

Mascot

Gas-Fired Residential
and Commercial
Wall-Mounted Boiler



Easy Installation,

96% Efficiency,

Fully Condensing

LAARS 
Heating Systems Company

A subsidiary of **BRADFORD WHITE**
CORPORATION



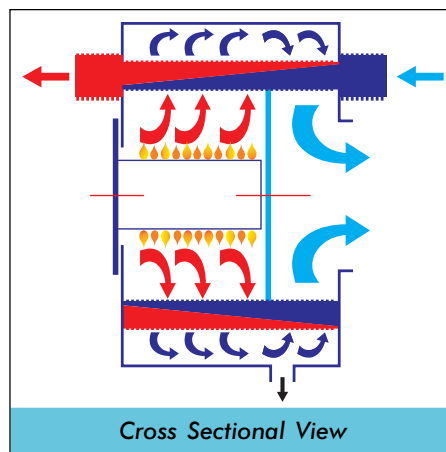
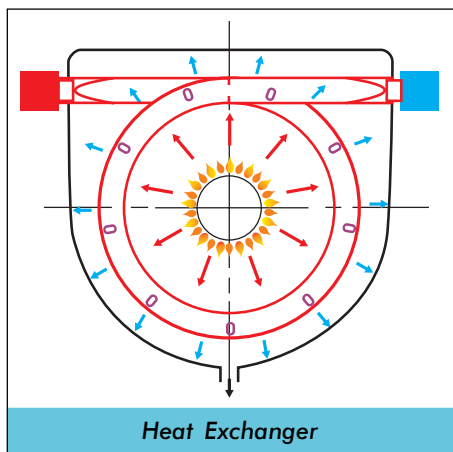
Mascot is a high-efficiency, wall-mounted boiler available in three BTU sizes – 126, 167, and 242 MBTU. The two 126 MBTU boilers are considered residential and they are available both as “heating only” boilers (model HT 1.330) and as “combi” boilers with both hydronic heating and domestic hot water (model HT 330).

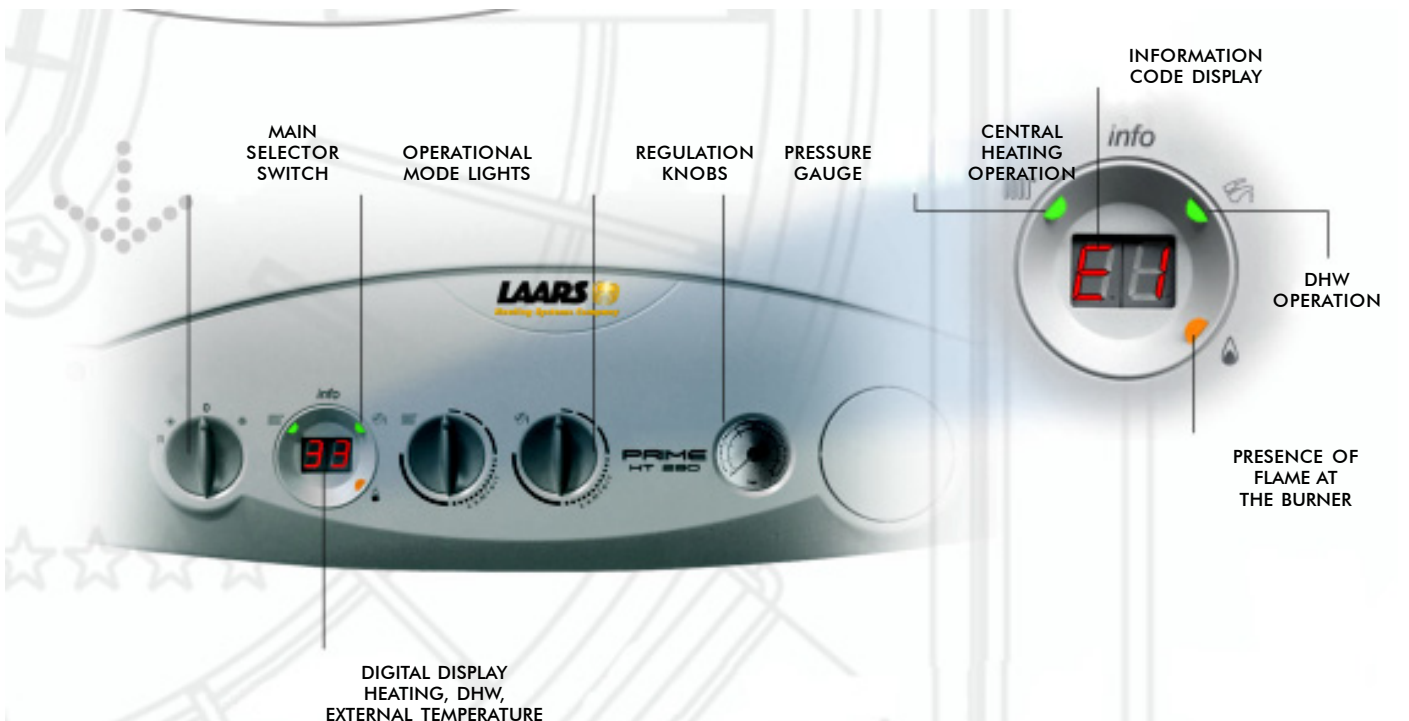
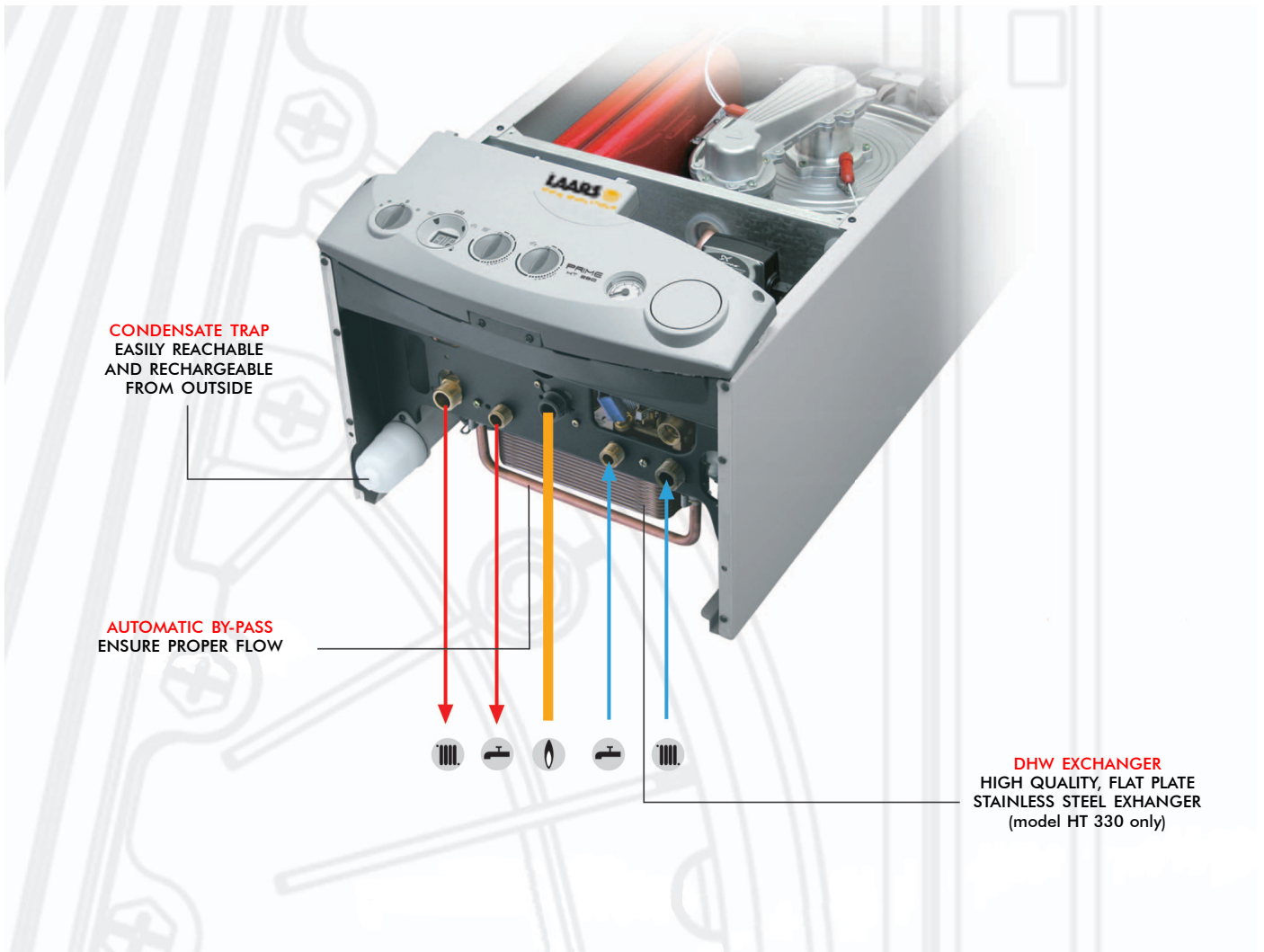
The **Mascot** 167 & 242 MBTU boilers (HT 1.450 & HT 1.650) are packaged differently for potential commercial applications using either single or multiple boiler installations. This means that customers may order single or multiple piping assemblies, and single or multiple venting systems with the HT 1.450 & HT 1.650.

Residential Boilers are Fully Packaged

Both residential models (HT 330 & HT 1.330) are loaded with features that most other boilers don't include, making *Mascot* boilers faster, easier and less expensive to install. *Mascot* residential boiler features that are standard with every 330 and 1.330 boiler include:

- Sleek, appliance-grade cabinet that looks great in any location
- Up to 96% efficiency, condensing operation
- 2-year parts warranty, 10-year heat exchanger warranty
- Sealed combustion
- Standard vent concentric kit with outside terminal
- Direct spark ignition for reliability and smooth starts
- Three venting options to meet the needs of almost any installation
- Modulating gas valve that varies from 30% to 100% input
- Variable speed quiet blower
- Boilers are set up for natural gas, no parts necessary for conversion to LP gas
- Built in expansion tank that will handle 26.4 gallons of system water (enough to cover 1,800' feet of ½" PEX tubing)
- Built-in water fill valve
- Water flow sensor for hydronic system
- Grundfos circulator with air vent and “quick-remove” mounting system
- Automatic 3-way valve for DHW priority (both combi and heating only)
- Back-flow preventer
- Mounting kit with template and wall bracket for fast and easy installation
- Light-weight (100 lbs.) makes handling easy
- Stainless steel A.S.M.E. primary heat exchanger with externally welded manifolds for better flow rates and prevention of leaks
- Stainless steel brazed plane DHW heat exchanger (combi models) with advanced hall sensor flow switch that detects .5 gpm DHW flow rates
- Built-in reverse-pressure by-pass to prevent short cycling
- Advanced Siemens control system with temperature control, diagnostics, outdoor reset capability, and easy access for field wiring
- Complete piping kit with isolation valves, gas cock, domestic water connection adapters with unions, hydronic connectors with unions
- Condensate trap that is easy to inspect & remove from outside the boiler





Specifications

DESCRIPTION	RESIDENTIAL				COMMERCIAL						
	HT 330		HT 1.330		HT 1.450		HT 1.650				
Fuel	NG / LP		NG / LP		NG / LP		NG / LP				
Input, max fire	BTU/h	kW	126,376	37.0	126,376	37.0	167,262	49.0	241,600	70.8	
Output, maximum fire	BTU/h	kW	112,601	33.0	112,601	33.0	153,618	45.0	221,789	65.0	
DHW Outlet Water Temp.	°F	°C	140	60	n/a		n/a		n/a		
Max. DHW flow rate (dt@80°F)	gpm	l/m	3.6	14	n/a		n/a		n/a		
Min. DHW pressure	psi	kPa	2.9	20	n/a		n/a		n/a		
Max. DHW pressure	psi	kPa	116	800	n/a		n/a		n/a		
Pressure Relief Valve Setting	psi	kPa	30	207	30	207	30	207	30	207	
Supply Flow Connection	in	cm	3/4	1.9	3/4	1.9	3/4	1.9	3/4	1.9	
Return Connection	in	cm	3/4	1.9	3/4	1.9	3/4	1.9	3/4	1.9	
Relief Valve Connection	in	cm	3/4	1.9	3/4	1.9	3/4	1.9	3/4	1.9	
Burner and Heat Exchanger			stainless		stainless		stainless		stainless		
Service Clearances	top	in	cm	9	23	9	23	9	23	9	23
	bottom	in	cm	10	25	10	25	10	25	10	25
	sides	in	cm	2	5	2	5	2	5	2	5
	front	in	cm	18	46	18	46	18	46	18	46
Dimensions	height	in	cm	30.0	76	30.0	76	37.4	95	37.4	95
	width	in	cm	17.7	45	17.7	45	23.6	60	23.6	60
	depth	in	cm	13.6	35	13.6	35	18.4	47	18.4	47
Gas Connection	in	cm	3/4	1.9	3/4	1.9	3/4	1.9	3/4	1.9	
Air Duct Diameter	in	cm	3.93	10	3.93	10	4.92	10	4.92	10	
Flue Duct Diameter	in	cm	2.36	6	2.36	6	3.15	8	3.15	8	
Electrical Supply	voltage	V	120		120		120		120		
	frequency	Hz	60		60		60		60		
Water Content	gal	L	31.7	120	31.7	120	31.7	120	31.7	120	
Concentric Vent-Air	in	cm	2.36-3.93	6-10	2.36-3.93	6-10	3.15-4.92	8-12	3.15-4.92	8-12	
Flue Terminal Size (2-pipe)	in	cm	3.14	8	3.14	8	3.14	8	3.14	8	
Flue Terminal Protrusion	in	cm	4.52	11	4.52	11	4.52	11	4.52	11	
Lift Weight	lbs	kg	103	47	102	46	141	64	159	72	

Mascot Applications

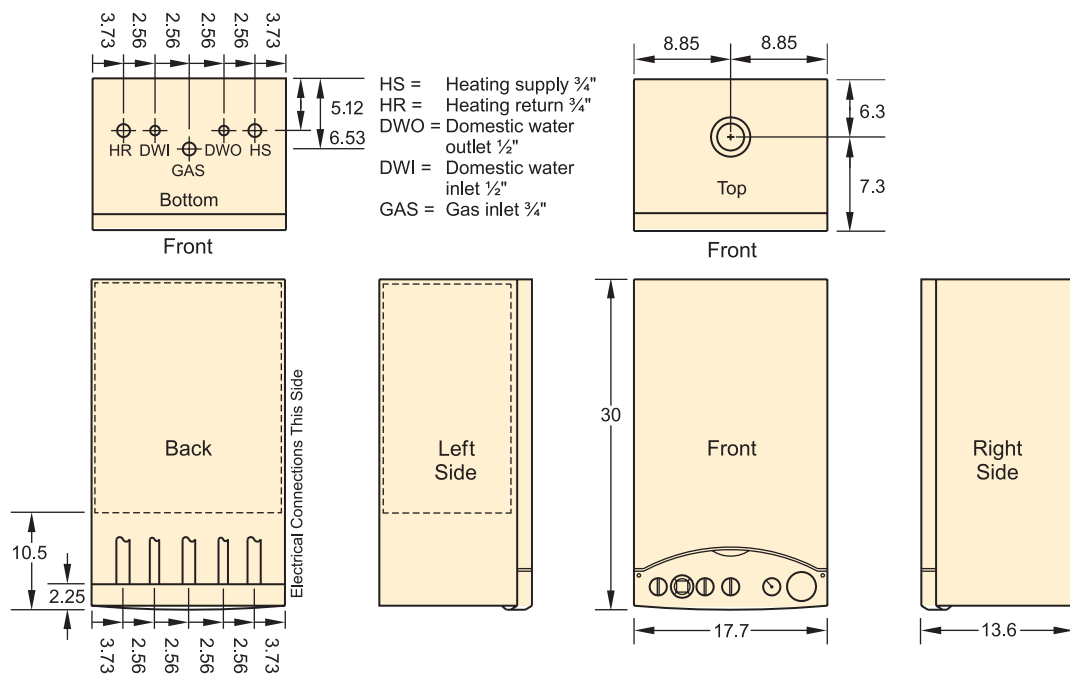
- Perfect for radiant floor heating applications, with no restriction on low return water temperatures
- Approved for closet and alcove installations – perfect for condominiums and town homes
- Great for saving space by combining heating and domestic hot water in one small appliance (HT 330 only)
- Multiple commercial boilers can easily be installed with pre-designed & manufactured water manifolds with “low-loss” headers and common plastic venting systems for up to three boilers (HT 1.450 and HT 1.650 only)

Mascot Advantages

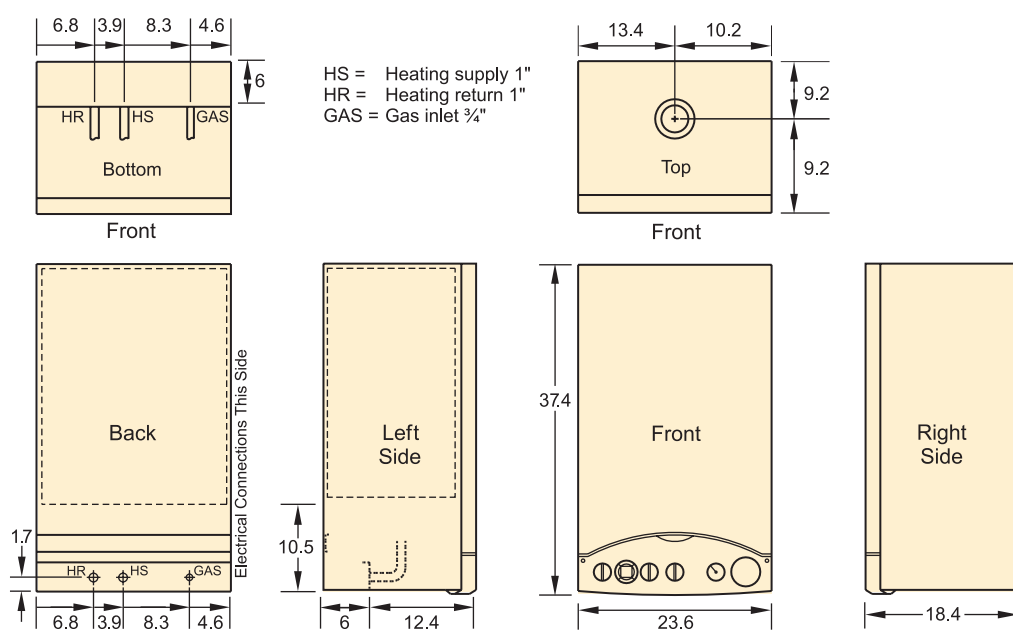
- Mascot is a high-quality, high-performance boiler with premium components and a superior design
- Mascot’s features far surpass those of the competition, and at a competitive price.
- Mascot boilers install in less time than competitors because of the service-friendly design and full package of system components.
- Mascot boilers are designed with the contractor in mind. Easy removal of internal circulator, unions on gas valves, unions on all water piping connections, and gasketed venting connections save service time and money.

Dimensions

Sizes 330 and 1.330



Sizes 1.450 and 1.650



Premium Components

Contractor Competitive Advantage

Fully packaged with premium components to save the contractor time and money. **Each residential unit comes with an installation kit that includes all necessary connections, isolation valves and unions for water and gas.**

Mascot residential boilers are designed with a built-in expansion tank, air elimination vents, circulator, vent elbow and vent terminal. This will save contractors hundreds of dollars in material and labor.



Mascot Piping Kit Makes Installation Quick and Easy.

With every residential boiler comes an installation kit that includes boiler & DHW water and gas piping connections, isolation valves, and unions.

Mascot installation kits save contractors time & money and reduce installation errors.



Common Venting and Plumbing Connections.

The commercial Mascot boilers may be common vented with pre-engineered, quickly assembled venting kits (up to three boilers in each vent), reducing the need for extra wall or rooftop penetrations. Pre-assembled low-loss manifolds save time and provide proper piping configuration to maximize condensing mode for optimum efficiency.

