

# **Introducing the Buderus SSB Residential Boiler**

## Stainless steel boiler designed for residential applications

Specifically tailored by Bosch to give you all the same features and benefits in a small residential boiler through a large commercial cascade application. Featuring an efficiency of 96%, a compact design, and the best price performance and warranty in the market, the SSB is ideal for new and replacements installations with the quality you have come to expect from Bosch. Available in four sizes: 85, 120, 160 and 255 MBH.





Top connections for easy installation



Integrated control with weather compensation

# We think comfort is best when it's effortless.

That's why, at Bosch Thermotechnology, we work hard to bring you the highest quality heating and cooling systems, like the SSB Boiler Series. We build every one of our products to be reliable and user-friendly, so you can go ahead and forget we're even here. That's invisible comfort — the kind you feel, but never have to think about.

#### **Peace of Mind & Comfort**

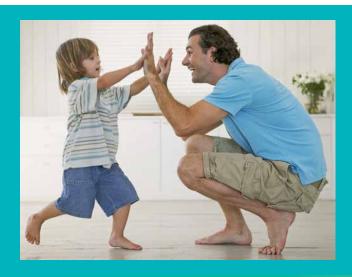
- ► Limited lifetime warranty on the heat exchanger\* with 5 years parts and labor.
- ► Designed for long lasting and durable operation with high quality commercial-grade components
- ► Specially built insulation offering ultra-quiet operation, as low as 44 dB(a)
- ► Sleek appliance-like design with easy-to-operate primary human interface
- ► Durable heat exchanger with zero welds on the water side to minimizes the risk of thermal shock damages



# A step above the ordinary

## The Buderus SSB is not your typical stainless steel boiler

A single platform design for makes installation and start-up easy. The on-board control takes the guess work out of the most common applications. The patented design provides a unique, consistent combustion for longevity and durability. All designed to make installation through operation uncommonly easy.



### **Easy to Install & Access**

- ► Easy to install with built-in integral pump and separate domestic hot water circuit
- ► Includes safety sensor and devices not typically found in a boiler (LWCO, High limit reset, Air vent)
- ► Fully-serviceable from the front and top of the unit with easy to access components and circuit panel
- ► Combustion chamber can be easily removed and accessed from the top with removable cover.



## **Highly Efficient & Durable**

- ► Floor standing boiler with stainless steel heat exchanger and efficiency levels up to 96%
- ► All top connections allow for installations in tight retrofit conditions
- ► Ideal for new construction with space-saving design and multiple venting options
- ➤ Can be used in a host of different-sized applications with input ratings of 85, 120, 160 or 255 MBH
- ► Pre-mix burner with 5:1 turn-down allows the boiler to modulate down to as low as 17,000 BTU/Hr



## **Commercial Boiler design in a Residential Application**

- ▶ Built from the same design found in our SSB commercial boilers
- ► Up to 8 boilers can be cascaded together for up to 2,040 MBH for light-commercial applications
- Back to back installation is possible with minimal required clearances

## **SSB Stainless Steel Residential Boiler Specifications**

	Unit of Measure	SSB85	SSB120	SSB160	SSB255
Part Number		7738004891	7738004892	7738004893	7738004894
Type of Gas		Natural Gas, Propane			
Application		Residential			Residential / Commercial
Max input rate	BTU/hr (kW)	85,300 (25)	119,420 (35)	160,364 (47)	255,000 (75)
Min input rate	BTU/hr (kW)	17,060 (5)	23,844 (7)	32,073 (9.4)	51,180 (15)
Turn-down	Rate (%)	5:1 (20 %)			
Gas Connections (NPT)	Ø Inch	3/4"	3/4	3/4	1"
Max./ Min NG Pressure	Inch W.C. (mbar)		10.5 (26.15)	/ 3.5 (8.72)	
Max. / Min LPG Pressure	Inch W.C. (mbar)		13 (32.3)	/ 8 (19.9)	
Water Connections	Ø Inch	1"	1"	1"'	1 ½ "
Max. Allowable Working Pressure (MAWP)	PSI (bar)	80 (5.5)			
Recommended water flow @ max power (ΔT 36 °F / 20 °C)	GPM (m3/h)	4.7 (1.1)	6.6 (1.5)	8.5 (1.9)	14.2 (3.2)
Max water flow @ max power (ΔT 27 °F / 15 °C)	GPM (m3/h)	6.3 (1.4)	8.8 (2.0)	11.4 (2.6)	18.9 (4.3)
Min water flow @ max power (ΔT 54 °F / 30 °C)	GPM (m3/h)	3.2 (0.7)	4.4 (1.0)	5.7 (1.3)	9.5 (2.2)
Min water flow @ min power (ΔT 27 °F / 15 °C)	GPM (m3/h)	1.3 (0.3)	1.8 (0.4)	2.3 (0.5)	3.8 (0.9)
Water Pressure Drop @ recommended water flow	Feet W.C. (Mbar)	2.34 (70	5.35 (160)	10.37 (310)	5.3 (160)
Water Pressure Drop @ max water flow	Feet W.C. (Mbar)	3.81 (114)	9.20 (275)	18.40 (550)	6.4 (190)
Water Volume	Gallon (liter)	0.79 (3)	1 (3.8)	1.21 (4.6)	4.0 (15.2)
Vent/Air Intake Connections	Ø Inch (Ø mm)	2 (60)	2 (60)	2 (60)	3 (80)
Max operating temperature	°F (°C)	194 (90)			
Max HE allowable temperature	°F (°C)	210 (98.9)			
Ambient storage temperature dry	°F (°C)	5 to 158 (-15 to 70)			
Ambient functioning temperature	°F (°C)	32 to 120 (0 to 49)			
Surface heat exchanger	SQ.FT. (m2)	8.61 (0.8)	10.76 (1.0)	12.91 (1.2)	22.0 (2.0)
Standard Listings & Approvals		CSA, ASME, AHRI			
Electrical Req. 120VAC/1PH/60Hz		1.5 FLA*	2.0 FLA*	3.4 FLA*	4 FLA*
Noise rating	dB	45	44	49	46
Weight (dry)	lbs (kg)	110 (50)	132 (60)	154 (70)	198 (90)
Min. clearance to combustibles*	Inch (mm)	2" (50.8)			
	Inch (mm)	20 X 39 % X15 % (508 X 1006 X 388)	20 X 47½ X15 % (508 X 1006 X 388)	20 X 47½ X15 % (508 X 1006 X 388)	24 x 61% x 21% (609x1564x550)

<sup>\*</sup> See manual for details













## **Venting Options**

Included adapter allows connection to CPVC, PVC, PP, PP Flex, Stainless Steel AL29-4C, IPEX type IIA & IIB for use with

- ► Single pipe
- ► Two pipe
- ► Concentric pipe

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## **Control** Features

- ► Manual Reset High Limit and LWCO with test button
- ► Easily connected to a room thermostat
- ► Outdoor reset and domestic hot water priority standard
- ► Smart System Control "Argus Vision" for easy set up and commissioning