



# DMG-380 Submittal

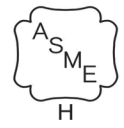


Engineer: \_\_\_\_\_

Project Name: \_\_\_\_\_

Project Location: \_\_\_\_\_

Contractor: \_\_\_\_\_



### APPLICATION:

Gas fired hot water heating boiler for indoor installations. Approved for closet or alcove installations. For use with natural or liquefied petroleum gases (LP/propane - No conversion kit needed). Floor mounted. All boilers are factory assembled with controls and wiring, and are test fired to ensure dependable performance.

### CERTIFICATION AND APPROVALS:

- The stainless steel heat exchanger is manufactured and tested in accordance with American Society of Mechanical Engineers Standards (ASME). The stainless steel heat exchanger is tested for a maximum allowable working pressure of 80 PSIG (pounds per square inch gauge) in accordance with ASME Boiler and Pressure Vessel Code; Section IV, rules for construction of heating boilers. A 50 PSIG safety relief valve is shipped standard.
- Boiler shall be certified to CSA 4.9/ANSI Z21.13, AHRI
- Boiler Heat exchanger shall be National Board Certified

### BOILERS INCLUDE:

- Boiler Control Module:
  - This boiler incorporates an integrated modulating control that senses supply water, return water and outside air temperatures and adjusts the firing rate to deliver the amount of heat needed to the structure.
  - The boiler control shall have Cold Start compensation and 30 second flame stabilization period.
  - The boiler control shall have an Anti-Wind function that increases fan speed to reduce the risk of flame loss.
- Boiler Loop pump built inside boiler.
- Individual pilot relays for CH pump and DHW pump.
- User interface with LCD text and graphical screen display
- Central Heating CH and Domestic Hot Water DHW setpoints. Domestic hot water priority with programmable maximum priority time.
- Programmable Outdoor reset curves and warm weather shutdown (When used with Optional Outdoor Air Sensor).
- External Primary/Secondary manifold with quick connections shipped with boiler.

**ECR International, Inc.**  
 2201 Dwyer Avenue, Utica NY 13501  
 Tel: 1-315-797-1310  
 web site: [www.Dunkirk.com](http://www.Dunkirk.com)





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### BOILER COMBUSTION SYSTEM

- Premix modulating gas valve and blower. Fully Modulating with a 10.5:1 turn down ratio.
- Stainless Steel Burner
- Spark Generator - Direct spark ignition with combination Igniter and Flame rod.

### HEAT EXCHANGER ASSEMBLY

- Heat Exchanger manufactured out of 316L stainless steel
- Built in condensate drain trap.

### OTHER

- Electrical 120 volts AC, 60 hertz, 1 phase 15 amp with 5 ft. male plug cord.
- Low voltage terminal strip
- Auxiliary Control Box with line voltage terminals for DWH Pump and CH Pump connections.
- Low Water Pressure Sensor
- Manual Reset High Limit function

### OPTIONAL EQUIPMENT:

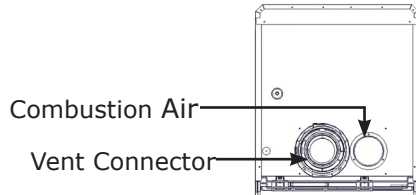
- Coaxial Venting components
- Coaxial to Twin pipe and Single pipe adapters
- External Manual Reset High Limit and Low Water Cut Off Controls (CSD-1 compliant)
- Outdoor air sensor
- Indirect Tank Sensor
- Common Venting Check Valve
- LP Conversion Kit

MODEL INPUT RATE			
Model	Input Rate (MBH) 0-2000 ft	Heating Capacity (MBH) 0-2000 ft	Net Rating Water (MBH) 0-2000 ft
DMG-380	379	348	303

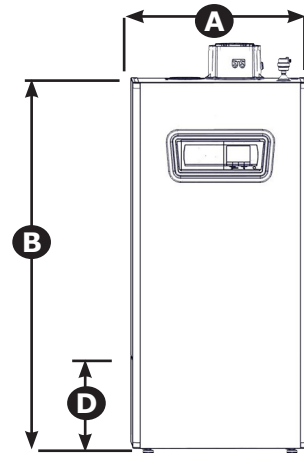
# DMG-380 Submittal

## Top View

Front of Boiler



## Front View



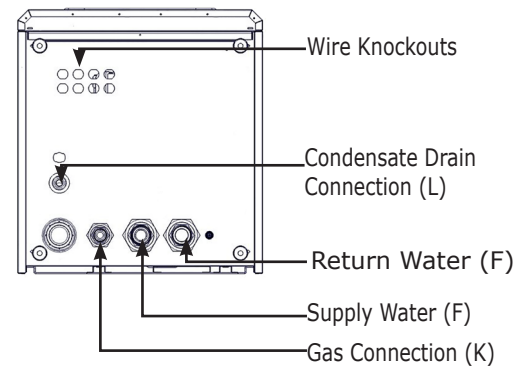
## PHYSICAL DATA

Model		380
Width (A)		23-5/8" (600mm)
Height (B)		50" (1.27m)
Depth (C)		25-1/2" (648mm)
Bottom Cabinet (D) Access from Back or Sides of Jacket		11-3/4" (298.5mm)
Water Connections	Size (F)	1-1/2" (38.1mm)
	Location (G)	3-3/4" (95.3mm)
	Location (H) Return	11-3/4" (298.5mm)
	Location (I) Supply	7-3/4" (196.9mm)
Gas Connection	Location (L)	7-3/4" (196.9mm)
	Size (K)	1" NPT
Condensate Drain Connection (J)		8-3/4" (196.9mm)
Weight	Shipping	255 LBS (115.7)
	Unit	225 LBS (102.1kg)
Vent Connector - Concentric		110/160 mm
Electrical Cord Length		5 ft. (1.5m)

50 psi safety relief valve (3.44 bar)  
Pressure relief valve connection 3/4" (22.2m)

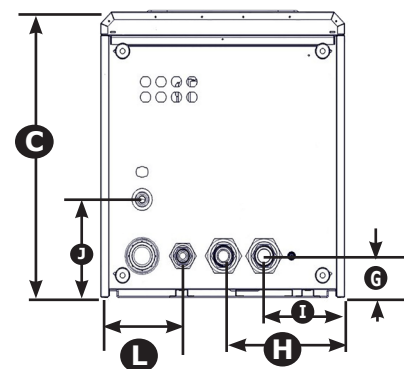
## Bottom View Connection Identification

Front of Boiler



## Bottom View Dimensions

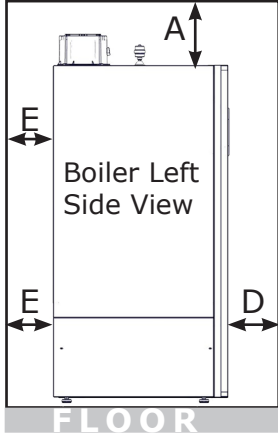
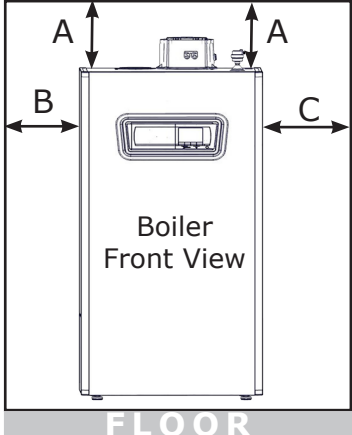
Front of Boiler



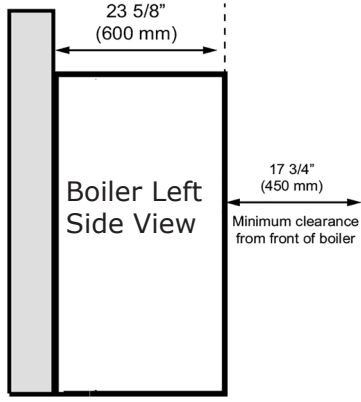
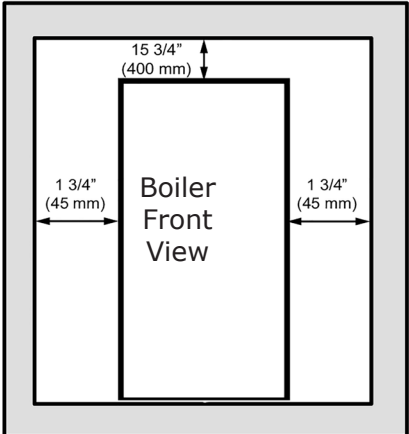


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## CLEARANCE TO COMBUSTIBLE MATERIALS



## SERVICE CLEARANCES

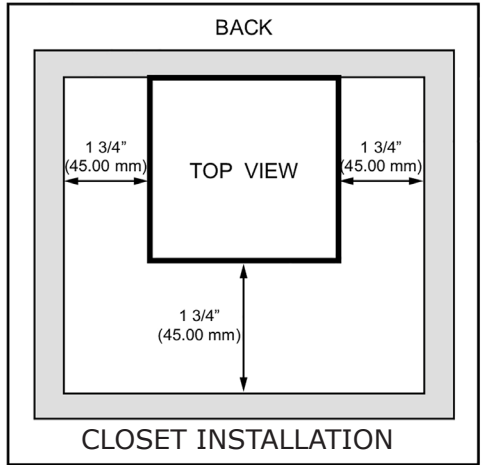


## SERVICE CLEARANCES - CLOSET INSTALLATION

BOILER CLEARANCES DMG-380		
Dimension	Combustible Materials <sup>(1)</sup>	Service <sup>(1)(2)</sup>
Top (A)	0" (0 cm)	15-3/4 (400 mm)
Left Side (B)	1-3/4" (45 mm)	1-3/4" (45 mm)
Right Side (C)	1-3/4" (45 mm)	1-3/4" (45 mm)
Front (D)	2" (4.5 cm)	23-5/8" (600 mm)
Back (E)	0" (0 cm)	0" (0 cm)
Bottom (F)	0" (0 cm)	0" (0 cm)
Combustion Air/Vent piping	0" (0 cm)	6" (16 cm)

<sup>(1)</sup> Required distances measured from boiler jacket.  
<sup>(2)</sup> Service, proper operation clearance recommendation.  
 \* Allowance for piping at bottom of boiler not included.

## CLEARANCES REQUIRED FOR CLOSET INSTALLATION



0 in / 0 mm between the Back of the Unit and the wall



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## VENTING

### VENT MATERIAL OPTIONS:

- 110 /160 mm Polypropylene concentric (4 inch / 6 inch)  
or
- 110 mm polypropylene twin pipe (MUST be polypropylene on BOTH intake and exhaust) (4 inch)  
or
- Schedule 40 CPVC

### APPROVED VENT MATERIALS:

Must comply with UL 1738 or ULC S636.

<b>BASIC VENT LENGTHS</b> Refer to Installation, Operation and Maintenance Manual included with your boiler for complete information and equivalent vent lengths.			
<b>DMG - 380</b>			
Vent type	Nat Gas	LP Gas	Size
Coaxial Venting	33 feet	33 feet	4"/6"
2-Pipe Polypropylene	33 feet	33 feet	4"
1-Pipe Polypropylene	100 feet	90 feet	4"

**CASCADE VENTING**  
*Only Approved Vendor Is **DuraVent***  
*See IOM For Complete Details*