

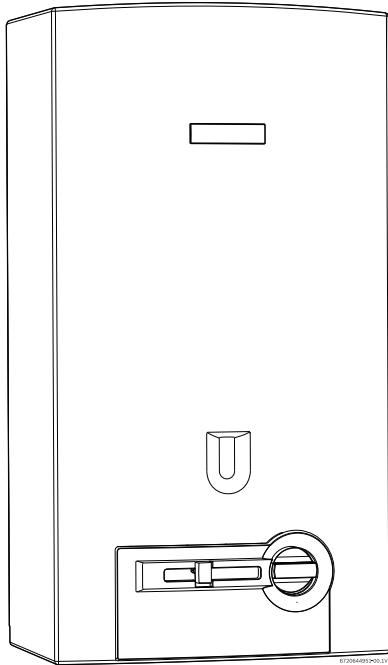
330PN Tankless Water Heater

Engineering
Submittal
Sheet



BOSCH

Overview and Certifications



Massachusetts
Plumbing Board
Approved

Engineering Specifications

Water heater shall be a Model Therm 330 PN NG or 330 PN LP. Plant shall consist of ___Model Therm 330 PN NG and ___Model Therm 330 PN LP tankless water heaters as manufactured by Bosch Thermotechnology Corp. Heater shall be CSA/ANSI Z21.10.3 listed. Heater shall have an input of 75 MBH with a gross output of 60 MBH when fired with natural gas. Unit shall operate with a minimum of 77% ANSI Z-21 efficiency. Tankless water heater shall have a recovery of 93.5 gallons per hour at a 77°F temperature rise.

CONSTRUCTION

Water heater shall be gas fired, tankless design with a modulating gas valve and standing pilot. Burner shall be capable of 2.5:1 turndown of firing, without loss of combustion efficiency. Heat exchanger/combustion chamber shall incorporate a multi pass copper tube and fin design. Heat exchanger shall be rated for

maximum working pressure not less than 150 psig. Vent shall use 4" diameter galvanized B-vent material.

INSTALLATION

All aspects of installation of Water Heater Plant shall be in strict accordance with manufacturer's instructions. Materials shall conform to all manufacturer's recommendations including a manufacturer listed vent system.

Water heater plant piping shall be field constructed of materials as specified. Water heater shall be installed with individually isolating shutoff valves for service and maintenance, and a hot water hose connection for field testing. Unit shall have an ASME approved temperature/pressure relief valve with a setting of 150 psig. Water heater shall require a minimum gas pressure of 4.7" W.C. (Natural Gas) at 1,000 scfh

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Engineering Specifications

(full load rated capacity). The water heater shall be provided with an individual supply gas regulator for proper gas regulation with a 1/2" NPT connection.

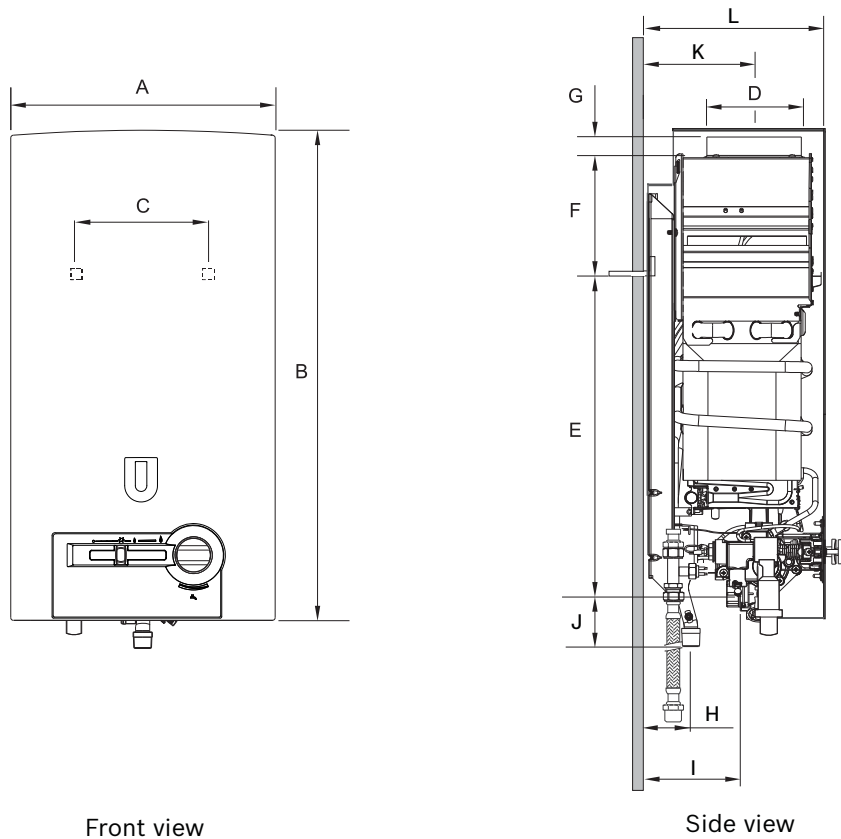
MODE OF OPERATION

Control of discharge water temperature shall be set through a dial at the front of the unit with a field adjustment from high to low.

WARRANTY

The heat exchanger shall carry a 15-year limited warranty against leakage due to defects in materials, workmanship or corrosion in a residential, non-direct recirculation system, subject to the manufacturer's water quality requirements. All other parts and components shall carry a 2 year limited warranty against defects in materials or workmanship.

Dimensions and Connections



Dimensions

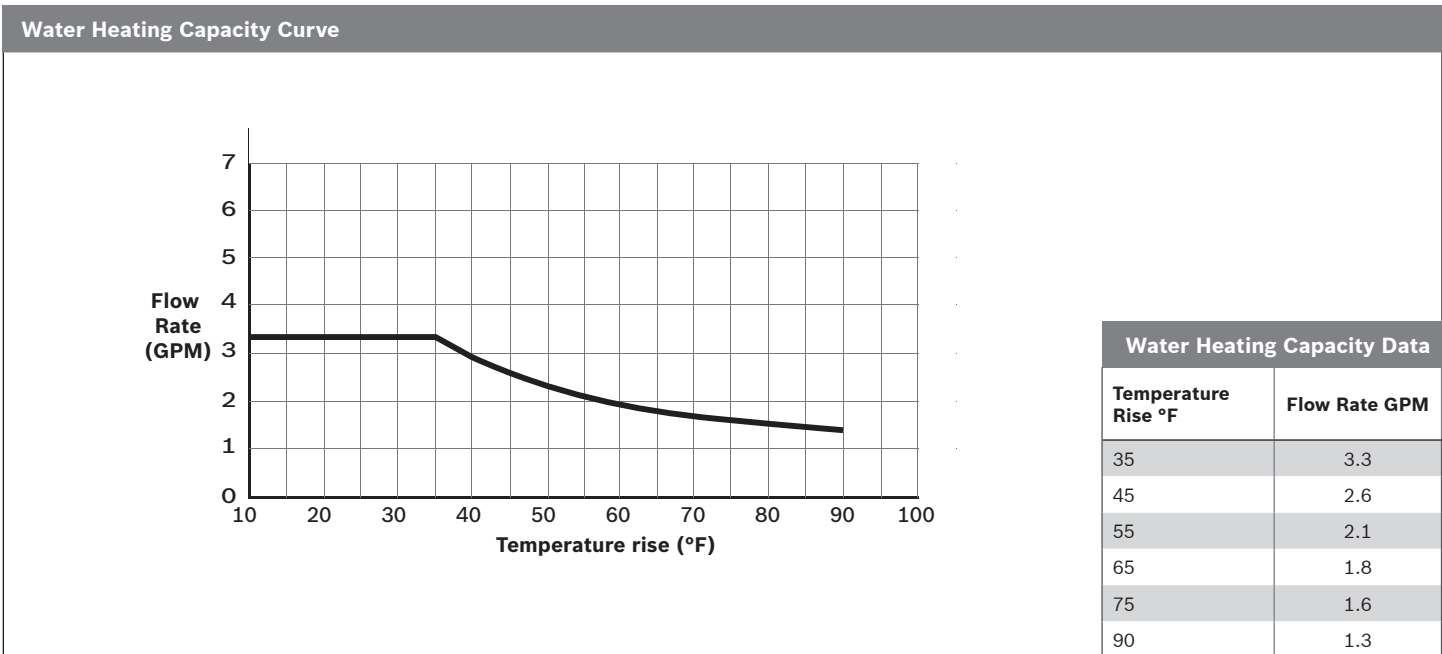
	Unit	A	B	C	D	E	F	G	H	I	J	K	L
Value	Inches	12.20	22.83	9.00	4.00	20.71	2.36	1.00	1.97	3.82	2.50	4.92	8.66

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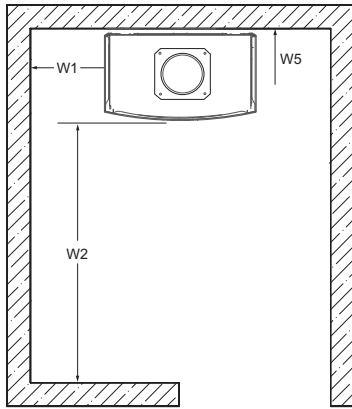


Performance Data		
	Unit	Value
Maximum gas input	BTU	74,900
Maximum output	BTU	60,000
Minimum output	BTU	23,906
Thermal efficiency	%	77

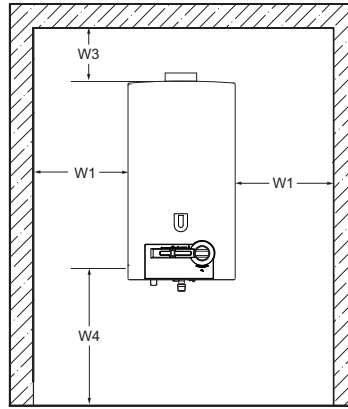
Operational Data		
	Unit	Value
330 PN NG / Natural Gas - part number	-	7701331014
330 PN LP / Liquid Propane - part number	-	7701431941
Weight	lbs	26
Min. Inlet gas pressure NG / LP	Inch W.C.	5.7 / 10.5
Max. Inlet gas pressure NG / LP	Inch W.C.	14
Max. Working pressure	psi	150
Min. Working pressure	psi	13
Min. Activation rate	GPM	0.5
Relief valve pressure rating	psi	150
Venting category	-	I
Approved vent pipe material	-	4 inch diameter double wall Type B gas vent



Clearances



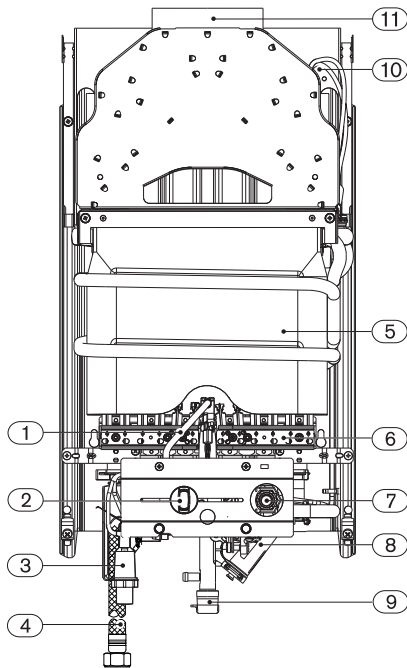
Top View



Front View

Description	Unit	Minimum clearance
Side clearance W1	Inch	4
Front clearance W2	Inch	4
Top clearance W3	Inch	12
Floor clearance W4	Inch	12
Rear clearance W5	Inch	0

Tankless Components



Components Legend

- 1 Pilot gas tubing
- 2 Gas control slide
- 3 Piezo
- 4 Flexible hot outlet
- 5 Heat exchanger
- 6 Burner
- 7 Temperature adjustment knob
- 8 Water valve / cold inlet
- 9 Gas connection
- 10 Flue gas limiter
- 11 Exhaust outlet