


Commercial Tankless i200 | i250, Gen II Submittal Data

Date:	<input type="text"/>	Bid Date:	<input type="text"/>
Project Name:	<input type="text"/>	Fuel Type:	<input type="checkbox"/> Natural Gas <input type="checkbox"/> Propane
Project #:	<input type="text"/>	Model Selection:	<input type="checkbox"/> i200 <input type="checkbox"/> i250
City State Zip:	<input type="text"/> <input type="text"/> <input type="text"/>		
Engineer:	<input type="text"/>		
Contractor:	<input type="text"/>		

 Flow (GPM)	Model	Temperature Rise (ΔT) °F						
		40	50	60	70	80	90	100
	i200	9.6	7.7	6.4	5.5	4.8	4.3	3.8
	i250	12.0	9.6	8.0	6.9	6.0	5.4	4.8



KEY FEATURES

- Stainless (316L) Heat Exchanger
- Flexible-Floating Design, stress-relieving and thermal shock resistant
- Multi-Unit - Masterless cascading with common venting
- Gas Pressures - Operates on gas pressure range of 2.5"-14" WC
- Designed and Built in the U.S.
- 3.5" Color Touch Screen - access to usage data, troubleshooting, and parts wear
- Factory monitoring via telliCare messaging.

PERFORMANCE

- Turndown Ratio of 7:1 (i200) & 8.3:1 (i250) per unit.
- Cascade up to 10 units with common venting for a total of over 2500MBH and a 83:1 total turndown ratio



i200, Gen II | i250, Gen II Short Spec & Accessories

The water heater shall be a direct fired tankless, fully condensing, water-tube design. The power burner shall have full modulation. The minimum firing rate shall not exceed 30,000 BTU/HR. The heat exchanger shall be constructed with 316L stainless steel helical water tube and be fully floating with no welded joints. The water heater control system shall incorporate sequencing logic that would allow masterless cascading without the need for a master controller. Cascaded units shall sequence between each other, operating in parallel to meet the load. Each cascaded unit will default to individual control upon failure of the sequencing chain. Changes to operational parameters on any one of the units will automatically adjust all other units to the most recent parameter change.

Recommended Accessories i Series:

1. Condensate Neutralizer Kit -

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

2. Outdoor Installation Kit

3. iBMS BacNET- NA

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

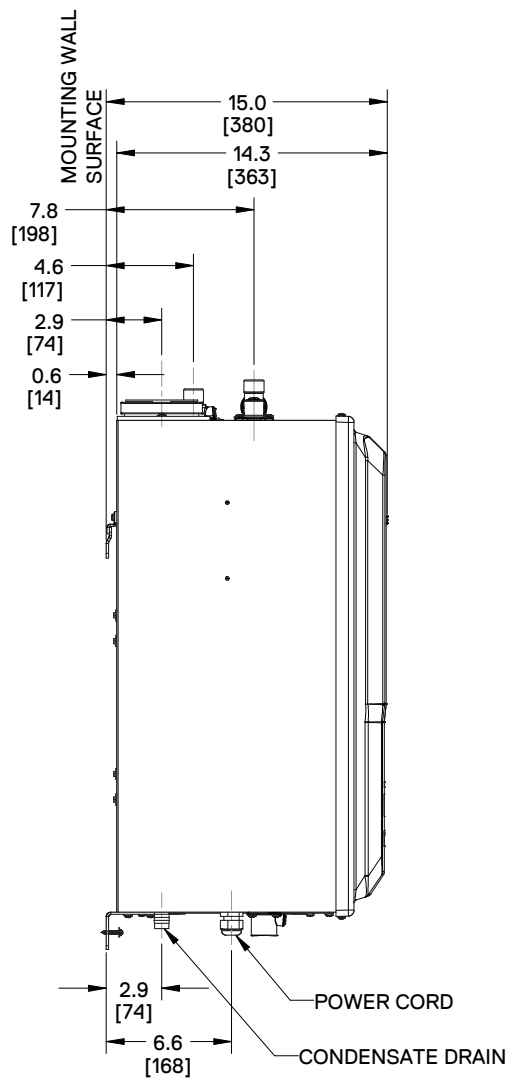
- External Pump Power – Powers building recirculation.
- Alarm – Buzzes if it detects anything wrong with any of the components it is connected to, and communicates the appropriate error codes so that the user knows which component needs attention.

i200, Gen II | i250, Gen II Specifications

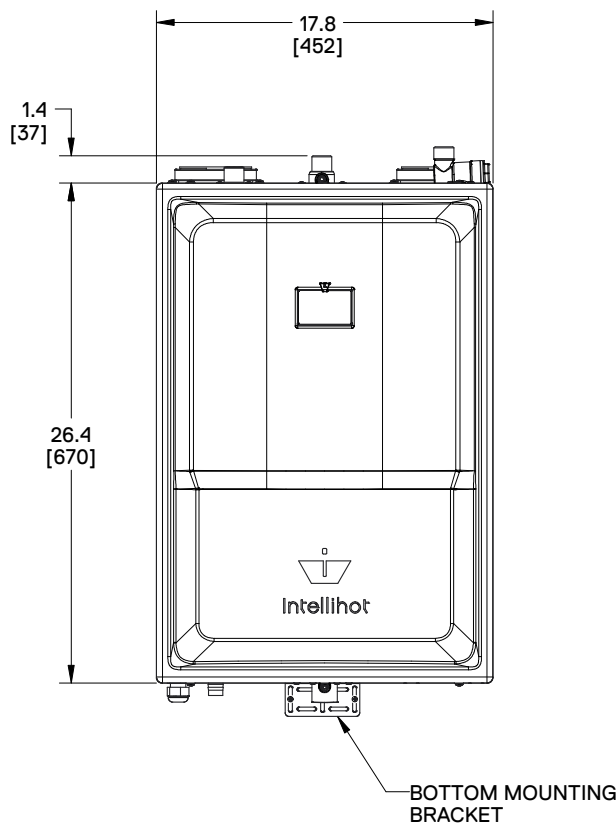
PARAMETERS	MODEL	
	i200, Gen II	i250, Gen II
Type	Indoor/Outdoor, Wall-Hung, Fully Condensing, Direct Ignition	
Fuel	Preset for NG / LP Convertible	
Minimum / Maximum Input (BTU/hr)	30,000 / 199,500	30,000 / 250,000
Thermal Efficiency	96%	96%
Energy Factor	0.93	N/A
Dimensions H X W X D (Inches)	26.4 X 17.8 X 15 (3.9 CU. FT)	
Weight (LBS)	93 LBS	
Water and Gas Connections	3/4" NPT	
Maximum Condensate Flow Rate (GPH)	1.4	1.8
Minimum Flow Rate	0.6 GPM	
Venting Materials	Sch. 40 PVC, Sch. 80 CPVC, Polypropylene, Stainless Steel (AL29-4C)	
Max 3" Vent Length - Single Pipe / Power Vent	200 ft, deduct 5 ft per 90° elbow	130 ft, deduct 5 ft per 90° elbow
Max 3" Vent Length - Two Pipe / Direct Vent	100 ft, deduct 5 ft per 90° elbow	65 ft, deduct 5 ft per 90° elbow
Max 2" Vent Length - Single Pipe / Power Vent (2" not allowed at elevations above 4,000 ft)	26 ft, deduct 5 ft per 90° elbow	N/A
Max 2" Vent Length - Two Pipe / Direct Vent (2" not allowed at elevations above 4,000 ft)	21 ft, deduct 5 ft per 90° elbow	N/A
Installation Location Ambient Temperature	20°F – 130°F (To reach 20 °F ambient, install per the IO manual and use software version 530-6 (i200) / 580-6 (i250) or higher.)	
Safety	Flame Rod, Thermal Fuse, Overheat Prevention Device, Fan Speed Monitor, Flue Temperature Monitor, Blocked Vent Detector, Water Shut-Off Valve, 2X10A Fuse, Dual Flame Sensing	
Water Pressure Min / Max (PSI)	30 / 150	
Natural Gas and Propane – Minimum Static Gas Pressure 1/2" Pipe	NG=5" W.C. (non-corrugated, black iron); LP=8" WC	NG=6" W.C. (non-corrugated, black iron); LP=8" WC
Natural Gas and Propane – Minimum Static Gas Pressure 3/4" Pipe	NG=2.5" W.C. (non-corrugated, black iron); LP=8" WC.	
Natural Gas and Propane – Minimum Dynamic Pressure at Full Firing Rate	0.5" W.C. (set Gas regulator to 8" WC for NG 11" WC for LP)	
Natural Gas and Propane – Maximum Static Gas Pressure	14" W.C. (set Gas regulator to 8" WC for NG 11" WC for LP)	
Gas Regulator Pressure Set To	8" W.C. for natural gas and 11" WC for propane	
Electrical Requirements	120V AC, 60 Hz, 15 Amp Circuit Breaker	
Power Consumption	500W (Max 4.2 Amps), 8W (Standby)	
FEATURES & PERFORMANCE	i200, Gen II	i250, Gen II
Cascading	Masterless, 10 units	
Heat Exchanger	Stainless 316L	
Hot Water Capacity (35F Rise)	11.0	13.8
Hot Water Capacity (45F Rise)	8.5	10.7
Hot Water Capacity (77F Rise)	5.0	6.3
Domestic Hot Water Temperature Settings	100 – 185°F	
WARRANTY†	i200, Gen II	i250, Gen II
Basic Warranty (without StartUp)	Hex – 1 Year, Parts – 1 Year, Labor - None	
Enhanced Warranty (with StartUp)	Hex – 6 Years, Parts – 2 Years, Labor - None	
Labor Warranty (with Start Up & telliCare Connection)	Hex – 6 Years, Parts – 2 Years, Labor - 1 Year	

† Heat Exchanger assembly (HEX) does not include, gas valve/blower assembly & sidecast. On 10 year| prorated after year 5. On 6 year| prorated after year 3. telliCare Service is free for one year. Start of warranty is: Per startup report or 2 months from date of manufacture. More specific warranty details can be found in 1/0 Manuals section 18.

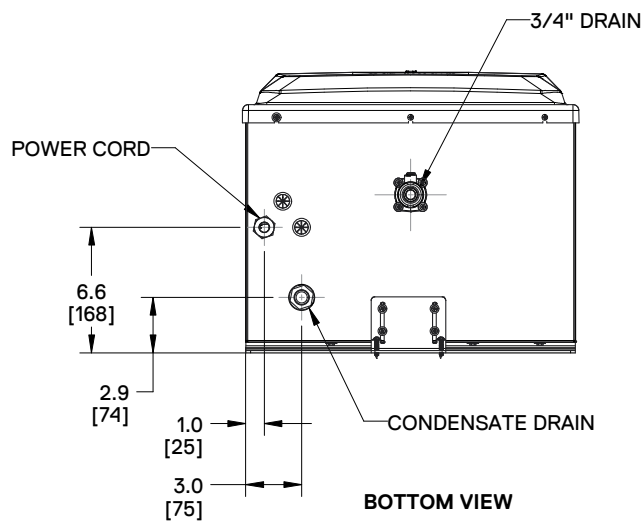
i200, Gen II | i250, Dimensional Specifications



SIDE VIEW



FRONT VIEW

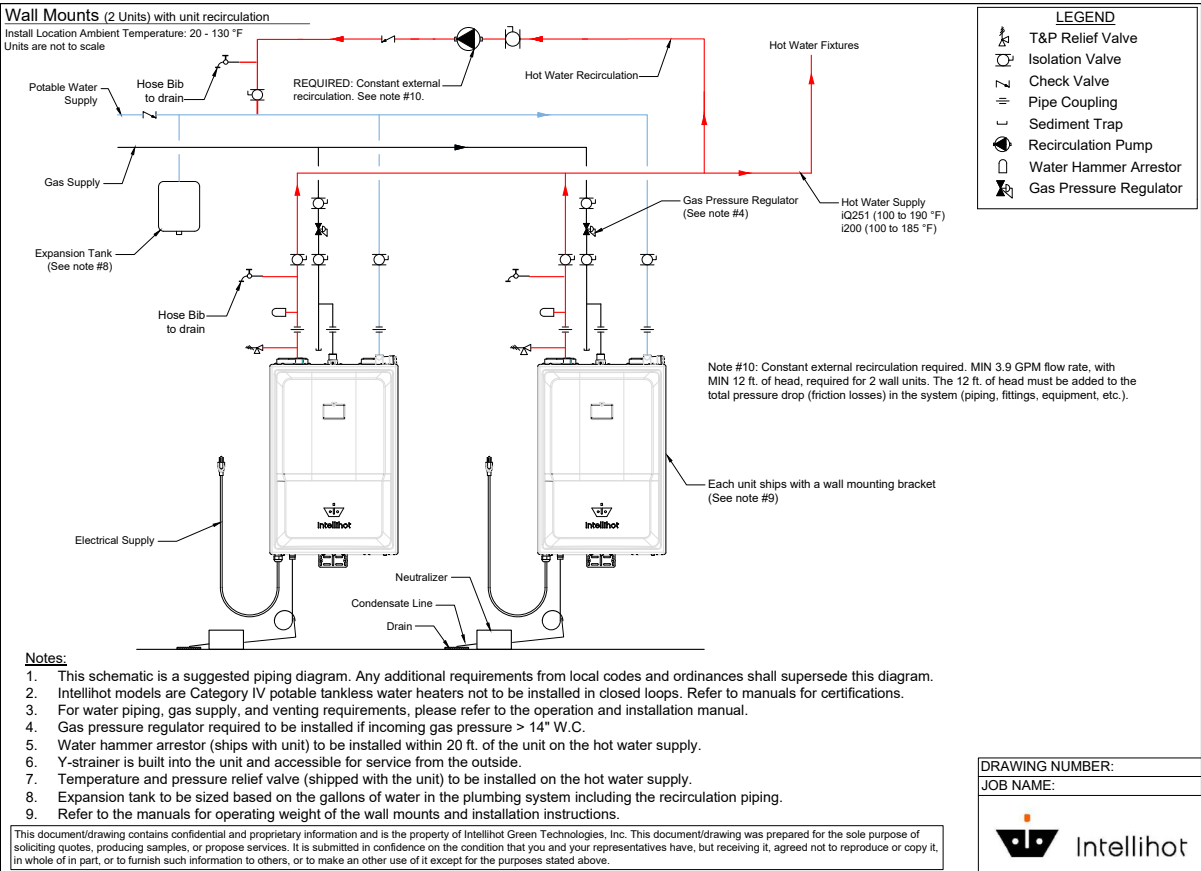
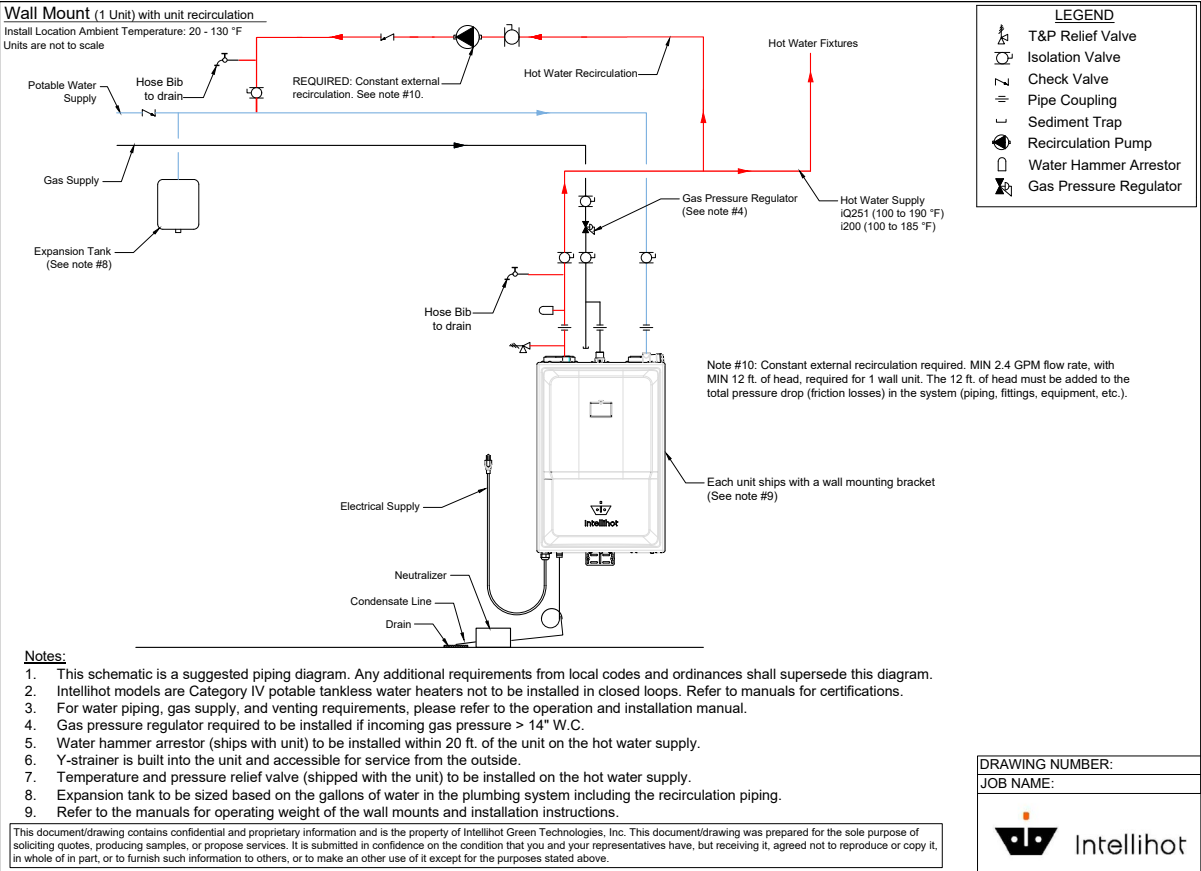


BOTTOM VIEW

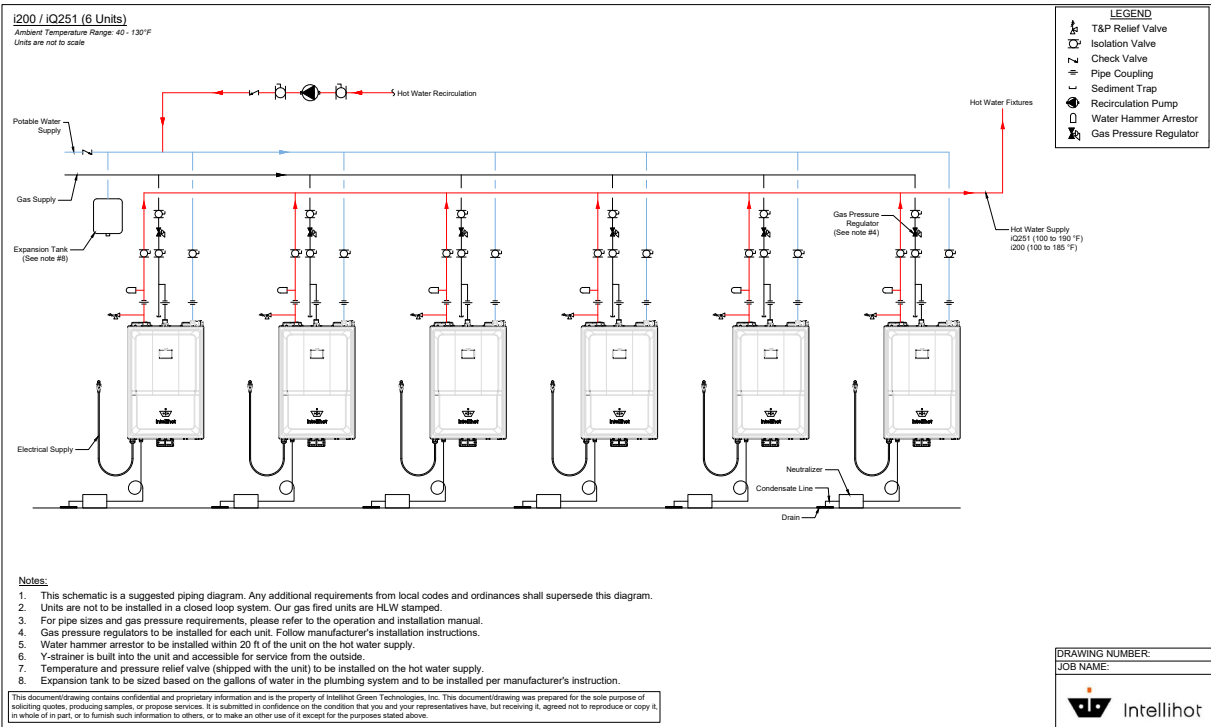
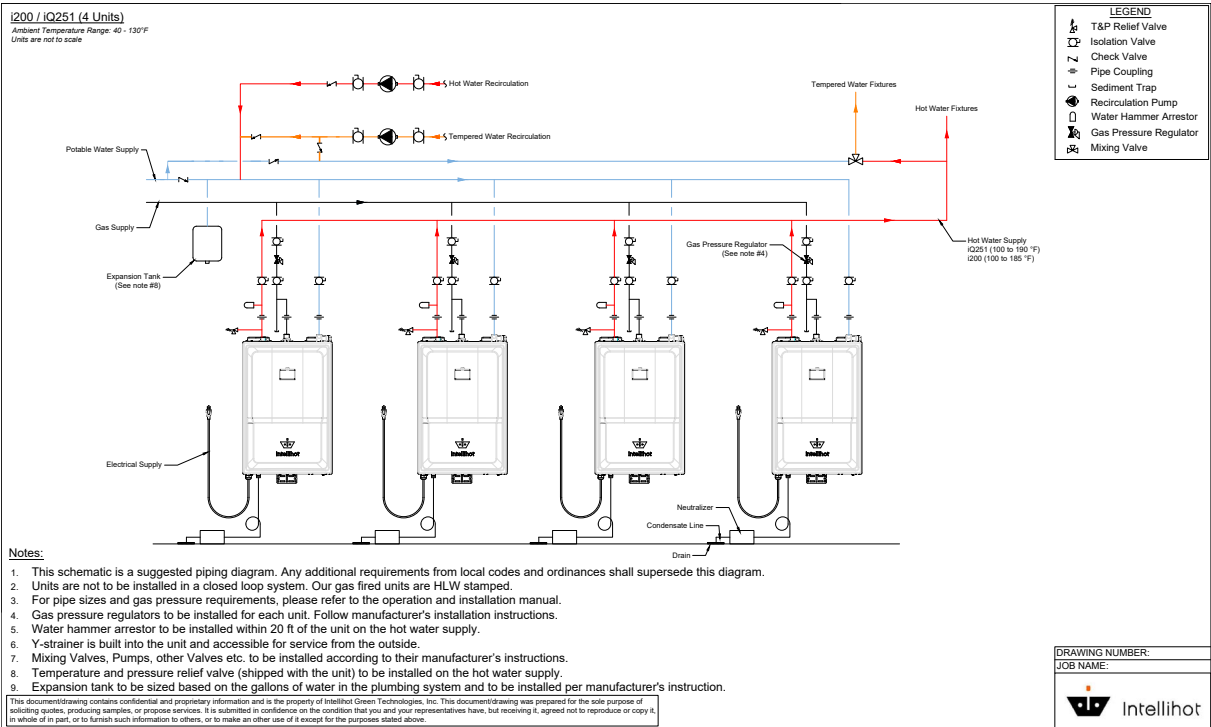
Note: All dimensions are in Inches, and equivalent metric values are specified within []



i200, Gen II | i250, Gen II External Recirculation



i200, Gen II | i250, Gen II Configuration Options

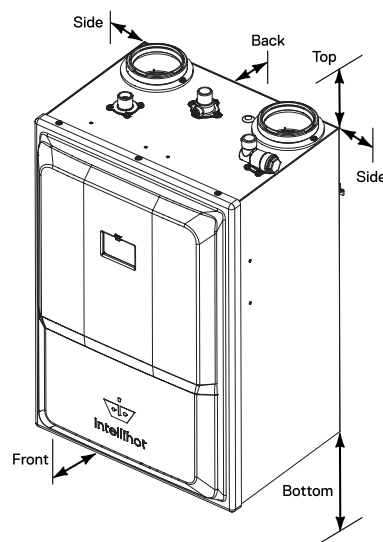
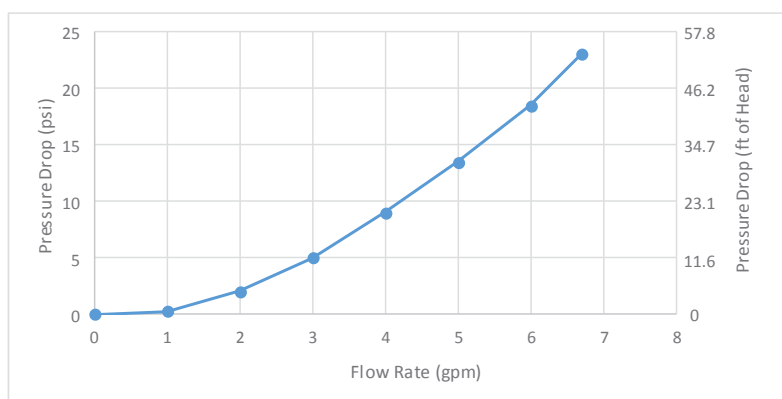


i200, Gen II | i250, Gen II Clearance Requirements & Pressure Drop

Location	Required		Recommended Service Clearance ¹
	From Combustibles	From Non-Combustibles	
Top	6" (152 mm)	2" (50.8 mm)	12" (305 mm)
Back	5/8" (15.8 mm)	5/8" (15.8 mm)	5/8" (15.8 mm)
Sides	1" (25.4 mm)	1/2" (12.7 mm)	5/8" (15.8 mm)
Front	2" (51 mm)	2" (50.8 mm)	30" (762 mm)
Bottom	12" (305 mm)	12" (305 mm)	12" (305 mm)

¹ Service clearances are suggested to allow for normal service.

² Mounting bracket automatically sets this dimension.



i200, Gen II | i250, Gen II External Recirculation Flow

The external recirculation pump head must be 12 ft or higher. The recirculation pump must be installed as per the manufacturer's recommendations.

i200, Gen II | i250, Gen II Electrical Data

Electrical power required for the water heater is 120V AC, 60 Hz. The circuit breaker shall be a minimum of 15 amps. Only one water heater should be plugged into an outlet. Please ensure correct polarity of outlet before plugging in heater.

No. of units	Minimum External Recirculation Flow (GPM)
1	2.4
2	3.9
3	4.5
4	5.1
5	5.6
6	6.2
7	6.6
8	6.8
9	7.1
10	7.5

i200, Gen II | i250, Gen II Cascading Compatibility

Model	Compatible (Max # of Cascaded Units)
i200	Yes (Max. 10 Units)
i250	Yes (Max. 10 Units)
All Other Models: i200, i250, iQ251, iQ251D, iN401, iN501, iQ751, iQ1001, iQ1501, iQ2001, and iQ3001	Not Supported



i200, Gen II | i250, Gen II Venting Guidelines

Number of Units	Venting Type	Maximum Pipe Length in Feet									
		2" Diameter		3" Diameter		4" Diameter		6" Diameter		8" Diameter	
		i200	i250	i200	i250	i200	i250	i200	i250	i200	i250
1	1 Pipe	26	200	130	200	130	-	-	-	-	-
	2 Pipe	21	100	65	100	65	-	-	-	-	-
2	1 Pipe	-	-	-	200	130	-	-	-	-	-
	2 Pipe	-	-	-	100	65	-	-	-	-	-
3	1 Pipe	-	-	-	100	30	200	130	-	-	-
	2 Pipe	-	-	-	50	30	100	65	-	-	-
4	1 Pipe	-	-	-	-	-	200	130	-	-	-
	2 Pipe	-	-	-	-	-	100	65	-	-	-
5	1 Pipe	-	-	-	-	-	200	130	-	-	-
	2 Pipe	-	-	-	-	-	100	65	-	-	-
6	1 Pipe	-	-	-	-	-	200	130	-	-	-
	2 Pipe	-	-	-	-	-	100	65	-	-	-
7	1 Pipe	-	-	-	-	-	150	45	-	-	-
	2 Pipe	-	-	-	-	-	75	45	-	-	-
8	1 Pipe	-	-	-	-	-	100	30	200	130	-
	2 Pipe	-	-	-	-	-	50	30	100	65	-
9	1 Pipe	-	-	-	-	-	-	-	200	130	-
	2 Pipe	-	-	-	-	-	-	-	100	65	-
10	1 Pipe	-	-	-	-	-	-	-	200	130	-
	2 Pipe	-	-	-	-	-	-	-	100	65	-

1 Pipe - Only exhaust out pipe is connected and the combustion air intake is from within the room. For example, one i200 with a 3" diameter, the maximum exhaust pipe length for 1 pipe is 200 feet.

2 Pipe - Both the combustion air intake and the exhaust pipe are connected. In this case, the table specifies the maximum length per pipe. For example, one i200 with 3" diameter, 100 feet maximum is allowed for combustion air intake pipe and exhaust out pipe. The 100 feet maximum is per pipe.

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. If multiple units are common vented, then the units must be cascaded. Please refer to the combustion section for how to do combustion with common vented units.
3. SAFETY INSTRUCTIONS: Do not connect any other appliance vents to the water heater inlet or outlet pipes.

