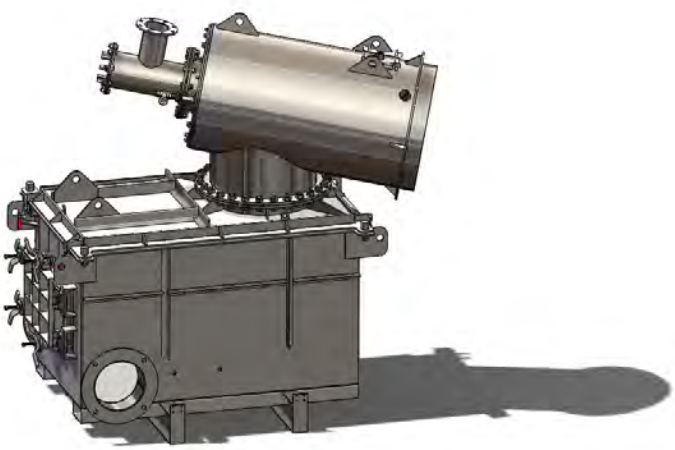
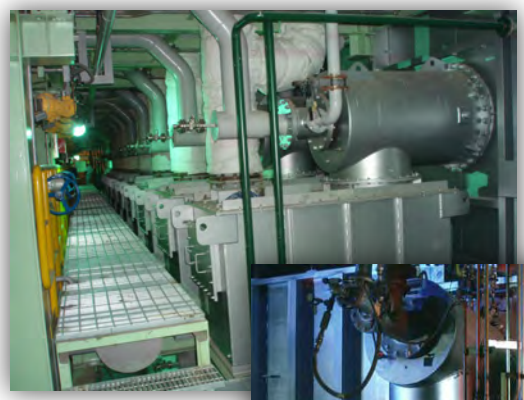
Bloom Engineering Company, Inc.

BPC115011

1150 Series

Ultra Low NOx Lumiflame Regenerative Burner





APPLICATIONS

- Steel Reheat Furnaces
- Aluminum Melting & Holding Furnaces
- Forge Furnaces
- Heat Treat Furnaces
- Ladle Heaters
- Many other new & retrofit applications

FEATURES

- Rugged fabricated construction
- Air cooled and insulated nozzle
- Suitable for operation at furnace temperatures up to 2400 ˚F (1316 ˚C); special design up to 2600 ˚F (1427 ˚C);
- Reliable cycling components
- Flame luminosity while incorporating the NOx reducing principles
- No external exhaust gas recirculation requirement

CAPABILITIES

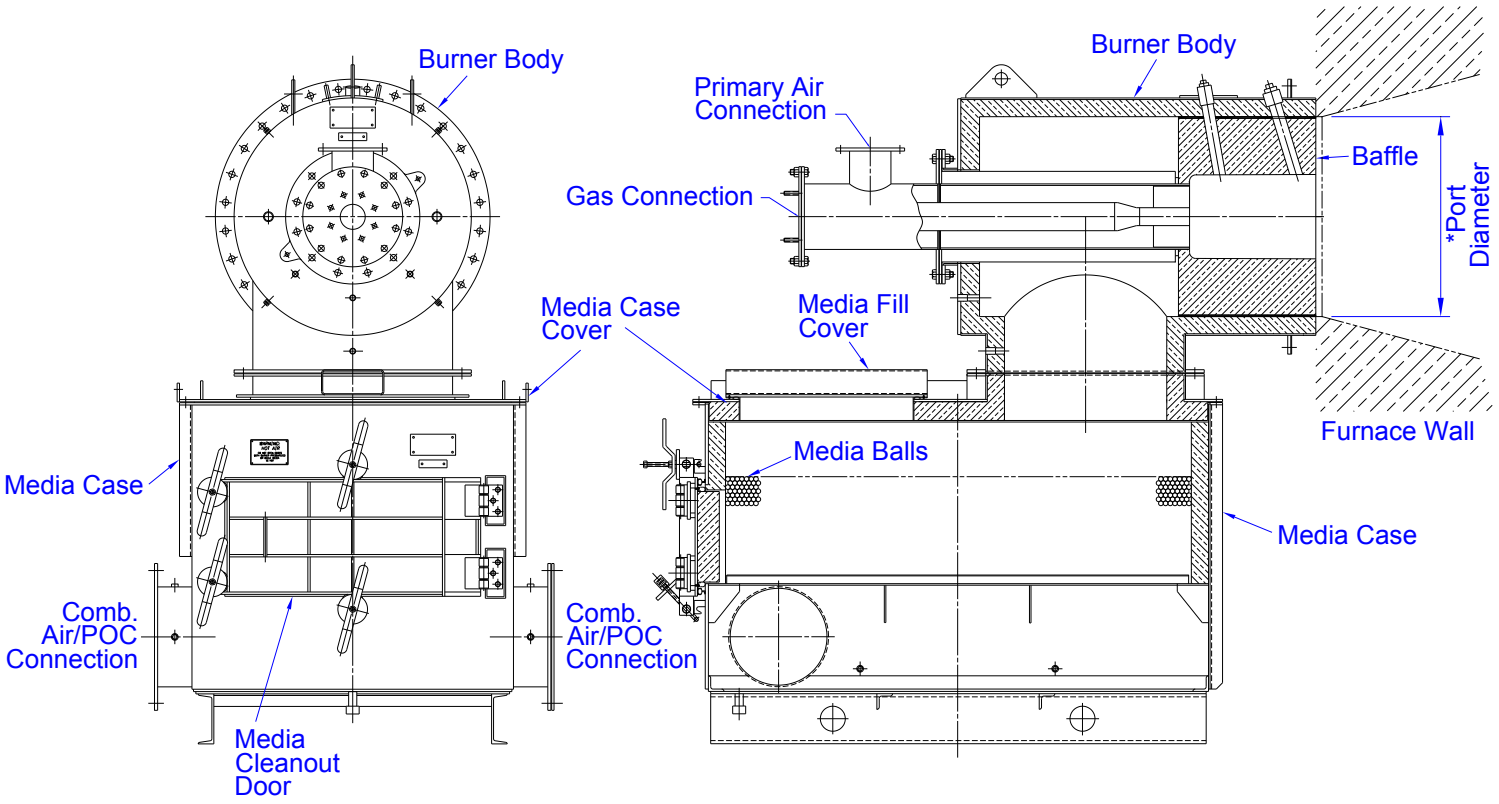
- Cold Start-up stability
- Reduced carbon dioxide (CO_2) emissions
- World leading low NOx technology
- Increased production from existing furnaces

Table 1 - Flame Dimensions for Nominal Capacities - Natural Gas with 10% Excess Air

Burner Designation 1150 - ___	Nominal Capacity[1,2]		*Standard Port ID		Expected Flame Length		Expected Flame Diameter	
	MMBtu/hr	MMkcal/hr	inches	mm	feet	m	feet	m
-025	2.5	0.63	11.50	292	6	1.8	2	0.6
-035	3.5	0.88	13.50	343	7	2.1	2.25	0.7
-050	5	1.26	16.00	406	8.5	2.6	2.5	0.8
-075	7.5	1.89	20.00	508	10	3.0	3	0.9
-100	10	2.52	22.50	572	11.5	3.5	3.5	1.1
-150	15	3.78	27.50	699	14	4.3	4.5	1.4
-200	20	5.04	32.00	813	16	4.9	5	1.5
-250	25	6.30	35.50	902	17.5	5.3	6	1.8
-300	30	7.56	39.00	991	19	5.8	7	2.0
-350	35	8.82	42.00	1067	20.5	6.2	7	2.1

[1] at 6" W.C. (14.9 mbar) air pressure through burner only (not through the media case)
[2] for capacities below these ranges, please see the *1150C Series* small capacity burner catalog

Regenerative Burner Layout



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

Table 2 - Nominal and Maximum Combustion Air Capacities for Regenerative Burner Heads

Burner Head Designation 1150 - ___	Nominal Air Capacity		Max Air Capacity	
	scfh	Nm^3/hr	scfh	Nm^3/hr
-025	27,500	737	41,250	1,105
-035	38,500	1,032	57,750	1,547
-050	55,000	1,474	82,500	2,211
-075	82,500	2,211	123,750	3,316
-100	110,000	2,948	165,000	4,421
-150	165,000	4,421	247,500	6,632
-200	220,000	5,895	330,000	8,843
-250	275,000	7,369	412,500	11,053
-300	330,000	8,843	495,000	13,264
-350	385,000	10,316	577,500	15,474

Burner Head Assembly

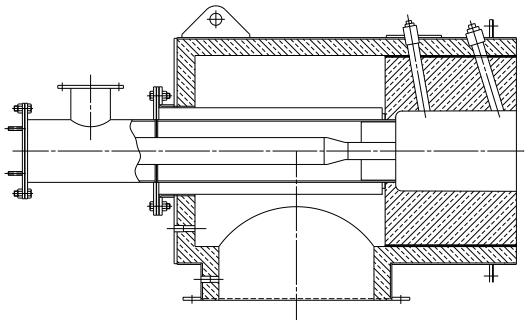
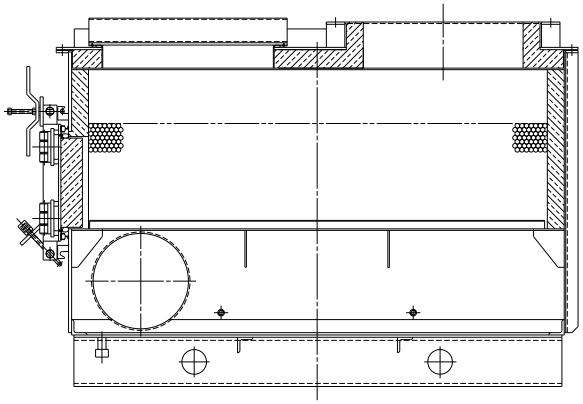


Table 3 - Nominal and Maximum Combustion Air Capacities for Regenerative Media Cases

Media Case Designation 1150 - ___	Nominal Air Capacity		Max Air Capacity	
	scfh	Nm^3/hr	scfh	Nm^3/hr
-025	27,500	737	33,000	884
-035	38,500	1,032	46,200	1,238
-050	55,000	1,474	66,000	1,769
-075	82,500	2,211	99,000	2,653
-100	110,000	2,948	132,000	3,537
-150	165,000	4,421	198,000	5,306
-200	220,000	5,895	264,000	7,074
-250	275,000	7,369	330,000	8,843
-300	330,000	8,843	396,000	10,611
-350	385,000	10,316	462,000	12,380

Media Case Assembly



EXAMPLE:

10 MMBtu/hr firing on Natural Gas requiring 110,000 scfh combustion air (10% excess air)

Burner Head Selection: **-075**
Media Case Selection: **-100**
Burner and Media Case Assembly Designation: **1150-075_100**

NOTE: Air, gas, and exhaust pressure requirements increase when burners are pushed above nominal ratings. In the example above, assuming 2200 °F (1204 °C) furnace temperature, the required combustion air pressure is approximately 12.8" w.c. (31.8 mbar) [at the cold side of the media case], gas pressure is 2.0 psi (134.8 mbar), and exhaust pressure is 17.4 "w.c. (43.4 mbar)

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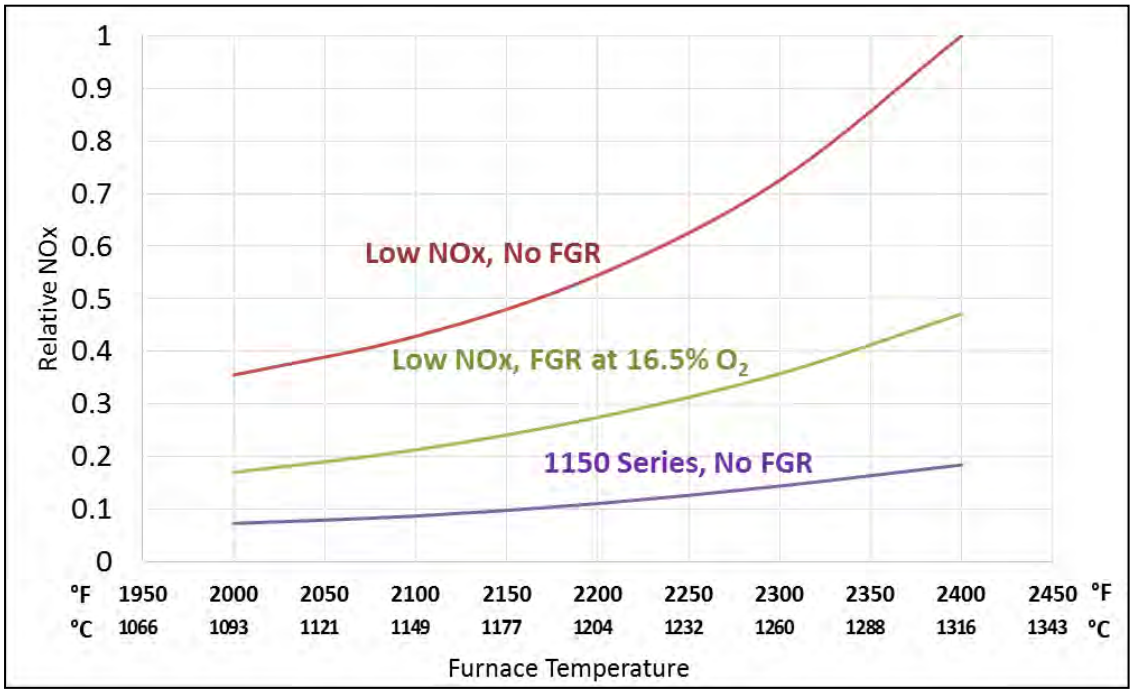
Table 4 - Max Combustion Air Flows at various Media Case Surface Temperatures

Media Case Size	Max Air Flow at various Media Case Surface Temperatures							
	Standard		392 °F (200 °C)		302 °F (150 °C)		257 °F (125 °C)	
1150	scfh	Nm^3/hr	scfh	Nm^3/hr	scfh	Nm^3/hr	scfh	Nm^3/hr
-025	27,500	737	22,000	590	12,500	335	4,785	128
-050	55,000	1,474	46,800	1,254	32,300	865	19,200	514
-075	82,500	2,211	72,000	1,929	53,000	1,420	34,800	932
-100	110,000	2,948	98,000	2,626	75,500	2,023	53,600	1,436
-150	165,000	4,421	150,000	4,019	122,000	3,269	93,500	2,505
-200	220,000	5,895	200,000	5,359	170,000	4,555	136,000	3,644
-250	275,000	7,369	250,000	6,699	220,000	5,895	181,800	4,871

ULTRA LOW NOx PERFORMANCE

Bloom's 1150 Series burners is designed for regenerative use. NOx emissions levels from these burners with no flue gas recirculation (FGR) are lower than other regenerative technologies that utilize FGR. Please find relative NOx emissions graphs below showing the 1150 burner against similar leading technologies. Please consult Bloom Engineering for NOx predictions and guarantees for your specific application.



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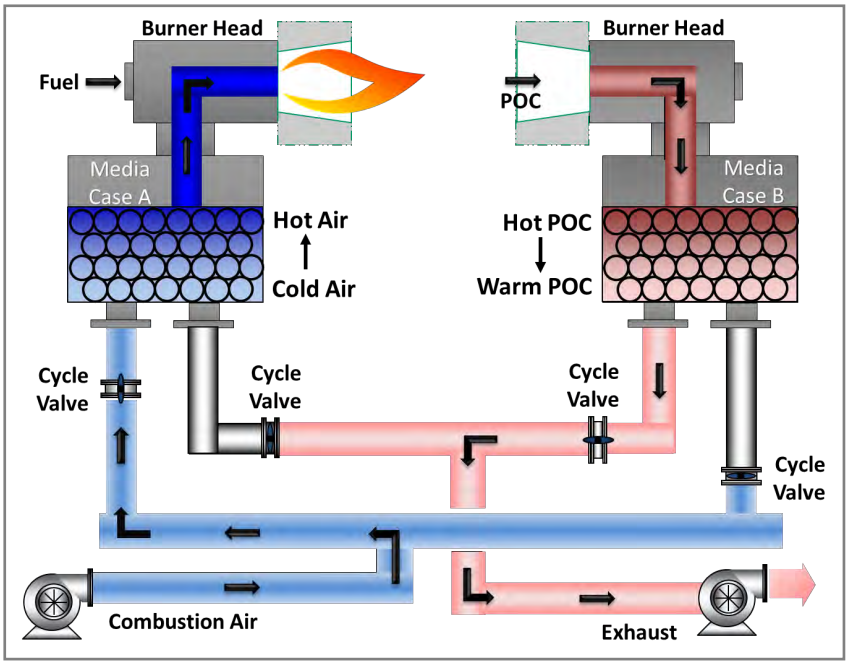
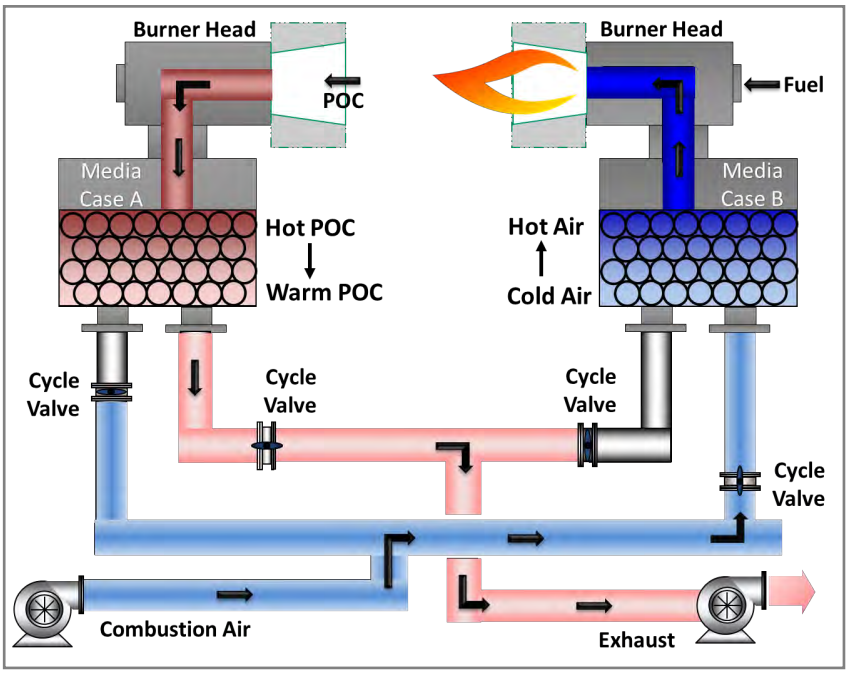
Regenerative Burner Technology



CYCLE 1



CYCLE 2

The 1150 Series LumiFlame Regenerative Burner is an advanced development in low NOx combustion technology and fuel efficiency. High fuel efficiency is achieved through regeneration using a pair of burners which cycle to alternately heat the combustion air or recover and store the heat from the furnace exhaust gases. When one burner is firing, the other is exhausting the furnace gases. *(See **CYCLE 1**)* Exhaust gases pass through the burner body and into a media case, which contains refractory material. The refractory media is heated by the exhaust gases, thus recovering and storing energy from the flue products. When the media bed is fully heated, the burner currently firing is turned off and begins to exhaust the flue products. The burner with the hot media bed begins firing. *(See **CYCLE 2**)* Combustion air passes through the media bed and is heated by the hot refractory. Air preheat temperatures within 300°F (150°C) of the products of combustion are achieved resulting in exceptionally high thermal efficiency.

NOTE: For more details on the air and exhaust cycle valves, please refer to the **6931 Catalog**

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

Table 5 - Approximate Burner Weights

Burner Designation 1150 (Burner Head/ Case Size)	Total Weight		Burner Head		Media Case w/ Media		Media	
	lb	kg	lb	kg	lb	kg	lb	kg
-025/025	1860	844	620	281	1240	562	440	200
-025/035	2175	987	620	281	1555	705	605	274
-035/035	2375	1077	820	372	1555	705	605	274
-035/050	2800	1270	820	372	1980	898	880	399
-050/050	3275	1486	1295	587	1980	898	880	399
-050/075	4165	1889	1295	587	2870	1302	1320	599
-075/075	4270	1937	1400	635	2870	1302	1320	599
-075/100	5060	2295	1400	635	3660	1660	1760	798
-100/100	5885	2669	2225	1009	3660	1660	1760	798
-100/150	7410	3361	2225	1009	5185	2352	2585	1173
-150/150	8335	3781	3150	1429	5185	2352	2585	1173
-150/200	9815	4452	3150	1429	6665	3023	3465	1572
-200/200	10360	4699	3695	1676	6665	3023	3465	1572
-200/250	12085	5482	3695	1676	8390	3806	4290	1946
-250/250	12965	5881	4575	2075	8390	3806	4290	1946
-250/300	14245	6461	4575	2075	9670	4386	5170	2345
-300/300	14770	6700	5100	2313	9670	4386	5170	2345
-300/350	17395	7890	5100	2313	12295	5577	5995	2719

Table 6 - Lance Pilot Selection

Burner Head Designation 1150 - ___	[1]Pilot Capacity		[2]Lance Pilot Designation
	Btu/hr	kcal/hr	
-025	30,000	7,560	3001-030-R025
-035	50,000	12,600	3001-050-R035
-050	50,000	12,600	3001-050-R050
-075	50,000	12,600	3001-050-R075
-100	100,000	25,200	3001-100-R100
-150	100,000	25,200	3001-100-R150
-200	100,000	25,200	3001-100-R200
-250	100,000	25,200	3001-100-R250
-300	100,000	25,200	3001-100-R300
-350	100,000	25,200	3001-100-R350

[1] 6-8”w.c. (15-20 mbar) mixture pressure at the pilot
[2] All lance pilot sizes are of the design having provision for mounting the pilot flame UV detector on the rear of the pilot

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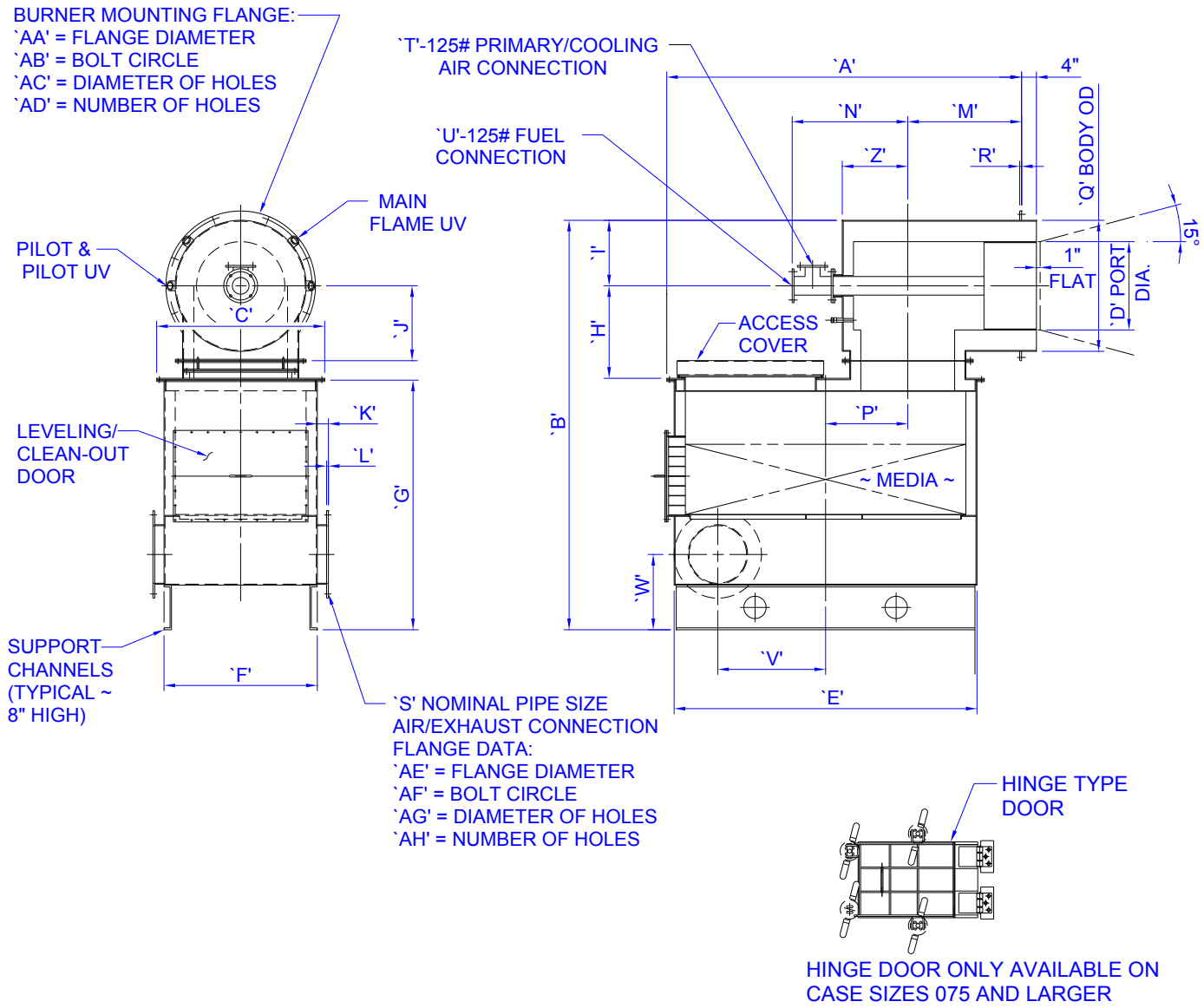
Burner Dimensions—Steel Applications—Horizontal Firing



NOTES:

- **General Dimension Information. See Bloom Representative for certified dimensions for construction**
- **The port block is normally rammed as an integral portion of the furnace wall. However, refractory port blocks are available at extra cost**

Table 7 - Burner Dimensions—Steel Applications

Burner Designation 1150 (Burner Head/Case Size)	General Dimensions (in inches)														
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P
-025/025	--	--	25	11 1/2	31	21	39 5/8	--	8 3/4	11 3/4	6	1/2	--	--	--
-025/035	47 9/16	68 3/8	27	11 1/2	33 1/2	23	43 1/8	16	8 3/4	11 3/4	6	1/2	22 1/2	27 15/16	6 5/16
-035/035	47 9/16	70 5/8	27	13 1/2	33 1/2	23	43 1/8	17 1/4	9 3/4	13	6	1/2	23 1/4	28 11/16	5 9/16
-035/050	49 11/16	70 5/8	34	13 1/2	33 3/4	30	43 1/8	17 1/4	9 3/4	13	6	1/2	23 1/4	28 11/16	7 9/16
-050/050	49 3/4	73 7/8	34	16	33 3/4	30	43 1/8	19 1/4	11	15	6	1/2	24 3/8	30 13/16	6 1/2
-050/075	62 1/8	78 3/8	34	16	48	30	47 1/4	19 5/8	11	15	6	1/2	24 3/8	30 13/16	11 3/4
-075/075	--	--	34	20	48	30	47 1/4	--	13	--	6	1/2	--	--	--
-075/100	67 3/4	88 1/8	38	20	53 3/4	34	54 7/8	19 3/4	13	15 1/2	6	1/2	25 1/4	32 7/16	13 3/4
-100/100	--	--	38	22 1/2	53 3/4	34	54 7/8	--	14 1/4	--	6	1/2	--	--	--
-100/150	80 5/16	91 7/8	44	22 1/2	64 1/4	40	55 5/8	21 1/2	14 1/4	17 1/4	6	1/2	26 15/16	35 5/8	19 1/4
-150/150	80 13/16	97 1/8	44	27 1/2	64 1/4	40	55 5/8	24 1/4	16 3/4	19 3/4	6	1/2	31 1/2	35 5/8	15 3/16
-150/200	92 13/16	97 1/8	48 1/2	27 1/2	76 1/4	44 1/2	55 7/8	24	16 3/4	19 3/4	6	1/2	31 1/2	35 5/8	21 3/16
-200/200	--	--	48 1/2	32	76 1/4	44 1/2	55 7/8	--	19	--	6	1/2	--	--	--

Burner Designation 1150 (Burner Head/Case Size)	General Dimensions (in mm)														
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	P
-025/025	--	--	635	292	787	533	1006	--	222	298	152	13	--	--	--
-025/035	1,208	1737	686	292	851	584	1095	406	222	298	152	13	572	710	160
-035/035	1,208	1794	686	343	851	584	1095	438	248	330	152	13	591	729	141
-035/050	1,262	1794	864	343	857	762	1095	438	248	330	152	13	591	729	192
-050/050	1,264	1876	864	406	857	762	1095	489	279	381	152	13	619	783	165
-050/075	1,578	1991	864	406	1219	762	1200	498	279	381	152	13	619	783	298
-075/075	--	--	864	508	1219	762	1200	--	330	--	152	13	--	--	--
-075/100	1,721	2238	965	508	1365	864	1394	502	330	394	152	13	641	824	349
-100/100	--	--	965	572	1365	864	1394	--	362	--	152	13	--	--	--
-100/150	2,040	2334	1118	572	1632	1016	1413	546	362	438	152	13	684	905	489
-150/150	2,053	2467	1118	699	1632	1016	1413	616	425	502	152	13	800	905	386
-150/200	2,357	2467	1232	699	1937	1130	1419	610	425	502	152	13	800	905	538
-200/200	--	--	1232	813	1937	1130	1419	--	483	--	152	13	--	--	--

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

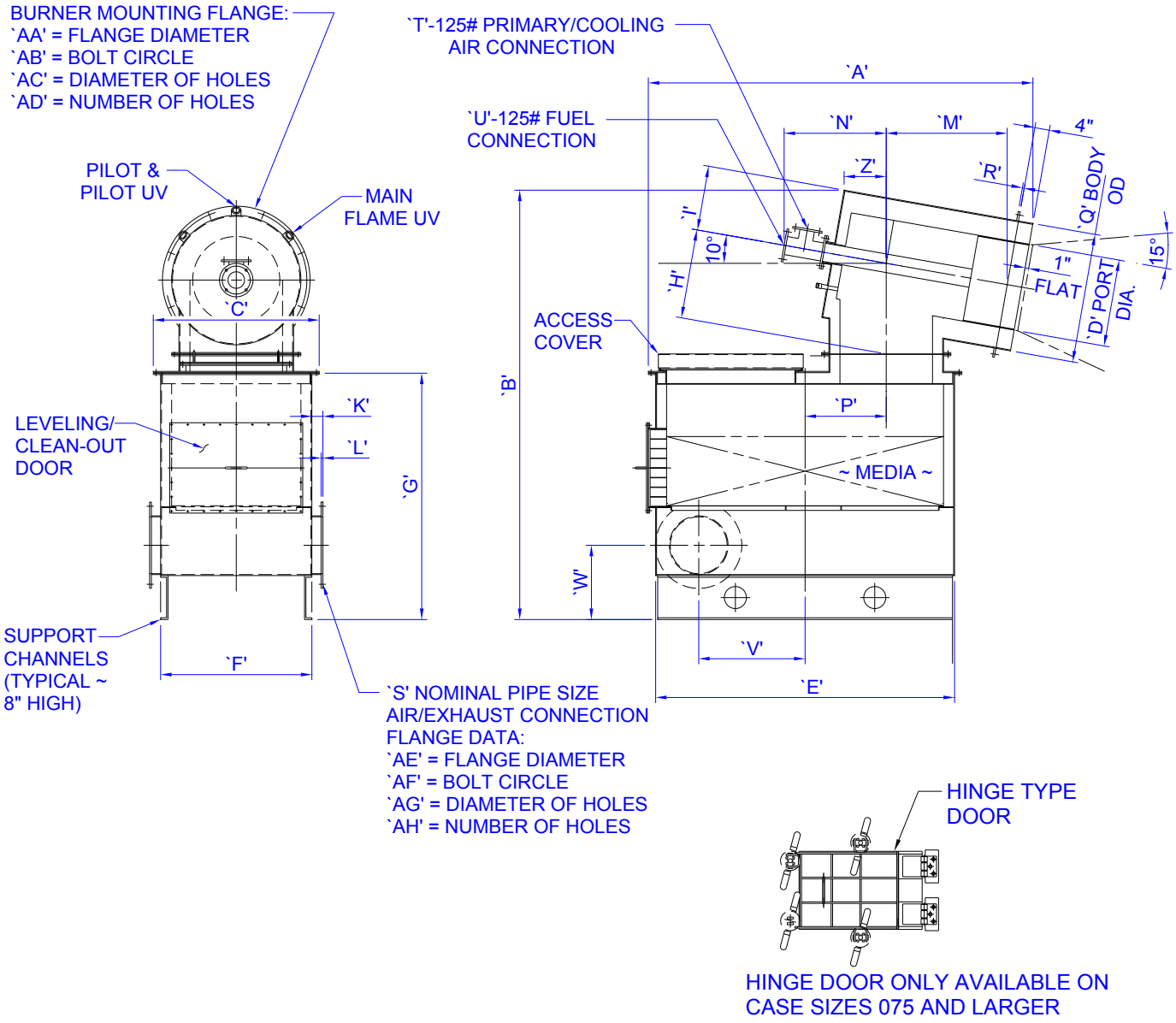
Table 7 - Burner Dimensions—Steel Applications (continued)

Burner Designation 1150 (Burner Head/ Case Size)	General Dimensions (in inches)															
	Q	R	S	T	U	V	W	Z	AA	AB	AC	AD	AE	AF	AG	AH
-025/025	17 1/2	3/8	6	--	--	8 1/4	13	--	22 1/2	20 3/4	7/8	16	11	9 1/2	7/8	8
-025/035	17 1/2	3/8	8	2 1/2	1 1/2	9	13 7/8	9 1/2	22 1/2	20 3/4	7/8	16	13 1/2	11 3/4	7/8	8
-035/035	19 1/2	3/8	8	2 1/2	1 1/2	9	13 7/8	10 1/4	24 1/2	22 3/4	7/8	20	13 1/2	11 3/4	7/8	8
-035/050	19 1/2	3/8	8	3	1 1/2	9 1/8	13 7/8	10 1/4	24 1/2	22 3/4	7/8	20	13 1/2	11 3/4	7/8	8
-050/050	22	3/8	8	4	2	9 1/8	13 7/8	11 3/8	27	25 1/4	7/8	20	13 1/2	11 3/4	7/8	8
-050/075	22	3/8	8	4	2	15 1/4	13 7/8	11 3/8	27	25 1/4	7/8	20	13 1/2	11 3/4	7/8	8
-075/075	26	1/2	8	--	--	15 1/4	13 7/8	--	31 1/4	29 1/2	7/8	24	13 1/2	11 3/4	7/8	8
-075/100	26	1/2	10	6	2 1/2	17	16	13	31 1/4	29 1/2	7/8	24	16	14 1/4	1	12
-100/100	28 1/2	1/2	10	--	--	17	16	--	33 3/4	31 3/4	7/8	28	16	14 1/4	1	12
-100/150	28 1/2	1/2	12	6	3	24 1/8	16	13 15/16	33 3/4	31 3/4	7/8	28	19	17	1	12
-150/150	33 1/2	1/2	12	6	4	24 1/8	16	15 15/16	39 1/2	37 3/8	1 1/4	28	19	17	1	12
-150/200	33 1/2	1/2	14	6	4	24 1/8	15 7/8	15 15/16	39 1/2	37 3/8	1 1/4	28	21	18 3/4	1 1/8	12
-200/200	38	1/2	14	--	--	24 1/8	15 7/8	--	44	41 7/8	1 1/4	28	21	18 3/4	1 1/8	12

Burner Designation 1150 (Burner Head/ Case Size)	General Dimensions (in mm)															
	Q	R	S	T	U	V	W	Z	AA	AB	AC	AD	AE	AF	AG	AH
-025/025	445	10	152	--	--	210	330	--	572	527	22	406	279	241	22	203
-025/035	445	10	203	64	38	229	352	241	572	527	22	406	343	298	22	203
-035/035	495	10	203	64	38	229	352	260	622	578	22	508	343	298	22	203
-035/050	495	10	203	76	38	232	352	260	622	578	22	508	343	298	22	203
-050/050	559	10	203	102	51	232	352	289	686	641	22	508	343	298	22	203
-050/075	559	10	203	102	51	387	352	289	686	641	22	508	343	298	22	203
-075/075	660	13	203	--	--	387	352	--	794	749	22	610	343	298	22	203
-075/100	660	13	254	152	64	432	406	330	794	749	22	610	406	362	25	305
-100/100	724	13	254	--	--	432	406	--	857	806	22	711	406	362	25	305
-100/150	724	13	305	152	76	613	406	354	857	806	22	711	483	432	25	305
-150/150	851	13	305	152	102	613	406	405	1003	949	32	711	483	432	25	305
-150/200	851	13	356	152	102	613	403	405	1003	949	32	711	533	476	29	305
-200/200	965	13	356	--	--	613	403	--	1118	1064	32	711	533	476	29	305

NOTE: General Dimension Information. See Bloom Representative for certified dimensions for construction

Burner Dimensions—Aluminum Applications—10° Firing Angle



NOTES:

- **General Dimension Information. See Bloom Representative for certified dimensions for construction**
- **The port block is normally rammed as an integral portion of the furnace wall. However, refractory port blocks are available at extra cost**

Table 8 - Burner Dimensions—Aluminum Applications

Burner Designation 1150 (Burner Head/Case Size)	General Dimensions (in inches)													
	A	B	C	D	E	F	G	H	I	K	L	M	N	P
-050/050	--	--	34	16	33 3/4	30	43 1/8	--	11	1/2	6	--	--	--
-075/075	--	--	34	20	48	30	47 1/4	--	13	1/2	6	--	--	--
-100/100	--	--	38	22 1/2	53 3/4	34	54 7/8	--	14 1/4	1/2	6	--	--	--
-100/150	94 5/8	99 5/8	44	22 1/2	64 1/4	40	55 5/8	22 5/8	14 1/4	1/2	6	39	34 5/8	15 3/16
-150/150	--	--	44	27 1/2	64 1/4	40	55 5/8	--	--	1/2	6	--	--	--
-150/200	104	104 3/8	48 1/2	27 1/2	76 1/4	44 1/2	55 7/8	24	16 3/4	1/2	6	38 7/8	40 7/8	18 1/8
-200/200	--	--	48 1/2	32	76 1/4	44 1/2	55 7/8	--	19	1/2	6	--	--	--
-200/250	105 3/8	118 1/4	55 1/2	32	80 7/8	51 1/2	64 1/2	26 15/16	19	1/2	6	35 1/4	40 1/2	20 1/2
-200/300	124	121 1/2	52	32	101	48	67 3/4	26 15/16	19	1/2	6	35 1/4	40 1/2	29
-350/350	--	--	54 3/4	42	110	50 3/4	66	--	24	1/2	6	--	--	--

Burner Designation 1150 (Burner Head/Case Size)	General Dimensions (in mm)													
	A	B	C	D	E	F	G	H	I	K	L	M	N	P
-050/050	--	--	864	406	857	762	1095	--	279	13	152	--	--	--
-075/075	--	--	864	508	1219	762	1200	--	330	13	152	--	--	--
-100/100	--	--	965	572	1365	864	1394	--	362	13	152	--	--	--
-100/150	2,403	2530	1118	572	1632	1016	1413	575	362	13	152	991	879	386
-150/150	--	--	1118	699	1632	1016	1413	--	--	13	152	--	--	--
-150/200	2,642	2651	1232	699	1937	1130	1419	610	425	13	152	987	1038	460
-200/200	--	--	1232	813	1937	1130	1419	--	483	13	152	--	--	--
-200/250	2,677	3004	1410	813	2054	1308	1638	684	483	13	152	895	1029	521
-200/300	3,150	3086	1321	813	2565	1219	1721	684	483	13	152	895	1029	737
-350/350	--	--	1391	1067	2794	1289	1676	--	610	13	152	--	--	--

NOTE: General Dimension Information. See Bloom Representative for certified dimensions for construction

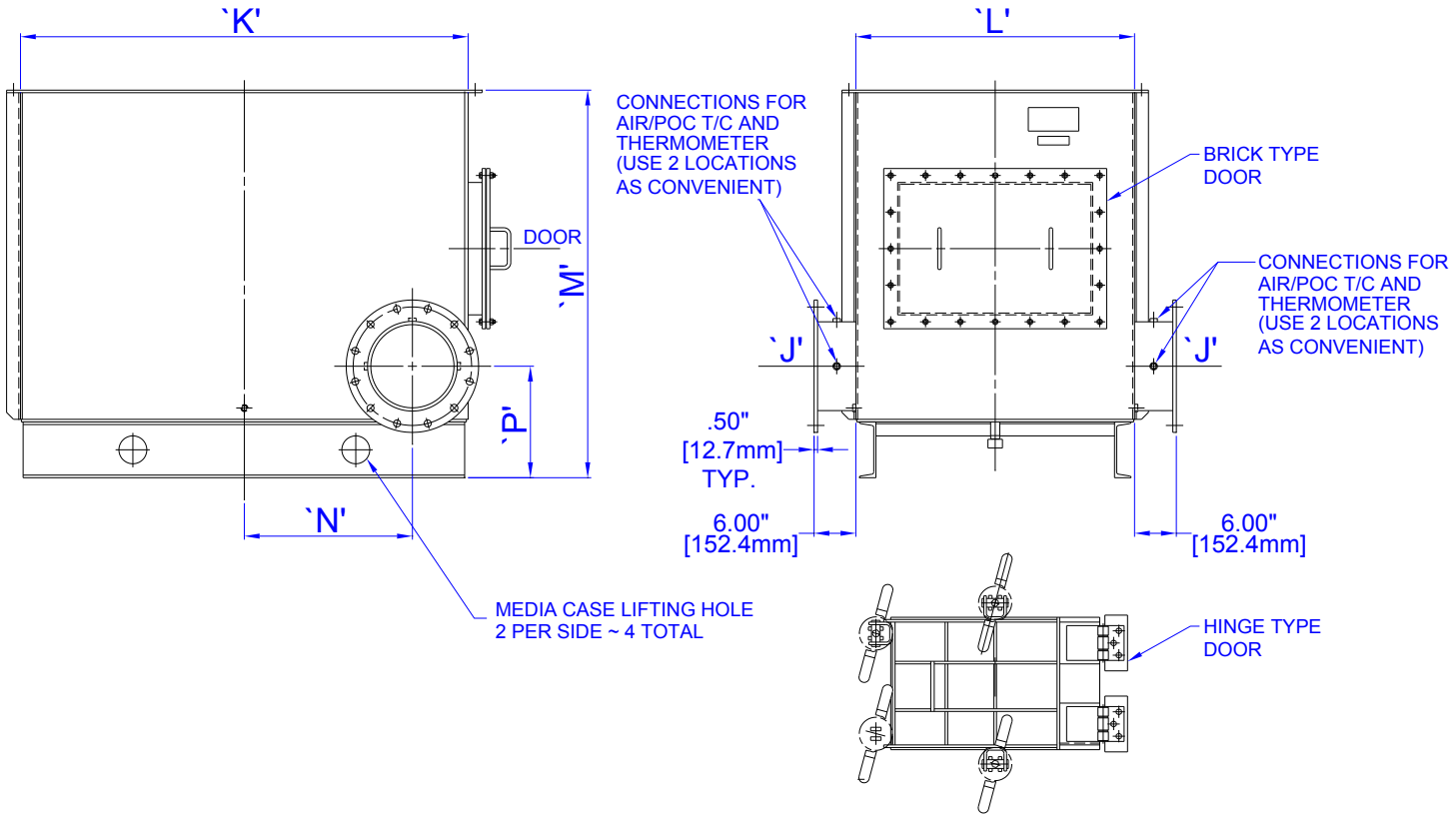
Table 8 - Burner Dimensions—Aluminum Applications (continued)

Burner Designation 1150 (Burner Head/Case Size)	General Dimensions (in inches)															
	Q	R	S	T	U	V	W	Z	AA	AB	AC	AD	AE	AF	AG	AH
-050/050	17 1/2	--	8	--	--	9 1/8	13 7/8	--	--	--	--	--	13 1/2	11 3/4	7/8	8
-075/075	19 1/2	--	8	--	--	15 1/4	13 7/8	--	--	--	--	--	13 1/2	11 3/4	7/8	8
-100/100	22	--	10	6	3	17	16	--	--	--	--	--	16	14 1/4	1	12
-100/150	26	1/2	12	6	3	24 1/8	16	10 1/2	33 3/4	32	7/8	28	19	17	1	12
-150/150	26	--	12	--	--	24 1/8	16	--	--	--	--	--	19	17	1	12
-150/200	28 1/2	1/2	14	6	4	24 1/8	15 7/8	14 1/4	39 1/2	37 3/8	1 1/4	28	21	18 3/4	1 1/8	12
-200/200	28 1/2	1/2	14	6	4	24 1/8	15 7/8	--	--	--	--	--	21	18 3/4	1 1/8	12
-200/250	33 1/2	1/2	16	6	4	26 5/16	17 7/8	14 1/8	44	41 7/8	1 1/4	28	23 1/2	21 1/4	1 1/8	16
-200/300	33 1/2	1/2	18	8	4	36 1/4	19 1/2	14 1/8	44	41 7/8	1 1/4	28	25	22 3/4	1 1/4	16
-350/350	38	--	20	--	--	38 7/8	19 3/8	--	--	--	--	--	27 1/2	25	1 1/4	20

Burner Designation 1150 (Burner Head/Case Size)	General Dimensions (in mm)															
	Q	R	S	T	U	V	W	Z	AA	AB	AC	AD	AE	AF	AG	AH
-050/050	445	--	203	--	--	232	352	--	--	--	--	--	343	298	22	203
-075/075	495	--	203	--	--	387	352	--	--	--	--	--	343	298	22	203
-100/100	559	--	254	152	76	432	406	--	--	--	--	--	406	362	25	305
-100/150	660	13	305	152	76	613	406	267	857	813	22	711	483	432	25	305
-150/150	660	--	305	--	--	613	406	--	--	--	--	--	483	432	25	305
-150/200	724	13	356	152	102	613	403	362	1003	949	32	711	533	476	29	305
-200/200	724	--	356	152	102	613	403	--	--	--	--	--	533	476	29	305
-200/250	851	13	406	152	102	668	454	359	1118	1064	32	711	597	540	29	406
-200/300	851	13	457	203	102	921	495	359	1118	1064	32	711	635	578	32	406
-350/350	965	--	508	--	--	987	492	--	--	--	--	--	699	635	32	508

NOTE: General Dimension Information. See Bloom Representative for certified dimensions for construction

Table 9—Media Case Dimensions



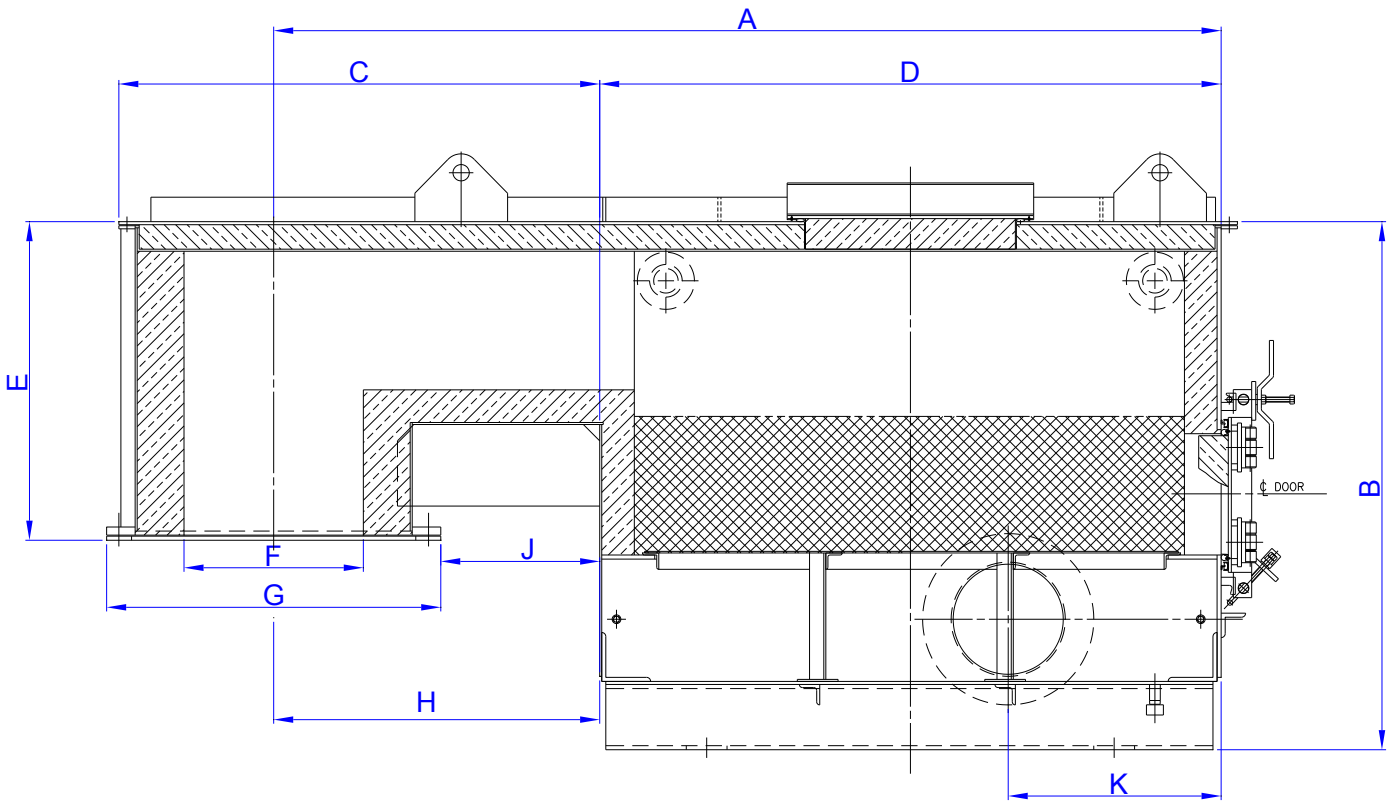
Media Case Designation	General Dimensions (in inches)					
1150 (Media Case Size)	J	K	L	M	N	P
-025	6	31	21	39 5/8	8	13
-035	8	33 1/2	23	43 1/8	9	13 7/8
-050	8	33 3/4	30	43 1/8	9 1/8	13 7/8
-075	8	48	30	47 1/4	15 1/4	13 7/8
-100	10	53 3/4	34	54 7/8	17	16
-150	12	64 1/4	40	55 5/8	24 1/8	16
-200	14	76 1/4	44 1/2	55 7/8	24 1/8	15 7/8
-250	16	80 7/8	51 1/2	64 1/2	26 5/16	17 7/8
-300	18	101	48	67 3/4	36 1/4	19 1/2
-350	20	110	50 13/16	66	38 7/8	19 3/8

Media Case Designation	General Dimensions (in mm)					
1150 (Media Case Size)	J	K	L	M	N	P
-025	152	787	533	1,006	203	330
-035	203	851	584	1,095	229	352
-050	203	857	762	1,095	232	352
-075	203	1,219	762	1,200	387	352
-100	254	1,365	864	1,394	432	406
-150	305	1,632	1,016	1,413	613	406
-200	356	1,937	1,130	1,419	613	403
-250	406	2,054	1,308	1,638	668	454
-300	457	2,565	1,219	1,721	921	495
-350	508	2,794	1,291	1,676	987	492

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

Table 10—Roof Mounted Media Case Dimensions



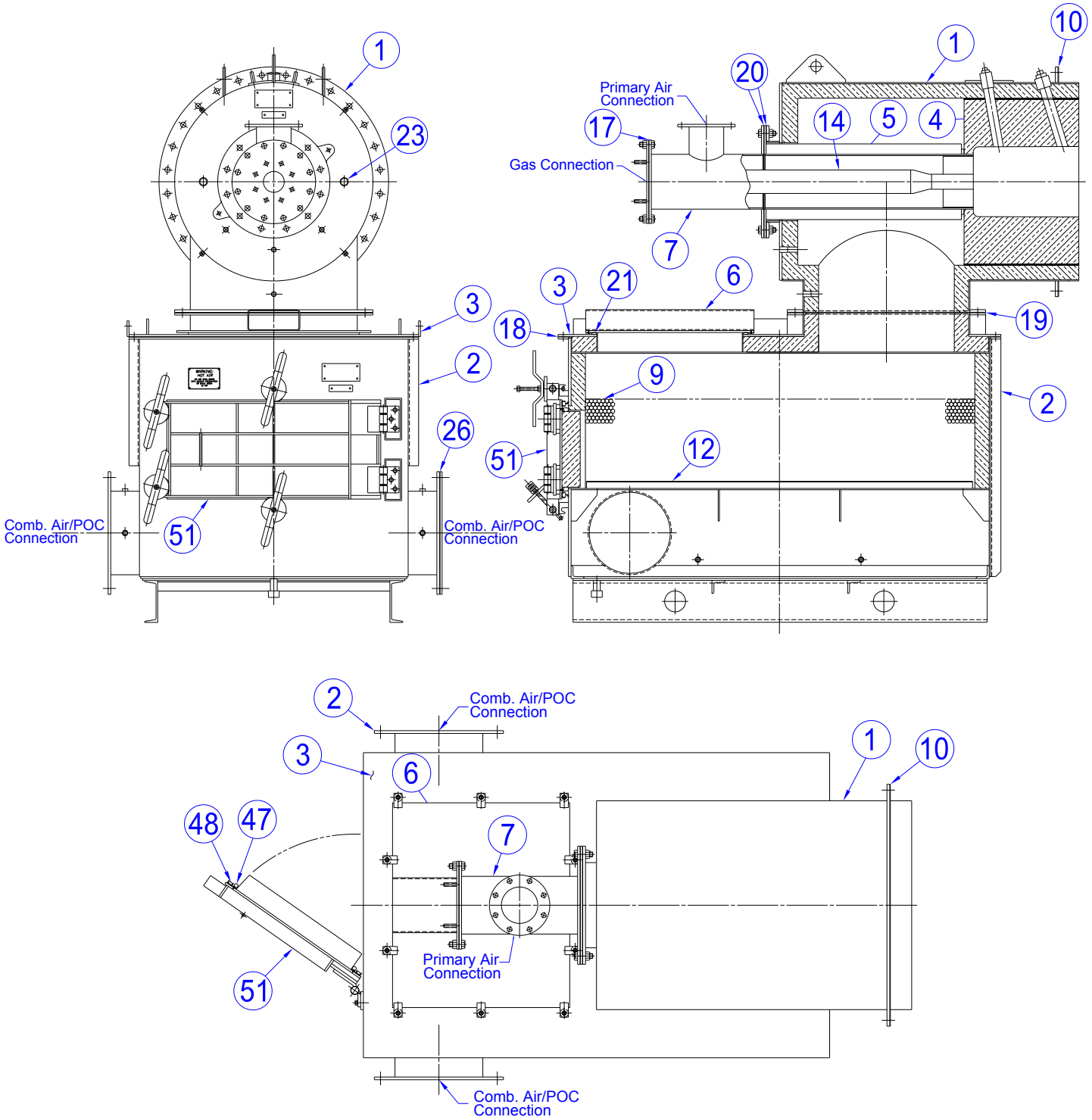
Media Case Designation	General Dimensions (in inches)										Approximate Weight
1150 (Media Case Size)	A	B	C	D	E	F	G	H	J	K	lbs
-025	59 3/4	47	38 1/2	33 3/4	31	9	28	26	12	11	3,180
-050	64 1/4	55	42 1/8	36 1/2	34	12 5/8	31 5/8	27 3/4	12	12	4,160
-075	80	54 1/2	45	50 3/4	36	15 1/2	34 1/2	29 1/4	12	12	5,180
-100	86 3/4	62 1/2	47 1/2	56 1/4	38	18	37	30 1/2	12	14	6,350
-150	102	66	54 1/2	66 1/2	41	22	41	35 1/2	12	14	8,090

Media Case Designation	General Dimensions (in mm)										Approximate Weight
1150 (Media Case Size)	A	B	C	D	E	F	G	H	J	K	kg
-025	1,518	1,194	978	857	787	229	711	660	305	279	1,442
-050	1,632	1,397	1,070	927	864	321	803	705	305	305	1,887
-075	2,032	1,384	1,143	1,289	914	394	876	743	305	305	2,350
-100	2,203	1,588	1,207	1,429	965	457	940	775	305	356	2,880
-150	2,591	1,676	1,384	1,689	1,041	559	1,041	902	305	356	3,670

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

Spare Parts List



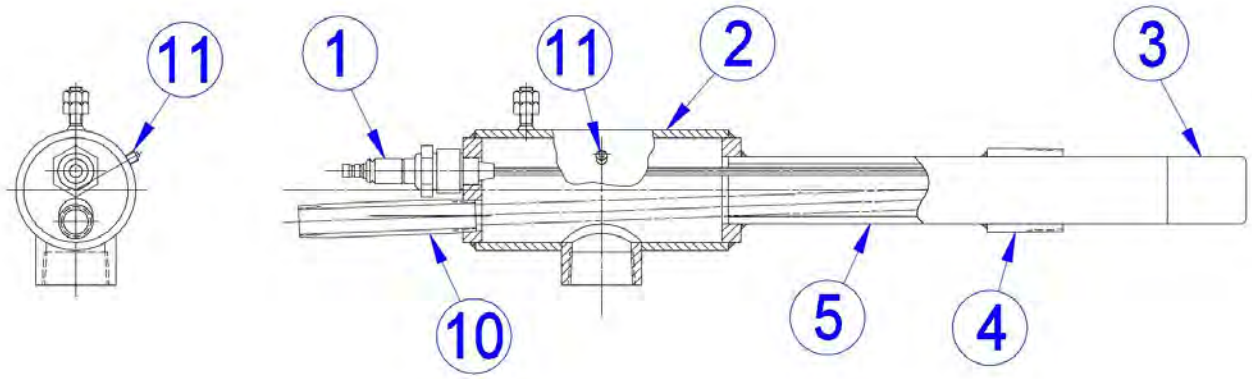
CAUTION: The improper use of combustion equipment can result in a condition hazardous to people and property. Users are urged to comply with National Safety Standards and/or Insurance Underwriters recommendations

Table 11 - Spare Parts List

Number	Description	Part Number
1	Burner Body	-01-01
2	Media Case	-MCA
3	Media Case Cover	-MCC
4	Baffle	-02
5	Cooling Air Nozzle Assembly	-05-AN
6	Media Fill Cover	-MCC-06
7	Primary Air Tee	-08
9	Media Balls	-R006081
10	Mounting Flange Gasket	-01-MF
12	Media Support Assembly	-MCA-MCG
14	Gas Nozzle	-05-GN
17	Gas Nozzle Gasket	-05-GSKT
18	Media Case Cover Gasket	-MCC-GSKT
19	Riser Gasket	-RG
20	Cooling Air Nozzle Gasket	-20
21	Media Fill Cover Gasket	-21
	.75” Dia. Tetraglas x 1.50”	
	Tail Tad-Pole Seal	
23	1” Sight Port	9653-006
26	Comb. Air/P.O.C. Flange Gasket	-26-GSKT
47	Media Cleanout Door Gasket	R009027
	.75” Dia. Tetraglas x 1.50”	
	Tail Tad-Pole Seal	
48	Media Cleanout Door Gasket	R013004
	1” Dia. Tetraglas Seal	
	No Tail	
51	Media Cleanout Door	-MCA-COD

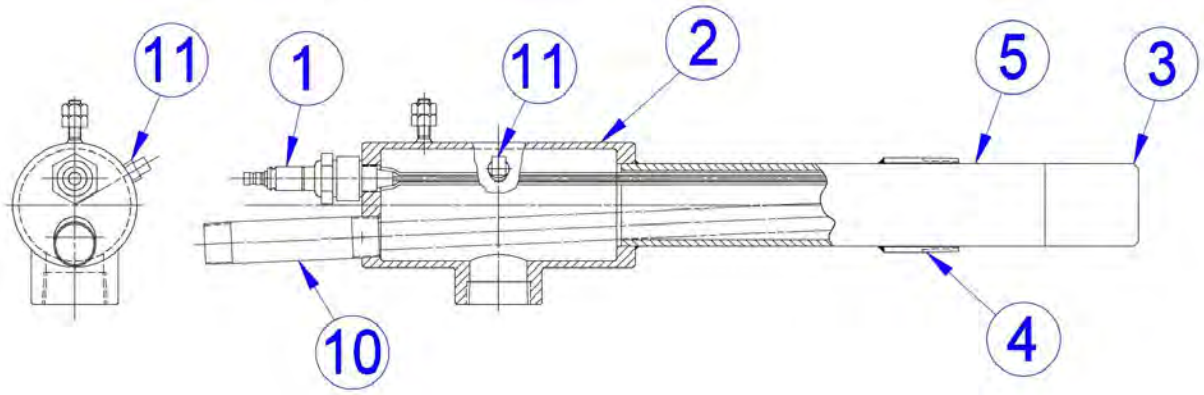
Part Number Must be Preceded by Catalog Number
(EXAMPLE: To Order Media Case Part MCA for 1150-025 Burner, specify 1150-025***-MCA***)

Table 12 - Spare Parts List 3001-050 50,000 Btu/hr Lance Pilot (1150-025 thru –075 Sizes)



Number	Description	Part Number
1	Auburn #I-33 Ignitor Rod Assembly (spec length)	-I33-ASSY
2	Ignitor Tee	-02
3	3001-050 Pilot Assembly	-03
4	Special Bushing	-04
5	Ignitor Tube	-05
10	3/8" Pipe Nipple x 3.5" Long	-10
11	1/8" Pipe Plug	-11
21	High Temperature Thread Lubricant	-21

Table 13 - Spare Parts List 3001-100 100,000 Btu/hr Lance Pilot (1150-100 thru –350 Sizes)



Number	Description	Part Number
1	Auburn #I-6 Ignitor Rod Assembly (spec length)	-I6-ASSY
2	Ignitor Tee	-02
3	3001-100 Pilot Assembly	-03
4	Special Bushing	-04
5	Ignitor Tube	-05
10	1/2" Pipe Nipple x 3.5" Long	-10
11	1/8" Pipe Plug	-11
21	High Temperature Thread Lubricant	-21

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

Application Guidelines *

FUEL CAPABILITIES **:

- Natural Gas
- LP Gas
- Propane
- Coke Oven Gas
- Blast Furnace Gas ***(see 1130 Series Burner)***
- #2 through #6 Oil
- Low Btu/Calorific Mixed Gas
- Producer Gas

****Please Consult a Bloom Representative for availability of other fuel types**

BURNER IGNITION:

- Pilot

CONTROL:

- Volumetric Fuel/Air Ratio ***(recommended)***
- Pressure Balance
- Ratio or Impulse Control

FLAME MONITORING:

- UV Detector

NOTE: Please contact your Bloom Representative for flame monitoring with residual oils

OPTIONS:

- Dual burner heads (2 burner heads + 1 media case)
- Roof mounted media case
- Angled Mounting flange
- Burner block / tile
- Vertical Firing
- Quick-opening access door on media case
- Quick disconnect media case
- Angled air/POC riser for downward firing
- Removable end plate
- Special air/exhaust connection locations
- Special Media Case shapes (round, square, or rectangular)
- Intelligen^{TM} Control system for increased energy savings
- In/Out Cooling Air Nozzle
- Modified media case for lower surface/skin temperatures

*** NOTE: Due to continual developments in the Bloom Laboratory and results from field research, the applicability of different fuels and other options listed above are constantly being updated. Please consult a Bloom Representative to inquire about the availability of any guidelines/options that are not shown above.**

To *REQUEST A QUOTE* *, Please Contact your local representative at www.bloomeng.com/locate-arep

and provide the following information:

INFORMATION	UNITS
General Information:	
Application	-
Burner Input	*(MMBtu/hr; kcal/hr; kW) in (HHV or LHV)*
Quantity of Burners	-
Ignition Type and Fuel	-
Main Fuel Information:	
Fuel (s) and Heating Value (s)	*(Btu/ft^3; kcal/Nm^3; MJ/Nm^3) in (HHV or LHV)*
Fuel Flow	*(scfh; Nm^3/hr)*
Available Fuel Pressure	*("w.c.; psi; mbar; kPa)*
Fuel Constituents	-
Combustion Air Information:	
Combustion Air Temperature	*(˚F; ˚C)*
Combustion Air Pressure Available	*("w.c.; psi; osi; mbar; kPa)*
Minimum / Maximum Excess Air Required	*(%)*
Flame Information:	
Desired Flame Length	*(feet; inches; m; mm)*
Desired Flame Diameter	*(feet; inches; m; mm)*
Furnace / Combustion Chamber Information:	
Wall thickness	*(feet; inches; m; mm)*
Burner Assembly / Connection Requirements	-
Furnace / Chamber Dimensions or Drawings for Emissions estimate	-
POC (Products of Combustion) / Furnace Temperature	*(˚F; ˚C)*
Other Information:	
Operational / Control Requirements (i.e. Turndown, Control Type)	-
Emissions Requirements (NOx, CO)	-
Chamber Backpressure	-
Oil / Atomizing agent Details	-
Any other special requirements	-

*** NOTE:** Information required to process a quote includes, but may not be limited to, the information specified above. Additional details may ***also*** be required to quote a combustion control system.