



## Crossover Wall Mounted Hybrid Commercial Tankless Water Heater Submittal Sheet Model: CGH-199W

**JOB NAME:**

**LOCATION:**

**ARCH. / ENGR.:**

**WHOLESALER:**

**MECH. CONTRACTOR:**

**MODEL NUMBER:**

**BTU/HR INPUT LOW - HIGH FIRE:**

**TYPE OF GAS:**

**NOTES:**

### Heat Exchanger

- 316 Stainless Steel Heat Exchanger
- Fire Tube Heat Exchanger, gasketless, vertical tube combustion heat exchanger design – provides maintenance-free operation on internal buildup of material inside the combustion chamber
- Fire Tube Heat Exchanger design provides high efficiency and low pressure drop in a very compact size
- High Fin Aluminum inner insert provides superior heat transfer to transmit energy more efficiently

### Combustion System

- Modulating burner with up to 10 to 1 turndown
- 199 Model Operates from 19,900 – 199,000 BTU/Hr
- 199 Model UEF of up to .92
- High Grade Ceramic Fiber Burner Design
- Spark Ignition
- Models Available for Natural or LP Gas
- Optical Flame monitoring

### Integrated Control System

- Digital operating control and display to program and monitor water heater operation
- Freeze protection
- Two 120 Volt outputs – Heater Pump and System Pump
- Fault codes to assist in trouble shooting faults
- System Parameter monitoring

### Additional Features

- Maximum Outlet Temperature of 160°F
- Superior condensate collection system with overflow protection switch
- Vents in Plastic PVC – CPVC – ULC S636 flexible polypropylene vent liner (chimney lining only) - Stainless Steel
- Vents up to 100 combined equivalent feet in 3 inch venting, and 50 combined equivalent feet in 2 inch venting
- Five (5) Year Commercial Limited Warranty
- Manual reset high temperature limit
- Included wall mount bracket
- Low NOx emissions – SCAQMD Certified
- NSF 372 Lead Free Compliant, as required by the Safe Drinking Water Act, Section 1417

### Optional Components

- 150 PSI Pressure Relief Valve (7850P-103)
- 2" Vent Screens (7850P-088)
- 3" Polypro Flex Vent Kit (8400P-001)
- 3" (80mm) PP Concentric Vent Kit (KGAVT0601CVT)
- 3" Stainless Steel Termination Vent Kit (V1000)
- 4" Stainless Steel Termination Vent Kit (V2000)
- Condensate Neutralizer (7450P-212)

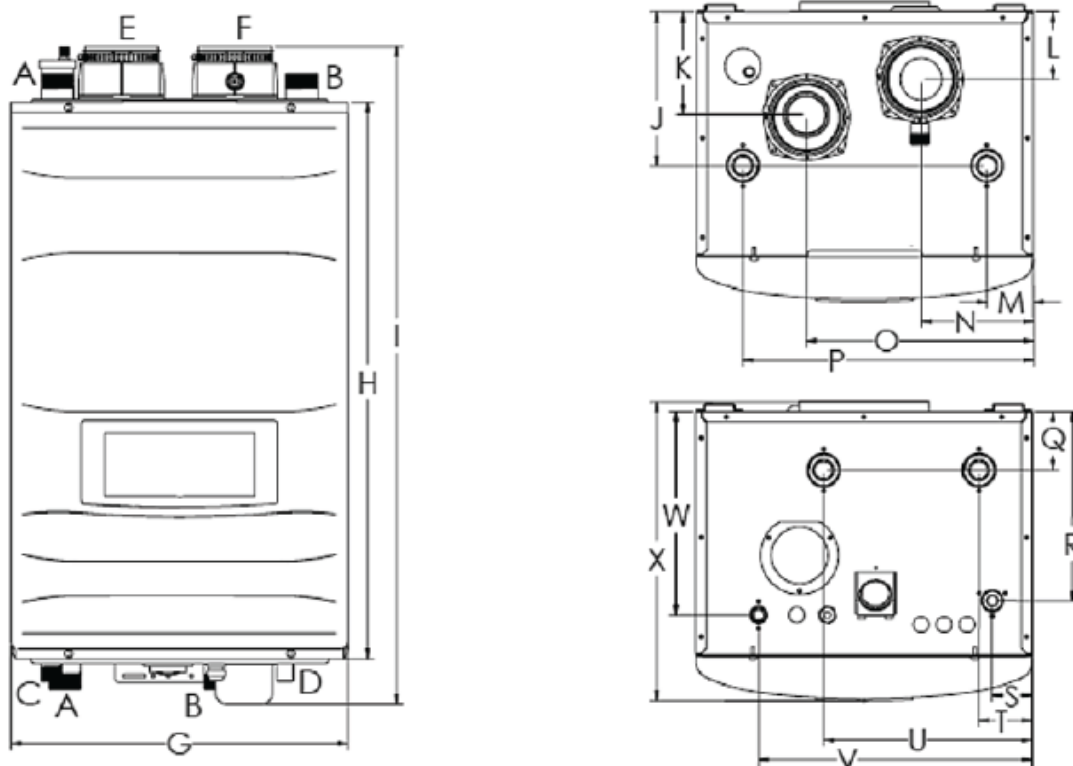


Figure 1 – Specifications and Dimensions

		Description										Diameter							
A		DHW Outlet Adapter										1 1/4" NPT							
B		DHW Inlet Adapter										1 1/4" NPT							
C		Gas Inlet Adapter										3/4" NPT							
D		Condensate Adapter										1/2" NPT							
E		Air Intake Adapter										3"							
F		Exhaust Vent Adapter										3"							
Model	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	
199	19.7	31.9	37	7.2	5.1	3.2	3.75	5.8	12.5	17.5	4	11.1	2.1	2.2	11.7	15.8	11.8	16.8	

Table 1 – Specifications and Dimensions

Model		199
Installation		Indoor, Wall Hung, Fully Condensing
Minimum / Maximum Input (Btu/Hr)		19,900 / 199,000
Uniform Energy Factor (UEF) / Thermal Efficiency (TE)		0.92 / 95%
Flue System		Sealed Combustion Direct Vent, Power Vent
Vent Run		2" (50 feet), 3" (100 feet), Schedule 40 PVC, CPVC, PP
Weight (lbs)		110
Orifice Size	NG	8.3 mm (0.327")
	LP	6.35 mm (0.250")
Gas Supply Pressure	NG	3.5" to 14" WC
	LP	
Manifold Pressure	Min (3")	NG: 0.003" / LP: 0.004" WC
	Max (3")	NG: -0.19" / LP: -0.20" WC
Power Supply	Main Supply	120V 60 Hz, 6A
	Maximum Power Consumption	160W
General Operating Conditions		Ambient Temperature Range: 33 – 104°F (0.6 – 40°C) Operating Relative Humidity: Up to 90% at 140°F (40°C) Shipping and Storage Temperature Range: -4 – 176°F (-20 – 80°C) Power Supply and Communication (CN4): 14V DC Product Approvals and Requirements EMC: 89/336/EEC LVD: 73/23/EEC
Ignition System		Direct Electronic Ignition / Automatic Flame Sensing
Burner System		Single Orifice Premixed Fuel Modulation / Ceramic Fiber Burner
Gas Valve System		Air Ratio Valve
Minimum Flow Rate		Zero activation with storage tank
Internal Pipe Material		Copper
Dimensions		W 19.7" - H 32" - D 16.3"
Heat Exchanger Water Capacity (DHW)		3.5 Gallons
Control Panel / Main Controller		P-950CH / NGTH-10CH
Water Pressure		Min 12 - Max 150 PSI
DHW Setpoint Temperature Range		95 – 160°F (35 – 71°C)
Connection Sizes	Cold Water Inlet / Hot Water Outlet	1 1/4" NPT
	Gas Inlet	3/4" NPT
Materials	Cabinet	Cold Rolled Carbon Steel
	Heat Exchanger	316L Stainless Steel
Safety Devices		Optical Flame Sensor, Burner Plate High Limit (392°F), Water Temperature High Limit Sensor (203°F), Water Leak Detection, Freeze Protection (Three Stage Operation - Activates at 46°F – See Freeze Protection in Installer Menu for Details), Exhaust Temperature High Limit Sensor (190°F), Flue Air Pressure Switch, Condensate Switch, Built-In Low Water Cut-Off Probe

**Table 2 – Technical Specifications - NOTE: HTP reserves the right to make product changes or updates without notice and will not be held liable for typographical errors in Literature.**