

PIPEFITTER APPRENTICE: ESSENTIAL FUNCTIONS

Pipefitter Apprentices are learning the skills and competence required to equip them to become highly skilled, safe, and productive Journeyman Pipefitters through a combination of on-the-job training and classroom instruction. Graduating Apprentices attain journeyworker status and are qualified in all segments of the trade. Generally, a pipefitter installs, repairs, and maintains piping systems. They read design specifications necessary for building appropriate heating, cooling, steam generation, and industrial piping assemblies. They may also work across different environments, from industrial settings, home installations, to install pipe systems in commercial buildings. They can also design systems for handling condensation, gasses, steam, drain lines, lubrication, heating, refrigeration, and other actions. They may also set up automated controls for these procedures.

To complete the Apprenticeship Program, an Apprentice must attend all related instruction classes and fulfill the on-the-job training requirements through their employment with a signatory employer. The following are the general skills and abilities an individual must possess, with or without reasonable accommodation, to complete the apprenticeship program and perform work as a pipefitter:

Cognitive Ability

- Ability to deal with materials and problems such as organizing or reorganizing information;
- Ability to use abstractions in specific concrete situations;
- Ability to break information down into its component parts;
- Ability to understand spatial relationships;
- Possession of basic math skills through addition, subtraction, multiplication and division of whole numbers and fractions using both the Imperial (U.S.) and Metric systems of measurement; and
- Ability to demonstrate and use the knowledge acquired during the classroom training process in a workplace setting.

Communication Skills

- Ability to communicate effectively with others, including Instructors, other Apprentices, Employers, and Journeymen Pipefitters.

Adaptive Ability

- Ability to respond in an appropriate manner to stressful situations;
- Ability to respond to employer and Program demands which may include responding to emergency “after hours” situations and working or attending class in excess of eight (8) hours a day; and
- Ability to maintain emotional stability and the maturity necessary to interact with Instructors, other Apprentices, Employers, and Journeymen Pipefitters in a responsible manner.

Physical Ability

- Ability to perform tasks requiring bending, stooping, squatting, kneeling, lying, climbing, and walking;
- Ability to lift, lower, push, and pull using both arms and legs;
- Ability to grasp, lift and carry tools and equipment weighing fifty (50) pounds 50-500 feet from truck to work area;
- Ability to climb stairs and ladders to 25 feet;
- Ability to work in enclosed or confined spaces;
- Ability and strength sufficient to allow bodily maneuvering in small spaces;
- Sufficient strength and agility to grasp and maintain tension for long periods of time; and
- Ability to wear and tolerate ear plugs, safety glasses, and other protective equipment (including, but not limited to, hard hat, work boots, gloves, full body harness, and respiratory mask).

Manual Ability

- Sufficient manual dexterity and fine motor coordination to manipulate small objects within a limited space; and
- Sufficient manual dexterity and motor coordination to coordinate hands, eyes, and fingers in the operation of tools and other equipment.

Sensory Ability – Visual

- Acute enough to distinguish colors, read blueprints, inspect equipment for proper installation and work in dimly lit areas such as basements and boiler rooms;
- Acute enough to read small print; and
- Acute enough to read small numbers on precision measuring instruments.

Sensory Ability – Auditory

- Auditory ability, acute enough to detect sounds, changes in sounds, or lack of sounds emitted by pipefitting equipment.