

# Cast Iron Oil-Fired Water Boilers

*Quality Engineered for Efficiency and Dependability*

## *Starfire III & SW Series*



## Starfire III & SW Series

Oil-Fired, Hot Water Boilers

# Optimal Efficiency & Operation for Oil Heated Homes

The Starfire III natural draft chimney vent & SW side wall vent oil-fired water boilers deliver high efficiency, reliability and ease of maintenance for homes requiring hot water heat fueled by oil. A smart design combined with quality components result in lower operating costs making the Starfire III & SW Series an ideal replacement or new construction choice.

### High Efficiency Ratings (86%)

With efficiencies up to 86% AFUE, the Starfire III & SW Series provides increased energy savings resulting in lower fuel bills. The boiler's wet-base design helps overall efficiency by enclosing the combustion chamber with water on five sides therefore maximizing heat transfer. With the potential cost savings this represents, the Starfire III & SW Series will pay for itself in a few short years.

### Cast-Iron Sections and Push Nipples

The Starfire III & SW Series utilizes cast-iron construction because of its durability and efficient heat transfer capabilities. Cast iron sections and push nipples are utilized to construct the heat exchanger. Using only the highest quality cast-iron and heat transfer designs, the Starfire III & SW Series will provide many years of efficient and trouble-free operation.



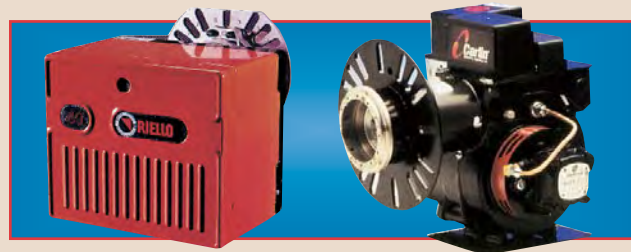
### Easy Access & Maintenance

A sturdy cast-iron swing door allows for quick and easy inspection of the oil burner and combustion area while extra large flue ways allow for easy cleaning and set-ups. These flue way openings are easily accessed through an integrated two-part flue collector. In addition, a recessed target wall increases the chamber size and is protected from accidental flue brush damage during normal maintenance. All components are easy to reach, greatly reducing the time spent on regular maintenance and service calls.



### High-Performance Burner Versatility

The Starfire III is designed to accommodate various oil burners. Choose manufacturer approved burners from Beckett, Carlin or Riello. The SW Series is available with the Beckett AFII burner.



### Tankless Water Heater Option

An optional tankless hot water coil is offered with the Starfire III & SW Series. It features off-set tappings to speed installation and service. Used with a flow control and tempering valve, this tankless heater is an ideal method of providing domestic hot water for most installations.



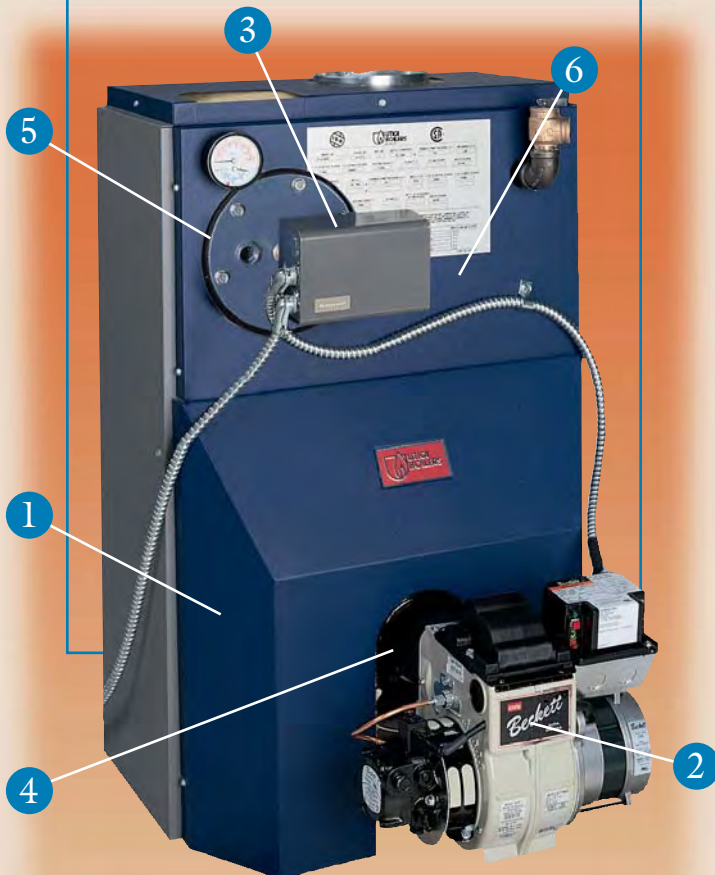


## Factory Pre-Wired & Tested

Each Starfire III & SW Series Boiler is shipped with controls pre-wired and is subjected to a series of rigorous quality assurance tests to provide quick and easy setup in the field.

### STARFIRE III & SW SERIES BOILER DETAILS

- 1 Cast-Iron Heat Exchanger
- 2 Quality Burner Options: Beckett (standard), Carlin or Riello.  
Features: solenoid oil valve, interrupted duty ignition, PSC motor & primary control.
- 3 Aquastat Control
- 4 Cast-Iron Swing Door
- 5 Optional Tankless Water Heater With Raised Flange
- 6 Deluxe Insulated Cabinet



### Starfire III & SW Series Key Features

- Efficiencies up to 86% AFUE
- Cast-iron heat exchanger and swing door
- Recessed target wall
- Large flueway opening
- Special burner mounting plate increases combustion chamber
- Cast-iron sections and water-tight push nipples
- Tankless heater optional
- Wide range of sizes to fit residential and light commercial applications
- Electronic Low Water Cut Off now available to meet the latest codes requirements

### SW Series Additional Key Features

- Flexible side wall venting
- 10 feet of double wall insulated stainless steel flexible vent pipe included
- Air tight silicone seal between sections in addition to braided fiberglass rope seal
- 4-inch diameter flue outlet
- Concentric fresh air vent termination included



Flexible Vent Pipe



Concentric Fresh Air Vent



Direct Vent Application

# SFH-W • WT & SW-W • WT

## RATINGS AND DATA

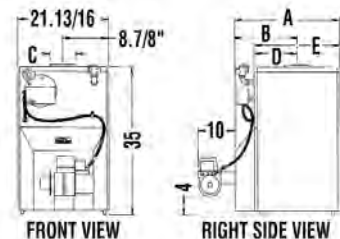
| BOILER MODEL NO. <sup>1</sup> | I = B = R OIL BURNER INPUT <sup>2</sup> |     | D.O.E. HEATING CAPACITY MBH | I = B = R NET RATINGS <sup>3</sup> |      | NOZZLE FURNISHED 140 PSI <sup>4</sup> | A.F.U.E. RATING |
|-------------------------------|---|-----|-----------------------------|------------------------------------|------|---------------------------------------|-----------------|
|                               | G.P.H.                                  | MBH |                             | WATER MBH                          |      |                                       |                 |
| * SFH-365W                    | .65                                     | 91  | 79                          | 68.7                               | .60  | 80°B                                  | 86.0            |
| SFH-3100W                     | 1.00                                    | 140 | 117                         | 102                                | .85  | 80°B                                  | 81.0            |
| * SFH-4100W                   | 1.00                                    | 140 | 120                         | 104                                | .85  | 80°B                                  | 86.0            |
| SFH-3125W†                    | 1.25                                    | 175 | 144                         | 125                                | 1.10 | 60°B                                  | 80.0            |
| SFH-4125W                     | 1.25                                    | 175 | 149                         | 130                                | 1.10 | 80°B                                  | 82.5            |
| * SFH-5125W                   | 1.25                                    | 175 | 151                         | 131                                | 1.10 | 80°B                                  | 86.0            |
| SFH-4150W                     | 1.50                                    | 210 | 175                         | 152                                | 1.25 | 80°B                                  | 81.0            |
| * SFH-6150W                   | 1.50                                    | 210 | 181                         | 157                                | 1.25 | 80°B                                  | 86.0            |
| SFH-5175W                     | 1.75                                    | 245 | 206                         | 179                                | 1.50 | 80°B H                                | 81.5            |
| SFH-5200W                     | 2.00                                    | 280 | 231                         | 210                                | 1.75 | 70°B H                                | 81.0            |
| SFH-6225W                     | 2.25                                    | 315 | 254                         | 221                                | 2.00 | 45°B                                  | —               |
| SFH-7275W                     | 2.75                                    | 385 | 307                         | 267.1                              | 2.25 | 60°B                                  | —               |
| * SW3W†                       | .65                                     | 91  | 79                          | 68.7                               | .60  | 45°B                                  | 86.0            |
| * SW4W†                       | 1.00                                    | 140 | 120                         | 104                                | .85  | 45°B                                  | 86.0            |
| * SW5W†                       | 1.25                                    | 175 | 150                         | 130                                | 1.10 | 45°B                                  | 86.0            |

\*Indicates an ENERGY STAR® product. Note: Nozzles with an H designation are Hago brand, all others are Delevan. †Beckett AFII Burner used.

## SW VENTING SPECIFICATIONS

| MODEL NO. | MIN. VENT RUN* | MAX VENT RUN* | FLUE SIZE DIA. |
|-----------|----------------|---------------|----------------|
| SW3       | 2 FT.          | 10 FT.        | 4 IN.          |
| SW4       | 2 FT.          | 10 FT.        | 4 IN.          |
| SW5       | 2 FT.          | 10 FT.        | 4 IN.          |

\*Units include termination fresh air kit and 10' of vent pipe.



### NOTES:

- Add suffix "T" to denote boiler with tankless heater.
- I = B = R burner capacity is based on an oil heating value of 140,000 Btu/gal. and with 13% CO<sub>2</sub>.
- Net ratings based on 170° temperature in radiators and include 15% allowance for normal piping and pick-up load. Consult manufacturer for unusual piping and pick-up requirements. All ratings subject to verification.
- For equivalent square feet of radiation, divide I=B=R output by 150.
- 120 Volts, 15 Amps, & 60Hz are required to operate this unit.
- The MEA number for the SFH-W series is 182-86E.

**STANDARD EQUIPMENT SFH & SW:** Cast Iron Boiler, Flush Jacket, Swing-Out Burner Door, Clean Cut AFG Beckett Oil Burner, Target Wall/Liner, Circulator—1/4", ASME Relief Valve, Theraltimeter Gauge, Drain Valve, Wiring Harness, Plastic Cover, Supply Tapping (Qty. 1) 2", Return Tapping (Qty. 1)—1/2", High Limit and Circulator Control, Primary Control, Burner Electrical Disconnect. For Tankless Heater Units: Add Tankless Hot Water Coil and Triple Aquastat Relay. **Additional Standard Equipment SW:** Clean Cut AF II Beckett Oil Burner, Pre & Post Purge Control, Vent Termination Kit (includes 10' Stainless Steel Double Wall Insulated Flex Pipe, Concentric Termination, Air Proving Pressure Switch). Note: Air tight silicone seal between sections in addition to braided fiberglass rope seal. For Tankless Heater Units: Add Tankless Heater and Triple Aquastat Relay. (Specifications and dimensions are subject to change without notice.) MEA# 182-86E

## DIMENSIONS

| BOILER MODEL NO. | A LENGTH OF FLUSH JACKET | B FRONT OF CASING TO C/L OF FLUE OUTLET | C DIAMETER OF FLUE OUTLET | D FRONT OF JACKET TO FLUE | E LENGTH OF JACKET | F COIL TAPPING |
|------------------|--------------------------|---|---------------------------|---------------------------|--------------------|----------------|
| SFH-3            | 17 7/8                   | 11 1/4                                  | 6                         | 6 1/16                    | 13                 | 1/2            |
| SFH-4            | 21 1/2                   | 12 5/8                                  | 6                         | 8 3/16                    | 16 5/8             | 3/4            |
| SFH-5            | 25 1/2                   | 14 1/4                                  | 7                         | 9 13/16                   | 20 3/4             | 3/4            |
| SFH-6            | 29 1/4                   | 15 15/16                                | 8                         | 8 5/16                    | 23 7/8             | 3/4            |
| SFH-7            | 32 7/8                   | 17 15/16                                | 8                         | 8 3/16                    | 27 1/2             | 3/4            |
| SW3              | 17 7/8                   | 11 1/4                                  | 4                         | 8 5/16                    | 13                 | —              |
| SW4              | 21 1/2                   | 12 5/8                                  | 4                         | 8 3/16                    | 16 5/8             | —              |
| SW5              | 25 1/2                   | 14 1/4                                  | 4                         | 9 13/16                   | 20 3/4             | —              |

## TANKLESS WATER HEATER CAPACITIES

| BOILER MODEL NO. | TANKLESS HEATER NO. | TANKLESS HEATER CAPACITY INTERMITTENT DRAW (G.P.M.) <sup>3</sup> | BOILER WATER CONTENT (GALS.) |
|------------------|---------------------|--|------------------------------|
| SFH-365          | T3                  | Available On Request   | 10.5                         |
| SFH-3100         | T3                  | 3.25   | 10.5                         |
| SFH-4100         | T4                  | 3.25   | 13.5                         |
| SFH-3125         | T3                  | 3.75   | 10.5                         |
| SFH-4125         | T4                  | 3.75   | 13.5                         |
| SFH-5125         | T4                  | 3.75   | 16.5                         |
| SFH-4150         | T4                  | 4.0  | 13.5                         |
| SFH-6150         | T4                  | 4.0  | 19.5                         |
| SFH-5175         | T4                  | 4.25   | 16.5                         |
| SFH-5200         | T4                  | 5.5  | 16.5                         |
| SFH-6225         | T4                  | 5.75   | 19.5                         |
| SFH-7275         | T4                  | 6.0  | 22.5                         |
| SW3              | P3                  | Available On Request   | 10.5                         |
| SW4              | T4                  | 3.25   | 13.5                         |
| SW5              | T4                  | 3.75   | 16.5                         |

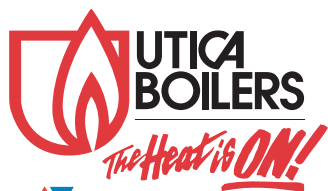
## YOUR ASSURANCE OF QUALITY

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**For more information on Utica Boilers heating products contact your local distributor or call Utica Boilers Customer Service Department at 1-800-325-5479.**

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