



Advanced Heating
& Hot Water Systems

High Efficiency Residential & Commercial Space Heating



Versa-Flame

Space Heating & Domestic Hot Water Combined

High Efficiency, High Mass Space Heating:

- Modulation provides up to 5 : 1 turndown ratio
- Thermal mass in the **55 Gallon** stainless steel tank provides a buffer against cycling during low load conditions
- Single loop installation: The heat exchanger, constantly surrounded by water, is protected against "flashing" due to low flow conditions
- Up to 95% thermal efficiency
- With ample thermal mass, ideal for replacement boilers, minimizing the change to piping, no secondary piping needed
- Room air intake, PVC and CPVC venting with combined vent lengths up to 200' in 3" pipe
- 12 year limited Warranty

Versa-Flame Model	BTU / Input Range	Approx. Shipping Weight	Gal. per minute @ 77° rise	1st Hour Rating @ 77° Rise
PHR-130-55C	35,000-130,000	190 lbs.	3.2	210 GPH
PHR-160-55C	40,000-160,000	197 lbs.	3.85	250 GPH
PHR-199-55C	40,000-199,000	197 lbs.	4.8	300 GPH

Endless Hot Water:

- First Hour Rating (GPH): up to 300 GPH @ a 77° Rise
- Endless Hot Water: At a 77° F rise, deliver domestic hot water instantaneously up to 4.8 gallons per minute to multiple outlets
- Low maintenance design
- Fill a tub faster than any tankless appliance



Height 68" Diameter 23" 55 Gallon Stainless Steel Tank

Versa-Flame Applications: • Radiant floor • Fan coil • Baseboard • Combined heating & DHW • Snow Melt • Buffer tank • Retro fit

Versa-Hydro

Space Heating & Domestic Hot Water Combined

- The modulating burner operates at a 5 to 1 turndown ratio, while the space heating module operates at a 10 to 1 turndown ratio
- Low energy costs resulting from ultra high 96% thermal efficiency and 93% combustion efficiency ratings
- Incredible system flexibility: Built-in auxiliary taps provide handlers connections to air or supplemental storage tanks
- Virtually maintenance free operation
- The tank loses only ½ ° F per hour when the burner is off
- The Versa-Hydro saves space by combining the equivalent of a 135,000 BTU boiler, an indirect water heater, and a buffer tank into one small footprint
- An extremely durable cupronickel and stainless steel heat exchanger boasts excellent heat transfer properties and resists corrosion
- 12 year limited warranty

Which Combi?	
Versa-Flame	Versa-Hydro
Space Heating: up to 180°	Space Heating: up to 160°
1st Hr. Rating @ 77° Rise up to 300gal	1st Hr. Rating @ 100° Rise up to 335gal

Versa-Hydro Model	GAL.	BTU'S	SPACE HEATING MODULE BTU'S	1st Hour Rating (Gal.)	Recovery at 100° F. Rise	MAX. SPACE HEATER TEMP.
PHE130-55 / PHE199-55	55	130,000	100,000	205	148 GPH	160°
		199,000	135,000	295	229 GPH	
PHE130-80 / PHE199-80	80	130,000	100,000	227	150 GPH	160°
		199,000	135,000	314	229 GPH	
PHE130-119 / PHE199-119	119	130,000	100,000	257	152 GPH	160°
		199,000	135,000	335	230 GPH	



Versa-Hydro Applications: • Radiant floor • Fan coil • Baseboard • Combined heating & DHW • Solar version • Co-gen. heat recovery • Retro fit • Buffer tank

Phoenix

Stainless Steel, Gas fired, Commercial Water Heater



- Up to 96% Thermal efficiency
- 5 to 1 turndown ratio
- The tank loses only ½° F per hour, thanks to 2" of environmentally safe foam insulation
- Virtually maintenance free
- System flexibility: built in auxiliary taps provide connections to air handlers or supplemental storage tanks
- Quality construction: an extremely durable cupronickel and stainless steel heat exchanger boasts excellent heat transfer properties and resists corrosion
- Robust 316L stainless steel tank eliminates the need for anode rods
- Vents in inexpensive, easy to install PVC or CPVC pipe, with combined vent lengths up to 200' in 3" pipe and combined vent lengths up to 85' in 2" for the 100 and 130 models
- Eligible for tax credits and utility company rebates

Phoenix Model	Input Modulation	GAL.	First Hr. Rating	Recovery at 100° Rise	Thermal Efficiency
PH199-119	40,000-199,000	119	335 gal	230 gal	96.1%
PH160-119	40,000-160,000	119	295 gal	184 gal	96.1%
PH130-119	35,000-130,000	119	257 gal	152 gal	96.1%
PH100-119	35,000-100,000	119	214 gal	117 gal	96.3%
PH199-80	40,000-199,000	80	314 gal	229 gal	94.8%
PH160-80	40,000-160,000	80	265 gal	184 gal	95.2%
PH130-80	35,000-130,000	80	227 gal	150 gal	95.4%
PH100-80	35,000-100,000	80	189 gal	116 gal	95.8%
PH199-55	40,000-199,000	55	295 gal	229 gal	95.0%
PH160-55	40,000-160,000	55	245 gal	184 gal	95.1%
PH130-55	35,000-130,000	55	205 gal	148 gal	93.7%
PH100-55	35,000-100,000	55	169 gal	115 gal	94.8%

Phoenix Applications: • Radiant floor • Fan coil • DHW • Solar version • Sanitation (Models: PH-130/199) • Retro fit • Co-generation heat recovery • Buffer tank

Elite FT

High Efficiency Fire Tube Heating Boiler

- Combustion Turndown up to 5:1
- Energy Star Rated: Up to 97% AFUE operating efficiency
- Low NOx emission
- Stainless Steel Fire Tube Heat Exchanger
- Outdoor reset lowers operating set point automatically
- No primary/secondary piping required
- Cascade up to 8 boilers
- Unbeatable combined vent length of 200 ft in 3" PVC pipe
- Room air intake
- Down fire design, promotes self cleaning of combustion system
- Increased thermal mass provides low pressure drop and eliminates short cycling
- Built in condensate collection system
- Compatible with glycol based systems

Elite FT Model	GAL.	AFUE	Max MBH	Min MBH	Heating Capacity MBH	Shipping Weight
EFT50	55	97%	55	11	51	125 lbs.
EFT80	80		85	17	79	128 lbs.
EFT110	110		110	22	102	130 lbs.



Elite FT Applications: • Radiant floor • Fan coil • Base board • Snow melt • DHW (w/ Indirect tank) • Pool heater (w/ Indirect tank) • Retro fit • ASME

MOD CON



Mod Con Model	BTU / Input Range	Aprox. Shipping Weight	Gross Output BTU / hr	Net I=B=R BTU / hr	Thermal Efficiency
Mod Con 300	60,000 - 301,000	410 lbs.	283,000	245,000	94.0
Mod Con 500	100,000 - 500,000	505 lbs.	470,000	409,000	94.0
Mod Con 850	170,000 - 850,000	580 lbs.	799,000	695,000	94.0

Commercial Boiler

- Ultra high 94% thermal efficiency rating
- 316L stainless steel construction heat exchanger
- Vents up to 200 ft. in PVC, CPVC, or stainless steel
- Cascading capability: up to 8 boilers - increased turndown ratios, built-in redundancy, and a total heating capacity of up to 6,800,000 BTUs
- Numeric control panel and USB connection allows boiler history to be displayed on a computer
- Removable front cover, easy to service
- Modulating burner with 5 to 1 turndown ratio

Mod Con Applications: • Radiant floor • Fan coil • Base board • Snow melt • DHW (w/ indirect tank or VWH) • Pool heater (w/ Indirect tank) • DHW (VWH) • ASME

Elite

Heating Boiler



Best In Class Boiler Up To 98% AFUE

- 5 to 1 turndown ratio
- Vents in inexpensive, easy-to-install PVC pipe, up to 200 equivalent feet
- Energy Star rated: eligible for tax credits and utility company rebates (excludes EL-399)
- State of the art control interface: a 2-line 20-character LCD control interface: Total System Control
- 316L stainless steel heat exchanger
- Impressive range: six models, ranging from 80,000 to 399,000 BTUs
- Floor or wall mount
- 12 year limited warranty

Elite Model	BTU / Input Range	AFUE
EL-80	16,000 - 80,000	96.1
EL-110	22,000 - 110,000	96.1
EL-150	30,000 - 150,000	96.1
EL-220	44,000 - 220,000	98.0
EL-299	60,000 - 299,000	96.0
EL-399	80,000 - 399,000	96.0*

* Thermal Efficiency



Elite Applications: • Radiant floor • Fan coil • Base board • Snow melt • DHW (w/ Indirect tank or VWH) • Pool heater (w/ Indirect tank) • DHW (VWH) • ASME

APPLICATION	Mod Con	Elite	Elite Plus	Elite FT	MC Series	Pioneer	Versa-Flame	Versa-Hydro	Phoenix
RADIANT FLOOR	X	X	X	X	X	X	X	X	X
FAN COIL	X	X	X	X	X	X	X	X	X
BASE BOARD	Max 180°temp	Max 180°temp	Max 180°temp	Max 180°temp	Max 180°temp	Max 180°temp	Max 180°temp	Max 160°temp	
SNOW MELT	X	X	X	X	X	X	X		
HEATING & DHW	w/ Indirect Tank or VWH	w/ Indirect Tank or VWH	w/ Indirect Tank or VWH	w/ Indirect Tank or VWH	w/ Indirect Tank	w/ Indirect Tank	X	X	X
COMBINED HEATING/DHW							X	X	X
SOLAR VERSIONS								X	X
POOL HEATER	w/ Indirect Tank	w/ Indirect Tank	w/ Indirect Tank	w/ Indirect Tank	w/ Indirect Tank	w/ Indirect Tank	w/ Indirect Tank		
HIGH TEMP. SANITATION									SA Models
ASME	X	X	X	X					
CO-GENERATION HEAT RECOVERY								X	X
Domestic Hot Water	VWH	VWH					X	X	X
Requires Primary/Secondary Piping Configuration	Yes	Yes	No, with 10:1 turndown, needs minimum flow	No	Yes	No	No	No	No
Integrated Buffer Tank – Hydronic Stabilization	No	No	No	No	No	Yes	Yes	Yes	Yes

Combined DHW & Space Heating

Elite plus

With Gas Adaptive Technology

High Efficiency Elite Boiler that self adjusts to perfect combustion



Elite Plus Model	BTU/INPUT LOW FIRE	Approx. Shipping Weight
ELP-110	11,000 - 110,000	113 lbs
ELP-199	19,000 - 199,000	164 lbs

- Field adjustable to 10:1 turndown ratio*
- Vents in inexpensive, easy-to-install PVC pipe, up to 250 equivalent feet
- Energy Star rated: eligible for tax credits and utility company rebates
- State of the art control interface: a 4-line 80-character LCD control interface
- 316L stainless steel heat exchanger
- Easy start-up with no field adjustment or combustion analysis required
- Floor or wall mount
- 12 year limited warranty

Gas Adaptive Technology

Conventional boilers require mechanical adjustments and calibrations at installation, during maintenance periods and fuel conversions when gas type fluctuates. The Elite Plus Heating Boiler® eliminates this costly and time consuming task by self calibrating to various gas types, including **natural gas and liquid propane.**

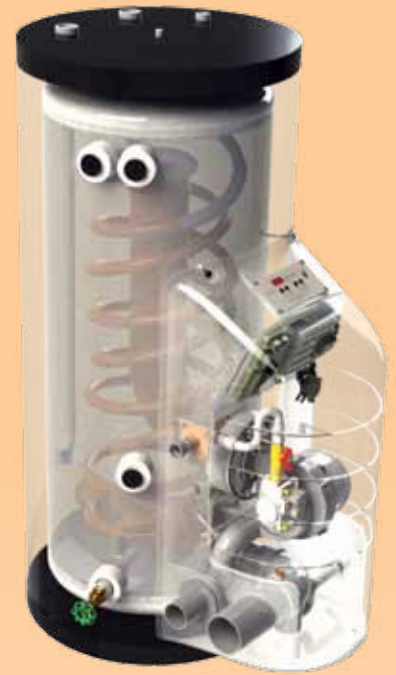
- Automatically detects flame quality and optimizes it to the system ensuring constant, efficient combustion

*ships at 5:1 turndown ratio per ANSI standard Z21.13

Elite Applications: • Radiant floor • Fan coil • Base board • Snow melt • DHW (w/ Indirect tank) • Pool heater (w/ Indirect tank) • ASME

Pioneer Model	BTU / Input Range
PHR-100-55	35,000- 100,000
PHR-130-55	35,000- 130,000
PHR-160-55	40,000- 160,000
PHR-199-55	40,000- 199,000

Pioneer



Height 53" Diameter 23"
55 Gallon Stainless Steel Tank
Shipping Weight: 175 -182 lbs.



- Modulation provides a 5 to 1 turndown ratio
- Thermal mass in the stainless steel tank provides a buffer against cycling during low load conditions
- Low maintenance design
- Single loop installation: The heat exchanger, constantly surrounded by water, is protected against "flashing" due to low flow conditions
- Up to 95% thermal efficiency
- With ample thermal mass, ideal for replacement boilers, minimizing the change to piping, no secondary piping needed
- Room air intake, PVC and CPVC venting with combined vent lengths up to 200' in 3" pipe and combined vent lengths up to 85' in 2" for the 100 and 130 models
- 12 year limited Warranty

Pioneer Applications: • Radiant floor • Fan coil • Base board • Snow melt • DHW (w/ Indirect tank) • Pool heater (w/ Indirect tank) • Retro fit • Buffer tank

MC Series

Fighting the High Cost of Heating



- Modulation provides a 3 to 1 turndown ratio
- Energy Star rated
- LED display system operation
- Inlet and outlet temperature sensors
- Up to .95 energy factor
- Low gas pressure operation
- Natural to LP gas conversion
- Inlet and outlet temperature sensors
- Wall hung with all mechanical connections on bottom of unit: eases installation and serviceability.
- Stainless steel heat exchanger for higher corrosion resistance
- Terminal strip for ease of field wiring
- Lightweight, durable composite construction
- Vents with 2" schedule 40 PVC pipe
- 12 Year limited warranty

MC Series Model	Aprox. Shipping Weight	Heater Volume	BTU / Input Range
MC50	71 lbs.	.58	18,000-50,000
MC80	74 lbs.	.67	19,000-80,000
MC99	84 lbs.	.96	44,000-99,000
MC120	84 lbs.	.96	44,000-120,000

MC Series Applications: • Radiant floor • Fan coil • Base board • DHW (w/ indirect tank) • Pool heater (w/ Indirect tank)