

National Apprenticeship - Occupational Profile

Craft Occupation

Pipefitting

Industry Served

Construction/Engineering

Profile of Craft

Pipefitting work involves the installation, repair and maintenance of high and low-pressure pipe systems used in manufacturing plants. Such environments include oil refineries, chemical plants, breweries, power plants, food processing plants, paper mills, ships, factories and a host of other facilities. Pipefitters work on piping systems that carry all kinds of liquid, gaseous and solid materials. They provide a wide range of services including welding and fabrication on pipelines in the gas and oil industry.

A pipefitter will work with many kinds of pipe, ranging from small twelve millimetre piping to piping that may be up to 1m in diameter.

Pipefitting requires many skills including working with a variety of specialized hand tools and power tools.

Pipefitting may require working at heights and in confined spaces.

At the end of the apprenticeship, the craftsperson will be able to demonstrate competence in the following skills:

Core Skills

Use of pipefitting tools,; reading and interpreting pipefitting drawings and specifications,; planning and sketching piping systems; pipefitting; pipe jointing; pipe bending; inspection and testing of piping systems; fault diagnosis; and performing routine maintenance and repairs on piping systems.

Specialist Skills

Installation, commissioning and maintenance of:

Cooling and heating systems, compressed air systems, high-pressure systems, steam systems, hydraulic systems, nuclear power systems, chemical storage and processing systems, oil, gasoline, and natural gas storage and processing systems, air handling units, industrial and process gases and liquids. Knowledge of: building regulations and industry specific on-site procedures.

Common Skills

Safety awareness, planning, interpreting drawings and specifications, measurement and mathematical calculations, basic engineering, oxy-acetylene welding, manual metal arc welding, metal active gas shielded welding, tungsten active gas welding, plasma arc cutting, oxy-acetylene cutting, computer aided design, basic electricity.

Personal Skills

Planning and organisation, verbal and written communication, problem solving, working independently, working as part of a team, customer relations, information gathering, adaptability. Good work practice, including timekeeping, tidiness, responsibility, quality awareness, initiative, safety awareness, and positive attitude

NOTE: Integrated curriculum includes maths, science, theory

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