

AMBIENT

HEAT
PUMP
SYSTEM

AIR-TO-WATER HEAT PUMP

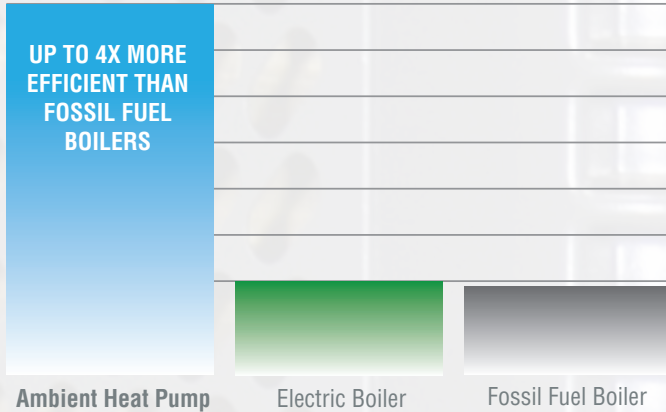


The ultimate
high efficiency, low carbon option
for any hydronic heating system

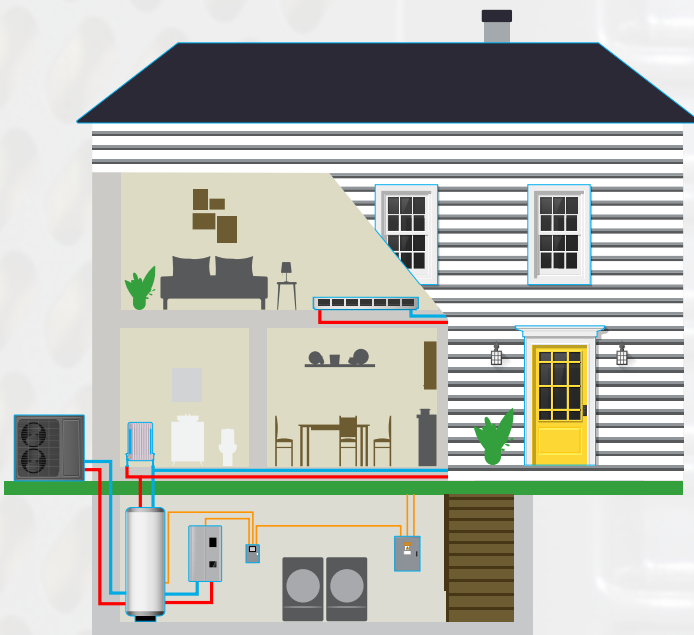
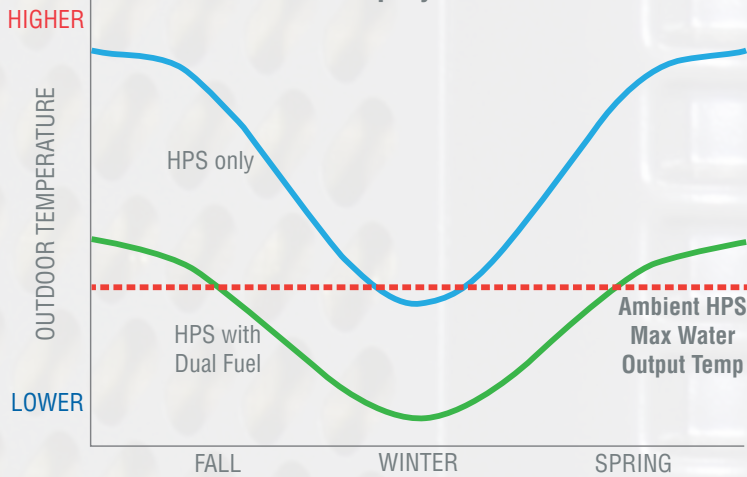
- Environmentally friendly
- Comfort in cold climates
- Significant savings over conventional electric heating systems
- Easy integration into existing installations

U.S. Boiler Company

Hydronic Heating Efficiency



Heat Pump System Selection



HEAT PUMP SYSTEM

ENVIRONMENTALLY FRIENDLY

- Highly efficient electric heat pump makes eliminating or significantly reducing home heating emissions possible
- R-32 refrigerant offers greater efficiency and 70% less global warming potential (GWP) than conventional R410A
- Operates as low as 39 decibels at 2-foot distance (quieter than most refrigerators)



COMFORT IN COLD CLIMATES

- DC inverter Enhanced Vapor Injection (EVI) technology provides continuous, reliable heating down to -13 F
- Optional dual fuel controller makes the benefits of heat pumps accessible in very cold climates

SIGNIFICANT SAVINGS OVER CONVENTIONAL ELECTRIC HEATING SYSTEMS

- Highly efficient heat pump delivers significantly lower operating costs than electric resistance heating
- Optional dual fuel controller uses high efficiency heat pump in moderate temperatures and a fossil fuel or electric boiler during the coldest days
- Variable speed compressor extends system life by reducing the cycle stresses common in on/off compressors

EASY INTEGRATION INTO EXISTING INSTALLATIONS

- Replace a boiler or simply add to existing boiler for a dual fuel operation
- Requires no additional venting or re-sizing of existing system

HPS-5T60 Package

For installations where the heat pump will be the only source of heat in the home.

Ideal for;

- Small to medium spaces
- Heated garages
- Snow melt systems
- Radiant flooring
- Mild to moderate climates

HPS-5T60-DF Package

For installations where the heat pump will be paired with an electric or fossil fueled boiler.

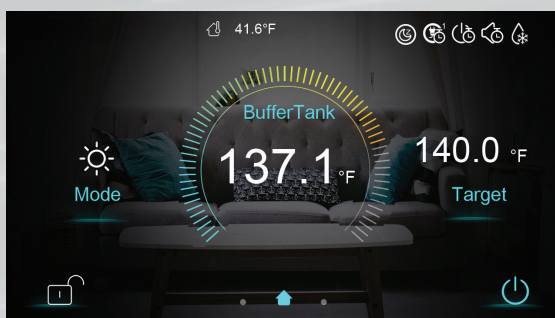
Ideal for;

- Medium to large spaces
- Conventional radiators
- Whole home systems
- Moderate to cold climates

ALL THE COMPONENTS IN ONE PACKAGE

Contains all system components needed for a high-performance installation, including;

- Monobloc heat pump
- Touchscreen controller
- 40-gallon buffer tank with heating elements
- Taco® 0013 circulator
- Circulator flange kit
- Flat plate heat exchanger
- Pressure relief valve
- Drain valve
- Relays
- Dual fuel controller (HPS-5T60-DF only)



TOUCHSCREEN CONTROLLER

- 5.7" (diagonal) full color multi-function display
- Separate wired component, mounted inside home
- Multiple temperature displays (setpoint, outdoor, system)
- Complete system monitoring w/alert notification
- Zone control, selectable modes, parameter adjustments, cycle history, etc.
- Lockable service mode

Heat Pump System Technical Information

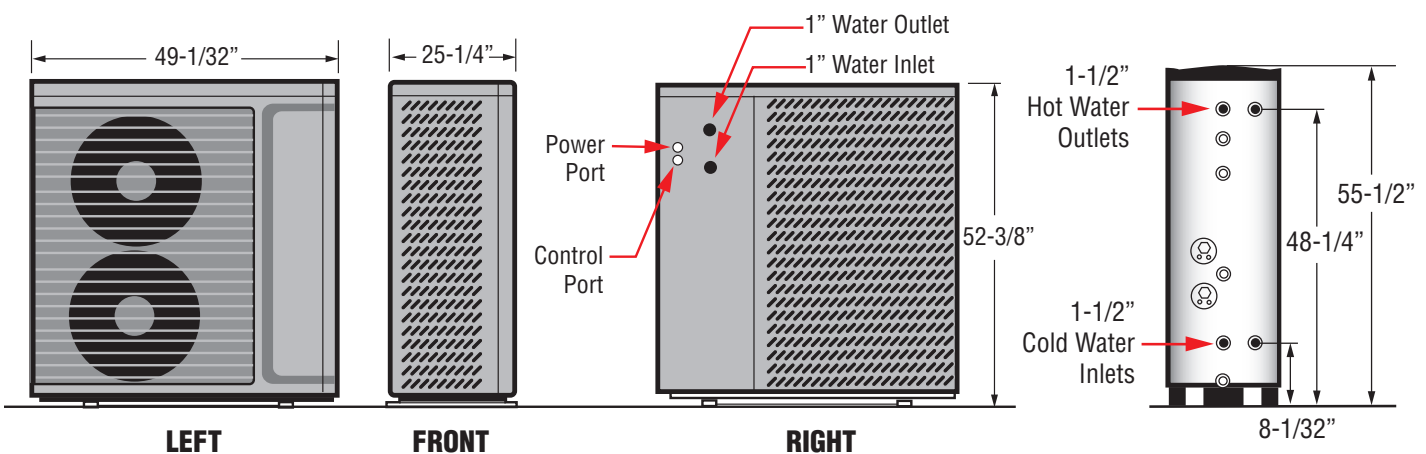


Heat Pump											
Spec	Description	Measure	Value (range)	Spec	Description	Measure	Value (range)	Spec	Description	Measure	Value (range)
Heating*	Capacity	MBH	23.8-78.5	Refrigerant	Type		R32	Electrical	Power	V/Ph/Hz	240V/1/60
	Efficiency	COP	2.28-3.95		Charge	Lbs.	4.4		Fan motor	A	1.6
	Delivered temp	Deg°F	95-140		Pressure low	PSIG	305		Compressor	A	33.5
	Power input	MBH	5.0-20.1		Pressure high	PSIG	638		MCA	A	44
	Current input	Amps	6.50-25.90	Fan	Type		ECM		MOPD	A	50
	Outdoor temp	Deg°F	-13-110		Quantity		2		SCCR	kA	5
Hydronic	Flow (min.)	GPM	13		Input	W	75	Compressor	Type		Rotary
	Max temp.	Deg°F	140	Weight	Speed	RPM	Variable		Quantity	1	—
	Piping conn.	Inch	1		Net	Lbs.	445		Speed	Hz	60
	Pressure drop	ft/hd	15		Shipping	Lbs.	465	* Outdoor temp (DB/WB): 44.6/44.8°F, water temp (in/out): 86/95°F			

Buffer Tank				Circulator				Flat Plate HX			
Specification	Description	Measure	Value	Specification	Description	Measure	Value	Specification	Desc.	Measure	Value
Capacity	—	Gallons	40	Manufacturer	—		Taco	Manufacturer	—		Taco
MAWP	—	PSI	87	Model/Series	—		0013	Model/Series	—		TB12
Max Temp	—	Deg°F	194	Electrical	Voltage	V	230	Flow type	—		Counter-current
Electrical	Elements		2		Frequency	Hz	60	Performance	Max temp.	Deg°F	450
	Element size (ea.)	W	3,000		Phase		1		Min pressure	PSI	450
Material	Tank, outer		Powdercoated, galvanized	Performance	Max flow	GPM	34		# of plates		30
	Tank, inner		Duplex 300 Series 1mm		Max head	Ft.	33	Weight	Shipping		12
	Insulation		Polyurethane 50 mm		Min temp.	Deg°F	40		Empty	Lbs.	10.8
Weight	Shipping		104		Max temp.	Deg°F	230		Full		14.8
	Empty	Lbs.	97		Max temp.	PSI	150				
	Full		446								



Special circuit/outlet for 240V single phase service required



With production and engineering facilities in Lancaster, Pennsylvania, U.S. Boiler Company is a leading manufacturer of hydronic heating equipment in the North American Market. We manufacture brands that have been trusted by installers and homeowners alike for over 150 years. From electric to fossil fuel, residential to commercial, standard to high efficiency, and water to steam, U.S. Boiler Company is your trusted partner for hydronic heating solutions.

