WEBSTER COMBUSTION
A Selas Heat Technology Company

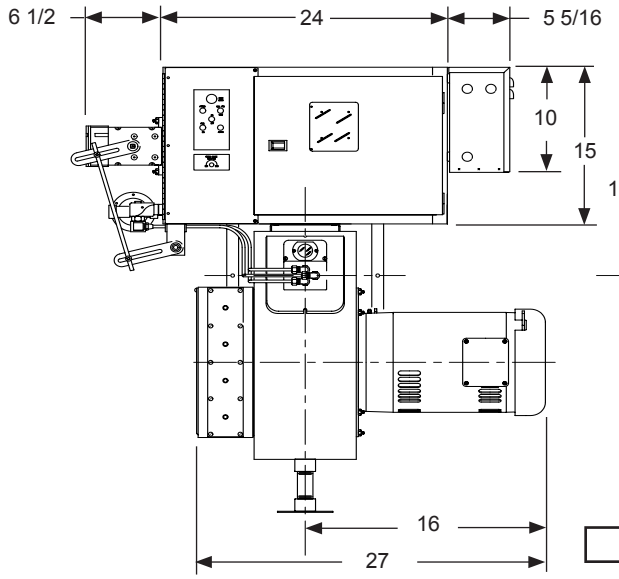
Model JB3 Forced Draft Burners

Specification & Dimensional Data
(1400 - 12,600 MBH Input)

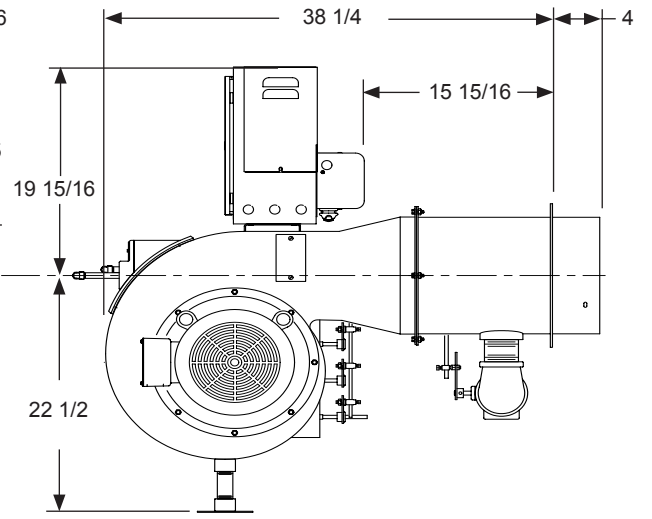
Fuels Burned and Control Systems

- **Natural Gas, Propane, Digester or Mixed Gases**
- **Light #2 through Heavy #6 Fuel Oil**
- **Modulating Control System - Linkageless or Linkage**
- **Control Circuit Requires 120 vac, 60 Hz, Single Phase Voltage Supply**

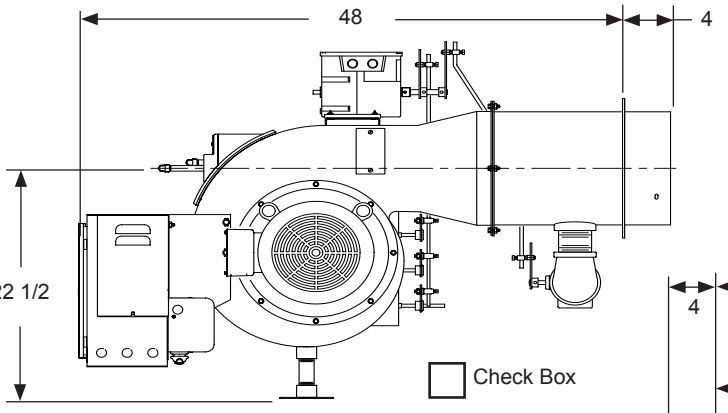
Check appropriate box to indicated selected version. (Dimensions are +/- 1/4 inch)



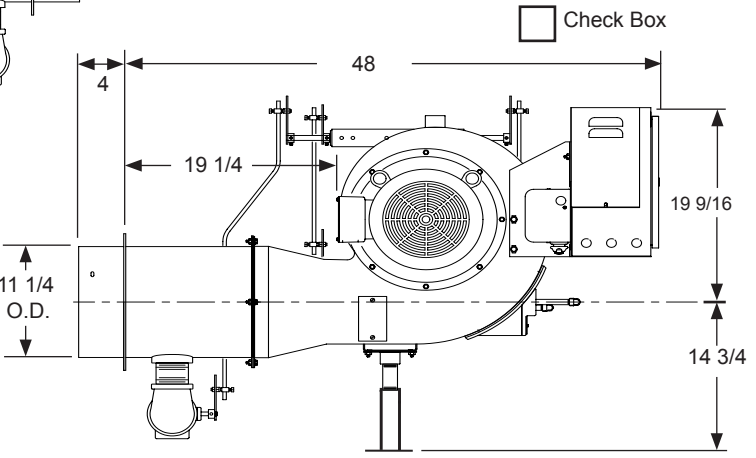
Standard Arrangement - End View



Standard Arrangement ElevationSide View



Standard Burner Arrangement Elevation W/ Optional Back Mount Control Cabinet Side View



Inverted Arrangement Elevation - Side View

Model JB3 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.

Model JB3 - Specification Data (1400 - 12,600 MBH Input)

	(1) STANDARD UL EQUIPMENT AND IMPORTANT OPTIONS	Gas	No. 2 Oil		No. 4 - 6 Oil Air Atomized
			Pressure Atomized	Air Atomized	
General	Motor, Fan and Air Inlet Control	X	X	X	X
	Air Flow Switch	X	X	X	X
	(2) Burner Mounted Control Panel, Switch and Four Indicator Lights	X	X	X	X
	Flame Safety Control	X	X	X	X
	Ultra Violet Scanner	X	X	X	X
	Motor Starter with Overloads	X	X	X	X
	Fuel Selector Switch	Dual Fuel Burners Only			
Ignition	Proven Gas Pilot Ignition	X	X	X	X
	Pilot Solenoid Gas Valve	X	X	X	X
	Pilot Gas Regulator & Manual Valve	X	X	X	X
	Pilot Gas Ignition Transformer	X	X	X	X
Options	Inverted Housing	X	X	X	X
	Alternate Control Cabinet Positioning	X	X	X	X
	Remote Control Panel	X	X	X	X
	Fuel Metering CAM-NETIC II	X	X	X	X
	Linkageless	X	X	X	X

	STANDARD UL EQUIPMENT AND IMPORTANT OPTIONS	Gas	No. 2 Oil		N0. 4 - 6 Oil Air Atomized
			Pressure Atomized	Air Atomized	
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	X			
	Metering Valve (modulating systems)	X			
	Normal Open Vent Valve (above 12,500 MBH)	X			
Oil Fuel	Oil Drawer Assembly with Diffuser		X	X	X
	Oil Nozzles		X	X	X
	Oil Heater with Integral Thermostat				X
	Remote Oil Pump		X	Opt.	Opt.
	Two Safety Shutoff Valves		X	X	X
	High Oil Temperature Switch				X
	Low Air Atomizing Switch				X
	Low Oil Pressure Switch		X	X	X
	Oil Pressure Gauge		X	X	X
	Oil Metering Valve		X	X	X
	Future Gas Combustion Head		Opt.	Opt.	Opt.
	Air Compressor			X	X

1. 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.
2. Indicator lights are “Power On”, “Call for Heat”, “Fuel On” and “Alarm” for hard wired panels. “Alarm”, “Low Water”, “Power”, “Call for Heat”, “Ignition On”, and “Fuel On” for circuit board light panels.

Model JB3 - Sizing and Application Data (contact Webster for complete information)

Model Number	Maximum Furnace Pressure	Burner Firing Capability Range			Burner Motor HP	Gas Train		#2 Oil Pump Motor HP		#4 - 6 Pump Motor HP	Air Compressor Motor HP
		Gas scfh	#2 Oil gph	#4-6 Oil gph		Pipe Size	Inlet Press	Pressure Atomizing	Air Atomizing		
JB3-30	3.5	1400 / 6300	10.2 / 45	10 / 42	3	2 1/2”	12 / 27”	1	Optional	Optional	2
JB3-50	3.5	1400 / 8300	11 / 59.2	10 / 55.3	5	3”	15 / 27”	1 1/2	Optional	Optional	2
JB3-75	3.5	1600 / 10500	12.3 / 75	11 / 70	7 1/2	3”	23 / 27”	1	Optional	Optional	2
JB3-100	3.5	1800 / 12600	20.3 / 90	12 / 84	10	3”	2-5 psi	1	Optional	Optional	2

The above maximum ratings are based on 0 furnace pressure, an altitude of 1000 feet, 90^{O}F air temperature and 60 HZ electrical supply. Use the following corrections for higher temperatures and altitude. Capacity by 17% 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^{O}F increase in air temperature over 90^{O}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 fuel 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, Honeywell or Siemens
Control System, Modulation, Linkageless
Required Options - Mounting plate, operating controls, limit controls, etc.