



Model JB1 Forced Draft Burners

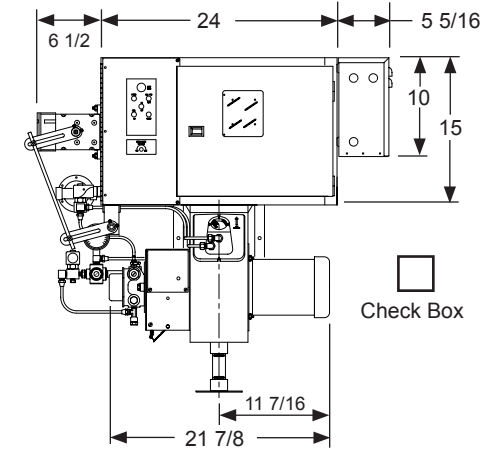
Specification & Dimensional Data

(400 - 2500 MBH Input)

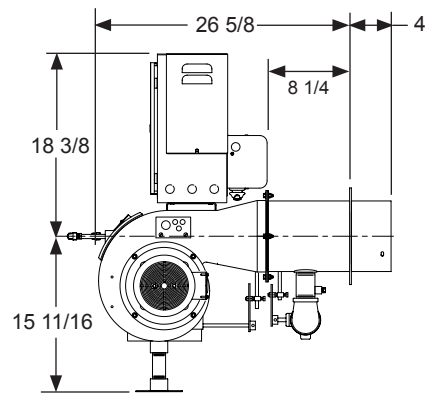
Fuels Burned and Control Systems

- Natural Gas, Propane, Digester or Mixed Gases
- Light #2 Oil, Pressure Atomization

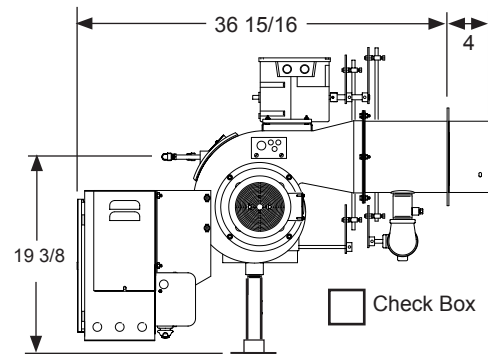
- On-Off, Low Fire Start, Low-High-Low, Modulating
- Control Circuit Requires 120 vac, 60 Hz, Single Ph. Voltage Supply



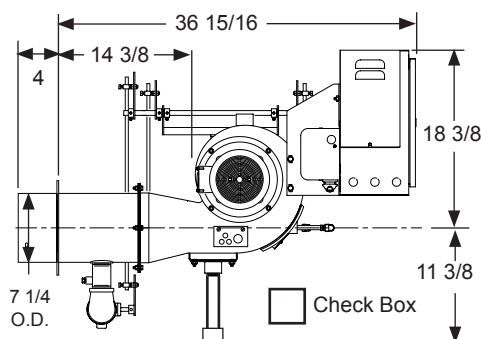
Standard Arrangement
End View



Standard Arrangement
Side View



Standard Burner Arrangement
W/ Opt. Back Mount Ctl Cabinet
Side View



Inverted Burner Arrangement
Side View

Check appropriate box to indicated selected version. (Dimensions are +/- 1/4 inch)

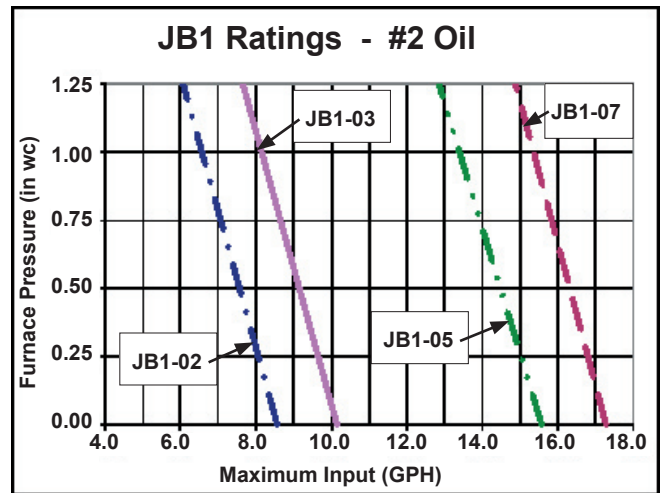
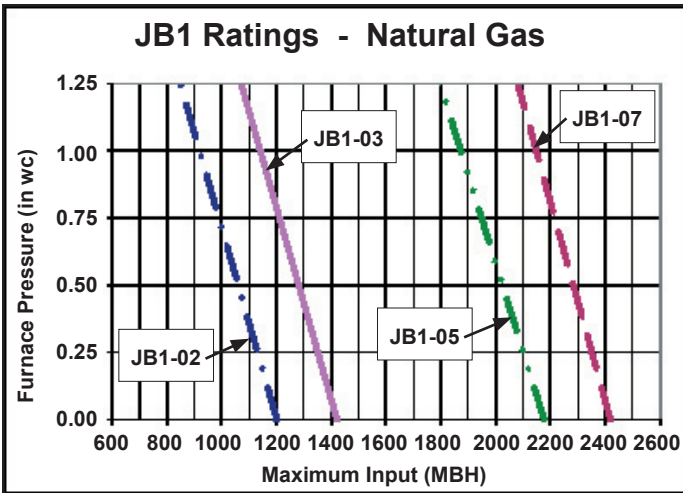
(1) STANDARD UL EQUIPMENT AND IMPORTANT OPTIONS		Fuel Burned	
		Gas	No. 2 Oil pressure atomized
General	Motor, Fan and Air Inlet Control	X	X
	Air Flow Switch (also with oil systems using remote pump)	X	
	(2) Burner Mounted Control Panel, Switch and Indicator Lights	X	X
	Flame Safety Control	X	X
	Ultra Violet Scanner	X	X
	Motor Controller (single phase voltage)	X	X
	Fuel Selector Switch	Dual Fuel Burners Only	
Ignition	Proven Gas Pilot Ignition	X	
	Pilot Solenoid Gas Valve	X	
	Pilot Gas Regulator & Manual Valve	X	
	Pilot Gas Ignition Transformer	X	
	Direct Spark Oil Ignition		X
	Direct Spark Oil Ignition Transformer		X
Optional	Inverted Housing	X	X
	Alternate Control Cabinet Positioning	X	X
	Remote Control Panel	X	X
	Fuel Metering CAM-NETIC II	X	X

Gas Fuel	Main Manual Shutoff Valve	X	
	Main Safety Shutoff Valve	X	
	Second Safety Shutoff Valve	X	
	Main Gas Regulator	X	
	Gas Checking Valve	X	
	High and Low Gas Pressure Switches (st'd over 2500 MBH)	Opt.	
Oil Fuel	Metering Valve (modulation only)	X	
	Oil Drawer Assembly with Diffuser		X
	Oil Nozzle(s)		X
	Integral Oil Pump		X
	Main Safety Shutoff Valve		X
	Second Safety Shutoff Valve		X
	Low Oil Pressure Switch STD (when using remote oil pump)		Opt.
	Oil Pressure Gauge		X
	Oil Metering Valve (modulating systems)		X
	Future Gas Combustion Head-OPT		Opt.

- The configuration of each unit will vary with specific job requirements such as input rating, electrical specification and special agency approval codes. The above chart shows those items standard to a basic burner plus a few options that may be added.
- Indicator lights are "Power On", "Call for Heat", "Fuel On" and "Flame Fail" for hard wired panels. "Alarm", "Low Water", "Power", "Call for Heat", "Ignition On" and "Fuel On" for circuit board light panels.

Maximum Burner Capacity - As defined by furnace pressure

Use 1" furnace pressure for each 1500 ft of altitude over 1000 ft



Model JB1 - Sizing and Application Data (contact Webster for complete information)

Model Number	Maximum Furnace Pressure	Burner Firing Capability Range				Burner Motor HP		Pipe Size	Gas Trains		Oil Pump Motor HP
		Natural Gas or Propane (ACFH)		#2 Oil (GPH) (Pressure Atomized)		Gas Only HP	Oil or Combination		* Inlet Pressure		
		On-Off, LFS	Modulation	On-Off, LFS	Modulation	On-Off, LFS	Modulation				
JB1-02	1.25	400	1200	3.5 **	8.6 **	1/4	NA	1"	6 / 14"	7 / 14"	Integral
JB1-03	1.25	600	1420	4.0	10.1	1/3	1/3	1 1/4"	8 / 14"	9 / 14"	Integral
JB1-05	1.25	800	2180	6.0	15.6	1/2	1/2	1 1/2"	7 / 14"	8 / 14"	Integral
JB1-07	1.25	900	2420	7.0	17.3	3/4	3/4	1 1/2"	9 / 14"	11 / 14"	Integral

* Lower pressures may reduce capacities
 ** Uses 1/3 HP motor w / integral oil pump

Integral oil pump standard on oil or combination burners.
 Rates shown are for standard burner application. Special heads may be required depending on vessel. Contact factory for details.
 On-Off available 400-1000 MBH, 3.5 - 7 GPH oil, LFS & LHL start 5.5 GPH, HF mod starts 6.6 GPH HF

The above maximum ratings are based on 0 furnace pressure, an altitude of 1000 feet, 90°F air temperature and 60 HZ electrical supply. Use the following corrections for higher temperatures and altitude. Contact factory for 50 Hertz.
 Capacity decreases by 4% for each 1000 feet above 1000 foot altitude.
 Capacity decreases by 6% for each 1 inch of furnace pressure.
 Capacity decreases by 2% for each 10°F increase in air temperature over 90°F.
 Gas input ratings based on 1000 BTU/cu ft. and 0.64 specific gravity. Sizes and pressure will vary with gas.
 Oil input ratings are based on 140,000 BTU/gal for ASTM #2 fuel oil and 150,000 BTU/gal for ASTM #4-6 oil.
 The vessel draft must be between -0.1 and +0.1 wc.

Essential Ordering Information and Data:

- Power Supply - Confirm 120-60-1 for control circuit and electrical supply for burner motor(s) (voltage, frequency and phase).
- Describe Boiler or Heater to be Fired - Including the manufacturer, model number, furnace pressure and furnace size.
- Firing Rate - Define firing rates in MBH for gas and GPH for oil.
- Fuel to be Burned - Type of gas and/or oil, including the BTU value.
- Approval Agency - UL, FM, IRI (GE GAP), CSD-1, NFPA, Mil spec and local codes, if applicable.
- Flame Safety Control Preferred - Honeywell or Fireye controls.
- Gas Train Components Preferred - ASCO/ITT, Honeywell or Landis
- Control System - ON-OFF, Low Fire Start, Low-High-Low, Modulation, Posi-Control
- Required Options - Mounting plate, limit controls, limit controls, etc.

Model JB1 burners are listed by Underwriters Laboratories, Inc. (UL / ULC). Also by the State of Massachusetts Fire Marshal, City of New York Board of Standards and Appeals, State of Minnesota and can be packaged to meet specific requirements of IRI, FM, GE GAP, NFPA, MIL spec. or other special insurance or local code requirements.