

Building Services Engineering Ductwork Craftsperson (level 3) – End Point Assessment

Introduction

Building Services Engineering makes buildings work. It is a specialist branch of engineering within the construction sector. Ductwork Craftspersons plan, organise, undertake, complete and oversee the installation and maintenance of ductwork systems in large industrial and commercial buildings including office blocks, factories, schools, airports and hospitals. These systems provide clean air and/or remove used air, and move temperature controlled air around the inside of buildings as part of a building's ventilation and life safety systems. They are able to work on their own, proficiently and without supervision in the most efficient and economical manner. They have detailed knowledge of the system's operating principles and are able to assemble, install, test, repair, pre-commission, commission, handover and de-commission ductwork made from a wide range of materials, as well as overseeing the work of others, and understand the importance and function of the system to be installed

This Assessment Plan has been designed to inform those involved in the delivery and assessment of the apprenticeship:

- **What** will be assessed
- **How** the apprentice will be assessed
- **Who** will carry out the assessment
- **Quality Assurance** arrangements to make sure that end-point assessments are reliable and consistent across different locations and assessment organisations

Summary of Assessment

The main objective of the building services engineering Ductwork Craftsperson end point assessment is to provide a high quality cost effective means of measuring the apprentice's competence in the final three months of their apprenticeship.

The assessment plan design is driven by the following principles:

- The apprentice demonstrating competence as far as practical through workplace performance
- The apprentice's ability to meet the apprenticeship standards of competent performance
- The apprentice's ability to demonstrate the requisite knowledge and behaviours that support workplace performance
- Identification of the apprentice's potential for progression

Craftsperson apprentice end point assessment will contain three components:

- Knowledge Test
- Observed Skills Test
- Professional Discussion supported by the apprentice's record of achievement

The following diagram provides a summary of the End Point Assessment process

On Programme

- Structured programme of learning and assessment
- Compilation of a Record of Achievement which forms the basis of the End Point Assessment Professional Discussion

Assessment Gateway

- Confirmation from Employer and Training Provider that the learner is ready to access the End Point Assessment, with the employer making the final decision
- Level 2 English and Mathematics qualifications achieved
- Record of Achievement

End Point Assessment

Assessments must be accessed in the order given – the apprentice must pass each component before moving onto the next assessment.

The Independent Assessment Organisation must be registered on the Register of Apprentice Assessment Organisations. It has overall responsibility for co-ordinating the End Point Assessment and for the final sign off of the apprenticeship as having been satisfactorily completed.

1. Knowledge Test

- Synoptic knowledge assessment, delivered as an on-demand multiple choice examination.
- Administered in an examination venue which is recognised by the Independent Assessment Organisation
- Designed, maintained and marked by the Independent Assessment Organisation

2. Skills Observation Test

- Timed synoptic practical observation and test of the apprentice in the workplace or a suitable venue where simulation can take place
- Observed, marked and scored by an Independent Assessor on behalf of the Independent Assessment Organisation
- Must cover specified knowledge, skills and behaviours

3. Professional Discussion

- A record of achievement will be made available to the Independent Assessor prior to the Professional Discussion taking place
- Professional Discussion is conducted by an Independent Assessor on behalf of the Independent Assessment Organisation
- The Independent Assessor will formulate questions around the evidence provided in the Record of Achievement and relevant sections of the standard identified in Annex A, using the independent Assessment Organisation brief
- The Independent Assessor will provide a report on the Professional Discussion and grading outcomes to the Independent Assessment Organisation, who will issue the result to the apprentice, their employer and training provider

Assessment Overview			
Assessment Method	Area Assessed	Assessed by	Grading
On-demand Knowledge Test centrally set	All knowledge elements identified in Annex A	Independent Assessment Organisation	Fail Pass Distinction
Observed Skills Test	Performance – application of knowledge, skills and behaviours identified in Annex A	Independent Assessment Organisation through an Independent Assessor	Fail Pass Distinction
Professional Discussion	All aspects of the standard, including evidence drawn from available evidence, and the apprentice's experiences in the workplace identified in Annex A	Professional Discussion conducted by the Independent Assessor	Fail Pass Distinction

On Programme Assessment

- It is recommended that the apprentice receives basic health and safety induction prior to attending a work site. It is also recommended that Apprentices obtain a Trainee SKILLcard in order to gain access to most construction sites
- It is recommended that the apprentice completes a portfolio of work during the On Programme phase of the apprenticeship programme from all aspects of their training
- It is recommended that the apprentice's progress is assessed regularly by:
 - the training provider using knowledge tests and practical assignments that provide a similar experience to the end-point assessment
 - The employer (supported by the training provider) reviewing the apprentices work activities
- All apprentices must produce evidence within a Record of Achievement to demonstrate the knowledge, skills and behaviours identified in Annex A. The Record of Achievement will form the basis of the Professional Discussion. Any evidence gathered for the Record of Achievement must not have been formally assessed on-programme
- All apprentices must achieve the following qualifications during the On Programme assessment
 - English Level 2
 - Mathematics Level 2
- Craftsperson apprentices will initially follow a similar training programme as Building Services Engineering Ductwork Installer apprentices. This provides the essential foundation training

Assessment Gateway

- The Assessment Gateway allows the apprentice to access the End Point Assessment. This can only be accessed within the final three months of the apprenticeship

- End Point Assessment is triggered by the employer, in conjunction with the training provider, who will decide if the learner has demonstrated the necessary knowledge, skills and behaviours during the on-programme learning so that they are ready to access the End Point Assessment. The employer will make the final decision on the apprentice's readiness for end point assessment.

What is being assessed?

End Point Assessment

Assessment Method	Area Assessed	
Knowledge Test	<p>Duration: 90 Minute Test (60 Questions)</p> <p>Fail (Less than 60% correct) Pass (60% to 74%) Distinction (75% or greater correct)</p> <ul style="list-style-type: none"> • The assessment will be synoptic of all areas identified in Annex A of this Assessment Plan to be tested by this method. • The knowledge test will use a multiple-choice question format to assess underpinning and applied knowledge in all elements of the standard. The underpinning questions will primarily cover the “how” and “why” elements of the content. Applied knowledge will use scenario type questions to assess the apprentice’s judgement and decision making • The test will comprise of 20 underpinning knowledge questions and 40 applied knowledge questions • Each multiple choice question will give four response options • This knowledge will be tested by the Assessment Organisation, through centrally set multiple choice on-demand examination • The examination venue must have been approved by the Independent Assessment Organisation prior to the examination taking place. The examination venue must have access to appropriate resources to conduct the assessment such as appropriately trained invigilation staff. Alternatively, the examination may be administered by the Independent Assessor • An apprentice achieving a Fail grade may attempt the knowledge test on one further occasion. The maximum grade of Pass will be awarded for achievement of 60% or greater, unless the Independent Assessment Organisation determines there are exceptional circumstances accounting for the fail. Apprentices not achieving a Pass after the second attempt will be required to undertake a professional review of performance with their employer and training provider which will include a period of additional training on identified areas of underperformance 	<p>Assessed by: Independent Assessment Organisation</p> <p>Grading: Fail Pass Distinction</p>

<p>Observed Skills Test</p>	<p>Duration: 8 hours</p> <ul style="list-style-type: none"> This end point test will be used to confirm that the apprentice can work safely, plan, resource, organise, install test, maintain diagnose and repair faults in ductwork to the specified standards, within a stated timescale The assessment will take between 6 and 8 hours to complete. It will normally take place at the employer's workplace within one day. However, smaller businesses may need to spread the assessment across two days or more (for example, to undertake a leakage test). Alternatively, the assessment may take place away from the workplace, in a location which simulates a real working environment and conditions The assessment location must be approved by the Assessment Organisation prior to the assessment taking place Apprentices will be assessed through observation during the task by the Independent Assessor, who is a representative of the Independent Assessment Organisation, is occupationally competent within the industry and qualified to assess The Observed Skills Test must cover the areas identified in Annex A, including the following elements: Part A - Preparation of the work area from a drawing, including production of a risk assessment and method statement to ensure the task can be undertaken safely and effectively and to ensure all necessary resources are available and to hand Part B – First Fix; setting out from a drawing, bracketing, installation of ductwork and ancillaries and site measurements Part C – Testing and Fault Rectification; testing for pressure drop, testing components for correct positioning and operation and rectifying identified faults The Independent Assessor will grade the apprentice against following grading criteria 			<p>Assessed by: Independent Assessment Organisation</p> <p>Grading: Fail Pass Distinction</p>
<p>Key factors</p>	<p>Fail</p>	<p>Pass</p>	<p>Distinction</p>	
	<p>The apprentice is unable to:</p>	<p>The apprentice has:</p>	<p>The apprentice meets all Pass criteria and has:</p>	
<p>Planning and Preparation</p>	<ul style="list-style-type: none"> demonstrate a clear understanding of the installation drawing, Identify and secure the correct resources for the installation, produce a satisfactory risk assessment and method statement 	<ul style="list-style-type: none"> interpreted the drawing correctly, identified and secured resources required for the installation, produced a risk assessment and method statement appropriate to the tasks being undertaken 	<ul style="list-style-type: none"> Practically demonstrated a consistent high level of preparation and implementation of the task 	

Completion	<ul style="list-style-type: none"> complete the task of assembly and installing ductwork within the allocated time or to the industry accepted standard (DW144) 	<ul style="list-style-type: none"> completed the task of assembly and installing ductwork and testing the installation within the allocated time frame and industry accepted standard (DW144) 	<ul style="list-style-type: none"> demonstrated the ability to carry out the work in a systematic, effective and efficient way anticipated potential problems with the assembly and installation process
Accuracy and Presentation	<ul style="list-style-type: none"> use tools and ductwork materials appropriately resulting in an unstable assembly and damage to the working area and materials used Fails to install to an industry accepted standard (DW144) 	<ul style="list-style-type: none"> assembled and installed ductwork meets industry accepted standard (DW144), specifications and codes of practice produced an assembly and installation without damage to the components fixed the assembly securely with suitable use of brackets 	<ul style="list-style-type: none"> produced the assembly and installation snag free completed the task without requesting further materials due to error or miscalculations
Working safely	<ul style="list-style-type: none"> demonstrate safe working practices and does not use the appropriate PPE throughout the task 	<ul style="list-style-type: none"> worked safely in accordance with health and safety procedures maintained a safe and clear working environment for the duration of the task 	<i>Apprentices must meet the Pass criteria. There is no additional criteria for distinction in the area of safety</i>
<p>Apprentices receiving a Fail grade and their employers will receive a de-brief from the Independent Assessor. The apprentice must then retake the Observed Skills Test within six months. The maximum available to them will be a Pass, unless the Independent Assessment Organisation determines there are exceptional circumstances accounting for the fail. Apprentices not achieving a Pass after the second attempt will be required to undertake a professional review of performance with their employer and training provider. This will include a period of additional training on identified areas of underperformance. This period of training should not exceed three months</p>			

Professional Discussion	<p>Duration 1 Hour</p> <ul style="list-style-type: none"> The Professional Discussion will be conducted by the Independent Assessor who is appointed by the Independent Assessment Organisation. It explores how the apprentice applied the specified skills, knowledge and behaviours in the workplace, using the apprentice's Record of Achievement as the basis. It will allow the apprentice to demonstrate they understand what they have done, how they approached it, what problems they faced and how they dealt with them in particular how they communicated and applied their initiative The Professional Discussion will be undertaken at a mutually convenient venue. It may be conducted remotely using internet video link by agreement with the Independent Assessor and the Apprentice 	<p>Assessed by: Independent Assessment Organisation</p> <p>Grading: Fail Pass Distinction</p>
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	<p>Record of Achievement</p> <ul style="list-style-type: none"> The Record of Achievement presents a wide range of evidence allowing the apprentice to demonstrate they are able to meet the standard consistently from sources as follows: <ul style="list-style-type: none"> witness testimony work activity descriptions and records (minimum of three) self-assessments (minimum three) employer reports (minimum of two) The Record of Achievement must provide evidence that will support the apprentices demonstration of competence in the professional discussion areas listed within Annex A. The completed record of achievement must be supplied to the Independent Assessor one week prior to the Professional Discussion Any evidence gathered for the Record of Achievement must not have been formally assessed on-programme. The Independent Assessor will confirm the currency, validity and coverage of the evidence presented in the apprentice’s Record of Achievement and use it to formulate their questions exploring how the apprentice applied the skills, knowledge and behaviours of the Apprenticeship standard, as identified in Annex A The Independent Assessment Organisation will provide Independent Assessors with an interview brief to ensure a standardisation. This brief will outline the expected duration of the Professional Discussion, headline topic areas which should lead the questions they are asking the apprentice, and how to ensure the apprentice is able to evidence knowledge, skills and behaviours identified in Annex A <p>Grading</p> <ul style="list-style-type: none"> The Independent Assessor will grade the apprentice against following grading criteria 	
Fail	Pass	Distinction
<p>The apprentice is unable to:</p> <ul style="list-style-type: none"> provide documented evidence and examples through discussion, which demonstrate technical knowledge and ability to apply skills and behaviours as shown in Annex A 	<p>The apprentice:</p> <ul style="list-style-type: none"> provides documented evidence and examples through discussion, which demonstrate accurate technical knowledge and ability to apply skills and behaviours within the listed topic areas, with particular emphasis on: <ul style="list-style-type: none"> health and safety compliance with company procedures project management promoting business image (personal presentation, 	<p>The apprentice has demonstrated all pass characteristics and:</p> <ul style="list-style-type: none"> provides documented evidence and examples through discussion which demonstrate exceptional technical knowledge and ability to apply skills and behaviours, within the listed topic areas, with particular emphasis on: <ul style="list-style-type: none"> customer service communication and working with others time management and attendance

	<p>punctuality, diligent and methodical approach to work aligned with company and industry values)</p> <ul style="list-style-type: none"> ○ Problem solving ● is able to answer questions accurately, but gives limited explanation or expansion when answering ● is able to draw on limited examples of their experience to answer questions ● understanding of knowledge, skills and behaviours detailed in Annex A is basic but accurate 	<ul style="list-style-type: none"> ○ working independently and taking responsibility ○ management of site personnel/task allocation ○ environmental ● is able to provide expansive detailed answers to the questions ● consistently shows attention to detail ● responses are considered and use an extensive range of examples and experiences from the workplace responses show in-depth understanding of the knowledge, skills and behaviours detailed in Annex A
	<p>Apprentices receiving a Fail grade will receive a debrief from the Independent Assessor that will clearly describe the areas for development. Apprentices may repeat the Professional Discussion on one further occasion, within three months. The maximum grade available will be a Pass unless the Independent Assessment Organisation determines there are exceptional circumstances accounting for the fail. If the apprentice achieves a Fail after the second attempt, the apprentice should undergo a professional review with their employer and training provider.</p> <p>The Independent Assessor will then collate the results from the End Point Assessment in order to confer a performance grade for the apprenticeship.</p>	

End Point Assessment – Process

- The employer, in conjunction with the training provider, will decide if the learner has demonstrated the necessary knowledge, skills and behaviours during the On Programme Learning so that they are ready to access the End Point Assessment
- The employer will then make arrangements with the Independent Assessment Organisation for the End Point Assessment to take place
- The apprentice will then attempt, in the following sequence:
 - Knowledge test
 - Observed Skills Test
 - Professional Discussion
- Total aggregated duration of End Point Assessment is a maximum of 10.5 hours
- The Knowledge Test may be undertaken on the same day as the Observed Skills Test
- Once these have been satisfactorily completed, the apprentice will then attend the Professional Discussion conducted by the Independent Assessor
- The apprentice will be provided with results of each assessment prior to attempting the next one

Minimum requirements for Independent Assessors

- Independent Assessors must be occupationally competent and competent to assess. The requirements for these are as follows:

- Occupational competence – is recognised within the industry as a ductwork craftsman holding an NVQ or SVQ level 3, Gold Engineering Services SKILLcard or equivalents or suitable experience.
- Competence to assess – must be working towards or have achieved a relevant recognised assessor qualification such as a Level 3 Certificate in Assessing Vocational Achievement and continue to practice to that standard. Assessors who hold earlier qualifications (D32 or D33 or A1, or TQFE/TQSE) should have CPD evidence to the most current standards

End Point – Final Judgement

- The Independent Assessment Organisation, informed by the Independent Assessor, makes the judgement on whether the apprentice has passed the End Point Assessment or not. This decision is based upon the Professional Discussion outcome and results from the Knowledge Test and Observed Skills Test
- The Independent Assessment Organisation will also provide the overall apprenticeship grading based on the apprentices combined results from the Knowledge Test, Observed Skills Test and Professional Discussion
- The Independent Assessor will provide a report on the Professional Discussion and grading outcomes to the Independent Assessment Organisation who will issue the result to the apprentice, their employer and training provider
- The Independent Assessment Organisation is responsible for allocating the overall apprenticeship grading and making the final decision on apprenticeship completion

End Point Grading

- The apprentice must achieve at least a Pass in all of the end point assessment components before the apprenticeship can be achieved
- To achieve a Pass, the apprentice must achieve at least a Pass in all components (the Knowledge Test, Observed Skills Test and Professional Discussion)
- A Distinction will be awarded only if the apprentice achieves all the requirements of a Pass and is graded Distinction in the Knowledge, Observed Skills Test and Professional Discussion. Any other combinations of grades will achieve a Pass overall.

Re-sits

- Where an apprentice fails any component of the end point assessment, the maximum grade for any re-sit is a Pass, unless the Independent Assessment Organisation determines there are exceptional circumstances accounting for the fail. For this reason it is important that apprentices are not entered for the end assessment until the employer and training provider feel the apprentice is ready for the End Point Assessment

Independence

- Independence is provided to the Craftsperson apprenticeship by:
 - the multiple choice knowledge test being centrally set and maintained by the Independent Assessment Organisation
 - the End Point Assessment being co-ordinated by the Independent Assessment Organisation
 - the Independent Assessment Organisation being responsible for the overall decision on apprenticeship completion, with input from the Independent Assessor
 - the Observed Skills Test being observed and marked by the Independent Assessor
 - the End Point Assessment Professional Discussion being conducted by an Independent Assessor

- the Independent Assessment Organisation being responsible for the grading of the apprenticeship

Roles in Pre End-Point Assessment

Training Provider	<ul style="list-style-type: none"> • Delivers and assesses on-programme learning, working with the employer to: <ul style="list-style-type: none"> - support the apprentice to generate workplace evidence and develop the Record of Achievement - plan and continuously monitor the apprentice's progress, address any gaps in learning or experience and to ensure work is completed to a high standard for End Point Assessment • Supports the employer in deciding the timing of and arranging the End Point Assessment • Provides the apprentice with training in the end point assessment process • Supports the employer in implementing remedial action required by the apprentice before re-sitting any unsuccessful component/s
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Roles in End-Point Assessment / Gateway

Apprentices Employer	<ul style="list-style-type: none"> • Contributes to the assessment gateway by observing and authenticating the workplace evidence to substantiate that it is authentic and meets industry standards • Decides on the timing of and makes arrangements for any on programme and End Point Assessment, with the support of the training provider, as required • Ensures the apprentice has the necessary documentation for End Point Assessment • Works with the training provider to agree remedial action required by the apprentice before re-sitting any unsuccessful component/s
Independent Assessor	<ul style="list-style-type: none"> • Administers the end-point assessment • Observes and marks the Observed Skills Test • Conducts the Professional Discussion • Informs the Independent Assessment Organisation of the mark and grades the apprentice has achieved in the End Point Assessment • Participates in at least two annual standardisation events which will be arranged by the assessment Organisation
Independent Assessment Organisation	<ul style="list-style-type: none"> • Is registered on the Register of Apprentice Assessment Organisations • Approves and maintain a network of training provider assessment centres • Provides independent assessment of knowledge by centrally setting and marking online multiple choice examinations • Provides and manages independent assessors to administer the End Point Assessment • Provide documentation, training and support for Independent Assessors to ensure rigour and consistency

Quality Assurance (Internal)

- Quality assurance of End Point Assessment is provided by the Independent Assessment Organisation who will:
 - Enforce criteria for approved assessment centres by defining the staff, resources, processes and procedures required to undertake the Knowledge Test and Observed Skills Test
 - Provide and manage a network of Independent Assessors to undertake assessment of the Observed Skills Test and Professional Discussion
 - Develop, manage and maintain on-demand multiple choice examinations to test the knowledge of apprentices

- Independent Assessment Organisations will provide documentation, training and support for independent assessors to ensure rigour and consistency
- The independent assessors will attend at least two meetings per year, arranged and managed by the Independent Assessment Organisations. The purpose of these meetings will be:
 - to improve consistency and rigour in the approach and execution of their assessment responsibilities
 - to ensure that where any technical or assessment variation (or scope for variation) is identified, a standard interpretation is established and applied.
- Multiple choice examinations will be formulated, reviewed and moderated by the Independent Assessment Organisation to meet the Assessment Plan

Quality Assurance (External)

- The employer group will utilise the Institute for Apprenticeships to undertake external quality assurance for this apprenticeship

Implementation of End-Point Assessment

Affordability:

- The percentage proportion of end point assessment against the overall cost of the apprenticeship is **7.6%**

Volumes:

- Based on previous apprenticeship training patterns it is expected that there will be an intake of 50 -100 Craftsperson apprentices each year

Capacity:

- There are currently 2 providers delivering craftsperson apprenticeships throughout England for employers to choose from
- These training providers are experienced in the delivery of training, administering on-screen Knowledge Tests, reviewing and assessing portfolios within this occupation
- They give varying levels of support dependent on the needs of the employer
- They are also able to operate in a flexible way to meet the needs of larger businesses who normally have well developed training, mentoring and monitoring processes in place, but can also meet the needs of smaller businesses where more direct support is required to help structure work experience, provide mentoring and monitoring the apprentice's progress
- The judgement of apprenticeship completion being provided to the Independent Assessment Organisation and by an Independent Assessor, brings an appropriate cost effective enhancement to the process for this level of apprenticeship.

Annex

- Annex A shows which method/s of assessment used to cover each element of the Apprenticeship Standard.

Annex A

Assessment Methods – Standard Coverage

This chart provides an overview of what an apprentice can expect to be covered in each assessment method.

Key to assessment method identification within tables:

IEA Independent End Assessment activity – identifies which assessment method will be used for that section of the standard.

T Assessment will be through the on demand Knowledge Test

O Assessment will be through the Observed Skills Test

PD Assessment will be through the Professional Discussion

Some sections of the standard are assessed by more than one method

Knowledge and Understanding		IEA		
		T	O	PD
Working Safely	Relevant safety legislation and safe working practices applying to themselves and others.	✓	✓	✓
Ductwork principles	Scientific principles underpinning ductwork systems including relevant specifications e.g. measurement and pressure classification and materials.	✓		
	The design, layout and operating principles of ductwork systems.	✓	✓	
	The need for ductwork system cleanliness during the installation process.	✓	✓	✓
Working Sustainably	Environmental protection measures associated with ductwork installation in regards to effective use of material resources and waste management.	✓		✓
	Commercial implications of actions or omissions.	✓		
Planning and Preparing	How to plan and organise ductwork system work tasks, including the interpretation of engineering drawings.	✓	✓	✓
	How to prepare work areas to undertake ductwork installation.	✓	✓	✓
	How to: utilise resources effectively including the roles and responsibilities of relevant people; oversee work; and plan safe work programmes for self and small teams installing ductwork systems.	✓	✓	✓
Installing Ductwork Systems	The installation, assembly, positioning, fitting, testing, pre-commissioning, commissioning, handover and decommissioning techniques and processes for ductwork systems, and associated plant and equipment.	✓	✓	✓
	Rectangular, circular and flat oval, plastic, fire-rated, air handling units and local exhaust ventilation ductwork system components, including prefabricated and/or modularised components and distribution systems.	✓	✓	✓
	How components relate to each other within ductwork systems.	✓		✓
Customer Service	The principles of high quality customer service and establishing the needs of others (colleagues, customers and other stakeholders).	✓		✓
Communication	Different communication methods, how to communicate in a clear, articulate and appropriate manner and how to adapt communication style to suit different situations.	✓	✓	✓
	Understand the principles and opportunities for information communication technology (ICT) systems, e.g. smartphone, tablets, apps.	✓		✓
Skills		IEA		
		T	O	PD
Working Safely	Apply relevant safety legislation, codes of practice and safe working		✓	✓

	practices to self and others in building services engineering working environments.			
Planning, Preparing and Working Sustainably	Plan and organise ductwork system work tasks.		✓	✓
	Prepare work areas in new and existing sites to undertake allocated ductwork component installation work tasks.		✓	✓
	Undertake the installation of ductwork system components in ways which use resources efficiently to complete work tasks, effectively, safely and with consideration to environmental impact using industry recognised standards.		✓	✓
Installing Ductwork Systems	Apply installation, assembly, positioning, fitting and pre-testing techniques on; rectangular, circular and flat oval, air handling unit, fire-rated and local exhaust ventilation ductwork system components, to industry recognised standards.		✓	✓
	Undertake work tasks in pre-commissioning, commissioning, handover and decommissioning of ductwork systems.		✓	✓
	Take site measurements to allow new items of ductwork to be manufactured.		✓	✓
	Carry out on-site modifications as appropriate.		✓	✓
Problem solving and decision making	Solve problems within their scope of responsibility and that of others under their control.		✓	✓
	Identify, evaluate and implement solutions to problems through the application of technical skills and knowledge, and report as appropriate.		✓	✓
Supervision	Oversee the programme of work and work environment, taking responsibility for the work, quality, safety and welfare of others.			✓
	Mentor and support the learning and development of others.			✓
Behaviours		IEA		
		T	O	PD
Communicating Effectively	Use oral, written and electronic methods to communicate information with work colleagues, other tradespeople, clients' representatives, supervisors, and other members of the building services engineering and wider construction team.		✓	✓
Working Effectively and Efficiently	Work reliably and effectively without supervision and be aware of the needs and concerns of others, especially where related to diversity and equality.		✓	✓
	Represent self and company in an appropriate manner.		✓	✓
Taking Responsibility	Accept responsibility for the work of self and others under their control.		✓	✓
Working with Others	Work effectively with colleagues, other tradespeople, clients, suppliers and the public.		✓	✓
Managing Tasks	Accept allocate and supervise technical and other tasks.		✓	✓
Working with Others	Work effectively with colleagues, the public, other tradespeople, clients' representatives, supervisors, and other members of the building services engineering and wider construction team.		✓	✓
Continuing Personal Development	Maintain and enhance competence in own area.		✓	✓

Working Ethically	Exercise responsibilities in an ethical manner.		✓	✓
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