

## **SVF**<sup>™</sup> 1500–3000 HIGH EFFICIENCY CONDENSING BOILER

Natural Gas/Propane | 1500-3000 MBH Up to 96.8% Thermal Efficiency



Firetube performance, perfected.

SVF<sup>TM</sup> STAINLESS VERTICAL FIRETUBE Industry-leading thermal efficiency up to 96.8% Stainless steel firetube heat exchanger Advanced *Unity™* control Easy to install and service Weil-McLain reliability

## Firetube performance, perfected.

The latest in high efficiency stainless steel firetube technology couples with Weil-McLain industry-leading boiler design for installation ease and service delivered in one complete package. For boiler replacement or new construction, the SVF 1500-3000 stainless vertical firetube SVF satisfied even the most demanding bid specs and performance applications.

## Industry-Leading Thermal Efficiency

Featuring an alternating opposed indentation design, the SVF firetube geometry optimizes heat transfer resulting in industry leading thermal efficiencies up to 96.8%.

- Vertical firetube with single-pass, counter-flow water travel design for efficient heat transfer
- Cooled cover-plate to recapture and redirect heat back in to the heat exchanger and minimize external temperature

# Heat Exchanger Design for Longevity

- 316L stainless steel tube/tube sheet and condensate tray with 304 stainless heat exchanger shell make of material
- Robotic, precision weldments are generously spaced to guard against thermal expansion and thermal shock failures
- Wide-mouth firetube diameters reduce the number of required tube-sheet weldments versus high tube count designs
- Serviceable and replaceable integrated condensate tray

## **Installation Ease**

SVF boilers are designed with the contractor in mind with set-up and installation features to save time, labor and money

- Fast removal shipping crate with integral unloading ramp
- Industrial-grade roller casters allow boiler placement into tight spaces and without fork truck requirement
- Door-fit design allows passage through standard 36" doorways
- Integrated burner-in-cover plate design minimizes overhead design requirement to 18"



## The complete bid spec

Who says you can't have it all? Our uniquely designed SVF products cover all the necessary bid specs for new construction.

- ASME Certification
- Industry-leading efficiency
- Vertical firetube design
- Up to 10:1 turn down ratio
- Natural gas/propane
- 160 psi working pressure
- Installation and service ease
- Low NOx emissions
- Full line of venting options
- 100% stainless steel heat exchanger and shell
- Unity<sup>™</sup> user-friendly and system compatible controls
- "Door-Fit" design
- Corrosion protection/resistance solution
- Weil-McLain reliability

## Effortless Unity<sup>™</sup> Controller

- English text control with set-up wizard makes every install simple, straight-forward and customizable—even with hybrid applications
- Field-proven control technology with thousands of active running applications
- Up to eight boiler cascading and lead/lag operation
- Common control logic communicates across Weil-McLain Evergreen, SlimFit and SVF families (70-3000 MBH)

## **Service Ease**

Easy maintenance is a hallmark of Weil-McLain commercial high efficiency boilers. Regular maintenance and service is streamlined by service-oriented design engineering.

- Counter-balanced hinged cover plate design mitigates need for rigging
- Cover plate access hatch enables quick burner and firetube inspection and heat exchanger washdown
- Adjustable height control panel for improved front access to service and calibration points.
- Dual site glasses for burner fire inspection without panel removal

## Boiler Room & System Compatibility

- Zero-clearance capable for side-by-side installation for close boiler room applications
- A wide range of flow rates with very low pressure drops accommodate variable primary and primary/secondary boiler systems
- Cascade control redundancy for reliable system performance with no downtime and optimized boiler plant operation
- Building Automation System integration via Modbus and BACnet MSTP as standard equipment

### **Dimensions and Product Specifications**



| Model No. | Α                    | В   | С      | D      | E      | F     | G      | н   | J      | К                                 | L   | М                     | N    | Р                     | Q      | R    | S       | т                     |
|-----------|----------------------|-----|--------|--------|--------|-------|--------|-----|--------|-----------------------------------|-----|-----------------------|------|-----------------------|--------|------|---------|-----------------------|
| 1500/2000 | 7011⁄16″             | 79″ | 351⁄8″ | 15%″   | 13⁵⁄8″ | 9¼″   | 76¾16″ | 4½″ | 173⁄8″ | 52 <sup>1</sup> / <sub>16</sub> ″ | 8¾″ | 76 <sup>15</sup> ⁄16″ | 16¼″ | 53 <sup>15</sup> ⁄16″ | 41⁄16″ | 20¾″ | 415/16″ | 11 <sup>15</sup> ⁄16″ |
| 2500/3000 | 70 <sup>1</sup> ⁄16″ | 79″ | 351⁄8″ | 15⁵⁄≋″ | 16¼″   | 85⁄8″ | 77%16″ | 4½″ | 17³⁄8″ | 52 <sup>1</sup> ⁄16″              | 8¾″ | 7615/16″              | 16¼″ | 53 <sup>15</sup> ⁄16″ | 41⁄16″ | 20¾″ | 4″      | 10¼″                  |

|                      | (height dimensions based on 4 ¼" spacing from floor to bottom |                                  |                          |                       |                          |                             |                    |               |             |                                       |        |        |        | to bottom)                  |
|----------------------|---|----------------------------------|--------------------------|-----------------------|--------------------------|-----------------------------|--------------------|---------------|-------------|---------------------------------------|--------|--------|--------|-----------------------------|
| Model No.            | AHRI<br>Thermal<br>Efficiency                                 | AHRI<br>Combustion<br>Efficiency | Max<br>Pressure<br>(psi) | Max<br>Input<br>(MBH) | Gross<br>Output<br>(MBH) | Net AHRI<br>Rating<br>(MBH) | Turn<br>Down       | Water<br>Conn | Gas<br>Conn | Air/Intake<br>Vent Size<br>(Diameter) | Length | Width⁺ | Height | Shipping<br>Weight<br>(lbs) |
| SVF 1500             | 96.5%   | -                                | 160                      | 1500                  | 1448                     | 1259                        | 7.5:1**            | 3" Flange     | 2" FNPT     | 8″                                    | 84.4″  | 35.2″  | 79.3″  | 2,445                       |
| SVF 2000             | 96.2%   | -                                | 160                      | 1999                  | 1923                     | 1672                        | 10:1**             | 3" Flange     | 2" FNPT     | 8″                                    | 84.4″  | 35.2″  | 79.3″  | 2,445                       |
| SVF 2500             | 96.8%   | -                                | 160                      | 2499                  | 2419                     | 2104                        | 8.3:1              | 3" Flange     | 2" FNPT     | 10″                                   | 87.0″  | 35.2″  | 79.3″  | 2,650                       |
| SVF 3000             | -   | 95.8%                            | 160                      | 3000                  | 2874                     | 2499                        | 10:1               | 3" Flange     | 2" FNPT     | 10″                                   | 87.0″  | 35.2″  | 79.3″  | 2,650                       |
| **Turn down ratios f | or natural gas re   | fer to engineering               | tech data for n          | ronane                | +343/4" wi               | th easy removal             | of jacket side par | nels          |             |                                       |        |        |        |                             |

#### Industry Leading Efficiency

- Up to 96.8% Thermal Efficiency\*
- ASME Certified Stainless Steel Firetube Heat Exchanger and Shell
- Alternating, Opposed Indentation Firetube Geometry for Maximum Heat Transfer
- 160 psi Working Pressure
- 30 psi Relief Valve

#### Modulating, Low Emissions Burner Design

- Natural Gas or Propane
- Up to 10:1 Turndown Ratio<sup>\*</sup>
- Low Gas Pressure Operation
- Direct Spark Ignition
- Variable Speed Blower Assembly
- Swirl Plate Enhanced Venturi
- Mixing System
- Intake Combustion Air Filter Negative Pressure Regulated Gas Valve
- 50 VA Transformer
- Temperature & Pressure Gauge Outdoor Temp. Sensor
- Outlet & Inlet Water Temp, Sensor
- Flue Gas Temp. Sensor
- System Water Temp. Sensors
- Immersion Style Supply & Return

#### Venting Options

- Direct Exhaust Vertical (CAT II)
- Direct Vent-Sidewall, Vertical, & Side
- Intake with Vertical Exhaust (CAT IV) Direct Exhaust – Vertical (CAT IV)
- \*model dependent

- Complete Jacket Assembly
- Fully Removable Jacket
- Rugged, Steel Frame & Panels

#### Easy Install/Serviceability

- Easy Set-up with Control Wizard
- Industrial-Grade Roller Casters and Leveling Legs
- Shipping Crate Ramp
- Hinged Cover Plate
- "Door-Fit" Design
- Zero-Clearance to Combustibles
- Stainless Steel Burner with Woven
- Fiber Mesh
- Removable, Stainless Steel
- Condensate Tray
- Single-Point Installation
- All Field Connections (Excludes Gas/Front) Out Back of Boiler
- **Multiple Boiler Features**
- Up to 8 Boilers, Multiple System functionality with Lead/Lag Capability
- Series, Parallel, or SmartSequencing<sup>™</sup>
- Lead Boiler Rotation
- Variable Primary Flow Design Capable
- (3) Boiler Priorities Capability-Either (2) Network and (1) Local or (1) Network
- and (2) Local (24) Zone Inputs and Outputs with (8) Total Cascaded Boilers via
- Zone Stacking™ Aux Inputs-Flow Switch, End
- Switch. Etc.
- System Aux Outputs System Pump or Damper

- **Control Features**
- SVF 1500/2000-120V/1Ph/60Hz SVF 2500/3000-208V/3Ph/60Hz
- Manual Reset Push Button through Display
- Operating Status Color LCD Display Preset Operating Parameters Including
- Typical Heating Systems
- Configurable Outdoor Reset
- Rate Setting for Each Input/Output
- O-10V Input (Modulation or Set Point)
- Standard Modbus Connectivity
- Additional Heat Demand Functionality
- Contact with 0–10V Output

In the interest of continual improvements in product and performance, Weil-McLain reserves the right to change specifications without notice.

Weil-McLain offers BIM-Revit product content to help architects, engineers and contractors design projects accurately and efficiently.



Field Terminations Ignition Control · High Limit & Modulating Temp. Control

• Labeled Terminal Blocks for

- Alarm Control Functionality Onboard Time & Date
- Low Water Cut-Off—Manual Reset
- Warm Weather Shutdown
- Freeze Protection
  - Boiler Service Interval & Contractor Info

#### **CSD-1** Compliant

- Manual Reset LWCO
- Manual Reset High & Low Gas Pressure Switches
- UL 353 Certified High Limit Control with Manual Reset

## • UL 353 Certified Operating Control

- Non-Pro-Rated Warranty • 10 Year Heat Exchanger Warranty
- 2 Year Parts Warranty

#### **Optional Equipment** Pressure Relief Valve-50/80/100/150 psi

- System Water Temp. Sensors - Strap-On—Supply & Return
- BacNet or LonWorks Converter Kit Annual Maintenance Kit
- · Corrosion Inhibitor Condensate Neutralizer Kit
- Anti-Freeze

### **Boiler Certifications**

#### ASME IV, CSA, AHRI

- SCAQMD\*
- Commercial Energy Star\*