



**BOSCH**

Invented for life

## Bosch Greenstar Condensing Boilers

Floor Standing & Wall Mounted

The Bosch Greenstar is the World's Best Selling Residential Condensing Boiler System, with over 4 million sold world wide. Greenstar is ideal for providing comfortable heating and domestic hot water. Greenstar's ultra quiet operation is perfect for radiant heating with panel radiators, in floor radiant, or baseboards.



TAX CREDITS & REBATES  
SAVE UP-TO  
**75%**  
On Bosch  
Systems\*





# The Bosch Greenstar is the Best-Selling Boiler in the World (Over 4 Million Sold World Wide)

## Bosch Greenstar Condensing Boilers

The Greenstar is built using precision German engineering that includes Bosch designing and manufacturing all of key components; like our unique heat exchanger and control systems. It features reliable, ultra-quiet operation, fast, easy installation and very low maintenance costs. The intelligent digital control systems allow for precise boiler control using indoor and/or outdoor temperature sensing, as well as options for controlling domestic hot water. The largest model provides ideal comfort for almost any home, and can run two standard showers simultaneously. In addition, the Greenstar includes a highly efficient 95% AFUE aluminum silicon heat exchanger which makes the boiler eligible for you to save up to 75% in Federal, State and local credits. Visit [BoschHeatingAndCooling.com](http://BoschHeatingAndCooling.com) to find the available efficiency rebates in your area.†

### Precision German Engineering & Design

Bosch Greenstars are built with a high level of detail and parts

### Aluminum-Magnesium-Silicon (Al-Mg-Si) Heat Exchanger

Best for heat transfer, small size + easy, infrequent cleaning

### Five Year Cleaning Interval of the Al-Mg-Si Heat Exchanger

Low maintenance costs for homeowner, easy service for contractor

### Indoor & Outdoor Reset, or Both Simultaneously

CRC200 Thermostat with powerful boiler control capabilities

### Limited Lifetime Heat Exchanger + 10 Year Full Warranty‡

Bosch provides reliable heating & hot water during cold winter months



Floor Standing

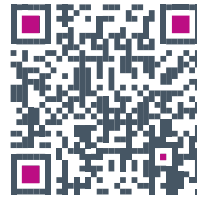
Wall Mounted

# Bosch Greenstar Applications

The Greenstar comes in a floor standing or wall mounted option that will provide reliable and efficient heating for a townhouse, condo, apartment, single or multi family home. Available as a heat only boiler for use with a hot water tank, or as a combi model for heating integrated with tankless domestic hot water (DHW).

## Greenstar Features

- ▶ Broad BTU Output Range: Floor and Wall models with 95% AFUE and up to 5:1 modulation are available in 5 Heat-Only and 3 Combi sizes
- ▶ Simplified Installation: Integral pump is standard on all models
- ▶ Unique heat exchanger uses silicon in the alloy mixture to reduce service interval to every 5 years, maintain high efficiency and dramatically extend boiler life.
- ▶ Combi Models High DHW Output: Up to 4 GPM DHW output on Combi models – based on  $\Delta T$  at 72°F / 40°C. Large plate heat exchanger allows for lower operating temperatures and larger  $\Delta T$  in DHW mode for higher efficiency and condensing operation
- ▶ Many standard venting options: polypropylene (PP), flexible PP chimney liner, concentric PP kit, PVC or CPVC



## See Why

The Bosch Greenstar is The Best-Selling Boiler in The World!



## Greenstar Heat-Only Boiler

- ▶ Perfect choice for radiant heat and/or baseboard heating with or without an indirect storage tank
- ▶ Ideal replacement for any wall hung or floor boiler
- ▶ Perfect for systems with a very high DHW demand as the tank can be matched to the hot water requirement without necessarily having to increase the boiler output
- ▶ Small, lightweight form factor allows for replacement of any wall boiler ease and speed with minimal piping and venting changes
- ▶ Can be used with renewables like solar thermal to reduce the energy consumption even further

## Greenstar Combination Boiler

- ▶ Boiler with an integrated system for providing tankless domestic hot water
- ▶ All-in-one solution with very low installation effort and very few external components
- ▶ Small, lightweight form factor allows for replacement of any wall boiler ease and speed with minimal piping and venting changes
- ▶ Efficiency is maintained while producing domestic hot water, unlike most combi-boilers on the market

Greenstar Heat-Only Boilers	
Input Rate Range in MBH (180/79°F, 82/26°C)	
Greenstar 151	36 - 151
Greenstar 131	36 - 131
Greenstar 100	24 - 100
Greenstar 79	24 - 79

Greenstar Combi-Boilers	
Input Rate Range in MBH (180/79°F, 82/26°C)	
Greenstar 151	36 - 151
Greenstar 131	36 - 131
Greenstar 100	24 - 100



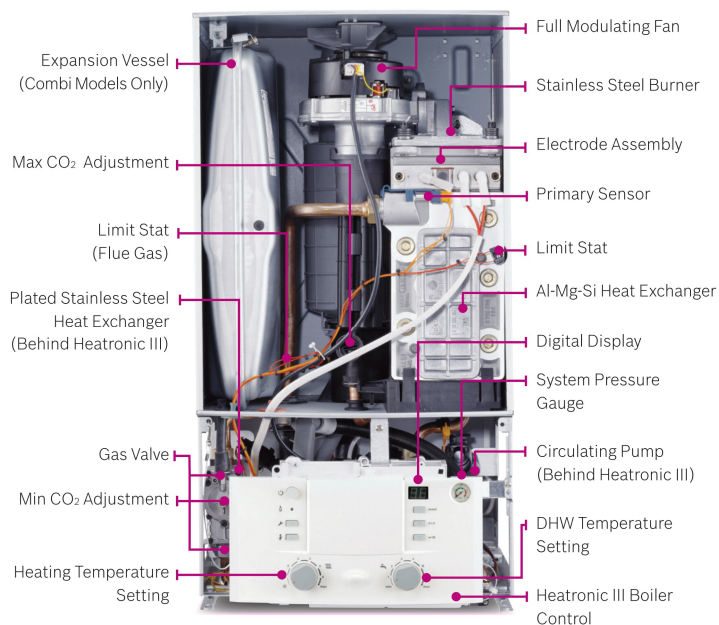


# Built Using Precision German Engineering



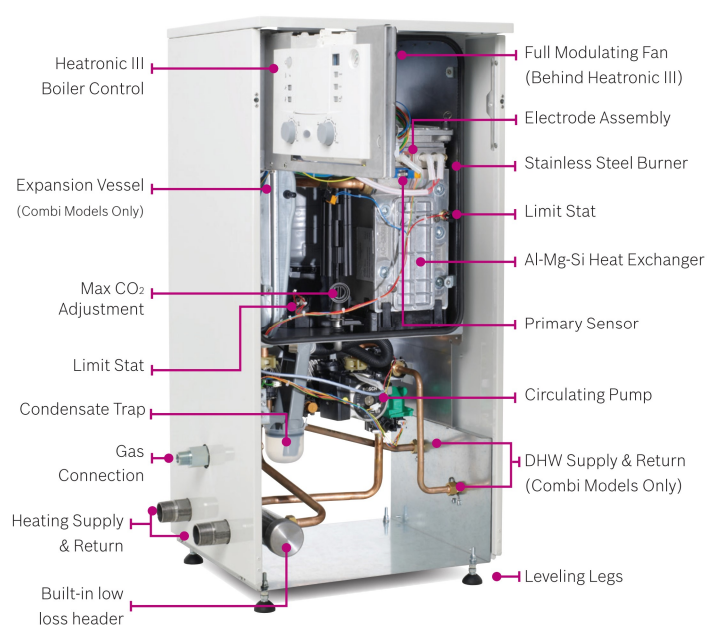
## Superior Design & Components

At Bosch we design and manufacture all of our key components in-house, our assembly process is tightly controlled, our standards are driven by the Automotive sector as Bosch is the world's largest supplier to automobile manufacturers; all processes are documented, monitored & traceable. Before your new boiler leaves the factory it is live fire tested and tuned for optimal efficiency. Bosch Greenstar Condensing Boilers feature industry-leading design and reliable internal components built to deliver optimal heating comfort year after year all while being energy efficient!



Greenstar Combi model is shown above

**Greenstar Wall Mounted**  
Combi Boilers & Heat Only Boilers

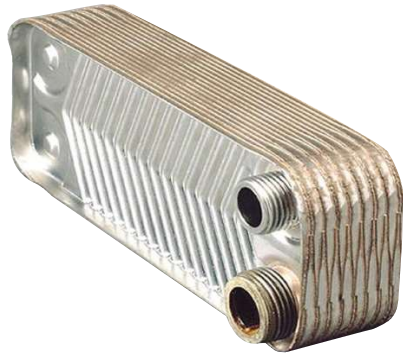
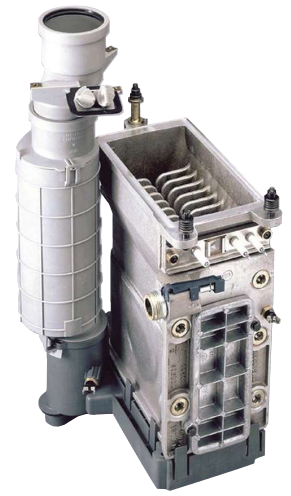


**Greenstar Floor Standing**  
Combi Boilers & Heat Only Boilers



## Al-Mg-Si Heat Exchanger

Each Greenstar boiler features an ASME approved Aluminum-Magnesium-Silicon heat exchanger offering superior heat transfer and flexibility versus stainless steel heat exchangers. This highly durable heating block is corrosion resistant and designed to optimize clean burning combustion over an extra large surface area. Because silicon is part of the molten alloy, it dramatically reduces maintenance intervals and extends boiler life by keeping the metal slick and flexible, even after repeated cleanings with our abrasive cleaning brush. This prevents scale build-up, reduces service, maintains high efficiency and extends the life of the boiler.



## Stainless Steel Plate Heat Exchanger

All Greenstar Combi boilers are equipped with a high-strength stainless steel flat plate heat exchanger with double passage ensuring consistent DHW temperature output based on demand. This heat exchanger, with its large surface area and advanced technology, allows the boiler to use a lower water temperature and to condense even while producing DHW for greater efficiency and helps reduce the build-up of scale within the heat exchanger.

## Full Modulating Fan Assembly

A full modulating fan automatically increases or decreases its speed depending on the heat demand controlling the amount of gas coming into the boiler. This process, called modulation, prevents the boiler from either having too little or too much air in the unit for optimal combustion ensuring high efficiency.



## Heatronic III Boiler Control

The Bosch Heatronic controller manages the boiler and other available accessories, and allows for diagnostic testing and fault code messages. It is one of the most rugged and simplest controls in the industry, allowing for instant and clear setting of boiler water and domestic hot water from two knobs.

## Integrated Low-Loss Header

The Bosch Greenstar Floor model features an Integrated Low-Loss Header with a pre-installed supply sensor, LLH is available as an optional accessory for wall-mounted models. A low-loss header ensures proper hydraulic separation between the boiler & hydronic distribution system for multi-zone applications. Our Greenstar Floor boilers ship ready for single-zone application, for multi-zone applications simply unscrew the LLH cap and remove the isolator. This feature saves money, time & installation labor costs!



BOSCH GREENSTAR	COMBI					HEATING ONLY*			
	GREENSTAR 100P**	GREENSTAR 151P**	GREENSTAR COMBI 100	GREENSTAR COMBI 131	GREENSTAR COMBI 151	GREENSTAR 79	GREENSTAR 100	GREENSTAR 131	GREENSTAR 151
WALL MODEL	ZWB28-3A	ZWB42-3A	ZWB28-3	ZWB35-3	ZWB42-3	ZBR21-3	ZBR28-3	ZBR35-3	ZBR42-3
PART NUMBER	7738100825	7738100611	7738100002	7738100256	7713331041	7738100322	7712231415	7712231414	7712231413
FLOOR MODEL	-	-	KWB28-3	KWB35-3	KWB42-3	KBR21-3	KBR28-3	KBR35-3	KBR42-3
PART NUMBER	-	-	7733600082	7733600083	7733600084	7733600078	7733600079	7733600080	7733600081
<b>PERFORMANCE SPECIFICATIONS</b>									
FUEL	NG / LP					NG / LP			
INPUT MAXIMUM (MBH)	100.0	151.6	100.0	131.9	151.6	79.2	100.0	131.9	151.6
INPUT MINIMUM (MBH)	24.6	36.0	24.6	36.0	36.0	24.6	24.6	36.0	36.0
DOE HEATING CAPACITY (MBH)	91	135	91	118	135	71	91	118	135
NET I=B=R (MBH)	79	117	79	103	117	62	79	103	117
AFUE	95%					95%			
DHW FLOW MAX (ΔT 72°F), GPM	2.65	4.0	2.65	3.2	4.0	not applicable			
WATER VOLUME, GAL (L)	0.952 (3.5)					0.952 (3.5)			
<b>TECHNICAL DATA</b>									
<b>Wall Model</b> ▶ Weight, lbs (without packaging, kg) ▶ Dimensions, in. (W x H x D)	110.2 (50) 17 <sup>7</sup> / <sub>8</sub> x 33 <sup>1</sup> / <sub>2</sub> x 13 <sup>9</sup> / <sub>16</sub>					103.6 (47) 17 <sup>7</sup> / <sub>8</sub> x 33 <sup>1</sup> / <sub>2</sub> x 13 <sup>9</sup> / <sub>16</sub>			
<b>Floor Model</b> ▶ Weight, lbs (without packaging, kg) ▶ Dimensions, in. (W x H x D)	136.6 (62) 19 <sup>1</sup> / <sub>2</sub> x 41 x 21 <sup>7</sup> / <sub>8</sub>					132 (60) 19 <sup>1</sup> / <sub>2</sub> x 41 x 21 <sup>7</sup> / <sub>8</sub>			
<b>Optional Base Dimensions</b>	Stand dimensions: 13 <sup>3</sup> / <sub>4</sub> " deep, by 17 <sup>3</sup> / <sub>8</sub> " wide by 20 <sup>5</sup> / <sub>8</sub> " high. Total height of stand and boiler: 54 <sup>1</sup> / <sub>8</sub> "								
<b>Wall Boiler Supply &amp; Return Tappings, in.</b>	1					1			
<b>Floor Boiler Supply &amp; Return Tappings, in.</b>	1 <sup>1</sup> / <sub>4</sub>					1 <sup>1</sup> / <sub>4</sub>			
<b>Domestic Cold Water Supply, in.</b>	¾					not applicable			
<b>Domestic Hot Water Supply, in.</b>	¾					not applicable			
<b>Gas Connection Size, in.</b>	¾					¾			
<b>Vent Size, in.</b>	2 - 3					2 - 3			
<b>Vent Material</b>	PVC / CPVC / PP / PP-Flex					PVC / CPVC / PP / PP-Flex			
<b>Combustion Air Size, in.</b>	2 - 3					2 - 3			
<b>High Altitude Capability</b>	No De-Rating up to 6,000'	De-Rating 3% per 1,000'	No De-Rating up to 6,000'	De-Rating 3% per 1,000'	No De-Rating up to 6,000'	No De-Rating up to 6,000'	De-Rating 3% per 1,000'	No De-Rating up to 6,000'	De-Rating 3% per 1,000'
Permissible Inlet Gas Pressure ▶ NG in. W.C. ▶ LP (propane) in. W.C.	3.5-10.5"					8-13"			

\* Heat only Greenstar models may be used with indirect water tanks to provide domestic hot water  
\*\* Greenstar PRO does not include the internal expansion tank or CRC200 controller





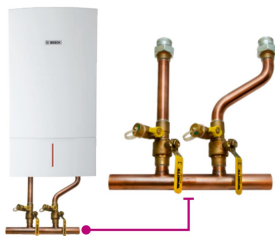
# Bosch Greenstar Accessories

## Bosch NSC

Save energy, prevent disease, and increase comfort compared to other control systems.

NSC controls are smart; they use only two wires to digitally communicate between them and the boiler, but they can do a lot. They allow a wider boiler modulation range to save energy under many conditions. They can control based on indoor or outdoor temperatures, or both. They can control an indirect hot water tank to kill Legionella bacteria on a regular schedule. And they can control pumps or zone valves too. Fault codes are displayed in the living space, giving the homeowner first knowledge of an issue without going to the basement.

- ▶ Bosch developed the NSC and the Greenstar in-house for optimal functionality and efficiency
- ▶ The CRC200 is included with Greenstar wall boilers\*\*\*
- ▶ With CZM100 is capable to control up to 8 separate heating zones
- ▶ Includes timer functionality in 30-minute increments



## Prefabricated Low Loss Header

The prefabricated low-loss header is specially designed for the circulator installed in the wall boiler and ensures proper flow-rate through the unit. By simplifying the piping, the manifold allows for quicker, easier, and trouble-free installation of a Greenstar wall boiler.

## Concentric Vent Kit

A concentric vent is designed to use only one pipe for both the intake for combustion air and the exhaust vent. This design is an alternative to the standard two pipe intake/vent. Unlike standard venting, which requires cutting two holes through the home, one for intake and one for exhaust, a concentric vent only requires one hole through the wall to the outside.



## Domestic Hot Water Tanks

Combine your Bosch boiler with one of our indirect hot water tanks. A Bosch tank is extremely well insulated for minimal stand-by heat loss. Available in 32 up to 119 gallons, these tanks have a higher recovery rate than direct fired or tankless coil versions.

\*\*\* CRC200 is not included with the Greenstar wall P Models

# About Bosch

## **Bosch Group**

The Bosch Group is a leading global supplier of technology and services in the areas of Automotive, Industrial Technology, Consumer Goods and Building Technology. The company was founded in Stuttgart, Germany, in 1886 and presently has more than 440 subsidiaries and is represented in over 150 countries.

In the U.S., Canada and Mexico, the Bosch Group manufactures and markets automotive original equipment and aftermarket solutions, industrial drives and control technology, power tools, security and communication systems, packaging technology, thermotechnology, household appliances and software solutions. The Bosch Group's products and services are designed to improving quality of life by providing innovative and beneficial solutions. In this way, the company offers technology worldwide that is "Invented for life." Additional information is available online at [boschheatingandcooling.com](http://boschheatingandcooling.com) and [bosch.ca](http://bosch.ca).

## **Bosch Thermotechnology in North America**

Bosch Thermotechnology is a leading source of high quality water heating and comfort systems. The company offers gas tankless, electric whole house and point-of-use water heaters, Bosch and Buderus floor-standing and wall mounted boilers, Bosch and FHP geothermal, water-source and air-source systems as well as controls and accessories for all product lines. Bosch Thermotechnology is committed to being Simply Smart by offering products that work together as integrated systems that enhance quality of life in an ultra-efficient and environmentally friendly manner. For more information, visit [boschheatingandcooling.com](http://boschheatingandcooling.com).



**Bosch Thermotechnology Corp.**  
Watertown, MA • Londonderry, NH • Ft. Lauderdale, FL  
General Inquiries: 1-866-642-3198

Copyright © 2020 Bosch Thermotechnology Corp.  
All rights reserved. Subject to change without notice.