



Dimensions (nominal) shown in inches *cm*

Dimensional Data

MODEL	INPUT		OUTPUT		IBR RATING		WATER NPT	GAS NPT	"A"		"B"		"W" WIDTH		"V" VENT		SHIPPING WEIGHT	
	MBTU/h	kW	MBTU/h	kW	MBTU/H	kW			in.	in.	in.	cm	in.	cm	in.	cm	in.	cm
HH0320M	320	94	272	80	236.5	69	1-1/2	3/4	7	18	17.75	45	20.75	53	6	15	335	152
HH0400M	399	117	340	100	294.9	86	1-1/2	3/4	7	18	17.75	45	24	61	7	18	355	161

1. Dimensions are nominal.

Standard Equipment

- 85% Efficiency
- Meets ASHRAE 90.1 requirements
- 24V control system
- Natural or Propane Gas
- Less than 15 p.p.m. NOx
- ASME 160 lb. w.p. heat exchanger
- Forced-draft venturi system with woven metal fiber burner
- Combustion chamber with lightweight alumina-silica insulation board
- Inclined combustion chamber for front service of burner assembly
- 10 tube, copper finned heat exchanger with glass-lined cast iron tubs and bronze headers
- Vertical or non-vertical venting
- Redundant automatic gas valves with negative-pressure regulator
- Hot surface proved ignitor
- Operating control c/w LCD
- Manual reset high temperature limit
- Venturi differential pressure switch
- Vent stack pressure switch
- Low water cutoff
- Water flow switch
- Pressure relief valve (75 psi)
- 115/24Vac transformer
- Temperature/Pressure gauge
- Field interlock
- On/Off toggle switch
- 2 amp fuse
- EM² Energy Management Monitor
- Accessory: Vent Connector Location - Top

Water Flow Requirements

Note:
Operating the boiler so as to exceed the maximum heat exchanger temperature rise or 20°F (11°C) may cause damage to the boiler.

Model	Heat Exch.	Water Temperature Rise											
		10°F / 6°C				15°F / 8°C				20°F / 11°C			
		Flow		H/L		Flow		H/L		Flow		H/L	
gpm	lps	ft.	m	gpm	lps	ft.	m	gpm	lps	ft.	m		
320	4 pass	54	3.4	11.2	3.4	36	2.3	5.0	1.5	27	1.7	2.8	0.9
400	4 pass	68	4.3	26.2	8.0	45	2.8	11.5	3.5	34	2.1	6.6	2.0

Gas Supply Pressure

Boiler Gas Supply Pressure					
	LPG			NAT. GAS	
	W.C.	kPa		W.C.	kPa
Minimum Supply	9.0	2.2		5.0	1.2
Maximum Supply	14.0	3.4		9.0	2.2

Minimum Clearances

Clearances	Indoor		Outdoor	
	in.	cm	in.	cm
Top	18	46	Unobstructed	
Water Conn. Side	12	30	12	30
Opposite Side	6	15	6	15
Rear	6	15	6	15
Front	Alcove		Unobstructed	
Vent Connector	6*	15	—	
Flooring	Combustible		Combustible	

Service clearance = 24" (61cm) at front of boiler.

* 1" (25mm) if double wall vent is used.

