

HVAC GUIDE FOR PRIVATE & SHARED OFFICE SPACES

Corporate offices come in many shapes and sizes. Some are traditional, with a ring of private offices around the outside and cubicles occupying the center of each floor. Others have open floor plans to encourage more collaboration and camaraderie between coworkers. Still others are shared office spaces where multiple businesses have employees working under the same roof.

Whatever your office situation, you can't avoid the need to heat and air condition the building to maintain a comfortable indoor temperature year-round. We've put together this guide to help you determine the best HVAC solutions for your private or shared office space.



Types of Office Space HVAC Systems

Consider the qualities of four HVAC systems commonly used in office buildings.

Packaged Rooftop Systems

These economical, pre-engineered systems are adaptable to offices of many sizes and occupancies. They contain both heating and cooling capabilities to provide simple, convenient operation and maintenance.

VRF/VRV Systems

The terms variant refrigerant flow (VRF) and variable refrigerant volume (VRV) are interchangeable. This sophisticated technology contains one outdoor unit linked to multiple indoor air handlers and control panels. At the same time, a centralized controller allows you to control every air handler from a central location. This configuration makes VRF/VRV systems ideal for shared office spaces.

Water-Cooled Systems

If you need to condition a small private office with only a few employees, this could be the right choice. Just be aware that a cooling tower installation may be required.

Central HVAC Systems with Zoning

Large buildings may need commercial HVAC systems with central heating and cooling capabilities. Dampers in the ductwork and multiple thermostats help keep the entire building at a comfortable temperature.

Maintenance Requirements for Private & Shared Office HVAC

All mechanical equipment requires maintenance, no matter how robust or reliable it is. This includes HVAC equipment, which should be inspected by a licensed HVAC professional once a year. A maintenance visit entails cleaning, lubricating, testing, and tuning up the system to maximize safety and performance in the upcoming season.

For the best results, schedule maintenance for your heating equipment in the fall, and tune up the cooling system in the spring. If one piece of equipment provides both heating and cooling, have it inspected twice a year. By making preventive maintenance a priority, you can expect fewer mid-season breakdowns, lower operating costs, and a longer lifespan for your HVAC equipment.

HVAC Design Considerations for Private & Shared Office Spaces

The goal of any office HVAC installation is to provide a comfortable workspace for employees while keeping heating and cooling costs down. Whether you're

renovating an existing space or building a new office, keep these considerations in mind.

Heating & Cooling Loads

More efficiently constructed buildings have less air infiltration and heat transfer, lowering the heating and cooling loads. Before you size a new HVAC system, make energy-efficiency improvements around the building, such as adding floor and wall insulation, windows with tinted low-E glass, and LED lights that produce less heat.

HVAC Sizing

While choosing the right type of office HVAC system is critical, installing properly sized equipment is equally important. After all, bigger isn't always better. To avoid short-cycling and humidity problems, have a licensed commercial HVAC contractor perform load calculations before choosing a heating and cooling system for your office space.

Zoning

Shared offices must contain multiple, independently controlled zones. This is because not only do different people have varying comfort preferences, but a large office space could experience drastic temperature changes from one area to the next. For example, north-facing offices are naturally cooler than south-facing ones. Plus, any rooms containing lots of computers or facilitating large gatherings will heat up faster than vacant rooms without computers.

Automation

When you're busy working in your office, you can't worry about micromanaging the HVAC system. That's where automation comes in. Programmed settings allow you to set a schedule for the building's heating and cooling based on your hours of operation. Occupancy sensors can also help save energy and maintain a comfortable temperature depending on whether a room is empty or crammed with people at any particular moment.

Improving the Efficiency of Your Office HVAC System

Everyone wants to be comfortable at work, but no one wants to pay higher energy bills. Use these tips to help you balance comfort and performance:

- Designate an energy team to pursue efficiency improvements.
- Measure and track energy consumption to watch for any anomalies.
- Choose high-efficiency HVAC equipment. You will recoup the higher upfront cost in energy savings.
- Schedule preventive maintenance.
- Keep thermostats and controllers out of public reach so employees and guests can't fiddle with them.

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