

Put RTU Maintenance on Your Spring Cleaning To-Do List

Though air conditioning may be the furthest thing from your mind during these colder months, spring is the perfect season to perform inspections, maintenance, and repairs on your packaged rooftop units (RTUs). RTUs are the workhorses of space cooling in today's commercial buildings, and proper and regular maintenance is essential to ensuring continued occupant comfort and energy-efficient operation. Spring RTU inspections allow you to identify any problems that may have arisen during the winter, and ideally they'll help you have everything up and running smoothly before the heat of summer arrives. To get you started, here are three simple steps.

Step 1: Select a contractor. There are plenty of companies offering maintenance services for commercial air-conditioning units, and it's not always easy to differentiate one from another. Look for contractors that offer a service warranty or some other written agreement that guarantees the quality and consistency of their work. Ask candidate contractors whether and how strictly they adhere to Standard 180-2012, the industry standard for RTU maintenance developed by ASHRAE. Standard 180-2012 offers a comprehensive and properly sequenced approach to RTU maintenance, helping to ensure a consistently high level of service from those contractors that follow it closely.

Step 2: Establish a maintenance agreement. After you've identified a contractor you trust, it's time to establish a working agreement for maintenance service. With the exception of quarterly filter replacements, RTU maintenance is an annual endeavor that should cost you about \$1,100 for a 10-ton unit. In some cases, you may be able to enter into multiyear agreements in exchange for a lower price. Annual RTU inspection and maintenance visits should include, at a minimum:

- Replacing the air filters
- Cleaning the condenser coils
- Cleaning the evaporator coils
- Fixing any broken cabinet hardware

- Inspecting and lubricating the dampers
- Inspecting and lubricating all fans and motors
- Recharging refrigerant and testing refrigeration controls

Step 3: Compare for yourself. To help ensure that your RTUs are being maintained properly, consider comparing the unit's performance before and after the maintenance visit. Though not a perfect indicator, a review of your utility bills from month to month or year over year can show whether your air-conditioning units are running properly and not wasting energy. Weather data are also useful in making this assessment because temperature and relative humidity have a significant effect on RTU performance and energy consumption. Qualitatively, you should notice an improvement in RTU performance after the maintenance visit; specifically, cooler air should be delivered more quickly and quietly than before the unit was serviced. You can easily check this by inserting a thermometer into the louvers of ceiling diffusers in selected rooms, and then recording the temperatures before and after the maintenance visit. If actual RTU performance deviates noticeably from your expectations, document your observations and be sure to call your contractor and schedule a follow-up visit to address the problem.

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