

# Water Heater Pressure and Temperature (PT) Relief Valve

**Ahhh.... November; getting closer to Spring!! Where has the year gone?**

**Great question and here is another great question from an Airstreamer.**

Question: I notice water dripping from a fitting with a lever on it in my water heater, is there a problem? The heater seems to still work.

Answer: It sounds as if you are describing water dripping at the Pressure-Temperature relief valve.

There are several possibilities when you see signs of water coming out of the relief valve; below I have tried to provide a brief explanation of the valve and how it operates.

## T&P Valve

First -What is a T&P valve? “T” = temperature and “P” = pressure. The valve is the safety device that can prevent your water heater from rupturing from high pressure or temperatures.

This valve is set to open at 210 degrees Fahrenheit or if the system pressure exceeds 150 PSI.

How can you tell whether the T&P valve is doing its job or if it needs replaced?

In the normal operation of the water heater and the T&P valve, no water should be coming from the valve. A leaking relief (T&P) valve could be an indication of a problem in the system and by leaking, the relief valve is working as designed. Some of the possible causes of the valve leaking could be thermal expansion, excess system pressure, low temperature relief or something in the water heater causing excess temperatures in the heater.



## T&P Valve Leak - Exceeding Set Temperature

If the water temperature exceeds the set temperature of the valve, it is set to open at 210 Degrees F, and if the water temperature in the water heater were to cause T&P valve to open, there would be a fairly large release of water. This would vent until the water in the water heater became cooled enough by the incoming water to allow the T&P valve to reset. This would indicate the T&P valve was doing its job and replacement is not required.

If this happens you may need to look at replacing the thermostat as it may not be turning off at the set temperature.

### **T&P Valve Leak - Excess Pressure**

The valve leaking could be caused by the system pressure being too high or, thermal expansion within the closed system. If the pressure approaches 150 PSI, the T&P valve will open and flow water as long as the pressure is too high.

Thermal expansion can be addressed by keeping an air space in the top of water heater to allow for expansion of the water. You can make sure you have an air space by turning off pump, open the faucet closest to water pump and then open T&P valve and let water drain out of valve until the flow of water stops. Then close the valve and faucet and then activate the pump or city water supply. You now will have created an air space inside the top of water heater tank.

### **Valve Not Seating**

If it just drips a small amount but at a constant rate, try opening, then snapping shut the lever on the P&T valve a couple of times. Often times, tank residue or mineral deposits can prevent the valve from fully seating.

I am not sure what is causing your valve to drip but I would try the easy things first: restore air pocket at top of water heater tank and snap the lever on the valve to make sure it is properly seated.