

## Residential Ultra Low NOx Direct Vent Energy Saver Gas Water Heater



Photo is of  
UDS1-50S6FRN

### The Direct Vent FVIR Eco-Defender Safety System® Models Feature:

- **Ultra Low NOx Burner with Primary and Secondary Air Distribution Devices**—Ensures proper air to gas ratio for reduction of NOx generated by the combustion process.
- **Self Diagnostic Honeywell Gas Control**—Integrated, immersion gas control learns and monitors the combustion chamber's temperature profile and prevents water heater operation during upset conditions. Also equipped with an LED display to aid in start-up and diagnostics.
- **Closed Combustion**—All air for combustion is taken directly from the outside. The co-axial vent pipe (pipe inside a pipe) draws combustion air in through the outer pipe (5"), and exhausts the products of combustion through the inner pipe (3"). The vent pipe at the top of the unit can be rotated for venting flexibility.
- **Reinforced Seals**—Seals surround the closed combustion chamber and the FVIR inner door, preventing the ignition of flammable vapors outside of the water heater.
- **Maintenance Free**—The vent piping and the closed combustion chamber with reinforced seals do not require regular cleaning under normal operating conditions.
- **Sight Window**—Offers a view into the combustion chamber to observe the operation of the pilot and burner.
- **Factory Installed Hydrojet® Total Performance System**—Cold water inlet sediment reducing device. Helps prevent sediment build up in tank. Increases first hour delivery of hot water while minimizing temperature build up in tank.
- **Vitraglas® Lining**—Bradford White tanks are lined with a exclusively engineered enamel formula that provides superior protection from the highly corrosive effects of hot water. This formula (Vitraglas®) is fused to the steel surface by firing at a temperature of over 1600°F.
- **Cast Aluminum Air Intake Boot**—A cast molded air intake boot provides exceptional installation durability.
- **Telescoping Solid Vent Kits**—Multiple kits (see reverse side) allow up to 8ft. vertical and 8ft. horizontal vent lengths (horizontal termination only).
- **Flexible Vent Kit**—The maximum vent length (horizontal and vertical) can be flexed to 100" (horizontal termination only).
- **1" Non-CFC Foam Insulation**—Surrounds the tank surface, saving energy by reducing the amount of heat loss.
- **Pedestal Base.**
- **Water Connections**—3/4" NPT factory installed true dielectric fittings.
- **Factory Installed Heat Traps.**
- **Protective Magnesium Anode Rod.**
- **T&P Relief Valve**—Included.
- **Low Restriction Brass Drain Valve**—Durable tamper proof design.
- **Meets SCAQMD Rule 1121 (10ng/J).**

### FEATURING:



### 6 or 10-Year Limited Tank Warranties / 6 or 10-Year Limited Warranty on Component Parts.

For more information on warranty, please visit [www.bradfordwhite.com](http://www.bradfordwhite.com)

For products installed in USA, Canada and Puerto Rico. Some states do not allow limitations on warranties. See complete copy of the warranty included with the heater.

MANUFACTURED UNDER ONE OR MORE OF THE FOLLOWING U.S. PATENTS: 5,954,492; 5,761,379; 5,943,984; 5,081,696; 5,988,117; 6,142,216; 5,199,385; 5,574,822; 5,372,185; 5,485,879; 5,277,171; (B1)5,341,770; 5,660,165; 5,596,952; 5,682,666; 4,904,428; 5,023,031; 5,000,893; 4,669,448; 4,829,983; 4,808,356; 5,115,767; 5,092,519; 5,052,346; 4,416,222; 4,628,184; 4,861,968; 4,672,919; Re. 34,534; 7,270,087 B2. OTHER U.S. AND FOREIGN PATENT APPLICATIONS PENDING. CURRENT CANADIAN PATENTS: 1,272,914; 1,280,043; 1,289,832; 2,045,862; 2,112,515; 2,108,186; 2,107,012; 2,092,105; 2,409,271. Defender Safety System®, Vitraglas® and Hydrojet® are registered trademarks of Bradford White® Corporation.

# Residential Direct Vent Water Heater

## Direct Vent Energy Saver Models

NATURAL GAS

Meet or exceed ASHRAE 90.1b (current standard) C.E.C. Listed  
79% Recovery Efficiency

| Model Number | Capacity  |           | Nat. BTU/Hr. Input | Recovery at 90°F Rise* |               | A Floor to Center Line of Vent in.  | B Jacket Dia. in. | C Vent Size in. | D Floor to T&P Conn. in.       | E Floor to Gas Conn. in. | F Floor to Top of Heater in.   | H Floor to Water Conn. in.     | K Depth in.                    | Approx. Shipping Weight lbs. |
|--------------|-----------|-----------|--------------------|------------------------|---------------|-------------------------------------|-------------------|-----------------|--------------------------------|--------------------------|--------------------------------|--------------------------------|--------------------------------|------------------------------|
|              | U.S. Gal. | Imp. Gal. |                    | Nat. U.S. GPH          | Nat. Imp. GPH |                                     |                   |                 |                                |                          |                                |                                |                                |                              |
| UDS1-40S6FRN | 40        | 33        | 38,000             | 41                     | 34            | 63 <sup>3</sup> / <sub>4</sub> min. | 20                | 3-5             | 43 <sup>1</sup> / <sub>2</sub> | 15                       | 49 <sup>3</sup> / <sub>4</sub> | 50 <sup>3</sup> / <sub>4</sub> | 31 <sup>1</sup> / <sub>8</sub> | 169                          |
| UDS1-50S6FRN | 50        | 42        | 42,000             | 45                     | 37            | 72 <sup>1</sup> / <sub>4</sub> min. | 20                | 3-5             | 52 <sup>1</sup> / <sub>4</sub> | 15                       | 58 <sup>3</sup> / <sub>4</sub> | 59 <sup>3</sup> / <sub>4</sub> | 31                             | 186                          |

| Model Number | Capacity |  | Nat. kW Input | Recovery at 50°C Rise* |  | A Floor to Center Line of Vent mm. | B Jacket Dia. mm. | C Vent Size mm. | D Floor to T&P Conn. mm. | E Floor to Gas Conn. mm. | F Floor to Top of Heater mm. | H Floor to Water Conn. mm. | K Depth mm. | Approx. Shipping Weight kg. |
|--------------|----------|--|---------------|------------------------|--|------------------------------------|-------------------|-----------------|--------------------------|--------------------------|------------------------------|----------------------------|-------------|-----------------------------|
|              | Liters   |  |               | Nat. Liters/ Hour      |  |                                    |                   |                 |                          |                          |                              |                            |             |                             |
| UDS1-40S6FRN | 151      |  | 11.1          | 155                    |  | 1607                               | 508               | 76-127          | 1105                     | 381                      | 1264                         | 1289                       | 795         | 76                          |
| UDS1-50S6FRN | 189      |  | 12.3          | 170                    |  | 1835                               | 508               | 76-127          | 1327                     | 381                      | 1492                         | 1518                       | 787         | 85                          |

Available in Natural Gas only.

For 10 year models, change suffix from "6" to "10".

\*Based on manufacturers rated recovery efficiency.

Telescoping Solid Vent Kit (239-47810-00) or Flexible Vent Kit (239-47812-00) can be ordered and shipped with water heater, or ordered and shipped separately

For vent kit components and venting instructions, refer to Installation and Operating Manual.

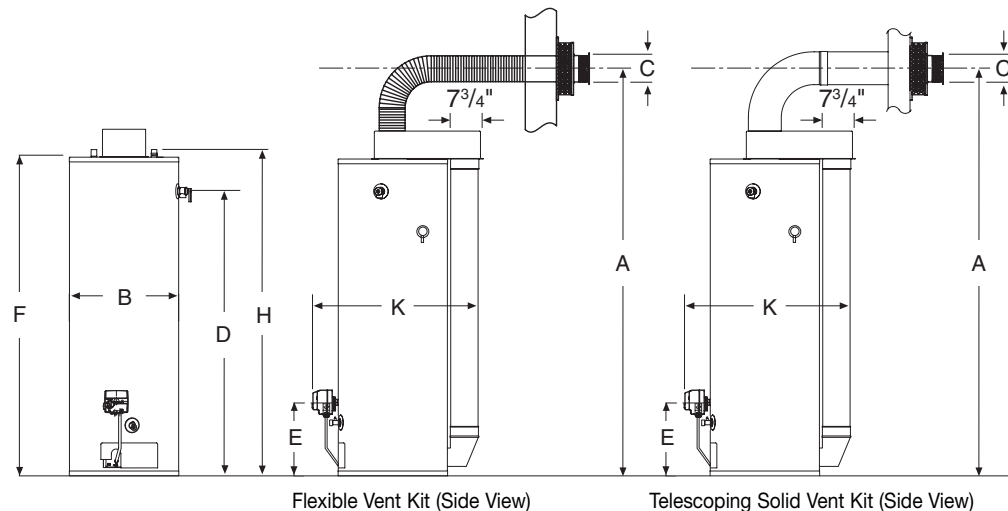
### Optional Telescoping Solid Vent Kits:

Kit "A" Telescopes from 4<sup>3</sup>/<sub>8</sub>" to 5<sup>1</sup>/<sub>8</sub>" Part No. 239-41260-00

Kit "B" Telescopes from 6<sup>1</sup>/<sub>2</sub>" to 9<sup>1</sup>/<sub>8</sub>" Part No. 239-41331-00

Kit "C" Telescopes from 13<sup>3</sup>/<sub>8</sub>" to 23<sup>1</sup>/<sub>8</sub>" Part No. 239-41029-00

Kit "D" Telescopes from 49<sup>1</sup>/<sub>8</sub>" to 95<sup>1</sup>/<sub>8</sub>" Part No. 239-41424-00



### Meets NAECA Requirements

#### General

All gas water heaters are certified at 300 PSI test pressure (2068 kPa) and 150 PSI working pressure (1034 kPa). All potable water connections are 3/4" NPT (19mm) on 8" (203mm) centers. All gas connections 1/2" (13mm).

All models design certified by CSA International (formerly AGA/CGA), ANSI Z-21.10.1 and peak performance rated.

**Dimensions and specifications subject to change without notice in accordance with our policy of continuous product improvement.**

#### Suitable for Water (Potable) Heating and Space Heating.

Toxic chemicals, such as those used for boiler treatment, shall NEVER be introduced into this system. This unit may NEVER be connected to any existing heating system or component(s) previously used with a non-potable water heating appliance.



Ambler, PA

For U.S. and Canada field service, contact your professional installer or local Bradford White sales representative.

Sales 800-523-2931 • Fax 215-641-1670 / Technical Support 800-334-3393 • Fax 269-795-1089 • Warranty 800-531-2111 • Fax 269-795-1089

International: Telephone 215-641-9400 • Telefax 215-641-9750 / [www.bradfordwhite.com](http://www.bradfordwhite.com)

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**Built to be the Best™**

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