

COMFORT PLUS

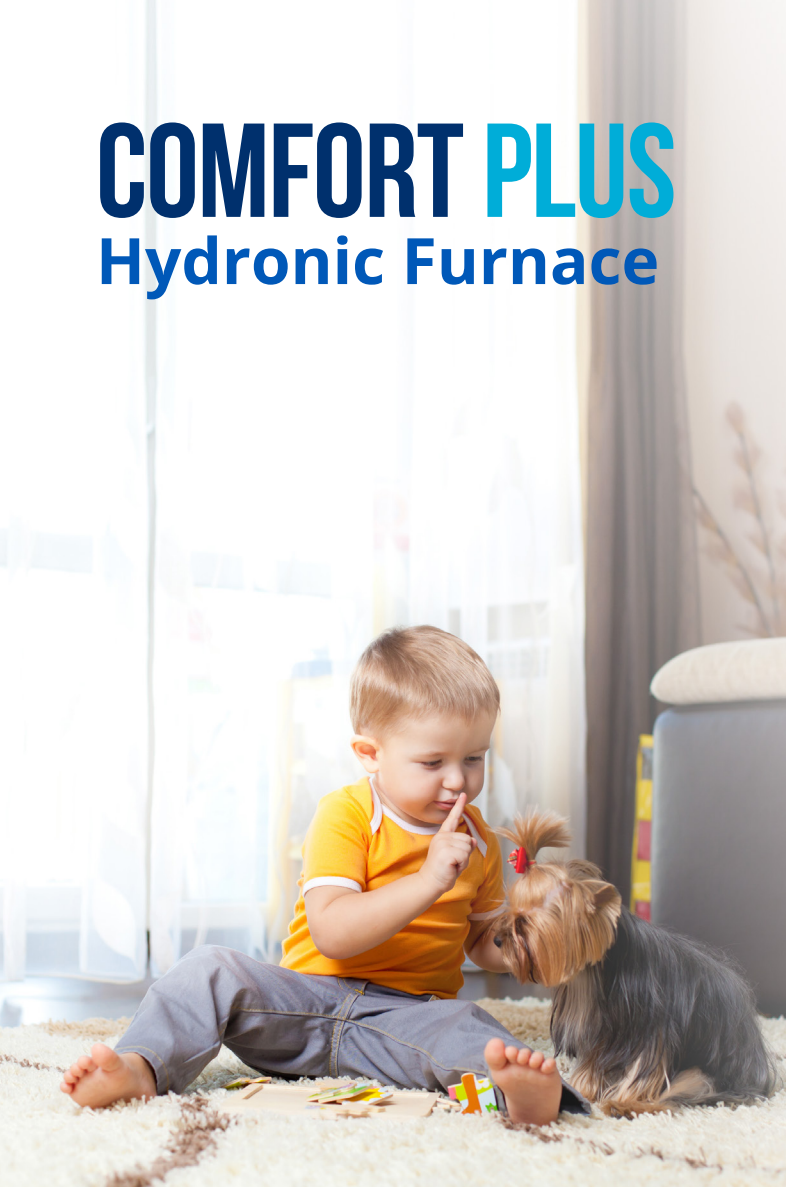
Hydronic Furnace



The Premier Off-Peak Hydronic Heating System For Radiant and Forced Air Heating

The Steffes Comfort Plus Hydronic furnace (5100 Series) adds a new dimension to heating by blending hydronic heating with Electric Thermal Storage (ETS) technology. During off-peak hours, the system converts electricity into heat and stores that heat in specially designed high-density ceramic bricks located inside the unit. Through the use of a heat exchanger, the stored heat is transferred to water and then delivered to areas where it is needed.

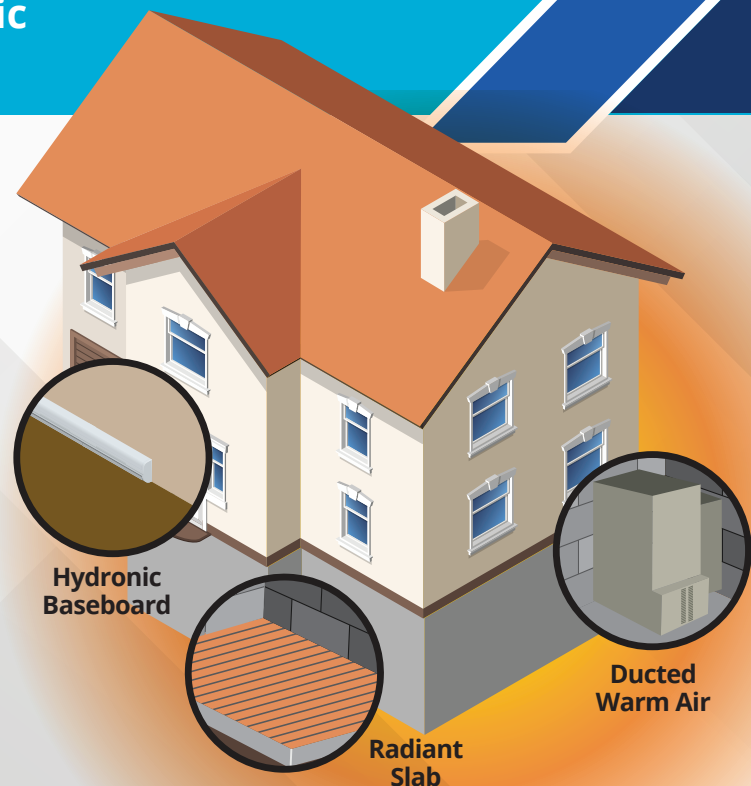
The furnace is extremely flexible and can handle multiple heating zones. Heat can be delivered by a radiant floor system, baseboard radiation, free standing radiators, a forced air system or almost any combination of zoned delivery systems.



Find Out More at:
www.steffes.com/comfortplushydronic

When interfaced to a heat pump, this furnace offers one of the most economical heating and cooling options available. By pairing the two systems, the Comfort Plus Hydronic will add the precise amount of supplemental heat required to ensure constant comfort while still allowing full optimization of the heat pump's efficiency.

The Comfort Plus Hydronic furnace is easy to operate. Just set the room thermostat to the desired comfort level and enjoy the safe, clean, reliable and economical heat this off-peak system provides.

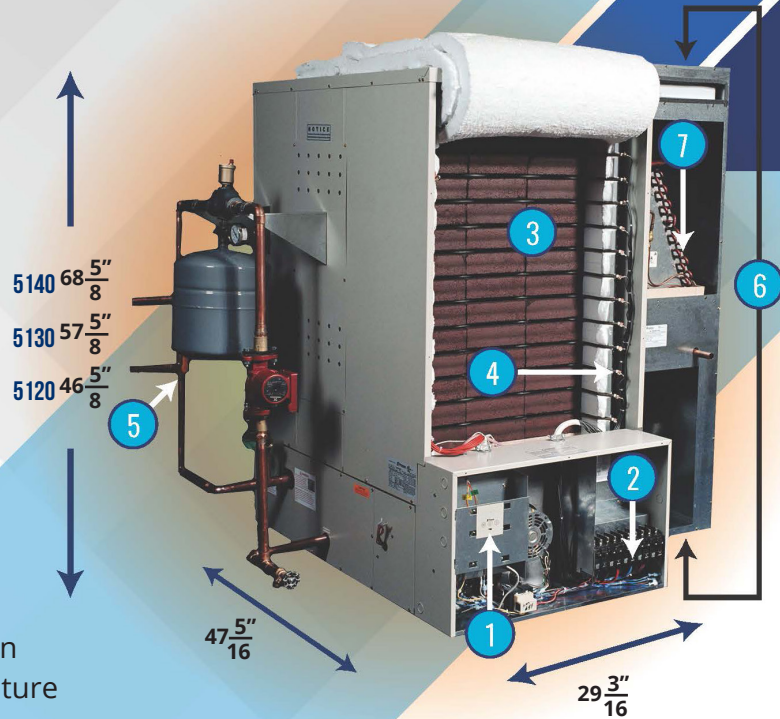


Components

1. Programmable microprocessor based control panel
2. Built-in circuit breakers for power disconnect
3. High density heat storage bricks
4. Electric heating elements
5. Required primary water loop and accessories (separately ordered or installer supplied)
6. Optional air handler - 1/2 HP or 3/4 HP variable speed blower with hydronic coil and air filter
7. AC or heat pump coil (must be installer supplied, if applicable)

Other Features

- Automatic core charging
- Easily selectable outlet water temperature or can automatically adjust based on outdoor temperature
- Digital operating display
- Easy interface to heat pumps or air conditioners (if using air handler)
- Built-in power line carrier receiver
- Optional time clock module available for peak control



Note: There are required installation clearances. Contact the factory for this information.



1kW = 3412 BTU/hr 1kWh = 3412 BTU

5-year limited manufacturer's warranty

SPECIFICATIONS For standard 240V units. 208V, 277V, and 347V configurations also available. Contact factory for technical specifications.

MODEL	5120			5130		5140	
Charging Input	14.0 kW	19.2 kW	24.8 kW	28.8 kW	37.2 kW	38.4 kW	45.6 kW
Element Current Draw	59 amps	80 amps	104 amps	120 amps	155 amps	160 amps	190 amps
Element Circuits Required	1-20 amp 2-30 amp	1-30 amp 2-40 amp	1-40 amp 2-50 amp	4-40 amp	4-50 amp	4-50 amp	4-60 amp
Pump and Blowers/Controls Circuit Required	1-15 AMP (10 amps maximum load)						
	Unit is factory configured with multiple line voltage, single phase circuit connections. If single feed to the element and blowers controls circuits is desired, an optional single feed kit is available. Phase balancing is recommended when making connections in 3-phase applications.						
Storage Capacity	120 kWh (409,440 BTU)			180 kWh (614,160 BTU)		240 kWh (818,880 BTU)	
Approximate Installed Weight	2,218 lbs			3,046 lbs		3,894 lbs	
	Contact a building contractor or architect if you have structural weight concerns of the installation surface selected. Adhere to all national and local electrical and building code placement requirements for electric heating appliances.						
Pipe Size – Water Inlet/Water Outlet	1"						
Output Water Temperature Selection Range	50°F/10°C to 185°F/85°C						
Maximum Working Pressure	20 PSIG Standard (Optional pressure relief valves providing 60 PSIG or 125 PSIG maximum working pressure available as special factory orders).						
Minimum Flow Rate (primary loop)	1 GPM per 10,000 BTU of required output at 20°F/-6°C temperature rise (10 GPM maximum)						
Internal Pressure Drop (assuming 50% glycol mix)	.1 ft @ 2 GPM .2 ft @ 4 GPM		.4 ft @ 6 GPM .7 ft @ 8 GPM			1.1 ft @ 10 GPM	
Heating Ability Based on Charge Time	20,414	27,996	34,175	41,994	49,212	55,992	65,615
8 Consecutive Charge Hours	30,621	41,994	45,566	62,991	65,615	83,988	87,487
12 Consecutive Charge Hours	30,621	41,994	54,242	62,991	81,363	83,988	99,738
6/4/6/8 Charge Strategy	The size and heating ability of the system required for an application is dependent on the heat loss of the area and the power company's off-peak hours. If the unit is not installed within the heated area, heat loss statically must be taken into account. Contact your local dealer or power company for assistance in selecting an appropriately sized system for your specific charge strategy. The 6/4/6/8 strategy listed is 8 hours off-peak at night plus 4 hours off-peak mid-day. (The heating ability figures listed have a heat use allowance factored in for sizing purposes. Average BTU delivery rate is the listed value multiplied by .78 heat use factor.)						

Manufacturer reserves the right to discontinue or change at any time, specifications or designs, without notice or incurring obligations.

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