



**Maximum Gas Consumption:** 199,000 BTU/h

**Thermal Efficiency:** 96% (C199i)

**Temperature Range F (C):** 98° - 185° (37° - 85°)

**Tank Capacity:** 119 Gallons (450 L)

**First Hour Delivery (100°F Rise):** 315 Gallons (1192 L)

### Direct Vent Options

- **Concentric:** Ubbink Polypropylene Concentric Vent
- **Twin Pipe:** PVC / CPVC (3" and 4" Configurations), or Centrotherm 3" Polypropylene (with Centrotherm Twin Pipe Adaptor)
- **Common Vent Solutions**
- **Room Air:** PVC or PP 3" or 4" (**VERTICAL TERMINATIONS ONLY**)  
-Flue check valve for room air included with system.

### Clearances from Combustibles (C199i)

- Top of heater - 6 in (152mm)\*
- Front of heater - 6 in (152mm)\*\*
- Sides of heater - 2 in (51mm)
- Back of heater - 0 in
- Bottom of heater - 12 in (305mm)
- From vent pipe - 0 in

### Clearances from Non-Combustibles (C199i)

- Top of heater - 2 in (51mm)\*
- Front of heater - 6 in (152mm)\*\*
- Sides of heater - 1/2 in (13mm)
- Back of heater - 0 in
- Bottom of heater - 12 in (305mm)
- From vent pipe - 0 in

\*54 in (1371.6mm) required for anode rod serviceability

\*\*24 in (610mm) required for serviceability

### Safety Features

- Flame failure - Flame Rod
- Boiling protection
- Combustion fan rpm check
- Over current - glass fuse
- Remaining flame (OHS)
- Thermal fuse
- Automatic frost protection

### Storage Tank

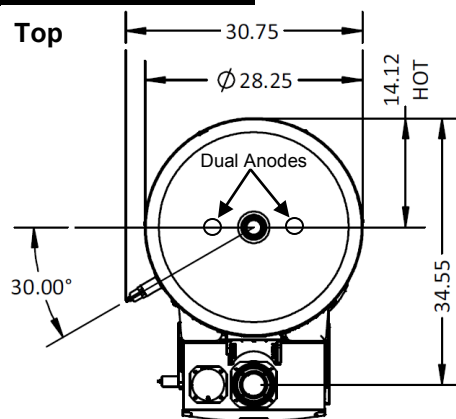
- 2" Eco-friendly foam insulation
- Glass-lined inner tank
- 2" MNPT dielectric hot and cold connections
- Pre-installed temperature & pressure relief valve
- Brass drain valve
- Dual magnesium anode rods
- Hand hole clean-out

### Commercial Limited Warranty

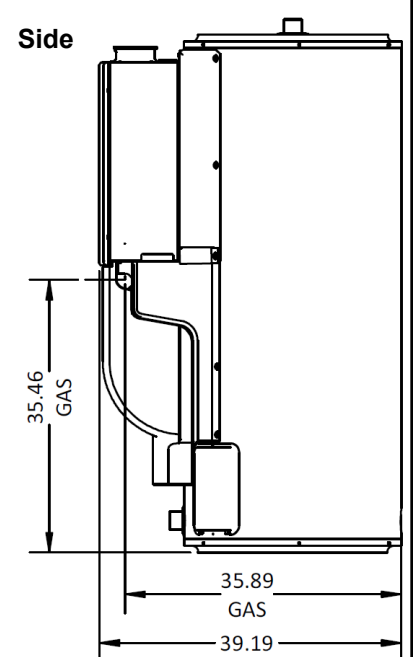
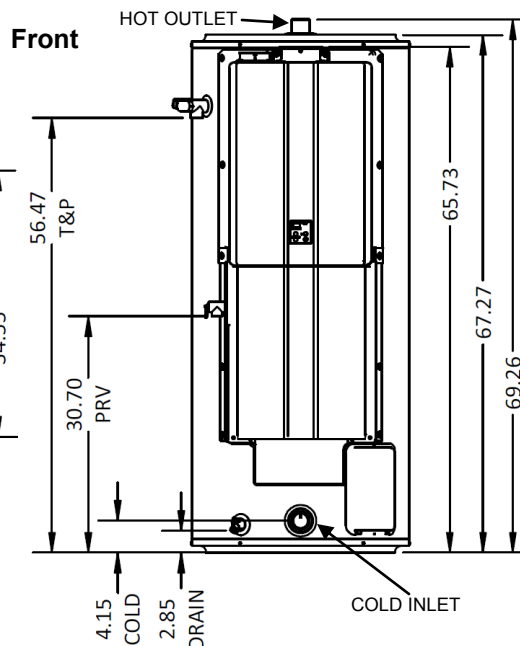
- **Heat Exchanger:** 6 years\*
- **Tank:** 6 years\*
- **All Other Parts:** 5 years\*
- **Labor:** 1 year\*

(\*Reference Tankless Water Heater manual for further warranty information.)

### DIMENSIONS



**WEIGHT:** 428 lb (194 kg)



Product Number		<b>CHS199100</b>	
Product Description		Condensing Hybrid System: Condensing tankless, Insulated Storage Tank, Pump & Control	
Minimum Gas Consumption Btu/h (kW/h)		15,200 (4.5)	
Maximum Gas Consumption Btu/h (kW/h)		199,000 (58.3)	
Tank Volume		119 Gallons (450 Liters)	
Thermal Efficiency (C199i)		96%	
First Hour Delivery		315 Gallons (1192 Liters)	
Temperature Setting		98° F (37° C) to 185° F (85° C)	
Product Weight		428 lb (194 kg)	
Noise level		52 dB	
System Electrical Data	Normal	256 W	
	Standby	44 W	
	Anti-frost Protection	326 W	
	Max Current	5.5 A	
	Fuse	Tankless Engine - 10 A, System Controller - 10 A	
By-Pass Control		Electronic	
Gas Supply Pressure	Natural Gas	4.0 - 10.5 inch W.C.	
	Propane	8.0 - 13.5 inch W.C.	
Connections		Gas Supply Inlet - 3/4" MNPT Hot Water Outlet - 2" MNPT Cold Water Inlet - 2" MNPT	
Ignition System		Direct Electronic Ignition	
Electric Connections		Appliance: AC 120 Volts, 60Hz. Integrated Temperature Controller: DC 12 Volts (Digital)	
Water Temperature Control		Simulation Feed forward and Feedback	
Maximum Water Supply Pressure		150 PSI	
Commercial Energy Star Certified (C199i)		Yes	
Complies with South Coast Air Quality Management District 14 ng/J or 20 ppm NOx emission levels (C199i)		Yes	

RECOVERY CAPACITIES													
U.S. GALLON/HR LITERS/HR AT TEMPERATURE RISE INDICATED													
Tank Capacity	°F	30°F	40°F	50°F	60°F	70°F	80°F	90°F	100°F	110°F	120°F	130°F	140°F
	°C	17°C	22°C	28°C	33°C	39°C	44°C	50°C	56°C	61°C	67°C	72°C	78°C
119 U.S. Gals.	GPH	772	579	463	386	331	289	257	232	211	193	178	165
450 Liters	LPH	2922	2192	1753	1461	1253	1093	973	878	799	731	673	625

C199i Tankless Water Heater maintains the following certifications:

