#### **Super Duty Water Heaters**



# Super Duty condensing high efficiency commercial gas water heaters from Ruud feature 93 percent thermal efficiency

#### **Features & Benefits**

The advanced line of 119 and 125-gallon Ruud Super Duty condensing water heaters offer breakthrough technology, providing 93% thermal efficiency. The patented heat transfer system dramatically cuts fuel costs. Models feature 500,000 Btu/h, with a maximum temperature setting of 180° F.

#### **Faster, Less Costly Venting**

All models vent with standard 4" or 6" diameter PVC plastic pipe. Super Duty units can be installed with Power Vent or Power Direct Vent configurations.

#### **LCD** User Interface

The new LCD user interface is standard on all Super Duty models. It enables installers and service technicians to monitor key functions and components. It includes a scrollable, operational history.

#### Innovative Technology

The helical-fin three stage heat exchanger is engineered to optimize heat transfer by increasing surface area, thereby increasing heat transfer and efficiency. These products are built to last.

#### **Power or Power Direct Vent**

It can be installed as a power-vented product; or as a power direct-vented product when negative air pressure is an issue or if indoor air quality is a concern.

#### **Corrosion Protection**

The Super Duty models offer magnesium anode rods to protect the tank and heat exchanger from condensation and corrosion.

#### **Multiple Water Connections**

Hot and cold water Inlets and outlets on both sides of the unit; 2" NPT high-flow connections.

#### Factory Installed Brass Drain Valve

Factory installed brass drain valve allows for draining and servicing.

#### **Advanced Burner Design**

Latest models have increased burner surface area for ultra smooth ignition and quiet operation.

#### **Hot Surface Ignition System**

Energy saving ignition system for smooth, easy light offs.

#### **Altitude Certification**

Standard models are certified up to 2,000 feet; high altitude models available up to 7,800 feet.

#### **CSA/ASME Rated T&P Valve**

Factory installed relief valve.

#### Warranty

3-Year limited tank warranty
See Commercial Warranty Certificate for complete information.

Efficiency | All models tested according to ANSI test procedures, and meet or exceed the thermal efficiency and standby loss requirements of ANSI Z21.10.2-CSA4.3 standards for the United States and Canada (EPact). Also exceeds energy efficiency codes of all states including California Energy Commission (CEC).

Safety and Construction | Design certified by UL: For operation at 180 degrees; meets all safety and construction requirement of ASHRAE/IESNA 90.1; as an automatic storage or instantaneous water heater; as an automatic circulating tank water heater; and for operation on combustible floors and in alcove installations. Certified for 150 PSI maximum working pressure (160 PSI for ASME models).



#### **Ruud Super Duty**

119 and 125-Gallon Capacities 500,000 Btu/h Sealed Combustion System Ultra Low NOx Natural and LP Gas











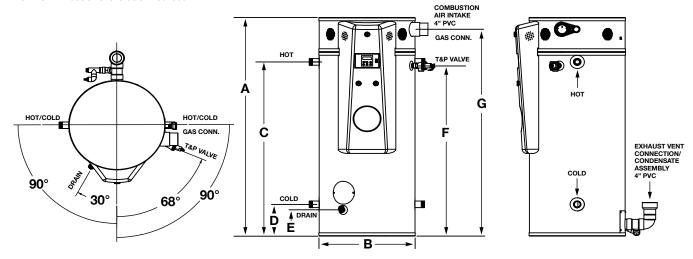
RECOVER	RECOVERY CAPACITIES Recovery in U.S. Gallons/Hr. (GPH) at Various Temperature Rises												
MODEL NUMBER	INPUT (BTU/H) NAT. & LP	THERMAL EFFICIENCY	40° F	50° F	60° F	70° F	80° F	90° F	100° F	110° F	120° F	130° F	140° F
GHE119-500	500,000	93%	1409	1127	939	805	705	626	564	512	470	434	403
GHE125-500A	500,000	93%	1409	1127	939	805	705	626	564	512	470	434	403

MAXIMUM DELIVERY In U.S. Gallons (Includes Useable Storage and Recovery for Indicated Times													
MODEL NUMBER	GALS.	INPUT (BTU/H) NAT. & LP	TEMP. RISE	5 MIN.	10 MIN.	15 MIN.	20 MIN.	30 MIN.	45 MIN.	1 HR.	2 HR.	3 HR.	MIN. TO RECOVER CONTENTS
GHE119-500	119	500,000	100°F	130	177	224	271	365	506	646	1211	1774	13
GHE125-500A	125	500,000	100°F	134	181	228	278	369	510	651	1214	1778	13

Both models have a maximum setpoint of 180°F.

DIMENSIONS AND CONNECTIONS In Inches													
MODEL NUMBER	A	В	С	D	E	F	G	COLD NPT	HOT NPT	GAS NPT	AIR INTAKE PVC	EXHAUST VENT PVC	SHIPPING WEIGHT (LBS.)
GHE119-500	78.50	32.00	62.78	11.43	9.43	61.43	74.00	2	2	1-1/2	4	4	1,200
GHE125-500A	78.50	32.00	62.78	11.43	9.43	61.43	74.00	2	2	1-1/2	4	4	1,200

Non-ASME models not available in Canada.



#### **Venting Options**

#### Minimum And Maximum Vent and Air Intake Pipe Lengths (4" Pipe)

MODEL NUMBER	FUEL TYPE	VENT ARRANGEMENT	MIN. EQUIVALENT PIPE L AIR INTAKE¹ (FT.)	ENGTH (PER PIPE RUN) VENT² (FT.)	MAX. EQUIVALENT PIPE L AIR INTAKE¹ (FT.)	ENGTH (PER PIPE RUN) VENT² (FT.)
GHE119-500	NAT av I D	DIRECT VENT	20	20	50 <sup>†</sup>	50 <sup>†</sup>
GHE125-500A	NAT. or LP	POWER VENT	0	20	0	100

- <sup>1</sup> Equivalent length is measured **between** the 4" pipe connection on the water heater and the required 90° elbow termination fitting.
- <sup>2</sup> Equivalent length is measured **after** the point of connection to the condensate assembly and includes the termination fitting (if used).

#### Minimum And Maximum Vent and Air Intake Pipe Lengths (6" Pipe)

MODEL NUMBER	FUEL TYPE	VENT ARRANGEMENT	MIN. EQUIVALENT PIPE L AIR INTAKE <sup>3</sup> (FT.)	.ENGTH (PER PIPE RUN) VENT⁴ (FT.)	MAX. EQUIVALENT PIPE L AIR INTAKE <sup>3</sup> (FT.)	ENGTH (PER PIPE RUN) VENT <sup>4</sup> (FT.)	
GHE119-500	NAT I D	DIRECT VENT	50	50	120 <sup>†</sup>	120 <sup>†</sup>	
GHE125-500A	NAT. or LP	POWER VENT	0	50	0	240	

- <sup>3</sup> Equivalent length is measured **between** the 4" pipe connection on the water heater and the required 90° elbow termination fitting.
- <sup>4</sup> Equivalent length is measured **after** the point of connection to the condensate assembly and includes the termination fitting (if used).
- † Shown as a balance system. Vent length may exceed air intake length if total combined length does not exceed 240 ft. Intake length cannot exceed exhaust length.

<sup>&</sup>lt;sup>†</sup> Shown as a balance system. Vent length may exceed air intake length if total combined length does not exceed 100 ft. **Intake length cannot exceed exhaust length.** 

#### **Super Duty Water Heaters**



### Recommended Specifications (for trade reference only)

Water Heaters shall be Ruud model number GHE\_\_\_\_\_\_. The water heater shall be power vented or power direct vented with four-inch pipe not to exceed the maximum equivalent length of 100-feet or with six-inch pipe not to exceed a maximum equivalent length of 240-feet. All related intake air and exhaust gas shall be approved for zero clearance to any combustible surface. The water heater shall be constructed with a three-pass heat exchanger integrated within the water storage vessel, that shall consist of two-pass helical-fin heat exchanger with third-pass condensing tubes. All water contact surfaces of the vessel and heat exchanger shall have a porcelain enamel lining. The water heater shall have a LCD use interface for set-up, operating status

diagnostics and display of set-point temperature. The water heater shall be certified by SCAQMD for Oxides of Nitrogen (NOx) of 20 ppm or less at 3%O2; and, shall be certified by Underwriter's Laboratories (UL) to comply with ANSI Z21.10.3 - CSA 4.3 standards for the United States and Canada and with ASHRAE/IESNA 90.1. The water storage vessel and integrated heat exchanger shall have a three-year limited warranty against tank leaks.

## When ordering ASME construction, place (A) after the model number (for trade reference only)

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

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