

JOB DESCRIPTION – GENERAL MECHANIC (PIPE FITTING)

JOB DUTIES AND RESPONSIBILITIES

Lays out, positions, aligns, and fits together fabricated parts of structural products in shop or field locations, according to blueprint and layout specifications, preparatory to welding, bolting or other fastening media: Plans sequence of operation, applying knowledge of geometry, effects of heat, and allowances for weld shrinkage, machining, and thickness of metal. Sets up face blocks, jigs and fixtures. Locates and marks center lines and reference points onto floor or face block and transposes them to work piece, using tape, chains, plumb bob, and squares. Move parts into position, manually or by hoist or crane. Aligns parts, using jack, turnbuckles, wedges, drift pins, pry bars and hammer. Removes high spots and cuts bevels, using hand files, portable grinders, and cutting torch. Gives direction to welder to build up low spots or short pieces with weld. Straightens warped or bent parts, using sledge, hand torch, straightening press, or bulldozer. Positions or tightens braces, jacks, clamps, ropes, or bolt straps, or bolts parts in positions for welding. Uses transit to locate reference points and erect ladders and scaffolding to fit together large assemblies. Climbs framework or ladders to position, fit or secure parts. Clamps, bolts, or tack welds parts into place for final welding or bolting. Signals rigger to lift parts into position. Repairs products by dismantling, straightening, reshaping, and reassembling parts using cutting torch, straightening press, and hand tools. Selects type and size of pipe and related materials and equipment, such as supports, hangers, and hydraulic cylinders, according to specifications. Inspects work site to determine presence of obstructions and to ascertain that holes cut for pipe will not cause structural weakness. Plans installation or repair to avoid obstructions and to avoid interfering with activities of other workers. Cuts pipe, using saws, pipe cutter, hammer and chisel, cutting torch, and pipe cutting machine. Operates machine to cut, thread, and ream pipes and assemble pipes, according to blueprints. Bends pipe using pipe bending tools and pipe bending machine. Builds scaffolding for access to work area. Secures pipes to structure with brackets, clamps, and hangers using hand tools and power tools. Increases pressure in pipe systems and observes connected pressure gauge to test system for leaks. Welds pipe supports to structural steel members. May be required to work while wearing respiratory protection, either air supplied or air purifying, depending upon atmospheric conditions and work location. May be required to work in confined spaces, above ground in excess of fifty feet, outdoors in direct sunlight and in seasonal temperature extremes. Some of these job duties are not full time; project size and organization of work determine whether workers spend their time on one duty or transfer from duty to duty as project progresses to completion.

TOOLS, EQUIPMENT AND DEVICES REQUIRED ON THE JOB

Channel Lock Pliers 9"	25' Tape Rule	Center Punch
Combination Wrench 7/8"	Combination Wrench 1-1/16"	1-1/4" Spud Wrench
Combination Wrench 1-1/4"	Flange Scraper	Medium Wrap Around
Wedge For Spreading Flanges	Gloves	2' Level
Crescent Wrench 12"	10" Pipe Wrench	Ball Pein Hammer 16 oz.
14" Pipe Wrench	18" Pipe Wrench	Tool Box with Lock
Torpedo Level	Tri Square Combination	Tubing Cutters - T.C. 100
50' Tape	Safety Glasses	Crescent Wrench 8"
Hardhat	Side Cutters 9"	18" Pry Bar
Plumb Bob with String	Hacksaw	

NON-PHYSICAL JOB REQUIREMENTS

The Dictionary of Occupational Titles, Fourth Edition, Revised 1991, United States of America, Department of Labor Specific Vocational Rating for Pipefitter is: Over 2 years up to and including 4 years.

PERSONAL TRAITS

The ability to get along well with co-workers and management and the ability to work together with other employees as part of a group, the ability to accurately communicate ideas, instructions, questions, problems, solutions. The ability to accurately receive and understand ideas, instructions, questions, problems, solutions or feelings understanding of the nature and causes of accidents, appreciative of the effects and seriousness of accidents, alert and attentive for possible hazards, takes necessary actions to prevent accidents - is not accident prone and does not have a history of chronic unsafe behavior.

PHYSICAL JOB REQUIREMENTS

The ability to verbally communicate alarms or warnings clearly, concisely, loudly and quickly, to clearly and quickly hear or otherwise sense alarms or warnings and take appropriate action, maintain equilibrium to prevent falling when moving, walking, standing, kneeling or crouching - particularly on narrow, uneven, irregular, slippery surfaces, going up or down ladders, stairs, scaffolding, ramps, poles or other objects using hands, arms, feet or legs. Moves about on hands and feet, bending the body downward and forward bending leg and spine - working in a bent over position. Sensing physical attributes such as size, shape, temperature, texture or sharpness of an object by touching. Foot agility and dexterity - operating pedals, foot controls, kick bars and other similar tasks that require foot or toe motion. Grasping, gripping or applying pressure to an object with the fingers and palm, holding an object in the hand. The ability to clearly and concisely perceive sounds, the ability to hear and understand detailed oral communications, the ability to hear warning signals and alarms given verbally and mechanically. Lifting, raising or lowering objects in a vertical direction, particularly heavy or bulky objects. Moving objects backward, forward, in or out in a horizontal direction, particularly heavy or bulky objects. Pulling, exerting a steady backward, downward, upward or outward force against an object - jerking, plucking, wrenching, stretching, towing, drawing, dragging or tugging objects in a sustained motion. Pushing, pressing against something with steady forward, downward, upward or outward force - shoving, pushing, compressing, squeezing, mashing, packing, pressing, jamming, compacting, or squashing objects in a sustained motion. Reaching, extending the hand(s) and/or arm(s) in any direction. The ability to see, read and understand written communications: including directions, instructions and warning signs, to see and distinguish colors, to visually distinguish shapes and patterns, to accurately sense distances (depth perception), to accurately see objects and detect motion at wide angles (peripheral vision). Bending the body downward and forward by bending the spine at the waist, using the lower extremities and back muscles and moving on foot, particularly for long distances.

PHYSICAL MODIFIERS/DEMANDS

The Dictionary of Occupational Titles, Fourth Edition, Revised 1991, United States of America, Department of Labor Physical Demands Strength Rating for Pipefitter is: H - Heavy Work - Exerting 50 to 100 pounds of force occasionally, and/or 25 to 50 pounds of force frequently, and/or 10 to 20 pounds of force constantly to move objects. Physical demand requirements are in excess of those for Medium Work.

VISUAL MODIFIERS/DEMANDS

The job requires considerable, sustained use of eyesight for functions such as visual inspection, reading, measuring, assembling, transcription, data analysis and operating machines or vehicles and the ability to clearly see at night or in dim light, in daylight or bright light, under glare or poor contrast.

ENVIRONMENTAL MODIFIERS/DEMANDS

The job involves: Exposure to cold working conditions during winter months and to hot working conditions during summer months, exposure to noise - workers must wear protective hearing equipment or frequently shout in order to be heard above the ambient noise level. Exposure to pollutants or allergens which can adversely affect the skin and/or the respiratory system such as gases, smoke, odors, mists, fumes, dust, chemicals, oils or solvents, exposure to hazardous working conditions including moving machinery, electricity and/or working in high places. The job requires the use of protective equipment such as hard hats, respirators, aprons, gloves, special clothing, safety shoes and safety glasses. The job involves continuous work that cannot be easily or economically interrupted for breaks except at regularly scheduled intervals or at the completion of an assignment.

I understand and can perform this job with or without reasonable accommodation.