



Job Name _____

Address _____

Designer/Engineer _____

Wholesaler _____

Mechanical Contractor _____

Model / Quantity VX 110 _____ VX 150 _____

VX 199 _____

Date _____

Fuel Type: Natural gas Propane Propane
(from factory) (field conversion)

Features

- ASME approved high quality 439 stainless steel pressure vessel
- Performance maximized through a multi-tube, counter-flow fire-tube heat exchanger design
- Vertical combustion chamber and down-firing burner allow free gravity drainage of condensate
- 50 psi maximum pressure
- Metal fiber knit burner
- Direct spark ignition
- Brushless DC fan
- Zero governing gas valve
- Boiler shipped with 30 psi relief valve

SIM + (Safety Ignition Module)

- SIM+ certified to CSA STD C22.2 #60730-2-5 and Conforming to UL STD 60730-2-5 & ANSI STD Z21.20
- Provides ignition, flame proving and safety monitoring, including:
 - » Electronic, probe-type Manual Reset Low Water Cut-Off
 - » High Vent Temperature safety limit
 - » Internal Automatic Reset after 5 minutes, Electronic High Limit with verification test
 - » Fan operation control
 - » DC gas valve control

Certifications

- Constructed in accord with ANSI Z21.13-2017, CSA 4.9-2017 and the ASME Boiler and Pressure Vessel Code, Section IV and bear the H stamp as per ASME code.
- SIM+ certified to CSA STD C22.2 #60730-2-5 and Conforming to UL STD 60730-2-5 & ANSI STD Z21.20

Boiler Control

- Clear LCD display with new, user-friendly “app-like” interface
- Outdoor Reset function modulates boiler water temperature according to outside air temperature
- Internal multiple boiler staging and rotation control for management of up to 4 boilers
- Software upgradable by internet or by USB port
- Accepts an external 0-10 VDC or 4-20 mA input signal
- Multiple load control with relays for five pumps
- Prioritizes up to 4 temperature circuits electrically for maximum fuel efficiencies
- Zoning feature for control of up to four load pumps for identical temperatures
- Load combining software for simultaneous running of compatible loads
- Load configuration save and export to USB
- Summer shutdown programmable by load
- Automatic altitude compensation to 12,000 ft
- Electronic water pressure sensing, for digital display of system pressure
- Two Interlock connections allowing external devices to effect a boiler safety shut-down
- Alarm dry contact for connection to external device
- Error log with detailed conditions capture
- User-defined unoccupied mode and DHW tank temperature (when using sensor)

- Variable speed output signal
- Easily set up load parameters
- Thermostat ground terminal for power-stealing thermostat wiring
- Electronic ΔT fence of 40°F (22.2°C) to prevent thermal stress to boiler

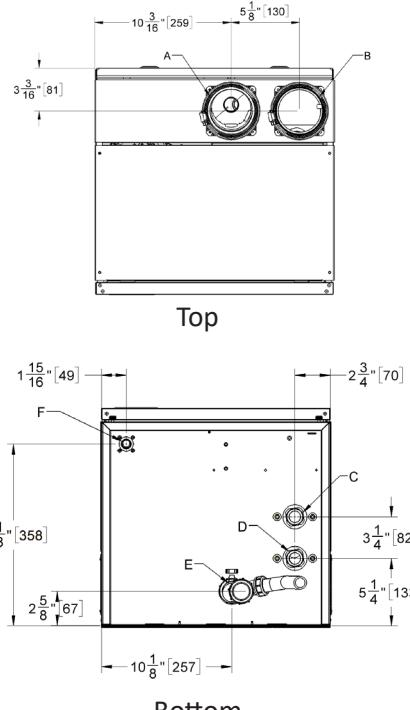
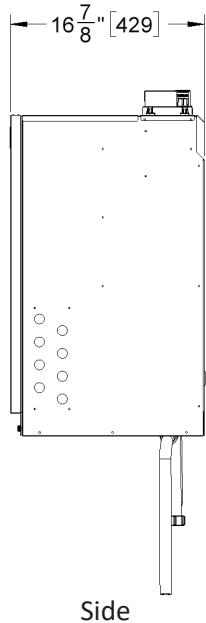
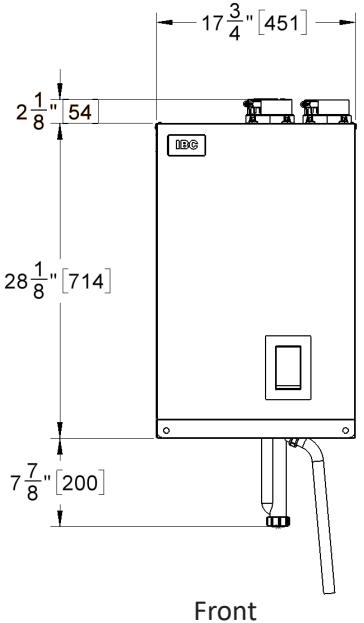
Warranties

- For residential applications, the boiler carries a five (5) year limited warranty on parts.
- For residential applications, the boiler heat exchanger carries a 15 year warranty with registration, according to the following terms: 0-10 years (full 100% warranty), 11-15 years (25% warranty), or a five (5) year limited (100% warranty) with no registration.
- For commercial applications, the boiler has a five (5) year limited warranty on the heat exchanger, and a two (2) year limited warranty on parts.

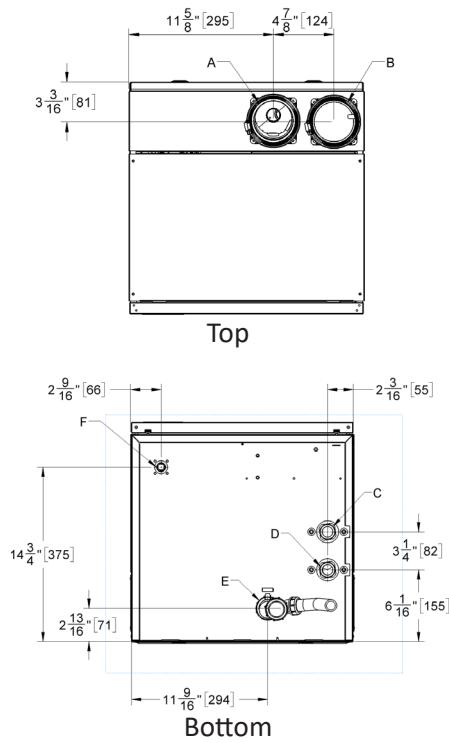
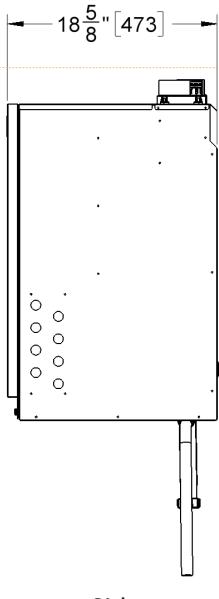
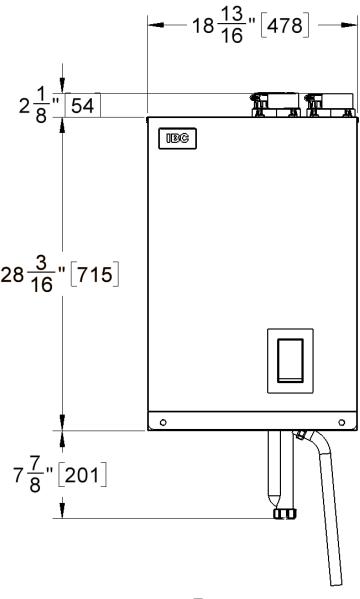
IBC Portal

- Registering through an Ethernet connection gives remote access to controller functions
- Technician's View optimized for a browser
- Contractor or end user can receive email alerts for error states

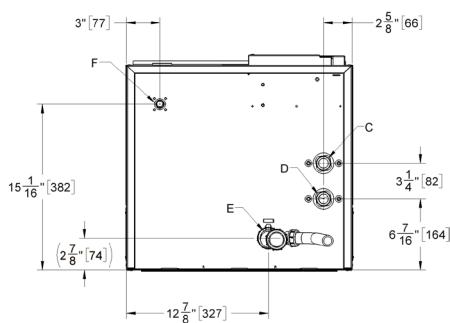
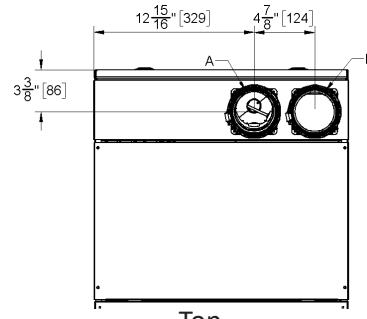
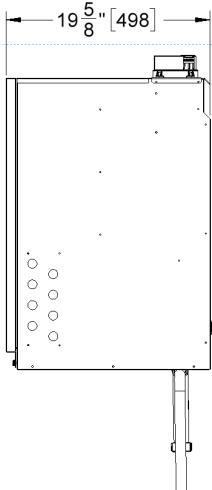
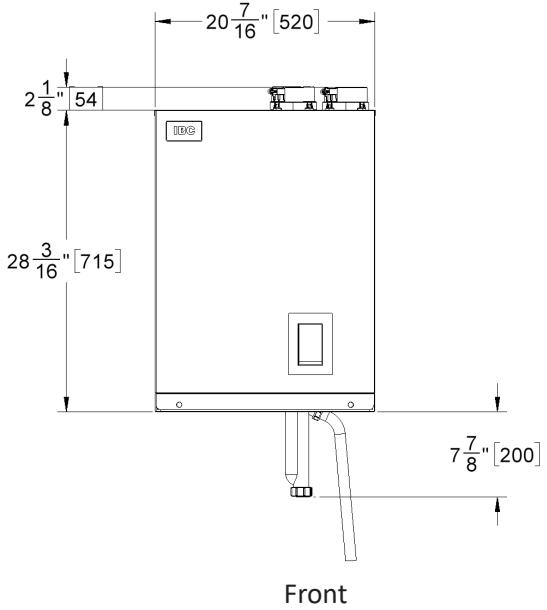
VX 110



VX 150



VX 199



Connection Specifications

	VX
Flue Outlet	3" Schedule 40 or 3" PPs (80mm)
Combustion Air Inlet	3" Schedule 40 or 3" PPs (80mm)
Water Outlet	1" NPT-M
Water Inlet	1" NPT-M
Gas Inlet	1/2" NPT-F
Condensate Outlet	3/4" Hose

Clearances

VX Clearances		
Surface	Min. clearance to combustibles	Recommended clearance
Front	2"	24"
Rear	0"	0"
Left side	0"	4"
Right side	1"	4"
Top	2"	6" (for vent connections)
Bottom	0"	12" (for condensate trap and piping)

Boiler Head Loss

Boiler Head Loss - VX Series											
Flow rate (gpm)	2	4	6	8	10	12	14	15	16	20	22
Head @ flow (ft) - VX 110	0.5	1.5	2.5	3.0	4.0	4.5	6.0	-	-	-	-
Head @ flow (ft) - VX 150	-	0.5	1.0	1.5	2.0	3.0	4.0	-	5.0	-	-
Head @ flow (ft) - VX 199	-	-	2.0	-	3.5	-	-	5.5	-	8.0	13.0

Product Specifications

Specification	VX 110	VX 150	VX 199
CSA Input (Natural Gas or Propane) - MBH	16.9 - 110	23 - 150	30.6 - 199
CSA Input (Natural Gas or Propane) - kW	5 - 32.2	6.7 - 44	8.8 - 58.3
CSA Outut - MBH	16.2 - 101.5	22 - 138.5	29.2 - 183.7
CSA Output - kW	4.74 - 29.8	6.5 - 40.6	8.6 - 53.8
AFUE (to be confirmed)	95%	95%	95%
Minimum gas supply pressure (Natural Gas or Propane) - inch w.c.	4	4	4
Maximum gas supply pressure (Natural Gas or Propane) - inch w.c.	14	14	14
Ambient temperature:			
Low - °F/°C	32 / 0	32 / 0	32 / 0
High - °F/°C	122 / 50	122 / 50	122 / 50
Maximum relative humidity (non-condensing)	90%	90%	90%
Minimum water temperature - °F/°C	34 / 1	34 / 1	34 / 1
Maximum water temperature (electronic hi-limit) - °F/°C	190 / 88	190 / 88	190 / 88
Maximum ΔT - supply / return (electronic fence) - °F/°C	40 / 22.2	40 / 22.2	40 / 22.2
Maximum water temperature lockout limit - °F/°C	201 / 94	201 / 94	201 / 94
Power use (120 Vac/60 Hz) @ full fire - Watts (less pumps)	90	79	90
Weight (empty) - lbs/Kg	67 / 30.4	78 / 35.4	88 / 39.9
Pressure vessel water content - USG/liters	1.88 / 7.12	2.79 / 10.56	3.51 / 13.29
Maximum boiler flow rate - USgpm	14	19	25
Minimum boiler flow rate - USgpm	2	3	4
Maximum operating water pressure - psig	50	50	50
Minimum water pressure - psig	8	8	8
Relief valve pressure (supplied) - psig	30	30	30
Approved installation altitude - ASL	0 - 12,000'	0 - 12,000'	0 - 12,000'
Maximum equivalent vent length, each side (vent & air intake) (natural gas or propane)	2": 100' 3" : 240'	2": 50' 3" : 170'	2": N/A 3" : 100'
Air intake options: either direct vent or indoor supply			

Optional Accessories

Secondary Loop Sensor with Stainless Steel Well Kit, IBC part P-216 qty: _____

Condensate Neutralization Tank, IBC part 180-048 qty: _____