

# Pipefitter Job Description

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## Duties and Responsibilities:

- Use saws, cutting torches, and pipe benders to cut and hammer pipes to specification
- Study blueprint and construction plans for pipe systems, supports, and related equipment
- Assemble and secure pipes, tubes, and fittings by means of welding, brazing, soldering and cementing of joints
- Utilize pressure gauges and hydrostatic testing to inspect and test installed pipe systems
- Electroplate non-ferrous piping materials with tin and lead to obtain an alloy that prevents erosion
- Operate pump machines to discard water from flooded facility floors, manholes and basements
- Prepare cost estimates and budgets for a pipefitting project
- Install and test water systems such as treatment, recycling, and irrigation systems
- Design equipment and systems to reduce water and energy consumption
- Inspect work sites to identify environmental hazards that can limit the integrity of a pipe structure
- Utilize valve keys and wrenches to regulate liquids, steam and other gaseous substances from pipes
- Oversee the repair and replacement of damaged or worn out pipe components
- Use hand or power tools to drill holes in structures such as wall, decks to allow for pipe passage
- Select pipe types, sizes and quantity required for a pipefitting project
- Install and configure automatic pipe control systems.

## Pipefitter Requirements – Skills, Knowledge, and Abilities

- **Education and Training:** To become a pipefitter, you require a high school diploma which is an entry qualification into a technical school or a pipefitting apprenticeship program where courses on pipe design, safety, and welding are taken. The apprenticeship program lasts a period of 4-5 years and is supervised by experienced pipefitters. State licensure is usually required to practice as a professional pipefitter and it can be obtained by passing pipefitting trade examination.
- **Mechanical Skills:** Pipefitters are able to utilize and operate a range of tools and equipment in installing, maintaining, and repairing pipe systems
- **Physical Strength:** They are able to handle, lift, and move heavy pipes, pipefitting materials and equipment
- **Troubleshooting Skills:** They are skilled in diagnosing pipe systems to identify and fix problems with leaks and clogs
- **Assessment tests:** If you are applying for a pipefitter apprenticeship program or a job, you may likely be asked to take an assessment test. Find out about job assessment tests and how to make top scores in them.