



## **HVAC Systems Technician**

**Category:** Classified  
**Pay Grade:** C21  
**Job Code:** 13704

*To perform this job successfully, an individual must be able to perform the essential job functions satisfactorily. Reasonable accommodations may be made to enable individuals with disabilities to perform the primary job functions herein described. Since every duty associated with this position may not be described herein, employees may be required to perform duties not specifically spelled out in the job description, but which may be reasonably considered to be incidental in the performing of their duties just as though they were actually written out in this job description.*

### **JOB SUMMARY**

This is technical advanced level work in the installation, alteration, repair and maintenance of heating, ventilating and air conditioning (HVAC) systems. The incumbent performs typical HVAC duties plus independently evaluates, plans, maintains, and improves the automated systems used to control HVAC and other miscellaneous electronic control systems and devices. Employees in this class work in accordance with standard HVAC trade practices, exercise independent judgment and make decisions regarding complex repair work procedures, including serving as a lead specialist in both mechanical and electrical duties, principally for HVAC. The incumbent may also support security, surveillance, fire alarm, lock, and other mechanical systems. Incumbents are not routinely tasked to perform advanced bench work electronics related repairs, electronic overhauls or rebuilding complex electronic or electrical equipment. Oversight may be exercised over one or more personnel on a project basis and assignments include regular responsibility for direction and training other personnel in the upkeep, operation, improvement, and maintenance of operations.

### **ESSENTIAL JOB FUNCTIONS (examples, not all inclusive)**

- Programs, modifies, and installs electronic devices to manage the automated mechanical controls for a large building complex and related equipment operations;
- Assesses, plans, maintains, and improves centralized automated systems used to manage HVAC and other miscellaneous electronic control systems and devices;
- Oversees and trains other personnel to program, install and repair both mechanical and electronic controls and systems;
- Installs, overhauls and services refrigeration and air conditioning units by repairing, rebuilding, replacing, or adjusting worn or broken components on condensers, compressors and water and vacuum pumps;
- Tests refrigeration equipment for leaks and adds gas to units;
- Repairs and adjusts valves, piping connections, fittings, and couplings;
- Adjusts pressure, solenoid, and expansion valves;
- Checks gauges, makes inspections, and performs preventive maintenance service;
- Changes and washes oil cleaners and air filters;
- Performs skilled mechanical and trade functions to support operations;
- May perform both low voltage and high voltage tasks depending on area of assignment;
- Performs HVAC installation, maintenance, modification, calibration and repair of electronic and electrical instrumentation, equipment, and control systems; exercises lead responsibility over others on project basis or as assigned;

- Performs installation, maintenance, modification, calibration and repair of complex electrical power systems, related instrumentation, equipment, and control systems; and may exercise lead responsibility over other workers;
- Plans, designs, acquires, installs, repairs, programs, and maintains new digital controls and programs and equipment to replace, convert or expand systems;
- Maintains programming, administrative logs, documentation and information mapping and instructions to support efficient and effective operations of electronic and control systems;
- Performs other related job duties as assigned.

## QUALIFICATIONS

### **Education and Experience:**

Three (3) years HVAC trades experience that includes one (1) year of highly complex facilities/industrial electronic HVAC control assignments; or completion of a two (2) year vocational and training certification or diploma in a related field and two (2) years HVAC experience that includes team leader, supervisor, or supervisor training; or an equivalent combination of education, training, and/or experience.

### **Special Qualifications (May be required depending on area of assignment):**

- Florida Driver's License or Florida Commercial Driver's License and endorsement, if any.
- Assignment to work a variety of work schedules including compulsory work periods in special, emergency, and/or disaster situations.
- Possession and maintenance of a valid Pinellas County HVAC journeyman level Certificate of Competency, appropriate certifications in HVAC electronics control systems or other directly related systems training.
- Other highly desirable knowledge, skills, abilities, and credentials relevant to a position.

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

- Knowledge of the principles, practices, materials, tools and equipment of refrigeration and air conditioning operation, maintenance, and repair;
- Advanced knowledge in the design, installation and programming of both old and new electronic technologies used to centrally manage and control HVAC and other utilities in facilities and office complexes;
- Knowledge of standard practices, materials, tools, and equipment of the electrical trade and local and national electrical;
- Knowledge of occupational hazards and appropriate safety precautions to include working with complex office building, commercial and industrial HVAC systems;
- Knowledge of work hazards and safety associated with crafts, trades and facilities work;
- Knowledge of tools, power tools and materials used in skilled trade work;
- Knowledge of the methods, materials, tools and practices for HVAC work;
- Skill in use of tools and equipment for mechanical repairs;
- Skill in locating and repairing defects in related equipment;
- Skill in the use and care of standard tools, equipment, and testing devices of the electrical trade;
- Ability to apply computer applications and software;
- Ability to work from oral or written instructions, broken parts or basic diagrams and sketches;
- Ability to troubleshoot defects in machinery and equipment operation, make proper repairs and adjustments, complete assignments;
- Ability to lead helpers and others to complete assignments, keep basic records and do heavy manual work;
- Ability to read and interpret blueprints and schematics, equipment diagrams, draw sketches of proposed projects, plan assignments, order materials and understand and follow oral and written instructions;
- Ability to operate a personal computer and other automated systems to monitor work, enter and retrieve information;

- Ability to install, alter, repair, and maintain a variety of HVAC systems and equipment;
- Ability to endure long periods of standing, walking or working in inclement weather and possession of sufficient physical strength and agility to lift and move heavy objects;
- Ability to detect problems and repair machinery and equipment;
- Ability to communicate orally and in written form to impart information, write reports, etc.;
- Ability and strength to climb ladders and perform heavy manual labor for extended periods.

### **PHYSICAL/MENTAL DEMANDS**

The work is heavy work which requires exerting up to 100 pounds of force occasionally, and/or up to 50 pounds of force frequently, and/or up to 20 pounds of force constantly to move objects. Additionally, the following physical abilities are required:

- **Balancing:** Maintaining body equilibrium to prevent falling while walking, standing or crouching on narrow, slippery, or erratically moving surfaces. The amount of balancing exceeds that needed for ordinary locomotion and maintenance of body equilibrium.
- **Climbing:** Ascending or descending ladders, stairs, scaffolding, ramps, poles and the like, using feet and legs and/or hands and arms. Body agility is emphasized.
- **Crawling:** Moving about on hands and knees or hands and feet. • **Crouching:** Bending the body downward and forward by bending leg and spine.
- **Feeling:** Perceiving attributes of objects, such as size, shape, temperature or texture by touching with skin, particularly that of fingertips.
- **Fingering:** Picking, pinching, typing, or otherwise working, primarily with fingers rather than with the whole hand as in handling.
- **Grasping:** Applying pressure to an object with the fingers and palm.
- **Handling:** Picking, holding, or otherwise working, primarily with the whole hand.
- **Kneeling:** Bending legs at knee to come to a rest on knee or knees.
- **Lifting:** Raising objects from a lower to a higher position or moving objects horizontally from position-to-position. Occurs to a considerable degree and requires substantial use of upper extremities and back muscles.
- **Pulling:** Using upper extremities to exert force in order to draw, haul or tug objects in a sustained motion.
- **Pushing:** Using upper extremities to press against something with steady force in order to thrust forward, downward or outward.
- **Reaching:** Extending hand(s) and arm(s) in any direction.
- **Visual ability:** Sufficient to effectively operate office equipment including copier, computer, etc.; and to read and write reports, correspondence, instructions, etc.
- **Hearing ability:** Sufficient to hold a conversation with other individuals both in person and over a telephone; and to hear recording on transcription device.
- **Speaking ability:** Sufficient to communicate effectively with other individuals in person and over a telephone.
- **Mental acuity:** Ability to make rational decisions through sound logic and deductive processes.
- **Talking:** Expressing or exchanging ideas by means of the spoken word including those activities in which they must convey detailed or important spoken instructions to other workers accurately, loudly, or quickly.
- **Repetitive motion:** Substantial movements (motions) of the wrist, hands, and/or fingers.

### **WORKING CONDITIONS**

Work is performed in an environment with heavy equipment and machinery that could result in bodily harm to co-workers or others.