

# Integra 500 Gas Condensing Water Heater

## Engineering Submittal Sheet

### Integra 500 Performance Data

Maximum Gas Input (BTU)	199,000
Minimum Input (BTU)	19,900
Maximum Output (BTU)	179,300
Minimum Output (BTU)	18,300
Thermal Efficiency	92%
Combustion Efficiency	93%

### Integra 500 Operational Data

Weight (lbs.)	74
Min. Inlet Gas Pressure NG("WC) / LP("WC)	3.5 / 8
Max. Inlet Gas Pressure NG("WC) / LP("WC)	10.5 / 13
Maximum Output Temperature (°F)	140°F
Flow Rate at 30°F ΔT (GPM) <sup>1</sup>	12.0
Flow Rate at 39°F ΔT (GPM)	9.2
Flow Rate at 45°F ΔT (GPM)	8.0
Flow Rate at 60°F ΔT (GPM)	6.0
Max. Working Pressure (psi)	150
Min. Working Pressure (psi)	30
Min. Activation Flow (GPM)	.65
Relief Valve Pressure Rating (psi)	150
Max equivalent exhaust vent length (ft)	26
Max equivalent combustion air vent length (ft)	26
Venting Category	IV

<sup>1</sup> To obtain flow rates greater than 9.2 GPM, installation of a tempering valve on the hot water outlet of the heater will permit the blending of cold water which will lower the delta T to 30 degrees, allowing flow rates greater than 9.2 GPM.

### Integra 500 Approved Venting Material

Item	Material	United States	Canada
Vent or air pipe and fitting	PVC schedule 40	ANSI/ASTM D1785	CSA or ULC certified only (ULC-S636)
	PVC-DWV	ANSI/ASTM D2665	
	CPVC schedule 40	ANSI/ASTM F441	
	ABS-DWV sched. 40	ANSI/ASTM D2661	
Pipe cement /primer	PVC	ANSI/ASTM D2564	
	CPVC	ANSI/ASTM F493	
	ABS	ANSI/ASTM D2235	

### Integra 500 Electrical Specifications

Electrical Voltage Mains	120V/60Hz
Power Consumption Max Load (A)	≤ 2.5
Idle (mA)	40

### Integra 500 Clearances

	Minimum Clearance to Combustibles (Inch)
Front	1
Rear	0
Side	1
Floor	12
Top	12

### Additional Information

- Low NOx emissions (2012 SCAQMD NOx compliant)
- Modulating water valve to improve temperature stability
- Modulating premix burner with constant gas/air ratio
- Direct-vent sealed combustion
- Direct spark ignition
- 150 psi relief valve included
- Concentric termination available
- LCD display with backlight / control buttons
- 100% copper primary heat exchanger

### Options

- Wireless remote control (TSTAT2)
- Condensate neutralization kit (JM2 KIT)
- Cascading kit (TLINK)
- Outdoor kit (PTOK)
- External water filter
- Concentric termination kit (196016)
- Exhaust/Intake bird screen (L2594)
- Backdraft reducer (9301BFP)

Note: Refer to installation and applications manuals for specific information on venting, piping, and electrical connections.



### Integra 500 Piping Specifications

Exhaust Pipe Diameter	3" or 4"
Combustion Air Pipe Diameter	3" or 4"
Gas Connection Size	¾" NPT
Water Connections	¾" NPT

**Note:** Exhaust and combustion air connection adaptors are 3" diameter.

### Concentric Vent Kit (196016) Parts List

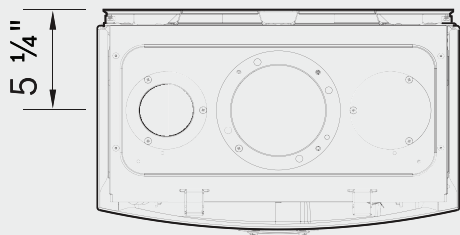
Description	Length	Quantity
3" Rain Cap	N/A	1
4" Diameter SDR-26 Pipe	24"	1
3" Y Concentric Fitting	N/A	1
2½" Diameter SDR-26 Pipe	37½"	1

### Integra 500 Venting Specifications

	Diameter	Approved Terminals
EXHAUST	3" or 4"	"T" terminal
		90° elbow
		Concentric (196016)
INTAKE	3" or 4"	"T" terminal
		90° elbow
		Concentric (196016)

### Integra 500

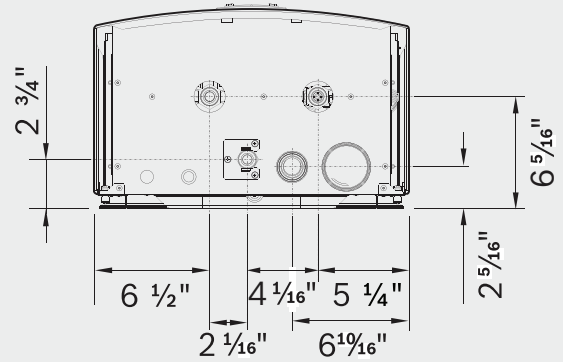
### Top View



Note: Intake can be installed on the left or right side of the exhaust.

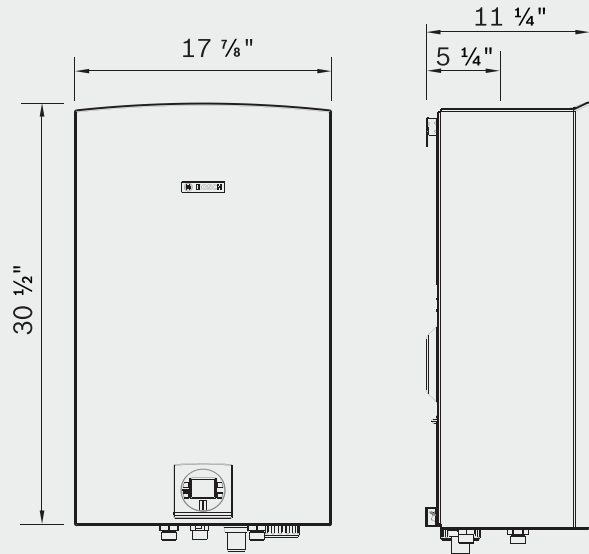
### Integra 500

### Bottom View



### Integra 500

### Front / Side View



# BOSCH

Bosch Thermotechnology Corp.  
50 Wentworth Avenue  
Londonderry, NH 03053  
Tel: 1-866-330-2730