



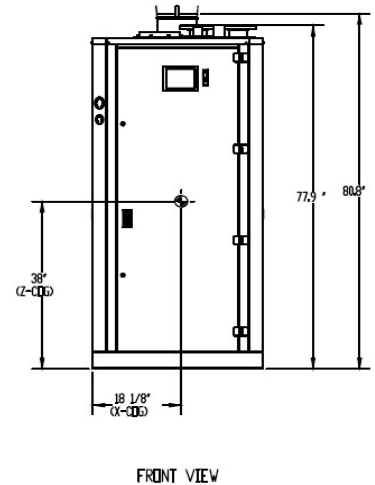
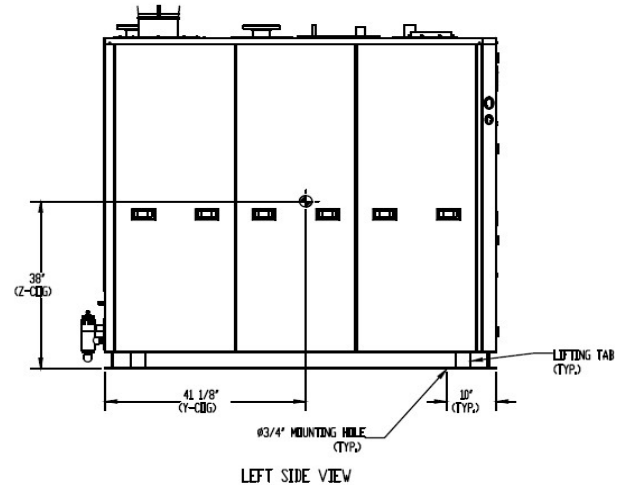
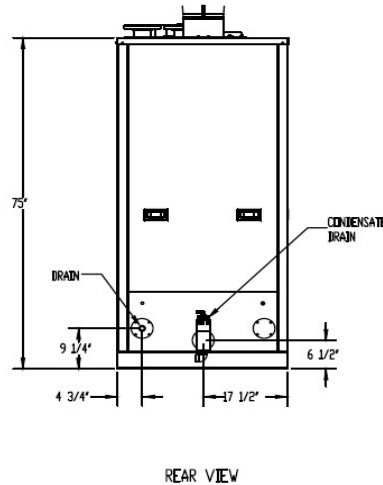
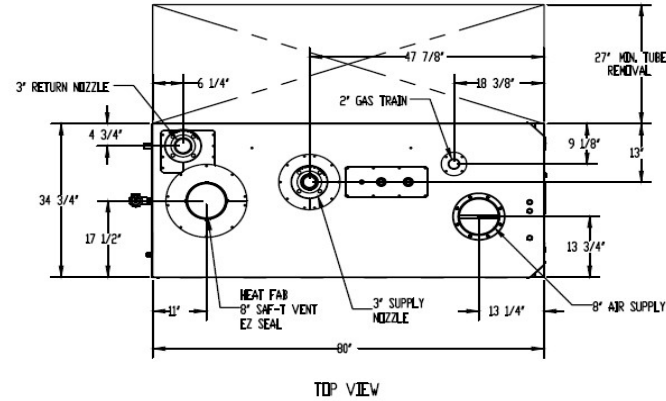
# ARCTIC CONDENSING BOILERS, REVERSE CONSTRUCTION - SUBMITTAL DATA SHEET

RATINGS AND CAPACITIES		
Input - Low Fire .....	300,000	BTU/HR
Input - High Fire .....	1,500,000	BTU/HR
Output - High Fire .....	1,425,000	BTU/HR
Boiler Horsepower .....	42.6	BHP
AHRI Certified Thermal Efficiency .....	95.0%	
Low Fire Thermal Efficiency .....	Up to 99%	
Heating Surface .....	606	Sq.Ft.
Water Content .....	27.3	Gallons
Fuel .....		
Natural Gas		
Firing Rate .....	Full Modulation	
Burner Turndown .....	5:1	
Low NOx Emissions .....	Capable, Consult Factory	
Inlet Gas Pressure (NG) .....	4" wc	Min.
	14" wc	Max.
Shipping Weight, Approximate .....	2,560	lbs

ASME Section IV (Max 160 PSIG / 210°F)	
ETL Certified to UL 795 and CAN 3.1.1	

DIMENSIONS / CONNECTIONS	
- Height .....	75"
- Width .....	34-3/4"
- Length .....	80"
- Supply / Return Connections .....	3" Flange
- Vent / Air Intake Connections .....	8"
- Condensate / Boiler Drain Conn. ....	1"
- Gas Connection .....	2"

STANDARD EQUIPMENT	
- ASME Stainless Steel Heat Exchanger	
- Stainless Steel Mesh Pre-Mix Burner	
- Variable Speed Combustion Blower	
- Concert Boiler Control™ (24v)	
> 7" Color Touch Screen	
> Peer-To-Peer Boiler Communications (Up to 8 Units)	
> Energy Management System (EMS) Interface	
> USB Data Port Transfer	
> Self-Guiding Diagnostics	
> Unmatched Archives	
- High Limit Temperature Control, Manual Reset	
- Blower Motor, 1.1 HP	
- Water Flow Switch	
- Low Water Cutoff, Manual Reset	
- Condensate Trap	
- Blocked Condensate Switch	
- Combustion Air Proving Switch	
- Blocked Vent Air Switch	
- Pressure Relief Valve	
- Pressure & Temperature Gauges	
- Supply & Return Temperature Sensors	
- Flue Gas Temperature Sensor	
- Modulating Gas Valve	
- Direct Spark Ignition / UV Scanner	
- High/Low Gas Pressure Switches, Manual Reset	
- 120/1/60 Line Voltage (13.1 Amps)	
- 208-240/1/60 Line Voltage (6.9 Amps)	
- Category IV Individual Venting	
- Category II Common Venting with Engineered Vent System	
- Polypropylene & Stainless Steel Acceptable *Material	
- Ducted or Room Combustion Air Intake	



- NOTES:
1. Dimensions shown are for reference only
  2. See O&M for required installation clearances
  3. \*Flue system material shall be capable of continuous operation at 230°F or higher, have the same corrosion resistance to flue gas condensation as AL29-4C and shall be certified to UL 1738 – venting system for gas-burning appliances cat II, III and IV.

FLOWS AND PRESSURE DROPS					
Delta T	Flow (GPM)	Δ P (Ft. Hd)	Delta T	Flow (GPM)	Δ P (Ft. Hd)
20°F Δ T (Max)	143	9.20	50°F Δ T	57	1.47
25°F Δ T	114	5.89	60°F Δ T	48	1.02
30°F Δ T	95	4.09	70°F Δ T	41	0.75
35°F Δ T	81	3.00	80°F Δ T	36	0.58
40°F Δ T	71	2.30	90°F Δ T	32	0.45
45°F Δ T	63	1.82	100°F Δ T (Min)	29	0.37

## ARC-1500R

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