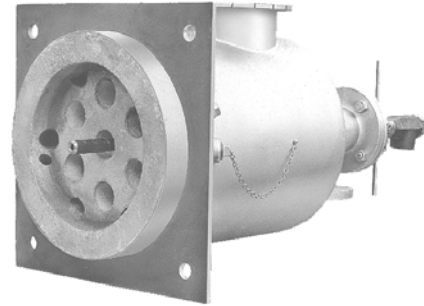


## 1200 SERIES FTR HOT AIR BAFFLE BURNER

### CAPABILITIES

- High release rates with moderate air pressure
- Good turn down with flame characteristics and direction maintained
- Stable flames tailored to the job applications can be from highly oxidizing for tempered flame operation to highly reducing for maintaining atmospheres
- Suitable for preheated air up to 1200°F (649°C)



### FEATURES

- Rugged fabricated construction
- Patented\* refractory baffle stabilization shields the burner internals from flame and it is a self-supporting stable structure
- Suitable for operation at furnace temperatures up to 2600°F (1427°C)
- Heat resistant alloy nozzle
- Provisions for flame monitoring

### CONTROL

- Pressure Balance Ratio Regulators
- Volumetric Air Ratio Control
- Note: Gas distribution orifice recommended at each burner in multiple burner zones due to low gas pressure

### FLAME MONITORING

- U.V. Detector

### APPLICATIONS

- Slab Reheating Furnaces
- Ladle Dryers
- Ingot Heaters
- Air Heaters
- Hot Metal Mixer
- Boilers
- Billet Reheating Furnace
- Copper and Aluminum Reverberatory furnaces
- Many other Applications

### BURNER IGNITION

- Pilot
- Direct Spark

### FUEL CAPABILITIES

- Natural Gas
- Coke Oven Gas
- P Gas
- Low Btu Mixed Gas
- Distillate Fuel Oils
- #6 Fuel Oil

\*Manufactured under one or more of the following patents: U.S. 3,180,394 and 3,209,808; Great Britain 819,964 and 978,117; France 1,148,885 and 1,342,834; Canada 710,726; Italy 675,094; Japan 522,262; W. Germany 1,401,853; Austria 211,463; Belgium 546,204; Holland Patent Pending.

**CAUTION:** The improper use of combustion equipment can result in a condition hazardous to people and property. Users are urged to comply with National Safety Standards and/or Insurance Underwriters recommendations

## 1200 SERIES FTR HOT AIR BAFFLE BURNER

Nominal Capacity																											
<sup>1</sup> Slow Heat Release - 3" (7 mbar) W.C. <sup>1</sup> Fast Heat Release - 6" (15 mbar) W.C.																											
Catalog Number 1200 Series	Air Capacity SCFH Nm <sup>3</sup> /hr X 10,000																				Pilot Size						
	Air Temperature																										
	500	260	550	288	600	316	650	343	700	371	750	399	800	427	850	454	900	482	950	510	1000	538	1050	566	1100	593	3001-
040	1.09	0.03	1.07	0.03	1.03	0.03	1.01	0.03	0.99	0.03	0.97	0.03	0.96	0.03	0.94	0.03	0.91	0.02	0.90	0.02	0.89	0.02	0.87	0.02	0.86	0.02	050
060	2.46	0.07	2.40	0.06	2.33	0.06	2.29	0.06	2.24	0.06	2.20	0.06	2.18	0.06	2.11	0.06	2.07	0.06	2.05	0.05	2.01	0.05	1.96	0.05	1.93	0.05	050
080	4.40	0.12	4.29	0.12	4.19	0.11	4.09	0.11	4.00	0.11	3.92	0.10	3.84	0.10	3.77	0.10	3.70	0.10	3.63	0.10	3.57	0.10	3.51	0.09	3.45	0.09	050
100	6.00	0.16	5.85	0.16	5.72	0.15	5.58	0.15	5.46	0.15	5.35	0.14	5.24	0.14	5.14	0.14	5.05	0.14	4.95	0.13	4.87	0.13	4.78	0.13	4.71	0.13	100
120	8.09	0.22	7.88	0.21	7.70	0.21	7.51	0.20	7.75	0.21	7.20	0.19	7.05	0.19	6.93	0.19	6.80	0.18	6.67	0.18	6.56	0.18	6.45	0.17	6.35	0.17	100
12X	9.68	0.26	9.46	0.25	9.13	0.24	9.02	0.24	8.80	0.24	8.58	0.23	8.47	0.23	8.25	0.22	8.14	0.22	8.03	0.22	7.87	0.21	7.72	0.21	7.59	0.20	100
140	13.20	0.35	12.87	0.35	12.43	0.33	12.21	0.33	11.99	0.32	11.66	0.31	11.44	0.31	11.22	0.30	11.00	0.29	10.89	0.29	10.67	0.29	10.52	0.28	10.35	0.28	100
160	17.16	0.46	16.72	0.45	16.28	0.44	15.95	0.43	15.62	0.42	15.29	0.41	15.07	0.40	14.74	0.39	14.41	0.39	14.19	0.38	13.97	0.37	13.68	0.37	13.46	0.36	150
180	21.67	0.58	21.12	0.57	20.57	0.55	20.24	0.54	19.80	0.53	19.36	0.52	19.03	0.51	18.59	0.50	18.26	0.49	17.93	0.48	17.71	0.47	17.28	0.46	17.00	0.46	150
200	26.84	0.72	26.18	0.70	25.41	0.68	24.97	0.67	24.42	0.65	23.87	0.64	23.43	0.63	22.99	0.61	22.44	0.60	22.11	0.59	21.78	0.58	21.40	0.57	21.06	0.56	150
220	32.56	0.87	31.68	0.85	31.02	0.83	30.25	0.81	29.59	0.79	29.04	0.78	28.38	0.76	27.83	0.74	27.39	0.73	26.84	0.72	26.40	0.71	25.96	0.70	25.54	0.68	150
240	38.61	1.04	37.62	1.01	36.63	0.98	35.86	0.96	35.20	0.94	34.54	0.92	33.88	0.91	33.22	0.89	32.56	0.87	32.01	0.86	31.46	0.84	30.79	0.83	30.29	0.81	150

Maximum Capacity																											
<sup>1</sup> Slow Heat Release - 6" (15 mbar) W.C. <sup>1</sup> Fast Heat Release - 12" (30 mbar) W.C.																											
Catalog Number 1200 Series	Air Capacity SCFH Nm <sup>3</sup> /hr X 10,000																				Pilot Size						
	Air Temperature																										
	500	260	550	288	600	316	650	343	700	371	750	399	800	427	850	454	900	482	950	510	1000	538	1050	566	1100	593	3001-
040	1.54	0.04	1.51	0.04	1.46	0.04	1.43	0.04	1.40	0.04	1.36	0.04	1.35	0.04	1.32	0.04	1.29	0.03	1.28	0.03	1.27	0.03	1.23	0.03	1.21	0.03	050
060	3.49	0.09	3.39	0.09	3.30	0.09	3.23	0.09	3.17	0.08	3.10	0.08	3.08	0.08	2.98	0.08	2.93	0.08	2.89	0.08	2.85	0.08	2.78	0.07	2.74	0.07	050
080	6.23	0.17	6.07	0.16	5.93	0.16	5.79	0.16	5.67	0.15	5.55	0.15	5.44	0.15	5.33	0.14	5.23	0.14	5.14	0.14	5.05	0.14	4.97	0.13	4.89	0.13	050
100	8.49	0.23	8.27	0.22	8.09	0.22	7.89	0.21	7.71	0.21	7.56	0.20	7.40	0.20	7.26	0.19	7.14	0.19	7.00	0.19	6.89	0.18	6.77	0.18	6.66	0.18	100
120	11.44	0.31	11.11	0.30	10.89	0.29	10.63	0.28	10.40	0.28	10.19	0.27	9.98	0.27	9.80	0.26	9.61	0.26	9.43	0.25	9.27	0.25	9.12	0.24	8.97	0.24	100
12X	13.64	0.37	13.42	0.36	12.87	0.35	12.76	0.34	12.43	0.33	12.10	0.32	11.99	0.32	11.66	0.31	11.55	0.31	11.33	0.30	11.11	0.30	10.88	0.29	10.70	0.29	100
140	18.70	0.50	18.15	0.49	17.60	0.47	17.27	0.46	16.94	0.45	16.50	0.44	16.17	0.43	15.84	0.42	15.51	0.42	15.40	0.41	15.07	0.40	14.91	0.40	14.67	0.39	100
160	24.31	0.65	23.65	0.63	22.99	0.62	22.55	0.60	22.11	0.59	21.67	0.58	21.34	0.57	20.79	0.56	20.35	0.55	20.02	0.54	19.80	0.53	19.38	0.52	19.07	0.51	150
180	30.69	0.82	29.92	0.80	29.04	0.78	28.60	0.77	28.05	0.75	27.39	0.73	26.95	0.72	26.29	0.70	25.85	0.69	25.30	0.68	25.08	0.67	24.47	0.66	24.08	0.65	150
200	37.95	1.02	36.96	0.99	35.97	0.96	35.31	0.95	34.54	0.93	33.77	0.91	33.11	0.89	32.56	0.87	31.68	0.85	31.24	0.84	30.80	0.83	30.26	0.81	29.77	0.80	150
220	46.09	1.24	44.77	1.20	43.89	1.18	42.79	1.15	41.80	1.12	41.03	1.10	40.15	1.08	39.38	1.06	38.72	1.04	37.95	1.02	37.29	1.00	36.75	0.99	36.16	0.97	150
240	54.56	1.46	53.24	1.43	51.81	1.39	50.71	1.36	49.50	1.33	48.84	1.31	47.96	1.29	46.97	1.26	46.09	1.24	45.32	1.22	44.44	1.19	43.50	1.17	42.80	1.15	150

<sup>1</sup>Heat release tailored to suit application

<sup>2</sup>If flame monitoring is required with residual fuels, please contact your Bloom Representative

<sup>3</sup>For oil burner size, please contact your Bloom Representative

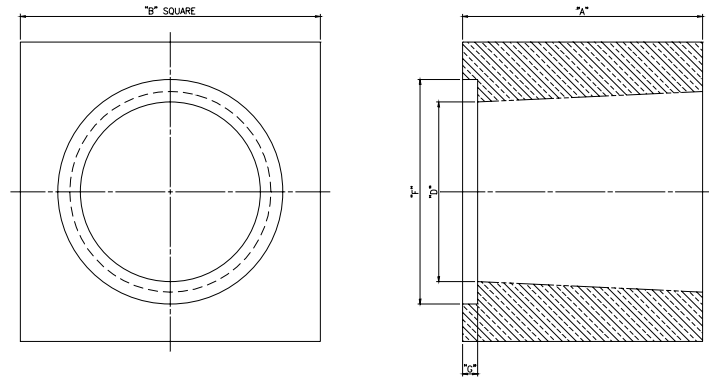
The 1200 FTR refractory baffle burner is designed for gaseous and liquid fuels and is suitable, without change, for any gas having a heating value of approximately 500 BTU per cubic foot (4700 kcal/m<sup>3</sup>) or greater. However, designs are available for gases having a lower heating value, such as clean blast furnace gas.

The Bloom baffle burner will operate equally as well on #2 through #6 fuel oils. <sup>2</sup>For distillate fuel oils, the burner is available with two styles of atomizers: The 1900 LP series and the 1800 FET series atomizer. The 1800 FET series atomizer can be supplied with a retractable design, which permits operation on gas with oil in place or retracted.<sup>3</sup>

**CAUTION:** The improper use of combustion equipment can result in a condition hazardous to people and property. Users are urged to comply with National Safety Standards and/or Insurance Underwriters recommendations



## 1200 SERIES FTR HOT AIR BAFFLE BURNER



### STANDARD PORT DIMENSIONS

Catalog No. 1200-	A		B		D		F		G		Weight	
	inches	mm	inches	mm	inches	mm	inches	mm	inches	mm	lbs	kg
040	18	457	12.5	318	6.50	165	11.0	279	1.8	44	170	77.1
060	18	457	15.0	381	8.50	216	13.0	330	1.8	44	225	102.1
080	18	457	17.5	445	9.75	248	14.3	362	1.8	44	315	142.9
100	18	457	20.0	508	11.75	298	16.3	413	1.8	44	395	179.2
120	18	457	22.5	572	14.00	356	18.3	464	1.8	44	495	224.5
12X	18	457	22.5	572	16.00	406	20.4	518			410	186.0
140	18	457	25.0	635	18.00	457	22.4	568	1.8	44	510	231.3
160	18	457	27.5	699	20.00	508	24.4	620	1.8	44	610	276.6
180	18	457	30.0	762	22.00	559	26.4	671	1.8	44	720	326.6
200	18	457	32.5	826	24.00	610	28.4	721	1.8	44	845	383.3
220	18	457	35.0	889	26.25	667	30.9	784	1.8	44	940	426.4
240	18	457	37.5	953	28.25	718	32.9	835	1.8	44	1070	485.3

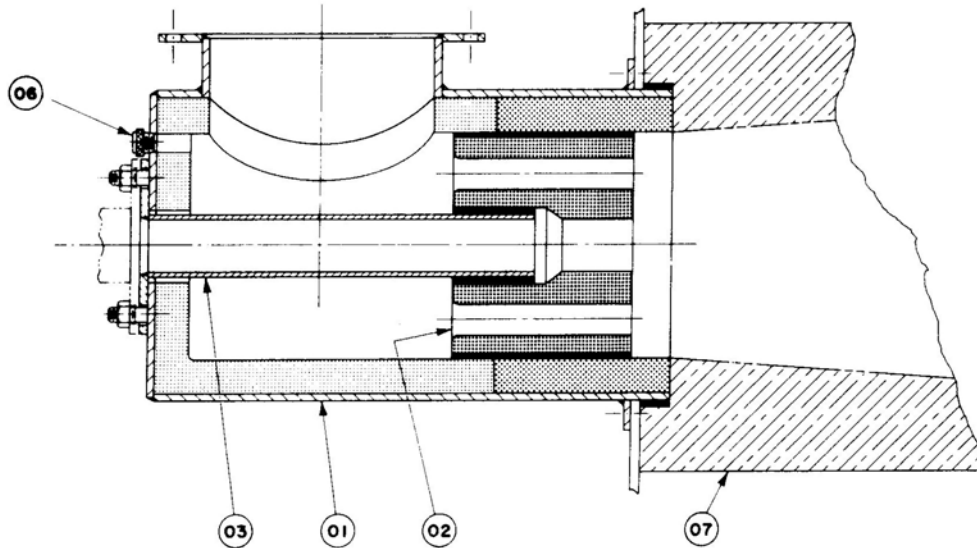
Gas Line Size Chart			
Natural Gas – Coke Oven Gas			
"B" Line Size		Maximum Capacity	
inches	mm	MMBtu/hr	kcal/hr
2	51	4	1.0
2 ½	64	6	1.5
3	76	11	2.8
4	102	20	5.0
6	152	48	12.1
8	203	80	20.2
10	254	124	31.3
12	305	175	44.1

NOTE: GENERAL DIMENSION INFORMATION. SEE BLOOM REPRESENTATIVE FOR CERTIFIED DIMENSIONS FOR CONSTRUCTION.

CAUTION: The improper use of combustion equipment can result in a condition hazardous to people and property. Users are urged to comply with National Safety Standards and/or Insurance Underwriters recommendations

## 1200 SERIES FTR HOT AIR BAFFLE BURNER

### PARTS LIST



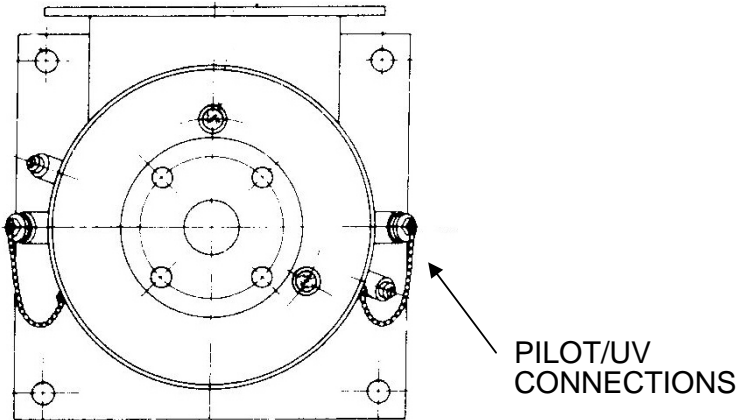
Part Number	Description
01	Body
02	Baffle
03	Nozzle Assembly
06	Observation Port
07	Port Block

Part Number Must Be Preceded By Catalog Number  
As Indicated On Reverse Side Of This Sheet  
Example: To Order Baffle Part 02 For 1200-080 Burner

Specify            1200-080    —    02  
                         (Catalog Number)    (Part Number)

**CAUTION:** The improper use of combustion equipment can result in a condition hazardous to people and property. Users are urged to comply with National Safety Standards and/or Insurance Underwriters recommendations

## 1200 SERIES FTR HOT AIR BAFFLE BURNER



Catalog No. 1200-	Pilot Conn		UV Conn		Optional Direct Spark Igniter	
	inches	mm	inches	mm	Slow Release	Fast Release
040	1	25	¾	19	3500-102-AA	3500-102
060	1	25	¾	19	3500-102-AA	3500-102
080	1	25	¾	19	3500-102-AA	3500-102
100	1 ¼	32	¾	19	3500-102-AA	3500-102
120	1 ¼	32	¾	19	3500-102-AA	3500-102
12X	1 ¼	32	¾	19	3500-102-AA	3500-102
140	1 ¼	32	¾	19	3500-102-AA	3500-102
160	1 ½	38	¾	19	3500-102-AA	3500-102
180	1 ½	38	¾	19	3500-102-AA	3500-102
200	1 ½	38	¾	19	3500-102-AA	3500-102
220	1 ½	38	¾	19	3500-102-AA	3500-102
240	1 ½	38	¾	19	3500-102-AA	3500-102

Note: "AA" is air assisted

NOTE: GENERAL DIMENSION INFORMATION. SEE BLOOM REPRESENTATIVE FOR CERTIFIED DIMENSIONS FOR CONSTRUCTION.

CAUTION: The improper use of combustion equipment can result in a condition hazardous to people and property. Users are urged to comply with National Safety Standards and/or Insurance Underwriters recommendations