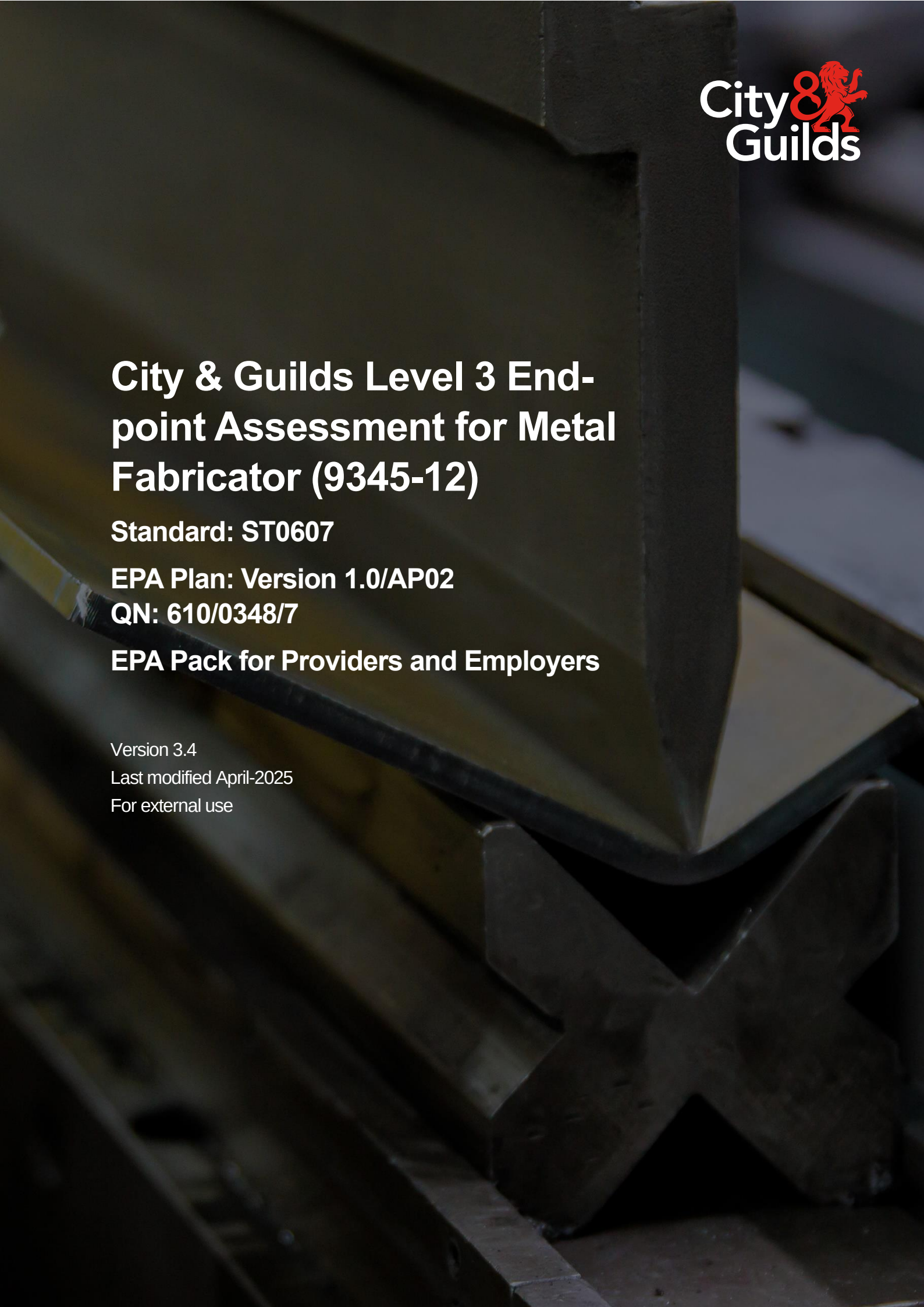

City & Guilds Level 3 End-point Assessment for Metal Fabricator (9345-12)

Standard: ST0607

EPA Plan: Version 1.0/AP02
QN: 610/0348/7

EPA Pack for Providers and Employers

Version 3.4
Last modified April-2025
For external use

Version	Summary of changes	Section
1.0 September 2020	Document created	N/A
2.0 November 2020	Gateway information updated	1. Introduction 5. EPA Timeline
3.0 June 2021	Updated Practical Observation Assessment Tasks Updated to Assessment Plan version 2.0	Page 18 onwards Throughout
3.1 March 2024	Added reference to use of apprenticeship in the maritime industry following IfATE update	Page 4
3.2 September 2024	Amended practical observation timing as per assessment plan and for re-sits Updated Practical Observation assessment task drawings	Page 13 onwards
3.3 October 2024	Correction of drawings in tasks	Page 13 onwards
3.4 March 2025	Re-templating of document Remove practical observation tasks from the document and put in practical observation pack Update title of product Addition of further partial resit guidance	Throughout

Contents

Apprenticeships

This pack will help providers and employers prepare apprentices for the End-point Assessment (EPA) of their City & Guilds Level 2 End-point Assessment for Metal Fabricator (9345-12) V1.0/AP02. It explains how apprentices will demonstrate the knowledge, skills and behaviours (KSBs) which they developed during their apprenticeship.

This pack must be used alongside the:

- Recording Form for Providers and Employers
- Practical observation pack
- EPA Documents Library, which includes the Manual for the End-point Assessment Service, information about the EPA Service, policies about malpractice and appeals, FAQS, and a video about EPA which can be shared with apprentices.

The City & Guilds Manual for the End-point Assessment Service includes information on:

- application, registration and booking
- assessment
- results and post results (including resits)
- fees
- quality assurance.

Full-time apprentices will typically spend 42 months on-programme working towards meeting the Standard, with required off-the-job training as specified by the apprenticeship funding rules. The employer should ensure that the apprentice has access to development opportunities to gain the KSBs, as outlined in the Standard, and must hold regular progress reviews with the provider and apprentice.

Once the apprentice has completed their training, they should be ready to go through 'Gateway' to EPA. See the Gateway and Assessment Instructions sections within this pack to understand what happens.

The EPA for this apprenticeship includes the following assessments which can be taken in any order, as requested by the apprentice:

- Practical Observation
- Professional Discussion (supported by a portfolio of evidence)

Preparing for EPA

In preparation for EPA, providers and employers should:

- read the Assessment instructions sections before reaching Gateway – the EPA Partnership Managers can help with any queries
- review which completed **Recording Forms and evidence** must be submitted, and when
- use the Recording Forms provided in the format laid out, unless indicated otherwise
- plan the venue and resources required for EPA – make sure the assessment environment is secure and comfortable, without interruptions
- use the EPA Pro portal to help manage the apprentice's progress through EPA
- for on-site assessment, arrange for a designated contact to be available on the day to ensure the correct resources are available.

To help apprentices prepare for EPA, providers and employers should:

- explain the assessments and **Recording Forms** to the apprentice – refer to details in the Assessment Instructions sections of this pack
- agree a realistic timeframe for submission of evidence that meets the EPA deadlines – any delays in submission of evidence will delay the assessments
- make sure the apprentice has the resources and time to prepare for, and undertake, EPA
- take the apprentice through some mock assessments
- share the EPA Preparation Guide with the apprentice, which includes information about system requirements for virtual meetings
- let City & Guilds know if access arrangements are required to support an apprentice through EPA. Information about City & Guilds access arrangements, including reasonable adjustments is on the City & Guilds website, under EPA Documents Library.

Authenticating the apprentice's work

The Independent End-point Assessor (IEPA) must ensure all decisions satisfy Validity, Authenticity, Currency and Sufficiency (VACS). For evidence produced outside controlled conditions, the apprentice will be required to:

- sign a declaration that the work is their own
- reference all sources.

The employer/provider should also aid authentication by:

- supplementary (oral) questioning to gauge familiarity with the topic
- looking out for any changes to the apprentice's usual writing style, unusual sources/examples or the use of US spellings or phrases that might indicate cutting and pasting from the internet
- requiring access to evidence of steps in the process, for example drafts, notes, planning etc.

City & Guilds have produced forms for use when reviewing evidence produced outside of controlled conditions. These forms include a Declaration of Authenticity Form which must be completed when submitting evidence. The forms are incorporated in the Recording Forms document.

City & Guilds Position Statement on artificial intelligence

The following guidance on artificial intelligence (AI) is designed to help candidates, teachers and assessors to complete NEAs, coursework and other internal assessments successfully. Please ensure familiarity with it.

Position Statement on AI | City & Guilds

Health & Safety and Codes of Practice

The importance of safe working practices, the demands of the Health and Safety at Work Act and any Codes of Practice associated with the industry **must** always be adhered to.

Following safe working practices is an integral part of all City & Guilds assessments, and it is the responsibility of the provider and employer to ensure that all the health and safety requirements are in place when apprentices are working on any projects or before apprentices begin any EPA.

Should an apprentice fail to follow correct health and safety practices and procedures during an EPA, the IEPA may advise the apprentice to stop and explain why.

Results submission and feedback

The IEPA will not provide feedback to the apprentice during or immediately following the assessment process. The provider will be informed by the City & Guilds EPA Team of the assessment results.

The IEPA will communicate the grade allocated for each assessment to the Lead Independent End-point Assessor (LIEPA) for quality assurance and sampling. The LIEPA will submit the results to the City & Guilds EPA Team.

Summary feedback will be provided to all apprentices after any grade determination has been carried out. The feedback will cover the areas against which insufficient evidence has been provided, leading to a 'Fail'. Our 'End-point Assessment Feedback' will also cover the areas against which the apprentice's evidence has resulted in the award of a Pass or Distinction.

If the apprentice has passed EPA, the City & Guilds EPA Team will issue the EPA Statement of Achievement to the provider confirming the grade achieved and will notify the Institute for Apprenticeships and Technical Education (IfATE) who will issue the apprenticeship certificate.

Statement of Achievement

A printed EPA Statement of Achievement will be issued to each successful apprentice.

Providers and employers with access can view and download PDF copies of the Statement 24 hours after the results are published. A PDF supports more efficient processing of funding claims by providing evidence of learner certification before the apprentice's paper certificate arrives.

The overall apprenticeship certificate will be issued by the IfATE.

Digital credentials

A digital credential is a verified, visual representation of knowledge and skills earned in various learning environments. Please see an example below:

Digital credentials are issued and verified online, making it easy for individuals to demonstrate their competencies to employers, clients and peers online. Each digital credential has a unique URL that can be shared electronically via social media, in an email signature and on a CV. This is a complimentary service in addition to the paper certificate.

For further information, please visit the City & Guilds EPA Digital Credentials webpage and the general terms in respect of our privacy policy or contact digitalsupport@cityandguilds.com.

The apprenticeship Standard

Occupation summary

This occupation is found in a range of sectors such as advanced manufacturing engineering, engineering construction, and maritime.

The broad purpose of the occupation is to carry out metal fabrication work using things such as rolled steel joists, columns, channels, steel plate and metal sheet etc.

Work includes manufacturing or repair of bridges, oil rigs, ships and submarines, petro-chemical installations, cranes, platforms, aircraft, automotive and machinery parts, sheet metal enclosures, equipment supports, and anything that can be fabricated out of metal. Fabricators can work alone or in teams, in factories or on operational sites. Fabricators use a large range of metals including steel, aluminium and titanium at a range of thicknesses from 0.5mm up to over 20mm. The size and weight of the fabrications can range from components that can easily be picked up by hand, to massive structures that require several cranes to manipulate.

In their daily work, an employee in this occupation interacts with planners, supervisors, inspectors, designers, welders, pipefitters, fitters, machinists, riggers, steel erectors, stores personnel, painters and many others involved in manufacturing, production, maintenance and repair.

An employee in this occupation will be responsible for the quality and accuracy of their own work whilst ensuring it conforms to a relevant specification such as an engineering drawing or an international standard. Fabricators are also responsible for the health, safety and environmental (HS&E) protection of themselves and others around them.

Occupational duties

This apprenticeship Standard has a number of duties which someone working in the role would typically be able to undertake. These duties are underpinned by a range of KSBs which a successful apprentice will be able to demonstrate:

Duty	KSBs
Duty 1 Work safely at all times complying with health and safety legislation, regulations, organisational and environmental requirements	K1, K2, K3, K4, K5, K6, K7, K8, K9, K10, K11, K12, K13, K14, K15, K16, K17, K18, K19, K20, K21 S1, S2, S3, S4, S5, S6, S7, S8, S9, S10, S11, S12, S13, S14, S15, S16, S17 B1, B2, B3, B4, B5

Duty	KSBs
Duty 2 Plan and prepare for the METAL fabrication activities before commencing work	K1, K2, K3, K4, K5, K6, K7, K8, K9, K10, K11, K12, K13, K14, K15, K16, K17, K18, K19 S1, S2, S3, S4, S5, S6, S7, S8, S9, S10, S11, S12, S13 B1, B2, B3, B4, B5
Duty 3 Check materials conform to the specified grades, dimensions and thicknesses identified on detailed engineering drawings	K1, K2, K3, K4, K5, K6, K7, K8, K9 S1, S2, S3, S4, S5, S6, S7, S8, S9 B1, B2, B3, B4, B5
Duty 4 Use the correct methods for the moving and handling resources and materials	K1, K2, K3, K4, K5, K6, K7, K8, K9, K10 S1, S2, S3, S4, S5, S6, S7, S8, S9, S10 B1, B2, B3, B4, B5
Duty 5 Set up, check AND adjust the equipment for use in the safe and reliable fabrication of METAL products or components and maintaining the equipment in a reliable and safe condition throughout	K1, K2, K3, K4, K5, K6, K7, K8, K9, K10, K11, K12, K13, K14, K15, K16, K17, K18, K19 S1, S2, S3, S4, S5, S6, S7, S8, S9, S10, S11, S12, S13 B1, B2, B3, B4, B5
Duty 6 Interpret technical drawings, patterns, templates and specifications to mark out, produce and assemble complex fabricated products to meet the required specification and quality requirements	K1, K2, K3, K4, K5, K6, K7, K8, K9, K10, K11, K12, K13, K14, K15, K16, K17, K18 S1, S2, S3, S4, S5, S6, S7, S8, S9, S10, S11, S12, S13 B1, B2, B3, B4, B5

Duty	KSBs
Duty 7 Use appropriate tools, equipment and techniques to shape and form (HOT or COLD) metal materials, demonstrating and applying knowledge of material properties and characteristics throughout	K1, K2, K3, K4, K5, K6, K7, K8, K9, K10, K11, K12, K13, K14, K15, K16, K17, K18 S1, S2, S3, S4, S5, S6, S7, S8, S9, S10, S11, S12, S13 B1, B2, B3, B4, B5
Duty 8 Monitor resources and activities throughout the fabrication of products or components, identifying areas for improving the production process where possible	K1, K2, K3, K4, K5, K6, K7, K8, K9, K10, K11, K12, K13, K14, K15, K16, K17, K18, K19 S1, S2, S3, S4, S5, S6, S7, S8, S9, S10, S11, S12, S13 B1, B2, B3, B4, B5
Duty 9 Cutting, drilling, shaping and preparing METAL materials during fabrication activities using manual and power tools, thermal and laser cutting, as required calculating dimensions and tolerances using knowledge of mathematics and instruments/equipment	K1, K2, K3, K4, K5, K6, K7, K8, K9, K10, K11, K12, K13, K14, K15, K16, K17, K18, K19, K20, K21 S1, S2, S3, S4, S5, S6, S7, S8, S9, S10, S11, S12, S13, S14, S15, S16, S17 B1, B2, B3, B4, B5
Duty 10 Operate appropriate tools and equipment to join metal parts using a range of mechanical fasteners and fixing techniques required by the specifications appropriate to the fabrication activity being carried out and in accordance with approved joining procedures and quality requirements	K1, K2, K3, K4, K5, K6, K7, K8, K9, K10, K11, K12, K13, K14, K15, K16, K17 S1, S2, S3, S4, S5, S6, S7, S8, S9, S10, S11, S12, S13 B1, B2, B3, B4, B5
Duty 11 Operate joining equipment to join metal parts using a range of appropriate techniques to the standards required by the specifications for the fabrication activity being carried out	K1, K2, K3, K4, K5, K6, K7, K8, K9, K10, K11, K12, K13, K14, K15, K16

Duty	KSBs
	S1, S2, S3, S4, S5, S6, S7, S8, S9, S10, S11, S12, S13 B1, B2, B3, B4, B5
Duty 12 Inspect and test joins for security against required standard	K1, K2, K3, K4, K5, K6, K7, K8, K9, K10, K11, K12, K13, K14, K15, K16, K17 S1, S2, S3, S4, S5, S6, S7, S8, S9, S10, S11, S12, S13, S14 B1, B2, B3, B4, B5
Duty 13 Carry out quality checks on component parts and completed assemblies	K1, K2, K3, K4, K5, K6, K7, K8, K9, K10, K11, K12, K13, K14, K15, K16 S1, S2, S3, S4, S5, S6, S7, S8, S9, S10, S11, S12 B1, B2, B3, B4, B5
Duty 14 Deal with problems that occur within the fabrication activity in line with responsibilities of the role	K1, K2, K3, K4, K5, K6, K7, K8, K9, K10, K11, K12, K13, K14, K15, K16, K17, K18, K19, K20, K21, K22, K23, K24 S1, S2, S3, S4, S5, S6, S7, S8, S9, S10, S11, S12, S13, S14, S15, S16, S17 B1, B2, B3, B4, B5
Duty 15 Restore the work area and equipment to a safe and reliable condition on completion of the activity	K1, K2, K3, K4, K5, K6, K7, K8, K9, K10, K11, K12, K13, K14, K15, K16, K17, K18, K19, K20, K21, K22, K23, K24 S1, S2, S3, S4, S5, S6, S7, S8, S9, S10, S11, S12, S13, S14, S15, S16, S17

Duty	KSBs
	B1, B2, B3, B4, B5
Duty 16 Complete documentation at the appropriate stages of the work activity	K1, K2, K3, K4, K5, K6, K7, K8, K9, K10, K11, K12, K13, K14, K15, K16, K17, K18, K19, K20, K21, K22, K23, K24 S1, S2, S3, S4, S5, S6, S7, S8, S9, S10, S11, S12, S13, S14, S15, S16, S17 B1, B2, B3, B4, B5

Knowledge, skills and behaviours

Ref.	Knowledge	Assessment method
K1	The importance of complying with statutory, quality, organisational and health and safety regulations	Practical observation Professional discussion
K2	General engineering mathematical and scientific principles, methods, techniques, graphical expressions, symbols formulae and calculations	Professional discussion
K3	The structure, properties and characteristics of common materials	Professional discussion
K4	The typical problems that may arise within their normal work activities/environment	Professional discussion
K5	Approved diagnostic methods and techniques used to help solve engineering problems	Professional discussion
K6	The importance of only using current approved processes, procedures, documentation and the potential implications if they are not adhered to	Practical observation
K7	The different roles and functions in the organisation and how they interact	Professional discussion
K8	Why it is important to continually review fabrication and general engineering processes and procedures	Professional discussion
K9	The correct methods of moving and handling materials	Practical observation
K10	Processes for preparing materials to be marked out	Professional discussion

Ref.	Knowledge	Assessment method
K11	The tools and techniques available for cutting, shaping, assembling and finishing materials	Practical observation
K12	Allowances for cutting, notching, bending, rolling and forming materials	Professional discussion
K13	Describe pattern development processes, tooling and equipment	Professional discussion
K14	Describe cutting and forming techniques, tooling and equipment	Professional discussion
K15	Describe assembly and finishing processes, tooling and equipment	Professional discussion
K16	Inspection techniques that can be applied to check shape and dimensional accuracy	Professional discussion
K17	Factors influencing selection of forming process	Professional discussion
K18	Principles, procedures and testing of different joining techniques (Mechanised or Manual)	Professional discussion
K19	Equipment associated with Manual or Mechanised joining techniques including maintaining equipment in a reliable and safe condition	Practical observation
K20	Consumables used in Manual or Mechanised joining	Practical observation
K21	Effects of heating and cooling metal	Professional discussion
K22	Metallurgy associated with joining	Professional discussion
K23	Different types of Welds and joints	Professional discussion

Ref.	Knowledge	Assessment method
K24	How to interpret relevant engineering data and documentation	Practical observation

Ref.	Skills	Assessment method
S1	Work safely at all times, comply with health & safety legislation, regulations and organisational requirements	Practical observation Professional discussion
S2	Comply with environmental legislation, regulations and organisational requirements	Practical observation
S3	Obtain, check and use the appropriate documentation (such as job instructions, drawings, quality control documentation)	Practical observation
S4	Carry out relevant planning and preparation activities before commencing work activity	Professional discussion
S5	Undertake the work activity using the correct processes, procedures and equipment	Practical observation
S6	Carry out the required checks (such as quality, compliance or testing) using the correct procedures, processes and/or equipment	Professional discussion
S7	Deal promptly and effectively with problems within the limits of their responsibility using approved diagnostic methods and techniques and report those which cannot be resolved to the appropriate personnel	Professional discussion
S8	Complete any required documentation using the defined recording systems at the appropriate stages of the work activity	Professional discussion
S9	Restore the work area on completion of the activity and where applicable return any resources and consumables to the appropriate location	Practical observation

Ref.	Skills	Assessment method
S10	Identify and follow correct Metal work instructions, specifications, drawing etc	Practical observation
S11	Mark out using appropriate tools and techniques	Professional discussion
S12	Cut and form Metal for the production of fabricated products	Practical observation
S13	Produce and assemble Metal products to required specification and quality requirements	Practical observation
S14	Identify and follow correct joining instructions, specifications, drawing etc	Practical observation
S15	Carry out the relevant preparation before starting the joining fabrication activity	Professional discussion
S16	Set up, check, adjust and use joining and related equipment	Professional discussion
S17	Weld joints in accordance with approved welding procedures and quality requirements	Practical observation

Ref.	Behaviours	Assessment method
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.	Professional discussion
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.	Professional discussion

Ref.	Behaviours	Assessment method
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.	Professional discussion
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.	Professional discussion
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.	Professional discussion

Overall grade

This End-point Assessment is graded Fail, Pass or Distinction. The EPA will be assessed and graded by the IEPA.

Information about how each assessment is graded can be found in the Assessment Instructions sections of this pack. The apprentice will fail an assessment method if they do not meet the assessment criteria.

Grades from the individual assessments will be combined to determine the overall grade.

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.

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

Assessment 1: Practical observation	Assessment 2: Professional discussion	Overall grading
Pass	Fail	Fail
Fail	Pass	Fail
Fail	Distinction	Fail
Pass	Pass	Pass
Pass	Distinction	Distinction

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

Gateway

The EPA period will only start when the **employer** is satisfied that the apprentice is consistently working at, or above, the level of the Standard. The apprentice must be able to evidence that they fully demonstrate the Occupational Standard and required level of professional competence in an authentic workplace context. In making this decision, the employer could take advice from the provider, but the ultimate decision is made solely by the employer.

If there is a **provider** working alongside the employer, they should support the apprentice's preparation for Gateway.

The apprentice must provide the following at Gateway:

- Supporting evidence to show that the apprentice has achieved English and maths qualifications in line with the apprenticeship funding rules
- Supporting evidence to show that the apprentice has achieved the Mandatory qualification – Level 3 Diploma in Advanced Manufacturing Engineering (Development Knowledge) or Level 3 Extended Diploma in Advanced Manufacturing Engineering (Development knowledge)

The following should be completed on the EPA Pro platform:

- Gateway Declaration Form signed by the apprentice
- Gateway Declaration by the provider, on behalf of the employer and tutor, confirming that the apprentice has completed at least 12 months on-programme.

City & Guilds will confirm when all the Gateway requirements have been met.

The Assessment Instructions sections provide details about the evidence which must be submitted at or post Gateway.

Timetable for End-point Assessment

The End-point assessment must commence within 3 months of the apprentice passing the gateway, starting when

City & Guilds has confirmed that all Gateway requirements have been met.

Further information about the booking process and timelines can be found in the City & Guilds Manual for the End-point Assessment Service.

Planning meetings are usually only provided for Standards where they are required by the Assessment Plan. The EPA Partnership Managers can provide additional guidance.

Ongoing during on-programme	Evidence and forms
Provider and employer • Reviews progress as part of their regular performance management process and ensures apprentice's performance is on track • Identifies any gaps and creates a plan with the apprentice • Enrols apprentice on EPA Pro and provides 'Expected Date Ready for EPA' and (optional) 'planning meeting' • Review apprentices' portfolio of evidence and gives guidance and advice to the apprentice on content and suitability for submission	N/A
Apprentice • Completes the English and maths components of the apprenticeship in line with the apprenticeship funding rules • Completes the Mandatory qualification – Level 3 Diploma in Advanced Manufacturing Engineering (Development Knowledge) or Level 3 Extended Diploma in Advanced Manufacturing Engineering (Development knowledge)	

• Evidence work carried out within the last three months of the on programme to demonstrate the required knowledge, skills and behaviours of the standard	Start to collate during the last three months of the apprenticeship.
Gateway process	**Evidence and forms**
Employer • Reviews progress and ensures the apprentice is ready for EPA • Reviews evidence to confirm that it is appropriate and sufficient to meet the Standard	N/A
Apprentice • Must have been on programme for a minimum of 12 months and one day • Completes and submits evidence and forms	Submits to provider: • Apprentice Gateway Declaration • Evidence of achievement of maths and English qualifications required and mandatory qualification
Provider – on EPA Pro • Books EPA on the EPA Pro portal, in line with City and Guilds booking timelines in the EPA Manual • Makes City and Guilds aware of any additional needs of the apprentice so that they can review reasonable adjustments – see the current policy on the City & Guilds website, under EPA Documents Library • Completes Provider Gateway Declaration **on behalf of the employer and tutor** • Uploads evidence and forms onto EPA Pro	Complete on EPA Pro: • Provider Gateway Declaration Uploads onto EPA Pro: • Apprentice Gateway Declaration • Required evidence and forms
City & Guilds EPA Gateway Team • Formally confirms when all the Gateway requirements have been met	N/A
City & Guilds EPA Team • Agrees on a mutually convenient date for the EPA Events with the provider and IEPA	N/A
End-point Assessment	**Evidence and forms**
Apprentice • Submits portfolio to inform the Professional Discussion • Completes End-point Assessments	Submits to provider: • Portfolio of evidence Signs:

	• Declaration of Authenticity Completes: • Evidence matric for the portfolio
Employer • Ensures the apprentice has access to the resources required for the assessments (see the Resources section)	Signs and submits to provider: • Declaration of Authenticity
Provider Submits portfolio to inform the Professional Discussion at least 14 days prior to the professional discussion taking place	Uploads onto EPA Pro: • Portfolio of evidence and evidence matrix • Declaration of Authenticity
IEPA • Reviews portfolio of evidence prior to EPA events • Carries out End-point Assessments • Marks each assessment, communicates the results to the LIEPA • Provides feedback for assessments in EPA Pro	Completes: • IEPA recording forms
LIEPA • Samples and quality assures assessments • Confirms overall grade to EPA Team	Reviews: • IEPA recording forms
City & Guilds EPA Team • Communicates the results to the provider via EPA Pro • Processes the overall result if the apprentice has passed all the assessments and advises IfATE, who issue the certificate. The data will be provided to IfATE once a month, on the fourth working day of the month.	N/A

Summary timescales

Readers should check the previous Timetable and the Assessment Instruction sections of this document for the detailed requirements for each stage.

Further information on EPA Service Timelines can be found on www.cityandguilds.com.

On programme	Enrol apprentice on epaPRO, including 'expected date ready for EPA' Collate portfolio of evidence during last three months on programme Complete mandatory qualification and maths and English required by the funding rules
Gateway process	Provider submits evidence and forms on epaPRO
Gateway	Assessment components can only be booked after Gateway has been approved
Practical observation	Employer/provider ensures resources required are available on the day of the assessment Provider/Employer selects two fabrication tasks suitable to the apprentice's job role The apprentices must not be informed of the task prior to the assessment
Professional discussion	Submit portfolio of evidence at least two weeks prior to the professional discussion

End point assessment completed

End-point Assessment resources

Assessment method	Resources required
Practical observation	The apprentice's place of work or an in-centre practical assessment site (Realistic Working Environment) reflecting typical working conditions on a variety of machines and equipment
	The environment should include sufficient space for the City & Guilds IEPA to observe and take notes
	Centres/Employers should check the PDF specification drawings in the practical observation pack to ensure they can provide the appropriate machinery and materials for apprentices to complete the task to standard
	Printed copies of the specification drawings must be provided to the apprentice PDF versions of the specification drawings can be found in the practical observation pack Note: Task H is clearer if printed in colour
Professional discussion	A suitable room for the Professional Discussion/interview to take place, large enough to accommodate all those involved including panel member where applicable
	Seating area or room for any other apprentices to wait
	Access to water and cups
	Where applicable, internet access and suitable equipment for remote assessment as outlined in the manual for End-point Assessment services

Assessment information: 9345- 700 Practical observation

Overview

This assessment method includes two tasks. Apprentices will be observed and will be assessed against the KSBs as identified within the standard. Typically, this will include adherence to standardised work, use of equipment, tooling etc. This will be covered with two tasks that captures the combination of skills, ie; shaping to specifications (drawing); manual and machine profiling/shaping techniques; mechanical and thermal jointing techniques; hot/cold manipulation of metal.

Rationale

The purpose to the practical observation is to assess the knowledge, skills and behaviours in a practical way that closely relates to the apprentice's daily duties and responsibilities.

Number of questions	The assessor will ask a minimum of 10 open questions to assess the related underpinning knowledge and assess the skills that did not naturally occur during the observation. They may ask follow up questions where clarification is required. Questioning must be completed within the total time allowed for the observation.
Grading	Pass/Fail To achieve a **Pass** the apprentice must achieve all of the pass grade descriptors
Type of assessment	Observation
Duration	6 hours (+10% at the assessor's discretion)
Permitted materials	See **9345-12 EPA practical observation pack** for information
Location	Carried out in the workplace; or at an approved EPAO centre, in a realistic work situation under normal conditions
Resources	See **9345-12 EPA practical observation pack** for information

Assessment specification

Description	Coverage	KSBs	Grade
Practical Observation	Complying with health & safety and environmental legislation, regulations and organisational requirements Assembly Documentation interpretation and use	Knowledge: K1, K6, K9, K11, K19, K20, K24 Skills: S1, S2, S3, S5, S9, S10, S12, S13, S14, S17	P/X

Assessment instructions

Duration

The City & Guilds End-point assessment team will arrange the dates and times with the EPA customer. The employer must ensure that the date chosen will give the apprentice the best possible chance of covering all of the KSBs listed in the assessment specification.

Apprentices should spend **6 hours** completing the tasks for the Practical Observation to be able to cover the KSBs required during the practical observation.

Questioning must be completed within the total time allowed for the observation.

If the apprentice needs to move from one location to another to complete different tasks or activities required during the assessment then breaks are allowed to enable this to happen.

Delivery

Each apprentice must complete **two** fabrication tasks during the Practical Observation EPA. The centre/employer should decide which are most suitable.

The full details of the tasks can be found in the **9345-12 EPA Practical Observation pack**. Tasks selected by the employer must not be shared with the apprentice prior to the start of the assessment. The centre/employer will need to use the information in the packs to select and prepare for the assessment to take place. The centre/employer will also need to print out the task instructions and drawings for the two selected tasks for the apprentice to use during the assessment.

Before the assignment commences, the IEPA will provide verbal instructions and provide the apprentice with the written version of the tasks they are completing. The IEPA will ensure that the apprentice understands the tasks to be performed.

At the end of the observation, the IEPA will ask a minimum of 10 open questions to assess the required underpinning knowledge and assess the skills that did not naturally occur during the observation. They may ask follow-up questions where clarification is required.

This assessment method must include direct observation of:

- working 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
- identification and use of appropriate documentation for example job instructions, drawings, quality control documentation
- fabrication activities in-line with the correct processes, procedures and equipment
- cutting and forming of metal for the production of fabricated parts
- assembly of metal products to required specification and quality requirements
- joining of materials using approved welding procedures and quality requirements (where appropriate)

Assessment location

The Practical Observation should take place in the apprentice's normal work environment or where it is not feasible to use the employer's premises, an in-centre practical assessment in a suitable area away from the workplace.

The EPA customer must arrange for the required materials to be available on the day of assessment.

Please ensure that any PPE required for the premises, apart from footwear, is made available to the IEPA for the day and that the EPA team are made aware of any other PPE requirements.

Administration

No information regarding the marking/grading will be given by the IEPA.

Up to a maximum of 3 apprentices can be observed at the same time, to allow for cost effective use of resources but quality and rigor needs to be maintained. Thought must be given to whether the IEPA will be able to observe all required activities if learners will be carrying out activities in different locations simultaneously.

Evidence requirements (including authentication of)

KSBs/Grading descriptors observed and answers to questions must be documented by the independent assessor.

KSBs and grading descriptors

A mapping table detailing KSBs assessed using this method and grading descriptors can be found in Appendix 1.

Grading

The Practical assessment will be graded Fail or Pass. The IEPA is fully responsible for making the grading decision. The results will not be shared with you on the day of the assessment.

Assessment information: 9345-710 Professional Discussion

Overview

The IEPA will ask a minimum of 10 questions based on the apprentice's portfolio of evidence to assess the KSBs and grading descriptors required for the professional discussion.

Rationale

The purpose of the Professional Discussion is to:

- Demonstrate the apprentice can apply the broad range of knowledge, skills and behaviours in the Standard, as indicated in Appendix 2
- Clarify any questions the independent assessor has from their review of the portfolio submitted
- Explore aspects of the apprentice's work in more detail, including how it was carried out
- Enable the review panel to draw a conclusion on the holistic EPA and the final grade to be awarded

Number of questions	A minimum of 10 open questions will be asked
Grading	Pass, Distinction or Fail
Type of assessment	Professional discussion (underpinned by a portfolio of evidence)
Duration	40 minutes (+2 minutes at the assessor's discretion)
Permitted materials	The apprentice will have access to and may refer to their portfolio of evidence during the professional discussion, if required
Location	A suitable room for the Professional Discussion/interview to take place, large enough to accommodate all those involved including panel member where applicable

Resources	Seating area or room for any other apprentices to wait Access to water and cups Where applicable, internet access and suitable equipment for remote assessment as outlined in the manual for End-point Assessment services

Assessment specification

Description	Coverage	KSBs	Grade
Professional Discussion (informed by a portfolio)	Complying with health & safety and environmental legislation, regulations and organisational requirements Follow correct metal work instructions, specifications, drawing etc.	Knowledge: K1-K5, K7, K8, K10, K12-K18, K21, K22, K23 Skills: S1, S4, S6-S8, S11, S15, S16 Behaviours: B1-B5	D/P/X

Assessment instructions

Portfolio requirements

The apprentice will compile a portfolio of evidence throughout their on-programme. training period. The apprentice's portfolio of evidence needs to be reviewed by the employer during the gateway review.

Ideally the evidence should be produced in electronic format or scanned/ photographed to give a clear electronic representation, as it must be submitted electronically for End-point Assessment. The evidence in the portfolio must be chosen to provide valid evidence for the specified criteria being assessed and should cover a variety of types of evidence. It can be for example:

- Task evidence – for instance:
    - o A set of digital images showing a carried-out activity from a number of perspectives with close-ups of relevant details. Where relevant, such as when components are replaced, before and after images and stages should be included.
    - o Electronic documents such as letters, memos, reports, plans
- Observation evidence – a statement from a suitably qualified person describing the apprentice's performance in the workplace while carrying out naturally occurring

activities. This statement will normally be backed up with video/ audio evidence recording key details.

- Witness testimony – evidence from a relevant witness giving their account of what the apprentice has done in their job role. The witness can range from a manager to a customer.

All evidence must be of the apprentice's own work and, for any group work, must clarify and focus only on their contribution.

Where necessary, confidentiality and data protection requirements must be adhered to, e.g. permissions for use of video / images containing identifiable third parties (e.g. clients), anonymised documentation and permissions from clients when submitting designs and plans commissioned by them.

Before selecting the evidence for the portfolio, the apprentice should review the assessment requirements in the Standard to understand:

- That only evidence relevant to the Standard is used
- The criteria to be covered by the portfolio
- The type of evidence that can be presented (see above)
- The amount of evidence that should be presented
- The period of time from which the evidence should have originated

To assemble the portfolio, the apprentice should consider all the evidence they have available that shows they have met the requirements being assessed. Evidence collected towards the end of their Apprenticeship programme, as they become independent in their work, is likely to provide the most holistic evidence, i.e. covering a number of criteria at once. The assessment plan must include evidence of work carried out within the last three months of the on-programme period. From this, they should select evidence that most efficiently meets all the relevant criteria, and which demonstrates their best performance. While there may be some overlap between the evidence collected, multiple pieces of evidence showing coverage of the same criteria should not normally be submitted for End-point Assessment.

There are two questions that an apprentice should consider when selecting work to form their portfolio:

1. Which pieces holistically (most efficiently) give evidence that together cover all of the relevant criteria?

2. Is this the best evidence I have, showing that I have met all of the requirements for the higher grade?

When the apprentice has selected the evidence to form their portfolio, this must be reviewed by the employer/ EPA customer to ensure:

- All assessment requirements have been met
- There is no unnecessary duplication of evidence against the same criteria

- The work selected represents the best evidence available in relation to grading requirements
- The clarity of any images or scanned evidence is sufficient to determine the quality of the original evidence
- Authenticity of evidence has been established

The EPA customer is responsible for providing guidance to the apprentice on compiling the portfolio whilst on programme and this is to be reviewed by the EPA customer prior to triggering EPA. The employer should provide suitable work for the apprentice to apply themselves to and discuss at interview. The EPA customer is responsible for the review of the portfolio and if, in its entirety, it does not contain sufficient evidence to meet the Standard then it will be deemed not yet ready to submit. The apprentice must be advised by the employer/mentor about the shortfalls in evidence and how this can be addressed. A portfolio checklist has been provided to support the centre and the apprentice in the submission of the documentation.

The apprentice is required to complete the Evidence Matrix Form. The work evidenced in the portfolio must have been carried out by the apprentice. Each piece of evidence must be referenced to the criteria it is being submitted against, along with the City & Guilds Evidence Matrix Form (within the **9345-12 Level 3 Metal Fabricator Customer Recording Forms**) which must be completed to:

- Cross-reference each piece of evidence to the relevant KSB, as shown on the evidence matrix form
- Formally declare the authenticity of all evidence

The Employer will be required to confirm that the portfolio of evidence provides an accurate representation of work carried out by the apprentice and is not embellished.

The EPA customer will review the portfolio to ensure it meets the requirements and submit the portfolio.The portfolio and evidence matrix must be uploaded to the City & Guilds EPA Pro portal.

The portfolio is not directly assessed but is used as the basis for the Professional Discussion. The evidence in the portfolio will not be judged or marked by the Independent End-point Assessors. The Independent End-point Assessors use the portfolio to familiarise themselves with the apprentice's work and to base the questions on in preparation for the Professional Discussion. The EPA customer is not expected to mark or grade the portfolio.

Duration

The portfolio of evidence must be submitted and uploaded to EPA Pro portal a minimum of 14 days before the professional discussion takes place.

The date and time of the Professional Discussion should be planned in advance to ensure that the apprentice has sufficient time to prepare. You should give the apprentice at least two weeks' notice of the date of the Professional Discussion.

The professional discussion must be completed during a 40 minute period (+2 minutes at the assessor's discretion).

Delivery

The Professional Discussion will be carried out by a panel consisting of two members:

- An employer representative - who must be occupationally competent and must not have been involved in training the apprentice. They will be sourced by the apprentice's employer and will provide technical support, advice and guidance to the IEPA such as confirming company policies, procedures, processes and providing context on technical information or on emerging technologies. They are not required to ask questions
- The IEPA - who will act as chair and will make the final judgement on the grading awarded for this assessment method

When booking the EPA event, the EPA customer must add the name, role, and email address of the employer representative to EPA Pro. They should also let the apprentice know who will be joining from their employer.

Any information provided by the employer representative must only be at the request of the End-point assessor who has the final say over the assessment and grade awarded. The employer representative must not provide evidence on behalf of the apprentice.

The employer representative must be available for 15 minutes after the Professional Discussion to confirm any information provided by the apprentice.

The Professional Discussion cannot go ahead without the employer representative being present. An alternative employer representative can join the Professional Discussion as long as they fulfil the requirements of the role.

Assessment location

The assessment is to be taken under controlled conditions ensuring the apprentice is in a room away from distraction.

The Professional Discussion will usually be conducted remotely and recorded. Employers and training providers should ensure that there is sufficient bandwidth to maintain the video link throughout the Professional Discussion.

The EPA customer is responsible for ensuring that any assessment takes place in appropriate surroundings which are free from distractions and interruptions. This could include ensuring that appropriate signposting and other arrangements are in place to maintain a suitable environment throughout the duration of the assessment activity.

Administration

The apprentice must have access to the portfolio before and during the Professional Discussion. The apprentice will use the portfolio to support them in demonstrating their knowledge, skills and behavioural understanding and can use it to provide tangible evidence, to support their accounts of their work during the discussion.

Evidence requirements (including authentication of)

The Independent End-point Assessor must record the questions asked, responses and grading descriptors achieved on the Professional Discussion recording form.

KSBs and grading descriptors

A mapping table detailing KSBs assessed using this method and grading descriptors can be found in Appendix 2.

Grading

The Professional Discussion will be graded Fail, Pass or Distinction. The IEPA is fully responsible for making the grading decision. The results will not be shared with you on the day of the assessment.

Resits and retakes

Apprentices who fail one or more assessments will be offered the opportunity to take a resit or retake.

- A resit is where the apprentice takes the assessment again without the need for new learning.
- A retake is where the employer determines new learning is needed first.

Re-sits/re-takes will not be offered to apprentices wishing to move from Pass to Distinction.

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.

The timescale for a re-sit/re-take of the entire EPA is agreed between the employer and EPAO. A re-sit is typically taken within two 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 six months of the EPA outcome notification.

9345-700 Practical Observation

If the resit or retake relates to the Practical assessment, the IEPA will observe the apprentice under the same circumstances and question them on the same subject area but using a different set of questions. Please refer to the Assessment Instructions: Practical assessment, in this pack.

For the practical observation, if only one of the two tasks resulted in a fail, then only one new task needs to be re-sat or retaken, the timing of the assessment will be reduced accordingly.

The apprentice must undertake different tasks within the Practical Observation when taking a re-sit/re-take.

The maximum grade awarded to a re-sit/re-take for the Practical Observation will be graded Pass/Fail.

9345-710 Professional Discussion

If the resit or retake relates to the Professional discussion, the IEPA will question the apprentice on the same subject area but using a different set of questions.

The Professional discussion will be carried out in the same way as the original assessment. The IEPA may review the portfolio of evidence to ensure all the KSBs are evidenced. They will choose different questions. The apprentice does not need to submit a new portfolio of evidence.

Please refer to the Assessment Instructions: Professional discussion, in this pack.

The maximum grade awarded to a re-sit/re-take of the Professional Discussion will be graded Pass/Fail/Distinction.

Submission must include

A new set of Recording Forms for the resit or retake will be completed by the IEPA.

Security, confidentiality and copyright of End-point Assessment materials

The following Terms of Use apply to the use of any City & Guilds EPA Assessment Materials ("EPA Assessment Materials"), included with the EPA Pack or otherwise provided by City & Guilds to the Customer from time to time under City & Guilds' EPA Service, by Customers. They form part of the Agreement between City & Guilds and the Customer for provision of City & Guilds' EPA Service in accordance with the Manual for the End-point Assessment Service (hereafter the Manual).

EPA Assessment Materials include, but are not restricted to, venue and resources list, the handbook, EPA Pack, EPA Recording Forms, sample papers, assessment tasks, questions or marked scripts.

Customers are obliged to comply with these Terms of Use when using any EPA Assessment Materials from time to time, in addition to:

- the terms of the licence for use of City & Guilds Materials set out under the Manual;
- (where any EPA Assessment Materials are dated examinations), the City & Guilds invigilation instructions; and
- any conditions contained in a document itself.

Defined terms in these Terms of Use shall have the meaning given to them in the Manual.

Terms of Use

The Customer shall, and procure that the Customer's staff shall:

- **only** use any EPA Assessment Materials for the purpose of formal, summative EPA assessment in connection with the Agreement and not for any other purpose (including, but not restricted to, teaching, revision, as practice assessments or for commercial purposes);
- **not** make copies of any EPA Assessment Materials, whether in whole or in part, at any time;
- handle and store any EPA Assessment Materials securely at all times;
- ensure that:
    - any EPA Assessment Materials are made accessible to Apprentices only during formal EPA assessment as governed by the assessment conditions specified for the individual Apprenticeship Standard;

- whilst the portfolio of an Apprentice may contain EPA assessment results referenced to the EPA assessment taken from time to time, they do not at any time contain the EPA Assessment Materials, unless otherwise stated in the individual Apprenticeship Standard; and the content of any EPA Assessment Materials is not made public in any format, whether in part or in full, at any time;
- **under no circumstances** share any EPA Assessment Materials with any third-party organisation or individual;
- seek written permission from City & Guilds if they wish to convert any EPA Assessment Materials for storage, retrieval and delivery in electronic form (ie, using some form of e-assessment or e-learning system) from time to time; and
- provide access, on request, to City & Guilds to any system(s) on which any EPA Assessment Materials appear, are stored or delivered from time to time.

Contact us

EPA Gateway Team: Initial Reservation and Gateway	epa.gateway@cityandguilds.com
EPA Events Team: Bookings and Cancellations (Post Gateway)	EPA@cityandguilds.com
Technical Advisors: Sector Specific Guidance	Technical Advisors contact details
City & Guilds Sales Team	directsales@cityandguilds.com
ILM Sales Team	01543 266 867 customer@i-l-m.com
City & Guilds Customer Services Team	01924 930800 (option 5 EPA) centresupport@cityandguilds.com
ILM Customer Services Team	01543 266 867 customer@i-l-m.com
Digital Sales: on-programme delivery resources	Digitalsales@cityandguilds.com
Digital Credentials	digitalsupport@cityandguilds.com
Digital Credentials: bulk email uploads	DCServiceTeam@cityandguilds.com

Appendix 1 - KSBs and grading descriptors for Practical observation

Theme KSBs	Pass
Complying with health & safety and environmental legislation, regulations and organisational requirements K1, K6, K9, K24, S1, S2, S3, S5	P1 Explains the potential effect of not using current approved processes, procedures and documentation.
	P2 Applies the appropriate processes and procedures and uses the relevant documentation. Provides Manual handling documentation.
	P3 Demonstrates and identifies, assesses and controls risk within work environment for example completes risk assessment documentation.
	P4 Demonstrates how to select and use appropriate processes, procedures, tools, equipment and materials to carry out the engineering operations e.g obtain specifications, engineering drawings.
	P5 Works effectively e.g using manual and machine profiling/shaping techniques; mechanical and thermal jointing techniques; hot/cold manipulation of metal.
Documentation interpretation and use S10, S14	P6 Demonstrates the Identification and adherence to the correct work instructions as part of their work commitments and shows an understanding of any operating rules in place within the instruction.
Assembly K11, K19, K20, S12 S13, S17, S9	P7 Select the appropriate tools for the tasks, demonstrate correct use of the techniques and operate equipment appropriately when fabricating products.
	P8 Uses consumables appropriately.
	P9 Work efficiently to complete the tasks to specification and quality requirements.
	P10 Restore the work area on completion of the activity and where applicable return any resources and consumables to the appropriate location.
	P11 Demonstrates the cutting and forming of metal for the production of fabricated products.

Appendix 2 - KSBs and grading descriptors for Professional Discussion

Theme KSBs	Pass	Distinction In addition to meeting the Pass criteria:
Complying with health & safety and environmental legislation, regulations and organisational requirements K1, K4, K5, K7, K8, S1, S4, S6, S7, S8, B1, B2, B3, B4, B5	P12 Outlines the specific statutory, quality, environmental compliance procedures and systems, organisational and health and safety regulations relevant to their work activities. Giving two examples of typical problems that may arise within their normal work activities and or environment for example incorrect materials, tooling and or equipment, breakdowns, environmental.	D1 Challenges other people on H&S compliance and can dynamically assesses and controls risk at all times regardless of environment, proactively assesses and controls risk without the need to be prompted.
	P13 Describes two different diagnostic methods and techniques used to help solve engineering problems for example sensory inspection, six point, half-split, input and output, cause and effect, 5 whys, process mapping.	D2 Suggests ideas for improvement to company processes or procedures identifying possible solutions example to others by working in a well-organised and competent way when on their own.
	P14 Explains different roles and functions in the organisation and how they interact for example management, quality department, commercial	D3 Proactively supports others and seeks support and advice and shares learning. Takes action to share information, openly and honestly rather than just responding to requests and

Theme KSBs	Pass	Distinction In addition to meeting the Pass criteria:
	department, material stores and supply, unions, HR personnel, H&S department.	checks understanding of others by asking open questions.
	P15 Explains the potential impact of not reviewing and updating fabrication and general engineering processes and procedures for example incorrect products, poor productivity, inefficient work.	D4 Makes suggestions to improve instructions, escalate issues as appropriate and applies the techniques for problem solving.
	P16 Identifies, prepares, assesses and controls risk within work environment, selects and use appropriate documentation, tools, equipment and materials to carry out the metal fabrication operations.	D5 Demonstrates understanding and reflect upon lessons learnt after problem solving activity. Recognises needs and continually seeks learning opportunities and transfers learning, applying it to different situations.
	P17 Demonstrates the required checks using the correct procedures, processes and or equipment.	
	P18 Demonstrates dealing with problems that occur during their work activities within the limits of their responsibility and completing documentation accurately using the correct terminology. Restores the work area	

Theme KSBs	Pass	Distinction In addition to meeting the Pass criteria:
	on completion of the activity, returning all tools, equipment and resources to the appropriate location.	
	P19 Demonstrates understanding of the importance of H&S requirements, assesses and controls risk in current environment. Works on their own when appropriate, knowing who and where to seek help from if needed, manages own time and workload, stays motivated and committed, when facing small challenges and reflects on how to do things more effectively.	
	P20 Demonstrates effort to integrate within a team, helps and supports when asked, considers impact of their own actions on other people or activities, contributes positively to team deliverables and provides encouragement as appropriate to keep the team on track. P21 Communicates openly and honestly, clearly using appropriate methods paying attention	

Theme KSBs	Pass	Distinction In addition to meeting the Pass criteria:
	to instructions and a has a positive and respectful attitude.	
	P22 Demonstrates understands and follows instructions and or processes, ensuring attention to detail and follows a logical and right approach to problem solving. Identifies opportunities to improve, but may need prompting for ideas.	
	P23 Demonstrates knowledge and seeks opportunities to develop, reflecting on skills, behaviours adapt to different situations, environments or technologies and demonstrates a positive attitude to feedback and advice.	
Follow correct metal work instructions, specifications, drawing etc. K2, K3, K10, K12, K13, K14, K15, K16, K17, K18, K21,	P24 Demonstrate the engineering mathematical and scientific principles, methods and techniques that are used within fabrication. Describes the structure, properties and characteristics of two common materials. Gives details of the process for preparing materials to be	D6 Demonstrates that they consistently carryout fabrication activities and identifies opportunities to improve processes or procedures, identifying potential solutions that can overcome problems that may occur.

Theme KSBs	Pass	Distinction In addition to meeting the Pass criteria:
K22, K23, S4, S11, S15, S16	marked out they have used while carrying out a metal fabrication work activity.	
	P25 Explains the importance for making allowances for cutting, notching, bending, rolling and forming. Gives details of the pattern development process, tooling and equipment they have used while carrying out a sheet-metal work activity, Identifies the tools and techniques used for cutting and shaping metal giving details of the cutting and forming techniques.	D7 Demonstrates that they consistently carryout joining activities in a well-organised and competent way with minimum wasted effort or expense and identifies opportunities to improve processes or procedures along with potential solutions and overcomes problems that may occur.
	P26 Gives details of the assembly and finishing processes, tooling end equipment they have used, inspection techniques that can be applied to check shape and dimensional accuracy for Linear measurement, surface checks, alignment checks, straightness checks, squareness checks, taper measurement, angular measurement.	D8 Demonstrates the use of technical language and detail to give an in-depth* explanation of the key elements of the knowledge relating to the to the metal fabrication work activities they have been involved in. In-depth* = explanation includes detail of key aspects of the work they have carried out and answers questions using relevant detail for example processes, equipment, materials used and the reason behind their use. Why a specific method was used within the production of a fabricated parts. In-depth* = explanation includes detail of key aspects of the work they have carried out and answers questions using

Theme KSBs	Pass	Distinction In addition to meeting the Pass criteria:
		relevant detail for example processes, equipment, materials used and the reason behind their use. Answers questions using relevant detail for example processes, equipment, materials used and the reason behind their use.
	P27 Explains the factors that could influence the selection of forming process for example material properties, end product specification, operating conditions. Gives details of the method they have used in the production of fabricated parts.	
	P28 Gives details of the metallurgy associated with joining activities they have been involved, giving details of the joining procedures and methods of testing they have used during manual or mechanised joining activities. Describes different types of welds and joints and where they could be used and describes the effects of heating and cooling metals.	
	P29 Demonstrates having followed the correct work	

Theme KSBs	Pass	Distinction In addition to meeting the Pass criteria:
	instructions, planned, implemented, monitored resource and relevant preparation as part of their work commitments and shows an understanding of any operating rules in place within the instruction, having cut and formed metal for the production of metal products. Provides evidence of setting up, checking, adjusting and use joining and related equipment to assemble metal products to required specification in accordance with approved welding procedures and quality requirements. Completes the relevant documentation for metal fabrication and assembly activity.	

Who we are

As part of the City & Guilds Group, we believe in a world where people and organisations have the confidence and capabilities to prosper, today and in the future.

As workplaces evolve, so do we. That's why we set the standard for skills that transform lives, industries, and economies.

About City & Guilds

Founded in 1878 to develop the knowledge, skills, and behaviours needed to help businesses thrive, we offer a broad and imaginative range of products and services that help people achieve their potential through work based learning. We believe in a world where people and organisations have the confidence and capabilities to prosper, today and in the future. So we work with like-minded partners to develop the skills that industries demand across the world.

City & Guilds Group

Giltspur House
5–6 Giltspur Street
London EC1A 9DE
www.cityandguilds.com

Every effort has been made to ensure that the information contained in this publication is true and correct at time of going to press. However, City & Guilds' products and services are subject to continuous development and improvement and the right is reserved to change products and services from time to time.

City & Guilds cannot accept responsibility for any loss or damage arising from the use of information in this publication.

©2022 The City & Guilds of London Institute. All rights reserved. City & Guilds is a trademark of the City & Guilds of London Institute, a charity established to promote education and training registered in England & Wales (312832) and Scotland (SC039576).