

Job Description

Please note this job description is not designed to cover or contain a comprehensive listing of activities, duties or responsibilities that are required of the employee for this job.

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| Job title | Machinist |
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GENERAL PURPOSE

Under general supervision, performs a wide variety of skilled duties in the design, fabrication, installation, maintenance, repair and servicing of mechanical equipment and machinery used in the production, treatment, storage, transmission and distribution of potable and reclaimed water and the collection, transmission and treatment of wastewater; sets-up, operates, and maintains machine shop equipment such as lathes, horizontal and vertical milling machines, surface grinders, and others; and performs related duties as assigned.

DISTINGUISHING CHARACTERISTICS

This fully qualified journey level classification is responsible for performing skilled duties in the design, fabrication, installation, maintenance, repair and servicing of assigned mechanical equipment and machinery. Positions at this level perform the full range of duties as assigned, working independently, and exercising judgment and initiative. Positions at this level receive only occasional instruction or assistance as new or unusual situations arise and are fully aware of the operating procedures and policies of the work unit.

This class is distinguished from the Mechanical Maintenance Supervisor in that the latter is a full supervisory level class with accountability and ongoing decision-making responsibilities associated with the work.

SUPERVISION RECEIVED AND EXERCISED

Receives general supervision from the Mechanical Maintenance Supervisor. Exercises no direct supervision over staff.

TYPICAL DUTIES AND RESPONSIBILITIES

The duties listed below are intended only as illustrations of the various types of work that may be performed. The omission of specific statements of duties does not exclude them from the position if the work is similar, related or a logical assignment to this position.

- Performs a variety of skilled, precision duties involved in the design, fabrication, installation and repair of plant, field and shop parts, equipment, facilities, machinery and special purpose tools associated with the water, reclaimed water and wastewater treatment infrastructure and facilities; equipment includes, but is not limited to, pipes, tubes, rods, seals, shafts, stuffing boxes, gears, motors, bearings, couplings, chemical storage and feed systems, flow stations, valves, deep wells and pumps; schedules and coordinates activities with other sections and divisions.
- Machines, fabricates, welds and fastens materials using a diverse range of tools and equipment such as engine lathes, surface grinders, vertical milling machines, horizontal universal milling machine, drill press, hydraulic presses, metal shears, brake and power roll; performs single point pipe threading.
- Uses precision measurement instruments such as micrometers, vernier calipers and dial indicators and makes calculations necessary to maintain tolerances of less than one-thousandth of an inch.
- Sets-up, operates, and maintains standard shop machines, including lathes, horizontal and vertical milling machines, surface grinders, drill press, and saws.
- Repairs surfaces with TIG welder and/or spray equipment, including the restoration of shafting to bearing manufacturer's tolerances to provide proper fit and bearing service life.
- Requisitions necessary tools, equipment and supplies; maintains a stock of drive line shafting and other specialized materials; selects methods and materials for the fabrication and/or repair of equipment and facilities.
- Researches new operational methods, techniques and equipment and recommends their application.
- Designs and fabricates a variety of brackets, supports and other metal structures; performs sheet metal fabrication, using manual shears, brakes, and power rolls; joins sheet metal with spot welder and TIG machine; performs MIG and TIG welding on both steel and aluminum.
- Designs and constructs detailed drawings for use by outside vendors in fabrication of components and assemblies using independent design and/or existing components; plans and lays out jobs from blueprints, drawings, sketches or verbal instructions; designs and constructs proto-types.
- Responds to emergency situations as necessary.
- May assist in training or instructing others in the work.
- Observes and complies with all District and mandated safety rules, regulations, and protocols.
- Performs related duties as assigned.

REQUIRED QUALIFICATIONS

Knowledge of:

- Principles, methods, techniques, materials, tools and equipment used in the fabrication, installation, maintenance and repair of mechanical equipment and machinery common to a large water works system.
- Machine shop procedures and practices.
- Shop mathematics.
- Skilled use and operation of oxyacetylene, electric arc MIG and TIG welding and metal spray equipment and materials.
- District and mandated safety rules, regulations, and protocols.
- Techniques for providing a high level of customer service by effectively dealing with the public, vendors, contractors, and District staff.
- The structure and content of the English language, including the meaning and spelling of words, rules of composition, and grammar.
- Modern equipment and communication tools used for business functions and program, project, and task coordination, including computers and software programs relevant to work performed.

Ability to:

- Set-up, operate, and maintain machine shop tools and equipment.
- Diagnose and repair a wide variety of mechanical equipment, systems and machinery, such as valves, motors, pumps and other equipment common to the water works field.
- Use precision and diagnostic instruments to measure required tolerances of mechanical parts.
- Identify and implement effective courses of action to complete assigned work.
- Read, interpret and work from blueprints, plans, specifications and manuals.
- Train others in work processes and procedures.
- Coordinate work assignments with other sections, divisions or departments.
- Understand, interpret, and apply all pertinent laws, codes, regulations, policies and procedures, and standards relevant to work performed.
- Independently organize work, set priorities, meet critical deadlines, and follow-up on assignments.
- Use tact, initiative, prudence, and independent judgment within general policy, procedural, and legal guidelines.
- Effectively use computer systems, software applications relevant to work performed, and modern business equipment to perform a variety of work tasks.
- Communicate clearly and concisely, both orally and in writing, using appropriate English grammar and syntax.

Eastern Municipal Water District

Job Title: Machinist

Last Update: March 2020

- Establish, maintain, and foster positive and effective working relationships with those contacted in the course of work.

Experience:

Any combination of experience and education that provides the required knowledge and abilities is qualifying, along with the specific licenses/certifications as outlined below:

- Four (4) years of progressively responsible experience in machining, fabrication, and welding of industrial equipment used in or equivalent to a large potable and/or wastewater system.

Education:

- Equivalent to completion of the twelfth (12th) grade.

Licenses/Certifications:

- A valid California driver's license and the ability to maintain insurability under the District's Vehicle Insurance Policy.

PHYSICAL DEMANDS

The physical demands described here are representative of those that must be met by employees to successfully perform the essential functions of this class. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

Must possess mobility to work in the field and shop environment; strength, stamina, and mobility to perform medium to heavy physical work; to sit, stand, and walk on level, uneven, or slippery surfaces; frequently reach, twist, turn, kneel, bend, stoop, squat, crouch, grasp and make repetitive hand movement in the performance of daily duties; to operate varied hand and power tools, welding and construction equipment, and to operate a motor vehicle and visit various District sites; vision to inspect and operate equipment; and color vision to evaluate cutting tools in progress. Finger dexterity is needed to operate and repair tools and equipment. Employees must possess the ability to lift, carry, push, and pull materials and objects averaging a weight of 50 pounds or heavier weights, in all cases with the use of proper equipment and/or assistance from other staff.

WORK ENVIRONMENT

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this class. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

Employees work in the field and in a shop environment, and are exposed to loud noise levels, cold and hot temperatures, inclement weather conditions, road hazards, vibration, chemicals, mechanical and/or electrical hazards, hazardous physical substances and fumes, dust and air contaminants. Employees may interact with upset staff and/or public and private representatives in interpreting and enforcing departmental policies and procedures.

Eastern Municipal Water District
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This job description has been reviewed and approved by all levels of management in cooperation with the union (if applicable):

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| Approved by: | <i>Board of Directors</i> |
| Date adopted: | <i>March 29, 2020</i> |
| Date modified: | |
| FLSA determination: | <i>Non-Exempt</i> |

Job Description Acknowledgment

I have received, reviewed and fully understand the job description for Machinist. I further understand that I am responsible for the satisfactory execution of the essential functions described therein, under any and all conditions as described.

Employee Name (print): _____ *Date:* _____

Employee Number: _____

Employee Signature: _____