

Plumbers, Pipefitters, and Steamfitters

SOC: 47-2152 • Career Profile Report

■ Key Facts

\$62,970 Median Salary	504,500 Employment	+4.0% Growth Rate
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■ Requirements & Salary Range

Education: High school diploma

■ Automation Risk Assessment

Medium Risk - 35.0% probability of being automated in the next 10-20 years.
This job has some routine elements but still requires human judgment and interaction.

■ Work-Life Balance

5.1/10 - Fair work-life balance

■ Personality Fit (RIASEC)

Higher scores indicate better personality fit for this career type.

Realistic	9.4/10	Investigative	5.8/10
Artistic	4.0/10	Social	5.0/10
Enterprising	5.0/10	Conventional	6.0/10

■ Top Skills Required

Communication skills, Dexterity, Mechanical skills, Physical strength, Troubleshooting skills

✓ Strengths

- High Demand
- Flexible Work
- Continuous Learning

■ Challenges

- Burnout Risk
- Rapid Technological Change

■ What They Do

Plumbers, Pipefitters, and Steamfitters install, maintain, and repair **pipes, fixtures, and systems that carry water, gas, steam, and other fluids**. They read blueprints, use specialized tools, and ensure systems meet codes and safety standards. Their work is critical in construction, maintenance, and industrial facilities.

This career is well suited for individuals who enjoy hands-on work, problem-solving, and technical systems.

What Do Plumbers, Pipefitters, and Steamfitters Do?

These professionals assemble and maintain piping systems, troubleshoot issues, and ensure the safe operation of fluid-carrying systems.

Common responsibilities include:

- Reading blueprints and technical drawings to plan installations
- Installing pipes, fixtures, valves, and other components
- Assembling and joining pipe sections using welding, soldering, or threading
- Inspecting and repairing leaks, blockages, and faulty systems
- Testing systems to ensure proper flow and pressure
- Complying with plumbing, safety, and building codes
- Collaborating with construction teams, engineers, and clients

Key Areas of Plumbing and Pipefitting

Professionals may focus on specific systems, materials, or facilities:

- Residential and Commercial Plumbing: Installing and repairing water and gas systems
- Industrial Pipefitting: Working with high-pressure steam, chemicals, or specialized fluids
- System Maintenance and Repair: Troubleshooting leaks, clogs, and system failures
- Installation and Fabrication: Cutting, bending, and assembling pipes to specifications
- Safety and Code Compliance: Ensuring systems meet local, state, and federal regulations

Skills and Abilities Needed

These professionals combine technical knowledge, manual skills, and problem-solving abilities.

Core Professional Skills

Personal Qualities That Matter

Education and Career Pathway

This role typically requires technical training and hands-on experience:

- High School Diploma or GED (minimum): Basic math, science, and technical skills
- Apprenticeship Programs: Learning installation, repair, and safety practices under supervision
- Vocational or Trade School Courses: Specialized training in plumbing, pipefitting, and steam systems
- Licensure or Certification: Required in most states to practice as a plumber or pipefitter
- Continuing Education: Staying updated on codes, technologies, and safety procedures

Where Do Plumbers, Pipefitters, and Steamfitters Work?

They are employed in organizations that construct, maintain, or repair fluid-carrying systems:

- Construction Companies
- Industrial and Manufacturing Facilities
- Maintenance and Repair Services
- Residential and Commercial Buildings

- Government and Utility Projects

Work environments include construction sites, industrial plants, residential buildings, and maintenance facilities.

Is This Career Difficult?

This career requires technical skill, physical stamina, and attention to safety. Workers must handle heavy materials, work in confined spaces, and follow strict regulations.

Who Should Consider This Career?

This career may be a strong fit if you:

- Enjoy hands-on technical work
- Are detail-oriented and precise
- Can work in physically demanding environments
- Have problem-solving and mechanical skills
- Want a career in construction, maintenance, or industrial systems

How to Prepare Early

- Take courses in mathematics, physics, and mechanical systems
- Participate in vocational programs or trade school training
- Gain experience through apprenticeships or internships in plumbing or pipefitting
- Develop mechanical, problem-solving, and teamwork skills
- Learn about safety codes, regulations, and proper use of tools

Plumbers, pipefitters, and steamfitters install, maintain, and repair piping systems, ensuring safe and efficient delivery of water, gas, steam, and other fluids in residential, commercial, and industrial settings.

*Generated by StartRight • Data from U.S. Bureau of Labor Statistics & O*NET*

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