



## Spillage Test for Residential Gas Water Heaters

By conducting a spillage test (also called spill test, draft test, smoke test) you can determine if the venting is working on your gas water heater. This procedure applies only to atmospherically vented gas products; and does not include direct vent or power vent (blower motor) water heaters.

Once the main burner on the gas water heater has been on for 3-4 minutes, there should be a strong upward draft of combustion gases thru the draft hood and thru the vent pipe to outside the home. None of these gases should enter the home.

*Proper operation of the water heater requires air for combustion and ventilation. Please refer to the venting section of the use and care manual that was shipped with your water heater for additional information.*

Symptoms of a blocked vent include:

- Smells from combustion gases
- Melted pipe insulation around the hot and cold nipples
- Burn or scar marks, to include peeling paint, directly under and around the draft hood

To conduct a spill test:

1. Turn the thermostat on the gas valve up until the main burner ignites.
2. Wait for 3 minutes to get the venting system 'warmed up'.
3. Place a smoke source half way between the bottom of the draft hood and the top of the water heater. Source should be approximately 1 inch away from the lip of the hood.  
*(A smoke source can be a match that you quickly blow out, a rolled up piece of paper that you light and quickly blow out, an incense stick works very well.)*
4. Observe how the smoke behaves.
5. If the smoke quickly enters underneath the draft hood and disappears into the venting, then your venting is good.
6. If the smoke is blown back towards you and away from the draft hood, then something is restricting the venting. Inspect the venting and roof termination to make sure the venting is free of all obstructions. Repair as necessary.
7. When you are done with the test, return the water heater thermostat to a safe setting. Rheem recommends not to exceed 120<sup>o</sup> F.

