Defender Safety System®

Bradford White's Defender Safety System® is a proven combustion system that resists the ignition of flammable vapors outside the water heater.



Gas Control Valve with Exclusive GREEN LED Indicator



Integrated Piezo Igniter



Resettable Thermal Switch



Sight Window to Combustion Chamber



Thermopile (no electricity required)

- Featuring Advanced ScreenLok® Technology Flame Arrestor
- Air scrubbing water heater jacket and combustion chamber base
- Resettable Thermal Switch
- Proven Low NOx Design
- Virtually Maintenance Free
- Combustion Chamber Sight Window



The Bradford White Defender Safety System® is designed to be the safest, most reliable flammable vapor ignition resistant system in the industry.



The heart of Bradford White's Defender Safety System® is the ScreenLok® Technology flame arrestor.

The louvered flame arrestor design increases the speed of incoming combustion air and creates a vector effect inside the combustion chamber when flammable vapors are ignited. This prevents flames from traveling back through the flame arrestor and outside the water heater.

Resettable Thermal Switch

Safely shuts system down in case of ongoing flammable vapor burn in combustion chamber or air flow blockage. Allows quick and easy service (only for atmospheric models).

Air Scrubbing Combustion System

Openings in the water heater jacket and the combustion chamber base force directional changes to combustion air flow effectively scrubbing the air of lint and dust.

Virtually Maintenance Free

No regular cleaning of air inlet openings or flame arrestor is required under normal conditions.

Sight Window

Offers a view into the combustion chamber to observe the operation of the pilot and burner.





Scan here to watch a video on the Bradford White Defender Safety System®



Innovations

INNOVATIONS

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Defender Safety System® — FVIR Technology



How the Defender Safety System® Works

The heart of Bradford White's Defender Safety System[®] is the flame arrestor design of the patented ScreenLok[®] Technology. This precisely engineered and manufactured component is made 304L alloy stainless steel and contains up to eighteen thousand, geometrically oriented louvers. These micro dimensioned louvers increase the velocity of incoming air to the system. If flammable vapors enter this uniquely designed system and are ignited, a vector effect occurs inside of the combustion chamber. The combination of high velocity air entering the chamber and the vector effect caused by combustion will prevent any flames present in the chamber from traveling backwards through the flame arrestor plate and outside of the water heater.

The Bradford White Defender Safety System[®] maintains outstanding efficiency, a long service life and very low NOx emissions. Best of all, it provides maintenance free operation while meeting the stringent ANSI standard for the affected gas water heaters.

Advanced ScreenLok® Technology Flame Arrestor Design

Included on all FVIR compliant models. ScreenLok® is constructed of 304L stainless steel, a non-rusting alloy, for outstanding impact, heat, crack, and corrosion resistance. The ScreenLok® Technology Flame Arrestor was tested in the harshest simulated environment and continued to operate properly over the normal life expectancy of the product.





VIDEO



Watch The Defender Safety System™ Video

PRODUCT LITERATURE



Download The Defender Safety System® Make The Switch