



## 100 Gallon Model

▶ 130,000 BTU/Hr. thru 350,000 BTU/Hr. – 92-95% thermal efficiency

Rheem-Ruud SPIDERfire Gas Commercial Water Heaters are specifically designed to provide customers with maximum savings on operation, space and installation. Designed with the most advanced technology available, these products optimize efficiency and operating reliability.

### Construction Features:

- Maximum thermal efficiency of 95% dramatically reduces operating costs
- No chimney required; power or direct vent using plastic pipe
- Low NO<sub>x</sub> emissions. Meets SCAQMD Rule 1146.2
- Corrosion resistant, high efficiency 3-pass heat exchanger
- Self-diagnostic LCD electronic control
- Direct spark ignition
- 185° F maximum temperature setting
- Zero clearance to all combustible surfaces
- Full flow drain valve
- Front and back water connections
- Factory installed AGA/ASME rated T&P relief valve

### No Chimney Required

Vents Up To 60 Feet  
Using 3" And Up To 85 Feet  
Using 4" Schedule 40 PVC,  
CPVC or ABS Pipe

130,000 BTU thru  
199,000 BTU Models  
Are Certified To  
Vent With 2"  
Schedule 40 PVC,  
CPVC or ABS Pipe

*(For Canadian  
installations,  
please use ULC-S636  
PVC and CPVC pipe.)*

### Certifications and Ratings:

- **Efficiency** – these models have been tested according to ANSI test procedures, and meet or exceed the thermal efficiency and standby loss requirements of current ASHRAE standard (Part of the Federally mandated Energy Policy Act (EPact)). Also exceeds energy efficiency codes of all states including California Energy Commission (CEC).
- **Safety and construction** – these products are design certified by the CSA:  
a) For operation at 185°F. b) To meet all safety and construction requirements of ANSI Z21.10.3. c) As an automatic storage or instantaneous water heater. d) As an automatic circulating tank water heater. e) For operation on combustible floors and in alcove installations. All models are North Carolina Code compliant.  
**CERTIFIED FOR A 150 PSI MAXIMUM WORKING PRESSURE (160 PSI FOR ASME MODELS).**
- **Optional constructions** – ASME construction is available on designated models. UL Sanitation (NSF5) compliant models are available when equipped with optional seal kit. (Part No. AS42690)



(On Selected Models)



(With Optional Kit)



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<b>RECOVERY CAPACITIES</b>														
<b>Recovery in U.S. Gallons/Hr. (GPH) and Liters/Hr. (LPH) at Various Temperature Rises</b>														
MODEL NUMBER	INPUT (BTU/HR) NAT. & LP	THERMAL EFFICIENCY	UNITS	40°F (22°C)	50°F (28°C)	60°F (33°C)	70°F (39°C)	80°F (45°C)	90°F (50°C)	100°F (56°C)	110°F (61°C)	120°F (67°C)	130°F (72°C)	140°F (78°C)
GHE100-130(A)	130,000	95%	GPH	374	299	249	214	187	166	150	136	125	115	107
			LPH	1418	1135	946	811	709	630	567	516	473	446	405
GHE100-160(A)	160,000	95%	GPH	461	368	307	263	230	205	184	167	154	142	132
			LPH	1746	1397	1164	998	873	776	698	635	582	537	499
GHE100-200(A)	199,000	95%	GPH	573	458	382	327	286	255	229	208	191	176	164
			LPH	2171	1737	1447	1241	1086	965	868	790	724	668	620
GHE100-250(A)	250,000	93%	GPH	705	564	470	403	352	313	282	256	235	217	201
			LPH	2670	2136	1780	1526	1335	1187	1068	971	890	822	763
GHE100-300(A)	300,000	93%	GPH	845	676	564	483	423	376	338	307	282	260	242
			LPH	3204	2563	2136	1831	1602	1424	1282	1165	1068	986	916
GHE100-350(A)	350,000	92%	GPH	976	781	651	558	488	434	390	355	325	300	279
			LPH	3698	2958	2465	2113	1849	1644	1479	1345	1233	1138	1057

<b>MAXIMUM DELIVERY</b>															
<b>In U.S. Gallons and Liters (Includes useable storage and recovery for indicated times)</b>															
MODEL NUMBER	GAL.	LITERS	INPUT (BTU/HR) NAT. & LP	TEMP. RISE	UNITS	5 MIN.	10 MIN.	15 MIN.	20 MIN.	30 MIN.	45 MIN.	1 HR.	2 HR.	3 HR.	MIN. TO RECOVER CONTENTS
GHE100-130(A)	100	379	130,000	100°F	GAL.	83	95	107	120	145	185	220	369	519	39
				56°C	LTR.	313	360	407	454	549	700	833	1400	1967	
GHE100-160(A)	100	379	160,000	100°F	GAL.	85	101	116	131	162	208	254	438	623	33
				56°C	LTR.	323	382	440	498	614	789	964	1662	2360	
GHE100-200(A)	100	379	199,000	100°F	GAL.	89	108	127	146	185	242	299	528	757	26
				56°C	LTR.	338	410	482	555	700	917	1134	2002	2871	
GHE100-250(A)	100	379	250,000	100°F	GAL.	94	117	141	164	211	281	352	634	916	21
				56°C	LTR.	354	443	532	621	799	1066	1333	2402	3470	
GHE100-300(A)	100	379	300,000	100°F	GAL.	98	126	155	183	239	324	408	746	1085	18
				56°C	LTR.	372	479	586	693	906	1227	1547	2829	4110	
GHE100-350(A)	100	379	350,000	100°F	GAL.	103	135	168	200	265	363	460	851	1241	15
				56°C	LTR.	389	512	635	758	1005	1375	1745	3224	4703	

All models have a maximum setpoint of 185°F.

<b>DIMENSIONAL INFORMATION</b>													
<b>All dimensions shown in English and Metric</b>													
MODEL NUMBER	UNITS	A	B	C	D	E	F	G	H	VENT	WATER CONNECTIONS		APPROX. SHIP. WT. (LB)*
											INLET	OUTLET	
GHE100-130(A)	inches	78-3/4"	26-1/4"†	66"	12-3/4"	73-3/4"	73-5/8"	72-7/16"	66-7/16"	2", 3", 4"	2" NPT	2" NPT	785
	mm	2001	667	1674	325	1873	1869	1839	1687				
GHE100-160(A)	inches	78-3/4"	26-1/4"†	66"	12-3/4"	73-3/4"	73-5/8"	72-7/16"	66-7/16"	2", 3", 4"	2" NPT	2" NPT	785
	mm	2001	667	1674	325	1873	1869	1839	1687				
GHE100-200(A)	inches	78-3/4"	26-1/4"†	66"	12-3/4"	73-3/4"	73-5/8"	72-7/16"	66-7/16"	2", 3", 4"	2" NPT	2" NPT	785
	mm	2001	667	1674	325	1873	1869	1839	1687				
GHE100-250(A)	inches	78-3/4"	26-1/4"†	66"	12-3/4"	73-3/4"	73-5/8"	72-7/16"	66-7/16"	3", 4"	2" NPT	2" NPT	825
	mm	2001	667	1674	325	1873	1869	1839	1687				
GHE100-300(A)	inches	78-3/4"	26-1/4"†	66"	12-3/4"	73-3/4"	73-5/8"	72-7/16"	66-7/16"	3", 4"	2" NPT	2" NPT	825
	mm	2001	667	1674	325	1873	1869	1839	1687				
GHE100-350(A)	inches	78-3/4"	26-1/4"†	66"	12-3/4"	73-3/4"	73-5/8"	72-7/16"	66-7/16"	3", 4"	2" NPT	2" NPT	825
	mm	2001	667	1674	325	1873	1869	1839	1687				

0" CLEARANCE TO COMBUSTIBLES

MODELS WITH INPUTS OF 130,000 BTU THRU 199,000 BTU ARE CERTIFIED TO VENT WITH 2" SCHEDULE 40 PVC, CPVC OR ABS PIPE

(FOR CANADIAN INSTALLATIONS, PLEASE USE ULC-S636 PVC AND CPVC PIPE.)

\* Weights listed are for non-ASME. Add 35 lbs. for ASME models.  
 130,000 - 199,000 BTU models are certified to be installed with 2" venting.  
 All models require a 120V power source.  
 See use and care manual for venting details.  
 † Overall width is 27-5/16" due to exhaust cover

## VENTING OPTIONS

### Power Direct Vent

MODEL NUMBER	PIPE DIAMETER 2"	PIPE DIAMETER 3"	PIPE DIAMETER 4"
	MAX. VENT LENGTH FOR INLET OR OUTLET (FT.)		
GHE100-130	20	60	85
GHE100-160	20	50	75
GHE100-200	20	40	65
GHE100-250	–	40	65
GHE100-300	–	40	40
GHE100-350	–	40	40

For each 90° elbow, reduce pipe length by five (5) feet.  
 For each 45° elbow, reduce pipe length by two and a half (2.5) feet.  
**Note: Vent pipe size should not be mixed for venting these units.**  
**Use same diameter pipe for all venting of the unit.**

#### Example of Venting for 2" Power Direct Vent Setup:

Refer to the chart above, "Power Direct Vent", for actual length allowed on each model.

NUMBER OF 90° ELBOWS EXCLUDING VENT TERMINALS		NUMBER OF 45° ELBOWS	MINIMUM VENT PIPE LENGTH IN FEET	MAXIMUM VENT PIPE LENGTH IN FEET
INLET VENT	OUTLET VENT			
None	None	None	5.0	20.0
One (1)	One (1)	None	–	15.0
One (1)	One (1)	One (1)	–	12.5
Two (2)	Two (2)	None	–	10.0
Two (2)	Two (2)	One (1)	–	7.5
Three (3)	Three (3)	None	–	5.0
Three (3)	Three (3)	One (1)	–	2.5

#### Example of Venting for 4" Power Direct Vent Setup (GHE100-130):

Refer to the chart above, "Power Direct Vent", for actual length allowed on each model. The 3" venting will follow the same format. See allowable lengths above.

NUMBER OF 90° ELBOWS EXCLUDING VENT TERMINALS		NUMBER OF 45° ELBOWS	MINIMUM VENT PIPE LENGTH IN FEET	MAXIMUM VENT PIPE LENGTH IN FEET
INLET VENT	OUTLET VENT			
None	None	None	5.0	85.0
One (1)	One (1)	None	–	80.0
One (1)	One (1)	One (1)	–	77.5
Two (2)	Two (2)	None	–	75.0
Two (2)	Two (2)	One (1)	–	72.5
Three (3)	Three (3)	None	–	70.0
Three (3)	Three (3)	One (1)	–	67.5
Four (4)	Four (4)	None	–	65.0
Four (4)	Four (4)	One (1)	–	62.5
Five (5)	Five (5)	None	–	60.0

### Power Vent

MODEL NUMBER	PIPE DIAMETER 2"	PIPE DIAMETER 3"	PIPE DIAMETER 4"
	MAX. VENT LENGTH FOR OUTLET (FT.)		
GHE100-130	20	60	85
GHE100-160	20	50	75
GHE100-200	20	40	65
GHE100-250	–	40	65
GHE100-300	–	40	40
GHE100-350	–	40	40

For each 90° elbow, reduce pipe length by five (5) feet.  
 For each 45° elbow, reduce pipe length by two and a half (2.5) feet.  
**Note: Vent pipe size should not be mixed for venting these units.**  
**Use same diameter pipe for all venting of the unit.**

#### Example of Venting for 2" Power Vent Setup:

Refer to the chart above, "Power Vent", for actual length allowed on each model.

NUMBER OF 90° ELBOWS EXCLUDING VENT TERMINALS		NUMBER OF 45° ELBOWS	MINIMUM VENT PIPE LENGTH IN FEET	MAXIMUM VENT PIPE LENGTH IN FEET
INLET VENT	OUTLET VENT			
None	None	None	5.0	20.0
One (1)	One (1)	None	–	15.0
One (1)	One (1)	One (1)	–	12.5
Two (2)	Two (2)	None	–	10.0
Two (2)	Two (2)	One (1)	–	7.5
Three (3)	Three (3)	None	–	5.0
Three (3)	Three (3)	One (1)	–	2.5

#### Example of Venting for 4" Power Vent Setup (GHE100-130):

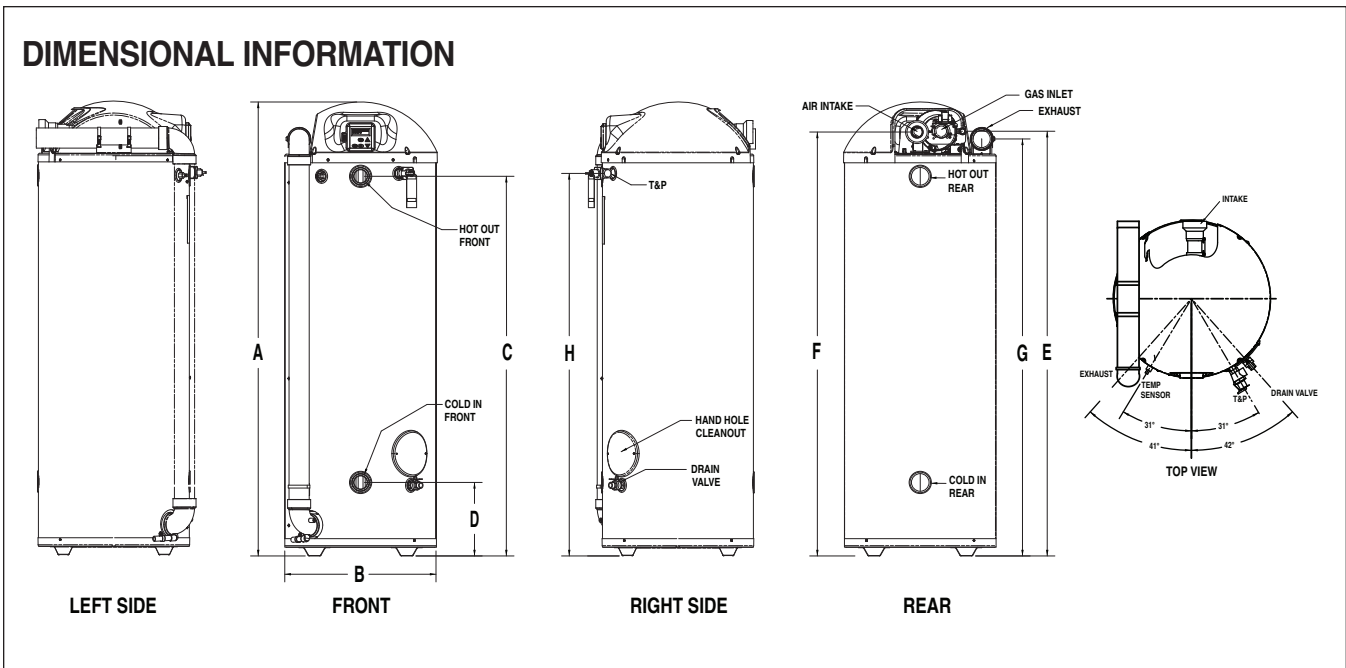
Refer to the chart above, "Power Vent", for actual length allowed on each model. The 3" venting will follow the same format. See allowable lengths above.

NUMBER OF 90° ELBOWS EXCLUDING VENT TERMINALS		NUMBER OF 45° ELBOWS	MINIMUM VENT PIPE LENGTH IN FEET	MAXIMUM VENT PIPE LENGTH IN FEET
INLET VENT	OUTLET VENT			
None	None	None	5.0	85.0
One (1)	One (1)	None	–	80.0
One (1)	One (1)	One (1)	–	77.5
Two (2)	Two (2)	None	–	75.0
Two (2)	Two (2)	One (1)	–	72.5
Three (3)	Three (3)	None	–	70.0
Three (3)	Three (3)	One (1)	–	67.5
Four (4)	Four (4)	None	–	65.0
Four (4)	Four (4)	One (1)	–	62.5
Five (5)	Five (5)	None	–	60.0

**NOTE: For Canadian installations, use ULC-S636 PVC and CPVC pipe.**

### Limited Warranty

This product features a three year limited warranty against tank leaks. Please refer to Commercial Warranty Information brochure for complete warranty information.



### Recommended Specifications (for trade reference only)

Water heater(s) shall be SPIDERfire model \_\_\_\_\_, manufactured by RHEEM-RUUD, having a gas input of \_\_\_\_\_ Btu/hr. and recovery rate of \_\_\_\_\_ GPH at a 100°F temperature rise when tested and certified at \_\_\_\_\_ thermal efficiency. Water heater(s) shall have a storage capacity of \_\_\_\_\_ gallons. Water heater(s) shall have the CSA seal of certification and supplied with a factory installed AGA/ASME rated temperature and pressure relief valve, and meet SCAQMD Rule 1146.2. Tank(s) shall be of wet-base design and furnished with U.S. Patent 7,290,503 B2 heat exchange system with two-sided coating of high temperature porcelain enamel and furnished with magnesium anode rods rigidly supported. Water heater(s) shall have 2" NPT front and rear water connections. Water heater(s) shall meet or exceed thermal efficiency and standby loss requirements of ASHRAE. Tanks shall have a working pressure of 150 psi and shall be completely factory assembled, including a pressure regulator properly adjusted for operation on \_\_\_\_\_ gas with a down-fired burner system. Water heater(s) shall certified for schedule IV venting with power vent and powered direct vent options. Water heater(s) shall be covered by a three year limited tank warranty against tank leaks.

• **Add for ASME construction –**

Water heater(s) shall be constructed in accordance with the requirements of the ASME Boiler and Pressure Vessel Code, Section IV Part HLW.

**Commercial water heaters**  
from Rheem-Ruud



*In keeping with its policy of continuous progress and product improvement, Rheem-Ruud reserves the right to make changes without notice.*