

Pipefitter Apprenticeship

Did you Know?*

- Employment of pipefitters is projected to grow 26 percent from 2010 to 2020, faster than the average for all occupations. Demand for plumbers is expected to come from new building construction and stricter water efficiency standards for plumbing systems, such as low-flow toilets and showerheads.
- The construction of new power plants and factories should spur demand for pipefitters and steamfitters.

*Statistics retrieved from the U.S. Bureau of Labor Statistics.

What Does a Pipefitter Do?

Pipefitters, and steamfitters install and repair pipes that carry water, steam, air, or other liquids or gases to and in businesses, homes, and factories.

Tasks:

- Plan pipe system layout, installation, or repair, according to specifications.
- Inspect, examine, or test installed systems or pipe lines, using pressure gauge, hydrostatic testing, observation, or other methods.
- Select pipe sizes, types, or related materials, such as supports, hangers, or hydraulic cylinders, according to specifications.
- Measure and mark pipes for cutting or threading.
- Attach pipes to walls, structures, or fixtures, such as radiators or tanks, using brackets, clamps, tools, or welding equipment.
- Assemble or secure pipes, tubes, fittings, or related equipment, according to specifications, by welding, brazing, cementing, soldering, or threading joints.
- Lay out full scale drawings of pipe systems, supports, and related equipment, following blueprints.
- Turn valves to shut off steam, water, or other gases or liquids from pipe sections, using valve keys or wrenches.
- Cut, thread, or hammer pipes to specifications, using tools such as saws, cutting torches, pipe threaders, or pipe benders.
- Remove and replace worn components

What Are the Working Conditions?

Just as plumbers, pipefitters and steamfitters held about 419,900 jobs in 2010, of which 57 percent were employed in the plumbing, heating, and air-conditioning contractors industry. About 14 percent of plumbers, pipefitters, and steamfitters were self-employed.

Plumbers, pipefitters, and steamfitters work in factories, homes, businesses, and wherever else there are pipes or septic systems.

Plumbers and fitters often must lift heavy materials, climb ladders, and work in tight spaces. Some plumbers travel to a variety of work sites every day. Some plumbers and fitters may have to work outdoors, even in bad weather.

How is the Training Structured?

- 4 year training program
- 8,000 hours on-the-job training
- 144 hours of related instruction per year
- Individual program requirements may vary by sponsor

What are the Application Requirements?

- Applicants must be at least 18 years of age

- High school diploma or equivalent
- Physically able to perform trade
- Valid driver's license and reliable transportation

What Skills Should I Possess?

- **Mechanical** – Knowledge of machines and tools, including their designs, uses, repair and maintenance.
- **Building and Construction** – Knowledge of materials, methods, and the tools involved in the construction or repair of houses, buildings, or other structures such as highways and roads.
- **English Language** – Knowledge of the structure and content of the English language including the meaning and spelling of words, rules of composition and grammar.
- **Design** – Knowledge of design techniques, tools, and principles involved in production of precision technical plans, blueprints, drawings, and models.
- **Mathematics** – Knowledge of arithmetic, algebra, geometry, calculus, statistics, and their applications.
- **Administration and Management** – Knowledge of business and management principles involved in strategic planning, resource allocation, human resources modeling, leadership technique, production methods, and coordination of people and resources.
- **Customer and Personal Service** – Knowledge of principles and processes for providing customer and personal services. This includes customer needs assessment, meeting quality standards for services and evaluation of customer satisfaction
- **Engineering and Technology** – Knowledge of the practical application of engineering science and technology. This includes applying principles, techniques, procedures, and equipment to the design and production of various goods and services.
- **Education and Training** – Knowledge of principles and methods for curriculum and training design, teaching and instruction for individuals and groups, and the measurement of training effects.

Additional Resources

The United States Bureau of Labor Statistics maintains information on all occupations. For more information on the Construction Electrician trade in the United States, visit:

<http://www.bls.gov/ooh/construction-and-extraction/plumbers-pipefitters-and-steamfitters.htm>

Who to Contact in Mississippi

For more information on becoming a Pipefitter contact MCEF at 601-605-2989.