

Enhancing everyday living

## NATURAL GAS COMMERCIAL WATER HEATERS HEAVY DUTY MODELS

# Available in 65 and 73 U.S. gallon capacities 112,500 to 360,000 BTU 33 to 105.5 kW Input

Gia

BUILT TO LAST LONGER

in





**RuitGreen** 







## Giant: WATER HEATERS ARE BUILT TO LAST LONGER

If durability, reliability, and versatility are the characteristics you are looking for in a water heater for your business, look no further than Giant's line of commercial gas water heaters. Our water heaters have been specially designed with more steel and better grades (low carbon, low alloy), superior burners and controls, and a wide range of gas inputs. Giant commercial gas water heaters are ideally suited for most commercial and industrial applications. They have been designed for quick and easy installation as a replacement unit or as a new installation. These commercial gas water heaters can be installed as a single unit or as part of a multiple unit installation. Although used primarily as a complete water heating system, they may be combined with Giant storage tanks for additional hot water capacity. All Giant commercial gas water heaters are design certified by CSA

to the harmonized standards ANSI Z21.10.3 / CSA 4.3 and meet or exceed the Thermal Efficiency requirements of ASHRAE 90.1. Each unit has a thermal efficiency greater than 80%. All models are suitable for combination potable water and space heating applications.

#### **OUTSTANDING TECHNICAL FEATURES**

- **LOW PROFILE AUTOMATIC FLUE DAMPER** Closes automatically when the demand for heat stops, thereby reducing stand-by heat loss. Low profile design minimizes the overall height of the water heater.
- **PATENTED REINFORCING STEEL COLLAR** Flue tubes are specially welded on a steel collar for a longer tank life (see illustration facing page).
- **HIGH DENSITY FIBERGLASS INSULATION** Provides superior heat retention and energy efficiency while being environmentally friendly.

#### • AUTOMATIC TEMPERATURE CONTROL SYSTEM

The thermostat is fully adjustable up to  $180^{\circ}$ F ( $82^{\circ}$ C). It is equipped with an integrated energy cut-off (ECO) and high temperature cut-off switch in the event of an overheat condition.

### • INTELLIGENT LED DIAGNOSTIC SYSTEM (light emitting diode)

Designed to give a visual indication of the operational status of the water heater. This panel also identifies where to begin troubleshooting a non functional water heater.

• SPARK TO PILOT IGNITION SYSTEM

Eliminates the standing pilot. Saves energy by only lighting the pilot when the thermostat calls for heat.

• MULTI-FLUE DESIGN

Increases the heat transfer to the tank resulting in greater tank efficiency.

- **HIGH QUALITY MAGNESIUM ANODES** Provide excellent protection against the corrosive effects of water and extend tank life.
- FACTORY INSTALLED T&P RELIEF VALVE Protects the tank from the damaging effects of excessive temperature and pressure.

#### • LOW OVERALL HEIGHT

The new generation of commercial gas water heaters has been made shorter to facilitate installation and replacement.



#### • GLASS-LINED INNER TANK

A uniquely formulated blue cobalt glass is fused to specially treated steel at 1,600°F (871°C) to provide the best coating available against corrosion for many years. The tank is certified at a test pressure of 300 PSI (2,068 kPa) and a working pressure of 150 PSI (1,034 kPa).

• **CLEAN OUT AND INSPECTION PORT** Permits easy internal cleaning and inspection.

#### • DRAIN VALVE

Excellent one-piece brass drain valve is installed for easy drainage.

• FACTORY INSTALLED 1 1/2" NPT DI-ELECTRIC NIPPLES Extend the life of the water heater by providing excellent corrosion protection.

#### • MULTI-PORT, QUIET, ENERGY EFFICIENT BURNERS

The burner tray slides out easily for quick inspection & easy maintenance.

#### CERAMIC/REFRACTORY COMBUSTION CHAMBER

Maximizes heat transfer to the water heater (see illustration).

#### • TANK DESIGN

Maximizes installation flexibility by offering models with front and rear Inlet/Outlet water connections.

#### APPROVED FOR INSTALLATION ON COMBUSTIBLE FLOORING

Eliminates the need for construction of a non combustible platform – provides greater design flexibility and safety.

#### • FACTORY INSTALLED WIRING

Flexibility of installation. All models are pre-wired at the factory so that they can be installed in conventional applications, or with optional side wall power vent kits.

#### THREE (3) YEAR LIMITED WARRANTY

Giant commercial gas water heaters have a three (3) year limited warranty against inner tank leakage from the date of installation. One (1) year limited warranty on component parts. For more specific warranty details, consult the owner's manual provided with each water heater.



Every commercial gas water heater endures constant day-to-day stress. This is due to frequent changes in temperature inside the tank as the hot water leaves and the cold water enters. The critical stress points are located where the tank components are welded, especially at the flue tubes and secondly where the tank bottom joins the tank. **HERE IS HOW GIANT HAS MADE THESE SPECIFIC STRESS POINTS MUCH MORE LEAK RESISTANT.** 





We start by using the largest steel collar used in the industry (0.27" (0.68 cm) wall thickness by 1" (2.5 cm) long)).



The steel collar is then welded from outside of the tank bottom and top. This leaves 3/4'' (1.9 cm) of the steel collar permitting a stronger welding of the flue tubes.



This technique leaves a clean surface inside the tank resulting in a smooth surface for glass-lining.



The tank bottom and top and the flue tubes are glass-lined separately with an industrial grade coating of a blue cobalt glass.

GNITION SEQUENCE



components to make sure that the glass-lining is not burned away or



We supply a tank shell with low carbon, low alloy content and also extend the shell well below the tank bottom so that the welding process does not damage the glass-lined surface of the tank.



damaged during the welding operation.

Three (3) galvanized steel legs are installed for superior tank support and ease of installation. Support brackets are supplied should the water heater require anchoring to the floor.

The refractory combustion chamber is insulated entirely with 3/4" (1.9 cm) of ceramic fiber. This feature permits better heat retention in the combustion chamber, translating into a higher heat exchange to the water.



The LED's are positioned on the panel based on their order of operational sequence;

- POWER 120 VAC power is being supplied to the water heater and the main switch is "ON".
- THERMOSTAT Calling for heat, the flue damper starts to open.
- IGNITION SEQUENCE The flue damper is fully open, the ignition sequence begins.
- PILOT VALVE The pilot module is in the ignition sequence, the ECO switch is activated inside the thermostat.
- ECO The ECO (energy cut-off) switch is closed, a signal to open the main valve is being sent.
- MAIN GAS VALVE The main gas valve is suppling gas to the burners, the burners are in operation.

WATER HEATER'S SPECIFICATIONS & DIMENSIONS (inches/cm)															
Models	Models Capacity U.S. gal. L Imp. gal.			Inpu BTU	t kW	R At 80°F ( U.S. gal. I gal.	GPH/LPH at various tem At 100°F (56°C) U.S. gal. L Imp. gal.			ıperature rises At 140°F (78°C) U.S. gal. L Imp. gal.			Est. shipping weight lb kg		
UG73-125N	73	276	61	125,000	36.6	148 560	123	118	447	98	84	318	70	429	195
UG73-150N	73	276	61	150,000	43.9	177 670	147	142	538	118	101	382	84	429	195
UG73-200N	73	276	61	200,000	58.6	236 893	197	189	715	157	135	511	112	429	195
UG65-250N	65	246	54	250,000	73.2	295 1,11	7 246	236	893	197	169	640	141	465	211
UG65-300N	65	246	54	300,000	87.8	355 1,34	4 296	284	1,075	236	203	768	169	465	211
UG65-360N	65	246	54	360,000	105,4 4	425 1,60	9 354	340	1,287	283	243	920	202	465	211
Input ratings are fron	n 0-2,000 feet	(610 m) of a	ltitude. High-	altitude models	are derated by	10%. High altit	ude models, o	change suffix	from "N" t	o "NH"					
Models	Α	В	С	D	E1	E2	E3	E4	F		G	Н	I	J	K
UG65-250	15 3/4 (40)	52 1/8 (132)	64 3/8 (164	4) 6 3/8 (16)	25 1/4 (64)	58 1/4 (148)	25 1/4 (64)	58 1/4 (148)	70 7/8 (	180) 1	33 (84)	7 (18)	26 1/2 (67)	40.3°	10.9°
All UG65	15 3/4 (40)	52 1/8 (132)	64 3/8 (164	4) 6 3/8 (16)	25 1/4 (64)	58 1/4 (148)	25 1/4 (64)	58 1/4 (148)	71 5/8 (	182)	33 (84)	8 (20)	26 1/2 (67)	40.3°	10.9°
UG73-125	15 3/4 (40)	52 1/2 (133)	64 3/8 (164	4) 6 3/8 (16)	25 1/4 (64)	58 1/4 (148)	25 1/4 (64)	58 1/4 (148)	69 1/4 (	176)	33 (84)	5 (13)	26 1/2 (67)	40.3°	10.9°
All UG73	15 3/4 (40)	52 1/2 (133)	64 3/8 (164	4) 6 3/8 (16)	25 1/4 (64)	58 1/4 (148)	25 1/4 (64)	58 1/4 (148)	70 7/8 (	180)	33 (84)	6 (15)	26 1/2 (67)	40.3°	10.9°

\* Models of 125,000 and 150,000 BTU and their derated versions can also use a 1/2" (1.3 cm) gas connection. In accordance with our company policy of ongoing product improvement, Giant Factories Inc. reserves the right to make changes without prior notice.



#### SAMPLE SPECIFICATION

Gas water heater shall be a GIANT model # with \_gallon/litre storage capacity, a gas input of BTU (kW), a and a recovery rate of \_\_\_\_ GPH/LPH at 100°F (56°C) temperature rise. Water heater shall be design certified by CSA. Tank will have an industrial grade coating of a blue cobalt glass, insulated with environmentally friendly high density fiberglass and furnished with magnesium anodes. Tank shall have a working pressure rating of 150 PSI (1,034 kPa), a full size tank inspection port, a factory installed ASME rated and CSA approved temperature & pressure-relief valve, and shall have front and rear side inlet/outlet water connections. The water heater will be equipped with an electronic ignition, a flue damper system, and an Energy Cut-Off System (ECO). Water heater(s) shall be covered by a three (3) year limited warranty against inner tank leakage.



#### SIDE WALL POWER VENT KITS (optional)

All Giant commercial gas water heaters are certified for use with side wall power vent kits. These kits offer the following features:

#### **POWER VENT**

No chimney required, just vent through the outside wall.The maximum equivalent vent pipe length is fifty (50) feet (15.2 m) for each kit. NOTE: Not approved for vertical vent applications.

#### ALUMINUM VENT HOOD

Mounts on outside of wall. Features rust-free construction, outside wall condensate shield, a heat shield to protect the exterior of the building, and a one (1) inch (2.5 cm) air space providing clearance from combustibles. All mounting hardware included.

#### **DESIGNED FOR FLEXIBILITY**

Allows for easy and economical installations. These kits can be used in new gas installations where conventional venting is too costly, in conversions from electric to gas avoiding a costly venting system upgrade, or retro-fitted onto an existing gas installation with poor venting, avoiding costly renovations.

#### **APPROVED FOR USE WITH TYPE-B VENTING**

Reduces venting installation costs.





#### POWER VENT KIT SPECIFICATIONS & DIMENSIONS inches (cm)

Models	Power	Motor												Vent hood	Inlet/
WOUCIS	Venter	Watts	Amps	А	В	С	D	E	F	G	Н	Ι	J	Rough-in	Outlet
UG73-125NH to UG73-150NH	HS1	95	1.26	7 (18)	7 7/8 (20)	11 (28)	4 (10)	7 1/2 (19) <sup>(sq)</sup>	7 1/8 (18)	13 (33) <sup>(sq)</sup>	8 5/8 (22)	7 3/8 (19)	11 (28)	8 (20) <sup>(sq)</sup>	4 (10)
All others	HS2	166	1.51	8 1/2 (55)	91/4 (23)	11 1/2 (29)	6 (15)	8 1/2 (22) <sup>(dia)</sup>	7 7/8 (20)	12 (30) <sup>(sq)</sup>	9 1/2 (24)	10 1/2 (27)	10 (25)	9 (23) <sup>(dia)</sup>	6 (15)

HS1: Giant's part numbers 80000009-A and 80000109-A. HS2: Giant's part numbers 80000010-A and 80000110-A

family

business



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