



Saturn Series



QUALITY GAS BOILERS

Performance and Dependability for Hydronic Heating

Residential, Commercial and Industrial Applications

Nine Models from 135,000 to 495,000 Btu/h

S A T U R N S E R I E S B O I L E R S



- Rugged Industrial Design Steel Fin Tube Heat Exchanger Built to ASME Standards
- Up to 85% AFUE Efficiency Rating
- Compact, Lightweight, and Durable
- Ideal for Modular Installations Providing Uninterrupted Heating
- Approved for Combustible Floor and Closet / Alcove Installation
- Natural Gas or Propane

SATURN SERIES boilers offer more than just comfort...

Allied Engineering's unique energy-efficient DOUBLE PASS design provides the ultimate in quality construction, performance and reliability. Low operating cost, and ease of installation makes our boilers well-suited for both new construction and renovation.

APPLICATIONS

Large and Multi-family Residential and Commercial applications:

- Modular Boiler Installations
- In-floor Heating
- Fan coils
- Baseboard Radiation
- Heat exchangers
- Snow melt
- Indirect hot water heaters
- Radiant panels

"PS" PACKAGE CONVENIENCE

Optional on models up to SG270, "PS" or Packaged boilers save installers time and labour by including system parts and a pump pre-wired and mounted. See back page for parts list.

ENVIRONMENTAL SUSTAINABILITY

Allied Engineering uses an environmentally friendly construction that is designed for longevity and maximum efficiency. Most components can be recycled after their long, trouble-free life.

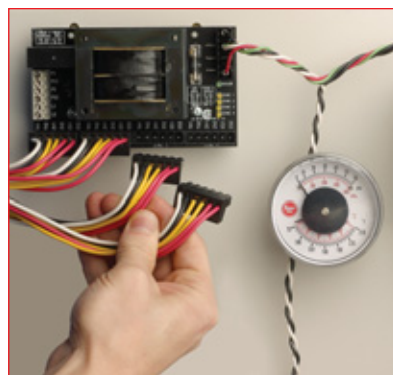
WARRANTY PROTECTION

Saturn Series are manufactured to the highest standards, employing only top quality materials and workmanship. Our proven design features a TEN-YEAR heat exchanger warranty and one year on all parts and controls. Please refer to printed warranty for details. Installation and service manual provided with every boiler.

USER-FRIENDLY CONTROLS

Boiler Controller: Control, monitoring and safety devices are factory wired using plug in connectors for quick installation and service.

Zone Control System: Models under 300,000 Btu/h use our exclusive Zone Controller which handles up to 4 zones with separate plug-ins for zone valves and LED lights to clearly show which zones are being heated. If required, additional boards can be added to increase zone capacity.



SATURN SERIES BOILERS

1. Automatic Vent Damper

Standard on all AFUE verified SUPER HOT boilers. Reduces off-cycle flue heat loss and conserves energy. ▶

2. Draft Hood c/w Blocked Vent Safety Switch

Low profile and common for both natural gas and propane. Exhausts flue gases through chimney. ▶

3. Circulator

Can be supplied factory mounted and wired on a cast iron pump adapter. The pump adapter has a tapping designed to accept a dial type temperature gauge. ▶

4. High Grade Stainless Steel Burners

Scientifically designed for efficient and quiet operation. Burner drawer slides out allowing easy access to burner and pilot for inspection and service. ▼



5. Combination Gas Valve

Ensures safe lighting and 100% shut off in case of flame failure. ▲



SG135-PS

6. Steel Fin-Tube Heat Exchanger

To maximize the heat transfer surface, our unique double pass design uses 1/2" fin spirally and continuously welded on 2" O.D. SA178A, industrial steel boiler tube. ▼



7. Boiler Control

Models SG135 – SG270

Advanced Honeywell® control with electronic spark ignition, thermal purge and limit rated water temperature control. Simple programming and LED display for quick installation and diagnostics.

Models SG315 – SG495

Various control options are available including two-stage, full mod, BC-1 with outdoor reset and DDC for external control.

8. Attractively Finished

A durable steel casing and attractive baked enamel finish from our state of the art paint line protects boilers internal working.

9. Full Doors

Full length doors are supplied on all boilers up to SG270. Control panel doors are supplied on boilers SG315 and over.

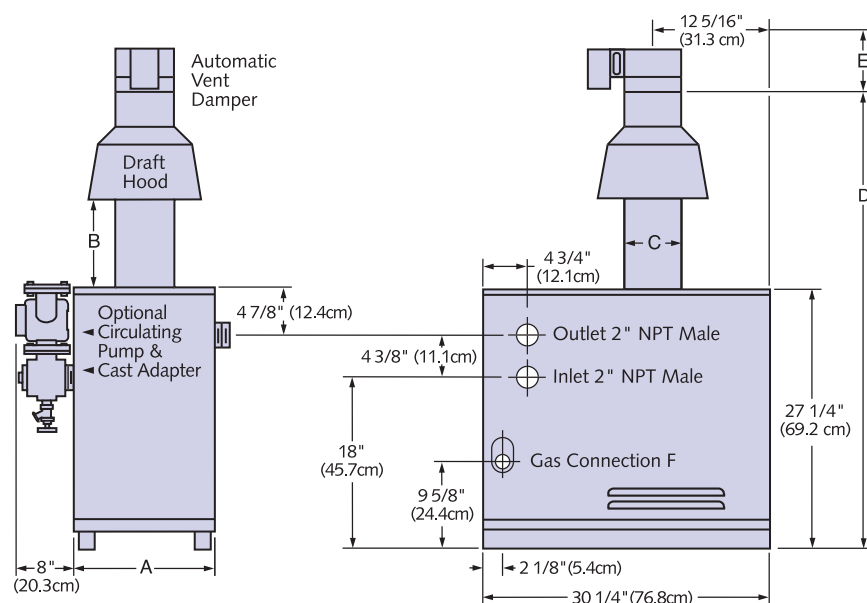
Efficiency Ratings for Saturn Series Boilers

Model	Input	Natural Gas		Propane	
		Output	AFUE	Output	AFUE
SG 135*	135,000	114,750	85%	116,000	85%
SG 180*	180,000	153,000	85%	154,000	85%
SG 225*	225,000	191,250	85%	193,000	85%
SG 270*	270,000	229,500	85%	231,000	85%

Model	Input	Natural Gas		Propane	
		Output	Combustion Eff.	Output	Combustion Eff.
SG 315	315,000	258,300	85%	261,450	85%
SG 360	360,000	295,200	85%	298,800	85%
SG 400	400,000	328,000	85%	332,000	85%
SG 450	450,000	369,000	85%	373,500	85%
SG 495	495,000	405,800	85%	410,850	85%

S A T U R N S E R I E S B O I L E R S

D I M E N S I O N S A N D S P E C I F I C A T I O N S



Allow 24" (61cm) minimum in front for servicing
 Minimum clearances to combustible material Top, 6" (15cm), Sides 2" (5cm), Rear 2" (5cm)
 Approved for Combustible Floors & closet installation

All Models Include:

- Stainless Steel Burners
- Spark Ignition
- Combination Gas Valve
- Temperature Limit Control
- Temperature/Pressure Gauge
- ASME Safety Relief Valve
- Drain Valve
- Draft Hood

Models SG135 – SG270 also include:

- Integrated Boiler Control
- Zone Control Board/Transformer
- Blocked Vent Safety Switch
- Flame Roll-Out Safety Switch
- Automatic Vent Damper

Packaged Models "PS" Include Standard Model Parts Plus:

- Circulating Pump
- Custom Cast Iron Pump Adapter
- Expansion Tank
- Air Purger
- Combination Fill/Regulator Valve
- Automatic Air Vent
- Add 45lbs (20kg) for shipping weight

MODEL NO.	INPUT		OUTPUT		DIMENSIONS										GAS CONN. F	WATER CONTENT		SHIPPING WEIGHT	
			NAT. GAS		A		B		C		D		E			US gal	L	lb	Kg
	MBH	kW	MBH	kW	in	cm	in	cm	in	cm	in	cm	in	cm	NPT				
SG135	135	39.6	115	33.6	14.7	37.3	10.5	26.7	6.0	15.2	45.3	115	5.5"	13.9	0.5"	1.7	6.4	191	87
SG180	180	52.8	153	44.8	17.7	45.0	10.5	26.7	6.0	15.2	45.3	115	5.5"	13.9	0.5"	2.2	8.3	222	101
SG225	225	65.9	191	56.0	20.7	52.6	10.5	26.7	7.0	17.8	46.5	118	6.5"	16.5	0.75"	2.8	10.6	253	115
SG270	270	79.1	230	67.3	23.7	60.2	10.5	26.7	8.0	20.3	47.6	121	7.5"	19.0	0.75"	3.3	12.5	284	129
SG315	315	92.3	258	75.7	26.7	67.8	10.5	26.7	8.0	20.3	47.6	121	-	-	0.75"	3.9	14.8	307	140
SG360	360	106	295	86.5	29.7	75.4	10.5	26.7	9.0	22.9	48.6	124	-	-	1"	4.5	17.1	336	153
SG400	400	117	328	96.1	32.7	83.1	10.5	26.7	9.0	22.9	48.6	124	-	-	1"	5.0	19.0	368	167
SG450	450	132	369	108.1	35.7	90.7	16.5	41.9	10.0	25.4	55.3	140	-	-	1"	5.6	21.2	395	180
SG495	495	145	406	118.9	38.7	98.3	16.5	41.9	10.0	25.4	55.3	140	-	-	1"	6.1	23.1	424	193

* Add 45 lbs to weight for "PS" Packaged

Natural Gas (add suffix "N") - Propane (add suffix "P")

Standard with intermittent Electronic Pilot Ignition (add suffix "E")

For Btu/h ratings above 2000 feet contact the factory



Super Hot's continuous product improvement program may result in changes to the design and specifications being made without notice.

ALLIED ENGINEERING COMPANY

DIVISION OF E-Z-RECT MANUFACTURING LTD.

Manufacturers of Gas and Electric Boilers. Tankless Coils. Electric Boosters. Indirect Tanks

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