# **Equipment Selection/Sizing**

Burner System Model No.	Burner Capacity (x 1,000 Btu/hr)		Manifold Size	Gas Train Size	Blower Motor	Burner Array Length
	Min.	Max.	(in)	(in)	(hp)	(in)
SB505/2-b-cd	400	1,000	4	1	0.75	24
SB505/3-b-cd	600	1,500	6	1.5	1	34
SB505/4-b-cd	800	2,200	6	1.5	1.5	34
SB505/5-b-cd	1,000	2,499	8	1.5	1.5	44
SB505/6-b-cd	1,200	3,250	8	2	3	44
SB505/7-b-cd	1,400	3,750	8	2	3	54
SB505/8-b-cd	1,600	4,250	8	2	3	64
SB505/9-b-cd	1,800	4,750	8	2	3	74
SB505/10-b-cd	2,000	5,250	8	2	5	84
SB505/11-b-cd	2,200	6,000	10	2	5	94
SB505/12-b-cd	2,400	6,500	10	2	5	104

#### Model Numbering Options (SB505/n-b-cd):

- **n:** Number of Modules per Burner System (e.g. 2, 3, 4, . . . 12)
- **b:** Control Mode (O = On/Off, 1 = High/Low, 2 = Fully Modulating)
- **c:** NEMA category (I = Indoor/NEMA 1, O = Outdoor/NEMA 3R)
- d: Auxiliary Controls Options (G = Full UL spec Gas Train, C = Complete combustion controls, other options available on request)



- Leading edge NOx burner products since 1982.
- Over 50,000 burners shipped worldwide.
- Products recognized as "Best Available Control Technology."
- Advanced research activities funded by Gas Research Institute, U.S. Department of Energy, Southern California Gas Co., Pacific Gas and Electric, Southern California Edison, and other Fortune 500 companies.
- Standard or custom products to quickly meet customer needs.

Pyromat  $SB^{TM}$  Model SB505/4-1-IGC Burner installed in Atmospheric Boiler.

Tomorrow's Clean Energy Solutions, TODAY!



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# PYROMAT SB<sup>TM</sup> LOW NO<sub>X</sub> BURNER

The clean energy choice for atmospheric boilers and water heaters, **Durable and Simple.** 



Patent Pending

# **Burner Features and Benefits**

## Low NO<sub>x</sub>

- NO<sub>x</sub> emissions reliably below 20 ppm.
- No compromise with CO and Hydrocarbons.
- Easily meets trend-setting California environmental regulations.

## Compact, Modular, Flexible

- Fits all bottom-fired boilers without derating new and retrofit applications.
- All capacities easily assembled from the basic modular system.
- Burner arrays flexibly configured to fit any firebox.

#### **All Metal Construction**

- Cast iron, mild and stainless steels, and specialty high temperature alloy firing surface.
- High quality construction, rugged and reliable for long life.
- Ease of handling, assembly, installation and maintenance.

## **Simplicity**

- Single, individually sized, fuel/air delivery modules cover entire capacity range.
- Factory set constant ratio fuel/air control.
- No external flue ducts, hot fans or other unnecessary complications.
- No jack shafts, complex linkages or "characterizable" valves requiring frequent cumbersome field adjustments to keep burner tuned.
- Easy installation for new boilers and retrofits
- No filters.

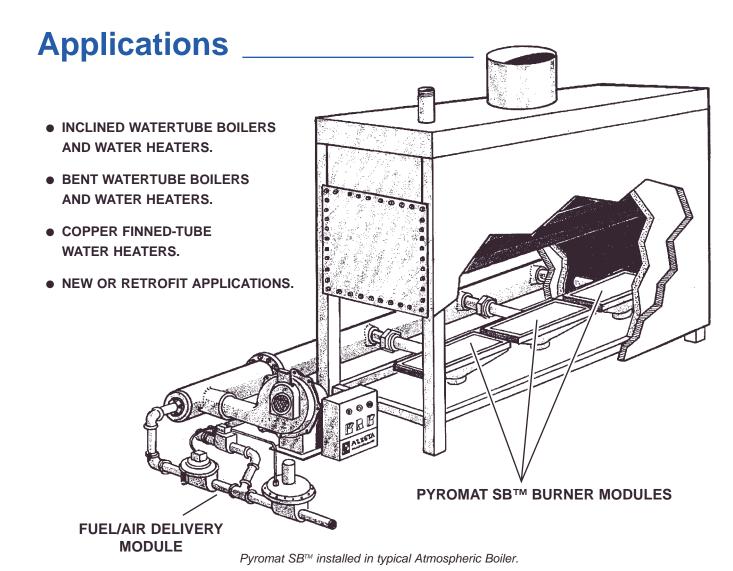




Pyromat SB<sup>™</sup> Modules showing gas pilot assembly and remote flame rod (patent pending).



Pyromat SB<sup>™</sup> Fuel Air Delivery Module.



# **Description and Specifications**

# **Capacities and Fuels**

- 1,000,000 to 6,500,000 Btu/hr.
- Natural gas at 14" w.c. (min) to 5 psig (max); propane and butane on request.

# **Fuel/Air Delivery Module**

- Factory set fuel/air mixing assembly with 2.5 to 1 turndown.
- On/Off, High/Low, or Modulating control.
- UL specification main and pilot gas trains.
- Interrupted, spark-ignited, gas pilot assembly with remote flame rod.
- State-of-the-art, microprocessor-based, integrated primary combustion control.
- Factory assembled, wired and tested.

# **Burner Module Arrays**

- Burner modules (500,000 Btu/hr capacity each) assembled onto a common manifold cover the full capacity range.
- Various module array configurations fit any firebox.