

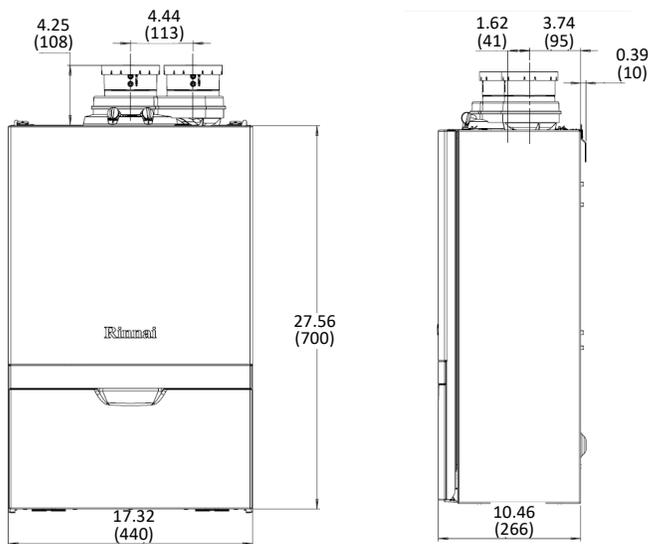


## DIMENSIONS

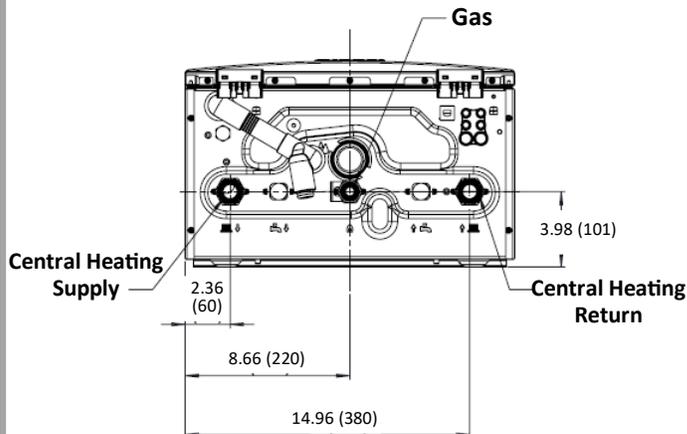
Measurements: in. (mm)

### FRONT

### SIDE



### BOTTOM



## CONDENSING WALL-MOUNTED, GAS-FIRED SOLO BOILER (CENTRAL HEATING)

<b>Models</b>	M060S, M090S, M120S, M160S
<b>Appliance Type</b>	Wall-Mounted, Gas-Fired Solo Boiler
<b>Installation</b>	Indoor
<b>Gas Types</b>	Natural Gas (or Propane with field conversion)
<b>Standard Features</b>	<ul style="list-style-type: none"> <li>• Factory Installed Modulating Pump</li> <li>• Outdoor Reset Control System with Sensor</li> <li>• Modulating Ceramic Burner</li> <li>• Stainless Steel Water Tube Condensing Heat Exchanger</li> <li>• Direct Vent Sealed Combustion</li> <li>• Approved for Room and Closet Installations</li> </ul>
<b>Included with Purchase</b>	<ul style="list-style-type: none"> <li>• Condensing Gas Boiler with Integrated Modulating Pump</li> <li>• Liquid Propane Field Conversion Kit</li> <li>• Wall Mounting Bracket</li> <li>• Pressure Relief Valve</li> <li>• Condensate Collector Kit</li> <li>• Outdoor Reset Sensor</li> <li>• Vent Top with Integrated 3 in. (80 mm) PP Adapters</li> <li>• 3 in. (80 mm) PP to 3" PVC Adapter (Qty 2)</li> <li>• 3 in. PVC to 2 in. PVC or 2 in. (60 mm) PP Adapter (Qty 2)</li> <li>• 3 in. X 5 in. Concentric Vent Adapter</li> <li>• NPT Adapters: <ul style="list-style-type: none"> <li>– 1 in. (Qty 2)</li> <li>– 3/4 in. (Qty 1 for Gas Supply Connection)</li> </ul> </li> <li>• Documentation: Installation and Operation Manual, User Manual, and ISCL (Installation, Service, and Commissioning Log)</li> </ul>
<b>Optional Accessories</b>	Closely Spaced Tee/Manifold Kit, Flue Gas Temperature Sensor, Condensate Neutralizer, ScaleCutter, ScaleCutter Refill Cartridge, and Boiler Toolkit
<b>Venting Options</b>	<ul style="list-style-type: none"> <li>• Direct Vent (Concentric and Twin Pipe)</li> <li>• Room Air</li> <li>• Materials: Polypropylene, Stainless Steel, PVC, CPVC</li> </ul>

## Maximum Equivalent Vent Lengths

### Twin Pipe and Room Air:

Vent Sizes	2 in. PVC and 2 in. (60 mm) PP		3 in. PVC and 3 in. (80 mm) PP	
<b>Boiler Model</b>	M060S, M090S	M120S, M160S	M060S, M090S	M120S, M160S
<b>Vent Lengths</b>	60 ft (18 m)	30 ft (9 m)	150 ft (46 m)	140 ft (43 m)

### Concentric:

Vent Sizes	2 in. X 4 in.		3 in. X 5 in.	
<b>Boiler Model</b>	M060S, M090S	M120S, M160S	M060S, M090S	M120S, M160S
<b>Vent Lengths</b>	60 ft (18 m)	30 ft (9 m)	150 ft (46 m)	140 ft (43 m)

45° elbow equivalent to 3 ft (1 m). 90° elbow equivalent to 6 ft (2 m).



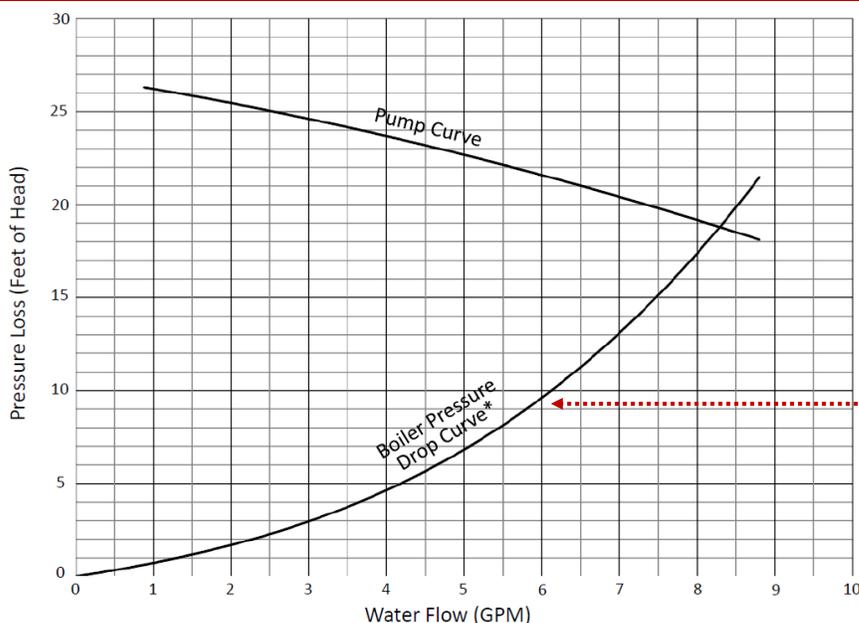
CERTIFIED TO ANSI Z21.13 — CSA 4.9

## TECHNICAL SPECIFICATIONS

Model		M060S	M090S	M120S	M160S
Dimensions (w, h, d)	Unit	17 in. x 28 in. x 10 in. (439 mm x 699 mm x 264 mm)			
	Shipping	12 in. x 23 in. x 31.5 in. (305 mm x 585 mm x 800 mm)			
Weight	Unit	64 lb. (29 kg)		70 lb. (32 kg)	
	Shipping	75 lb. (34 kg)		81 lb. (37 kg)	
Ignition System		Direct Electronic Ignition			
Heat Exchanger Material		Stainless Steel			
Heat Exchanger Surface Area		7.3 sq ft		11.8 sq ft	
Temperature Setting		(Min - Max) 68° F - 185° F (20° C - 85° C)			
Water Content		1 Gal. (3.8 L)		1.4 Gal. (5.2 L)	
Gas Consumption	Min	NG: 17,000 LP: 31,500		NG: 23,500 LP: 73,500	
	Max	60,000	90,000	120,000	160,000
Heating Capacity		57 MBH (17 kWh)	84 MBH (25 kWh)	112 MBH (33 kWh)	148 MBH (43 kWh)
Water Supply Pressure	CH	Minimum: 14 PSI (97 kPa) Maximum: 45 PSI (310 kPa)			
	PRV	375 MBH (110 kWh)			
	PRV Rating	30 PSI (207 kPa)			
Pump Model		UPER 15-78			
Sound Level		39 dB	42 dB	48 dB	54 dB
Electrical Data	Normal	155 W	177 W	164 W	191 W
	Standby	3.5 W			
	Max Current	1.62 Amps	1.8 Amps	1.67 Amps	1.97 Amps
	Fuse	5 Amps			
Gas Supply Pressure <sup>1</sup>	Natural Gas	3.0 in. - 10.5 in. W.C. (7.5 - 26 mbar)			
	Propane	8.0 in. - 13.5 in. W.C. (19.9 - 33.6 mbar)			
Electric Voltage		AC 120 V, 60 Hz.			
Electric Voltage Controls		24 V			
Circuit Breaker Rating		15 A (Recommended)			
Turndown Ratio (TDR)		3.5:1 / 1.9:1	5.3:1 / 2.9:1	5.1:1 / 1.6:1	6.8:1 / 2.2:1
Available Pressure Drop at Maximum Input Rate		21.1 ft at 3.2 GPM	16.9 ft at 4.8 GPM	9.5 ft at 6.3 GPM	4.8 ft at 7.5 GPM
AFUE		95.0%			
ENERGY STAR® Certification		Yes			
Certifications		ANSI Z21.13, CSA 4.9			

<sup>1</sup> Maximum gas supply pressure must not exceed the value specified by the manufacturer.

## PRESSURE DROP AND WATER FLOW CURVE



\* Pressure drop curve applies to all M-Series Condensing Solo Boilers (M060S, M090S, M120S and M160S).

## FEATURES

### Faster, Easier Installation

- Compact & lightweight design
- Convenient mounting bracket
- NPT threads for connection points
- More flexible venting options
- Simplified parameters for commissioning and setup

### Clearances

- Top: 2 in. (51 mm)\*
  - Bottom: 12 in. (305 mm)
  - Front: 6 in. (152 mm)\*\*
  - Back: 0 in.
  - Sides: 2 in. (51 mm)
  - Vent: 0 in.
- \* 0 in. from vent components.  
6 in. (152 mm) for closet installations.
- \*\* Clearance for servicing is 24 in. (610 mm) in front of boiler.

### Warranty

#### Residential:

- Heat Exchanger: 12 Years
- All Other Parts/Components: 2 Years
- Labor: 1 Year

#### Commercial:

- Heat Exchanger: 5 Years
- All Other Parts/Components: 2 Years
- Labor: 1 Year

### Important

- If the boiler is to be installed in a system that has multiple zones, a Closely Spaced Tee/Manifold Kit is recommended to be installed.
- If the pressure drop in the loop/system is greater than the available head pressure from the boiler circulator, a Closely Spaced Tee/Manifold Kit must be used.

CH = Central Heating  
PRV = Pressure Relief Valve