



The New Gas-Fired Water Heater – Safer Design/More Expensive

By: Greg R. Wayman, Certified Real Estate Inspector

So what is this new buzz about gas-fired water heaters? Their technical name is Flammable Vapor Ignition Resistant (FVIR) water heaters. The basic idea behind the design is to prevent flammable gases, such as paint thinner, gasoline, or other household chemicals from exploding and catching the home on fire if they are in the vicinity of the water heater's pilot light.

This new FVIR design allows the combustion air into the base of the tank, but not back out. If a vapor ignition occurs, only the vapor inside the base of the tank will burn. The flammable vapors outside the tank will not catch fire. The new FVIR design also has a sensor on the inside of the base of the tank that shuts off the gas supply if an explosion occurs. This sensor is glass and a one-time use only device. If the water heater has a vapor explosion, the glass breaks triggering the gas to shut off. However, if this occurs, you can't simply replace the glass sensor. You have to replace the entire water heater!

There is an FVIR thermocouple you can retrofit all FVIR gas water heaters with that will turn the gas off when flammable vapors are detected before they even reach the pilot light. This simple device, which would prevent the explosion from happening in the first place, is not included when you buy the FVIR water heaters from the manufacturers. How thoughtful of them, right? You can, however, find these simple devices at: www.FVIRthermocouple.com. Cost is \$21.95 + shipping & handling.

If you walk into a hardware store, and stroll down the water heater isle, one thing may catch your eye...THE PRICETAG! You can no longer purchase non-FVIR natural gas/propane water heaters. The old, lower cost water heaters are a thing of the past. Get out your wallet and prepare to pay some heavier prices. Here are the prices I found at Home Depot® and Lowes® this week:

Natural Gas

6 Year Warranty: 30 Gallons (\$198-\$229) 40 Gallons (\$218-\$239) 50 Gallons (\$268-\$289) 75 Gallons (\$499)

9 Year Warranty: 40 Gallons (\$278-\$309) 50 Gallons (\$328-\$349)

12 Year Warranty: 40 Gallons (\$328-\$349) 50 Gallons (\$378-\$399)

Propane

6 Year Warranty: 30 Gallons (\$248) 40 Gallons (\$278-\$319)

*The average installation fee is \$200. City permits excluded.

The next time your Home Inspector points out a problem with a water heater, be prepared to inform your client of the new, safer, yet expensive design.

For a more in-depth article that explains the history behind the new FVIR design and how they work, go to:

www.reevesjournal.com/CDA/ArticleInformation/features/BNP_Features_Item/0,3815,98446,00.html

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