking, employing procedures which avoid surface finish defects (K44, S37)	Analyses the causes of surface finish defects when demasking different products (K44, S37)

Describes how they carry out polishing and finishing of vehicle coatings, selecting the correct tools, materials and techniques in order to meet specifications (K45, S38)	
Describes coatings used in automotive including anti-chip blackouts, base coats and their characteristics and application techniques (K41)	Justifies when and where specific coatings are used in automotive surface finishing (K41)
Describes how they apply various types of spray coating correctly (S35)	

### **Assessment method 3: Observation with questioning**

KSBs	Pass – All pass criteria must be met
Health and safety S3, B1	Maintains the safety of self along with others by following safe systems of work and being aware of risks. Identifies and complies with all relevant legislation, regulations, codes of practice and other relevant information and guidance (S3, B1)
Surface finishing activities K10, K12, K13,	Completes the tasks within the required time frames following approved industry and manufacturer's guidance and techniques, operational work methods, preparation techniques, practices, processes, principles and procedures (K10, K13, K18, S5, S7, B8)
K18, S5, S6, S7, S13, B8	Selects, uses, and stores appropriate resources safely and correctly including tools, materials, equipment, machinery and consumables, ensuring disposal of waste in line with appropriate regulations (K12, S6, S13)
Inspection and post-finishing tasks	Conducts required tests and checks before, during and after performing surface finishing work operations on substrates (K16, S9)
K14, K15, K16, S9, S10, S11	Completes records and documentation during the stages of the surface finishing work accurately and in accordance with requirements (K14, S11)

Restores work area to a safe and tidy condition in accordance with
organisational and legislative requirements (K15, S10)

Marine Surface Finishing	
K31, S24	Uses the correct products, techniques, methods and equipment for spraying complex marine shapes, structures and components resulting in a clean finish with no imperfections (K31, S24)

Aviation Surface Finishing	
K32, K38, S28, S32	Complies with the manufacturer's guidance notes on specific aircraft types using the Aircraft Maintenance Manual, structural repair manual and procedures when preparing and finishing aircraft substrates along with in-house quality documentation and procedures, resulting in a clean finish with no imperfections (K32, S28)
	Interprets and understands Original Equipment Manufacturer (OEM) and customer data for application and position of external markings (K38, S32)

Automotive Surface Finishing	
K42, S33, S34	Uses the correct materials, equipment and techniques to achieve finishes on substrates used in automotive manufacture and records and processes any defects identified during inspection (K42, S33)
	Applies spray coatings correctly across varying parts of a vehicle shell including vertical, horizontal and internal aspects of the vehicle resulting in a clean finish with no imperfections (S34)