Cast Iron Oil-Fired Steam Boiler

Quality Engineered for Efficiency and Dependability

Starfire III-SFE



Increased Efficiency & Reliability for Homes Heated With Oil

The Starfire III – SFE oil-fired steam boiler now offers improved efficiency and reliability with a re-designed heat exchanger and protective heat shield, as well as an electronic low water cut-off.

New Patent Pending Design

With efficiencies up to 85% AFUE, the ENERGY STAR rated Starfire III-SFE optimizes your fuel dollars through a newly re-designed heat exchanger and patent pending protective heat shield baffle.

The modified pin deck and baffle design enhance the heat transfer process and protect the casting from poor water conditions for added longevity.

Electronic Low Water Cut-Off

An electronic low water cut-off replaces the former mechanical design. The electronic low water cut-off does not require flushing which reduces the make-up water. The electronic low water cut-off also maintains tighter control of water level variation.

Cast-Iron Sections and Push Nipples

The Starfire III–SFE utilizes durable and efficient cast-iron sections and push nipples. The highest quality cast-iron and latest heat transfer design allows the Starfire III–SFE to provide many years of efficient, trouble-free operation.







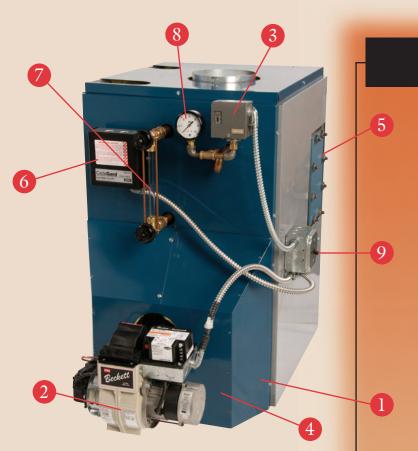


Easy Access & Maintenance

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-up. The flue way openings are easily accessed through an integrated two-part draft hood. All components are easy to reach, greatly reducing the time spent on regular maintenance and service calls.







High-Performance Burner Versatility

The Starfire III-SFE accommodates various oil burners with choices of manufacturer approved burners from Beckett, Carlin or Riello.



arfire III-SFE Boiler Details.

- 1 Cast-Iron Heat Exchanger
- 2 Quality Burner Options
- 3 Steam Pressure Control
- 4 Cast-Iron Swing Door
- 5 Optional Tankless Water Heater
- 6 Electronic Low Water Cut-Off
- 7 Water Sight Glass
- 8 Pressure Gage
- 9 Service Switch

Integral Skim Tapping

An integral skim tapping simplifies the mechanics of this basic service function. Periodic skimming contributes to trouble-free operation, and the Starfire III–SFE provides a pre-threaded outlet to make this procedure even easier.



Tankless Water Heater Option

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

Factory Pre-Wired & Tested

Each Starfire III-SFE 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.

Key Starfire III-SFE Features

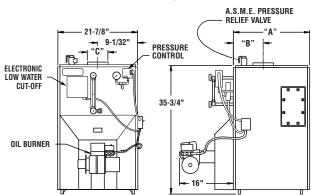
- Increased efficiencies up to 85% AFUE
- Re-designed Heat Exchanger with:
 - Patent Pending Protective Heat Shield Baffle
 - Swing Door
 - Cast Iron Sections and Push Nipples
- Recessed Target Wall
- Special Burner Mounting Plate increases Combustion Chamber
- Large Flue Way Opening
- Tankless Heater Option
- Electronic Low Water Cut-Off
- Wide range of sizes to fit residential and light commercial applications

Starfire III – SFE Oil-Fired Steam Boiler – SFH-E & ST Series

Ratings and Data

| BOILER MODEL | I = B = R OIL BURNER INPUT ^{2,5} | | D.O.E. I = B = R HEATING NET RATINGS ^{3,5} CAPACITY STEAM SQ. FT. PUN | | PUMP PRESS. | NOZZLE PUMP PRESS. FURNISHED A.F.U.E. | | |
|---------------------|---|-----|---|-----|-------------|--|-------------|--------|
| NUMBER ¹ | G.P.H. | MBH | MBH⁵ | MBH | STEAM | PSI | 140 PSIG | RATING |
| *SFE-365S | 0.65 | 91 | 79 | 59 | 246 | 140 | .60 80°B | 85.00 |
| SFE-3100S | 1.00 | 140 | 116 | 87 | 363 | 140 | .85 80°B | 81.50 |
| *SFE-4100S | 1.00 | 140 | 120 | 91 | 377 | 140 | .85 80°B | 85.00 |
| SFE-4125S | 1.25 | 175 | 145 | 109 | 454 | 140 | 1.10 80°B | 82.50 |
| SFE-4150S | 1.50 | 210 | 170 | 128 | 533 | 140 | 1.25 80°B | 81.00 |
| SFE-5175S | 1.75 | 245 | 202 | 152 | 633 | 140 | 1.50 80°B H | 83.00 |
| SFE-5200S | 2.00 | 280 | 227 | 170 | 708 | 140 | 1.75 70°B H | 82.00 |
| SFE-6225S | 2.25 | 315 | 251 | 188 | 783 | 140 | 2.00 45°B | _ |
| SFE-7275S | 2.75 | 385 | 307 | 230 | 958 | 140 | 2.25 45°B | _ |

* Indicates an ENERGY STAR efficient product.



Notes

- 1. Add suffix "T" to denote boiler with tankless heater.
- 2. I=B=R burner capacity is based on an oil heating value of 140,000 Btu/gal. and with 13% CO₂.
- 3. Net ratings based on heat emission of 240 Btu per square foot per hour and a piping and pick-up allowance of 1.33.
- 4. Nozzle listed is for use with Beckett AFG burner. When alternate burner is used, consult burner manufacturer's recommendations.
- 5. Gallons of water per minute heated from 40° to 140° F with 200° boiler water temperature.

STANDARD EQUIPMENT: Crated Cast Iron Boiler, Flush Jacket, Swing-Out Burner Door, Clean Cut AFG Beckett Oil Burner, Target Wall/Liner, ASME Relief Valve, Steam Water Level Gauge, Steam Pressure Gauge, Steam Pressure Control, Electronic Low-Water Cut-Off, Drain Cock, Wiring Harness, Burner Electric Disconnect, Plastic Cover, Supply Tapping (Qty. 2 - 2"), Return Tapping - 11/2" and Primary Control. For Tankless Heater Units Add: Tankless Hot Water Coil, Flow Restrictor and Limit Control. Note: 1/2" Coil Tappings on All Models.

Specifications and dimensions are subject to change without notice.

Nozzles with an H designation are Hago brand, all others are Delevan.

Dimensions

| BOILER MODEL NO. | A LENGTH OF FLUSH JACKET | B FRONT OF JACKET TO C/L OF FLUE OUTLET | C DIA. OF FLUE OUTLET |
|---------------------|--------------------------------|---|--------------------------|
| SFE-3S | 16% | $6\frac{1}{2}$ | 6 |
| SFE-4S | 201/4 | 8½ | 6 |
| SFE-5S | 23% | $10\frac{1}{4}$ | 7 |
| SFE-6S | $27\frac{1}{2}$ | 85/16 | 8 |
| SFE-7S | $31\frac{1}{8}$ | 85/16 | 8 |

Tankless Water Heater Capacities

| BOILER MODEL NUMBER | TANKLESS HEATER NUMBER | TANKLESS HEATER CAPACITY INTERMITTENT DRAW G.P.M. ⁵ | BOILER WATER CONTENT GALS. |
|---------------------------|------------------------------|---|-------------------------------------|
| SFE-365S | L-24 | Available on Request | 11 |
| SFE-3100S | L-24 | 4.5 | 11 |
| SFE-4100S | L-24 | 4.5 | 13 |
| SFE-4125S | L-24 | 4.5 | 13 |
| SFE-4150S | L-24 | 4.5 | 13 |
| SFE-5175S | L-24 | 5.0 | 15 |
| SFE-5200S | L-24 | 5.0 | 15 |
| SFE-6225S | L-24 | 5.0 | 17 |
| SFE-7275S | L-24 | 5.0 | 19 |

MEA# 182-86E

Your Assurance Of Quality

Utica Boilers products are designed, tested, and assembled to ensure that you get the very best in home heating and cooling comfort, and value. Each one meets or exceeds all recognized safety, performance and efficiency standards.











An ISO 9001-2000

P.O. Box 4729 Utica, New York 13504 Tel. 315-797-1310 Fax 866-432-7329

E-mail: sales@uticaboilers.com Web Site: www.uticaboilers.com **USA Contractor Assistance:** 800-325-5479

Part No: 240005088 5/10