Smith

Smith
RESIDENTIAL BOILERS

GC160 series

WALL MOUNTED GAS-FIRED
RESIDENTIAL CONDENSING
BOILER

THE HEATING Pros

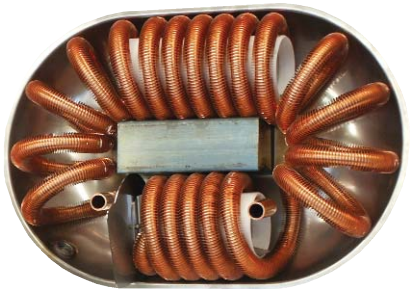
GC160

The GC160 condensing boiler package is the latest addition to the Smith line of gas-fired boilers. It uses premix burner technology for combustion that is installed in a radially oriented 316L stainless steel heat exchanger. The patented premix air/gas modulation system, domestic hot water heat exchanger, and electronic controls make the GC160 a condensing boiler at the top of its class for performance, safety, low emissions and environmentally friendly.

It includes: panel mounted controls, mounted and wired circulator and expansion tank that are all built into an attractive sound attenuated enclosure. The component layout makes installation, maintenance and service easy. All utility connections for gas, water and condensate are conveniently located at the bottom of the unit.

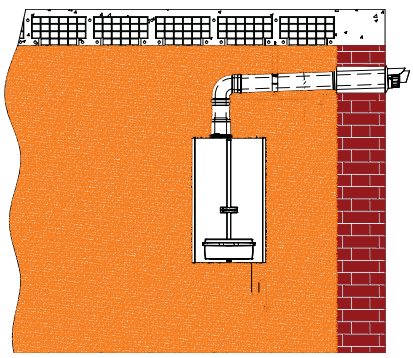
Domestic Hot Water

Enjoy ample low-cost domestic hot water without the expense of a separate water heater. Integral to the boiler package and hassle-free removal for cleaning. The tankless heater is capable of producing up to 5 gallons of domestic hot water per minute.

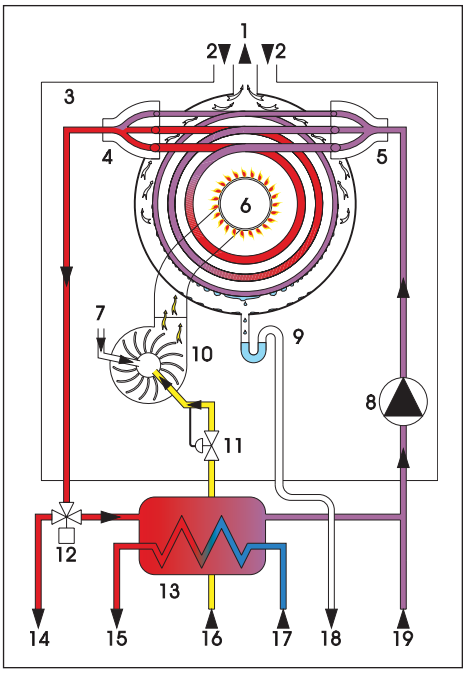


Venting

The GC160 combination boiler/domestic hot water heater is designed for concentric vent, vertical or sidewall venting. Using outside air for combustion will lower fuel bills by reducing air infiltration within the building. The flexibility and ease of installation assures years of trouble free service. Concentric vent lengths up to 70 equivent feet.



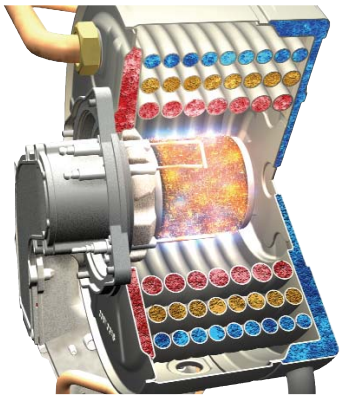
Operating Schematic



1=Flue exhaust
2=Air intake
3=Sealing chamber
4=Heating supply manifold
5=Heating return manifold
6=Environmentally frendly, premix burner
7=Air intake
8=Circulator pump
9=Condensate siphon
10=Fan
11=Pneumatic gas valve
12=Three way valve
13=DHW heat exchanger
14=Heating supply
15=Domestic hot water
16=Gas inlet
17=Domestic cold water
18=Condensate discharge
19=Heating return

STANDARD FEATURES

- Patented ASME heat exchanger
- 316L stainless steel tubes
- Premix burner
- 30,000 to 160,000 btuh
- Environmentally-friendly-low NOx p.p.m.
- Certified DOE efficiency of 93%
- Continuous 5 to 1 modulation
- Coil-type hot water tank
- Integral system circulator
- Expansion tank and air vent



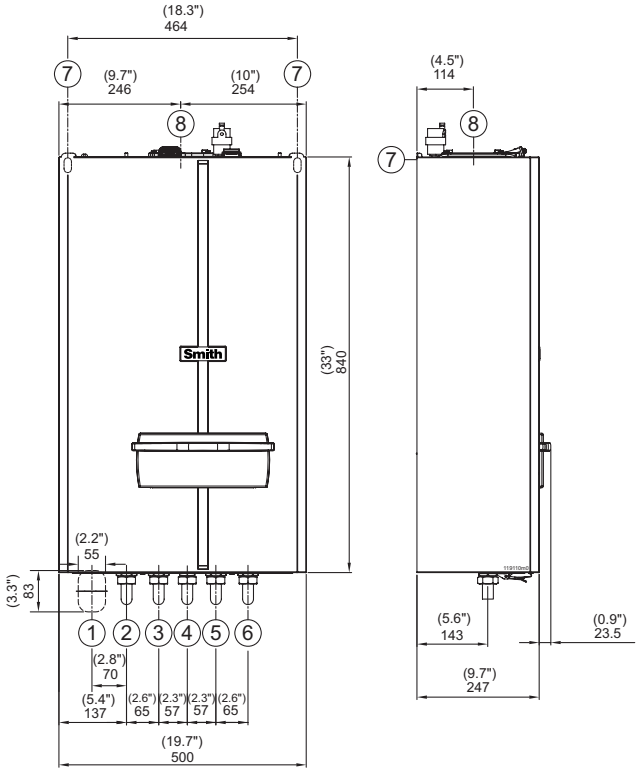
316L stainless steel full flow heat exchanger incorporating tri-parallel flow design that yields high efficiency through even heat transfer and low water pressure drops. This patented radial flow heat exchanger is manufactured using robotic laser welding techniques for precision construction. H stamp ASME code certified.

Hi efficiency Low restriction cylindrical shaped Premix mesh burner that utilizes a negative pressure gas valve that allows over a 5 to 1 boiler capacity turndown. DOE rated efficiency of 93% AFUE. Easy to access for scheduled maintenance.

Heat exchanger/premix burner are enclosed in a low decibel sound attenuated enclosure.

GC160 series

GAS-FIRED CONDENSING RESIDENTIAL BOILER



N°	Description	Connections
		GC160
1	Area for power supply cable	/
2	Heating supply connection	3/4" SWEAT
3	DHW connection	3/4" SWEAT
4	Gas connection	3/4" NPT
5	DCW connection	3/4" SWEAT
6	Heating return	3/4" SWEAT
7	Position for boiler support	/
8	Flue discharge/air intake connection	/

GC160 Ratings and Engineering Data

TECHNICAL DATA	
Nominal heat input	160,000 Btu/hr
Minimum heat input	30,000 Btu/hr
Efficiency	93%
*DOE Heating capacity is based on standard test specified by the United States Department of Energy.	
D.H.W. heat output	142,400 Btu/hr
Instantaneous D.H.W. production (75°F rise)	4 gal/min
Maximum heating temperature	190°F
Maximum heating pressure	30 Psi
Maximum pressure of domestic hot water circuit	125 Psi
Capacity of expansion tank	2.64 gal
Nominal power supply voltage	120/60 V/Hz
Electric power	170 W
Flue gas pipes diameter (split) (polypropylene)	3"
Flue gas pipes max. length (split) (polypropylene)	300 ft equivalent
Flue gas pipes diameter (concentric) (polypropylene)	2.36" / 3.94"
Flue gas pipes max. length (concentric) (polypropylene)	70 ft equivalent
CO contents (0% O_2 with natural gas)	15 p.p.m.
NOx contents (0% O_2 with natural gas)	15 p.p.m.
Dimensions LxDxH (approximate)	20" x 10" x 30"
Connections (supply - return - D.H.W. - D.C.W. - gas)	3/4"
Weight	100 lbs

Smith
RESIDENTIAL BOILERS

Westcast, Inc., 260 North Elm Street, Westfield, MA 01085
(413) 562-9631 • FAX: (413) 562-3799
www.smithboiler.com

A MESTEK COMPANY

In the interest of product improvement, we reserve the right to make changes without notice.