

# RE-VERBER-AIR HEATER SUBMITTAL SHEET

## FA SERIES UNIT HEATERS

### GAS-FIRED, INDUCED DRAFT, HOT AIR UNIT HEATERS & ACCESSORIES

PROJECT ID: _____	ADDRESS: _____
PROJECT NAME: _____	_____
DATE: _____	CITY: _____ PROVINCE: _____ POSTAL CODE: _____
.....	
Submitted By: _____	Address: _____
Company: _____	_____
Phone: _____	City: _____
Email: _____	Province: _____ Postal Code: _____
.....	
Engineer: _____	Contractor: _____
Phone/Email: _____	Phone/Email: _____
Address: _____	Address: _____
City: _____	City: _____
Province: _____ Postal Code: _____	Province: _____ Postal Code: _____

QTY.	MODEL NO.	TAG	INDICATE GAS TYPE	BTU/h		APPROX. HEAT THROW	AVERAGE AIR TEMP. RISE	VENT LENGTH <sup>1</sup>		TYP. OR RCMD. MOUNTING HEIGHTS <sup>1</sup>	SHIP WEIGHT
				INPUT	OUTPUT			MIN.	MAX.		
	<b>FA-100</b>		Nat. or Prop.	100,000	80,000	43 ft.	50°F	3 ft.	40 ft.	12 to 14 ft.	143 lbs.
	<b>FA-125</b>		Nat. or Prop.	125,000	100,000	47 ft.	50°F	3 ft.	40 ft.	14 to 16 ft.	143 lbs.
	<b>FA-150</b>		Nat. or Prop.	150,000	120,000	50 ft.	50°F	3 ft.	40 ft.	14 to 16 ft.	195 lbs.
	<b>FA-175</b>		Nat. or Prop.	175,000	140,000	52 ft.	50°F	3 ft.	40 ft.	15 to 17 ft.	195 lbs.
	<b>FA-200</b>		Nat. or Prop.	200,000	160,000	55 ft.	50°F	3 ft.	40 ft.	15 to 17 ft.	195 lbs.
	<b>FA-225</b>		Nat. or Prop.	225,000	180,000	59 ft.	50°F	3 ft.	40 ft.	16 to 18 ft.	212 lbs.
	<b>FA-250</b>		Nat. or Prop.	250,000	200,000	63 ft.	50°F	3 ft.	40 ft.	16 to 18 ft.	212 lbs.
	<b>FA-300</b>		Nat. or Prop.	300,000	246,000	67 ft.	70°F	3 ft.	40 ft.	18 to 20 ft.	296 lbs.
	<b>FA-400</b>		Nat. or Prop.	400,000	328,000	71 ft.	70°F	3 ft.	40 ft.	20 to 22 ft.	351 lbs.

<sup>1</sup>Deduct 5 ft. (on 4 in. vent) or 7 ft. (on 6 in. vent) for each elbow added to venting.



## BRANT RADIANT HEATERS LIMITED

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 34 Scott Avenue. | Email: sales@brantradiant.com  
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## FA SERIES FEATURED SPECIFICATIONS

### APPROVALS

- ETL Listed
- Commercial/Industrial Approval
- Indoor Use Only

### VOLTAGE

- 120 VAC/60 Hz (primary)
- 24 VAC (thermostatic)
- Single phase

### MANIFOLD PRESSURE (Inches W.C.)

- Natural Gas: 3.5
- Propane: 10.0

### INLET PRESSURE (Inches W.C.)

- Natural Gas: 5.0 to 14.0
- Propane: 11.0 to 14.0

### GAS CONNECTION

- FA-100–200: ½" NPT
- FA-225–400: ¾" NPT
- Field connect to valve

### VENT & INLET CONNECTION

- Category I or III venting
- Rear, horizontal discharge/inlet

### MOUNTING

- Non-reversible horizontal mounting
- Mounting with ⅜"-16 threaded inserts (qty. 4)

### OTHER

- Finger-proof fan guards standard
- External indicator lights
- External thermostatic connection
- Approved for 0–2,000 ft. elevations without modifications
- Supplied standard as separated combustion

### LIMITED WARRANTY

- 1 year–Components
- 5 years–Heat exchangers
- 10 years–Burners

MODEL	FLA AMPS	MOTOR TYPE	MOTOR HP	FAN DIAMETER	AXIAL FAN ROTATION	GAS CONNECTION	INLET & VENT CONNECTION
FA-100	5.2	PSC	1/8	18 in.	CCW	1/2" NPT	4" O.D.
FA-125	5.0	PSC	1/6	18 in.	CCW	1/2" NPT	4" O.D.
FA-150	10.7	PSC	1/3	22 in.	CCW	1/2" NPT	6" O.D.
FA-175	10.7	PSC	1/3	22 in.	CCW	1/2" NPT	6" O.D.
FA-200	10.7	PSC	1/3	22 in.	CCW	1/2" NPT	6" O.D.
FA-225	10.7	PSC	1/3	22 in.	CCW	3/4" NPT	6" O.D.
FA-250	10.7	PSC	1/3	22 in.	CCW	3/4" NPT	6" O.D.
FA-300	11.9	PSC	3/4	26 in.	CCW	3/4" NPT	6" O.D.
FA-400	14.3	PSC	1	30 in.	CCW	3/4" NPT	6" O.D.

## FIELD CONVERSION REFERENCE CHART

SUPPLIED AS	CONVERSION TO	AVAILABILITY	PART REFERENCE <sup>2</sup>
Separated Combustion	Power Vented, Room Air	Standard	See IOPM
Natural Gas	Propane Gas	Optional	HKP
0–2,000 MSL	2,001–4,500 MSL	Optional	HKN or HKP
0–2,000 MSL	4,501–7,000 MSL	Optional	HKN or HKP
0–2,000 MSL	7,001–9,500 MSL	Optional	HKN or HKP

<sup>2</sup>Consult heater Installation, Operation, Parts, and Maintenance Manual for conversion kit reference and instructions.

## OPTIONAL ACCESSORIES

- CVK-4** 4" Concentric Vent Kit for use when venting and combustion air is desired through a single wall or roof penetration. For use with FA-100 and FA-125 models. No vent pipe or B-vent material is included.
- CVK-6** 6" Concentric Vent Kit for use when venting and combustion air is desired through a single wall or roof penetration. For use with FA-150 through FA-400 models. No vent pipe or B-vent is included.
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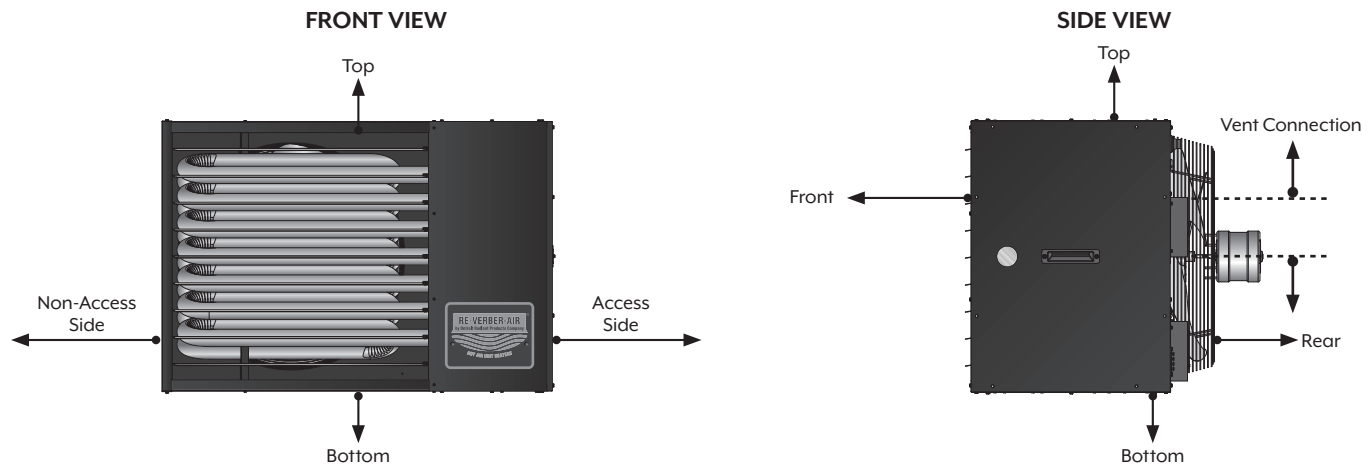
# RE-VERBER-AIR SAFETY SUBMITTAL SHEET

## FA SERIES CLEARANCES TO COMBUSTIBLES

All listed clearances to combustibles are in inches.

FA-100 TO FA-250	FRONT	TOP AND BOTTOM	ACCESS SIDE	NON-ACCESS SIDE	REAR	VENT CONNECTION
Clearance to Combustibles	60 in.	1 in.	18 in.	1 in.	1 in.	6 in.
Clearance to Allow Service	60 in.	1 in.	18 in.	1 in.	18 in.	6 in.

FA-300 TO FA-400	FRONT	TOP AND BOTTOM	ACCESS SIDE	NON-ACCESS SIDE	REAR	VENT CONNECTION
Clearance to Combustibles	60 in.	4 in.	18 in.	4 in.	1 in.	6 in.
Clearance to Allow Service	60 in.	4 in.	18 in.	4 in.	18 in.	6 in.



Read and understand the installation, operation, and maintenance manual prior to installing or servicing this unit.

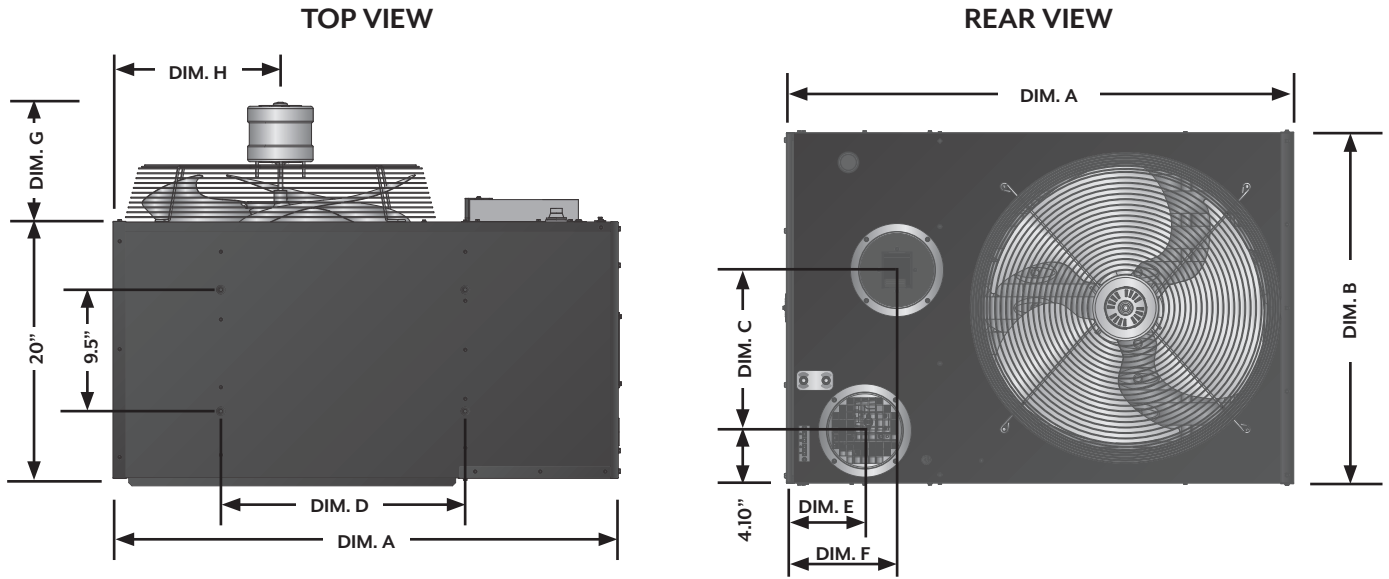
In locations used for the storage of combustible materials, signs must be posted adjacent to the heater's thermostat specifying stacking heights.

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# RE-VERBER-AIR DIMENSIONAL SUBMITTAL SHEET

## FA SERIES DIMENSIONS



MODEL NO.	HEATER WIDTH DIM. A	HEATER HEIGHT DIM. B	AIR TO VENT DIM. C	MOUNTS AXIS DIM. D	DIM. E	DIM. F	DIM. G	DIM. H
FA-100, 125	40.0 in.	21.0 in.	9.375 in.	19.125 in.	6.12 in.	8.6 in.	9.3 in.	13.1 in.
FA-150, 175, 200	40.0 in.	27.0 in.	12.5 in.	19.125 in.	6.12 in.	8.6 in.	9.3 in.	13.1 in.
FA-225, 250	40.0 in.	30.0 in.	13.875 in.	19.125 in.	6.12 in.	8.6 in.	9.3 in.	13.1 in.
FA-300	50.0 in.	36.0 in.	17.5 in.	26.0 in.	5.8 in.	11.2 in.	12.0 in.	17.5 in.
FA-400	54.0 in.	44.0 in.	21.625 in.	29.6 in.	5.75 in.	11.2 in.	10.25 in.	19.25 in.



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# RE-VERBER-AIR HEATER SUBMITTAL SHEET

## FA SERIES TUBE HEATERS

### GAS-FIRED, INDUCED DRAFT, HOT AIR UNIT HEATERS

#### GAS-FIRED UNIT HEATERS: SEPARATED COMBUSTION OR POWER VENTED

- A. Basis-of-Design Product: Subject to compliance with requirements, provide Brant Radiant Heaters Limited; Re-Verber-Ray FA Series.
- B. Fuel Type: Burner shall be designed for [natural][propane] gas having characteristics same as those of gas available at project site.
- C. Unit Casing:
  - 1. Shall be constructed of not less than 20-gauge aluminized steel.
  - 2. Shall be furnished with air deflector blades made of 304 series brushed stainless steel.
  - 3. Deflector blades shall be incrementally adjustable without the use of springs to provide for directional airflow (up or down).
- D. Furnace Section:
  - 1. Tubular heat exchanger shall be constructed of a minimum of 18-gauge aluminized steel tubes.
  - 2. Thermal efficiency of the heater shall be above 80%.
  - 3. Burners shall be in-shot type, firing directly into each heat exchanger tube individually.
- E. Ignition System: Direct spark igniter with flame rod sensing capabilities.
  - 1. Single stage gas controls.
- F. Burner Safety Controls:
  - 1. Heater controls shall include a safety differential pressure switch to monitor combustion air flow so as to provide complete burner shutdown in the event of insufficient combustion air or flue blockage.
  - 2. Heater shall incorporate a self-diagnostic ignition module, and re-cycle the heater after an inadvertent shutdown.
  - 3. Heater's control system shall be designed to shut off the gas flow to the main burner in the event either a gas supply or power supply interruption occurs.
  - 4. Heater's blower motor shall be thermally protected, and the motor's impeller shall be balanced.
  - 5. Heater control assembly shall include two indicator lights that define the unit's operating features. One indicator shall validate air flow, and the other shall indicate gas valve energization.
  - 6. An automatic reset high limit switch shall be mounted in the air stream to shut off the gas supply in the event of overheating.
  - 7. A time delay relay shall be incorporated that delays the start of the air blower fan to allow the heat exchanger to warm up upon a call for heat. A time delay relay shall be incorporated to continue the air blower fan operation after the thermostat has been satisfied to help remove any residual heat in the exchanger.
  - 8. No condensation shall form in the exchanger tubes while at operating temperatures.
- G. Air Movement:
  - 1. Motor type shall be a single speed, open drip-proof (ODP) type.
  - 2. Motor shall be rated for 115 V/60 Hz/1 ph.
  - 3. Swept wing fan blade designed to optimize air flow and reduce noise levels.
  - 4. Stainless steel, adjustable air discharge louvers with seamless airfoil design to maximize airflow.
- H. Venting: Shall be per manufacturer approval and specifications.
- I. Thermostat: Devices and wiring are specified in Division 23 Section "Instrumentation and Control for HVAC."
  - 1. Thermostat: Digital programmable wall-mounted type.
  - 2. Other approved operating device.
  - 3. Control Transformer: Internally mounted.



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