



UCS-380 Submittal

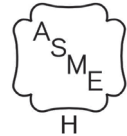


Engineer: _____

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 set-points. Domestic hot water priority with programmable maximum priority time.



Manufactured by:
ECR International Inc.
2201 Dwyer Avenue, Utica, NY 13501
Tel. 800 325 5479
www.ecrinternational.com
PN 615000201 REV. B [07/01/2021]



- 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.

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
- 0-10V input to manage heating set-point or heating power level

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



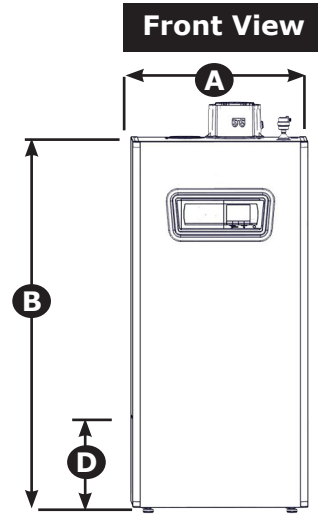
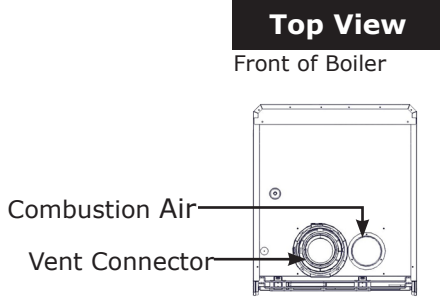
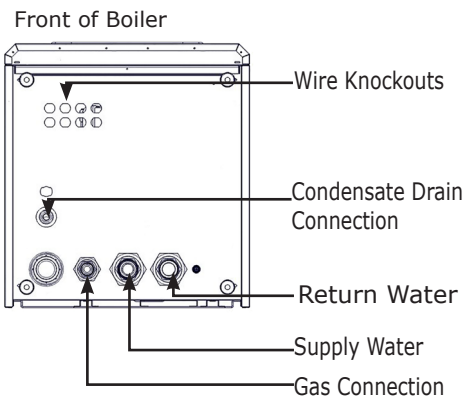


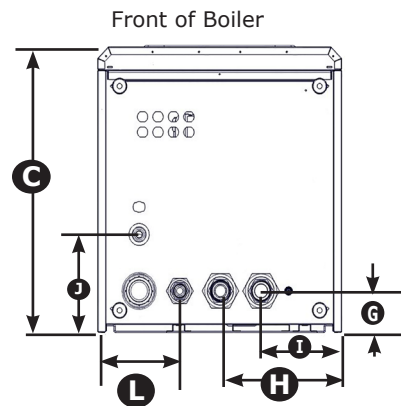
Table 1: Physical Data		
Model	380	
Width (A)	23-5/8" (600mm)	
Height (B)	50" (1.27m)	
Depth (C)	25-1/2" (648mm)	
Bottom Cabinet (D) Access from Back or Sides of Jacket	11-3/4" (298.5mm)	
Water Connections	Size	1-1/2 (38.1mm)
	Location (G)	3-3/4" (95.3mm)
	Location (H) Return	11-3/4" (298.5mm)
	Location (I) Supply	7-3/4" (196.9mm)
Gas Connection	Location (L)	7-3/4" (196.9mm)
	Size	1" NPT
Condensate Drain Connection (J)	Location (J)	8-3/4" (196.9mm)
	Size	3/4" MPT
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)

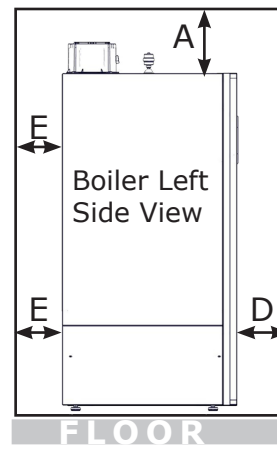
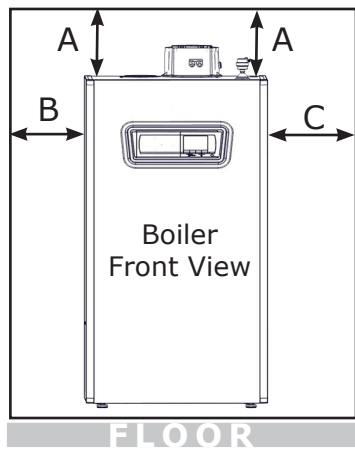
**Bottom View
Connection
Identification**



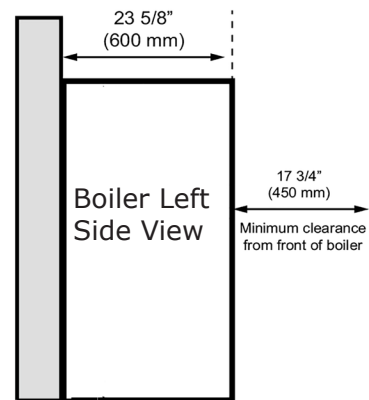
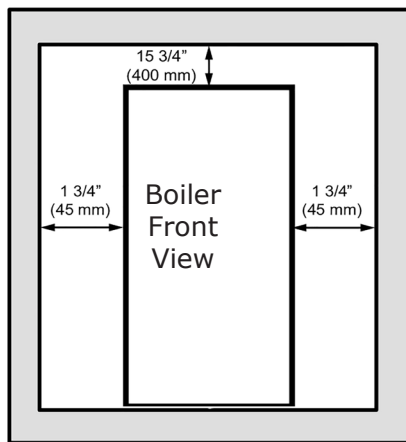
**Bottom View
Dimensions**



CLEARANCE TO COMBUSTIBLE MATERIALS

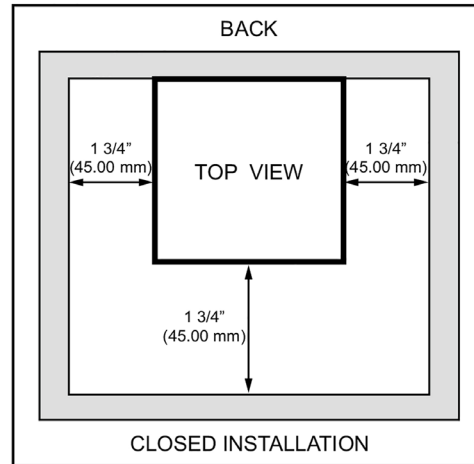


SERVICE CLEARANCES



SERVICE CLEARANCES - CLOSET INSTALLATION

CLEARANCES REQUIRED FOR CLOSET INSTALLATION



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

BOILER CLEARANCES UCS-380		
Dimension	Combustible Materials ⁽¹⁾	Service ⁽¹⁾⁽²⁾
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)

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



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.

BASIC VENT LENGTHS Refer to Installation, Operation and Maintenance Manual included with your boiler for complete information and equivalent vent lengths.			
UCS-380			
Vent type	Nat Gas	LP Gas	Size
Coaxial Venting	21 feet	21 feet	4"/6"
2-Pipe Polypropylene	32 feet	32 feet	4"
1-Pipe Polypropylene	100 feet	90 feet	4"

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



2201 Dwyer Avenue, Utica, NY 13501
Tel. 800 325 5479
www.ecrinternational.com

All specifications subject to change without notice.
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