How to Service Steam Radiators

Radiator Maintenance

1. Inspect your pipes

The first thing you should do to maintain your radiators is regularly examine your piping for any potential problems. Check your radiators and the pipes surrounding them for any cracks or leaks - even a small drip could become a big problem if not addressed.

Next, examine the pipes around your boiler for similar issues, but be careful not to touch any hot water pipes. You should replace any problematic pipes immediately or your heating system will not be able to sustain the pressure required to warm your home.

2. Bleed hot water radiators

Hot water radiators will not warm your home efficiently if there is air trapped in them. The process for getting air released is called “bleeding” and it’s important to do it annually to maintain your radiators.

Your radiator should have a key that fits into the water shutoff valve on one end of the radiator. To bleed the radiator, insert the key and turn it counterclockwise until water begins to drip out.

Have a container on hand to catch the runoff. This process will release any trapped air so your radiator can heat up properly.

To close the valve, turn the key back to its original position when nothing but water is coming out. Once you're finished, you should make sure the pressure gauge on your heating system is still within the manufacturer's recommended range. If it's not, add water through the water fill valve.

3. Clean steam radiator vents

To maintain steam radiators, you'll need to clean out its air vents. These vents are located halfway down one side of each radiator.

If the air hole becomes plugged, it can compromise the efficiency of your heating system. To clean them out, simply use a fine wire or sewing needle to clear any debris from the hole. In addition, make sure that the vent does not get painted over or covered by furniture.

Replacing Steam Valves

Steps:

1. Close the valve at base of radiator.

2. Turn off the room's thermostat.

3. Carefully unscrew the old air vent from side of radiator; if valve is hot, use thick cloth to protect your hand.

4. Wrap Teflon tape around the threads of the new steam valve.

5. Thread new steam valve into side of radiator; be sure valve points straight up.

6. Remove handle from valve at base of radiator.

7. Use adjustable wrench to unscrew packing nut from valve stem.

8. Wrap graphite packing gasket around threaded valve stem.

9. Replace nut and tighten with adjustable wrench.

10. Open valve at base of radiator.

11. Turn on the room's thermostat.

Troubleshooting a Radiator That Doesn't Heat

If the radiator doesn't heat up, it often indicates that the air valve is stuck shut, blocking cold air inside the radiator and preventing steam from entering.

1. ### Open the Valve

   Make sure the supply valve is fully open (turned counterclockwise all the way). Use a wrench if the valve is resistant to turning.

2. ### Check the Thermostat

   Check to see if the thermostat in the room (as applicable) is set too low. Confirm that the thermostat is set above the current room temperature.

3. ### Ensure the Proper Slope

Check to see if the radiator is sloped properly. On one-pipe systems, it should slope slightly toward the end of the radiator with the supply valve and pipe. Shim under the feet of the radiator as needed to achieve a proper pitch of 1 inch for every 10 feet toward the supply valve. On two-pipe systems, the radiators should slope away from the supply valve and toward the return pipe.

Fixing a Radiator That Gurgles

If a steam radiator makes gurgling noises, either from the air vent or from the radiator itself, it's usually a sign that condensed water is being trapped in the radiator rather than draining back down to the boiler. This can be the result of problems with the radiator itself, the control valve, or the air vent.

1. ### Check the Supply Valve

   Make sure the supply valve is fully open (turned counterclockwise all the way) and that it operates properly. If this valve isn't fully open in a one-pipe system, it may be preventing condensed water from draining out of the radiator, If the valve is corroded or stuck, repair or replace the valve.

2. ### Ensure the Proper Slope

   Check the radiator's slope. In a one-pipe system, the radiator should slope slightly toward the end with the supply valve. Shim under the feet of the radiator as needed to achieve a proper pitch of 1 inch for every 10 feet toward the supply valve. With two-pipe systems, make sure the radiator is sloped in the opposite direction, toward the return pipe.

3. ### Examine the Air Vent

   In one-pipe systems, make sure the air vent is positioned vertically. Make sure it is not pointing upside down, diagonally, or sideways. Usually, you can simply rotate the valve clockwise to the vertical position (it's threaded into the radiator).

   Inspect the air vent to check for obstructions caused by mineral deposits or other debris. Try to clean the vent with vinegar. If you can't blow air through the vent after cleaning, replace the vent.

Fixing a Leaking or Hissing Radiator

A constant hissing sound throughout the heating cycle usually means the air vent is not closing at the right time and is failing to trap the steam inside the radiator.

An air vent that's spitting or leaking water may be partially obstructed with mineral deposits or other debris.

For either of these issues, try a good cleaning with vinegar. If that doesn't solve the problem, replace the valve or vent.