



Instinct 199 Combi Features

- Light weight construction for wall mounting
- Approved for zero clearance to combustibles
- Secondary heat exchanger for endless hot water
- 3" PVC, CPVC, PP, or AL29-4C venting up to 100 equivalent feet
- 10 year limited warranty on heat exchanger
- Up to 6 year limited warranty on parts, except igniter
- Up to 3 year limited labor allowance

Approvals

- 95% AFUE Efficiency
- ENERGY STAR Qualified
- ANSI Z21.13 and CSA 4.9 Boiler Standards Compliance
- ASME Boiler Certification – ASME "H" Stamp
- SCAQMD 2012 Low NOx Certification

Stainless Steel Fire Tube Heat Exchanger

- 439 Stainless Steel heat exchanger construction for corrosion resistance
- High water content provides stable temperature control
- Self cleaning flue ways reduce maintenance
- Suitable for use with propylene glycol up to 50% concentration

CTRLMax Control System

- Graphical display with 5 navigation buttons
- EZ Setup allows quick and easy boiler settings adjustment
- Flexible configuration of 2 circulator outputs for custom applications
- Outdoor temperature reset to maximize efficiency
- Accepts two space heating call inputs with independent outdoor reset curves
- Domestic hot water priority with optional time-out
- 0-10 VDC Modulation input
- Modbus building management system (BMS) interface, LonWorks® and BACnet® interface optional
- Adjustable warm weather shutdown
- Adjustable boiler freeze protection
- Logging function records sensor readings for system optimization and troubleshooting
- Describes lockouts in plain English and suggests solutions while storing last 8 errors

Standard Equipment

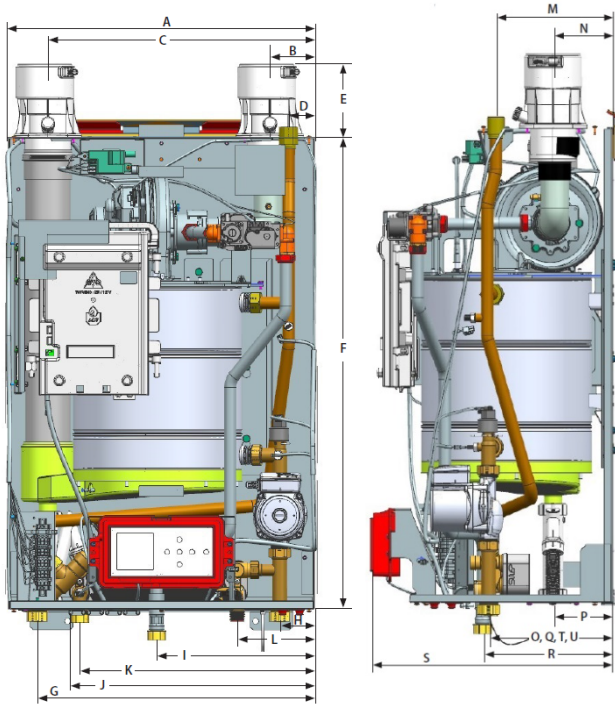
- Stainless steel premix burner
- Direct spark ignition with variable speed blower
- Full modulation with turndown ratio of 8:1
- Automatic air vent
- ASME 30 PSI pressure relief valve
- Temperature and Pressure gauge
- Outdoor temperature sensor
- 3-Way diverting valve prepiped and prewired
- 3 Speed circulator prepiped and prewired
- Automatic low water cutoff feature with early warning
- High temperature manual reset limit safety control
- Terminal block for circulator output
- Low voltage terminal strip with removable jumpers for manual or automatic reset limits
- Swing out control for easy access and servicing
- Polypropylene condensate pan and internal flue pipe
- 3 in 1 Universal vent adapter directly accepts PVC, Polypropylene, Stainless steel connections with test ports

Project / Location: _____ Date: _____

Consulting Engineer / Architect: _____

Mechanical Contractor: _____

Boiler Dimensions



Letter	Connection	Dimension in[mm]
A	Boiler Width	21 5/8" [550]
B	3" Combustion Air Inlet	3 3/8" [85]
C	3" Vent Outlet	18 5/8" [475]
D	3/4" NPSC Relief Valve	2" [50]
E	Vent / Combustion Air Connection Height	5 1/8" [130]
F	Boiler Height	32 5/8" [830]
G	1" NPT Boiler Supply	19 5/8" [500]
H	1" NPT Boiler Return	2 3/4" [70]
I	3/4" NPT Gas Connection	11" [280]
J	Condensate Drain	15 1/4" [390]
K	3/4" NPT DHW Outlet	16 5/8" [425]
L	3/4" NPT DHW Inlet	5 3/4" [145]
M	3/4" NPSC Relief Valve	8 5/8" [220]
N	3" Combustion Air Inlet & 3" Vent Outlet	4 5/8" [117]
O	1" NPT Boiler Return	9 1/8" [230]
P	Condensate Drain	4 5/8" [117]
Q	1" NPT Boiler Supply	9 1/8" [230]
R	3/4" NPT Gas Connection	9 1/2" [240]
S	Boiler Depth	17 1/8" [435]
T	3/4" NPT DHW Inlet	9 1/8" [230]
U	3/4" NPT DHW Outlet	9 1/8" [230]

Boiler Performance

Instinct Model	Combi 199
Fuel	Natural Propane
Input Modulation (MBH)	24.875-199
AFUE	95%
DOE Heating Capacity (MBH)	185
Net AHRI (MBH)	161
Boiler Water Volume (gal)	4
Power	120/1/60 FLA: 10A
Shipping Weight (Lbs)	149

Water Heater Performance

Instinct Model	Combi 199
DHW Output (70°F Rise)	5.3 gpm
DHW Output (75°F Rise)	4.9 gpm
DHW Output (80°F Rise)	4.6 gpm

