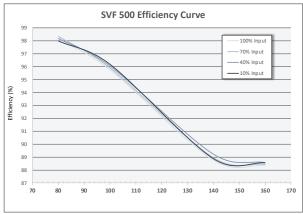




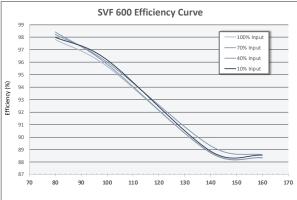
High Efficiency Condensing Boiler 500-600 MBH

### Maximum Input MBH 500 600 Minimum Input MBH 50 50 Gross Output MBH 490 588 Thermal Efficiency - AHRI Ratings 98.0% 98.0% Turn Down 10:1 12:1 BTU Gross Output / Gallon of Water 41 49 Fuel Type NG / LP Minimum / Maximum Gas Pressure (w.c.) 3-½" - 14 Gas Connection NPT Size 1-½" Maximum Allowed Working Pressure 160 PSIG Water Volume 12 Supply / Return Flange Connections 2" Water Pressure Drop 3.2 ft. wc. (@ 32 gpm) (@ 38 gpm) High-Limit Maximum Temperature 210° F Operating Minimum / Maximum 50° F / 190° F Maximum Water Flow (gpm) 57 57 100% Firing Rate Water Flow (gpm) 16 19 Ignition / 50% Firing Rate 20 gpm Low Firing Rate Water Flow (gpm) 4 4 Ambient Operating Temperature Range 40° - 120° F Electrical Requirement 1201/60 10 Amp Vent / Air Size (inches) 4" Win / Max Vent / Air Length (ea.) 4' / 100' Vent Rating CAT II & IV Stack Vent Flow Rate (cfm) 136 163 Boiler Category ASME Sect. IV Standard Listing & Approvals ASME, AHRI, CSA Gas Train Operations CSD-1 Length (inches) 42 ½%" Height (inches) 49 ½%" Width (inches) 49 ½%" Operating Weight (approximate pounds) 500 500 Shipping Weight (approximate pounds) 572 572		Specifications	SVF 500	SVF 600				
### Page Page		Maximum Input MBH	500	600				
BTU Gross Output / Gallon of Water	<u>.</u>	Minimum Input MBH	50	50				
BTU Gross Output / Gallon of Water	at ange	Gross Output MBH	490	588				
BTU Gross Output / Gallon of Water	xchi	Thermal Efficiency - AHRI Ratings	98.0%	98.0%				
Fuel Type	ш	Turn Down	10:1	12:1				
Minimum / Maximum Gas Pressure (w.c.) 3-½" - 14		BTU Gross Output / Gallon of Water	41	49				
Maximum Allowed Working Pressure 160 PSIG		Fuel Type	NG / LP					
Maximum Allowed Working Pressure 160 PSIG	Fuel	Minimum / Maximum Gas Pressure (w.c.)	3-1/2′	′ - 14				
Water Volume 12 Supply / Return Flange Connections 2" Supply / Return Flange Connections 2"		Gas Connection NPT Size	1-1	/4"				
Supply / Return Flange Connections 2"		Maximum Allowed Working Pressure	160	PSIG				
Water Pressure Drop 3.2 ft. w.c. (@ 32 gpm) (@ 38 gpm)		Water Volume	1	2				
Water Pressure Drop (@ 32 gpm) (@ 38 gpm)		Supply / Return Flange Connections	2	211				
100% Firing Rate Water Flow (gpm) 16 19	7	Water Pressure Drop						
100% Firing Rate Water Flow (gpm) 16 19	Wat	High-Limit Maximum Temperature	210)°F				
100% Firing Rate Water Flow (gpm) 16 19	stem \		50°F / 190°F					
Ignition / 50% Firing Rate 20 gpm	Sy	Maximum Water Flow (gpm)	57	57				
Water Flow (gpm) 20 gpm Low Firing Rate Water Flow (gpm) 4 4 4		100% Firing Rate Water Flow (gpm)	16	19				
Ambient Operating Temperature Range			20 gpm					
Vent / Air Size (inches)		Low Firing Rate Water Flow (gpm)	4 4					
Vent / Air Size (inches)	ical	Ambient Operating Temperature Range	40° - 120° F					
Min / Max Vent / Air Length (ea.) 4' / 100' Vent Material PVC, CPVC, PP, SS (AL29-4C) Vent Rating CAT & V Stack Vent Flow Rate (cfm) 136 163 Boiler Category ASME Sect. V Standard Listing & Approvals ASME, AHRI, CSA Gas Train Operations CSD-1 Length (inches) 42 ¾6" Width (inches) 49 ¾6" The inches 472 472 Operating Weight (approximate pounds) 500 500 The inches 500	Electr	Electrical Requirement	120/1/60 10 Amp					
Vent Material Vent Rating CAT & Vent Rating CAT & Vent Rating CAT & Stack Vent Flow Rate (cfm) Boiler Category ASME Sect. Standard Listing & Approvals Gas Train Operations CSD-1 Length (inches) Width (inches) Height (inches) 24 7/8" Dry Weight (approximate pounds.) PVC, CPVC, PP, SS (AL29-4C) ASME ASME Sect. ASME, AHRI, CSA CSD-1 Length (inches) 42 3/16" 478" Dry Weight (approximate pounds.) 472 472 Operating Weight (approximate pounds) 500 500		Vent / Air Size (inches)	4	."				
Stack Vent Flow Rate (cfm) 136 163	g/ ons	Min / Max Vent / Air Length (ea.)	4' /	100′				
Stack Vent Flow Rate (cfm) 136 163	ntin issi	Vent Material	PVC, CPVC, PP	, SS (AL29-4C)				
Boiler Category Standard Listing & Approvals Gas Train Operations Length (inches) Width (inches) Height (inches) Dry Weight (approximate pounds.) Operating Weight (approximate pounds) ASME Sect. IV ASME, AHRI, CSA CSD-1 42 ³ / ₁₆ " 47 ³ / ₁₆ " Dry Weight (approximate pounds.) 47 472 Operating Weight (approximate pounds) 500 500	E Ve	Vent Rating	CAT I	I & IV				
Standard Listing & Approvals Gas Train Operations CSD-1 Length (inches) Width (inches) Height (inches) Dry Weight (approximate pounds.) Operating Weight (approximate pounds) Standard Listing & Approvals ASME, AHRI, CSA CSD-1 42 ¾/6" 447 ¾/6" Dry Weight (approximate pounds.) 472 472 Operating Weight (approximate pounds) 500 500		Stack Vent Flow Rate (cfm)	136	163				
Gas Train Operations CSD-1	S	Boiler Category	ASME Sect. IV					
Length (inches) 42 \(^{3}\/_{6}''\) Width (inches) 24 \(^{7}\/_{8}''\) Height (inches) 49 \(^{3}\/_{6}''\) Dry Weight (approximate pounds.) 472 472 Operating Weight (approximate pounds) 500 500	Cert	Standard Listing & Approvals	ASME, AHRI, CSA					
Width (inches) Height (inches) 24 7/8" Height (inches) 49 3/16" Dry Weight (approximate pounds.) Operating Weight (approximate pounds) 500 500		Gas Train Operations	CSD-1					
Height (inches) 49 ¾6" Dry Weight (approximate pounds.) 472 472 Operating Weight (approximate pounds) 500 500	v	Length (inches)	42 3/16"					
Height (inches) 49 ¾6" Dry Weight (approximate pounds.) 472 472 Operating Weight (approximate pounds) 500 500	Dim	Width (inches)	24 1/8"					
Operating Weight (approximate pounds) 500 500		Height (inches)	49	³ / ₁₆ "				
Operating Weight (approximate pounds) 500 500 Shipping Weight (approximate pounds) 572 572	ıts	Dry Weight (approximate pounds.)	472	472				
Shipping Weight (approximate pounds) 572 572	eigh	Operating Weight (approximate pounds)	500	500				
	3	Shipping Weight (approximate pounds)	572	572				



Innut	Re	eturn Water	Temperature	s*
Input	80°F	100°F	140°F	160°F
100	98.2%	95.8%	88.8%	88.3%
70	98.3%	95.9%	89.0%	88.4%
40	98.2%	96.0%	89.2%	88.6%
10	98.0%	96.2%	88.9%	88.6%

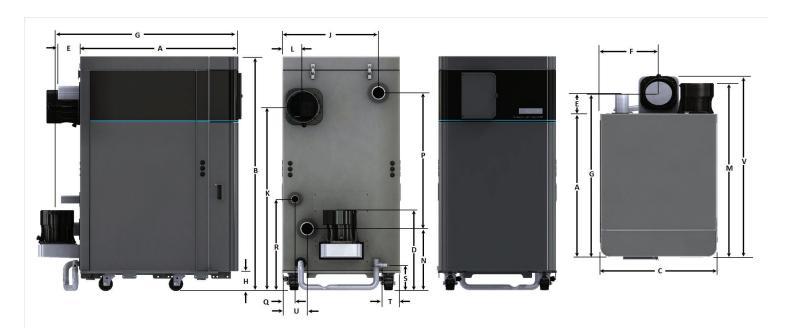
^{*} Test was conducted at a flow rate which gave a 30°F rise at 100% input rate.



lanut	Ro	eturn Water	Temperature	s*
Input	80°F	100°F	140°F	160°F
100%	97.8%	95.7%	88.8%	88.3%
70%	98.4%	95.8%	88.8%	88.4%
40%	98.2%	96.0%	89.3%	88.6%
10%	98.0%	96.2%	88.9%	88.6%

^{*} Test was conducted at a flow rate which gave a $30^\circ F$ rise at 100% input rate.

SVF 500-600 Dimensions and Product Specifications



Model No.	Α	В	С	D	Е	F	G	Н	J	K	L	М	N	Р	Q	R	S	Т	U	V
SVF 500 600	33-3/8"	49-13/16"	24-7/8"	17-½16″	4-3/4"	12-1/16"	38-3/16"	4-1/16"	20 - 5⁄16″	39-¾16″	4-%16"	42-1/8"	13-3/16"	29"	2-5/8"	19-½"	5-3/8"	3- ¹³ /16"	5-1/4"	42-3/16"

Model No.	Minimum Thermal Efficiency	Max Pressure (psi)	Max Input (MBH)	Max output (MBH)	Turn Down	Water Volume (gal)	Water Conn	Gas Conn	Air/Intake Vent Size	Length	Width	Height	Shipping Weight
SVF 500	98.0%	160	500	490	10:1	12	2"	1 ¼"	4"	42 3/16"	24 %"	49 3/16"	572
SVF 600	98.0%	160	600	588	12:1	12	2"	1 ¼"	4"	42 ¾6"	24 1/8"	49 ¾16"	572

Industry Leading Efficiency

- Up to 98% Thermal Efficiency*
- ASME Certified Stainless Steel Firetube Heat Exchanger and Shell
- Advanced Design Firetube Geometry with Robotic Weldments for Maximum Heat Transfer and Reliability

Standard Features

- Natural Gas
- Up to 12:1 Turndown Ratio*
- 160 psi Working Pressure
- 30 psi Relief Valve
- Low Gas Pressure Operation
- Direct Spark Ignition
- Variable Speed Blower Assembly
- Negative Pressure Regulated Gas Valve
- Temperature & Pressure Gauge
- Outdoor Temp. Sensor
- Outlet & Inlet Water Temp. Sensor
- Flue Gas Temp. Sensor
- System Water Temp. Sensors
 Immersion Style Supply & Return

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

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
- "Door-Fit" Design
- Zero-Clearance to Combustibles
- Stainless Steel Burner with Woven Fiber Mesh
- Single-Point Installation
 - All Field Connections (Excludes Gas/Front) Out Back of Boiler

Venting Options

- Direct Exhaust Vertical (CAT II)
- Direct Vent Sidewall, Vertical, & Side Intake with Vertical Exhaust (CAT IV)
- Direct Exhaust Vertical (CAT IV)

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

Unity 2.0 Controller

- Color Touchscreen Display
- Easy-Navigate Logic
- Intuitive Prompts and Functionality

Control Features

- Zone and/or Priority-Based Control
- Ten Preloaded System Types including Custom-Design
- O-10V Input (Modulation of Setpoint)
- Outdoor Reset for Each Priority
- Rate Adjustment per Priority
- Individually Fused 120V Outputs
- Warm Weather Shutdown
- System Match Blower Control with Rapid Response
- Rectivied Flame Detection for Supervision and Boost Override
- 24 Hour Operational Trend Collection
- Before/After Fault Detection Data Logging

Boiler and Building Management System Compatible

- Variable Speed Boiler Pump Control for Variable/Primary Applications
- · 8-Boiler Sequencing
- Modbus Communication
- Additional Heat Demand Output for Hybrid System Control

Boiler Certification

 ASME IV, CSA, AHRI, Commercial Energy Star, SCAQMD

Non-Pro-Rated Warranty

- 10 Year Heat Exchanger Warranty
- 2 Year Parts Warranty

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.

*model dependent















