



Taft West, Director of Property Management Training

Keep those radiators running smoothly

Q: Taft, a couple of the buildings I own have radiators, and I admit they're a bit of a mystery sometimes. What should I know about them before we get too far into the winter?

A: You're certainly not alone. Let's talk about radiators:

Troubleshooting radiators

Steam and hot water radiation units, whether old-fashioned upright or baseboard convectors, are simply pipes that dissipate heat. Maintaining them consists of making sure steam or water can flow through their pipes.

steam

If a steam radiator doesn't heat well, check its air vent. Liquids and gases can't get into a pipe that's full of air. See that the radiator slopes toward the return pipe, because trapped water will keep the radiator from heating up. Steam radiators are difficult to regulate; turning a valve to an in-between position won't modulate the heat; it just causes the radiator to bang. What is needed is an adjustable air vent available from a plumbing supply house. Decreasing the size of the vent's aperture slows the rate at which steam enters the radiator.

If a steam radiator warms only slightly, but evenly, water may be trapped inside. Poke the vent's air hole with a wire to clear it or replace the vent.

hot water

Hot water radiators, especially those farthest from the boiler, should get bled every fall. Heat can be adjusted by turning the inlet valve. If the upper portion of a hot water unit does not warm up, it needs to be bled. Hold a rag or small cup under the bleeder valve, and open it using a screwdriver, pliers or special key. Air and/or sputtering water will come out; when only water spurts out, close the valve.

Maintaining piped systems

In many hot water heating systems, the water reaches 240° F, far above the 212° F needed to produce steam. Yet, because the water travels slowly through the pipes and loses heat along the way, hot water radiators are less hot than steam radiators when the heat is on. The main difference between the two is that hot water systems are sealed and contain carefully controlled amounts of air in the radiators, piping and boiler.

Steam radiators, on the other hand, are open-ended and must "breathe." This explains why you can often hear hissing radiators and banging pipes in a steam system. The steam has to push the air ahead of it up to the riser (vertical) pipes and out the vents on each radiator.

Conversely, hot water has little air to impede its progress and circulates smoothly through the system, generally with nothing more than a few muffled thumps to let you know that it is operating. You may also hear a circulating pump come on from time to time.

A hot water system may have heavy radiators or more compact convectors; however, because steam heat is so hot, it always uses heavy cast-iron radiators. Steam boilers require regular monitoring because they must be continually filled to the proper level; hot water boilers require less maintenance.

A frequent annual challenge for building owners is balancing the heat evenly throughout the building. Try regulating the heat in individual radiators by adjusting the steam valves in a steam system, and the inlet valve in a hot water system. However, you may need to consult a heating professional if your attempts are not successful.

I hope this information helps you keep your tenants warm this season!

Until next time, *Taft*