



City of Phoenix

INDUSTRIAL MAINTENANCE MECHANIC

JOB CODE 50430

Effective Date: 1/14

DISTINGUISHING FEATURES OF THE CLASS:

The fundamental reason this classification exists is to install, repair, and maintain heavy-duty equipment at a water or wastewater treatment plant, pumping station, deep well site or booster station. Work may require the operation of machinery but emphasis is upon servicing, installing, repairing, and maintaining equipment rather than its operation. Work assignments are varied and employees must be skilled in several mechanical trades including fabrication and millwright. Some Industrial Maintenance Mechanics act as lead workers, directing the work of Operations & Maintenance Technicians, Equipment Operators, Utility Mechanics, or other employees who may be assigned to assist the Industrial Maintenance Mechanic. This classification is distinguished from the Utility Mechanic by the added lead responsibilities, greater responsibility for diagnosing equipment problems and determining needed repairs, and the complexity, close tolerance, size, and difficulty of the equipment maintained. Work is performed under the general supervision of an Operations & Maintenance Supervisor who reviews work while in progress or upon completion.

ESSENTIAL FUNCTIONS:

- Leads and performs journey-level maintenance, repair and replacement of mechanical equipment such as pumps, valves, motors, sludge removal machines, centrifuges, chemical feeders, blowers, coolers, air compressors, and heating equipment in a water or wastewater treatment plant; reclamation plants, groundwater wells, pumping stations, lift stations and reservoirs;
- Diagnoses complex equipment problems and determines repairs needed;
- Fabricates, constructs, and installs equipment and machinery from engineering blueprints and places related equipment and machinery into operation;
- Pulls, repairs, and re-installs deep well pumps;
- Repairs horizontal, and vertical drive centrifugal pumps;
- Installs spherical, thrust, radial, and line-shaft bearings on pumps and motors;
- Trains assigned staff in mechanical maintenance and repair;
- Operates equipment necessary to complete assigned work such as boom trucks, cranes, forklifts;
- Maintains regular and reliable attendance;
- Demonstrates superior seamless customer service, integrity, and commitment to innovation, efficiency, and fiscally responsible activity.



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Required Knowledge, Skills and Abilities:

Knowledge of:

- Methods, practices, tools, and materials used in maintaining, repairing, or constructing water or wastewater treatment facilities and systems.
- Complex hydraulic and pneumatic systems.
- Pumps, valves, motors, sludge removal machines, centrifuges, chemical feeders, blowers, coolers, large air compressors, heating equipment, gear set, and drives.
- Hoist and rigging principles.
- Occupational hazards and necessary safety precautions applicable to mechanical repair and maintenance work.

Skill in:

- Use and care of pneumatic, hydraulic, hand and special tools and equipment used in the maintenance of large complex machinery and equipment.
- Crane and boom truck operation.
- Use of precision measuring equipment such as micrometers and dial indicators.
- Gas and electric welding.

Ability to:

- Perform lead responsibilities over others.
- Work cooperatively with others.
- Understand and follow oral and written instructions in the English language.
- Work in a variety of weather conditions with exposure to the outdoor elements.
- Observe or monitor people's behavior, data, or objects to determine compliance with prescribed operating or safety standards.
- Measure distance using a tape measure or calibrated instruments.
- Use graphic instructions, such as blueprints, schematic drawings, pencil diagrams or other visual aids.
- Make precise arm-hand positioning movements and maintain static arm-hand position to operate a hand drill or other tool.
- Coordinate the movement of more than one limb simultaneously to repair equipment or operate machinery.
- Bend or stoop repeatedly or continually over time to repair equipment.
- Lift arms above shoulder level to work on equipment.



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- Work in small, cramped areas and at heights greater than 20 feet to repair equipment.
- Climb ladders or steps to access equipment in confined spaces.
- Walk over rough, uneven, or rocky surfaces to access equipment.
- Move heavy objects (50 pounds or more) long distances (more than 20 feet).
- Learn job-related material through oral instruction and observation or through structured lecture and reading. This learning takes place in both on-the-job training settings and in classroom settings.
- Work with wastewater, fluids, cleaning agents, paints, chemicals or similar solutions using approved personal protective equipment.
- Work safely without presenting a direct threat to self or others.

Additional Requirements:

- This classification requires the use of personal or City vehicles on City business. Individuals must be physically capable of operating the vehicles safely, possess a valid driver's license and have an acceptable driving record. Use of a personal vehicle for City business will be prohibited if the employee does not have personal insurance coverage.
- Possession of a Graduated Arizona Department of Environmental Quality certification in the appropriate discipline by the end of the probationary period.
- Some positions require possession of a class A Commercial Driver License Instructional Permit at the time of hire, and possession of a class A Commercial Driver License after 12 months in the classification.
- Some positions will require the performance of other essential and marginal functions depending upon work location, assignment, or shift.

ACCEPTABLE EXPERIENCE AND TRAINING:

Four years of skilled experience in mechanical maintenance and repair work, including one year in a lead capacity. Experience must include the fabrication, installation, and repair of large mechanical equipment, deep well, turbine, and water and wastewater pumps, including work with submersible and turbine deep well units and centrifugal booster pumps. Other combinations of experience and education that meet the minimum requirements may be substituted.