



## Hydra Smart Residential Tankless Water Heater Submittal Sheet

Model: RT-150 / 199

**JOB NAME:**

**LOCATION:**

**ARCH. / ENGR.:**

**WHOLESALER:**

**MECH. CONTRACTOR:**

**MODEL NUMBER:**

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

**TYPE OF GAS:**

**NOTES:**

Heat Exchanger

- Stainless Steel Heat Exchanger
- Low pressure drop, gasketless, vertical tube combustion heat exchanger design – provides maintenance-free operation on internal buildup of material inside the combustion chamber
- Water tube tube heat exchanger design provides high efficiency and low pressure drop in a very compact size

Combustion System

- Modulating burner with up to 10 to 1 turndown
- High Grade Metal Fiber Burner Design
- Spark Ignition
- Models Available for Natural or LP Gas
- Optical Flame monitoring

150kBTU Models

- 15,000 – 150,000 BTU/Hr
- Highly Efficient - Up to 0.93 Uniform Energy Factor (UEF)
- Up to 0.95 Energy Factor (EF)

199kBTU Models

- 19,900 – 199,000 BTU/Hr
- Highly Efficient - Up to 0.96 Uniform Energy Factor (UEF)
- Up to 0.98 Energy Factor (EF)

Integrated Control System

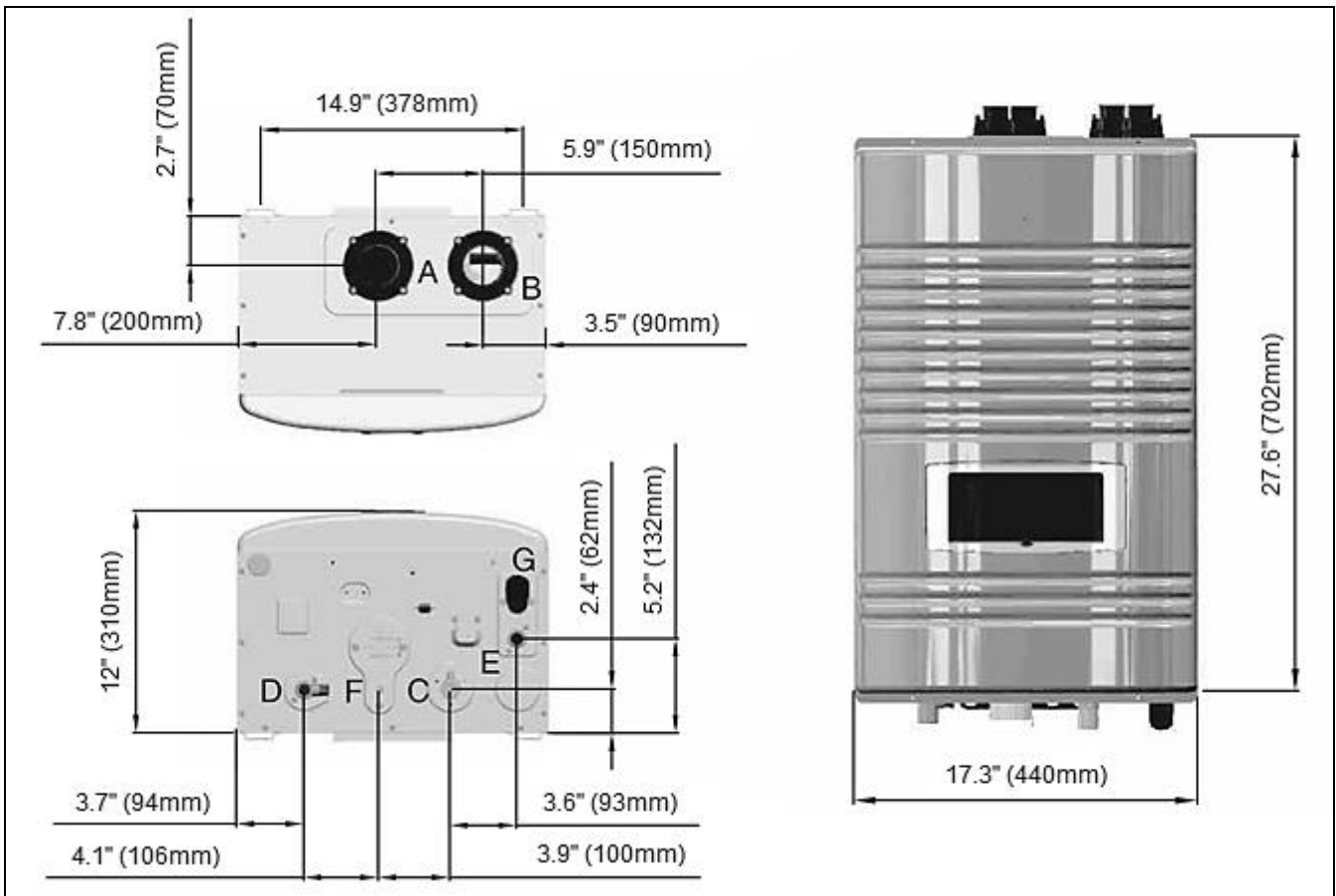
- Digital operating control and display to program and monitor water heater operation
- Freeze protection

Additional Features

- Maximum Outlet Temperature of 140°F
- Superior condensate collection system with overflow protection switch
- Vents in Plastic PVC - CPVC - Stainless Steel – ULC S636 flexible polypropylene vent liner (chimney lining only)
- Vents up to 100 combined equivalent feet – 3 inch venting, and 50 combined equivalent feet – 2 inch venting
- Twelve (12) Year Residential Limited Warranty
- 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 Outdoor Enclosure Kit offers greater installation flexibility

Optional Components

- 150 PSI Pressure Relief Valve (7850P-103)
- 3/4” Tankless DHW Isolation Valves (7850P-090)
- 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)
- Outdoor Enclosure Kit (7850P-107)



**Figure 1 – 150 Model Specifications and Dimensions**

	<b>DESCRIPTION</b>	<b>DIAMETER</b>
<b>A</b>	Exhaust Outlet Pipe	2"
<b>B</b>	Air Intake	2"
<b>C</b>	Gas Inlet	3/4"
<b>D</b>	DHW Outlet Adapter	3/4"
<b>E</b>	DHW Inlet Adapter	3/4"
<b>F</b>	Condensate Adapter	1/2"
<b>G</b>	DHW Inlet Filter	N/A

**Table 1 – 150 Model Adapter Specifications**

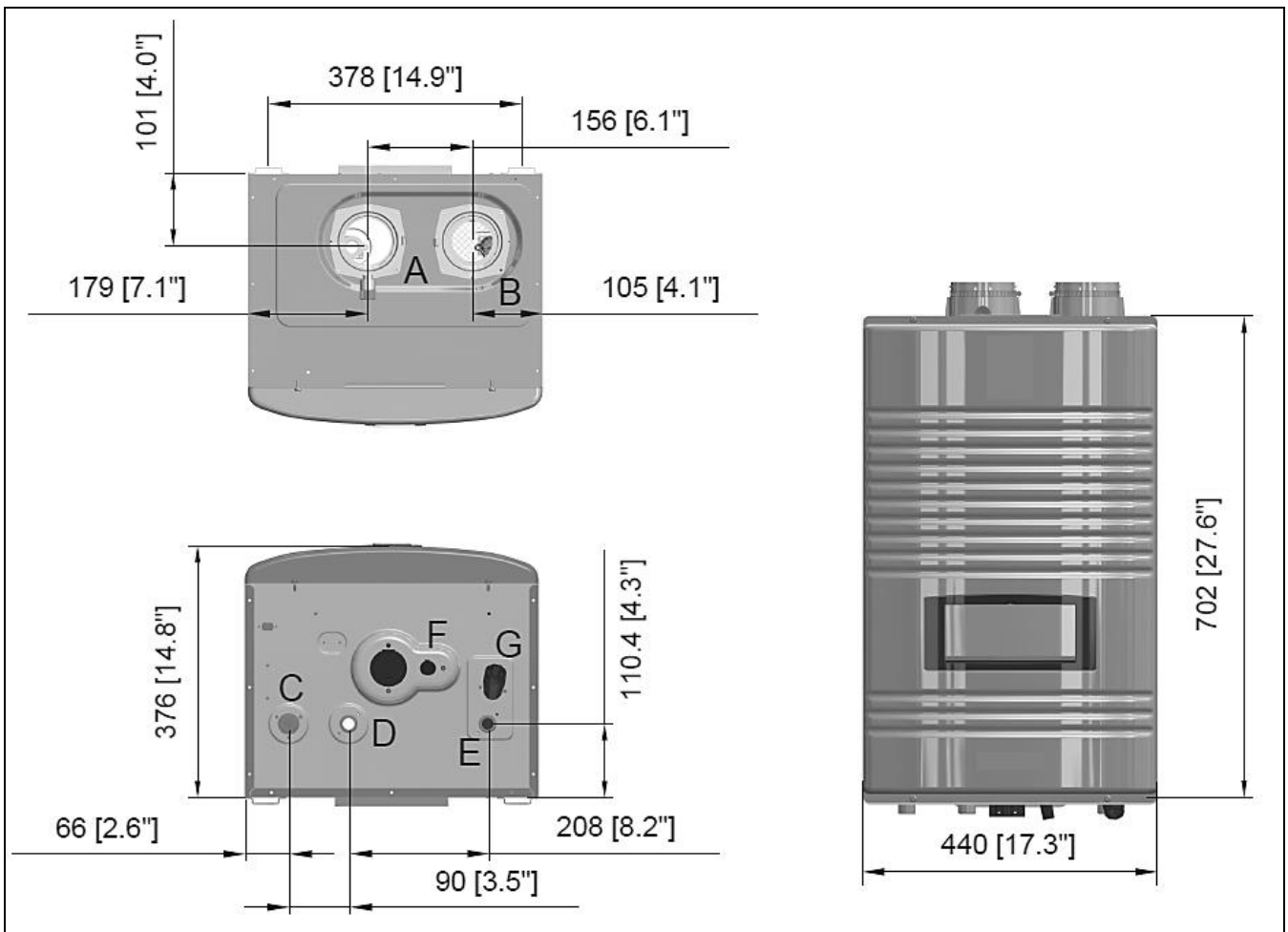


Figure 2 – 199 Model Specifications and Dimensions

	DESCRIPTION	DIAMETER
A	Exhaust Outlet Pipe	3"
B	Air Intake	3"
C	Gas Inlet	¾"
D	DHW Outlet Adapter	¾"
E	DHW Inlet Adapter	¾"
F	Condensate Adapter	½"
G	DHW Inlet Filter	N/A

Table 2 – 199 Model Adapter Specifications

MODEL		RT-150	RT-199
Installation		Indoor, Wall Hung, Fully Condensing	
Minimum / Maximum Input (Btu/Hr)		15,000 / 150,000	19,900 / 199,000
Hot Water Capacity	35°F Rise	8.1 Gal	11 Gal
	45°F Rise	6.3 Gal	8.5 Gal
	77°F Rise	3.7 Gal	5 Gal
Flue System		Sealed Combustion Direct Vent, Power Vent	
Vent Run		2" (50 feet), 3" (100 feet), Schedule 40 PVC, CPVC, PP	
Weight (lbs)		64	88
Energy Factor (EF)		0.95	0.98
Uniform Energy Factor (UEF)		0.93	0.96
Orifice Size	NG	.303" (7.7 mm)	
	LP	.374" (9.5 mm)	
Gas Supply Pressure	NG	3.5" to 14" WC	
	LP	3.5" to 14" WC	
Manifold Pressure	Min (3")	NG: -0.07" / LP: -0.07" WC	NG: -0.10" / LP: -0.05" WC
	Max (3")	NG: -0.366" / LP: -0.366" WC	NG: -0.11" / LP: -0.06" WC
Power Supply	Main Supply	120V 60 Hz	
	Maximum Power Consumption	135W	
General Operating Conditions		<p><b>Temperature</b></p> <ul style="list-style-type: none"> <li>Ambient Temperature Range: 33 – 120°F (0.6 – 49°C)</li> <li>Operating Relative Humidity: Up to 90% at 140°F (60°C)</li> <li>Shipping and Storage Temperature Range: -4 – 176°F (-20 – 80°C)</li> </ul> <p><b>Input Ratings</b></p> <ul style="list-style-type: none"> <li>Power Supply and Communication (CN4): 14V DC</li> </ul> <p><b>Product Approvals and Requirements</b></p> <ul style="list-style-type: none"> <li>EMC: 89/336/EEC</li> <li>LVD: 73/23/EEC</li> </ul>	
Ignition System		Direct Electronic Ignition / Automatic Flame Sensing	
Burner System		Single Orifice Premixed Fuel Modulation Metal Fiber Infrared	
Gas Valve System		Air Ratio Valve	
Minimum Flow Rate		0.5 GPM	
Internal Pipe Material		Stainless Steel	
Dimensions		W 17.3" – H 27.6" – D 12.6"	W 17.3" – H 27.6" – D 14.8"
Sub Heat Exchanger Water Capacity (DHW)		Under 2 Gallons	
Control Panel / Main Controller		P-920C / NGTH-8000C	P-920C / GTH-9500C
Water Pressure		Min 15 – Max 150 PSI	
DHW Setpoint Temperature Range		95°F – 140°F (35°C – 60°C)	
Connection Sizes	Cold Water Inlet / Hot Water Outlet	¾" NPT	
	Gas Inlet	¾" NPT	
Materials	Cabinet	Cold Rolled Carbon Steel	
	Heat Exchanger	Primary Heat Exchanger: Stainless Steel Secondary Heat Exchanger: Stainless Steel	
Safety Devices		Flame Rod, Burner Overheat Cut Off Device 302°F (150°C), Flue High Limit Switch 190°F (87°C), Water Temperature High Limit Switch 199°F (93°C), Freeze Protection Ceramic Heater (Turns on at 41°F / 5°C, Turns off at 59°F / 15°C), Water Leak Detection Sensor (150 Model Only)	

Table 3 – 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.