

1209 SERIES FUEL ENERGY HOT AIR BAFFLE BURNER

CAPABILITIES

- Luminous flame at all firing levels
- High release rates with moderate air pressure
- Turndown to 15 to 1 on ratio with flame Characteristics and direction maintained with gas
- Stable flames with lengths tailored to the application



FEATURES

- Luminous, well directed flame
- Rugged fabricated construction
- Refractory baffle flame stabilization
- Baffle shields the burner internals from flame radiation
- Suitable for operation at furnace temperatures up to 2600°F (1427°C)
- Heat resistant alloy nozzle
- Lower energy costs, improved productivity and yield

CONTROL

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

APPLICATIONS

- Aluminum and Copper Reverberatory Furnaces
- Many other applications requiring luminous, high momentum flames at all firing levels

BURNER IGNITION

- Pilot
- Direct Spark
- Manual

FUEL CAPABILITIES

- Natural Gas
- LP Gas
- Low BTU Mixed Gas
- #2 Oil through #6 Oil and Tar

FLAME MONITORING

- U.V. Detector
- Please contact your Bloom representative for flame monitoring with residual oil

OPTIONS

- Designs with cleanout doors
- Angled mounting flange
- Angled air riser

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

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CAPACITY CHART

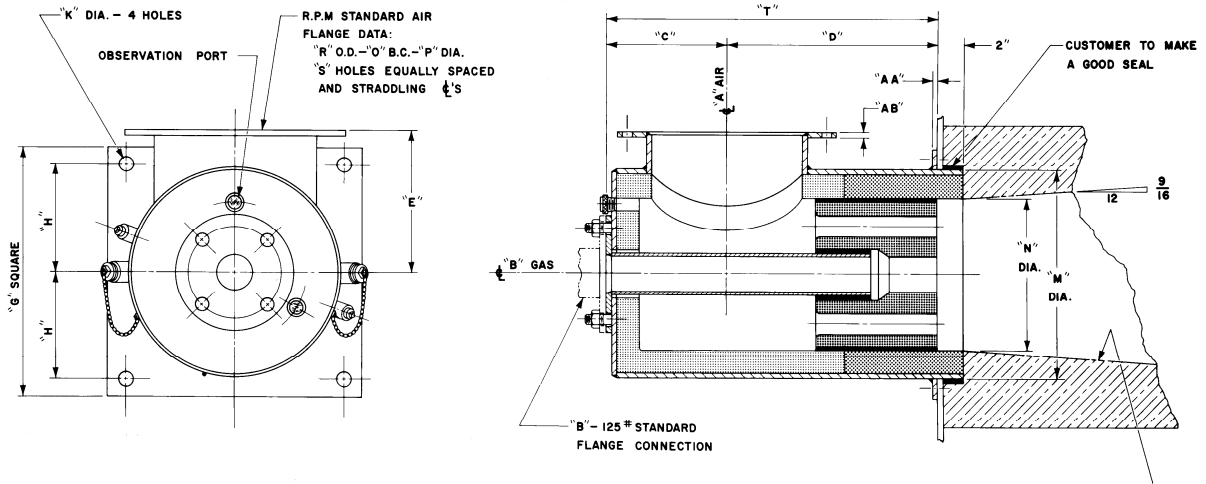
Fast Heat Release – 12” wc (30 mbar)														
Catalog No. 1209	Air Capacity – scfh x 1000 (Nm ³ /hr) Air Temperature °F (°C)													Pilot Size 3001-
	500 260	550 288	600 316	650 343	700 371	750 399	800 427	850 454	900 482	950 510	1000 538	1050 566	1100 593	
040	15.4 .416	15.1 .408	14.6 .395	14.3 .386	14.0 .378	13.6 .368	13.5 .365	13.2 .357	12.9 .349	12.8 .346	12.7 .343	12.3 .332	12.1 .327	050
060	34.9 .943	33.9 .916	30.3 .819	32.3 .873	31.7 .857	31.0 .838	30.8 .832	29.8 .805	29.3 .792	28.9 .781	28.5 .770	27.8 .751	27.4 .741	050
080	62.3 1.684	60.7 1.641	59.3 1.603	57.9 1.565	56.7 1.532	55.5 1.500	54.4 1.470	53.3 1.441	52.3 1.414	51.4 1.389	50.5 1.365	49.7 1.343	48.9 1.322	050
100	84.9 2.295	82.7 2.235	80.9 2.186	78.9 2.132	77.1 2.084	75.6 2.043	74.0 2.000	72.6 1.962	71.4 1.930	70.0 1.892	68.9 1.862	67.7 1.830	66.6 1.800	100
120	114.4 3.092	111.1 3.003	108.9 2.943	106.3 2.873	104.0 2.811	101.9 2.754	99.8 2.697	98.0 2.649	96.1 2.597	94.3 2.549	92.7 2.505	91.2 2.465	89.7 2.424	100
125	136.4 3.686	134.2 36.27	128.7 3.478	127.6 3.449	124.3 3.359	121.0 3.270	119.9 3.241	116.6 3.151	115.5 3.122	113.3 3.062	111.1 3.003	108.8 2.941	107.0 2.892	100
140	187.0 5.054	181.5 4.905	176.0 4.757	172.7 4.668	169.4 4.578	165.0 4.459	161.7 4.370	158.4 4.281	155.1 4.192	154.0 4.162	150.7 4.073	149.1 4.030	146.7 3.965	100
160	243.1 6.570	236.5 6.392	229.9 6.214	225.5 60.95	221.1 5.976	216.7 5.857	213.4 5.768	207.9 5.619	203.5 5.500	200.2 5.411	198.0 5.351	193.8 5.238	190.7 5.154	150
180	306.9 8.295	299.2 8.086	290.4 7.849	286.0 7.730	280.5 7.581	273.9 7.403	269.5 7.284	262.9 7.105	258.5 6.986	253.0 6.838	250.8 6.778	244.7 6.614	240.8 6.508	150
200	379.5 10.257	369.6 9.989	359.7 9.722	353.1 9.543	345.4 9.335	337.7 9.127	331.1 8.949	325.6 8.800	316.8 8.562	312.4 8.443	308.0 8.324	302.6 8.178	297.7 8.046	150
220	460.9 12.457	447.7 12.100	438.9 11.862	427.9 11.565	418.0 11.297	410.3 11.089	401.5 10.851	393.8 10.643	387.2 10.465	379.5 10.257	372.9 10.078	367.5 9.932	361.6 9.773	150
240	545.6 14.746	532.4 14.389	518.1 14.003	507.1 13.705	495.0 13.378	488.4 13.200	479.6 12.962	469.7 12.695	460.9 12.457	453.2 12.249	444.4 12.011	435.0 11.757	428.0 11.568	150

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

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GENERAL DIMENSIONS FOR -040 THRU -120



Catalog No. 1209-	General Dimensions (inches/mm)*																Ship Weight less block		
	A	B	C	D	E	G	H	K	M	N	O	P	R	S	T	AA	AB	lbs	kg
040	4	SEE GAS LINE SIZE CHART	4.38	10.75	7.75	14	5.5	.88	10.75	TO SUIT APPLICATION	5.94	.63	6.69	8	15.13	.38	.50	120	54
	102		111	273	197	356	140	22	273		151	16	170	203	384	10	13		
060	6		5.38	11.50	8.75	16	6	.88	12.75		7.88	.63	8.69	8	16.88	.38	.50	175	79
	152		137	292	222	406	152	22	324		200	16	221	203	429	10	13		
080	8		6.38	12.50	9.38	18	7	1.13	14		10	.63	10.81	8	17.88	.38	.50	225	102
	203	162	318	238	457	178	29	356	254	16	275	203	454	10	13				
100	10	7.38	15	10.38	20	8	1.13	16	12.25	.75	14.06	12	22.38	.38	.50	340	154		
	254	187	381	264	508	203	29	406	311	19	357	305	568	10	13				
120	12	8.38	17	11.50	22	8	1.13	18	14.25	.75	16.06	12	25.38	.50	.50	445	202		
	305	213	432	292	559	203	29	508	362	19	408	305	645	13	13				

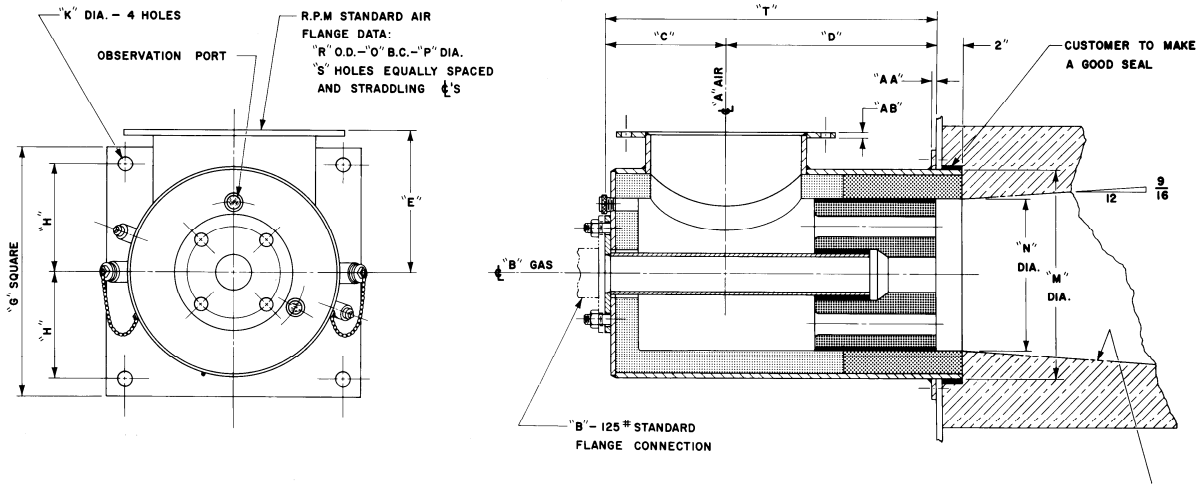
*Other combinations of air connection ("A") and body ("M") diameters available to suit specific applications

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1209 SERIES FUEL ENERGY HOT AIR BAFFLE BURNER

GENERAL DIMENSIONS FOR -125 THRU -240



Catalog No. 1209-	General Dimensions (inches/mm)*																Ship Weight less block				
	A	B	C	D	E	G	H	K	M	N	O	P	R	S	T	AA	AB	lbs	kg		
125	12	SEE GAS LINE SIZE CHART	8.38	17	12.50	24	10	1.13	20	TO SUIT APPLICATION	14.25	.75	16.06	12	25.38	.50	.50	500	227		
	305		213	432	318	610	254	29	508		362	19	408	305	645	13	13				
140	14		9.38	18	13.50	26	11	1.13	22		16.25	.75	18.06	12	27.38	.50	.50	570	259		
	356		238	457	343	660	279	29	559		413	19	459	305	695	13	13				
160	16		9.38	19	14.50	28	12	1.13	24		19.25	.75	21.25	16	29.38	.50	.50	685	311		
	406		238	483	368	711	305	29	610		489	19	540	406	746	13	13				
180	18		10.38	20	15.50	30	13	1.13	26		21.25	.75	23.25	16	30.38	.50	.50	840	381		
	457		264	508	394	762	330	29	660		540	19	591	406	772	13	13				
200	20	11.38	21	16.50	32	14	1.38	28	23.38	.75	25.25	20	32.38	.63	.50	975	442				
	508	289	533	419	813	356	35	711	594	19	641	508	822	16	17						
220	22	12.38	22	17.75	35	15	1.38	30	26	.75	28.25	20	35.38	.63	.50	1185	538				
	559	314	559	451	889	381	35	762	660	19	718	508	899	16	13						
240	24	14.38	23	18.75	37	16	1.50	32	27.75	.75	30	20	37.38	.63	.50	1395	633				
	610	365	584	476	940	406	38	813	705	19	762	508	949	16	13						

*Other combinations of air connection ("A") and body ("M") diameters available to suit specific applications

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Gas Line Size Chart			
"B" Line Size		Maximum Capacity	
inches	mm	MM Btu/hr	MM kcal/hr
2	51	4	1
2 ½	64	6	2
3	76	11	3
4	102	20	5
6	152	48	12
8	203	80	20
10	254	124	31
12	305	175	44

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