

## BUILDING SERVICES ENGINEERING APPRENTICESHIP STANDARD

### Occupation title

Building Services Engineering Ductwork Installer

### Occupational profile

Building Services Engineering makes buildings work. It is a specialist branch of engineering within the construction sector.

Ductwork 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.

Ductwork Installers install and maintain ductwork systems in large industrial and commercial buildings including office blocks, factories, schools, airports and hospitals.

Ductwork installers use their skills to assemble, install, pre-commission, prepare for testing and repair ductwork made from a wide range of materials.

Ductwork Installers are able to work within new build construction sites and existing buildings under close but not constant supervision in the most efficient and economical manner. They must have a basic knowledge of the systems and how the components within systems relate to each other as well as being able to:

- plan and undertake **allocated work tasks** to install system **components**;
- **assist in** pre-commission and de-commissioning.

### Requirements Knowledge, Skills and Behaviours

The Ductwork Installer will understand:

Knowledge	What is required
Working Safely	Safe working practices applying to themselves and others.
Ductwork principles	<b>Basic operating</b> principles underpinning ductwork systems including relevant specifications e.g. measurement and pressure classification and materials. 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.
Preparing	How to prepare work areas to undertake allocated ductwork installation.
Installing Ductwork Systems	The installation, assembly, positioning, fitting, pre-commissioning, de-commissioning and preparing for testing 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.
	How components relate to each other within ductwork systems.

The Ductwork Installer will:

Skills	What is required
Working Safely	Apply relevant safety legislation, codes of practice and safe working practices to self and others in building services engineering working environments.
Preparing and Working Sustainably	Prepare work areas in new and existing sites to undertake <b>allocated</b> ductwork component installation work tasks.
	Undertake the installation of system components in ways which use resources efficiently, to complete allocated 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 allocated work tasks in the pre/decommissioning of ductwork systems.
Problem solving	Solve problems within their scope of responsibility.
	Identify, evaluate and report problems through the application of technical skills and knowledge.

<b>Behaviours</b>	<b>What is required</b>
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 <b>under close, but not constant</b> supervision to the appropriate industry recognised practices 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 <b>their own work</b> .
Working with Others	Work effectively with colleagues, other tradespeople, clients, suppliers and the public.
Continuing Personal Development	Maintain and enhance competence in own area.
Working Ethically	Exercise responsibilities in an ethical manner.

**Duration:**

It is unlikely that individuals entering this apprenticeship without previous experience will complete the apprenticeship in less than 24 months.

**Entry Requirements and Qualifications:**

Individual employers will identify any relevant entry requirements in terms of previous qualifications, trainability tests, or other criteria. Apprentices that have not previously achieved level 2 English and maths, must as a minimum achieve level 1 English and maths and take the test for level 2.

**Level:**

This is a level 2 Apprenticeship.

**Review date:**

This Apprenticeship standard will be reviewed in three years.