

PIPEFITTER, 3433  
PIPEFITTER SUPERVISOR, 3438

Summary of Duties : Performs skilled work in the installation, replacement, maintenance, and repair of industrial steam, oil, air, gas, water, steam heating, and other pipe systems, including high pressure and high temperature systems; or supervises such work; and does related work.

Distinguishing Features : Employees of these classes are primarily concerned with industrial pipe systems, which may include pneumatic circuit breakers and transit oil systems. Their duties involve a considerable amount of work on high pressure and temperature lines. This distinguishes them from Plumbers and their supervisors, whose work is normally concerned with sanitary systems and pipe systems for domestic uses. Both Plumbers and Pipefitters, however, use many of the same materials, equipment, tools, and methods.

A Pipefitter does journey-level work without detailed supervision, working from blueprints and drawings on new work and from verbal assignments and sketches on other work. An employee of this class may supervise one or more helpers doing unskilled or semiskilled work.

A Pipefitter Supervisor supervises a crew of Pipefitters. The crew may include Welders and other employees as assigned for particular jobs. An incumbent is responsible for the quantity and quality of the work done, the interpretation of drawings, the resolution of problems, and the coordination of the work of an assigned crew with that of other crafts on the same project.

Some Pipefitter Supervisor positions are responsible for supervising other Pipefitter Supervisors and their crews. The incumbents check the work of subordinates through progress reports and by making tests of the completed work. An employee in this position receives instructions in general terms and is responsible for the installation of complete pipe systems of substantial size and complexity.

Examples of Duties : Pipefitter : Installs, replaces, maintains and repairs steel, iron, alloy, copper, brass, hard rubber, plastic, and other types of pipe and tubing of various sizes, including fittings, valves, gauges, meters, control instruments, steam traps, and other appurtenances used for piping steam, oil, air, gas, water, and other fluids in connection with boilers, steam turbines and auxiliaries, water softeners and filters, refrigeration units, sprinkler systems, and other equipment; places and connects self-contained units such as pumps, compressors, and some type of tanks; cuts, threads, reams, bends, joins, and caulks pipe using hand and power tools and equipment; measures pipe for length and angle; solders joints on copper tubing and pipe; makes bolted flange connections; fabricates

and installs pipe hangers, supports, and braces; cleans, adjusts, grinds, and packs valves; packs pumps; cleans pipelines; uses precision tools in setting pumps, package unit compressors, and other integral parts of pipe systems; may apply insulation and protective coating to piping; may supervise a helper; may inspect piping for needed repairs; may repair marine pipe systems on floating equipment; does rigging necessary in installing and moving pipe systems; and may weld pipe on high pressure systems using gas or electric welding equipment.

Pipefitter Supervisor : Plans, lays out, assigns, and inspects the work of Pipefitters, Welders, and occasional helpers from other classes and determines proper procedures, methods, and materials to use in installing pipe systems; reads and interprets blueprints and other drawings; prepares sketches of work detail as well as makes working drawings and templates for difficult parts of the work; checks working conditions to see that proper safety precautions and devices are being used; estimates time and materials for specific jobs; writes requisitions for materials; approves and keeps time and work records; and prepares routine work reports.

Supervises and coordinates the work of two or more Pipefitter Supervisors and their crews; is in charge of other Pipefitter Supervisors, Welder Supervisors, Plumber Supervisors, and other employees on special jobs; makes recommendations to supervisory staff concerning personnel and job problems and needs; assigns employees to specific work crews; inspects and directs tests of work to see that it conforms to drawings and specifications and operates properly; fulfills supervisory affirmative action responsibilities as set for in the City's Affirmative Action Program; and may act for a project superintendent in the former's absence.

Employees of these classes may occasionally be assigned to other duties for training purposes or to meet technological changes or emergencies.

Qualifications : Pipefitter : A good knowledge of the methods, practices, tools, machines, equipment, and metals, alloys, and other materials used in joining fitting, cutting, bending and threading all types of pipes, including the preheating and stress relieving of welded joints; a good knowledge of the hazards and applicable safety precautions required in working with high pressure and high temperature pipelines; a working knowledge of the effects of pressure, temperature, and other factors on pipe systems and of the methods and practices used in obtaining satisfactory performance under various conditions; a working knowledge of the construction, functions, and operating principles of valves and fittings used in industrial pipe systems; a working knowledge of hand signals employed in the operation of cranes and hoists as applied to rigging; skill in industrial pipefitting; the ability to set up and use rigging required to lift, move, and install piping, pumps, valves, and other intergral parts of pipe systems; and the ability to read and interpret parts of pipe

systems; and the ability to read and interpret blueprints schematics and other drawings of pipe systems and to plan ordinary pipe systems in accordance with approved practice.

Pipefitter Supervisor : A good knowledge of what a Pipefitter should know including the same abilities; a good knowledge of the construction, functions, and operating principles of valves and fittings used in industrial pipe systems; a good knowledge of State Industrial Safety Orders as they pertain to pipefitting and pipe welding operations and other necessary safety principles and practices; a working knowledge of the tools, materials, and methods involved in the electric and acetylene welding of ferrous metals used in high pressure and high temperature piping; a working knowledge of the laws and regulations related to affirmative action and equal employment opportunity; a general knowledge of City personnel rules, policies and procedures; a general knowledge of memoranda of understanding as they apply to subordinate personnel; the ability to instruct and supervise craft personnel doing pipefitting work; the ability to plan and lay out pipe systems according to approved practice; the ability to make time and material estimates and to prepare requisitions for tools and materials; the ability to prepare rough sketches of work to be done; the ability to adapt methods and practices of pipe and pipeline installation to particular jobs in the interest of economy and proper performance; the ability to keep routine time and work records and prepare reports; the ability to instruct and advise subordinate supervisors in the proper performance of their duties; and the ability to organize, schedule coordinate, and supervise the work of two or more crews.

Completion of a four-year apprenticeship or the attainment of journey-level rank as a Pipefitter or four years of experience as a pipefitter helper is required for Pipefitter.

Four years of full-time paid experience as a Pipefitter is required for Pipefitter Supervisor.

License : A valid California driver's license may be required for Pipefitter, however it is required for Pipefitter Supervisor.

Physical Requirements : Pipefitter : Strength to perform average lifting of up to 35 pounds and occasionally over 70 pounds; arm, hand, and finger dexterity with both hands involed in activities such as reaching, handling and feeling; and good eyesight.

Pipefitter Supervisor : Strength to perform average lifting of up to 15 pounds and occasionally over 25 pounds; good speaking and hearing ability; and good eyesight.

Persons with medical limitations may, with reasonable accommodation, be capable of performing the duties of some of the positions in these classes. Such determination must be made on an individual basis in light of the person's limitations, the requirement of the position, and the appointing authority's ability to effect reasonable accommodations to the person's limitations.

As provided in Civil Service Commission 2.5 and Section 4.55 of the Administrative Code, this specification is descriptive, explanatory and not restrictive. It is not intended to declare what the duties and responsibilities of any position shall be.