iQ2001, Gen II Submittal Data

Date:		Bid Date:	
Project Name:		Fuel Type:	☐ Natural Gas ☐ Propane
Project #:		Factory Option:	☐ iNTouch-BMS
City | State | Zip:			
Engineer:			
Contractor:			

	Temperature Rise (ΔT)°F						
	40	50	60	70	80	90	100
Flow (GPM)	96.4	77.1	64.3	55.1	48.2	42.9	38.6

KEY FEATURES

- Multiple Stainless (316L) Heat Exchangers
- Flexible-Floating Design, stress-relieving and thermal shock resistant
- Built-in Redundancy - Multiple heat engines with individual controls
- Multi-Unit - Masterless cascading with common venting
- Gas Pressures - Operates on gas pressure range of 2.5"-14" WC
- ASME-HLW Compliant
- Designed and Built in the U.S.
- 7" Color Touch Screen - access to usage data, troubleshooting, and parts wear
- Wi-Fi Connectivity

PERFORMANCE

- Turndown Ratio of 66:1 per unit
- Cascade up to 3 units with common venting for a total of over 6,000MBH and a 200:1 total turndown ratio

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Recommended Accessories iQ2001:

Condensate Neutralizer Kit - **CN3001**

This condensate is acidic, with a pH level between 3 and 4. Local building codes may require an in-line neutralizer to be installed (not included) to treat this water.

Outdoor Installation Kit - **SPR0114**

iBMS BacNET- **SPR0117**

Intellihot's iNTouch BMS has three unique features that are not available in any other BMS in the industry.

- External Pump – Powers building recirculation pumps based on learned water usage of the building.
- Remote Setpoint – Allows the temperature to be set remotely via a 0-10 VDC or 4-20mA signal.
- Alarm – Buzzes if it detects anything wrong with any of the components it is connected to, and communicates the appropriate error codes so that the user knows which component needs attention.
- Run-time Status
- Louver Interlock
- Louver Power
- Remote On/Off
- Tank Temperature Sensor if present
- Outdoor Temperature Monitor
- BACNET – Interface with BMS/BAS
- Conveys flame status, error status, temperature, firing rate, blower speed, and performance history.
- Supports remote interlock.

Intellihot Exclusive Service:

telliCare™

Zero Downtime. Zero Worries. Zero Problems

24/7/365 monitoring – With telliCare your units will be monitored 24/7/365 by factory personnel, and should any problems arise, they can take appropriate action.

Monitor the boiler room from your phone:

- Notifications- telliCare monitors various parameters and sends appropriate notifications alerting of potential issues. These notifications can be delegated to the appropriate maintenance person or contracting company.
- Prognostics and Predictive Analytics – our advanced predictive analytics make these reports available on your mobile device

Available on Google play and the Apple app store.

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iQ2001 Specifications

PARAMETERS	MODELS
	iQ2001, Gen II
Type	Indoor/Outdoor, Floor Mounted, Condensing, Fully Modulating, On-Demand Water Heater
Fuel	Preset for NG / LP convertible
Minimum Input (BTU/hr)	30,000
Maximum Input (BTU/hr)	1,999,999
Maximum Output (BTU/hr)	1,919,999
Thermal Efficiency	96%
Turn Down Ratio (TDR)	66:1
Water Inlet / Outlet Connections	3" Headers with 7.5" OD Flange
Gas Inlet Connection	2" Gas Inlet With 6" OD Flange
Condensate Drain Connection	3/4" Flex PVC
Maximum Condensate Flow Rate (GPH)	14.4
Dimensions H X W X D (Inches)	67.7 X 30 X 60.4 (66 CU. FT)
Service Clearances	Recommend 24" on all sides, 32" in the front
Weight (LBS)	1225 LBS
Venting Type	Direct Vent (2 pipe - intake & exhaust), Power Vent (1 pipe - exhaust only)
Venting Materials (USA)	Sch. 40 PVC, Sch. 80 CPVC, Polypropylene, Stainless Steel (AL29-4C)
Venting Materials (Canada)	Type BH Gas Vent Classes: II A (PVC), II B (CPVC), II C (Polypropylene), I (AL 29-4C SS)
Vent Size (Diameter)	8" Ø
Max Vent Length - Single Pipe / Power Vent*	155 ft (8")
Max Vent Length - Two Pipe / Direct Vent*	75 ft (8")
* Venting Note: From the maximum lengths above, deduct 5 ft. per 90º elbow and 2 ft. per 45º elbow	
Ignition	Electronic Spark Ignition
Temperature Range	100ºF – 190ºF
Temperature Stability	+/- 4ºF
Installation Location Ambient Temperature	40ºF – 130ºF
Safety	Flame Rod, Thermal Fuse, Overheat Prevention Device, Fan Speed Monitor, Flue Temperature Monitor, Blocked Vent Detector, Dual Flame Sensing
Water Pressure Min / Max (PSIG)	30 / 160
Pressure Relief Valve (Select BTU/hr Input Rating to Match Model Max Input)	1"
NG/LP - Min. Dynamic Gas Pressure (Full Fire)	NG = 2.5" WC LP= 8" WC (set Gas regulator to 8" WC for NG 11" WC for LP)
NG/LP - Maximum Static Gas Pressure	14" WC (set Gas regulator to 8" WC for NG 11" WC for LP)
Gas Pressure for Adjustments	8" WC for Natural Gas, 11" WC for Propane
Electrical	(2) 120V AC, 60 Hz
Power Consumption	(2) Max 20 Amps
Internal Water Volume (gallons)	8
Features	**iQ**2001, Gen II
High Turn Down	66:1
Built-In Redundancy	Multiple Heat Engines w/ Individual Control
Cascading	Masterless, 3 units, Automatic Rotation
Common Venting	Yes - up to 3 units
Heat Exchanger	Expandable, Stainless 316L
Listing	ETL (Z21.10.3 / CSA 4.3), ASME HLW
Performance GPM	**iQ**2001, Gen II
Hot Water Capacity, 45F Rise (GPM)	85.7
Hot Water Capacity, 70F Rise (GPM)	55.1
Hot Water Capacity, 90F Rise (GPM)	42.9
Hot Water Capacity, 100F Rise (GPM)	38.6
Hot Water Capacity, 140F Rise (GPM)	27.6
Warranty (with recirculation, and unlimited thermal cycles)	Heat Exchanger Coil – 10 years, All Other Parts – 2 years

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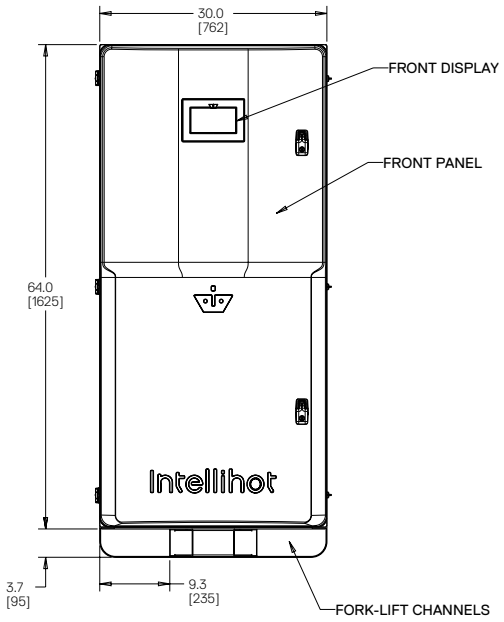
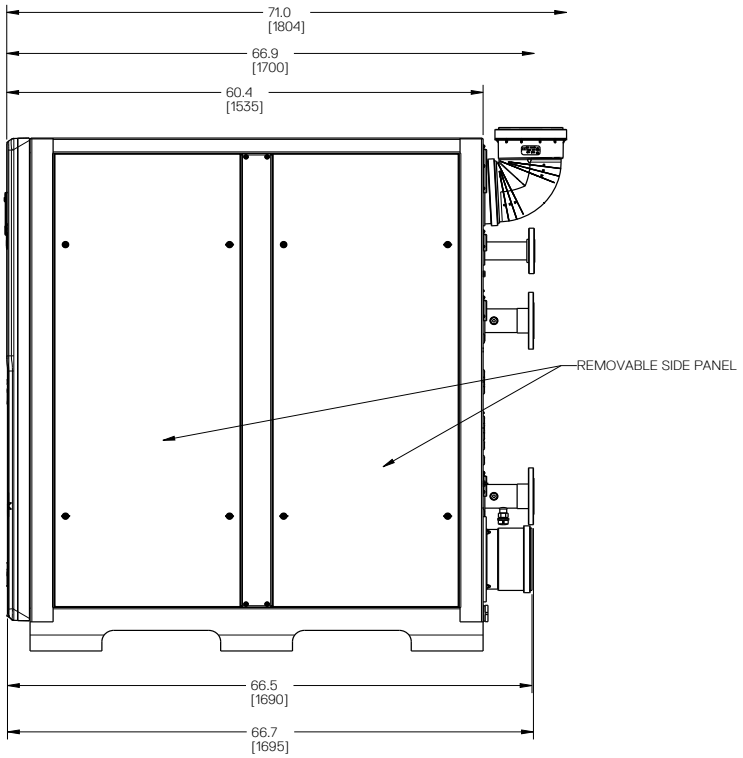
iQ2001 Dimensional Specifications



FRONT VIEW



SIDE VIEW

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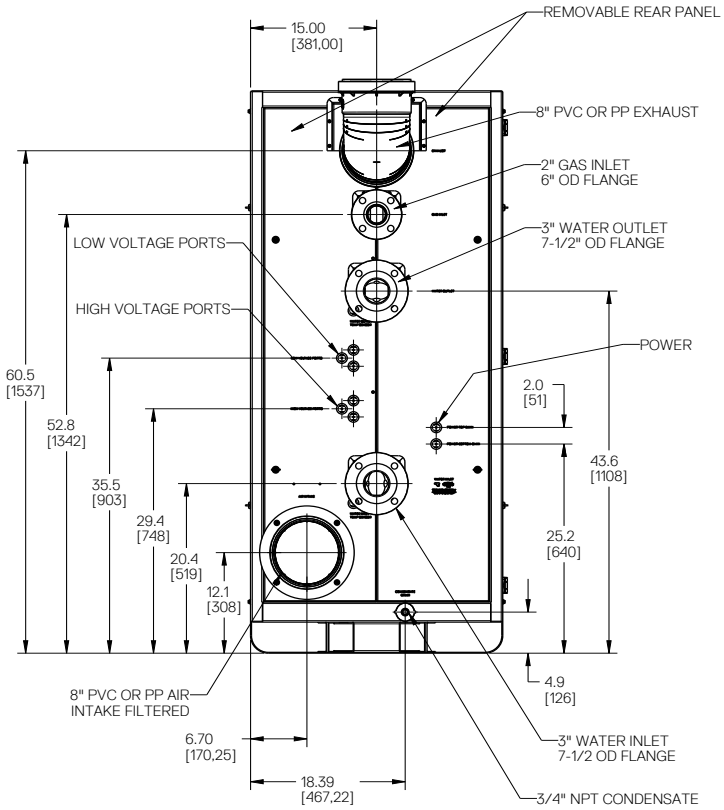
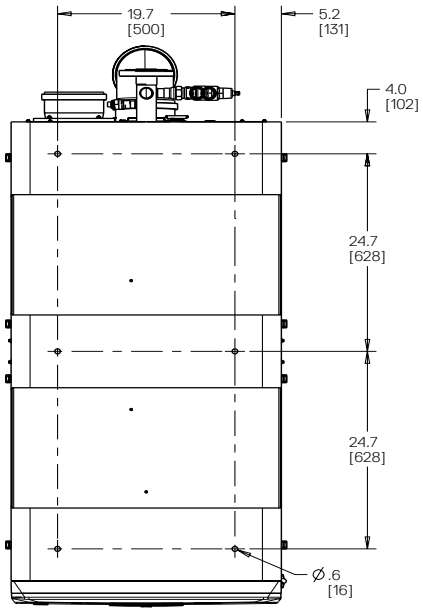
iQ2001 Dimensional Specifications



REAR VIEW



BOTTOM VIEW

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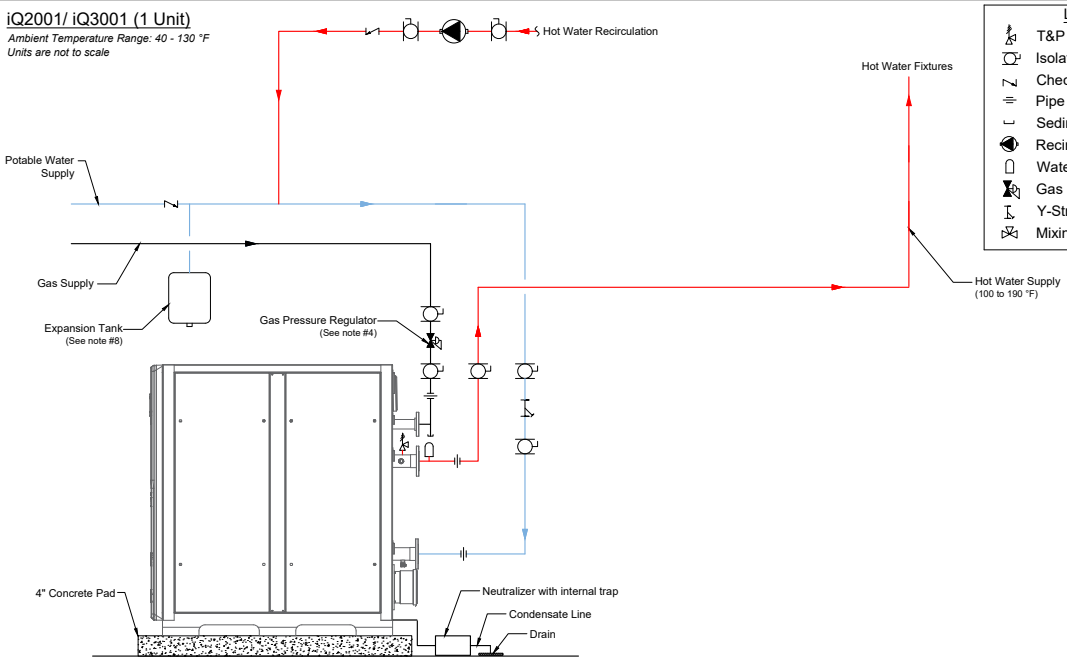
iQ2001, Gen II Configuration Options

iQ2001/ iQ3001 (1 Unit)

Ambient Temperature Range: 40 - 130 °F
Units are not to scale



LEGEND
- T&P Relief Valve
- Isolation Valve
- Check Valve
- Pipe Coupling
- Sediment Trap
- Recirculation Pump
- Water Hammer Arrestor
- Gas Pressure Regulator
- Y-Strainer
- Mixing Valve

Notes:
1. This schematic is a suggested piping diagram. Any additional requirements from local codes and ordinances shall supersede this diagram.
2. Units are not to be installed in a closed loop system. Our gas fired units are HLW stamped.
3. For pipe sizes and gas pressure requirements, please refer to the operation and installation manual.
4. Gas pressure regulators to be installed for each unit. Follow manufacturer's installation instructions.
5. Water hammer arrestor to be installed within 20 ft. of the unit on the hot water supply.
6. Y-strainer to be installed according to manufacturer's instructions, horizontal or vertical preferred.
7. Temperature and pressure relief valve (shipped with the unit) to be installed on the top hot water outlet manifold port.
8. Expansion tank to be sized based on the gallons of water in the plumbing system and to be installed per manufacturer's instruction.

DRAWING NUMBER:
JOB NAME:

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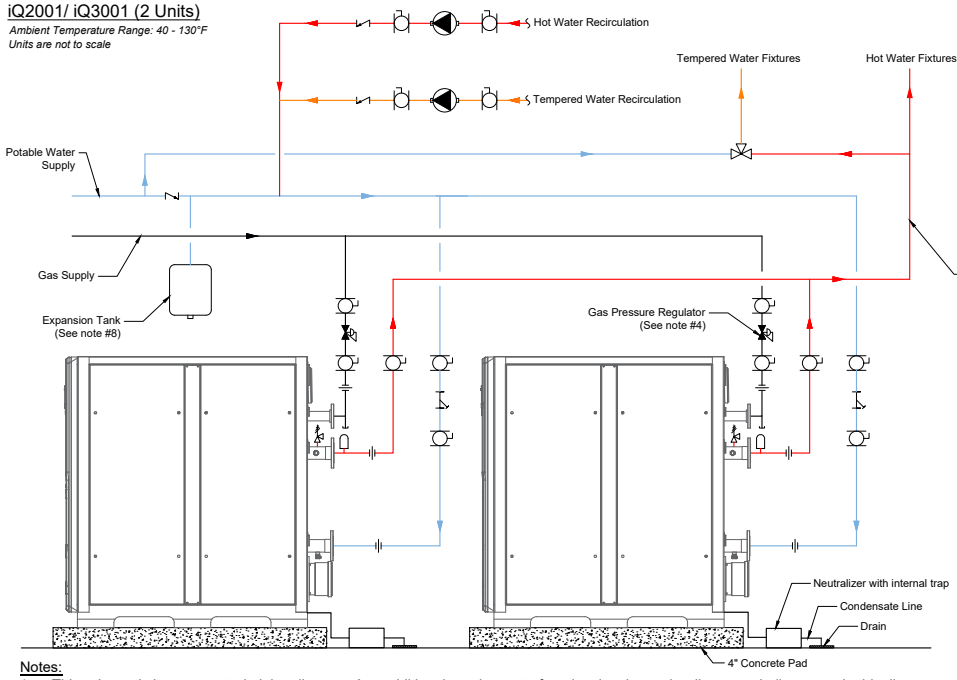
iQ2001/ iQ3001 (2 Units)

Ambient Temperature Range: 40 - 130°F
Units are not to scale



LEGEND
- T&P Relief Valve
- Isolation Valve
- Check Valve
- Pipe Coupling
- Sediment Trap
- Recirculation Pump
- Water Hammer Arrestor
- Gas Pressure Regulator
- Y-Strainer
- Mixing Valve

Notes:
1. This schematic is a suggested piping diagram. Any additional requirements from local codes and ordinances shall supersede this diagram.
2. Units are not to be installed in a closed loop system. Our gas fired units are HLW stamped.
3. For pipe sizes and gas pressure requirements, please refer to the operation and installation manual.
4. Gas pressure regulators to be installed for each unit. Follow manufacturer's installation instructions.
5. Water hammer arrestor to be installed within 20 ft. of the unit on the hot water supply.
6. Y-strainer to be installed according to manufacturer's instructions, horizontal or vertical preferred.
7. Temperature and pressure relief valve (shipped with the unit) to be installed on the top hot water outlet manifold port.
8. Expansion tank to be sized based on the gallons of water in the plumbing system and to be installed per manufacturer's instruction.

DRAWING NUMBER:
JOB NAME:

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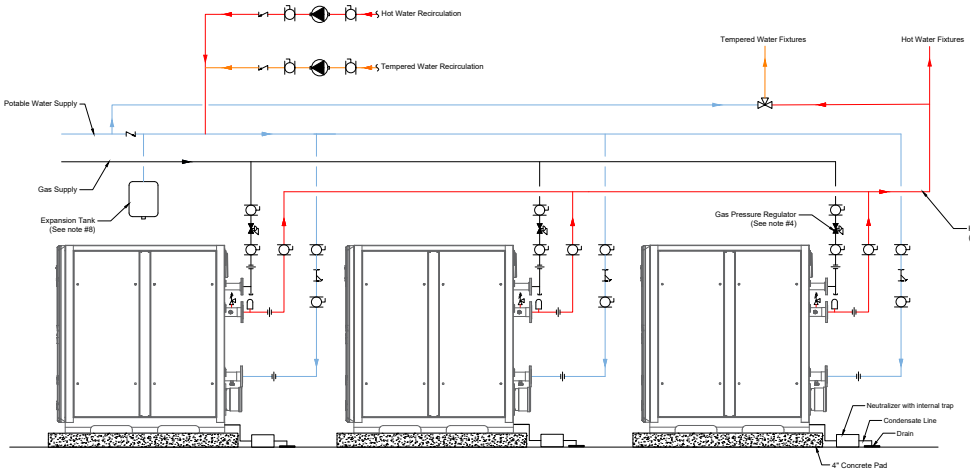
iQ2001, Gen II Configuration Options

iQ2001 (3 Units)

Ambient Temperature Range: 40 - 130°F

Units are not to scale



LEGEND

- T&P Relief Valve
- Isolation Valve
- Check Valve
- Pipe Coupling
- Sediment Trap
- Recirculation Pump
- Water Hammer Arrestor
- Gas Pressure Regulator
- Y-Strainer
- Mixing Valve

Notes:

1. This schematic is a suggested piping diagram. Any additional requirements from local codes and ordinances shall supersede this diagram.
2. Units are not to be installed in a closed loop system. Our gas fired units are HLW stamped.
3. For pipe sizes and gas pressure requirements, please refer to the operation and installation manual.
4. Gas pressure regulators to be installed for each unit. Follow manufacturer's installation instructions.
5. Water hammer arrestor to be installed within 20 ft. of the unit on the hot water supply.
6. Y-strainer to be installed according to manufacturer's instructions, horizontal or vertical preferred.
7. Temperature and pressure relief valve (shipped with the unit) to be installed on the top hot water outlet manifold port.
8. Expansion tank to be sized based on the gallons of water in the plumbing system and to be installed per manufacturer's instruction.

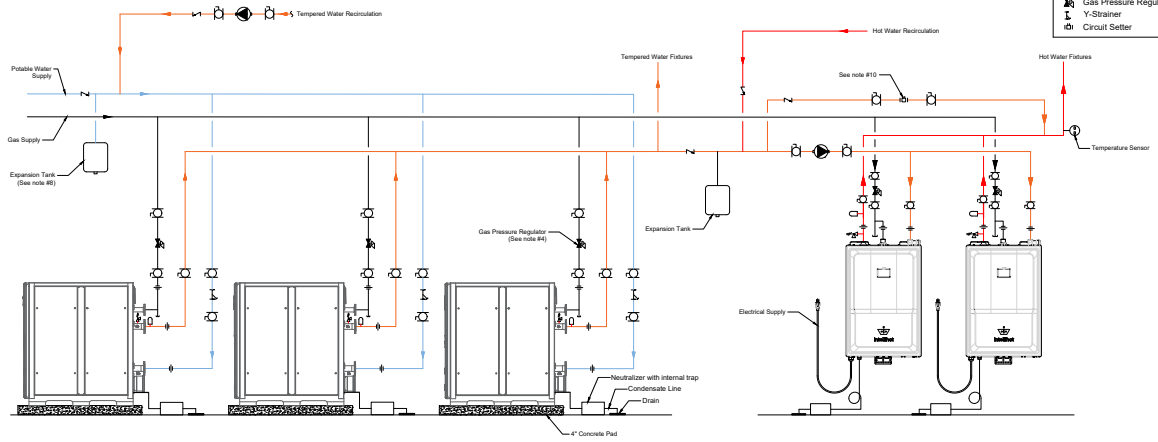
DRAWING NUMBER:

JOB NAME:

iQ2001 (3 Units) + Wall Booster (2 Units)

Ambient Temperature Range: 40 - 130°F

Units are not to scale



LEGEND

- T&P Relief Valve
- Isolation Valve
- Check Valve
- Pipe Coupling
- Sediment Trap
- Recirculation Pump
- Water Hammer Arrestor
- Gas Pressure Regulator
- Y-Strainer
- Circuit Setter

Notes:

1. This schematic is a suggested piping diagram. Any additional requirements from local codes and ordinances shall supersede this diagram.
2. Units are not to be installed in a closed loop system. Our gas fired units are HLW stamped.
3. For pipe sizes and gas pressure requirements, please refer to the operation and installation manual.
4. Gas pressure regulators to be installed for each unit. Follow manufacturer's installation instructions.
5. Water hammer arrestor to be installed within 20 ft of the unit on the hot water supply.
6. Y-strainer is built into the wall unit and accessible for service from the outside.
7. Temperature and pressure relief valve (shipped with the unit) to be installed on the hot water supply.
8. Expansion tank to be sized based on the gallons of water in the plumbing system and to be installed per manufacturer's instruction.
9. Venting materials for the unit should be CPVC, approved polypropylene, or AL29-4C stainless steel.
10. Adjust circuit setter and/or booster set temperature so that required fixture temperature is obtained on high temperature circuit.

DRAWING NUMBER:

JOB NAME:

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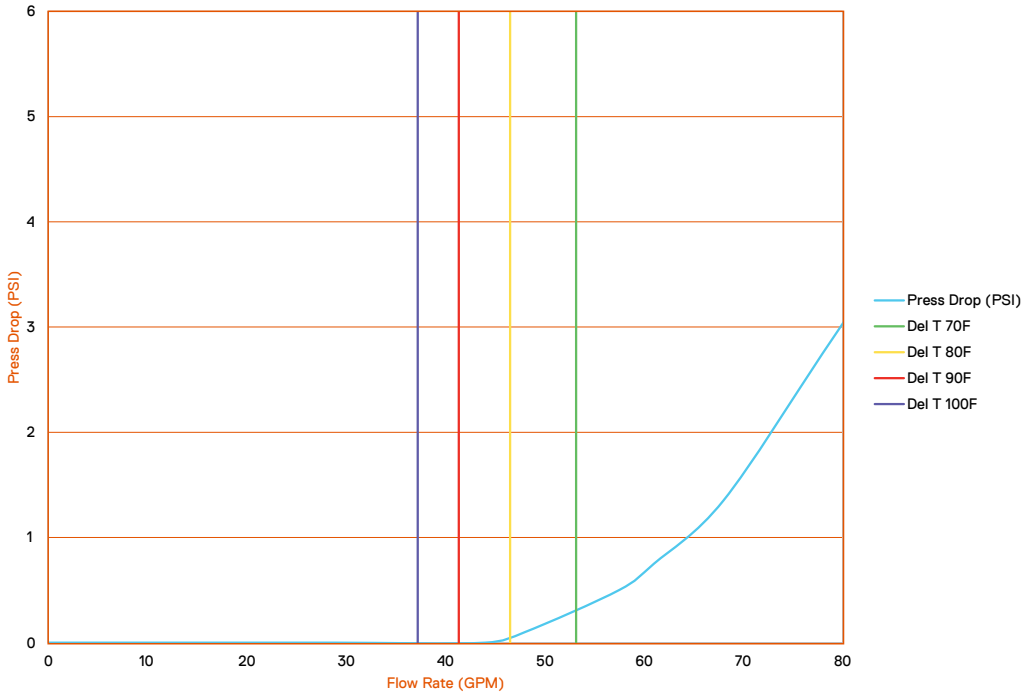
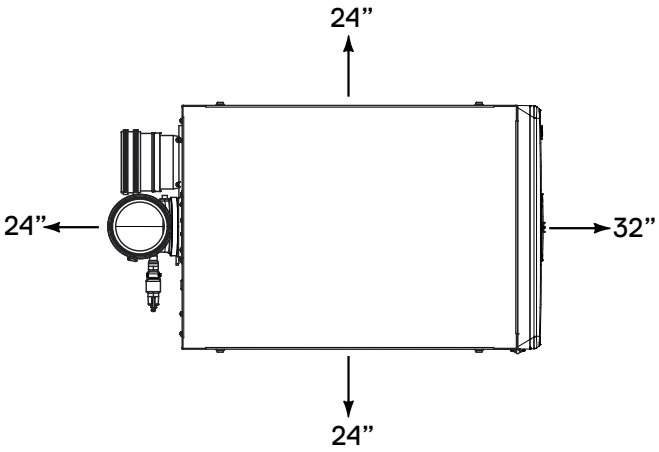
iQ2001, Gen II Pressure Drop & Clearance Requirements



Location	Required		Recommended
	From Combustibles	From Non-Combustibles	Service Clearance[1]
Top	6” (152 mm)	2” (50.8 mm)	18” (457 mm)
Back	5/8” (15.8 mm)	5/8” (15.8 mm)	24” (610 mm)
Sides	1” (25.4 mm)	1/2” (12.7 mm)	24” (610 mm)
Front	2” (51 mm)	2” (50.8 mm)	32” (813 mm)
Bottom	0” (0 mm)	0” (0 mm)	0” (0 mm)

[1] Service clearances are recommended dimensions to allow for normal service of the unit.



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iQ2001, Gen II Venting

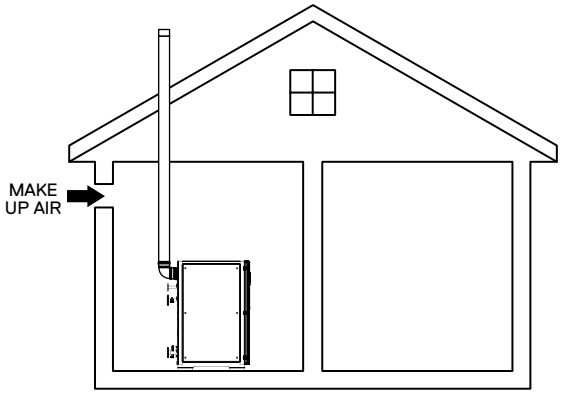
Number of Units	Venting Type	Maximum Pipe Length in Feet			
		8" Diameter	10" Diameter	12" Diameter	14" Diameter
		iQ2001	**iQ**2001	**iQ**2001	**iQ**2001
1	1 pipe - PV	155	460	500	500
	2 pipe - DV	75	230	250	250
2	1 pipe - PV	40	130	315	500
	2 pipe - DV	20	65	155	250
3	1 pipe - PV	-	60	150	320
	2 pipe - DV	-	30	75	160

PV = Power Vent
DV = Direct Vent

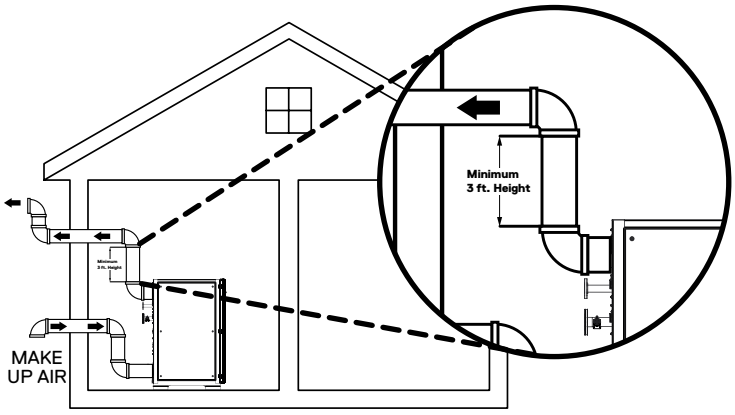
Note:

1. Reduce the maximum equivalent length above by 5 feet per 90° elbow used and by 2 feet per 45° elbow used. Do not exceed the above set limits.

2. **SAFETY INSTRUCTIONS: Do not connect any other appliance vents to the water heater inlet or outlet pipes.**



1-Pipe Direct Vent



2-Pipe Direct Vent

iQ2001, Gen II Electrical Data

Electrical power required for the water heater is (2) 120V AC, 60 Hz. The circuit breaker for each circuit (each unit has 2 circuits) shall be sized for a power consumption of 20A (FLA). Larger breakers can be used for multiple units. Please ensure correct polarity of wiring before powering up unit.