DRAFT END-POINT ASSESSMENT PLAN FOR THE COLD FORMING SETTER TECHNICIAN APPRENTICESHIP

APPRENTICESHIP REFERENCE NUMBER	LEVEL OF THIS END-POIN (EPA)	NT ASSESSMENT INTEGRATED
ST1355	3	No
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Key Fields

Introduction and overview

Edit introduction and overview form

This document explains the requirements for end-point assessment (EPA) for the cold forming setter technician apprenticeship. End-point assessment organisations (EPAOs) must follow this when designing and delivering the EPA.

Cold forming setter technician apprentices, their employers and training providers should read this document.

A full-time cold forming setter technician apprentice typically spends 36 months on-programme. The apprentice must spend at least 12 months on-programme and complete the required amount of off-the-job training in line with the apprenticeship funding rules. The EPA should be completed within an EPA period lasting typically 3 months. The apprentice must complete their training and meet the gateway requirements before starting their EPA. The EPA will assess occupational competence.

An approved EPAO must conduct the EPA for this apprenticeship. Employers must work with the training provider to select an approved EPAO from the apprenticeship providers and assessment register (APAR).

This EPA has 2 assessment methods.

The grades available for each assessment method are below.

Assessment method 1 - observation with questioning:

- fail
- pass

Assessment method 2 - interview underpinned by a portfolio of evidence:

- fail
- pass
- distinction

The result from each assessment method is combined to decide the overall apprenticeship grade. The following grades are available for the apprenticeship:

- fail
- pass
- distinction

EPA summary table

Edit epa gateway formEdit available grades formEdit overall epa grading formEdit re-sits and re-takes form

On-programme - typically 36 months	 The apprentice must: complete training to develop the knowledge, skills and behaviours (KSBs) outlined in this apprenticeship's standard complete training towards English and mathematics qualifications in line with the apprenticeship funding rules compile a portfolio of evidence
	The apprentice's employer must be content that the apprentice is occupationally competent.
	The apprentice must:
	• confirm they are ready to take the EPA
End-point assessment gateway	 have achieved English and mathematics qualifications in line with the apprenticeship funding rules For the interview underpinned by a portfolio of evidence, the apprentice must submit a portfolio of evidence. Gateway evidence must be submitted to the EPAO, along with any organisation specific policies and procedures requested by the EPAO.
	The grades available for each assessment method are below Observation with questioning: • fail • pass
	Interview underpinned by a portfolio of evidence: • fail • pass
	 distinction Overall EPA and apprenticeship can be graded: fail
End-point assessment - typically 3 months	opass odistinction
Professional recognition	This apprenticeship aligns with: • Institute of Mechanical Engineers for Engineering Technician
Re-sits and re-takes	 re-take and re-sit grade cap: pass re-sit timeframe: typically 2 months re-take timeframe: typically 3 months

Duration of end-point assessment period

Edit duration of end-point assessment period form

The EPA is taken in the EPA period. The EPA period starts when the EPAO confirms the gateway requirements have been met and is typically 3 months.

The EPAO should confirm the gateway requirements have been met and start the EPA as quickly as possible.

EPA gateway

Edit epa gateway form

The apprentice's employer must be content that the apprentice is occupationally competent. That is, they are deemed to be working at or above the level set out in the apprenticeship standard and ready to undertake the EPA. The employer may take advice from the apprentice's training provider, but the employer must make the decision. The apprentice will then enter the gateway.

The apprentice must meet the gateway requirements before starting their EPA.

They must:

- confirm they are ready to take the EPA
- have achieved English and mathematics qualifications in line with the apprenticeship funding rules
- submit a portfolio of evidence for the interview underpinned by a portfolio of evidence

Portfolio of evidence requirements:

The apprentice must compile a portfolio of evidence during the on-programme period of the apprenticeship. It should only contain evidence related to the KSBs that will be assessed by the interview. It will typically contain 10 discrete pieces of evidence. Evidence must be mapped against the KSBs. 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 and records, for example:
- workplace policies and procedures
- witness statements
- annotated photographs
- video clips with a maximum total duration 10 minutes; the apprentice must be in view and identifiable

This is not a definitive list; other evidence sources can be included.

The portfolio of evidence 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 should be valid and attributable to the apprentice; the portfolio of evidence should contain a statement from the employer and apprentice confirming this.

The EPAO should not assess the portfolio of evidence directly as it underpins the interview. The independent assessor should review the portfolio of evidence to prepare questions for the interview. They are not required to provide feedback after this review. Gateway evidence must be submitted to the EPAO, along with any organisation specific policies and procedures requested by the EPAO.

Order of assessment methods

Edit order of assessment methods form

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.

Observation with questioning

Edit observation with questioning form

Overview

In the observation with questions, 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 allowed. It gives the apprentice the opportunity to demonstrate the KSBs mapped to this assessment method.

Rationale

This assessment method is being used because:

- this is a practical role
- it can assess KSBs holistically
- it should give employers assurance about an apprentice's competence as it takes place in a real work setting
- the familiar environment should allow the apprentice to perform at their best
- it is cost effective, tasks completed during the observation should contribute to workplace productivity and it makes use of the employer's resources and equipment

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 the apprentice 2 weeks' notice of the observation with questions. The observation must take 4 hours.

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

The observation with questions cannot be split, except for comfort breaks or to allow the apprentice to move from one location to another. Such breaks will not count towards the total observed 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.

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

The independent assessor should observe the following during the observation:

- reading and interpreting information
- following approved work processes
- planning work and identifying, organising and using resources
- setting up and operating cold forming machines (building progressions across multiple stations)
- making adjustments to the process to maintain control
- using gauges and measuring equipment
- working safely
- working sustainably
- recording or entering information
- restoring the work area

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 both during and after the observation.

The purpose of the questioning is to assess the level of competence against the grading descriptors.

The time for questioning is included in the overall assessment time. The independent assessor must ask at least 4 questions. To remain as unobtrusive as possible, the independent assessor should ask questions during natural stops between tasks and after completion of work rather than disrupting the apprentice's flow. 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. Follow-up questions are allowed where clarification is required. The independent assessor must ask questions about KSBs that were not observed to gather assessment evidence. These questions are in addition to the above set number of questions for the observation with questions and should be kept to a minimum.

The apprentice may choose to end the assessment method early. The apprentice must be confident they have demonstrated competence against the assessment requirements for the assessment method. The independent assessor or EPAO must ensure the apprentice is fully aware of all assessment requirements. The independent assessor or EPAO cannot suggest or choose to end the assessment methods early, unless in an emergency. The EPAO is responsible for ensuring the apprentice understands the implications of ending an assessment early if they choose to do so. The independent assessor may suggest the assessment continues. The independent assessor must document the apprentice's request to end the assessment early.

The independent assessor must make the grading decision. The independent assessor must assess the observation and responses to questions holistically when 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 confirmed to be available by the EPAO, who can liaise with the employer to provide these. They must be in good and safe working condition. Questioning that occurs after the observation should take place in a suitable environment, for example a quiet room, free from distractions and influence.

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 must maintain the security and confidentiality of EPA materials when consulting with 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 with questioning:

- independent assessor assessment materials which include:
 - training materials
 - administration materials
 - o moderation and standardisation materials
 - o guidance materials
 - o grading guidance
 - o 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 and moderation.

Interview underpinned by a portfolio of evidence

Edit interview underpinned by a portfolio of evidence form

Overview

In the interview, an independent assessor asks the apprentice questions. It gives the apprentice the opportunity to demonstrate the KSBs mapped to this assessment method. The apprentice can refer to and illustrate their answers with evidence from their portfolio of evidence.

Rationale

This assessment method is being used because:

• it assesses KSBs holistically and objectively

- it allows for the assessment of KSBs that do not occur on a predictable or regular basis
- it allows for assessment of responses where there are a range of potential answers
- it can be conducted remotely, potentially reducing cost

Delivery

The interview 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 interview.

The purpose is to assess the apprentice's competence against the following themes:

- software and equipment
- troubleshooting and problem solving
- maintenance.
- communication and teamwork
- continuous improvement and quality
- professional behaviours
- hazards and risks
- stocks and supplies

The EPAO must give an apprentice 2 weeks' notice of the interview.

The independent assessor must have at least 2 weeks to review the supporting documentation.

The apprentice must have access to their portfolio of evidence during the interview.

The apprentice can refer to and illustrate their answers with evidence from their portfolio of evidence however, the portfolio of evidence is not directly assessed.

The interview must last for 75 minutes. The independent assessor can increase the time of the interview by up to 10%. This time is to allow the apprentice to respond to a question if necessary.

The independent assessor must ask at least 8 questions. 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. Follow-up questions are allowed where clarification is required.

The apprentice may choose to end the assessment method early. The apprentice must be confident they have demonstrated competence against the assessment requirements for the assessment method. The independent assessor or EPAO must ensure the apprentice is fully aware of all assessment requirements. The independent assessor or EPAO cannot suggest or choose to end the assessment methods early, unless in an emergency. The EPAO is responsible for ensuring the apprentice understands the implications of ending an assessment early if they choose to do so. The independent assessor may suggest the assessment continues. The independent assessor must document the apprentice's request to end the assessment early.

The independent assessor must make the grading decision.

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

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

Assessment location

The interview must take place in a suitable venue selected by the EPAO for example, the EPAO's or employer's premises.

The interview can be conducted by video conferencing. The EPAO must have processes in place to verify the identity of the apprentice and ensure the apprentice is not being aided. The interview should take place in a quiet room, free from distractions and influence.

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 must maintain the security and confidentiality of EPA materials when consulting with 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 ensure that the apprentice has a different set of questions in the case of resits or re-takes.

The EPAO must produce the following materials to support the interview underpinned by a portfolio of evidence:

- independent assessor assessment materials which include:
 - training materials
 - o administration materials
 - o moderation and standardisation materials
 - guidance materials
 - o grading guidance
 - o 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 and moderation.

Grading

Edit add grade descriptor formEdit mapping of ksbs to grade themes formEdit available grades form

Observation with questioning

Fail - does not meet pass criteria

THEME KSBS	PASS APPRENTICES MUST DEMONSTRATE ALL OF THE PASS DESCRIPTORS
Reading and interpreting information K1 S1	Reads and interprets information as per the task requirements. (K1, S1)
Following approved work processes K27 S26	Follows standard operating procedures in-line with the task requirements. (K27, S26)

	PASS
	APPRENTICES MUST
ТНЕМЕ	DEMONSTRATE ALL OF THE PASS
KSBS	DESCRIPTORS
	Plans work, identifies, organises and
	uses the required resources for the
Planning work, identifying, organising and using	task, including the correct tooling and
resources K2 K32 S27 S28	wire. (K2, K32, S27, S28)
	Loads wire onto the wire turntable
	and prepares the coil to feed into the
	machine in line with the task
	requirements. (K3, K4, K17, S2)
	Selects the tooling components that
	are required to complete the task.
	(K5, K18, S3)
	Inspects, assembles, fits and clamps
	tooling components as per the task
	specification. (K6, S4)
	Takes responsibility for completing
	work by building progressions across
	multiple stations in line with the
Setting up and operating cold forming machines K3 K4 K5 K6 K7 K16 K17 K18 S2 S3 S4 S5 B1	specifications. (K7, K16, S5, B1)
machines K3 K4 K3 K0 K7 K10 K17 K10 32 33 34 33 B1	
	Makes adjustments to the process to
	maintain control in line with the job specification. (K38, S8)
	Assesses the condition of components
	and equipment and identifies action required and makes required changes
	if required to ensure the product
	meets specification. (K9, S9)
Adjustments to the process K9 K38 S8 S9	
	Uses gauges and measuring
	equipment in line with manufacturers guidelines. (K8, S6)
Gauges and measuring equipment K8 S6	guidelilles. (No, 30)
	Takes personal responsibility for
	health and safety and applies health
	and safety procedures and safe
	systems of work in compliance with
Working safely and	regulations and standards. (K20, S12, B7).
sustainably K20 K34 S12 S19 B7 B8	,

THEME KSBS	PASS APPRENTICES MUST DEMONSTRATE ALL OF THE PASS DESCRIPTORS
	Applies environmental and sustainability procedures in compliance with regulations and standards. (K34, S19, B8)
Restoring the work area K36 S23	Restores the work area on completion of the activity in line with organisational requirements. (K36, S23)
Recording information K11 S18	Records or enters information in line with organisational requirements. (K11, S18)

Interview underpinned by a portfolio of evidence

Fail - does not meet pass criteria

THEME KSBS	PASS APPRENTICES MUST DEMONSTRATE ALL OF THE PASS DESCRIPTORS	DISTINCTION APPRENTICES MUST DEMONSTRATE ALL OF THE PASS DESCRIPTORS AND ALL OF THE DISTINCTION DESCRIPTORS
Process control and monitoring K12 K13 S7 S13	Explains how they input data and assess charts on Statistical Process Control (SPC) in line with organisational procedures. (K13, S7) Explains how they use process monitoring equipment in line with organisational procedures. (K12, S13)	Outlines the benefits to the organisation of Statistical Process Control (SPC) software and process monitoring equipment. (K12, K13, S7, S13)
Troubleshooting and problem solving K10 K15 K28 S10 S21 B4	Explains how they respond to and troubleshoot machine running issues and take required corrective actions	Justifies their selection of problem solving methods and techniques to help

THEME KSBS	PASS APPRENTICES MUST DEMONSTRATE ALL OF THE PASS DESCRIPTORS	DISTINCTION APPRENTICES MUST DEMONSTRATE ALL OF THE PASS DESCRIPTORS AND ALL OF THE DISTINCTION DESCRIPTORS
	in line with organisational procedures. (K10, S10, B4)	solve cold forming problems (K15, S21)
	Explains how they apply problem solving techniques in the cold forming manufacturing environment in line with organisational procedures. Explains the process to escalate issues. (K15, K28, S21)	
Maintenance K19 K25 K29 S24	Explains how they apply maintenance practices in line with organisational requirements and manufacturer guidelines. (K19, K25, K29, S24)	Outlines the benefits to the organisation of effective maintenance schedules. (K25, S24)
	Explains how they act professionally and use verbal and nonverbal communication techniques suitable for the context, adapting style and use of industry terminology to suit the audience. (K21, K22, S11, B2) Explains how they create, maintain and enhance productive working relationships and how they apply team working	Outlines the impact and the benefits of
Communication and teamwork K14 K21 K22 S11 S14 S17 B2	principles to meet work goals. (K14, S14, S17)	teamwork to the organisation and the wider team. (K14, S17)

THEME KSBS	PASS APPRENTICES MUST DEMONSTRATE ALL OF THE PASS DESCRIPTORS	DISTINCTION APPRENTICES MUST DEMONSTRATE ALL OF THE PASS DESCRIPTORS AND ALL OF THE DISTINCTION DESCRIPTORS
Continuous improvement and quality K23 K30 K33 S15 S29 B6	Explains how they apply business operation considerations when using continuous improvement techniques and how they devise suggestions for improvement. (K23, K33, S15, B6) Explains how they apply the quality assurance process to cold forming activities. (K30, S29)	Outlines the benefits to the organisation of continuous improvement. (K23, S15)
	Explains how they follow equality, diversity, and inclusion procedures. (K24, S20, B5) Explains how they complete continued professional development to maintain and enhance competence in own area of practice in line with organisational and professional requirements. (K35, S16, B3)	
Cold forming industry and professional behaviours K24 K31 K35 S16 S20 B3 B5	Describes the types of organisations, products and customers that can be found within the cold forming industry. (K31)	Outlines the benefits of supporting a diverse and inclusive culture for the business. (K24, S20)
Hazards and risks K37 S22	Explains how they identify document hazards and risks in the workplace in line with organisational requirements. (K37, S22)	None.

THEME KSBS	PASS APPRENTICES MUST DEMONSTRATE ALL OF THE PASS DESCRIPTORS	DISTINCTION APPRENTICES MUST DEMONSTRATE ALL OF THE PASS DESCRIPTORS AND ALL OF THE DISTINCTION DESCRIPTORS
Stocks and supplies K26 S25	Explains how they obtain and check stock and supplies and how they complete returns. (K26, S25)	Explains the benefits to the organisation of an efficient stock control system. (K26, S25)

Overall EPA grading

Edit overall epa grading form

Performance in the EPA determines the overall grade of:

- fail
- pass
- distinction

An independent assessor must individually grade the observation with questioning and interview underpinned by a portfolio of evidence in line with this EPA plan.

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

If the apprentice fails one assessment method or more, they will be awarded an overall fail.

To achieve an overall pass, the apprentice must achieve at least a pass in all the assessment methods. To achieve a distinction, the apprentice must gain a pass in the observation and a distinction in the interview.

Grades from individual assessment methods must be combined in the following way to determine the grade of the EPA overall.

OBSERVATION WITH QUESTIONING	INTERVIEW UNDERPINNED BY A PORTFOLIO OF EVIDENCE	OVERALL GRADING
Any grade	Fail	Fail
Fail	Any grade	Fail
Pass	Pass	Pass
Pass	Distinction	Distinction

Re-sits and re-takes

Edit re-sits and re-takes form

If the apprentice fails one assessment method or more, they can take a re-sit or a re-take at their employer's discretion. The apprentice's employer needs to agree that a re-sit or re-

take is appropriate. A re-sit does not need further learning, whereas a re-take does. The apprentice should have a supportive action plan to prepare for a re-sit or a re-take.

The employer and the EPAO should agree the timescale for a re-sit or re-take. 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.

Failed assessment methods must be re-sat or re-taken within a 6-month period from the EPA outcome notification, otherwise the entire EPA will need to be re-sat or re-taken in full.

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

The apprentice will get a maximum EPA grade of pass if they need to re-sit or re-take one or more assessment methods, unless the EPAO determines there are exceptional circumstances.

Roles and responsibilities

Edit roles and responsibilities form

ROLES	RESPONSIBILITIES
	As a minimum, the apprentice should:
	 complete on-programme training to meet the KSBs as outlined in the apprenticeship standard for a minimum of 12 months
	 complete the required amount of off-the-job training specified by the apprenticeship funding rules and as arranged by the employer and training provider
	 understand the purpose and importance of EPA
Apprentice	 prepare for and undertake the EPA including meeting all gateway requirements
	As a minimum, the apprentice's employer must:
	select the training providerwork with the training provider to select the EPAO
	 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
	 arrange and support off-the-job training to be undertaken by the apprentice
Employer	decide when the apprentice is working at or above the apprenticeship standard and is ready for EPA

ROLES	RESPONSIBILITIES
	• ensure the apprentice is prepared for the EPA
	 ensure that all supporting evidence required at the gateway is submitted in line with this EPA plan
	 confirm arrangements with the EPAO for the EPA in a timely manner, including who, when, where
	provide the EPAO with access to any employer-specific documentation as required for example, company policies
	 ensure that the EPA is scheduled with the EPAO for a date and time which allows appropriate opportunity for the apprentice to meet the KSBs
	ensure the apprentice is given sufficient time away from regular duties to prepare for, and complete the EPA
	 ensure that any required supervision during the EPA period, as stated within this EPA plan, is in place
	ensure the apprentice has access to the resources used to fulfil their role and carry out the EPA for workplace based assessments
	• remain independent from the delivery of the EPA
	pass the certificate to the apprentice upon receipt
	As a minimum, the EPAO must:
	 conform to the requirements of this EPA plan and deliver its requirements in a timely manner
	 conform to the requirements of the apprenticeship provider and assessment register
	 conform to the requirements of the external quality assurance provider (EQAP)
	 understand the apprenticeship including the occupational standard and EPA plan
	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
EPAO	 maintain and apply a policy for the declaration and management of conflict of interests and independence. This must ensure, as a minimum, there is no personal benefit or detriment for those delivering the EPA or from the result of an assessment. It must cover:

ROLES	RESPONSIBILITIES
	o apprentices
	o employers
	o independent assessors
	 any other roles involved in delivery or grading of the EPA
	 have quality assurance systems and procedures that ensure fair, reliable and consistent assessment and maintain records of internal quality assurance (IQA) activity for external quality assurance (EQA) purposes
	 appoint independent, competent, and suitably qualified assessors in line with the requirements of this EPA plan
	 appoint administrators, invigilators and any other roles where required to facilitate the EPA
	 deliver induction, initial and on-going training for all their independent assessors and any other roles involved in the delivery or grading of the EPA as specified within this EPA plan. This should include how to record the rationale and evidence for grading decisions where required conduct standardisation with all their independent assessors before allowing them to deliver an EPA, when the EPA is updated, and at least once a year conduct moderation across all of their independent assessors' decisions once EPAs have started according to a sampling plan, with associated risk rating of independent assessors monitor the performance of all their independent assessors and provide additional training where necessary
	 develop and provide assessment recording documentation to ensure a clear and auditable process is in place for providing assessment decisions and feedback to all relevant stakeholders
	 use language in the development and delivery of the EPA that is appropriate to the level of the apprenticeship
	 arrange for the EPA to take place in a timely manner, in consultation with the employer
	 provide information, advice, and guidance documentation to enable apprentices, employers and training providers to prepare for the EPA

ROLES	RESPONSIBILITIES	
	confirm the gateway requirements have been met before they start the EPA for an apprentice	
	• arrange a suitable venue for the EPA	
	 maintain the security of the EPA including, but not limited to, verifying the identity of the apprentice, invigilation and security of materials 	
	 where the EPA plan permits assessment away from the workplace, ensure that the apprentice has access to the required resources and liaise with the employer to agree this if necessary 	
	 confirm the overall grade awarded 	
	 maintain and apply a policy for conducting appeals 	
	As a minimum, an independent assessor must:	
	 be independent, with no conflict of interest with the apprentice, their employer or training provider, specifically, they must not receive a personal benefit or detriment from the result of the assessment 	
	 have, maintain and be able to evidence up-to-date knowledge and expertise of the occupation 	
	have the competence to assess the EPA and meet the requirements of the IQA section of this EPA plan	
	 understand the apprenticeship's occupational standard and EPA plan 	
	 attend induction and standardisation events before the conduct an EPA for the first time, when the EPA is updated, and at least once a year 	
	 use language in the delivery of the EPA that is appropriate to the level of the apprenticeship 	
	 work with other personnel, where used, in the preparation and delivery of assessment methods 	
	• conduct the EPA to assess the apprentice against the KSBs and in line with the EPA plan	
	• make final grading decisions in line with this EPA plan	
	• record and report assessment outcome decisions	
	• comply with the IQA requirements of the EPAO	
Independent assessor	• comply with external quality assurance (EQA) requirements	

ROLES	RESPONSIBILITIES	
	As a minimum, the training provider must:	
	 conform to the requirements of the apprenticeship provider and assessment register 	
	ensure procedures are in place to mitigate against any conflict of interest	
	 work with the employer and support the apprentice during the off-the-job training to provide the opportunities to develop the KSBs as outlined in the occupational standard 	
	 deliver training to the apprentice as outlined in their apprenticeship agreement 	
	 monitor the apprentice's progress during any training provider led on-programme learning 	
	 ensure the apprentice is prepared for the EPA 	
	 work with the employer to select the EPAO 	
	 advise the employer, upon request, on the apprentice's readiness for EPA 	
	 ensure that all supporting evidence required at the gateway is submitted in line with this EPA plan 	
Training provider	• remain independent from the delivery of the EPA	

Reasonable adjustments

Edit reasonable adjustments form

The EPAO must have reasonable adjustments arrangements for the EPA.

This should include:

- how an apprentice qualifies for a reasonable adjustment
- what reasonable adjustments may be made

Adjustments must maintain the validity, reliability and integrity of the EPA as outlined in this EPA plan.

Special considerations

The EPAO must have special consideration arrangements for the EPA.

This should include:

- how an apprentice qualifies for a special consideration
- what special considerations will be given

Special considerations must maintain the validity, reliability and integrity of the EPA as outlined in this EPA plan.

Internal quality assurance

Edit internal quality assurance form

Internal quality assurance refers to the strategies, policies and procedures that an EPAO must have in place to ensure valid, consistent and reliable EPA decisions.

EPAOs for this EPA must adhere to the requirements within the roles and responsibilities table.

They must also appoint independent assessors who:

 have recent relevant experience of the occupation or sector to at least occupational level 3 gained in the last 4 years or significant experience of the occupation or sector

Value for money

Edit value for money form

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

- utilising digital remote platforms to conduct applicable assessment methods
- using the employer's premises
- conducting assessment methods on the same day

Professional recognition

Unavailable professional recognition form

This apprenticeship aligns with:

• Institute of Mechanical Engineers for Engineering Technician

Mapping of KSBs to assessment methods

Edit mapping of ksbs to assessment methods form

KNOWLEDGE	ASSESSMENT METHODS
K1 Principles of reading and interpreting engineering drawings and documentation.	Observation with questioning
K2 Part numbers for tooling and wire.	Observation with questioning
K3 Types of cold forming machinery. The differences between machines and the mechanisms that they use.	Observation with questioning
K4 Wire: loading, setting the drawer and feeding into the machine	Observation with questioning

KNOWLEDGE	ASSESSMENT METHODS
K5 Tooling: visual inspection, assembly and securing.	Observation with questioning
K6 Principles of setting-up a cold forming machine.	Observation with questioning
K7 Principles of high-volume metal cold forming techniques in a continuous production environment to build and form the progressions to achieve final shape.	Observation with questioning
K8 Gauges and measurement systems used in cold forming.	Observation with questioning
K9 How to complete visual inspection of the parts as they are made and how to recognise defects and tooling wear.	Observation with questioning
K10 Tooling failure mechanisms. How tools fail and the impact that the set-up of the machine has on tooling failure.	Interview underpinned by a portfolio of evidence
K11 Documentation: methods and requirements – electronic and paper.	Observation with questioning
K12 Process monitoring equipment: what the process monitor does and why it is required. How it is used to check machine set-up and to monitor variation in the process.	Interview underpinned by a portfolio of evidence
K13 Statistical Process Control (SPC) data input and how to interpret SPC charts.	Interview underpinned by a portfolio of evidence
K14 Team working principles.	Interview underpinned by a portfolio of evidence
K15 Problem solving techniques for root cause analysis: 5 Whys, Fishbone Diagram, PDCA (Plan Do Check Act), Pareto Chart, Change Analysis, Fault Tree Analysis, FMEA (Failure Mode Effects Analysis), DMAIC (Define, Measure, Analyse, Improve, Control).	Interview underpinned by a portfolio of evidence

KNOWLEDGE	ASSESSMENT METHODS
K16 Principles of properties of materials. Metallurgical properties of metals: mild steel, carbon steel, stainless steel, titanium, copper, brass and aluminium. Effect on materials during the forming process.	Observation with questioning
K17 Principles of steel and wire manufacturing processes.	Observation with questioning
K18 Principles of tooling materials and manufacturing processes.	Observation with questioning
K19 Machine mechanisms, lubrication, air and drive systems.	Interview underpinned by a portfolio of evidence
Awareness of health and safety regulations, relevance to the occupation and the technician's responsibilities: Control of Substances Hazardous to Health (COSHH), electrical safety and compliance, emergency evacuation procedures, Health and Safety at Work Act – responsibilities, isolation and emergency stop procedures, Lifting Operations and Lifting Equipment Regulations (LOLER), manual handling, near miss reporting, noise regulations, Provision and use of Work Equipment Regulations (PUWER), Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR), safe systems of work, safety equipment: guards, signage, fire extinguishers, situational awareness, slips, trips and falls, types of hazards, Personal Protective Equipment)PPE), working at height, working in confined spaces.	Observation with questioning
K21 Verbal communication techniques. Giving and receiving information. Matching style to audience. Barriers in communication and how to overcome them. Engineering terminology.	Interview underpinned by a portfolio of evidence
K22 Non-verbal communication techniques: gestures, facial expressions, tone of voice, eye contact, body language.	Interview underpinned by a portfolio of evidence
K23 Continuous improvement techniques: lean, 6-sigma, KAIZEN, 5S (sort, set shine, standardise and sustain), SMED (Single minute exchange of dies).	Interview underpinned by a portfolio of evidence

KNOWLEDGE	ASSESSMENT METHODS
K24 Equality Act. Equality, diversity and inclusion in the workplace. Unconscious bias.	Interview underpinned by a portfolio of evidence
K25 Maintenance practices and techniques: planned, preventative, predictive and reactive methods and their frequency.	Interview underpinned by a portfolio of evidence
K26 Stock requirements. Control systems. Stock rotation. Stock considerations: availability, stock lead times, stock value, faulty stock, salvageability of parts removed.	Interview underpinned by a portfolio of evidence
K27 Standard operating procedures (SOP). What they are and why they are important. What they need to cover and why. Visuals and symbols used in SOP.	Observation with questioning
K28 Escalation procedures.	Interview underpinned by a portfolio of evidence
K29 Manufacturers' instructions: what they are and how to use them. Warranties: what they are and the impact on engineering work.	Interview underpinned by a portfolio of evidence
K30 Quality management standards. Quality assurance principles and practice. Record keeping.	Interview underpinned by a portfolio of evidence
K31 The cold forming industry. Types of organisations. Types of products. Supply chain. Customers. Customer requirements. Impact on product demand.	Interview underpinned by a portfolio of evidence
K32 Planning, prioritising, work scheduling, workflow and time management techniques. Work management systems. Work categorisation systems.	Observation with questioning
K33 Business operation considerations: efficiency, customer satisfaction, competitiveness, minimising risks to operation and ethical issues.	Interview underpinned by a portfolio of evidence

KNOWLEDGE	ASSESSMENT METHODS
K34 Principles of sustainability and circular economy. Energy efficiency and reuse of materials. Recycling procedures. Principles of control and management of emissions and waste. Efficient use of resources.	Observation with questioning
K35 Continued professional development: planning and accessing development opportunities.	Interview underpinned by a portfolio of evidence
K36 Principles and requirements of restoring the work area.	Observation with questioning
K37 Principles of hazard identification and risk assessment.	Interview underpinned by a portfolio of evidence
K38 Principles of recognising variation in the process when conducting dimensional and visual inspection and making adjustments to the process to maintain control.	Observation with questioning
SKILL	ASSESSMENT METHODS
S1	
Read and interpret information. For example, text, data, engineering drawings, job card, work instructions, risk assessments, method statements, operation manuals, permits to work, instructions.	Observation with questioning
engineering drawings, job card, work instructions, risk assessments, method statements, operation manuals, permits to	
engineering drawings, job card, work instructions, risk assessments, method statements, operation manuals, permits to work, instructions. S2 Load wire onto the wire turntable and prepare the coil to feed	questioning Observation with
engineering drawings, job card, work instructions, risk assessments, method statements, operation manuals, permits to work, instructions. S2 Load wire onto the wire turntable and prepare the coil to feed into the machine.	questioning Observation with questioning Observation with

KNOWLEDGE	ASSESSMENT METHODS
S6 Use gauges and measuring equipment.	Observation with questioning
S7 Input and assess charts using Statistical Process Control (SPC).	Interview underpinned by a portfolio of evidence
S8 Make adjustments to the process to maintain control.	Observation with questioning
Assess condition of components and equipment. Identify action required such as monitoring tooling for wear during process and make changes.	Observation with questioning
S10 Troubleshoot machine running issues and take corrective action.	Interview underpinned by a portfolio of evidence
S11 Communication with others verbally for example, colleagues and stakeholders.	Interview underpinned by a portfolio of evidence
S12 Apply health and safety procedures and safe systems of work in compliance with regulations and standards.	Observation with questioning
S13 Use process monitoring equipment.	Interview underpinned by a portfolio of evidence
S14 Create, maintain and enhance productive working relationships.	Interview underpinned by a portfolio of evidence
S15 Apply continuous improvement techniques. Devise suggestions for improvement.	Interview underpinned by a portfolio of evidence
S16 Carry out and record planned and unplanned learning and development activities.	Interview underpinned by a portfolio of evidence
S17 Apply team working principles.	Interview underpinned by a portfolio of evidence
S18	Observation with questioning

KNOWLEDGE	ASSESSMENT METHODS
Record or enter information – paper based or electronic. For example, energy usage, job sheets, risk assessments, equipment service records, test results, handover documents and manufacturers' documentation, asset management records, work sheets, checklists, dimensional records, waste environmental records and any legal reporting requirements.	
Apply environmental and sustainability procedures in compliance with regulations and standards. for example, segregate resources for reuse, recycling and disposal.	Observation with questioning
S20 Follow equality, diversity and inclusion procedures.	Interview underpinned by a portfolio of evidence
S21 Apply problem solving techniques.	Interview underpinned by a portfolio of evidence
S22 Identify and document hazards and risks in the workplace.	Interview underpinned by a portfolio of evidence
S23 Restore the work area on completion of the activity.	Observation with questioning
S24 Apply maintenance practices. For example, check levels, parts wear, pressure and sensors and grease and lubricate.	Interview underpinned by a portfolio of evidence
S25 Obtain and check stock and supplies. Complete returns.	Interview underpinned by a portfolio of evidence
S26 Apply standard operating procedures (SOP).	Observation with questioning
S27 Identify, organise and use resources to complete tasks with consideration for cost, quality, safety, security and environmental impact.	Observation with questioning
S28 Plan work.	Observation with questioning
S29	Interview underpinned by a portfolio of evidence

KNOWLEDGE	ASSESSMENT METHODS
Apply quality assurance principles and practices	
BEHAVIOUR	ASSESSMENT METHODS
B1 Take responsibility for completing work.	Observation with questioning
B2 Act professionally.	Interview underpinned by a portfolio of evidence
B3 Committed to continued professional development (CPD) to maintain and enhance competence in their own area of practice.	Interview underpinned by a portfolio of evidence
B4 Respond and adapt to work demands and situations.	Interview underpinned by a portfolio of evidence
B5 Take account of diversity and inclusion requirements.	Interview underpinned by a portfolio of evidence
B6 Has a focus on quality and promotes improvement.	Interview underpinned by a portfolio of evidence
B7 Take personal responsibility for and promote health and safety.	Observation with questioning
B8 Considers the environment and sustainability.	Observation with questioning

Mapping of KSBs to grade themes

Edit add grade themes formEdit mapping of ksbs to grade themes form

Observation with questioning

KSBS GROUPED BY THEME	KNOWLEDGE	SKILLS	BEHAVIOUR
Reading and interpreting information K1	Principles of reading and interpreting engineering drawings and documentation. (K1)	Read and interpret information. For example, text, data, engineering drawings, job card, work instructions, risk assessments, method statements, operation	None

KSBS GROUPED BY			
THEME	KNOWLEDGE	SKILLS	BEHAVIOUR
		manuals, permits to work, instructions. (S1)	
Following approved work processes K27 S26	Standard operating procedures (SOP). What they are and why they are important. What they need to cover and why. Visuals and symbols used in SOP. (K27)	Apply standard operating procedures (SOP). (S26)	None
Planning work, identifying, organising and using resources K2 K32 S27 S28	Part numbers for tooling and wire. (K2) Planning, prioritising, work scheduling, workflow and time management techniques. Work management systems. Work categorisation systems. (K32)	Identify, organise and use resources to complete tasks with consideration for cost, quality, safety, security and environmental impact. (S27) Plan work. (S28)	None
Setting up and operating cold forming machines K3 K4 K5 K6 K7 K16 K17 K18 S2 S3 S4 S5 B1	Types of cold forming machinery. The differences between machines and the mechanisms that they use. (K3) Wire: loading, setting the drawer and feeding into the machine (K4) Tooling: visual inspection, assembly and securing. (K5) Principles of setting-up a cold forming machine. (K6) Principles of high-volume metal cold forming techniques in a continuous production environment to build and form the progressions to achieve final shape. (K7)	Load wire onto the wire turntable and prepare the coil to feed into the machine. (S2) Select tooling components. (S3) Inspect, assemble, fit and clamp tooling components. (S4) Build progressions across multiple stations incorporating processes such as forward and backward extrusion, upsetting, heading, trimming and piercing. (S5)	Take responsibility for completing work. (B1)

KSBS GROUPED BY			
THEME	KNOWLEDGE	SKILLS	BEHAVIOUR
	Principles of properties of materials. Metallurgical properties of metals: mild steel, carbon steel, stainless steel, titanium, copper, brass and aluminium. Effect on materials during the forming process. (K16)		
	Principles of steel and wire manufacturing processes. (K17)		
	Principles of tooling materials and manufacturing processes. (K18)		
	How to complete visual inspection of the parts as they are made and how to recognise defects and tooling wear. (K9)	Make adjustments to the process to maintain control. (S8)	
Adjustments to the process K9 K38 S8 S9	Principles of recognising variation in the process when conducting dimensional and visual inspection and making adjustments to the process to maintain control. (K38)	Assess condition of components and equipment. Identify action required such as monitoring tooling for wear during process and make changes. (S9)	None
Gauges and measuring equipment K8 S6	Gauges and measurement systems used in cold forming. (K8)	Use gauges and measuring equipment. (S6)	None
Working safely and sustainably K20 K34 S12 S19 B7 B8	Awareness of health and safety regulations, relevance to the occupation and the technician's responsibilities: Control of Substances Hazardous to Health (COSHH), electrical safety and compliance, emergency evacuation	Apply health and safety procedures and safe systems of work in compliance with regulations and standards. (S12) Apply environmental and sustainability procedures in	Take personal responsibility for and promote health and safety. (B7) Considers the environment and

KSBS GROUPED BY			
ТНЕМЕ	KNOWLEDGE	SKILLS	BEHAVIOUR
	procedures, Health and Safety at Work Act – responsibilities, isolation and emergency stop procedures, Lifting Operations and Lifting Equipment Regulations (LOLER), manual handling, near miss reporting, noise regulations, Provision and use of Work Equipment Regulations (PUWER), Reporting of Injuries, Diseases and Dangerous Occurrences Regulations (RIDDOR), safe systems of work, safety equipment: guards, signage, fire extinguishers, situational awareness, slips, trips and falls, types of hazards, Personal Protective Equipment)PPE), working at height, working in confined spaces. (K20) Principles of sustainability and circular economy. Energy efficiency and reuse of materials. Recycling procedures. Principles of control and management of emissions and waste. Efficient use of resources. (K34)	compliance with regulations and standards. for example, segregate resources for reuse, recycling and disposal. (S19)	sustainability. (B8)
Restoring the work area K36 S23	Principles and requirements of restoring the work area. (K36)	Restore the work area on completion of the activity. (S23)	None
Recording information K11 S18	Documentation: methods and requirements – electronic and paper. (K11)	Record or enter information – paper based or electronic. For example, energy usage, job sheets, risk assessments, equipment service records, test results, handover	None

KSBS GROUPED BY THEME	KNOWLEDGE	SKILLS	BEHAVIOUR
		documents and manufacturers' documentation, asset management records, work sheets, checklists, dimensional records, waste environmental records and any legal reporting requirements. (S18)	

Interview underpinned by a portfolio of evidence

KSBS GROUPED			
BY THEME	KNOWLEDGE	SKILLS	BEHAVIOUR
Process control and monitoring K12 K13 S7 S13	Process monitoring equipment: what the process monitor does and why it is required. How it is used to check machine setup and to monitor variation in the process. (K12) Statistical Process Control (SPC) data input and how to interpret SPC charts. (K13)	Input and assess charts using Statistical Process Control (SPC). (S7) Use process monitoring equipment. (S13)	None
Troubleshooting and problem solving K10 K15 K28 S10 S21 B4	Tooling failure mechanisms. How tools fail and the impact that the set- up of the machine has on tooling failure. (K10) Problem solving techniques for root cause analysis: 5 Whys, Fishbone Diagram, PDCA (Plan Do Check Act), Pareto Chart, Change Analysis, Fault Tree Analysis, FMEA (Failure Mode Effects Analysis), DMAIC (Define, Measure, Analyse, Improve, Control). (K15)	Troubleshoot machine running issues and take corrective action. (S10) Apply problem solving techniques. (S21)	Respond and adapt to work demands and situations. (B4)

KSBS GROUPED			
BY THEME	KNOWLEDGE	SKILLS	BEHAVIOUR
	Escalation procedures. (K28)		
	Machine mechanisms, lubrication, air and drive systems. (K19)		
	Maintenance practices and techniques: planned, preventative, predictive and reactive methods and their frequency. (K25)		
	Manufacturers' instructions: what they are and how to use them. Warranties: what they are	Apply maintenance practices. For example, check levels, parts wear, pressure and	
Maintenance K19 K25 K29 S24	and the impact on engineering work. (K29)	sensors and grease and lubricate. (S24)	None
	Team working principles. (K14)		
	Verbal communication techniques. Giving and receiving information. Matching style to audience. Barriers in communication and how to overcome them. Engineering terminology. (K21)	Communication with others verbally for example, colleagues and stakeholders. (S11)	
Communication and teamwork K14 K21 K22 S11 S14 S17	Non-verbal communication techniques: gestures, facial expressions, tone of voice, eye contact, body language.	enhance productive working relationships. (S14) Apply team working	Act professionally.
B2	(K22)	principles. (S17)	(B2)
Continuous improvement and quality	Continuous improvement techniques: lean, 6-sigma, KAIZEN, 5S (sort, set shine, standardise and sustain), SMED (Single minute exchange of dies). (K23)	Apply continuous improvement techniques. Devise suggestions for improvement. (S15)	Has a focus on quality and
K23 K30 K33 S15 S29 B6	Quality management standards. Quality assurance principles and	assurance principles and practices (S29)	promotes improvement. (B6)

KSBS GROUPED	KNOWI EDCE	CVIIIC	DEHAVIOUR
BY THEME	knowledge practice. Record keeping. (K30)	SKILLS	BEHAVIOUR
	Business operation considerations: efficiency, customer satisfaction, competitiveness, minimising risks to operation and ethical issues. (K33)		
Cold forming industry and professional behaviours K24 K31 K35 S16 S20 B3 B5	Equality Act. Equality, diversity and inclusion in the workplace. Unconscious bias. (K24) The cold forming industry. Types of organisations. Types of products. Supply chain. Customers. Customer requirements. Impact on product demand. (K31) Continued professional development: planning and accessing development opportunities. (K35)	Carry out and record planned and unplanned learning and development activities. (S16) Follow equality, diversity and inclusion procedures. (S20)	Committed to continued professional development (CPD) to maintain and enhance competence in their own area of practice. (B3) Take account of diversity and inclusion requirements. (B5)
Hazards and risks K37 S22	Principles of hazard identification and risk assessment. (K37)	Identify and document hazards and risks in the workplace. (S22)	None
Stocks and supplies K26 S25	Stock requirements. Control systems. Stock rotation. Stock considerations: availability, stock lead times, stock value, faulty stock, salvageability of parts removed. (K26)	Obtain and check stock and supplies. Complete returns. (S25)	None

Supporting information

External quality assurance

Edit external quality assurance - eqa form

Option selected: Ofqual

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EPA menu