



**Code: 4774**

Family: Construction, Maintenance, and Skilled Labor  
Service: Operation and Construction  
Group: Building Maintenance and Operation  
Series: Steam Fitting and Plumbing Trades

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## **CLASS TITLE: STEAMFITTER**

### **CHARACTERISTICS OF THE CLASS**

Under supervision, performs journey-level steam-fitting work in the installation, repair, and maintenance of pipes and pipe systems and related equipment, and performs related duties as required

### **ESSENTIAL DUTIES**

- Reads documents (e.g., blueprints, specifications, work orders) to assess work required and to determine the proper installation and repair methods to use
- Removes damaged, defective, or obsolete pipes and pipe systems and related equipment
- Ensures adequate supplies of tools, equipment, and materials at work sites to complete job
- Uses tools to measure, cut, bend, weld, and thread lengths of pipe and to install and repair pipe systems
- Installs, removes, repairs, and maintains low and high pressure boilers, radiators, compressors, and pumps for steam, hot water, and heating systems
- Repairs, installs, and adjusts thermostats and pneumatic and hydraulic controls to ensure proper functioning
- Inspects and tests installed systems and equipment to ensure proper working order, detect and plug leakages, and to ensure compliance with safety and municipal standards
- Cleans and replaces worn safety valves, air vents, steam traps, pressure gauges, gaskets, filters, and fittings and related appurtenances of the piping system
- Operates specialized equipment and tools (e.g., cutters, hacksaws, torches, arc welders, threaders) to cut, weld, solder, braze, and thread pipes to specification
- Prepares work activity reports
- Loads, transports, and unloads equipment and supplies
- Cleans equipment and work sites after projects

**NOTE:** *The list of essential duties is not intended to be inclusive; there may be other duties that are essential to particular positions within the class.*

### **MINIMUM QUALIFICATIONS**

#### **Education, Training, and Experience**

- Successful completion of a US Department of Labor registered steam fitting apprenticeship training program and journeyman status; or an equivalent combination of education, training, and experience

#### **Licensure, Certification, or Other Qualifications**

- Some positions may require certification as a Universal technician as required by 40 CFR part 82 subpart F of the EPA
- Some positions may require or prefer candidates to possess additional certifications (e.g., pipe welding, soldering, brazing, rigging, etc.) depending on department assignment
- Some positions may require a valid State of Illinois Driver's License

## **WORKING CONDITIONS**

- Exposure to outdoor weather conditions
- Exposure to loud noise, fumes or dust, hazardous chemicals, oily or wet environment
- Exposure to hazardous conditions (e.g., construction sites, heavy machinery)
- Work performed in cramped or confined locations
- Work performed above or below ground level
- Work performed using scaffolds and ladders

## **EQUIPMENT**

- Hand tools (e.g., hammer, screwdriver, wrench, pliers)
- Power tools (e.g., electric, pneumatic)
- Personal protective equipment (e.g., hard hat, shoes, glasses, gloves, vest, pads, self-contained breathing apparatus)
- Safety devices or equipment (e.g., cones, barricades, metal plates, scaffolding, ropes)
- Measuring tools (e.g., tape measure, ruler, calipers, measuring wheel)
- Standard tools and equipment of the steam fitting trade (e.g., pipe cutters, threaders, welding equipment)
- Ladders

## **PHYSICAL REQUIREMENTS**

- Substantial lifting (up to 75 pounds) is required
- Ability to stand for extended or continuous periods of time
- Ability to quickly bend, stretch, twist, or reach out with one's body, arms, and/or legs
- Ability to climb staircases, ladders, and/or step stools
- Ability to access difficult to enter spaces (e.g., roofs, basements, tanks, field equipment, cramped quarters)
- Ability to operate applicable hand tools, power tools, and equipment

## **KNOWLEDGE, SKILLS, ABILITIES, AND OTHER WORK REQUIREMENTS**

### **Knowledge**

Moderate knowledge of:

- \*steam fitting principles, theory, methods, and procedures
- \*steam fitting safety and code standards, including OSHA standards
- use of safety equipment and protective gear

Some knowledge of:

- \*steam fitting tools and equipment
- \*properties and characteristics of steam fitting materials, including pipe yard materials and supplies
- \*steam fitting repair, maintenance, and preventative maintenance methods, practices, and procedures
- applicable emergency operations

Knowledge of applicable City and department policies, procedures, rules, and regulations

**Skills**

- \*ACTIVE LEARNING - Understand the implications of new information for both current and future problem-solving and decision-making
- \*COORDINATION WITH OTHERS - Adjust actions in relation to others' actions
- EQUIPMENT MAINTENANCE - Perform routine maintenance on equipment and determine when and what kind of maintenance is needed
- \*INSTALLATION - Install equipment, machines, wiring, or programs to meet specifications
- \*REPAIRING - Repair machines or systems using the needed tools
- \*TROUBLESHOOTING - Determine causes of operating errors and decide what to do about it

**Abilities**

- COMPREHEND ORAL INFORMATION - Listen to and understand information and ideas presented through spoken words and sentences
- SPEAK - Communicate information and ideas in speaking so others will understand
- COMPREHEND WRITTEN INFORMATION - Read and understand information and ideas presented in writing
- RECOGNIZE PROBLEMS - Tell when something is wrong or is likely to go wrong
- REASON TO SOLVE PROBLEMS - Apply general rules to specific problems to produce answers that make sense

**Other Work Requirements**

- INITIATIVE - Demonstrate willingness to take on job challenges
- STAMINA - Demonstrate energy and stamina to accomplish work tasks
- COOPERATION - Be pleasant with others on the job and display a good-natured, cooperative attitude
- DEPENDABILITY - Demonstrate reliability, responsibility, and dependability and fulfill obligations
- ATTENTION TO DETAIL - Pay careful attention to detail and thoroughness in completing work tasks

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All employees of the City of Chicago must demonstrate commitment to and compliance with applicable state and federal laws, and City ordinances and rules; the City's Ethics standards; and other City policies and procedures.

The City of Chicago will consider equivalent foreign degrees, accreditations, and credentials in evaluating qualifications.

\* May be required at entry.

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City of Chicago  
Department of Human Resources  
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