

TECHNICAL BULLETIN

Line : : **Electric or gas-powered Water Heaters**

Technical Notice No. 3

Date: 20/03/2018

WATER HEATER CONDENSATION

SYMPTOMS

The puddle of water around the heater is the first sign of the water heater condensation or leak. You might also find black or red granules on the main gas burner, when the condensate was dripping on the hot surface (you will also hear a sizzling noise). Corrosion on the jacket or around the vent is also a sign that the condensate (moisture) was present there.

CAUSE

When natural gas or propane gas is burning inside the combustion chamber of your gas heater, the flue gases are released. They contain lots of moisture and when it is chilled below the "dew point", the condensate forms. The "dew point" is the temperature when the water vapor turns into liquid.

The heater will usually produce one half gallon of moisture every hour of heater's operation, so the condensation is the normal occurrence.

Reasons why water heater condensation occurs:

- Flue gases are cooled below their "dew point" when having the cold air supply.
- When the temperature of water inside the tank drops below 110 F.
- During the cold start-up of the brand-new unit.
- An undersized gas heater.
- Temperature setting is too low.
- Large amount of hot water is used in a short time while the incoming water is very cold. Keep in mind that the cold incoming water during the winter time and periods of cold days might produce large amounts of condensate.

FIX

Once the water inside the tank is heated above 115 F condensation should stop. It takes up to 2 hours for water to heat up to the temperature where the condensation stops.

Elaborated By: _____

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