



## School District of Philadelphia

**Title:** H.V.A.C. Mechanic 'B'

**Department:** Facilities Management and Services

**Reports To:** Trades Supervisor, Scheduler, Planner and Facilities Area Coordinator

### **Job Summary**

Entry level work of the journeyman series in the installation, maintenance and repair of refrigeration, air conditioning, automatic plans and automatic temperature control equipment. Work involves assignments of increasing complexity as the employee gains familiarity with the work environment. Work is reviewed through inspection and completed work orders for conformance to trades standards.

### **Essential Functions**

- An employee in these trades analyzes, tests, adjusts and repairs automatic, oil and gas-fired boiler controls. Work involves checking readings on meters and gauges and adjusting equipment controls in order to verify readings under specified operating conditions. Significant to the work is recording and analyzing equipment temperature, hours of operation, fuel consumption and temperature to diagnose equipment malfunctions.
- Repairs, installs, and maintains gas and oil burners and controls, tanks, pressure vessels, and related industrial and residential equipment gauges and valves, including pressure, sequential boiler lead-lag and safety valves and gauges.
- Repairs, adjusts and replaces compressors, direct current and alternating current motors, receivers and condensers; adjusts or changes belts; replaces gaskets, hinges, and hardware; changes units with refrigerant and oil; may move equipment for replacement to other locations where assigned.
- Installs and adjusts expansion valves, thermostats, relays, sealed units, electric motors and pressure controls; installs evaporators, and copper tubing; sweats copper joints; uses gauges, wheel pullers and other small hand tools common to the trade.
- Operates large central air conditioning and refrigeration systems, adjusting controls to meet changing conditions; inspects fans, pumps and compressors for proper operation; examines refrigerant lines for leaks; maintains oil and refrigerant pressures on suction and discharge; adjusts temperature and humidity controls;
- Checks readings on meters and gauges; adjusts equipment controls in order to verify readings under specified operating conditions; records data such as equipment temperature, hours of operation, fuel consumption, and temperature in diagnosing equipment malfunctions.
- Tests, adjusts, installs, and repairs equipment following blueprints, schematic drawings, and verbal and written instructions.
- Installs, repairs, inspects and calibrates various industrial, commercial and residential type thermostatic controls used to regulate school district air conditioning, refrigeration and heating systems.

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- Calibrates pressure activated thermostats used on H.V.A.C. equipment using trades test fixtures and tools; tests and adjusts thermostatic controls to insure they operate according to design specifications; repairs and installs temperature control equipment according to specifications.
- Reads thermometers and temperature-control recording charts, flow-meters and gauges to determine when temperature or humidity conditions are not within specified ranges; performs equipment repairs and adjustment when indicated.
- May estimate, order and transport necessary materials to complete work order(s) at assigned location.
- Oversees the work of trainees in the trade.

### **Other Functions**

- Performs incidental work as required.

### **Minimum Requirements**

- Education equivalent to the completion of the twelfth school grade.
- Three years of experience in the appropriate trade area.

### **Knowledge, Skills and Abilities**

- Considerable knowledge of the principles and theories governing the operation of air-conditioning and refrigeration equipment, automatic temperature controls, and automatic plants.
- Considerable knowledge of the practices, materials, methods and tools used in the repair and maintenance of air-conditioning and refrigeration equipment, automatic temperature controls and automatic plants.
- Considerable knowledge of the principles of electricity as they apply to the repair and maintenance of air-conditioning and refrigeration equipment, automatic temperature controls.
- Knowledge of the operation of electronic controls and motors associated with the operation of heating and cooling systems, automatic plants and automatic temperature controls.
- Considerable knowledge of the occupational hazards and safety precautions of the trades.
- Skill in the care and use of tools and equipment used to install, repair, and calibrate above equipment and controls.
- Ability to interpret and work from diagrams.
- Ability to prepare records and reports of work performed.
- Ability to diagnose and repair equipment malfunctions.
- Ability to diagnose and repair malfunctions.
- Ability to interpret and work from blueprints, schematic drawings and specifications.
- Ability to diagnose defects in and repair a variety of controls associated with H.V.A.C. equipment.
- Ability to establish and maintain effective working relationships with superior and associates.

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**Disclaimer**

The above statements are intended to describe the general nature and level of work being performed by people assigned to this classification. They are not to be construed as an exhaustive list of all responsibilities, duties, and skills required of personnel so classified.

**Certificates/Licenses**

Possession of a proper class license valid to operate a motor vehicle in the Commonwealth of Pennsylvania prior to appointment and during tenure of appointment.

HR Use Only	
Title Code	7125
Salary Grade	2438/7438
Bargaining Unit	Local 32BJ
Date of Establishment	7/67
Date of Revision	1/15
Analyst	JAG