

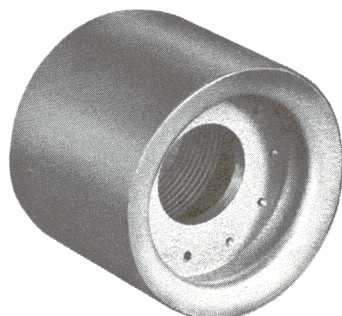
POWER EQUIPMENT CO.

Manufacturers Representative

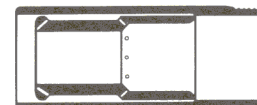
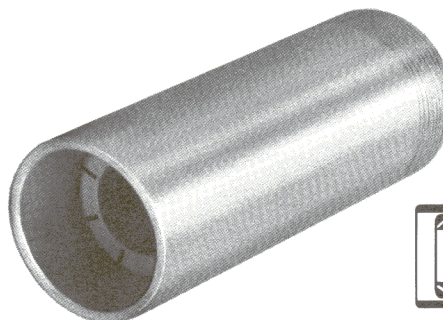
2011 Williamsburg Rd. • Richmond, VA 23231

(804) 236-3800 • FAX (804) 236-3882

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**ECLIPSE
OPEN BURNER NOZZLES**

Sticktite Nozzle



Ferrofix Nozzle

Eclipse Sticktite and Ferrofix nozzles can be used wherever an open-type nozzle is applicable. Combustion chambers must have balanced or negative pressure. Typical applications include boiler conversion, kilns, ovens, air heaters, furnaces, immersion heating and other applications where the slight excess air introduced into the combustion chamber around the burner is acceptable.

All Eclipse open burner nozzles are flame retention type nozzles which insure satisfactory operation over a wide range of mixture pressures and draft conditions. Though combustion blocks are not necessary for proper operation, they are available when adapting to a furnace, kiln, or other refractory-lined combustion chamber (Info Guide 295). Mounting cages are available for supporting the nozzles when pilot and flame safety monitoring is intended (Bulletin 442).

CAUTION: It is dangerous to use any fuel burning equipment unless it is equipped with suitable flame sensing device(s) and automatic fuel shut-off valve(s). Thermocouple flame monitoring must not be used on burners with capacities greater than 150,000 Btu/hr. Eclipse can supply flame monitoring systems or information on alternate sources.

Sticktite and Ferrofix nozzles are normally used with any air/gas mixing device capable of delivering a combustible mixture at the pressure required to give desired maximum capacity and turndown range. Typical mixers are:

- Low and high pressure injectors (Bulletin 650);
- Proportional mixers (Bulletin 652), and
- Variset® mixers (Bulletin 654).

Sticktite Nozzles

Eclipse Sticktite nozzles are available in cast iron and a heat-resisting alloy, both with female threads. Exceptional flame stability is achieved by the Sticktite due to a built-in flame retention feature.

Sticktite nozzles provided a slightly shorter, bushier flame than the Ferrofix nozzle. Flame lengths range from eight inches to 10-1/2 feet, depending on nozzle size and mixture pressure. They are available in ten different pipe sizes, ranging in size from 1/2" through 6". With 6" w.c. mixture pressure, capacities range from 37,000 Btu/hr. through 5,250,000 Btu/hr. (for a complete listing, see page 2.)

Ferrofix Nozzles

Eclipse Ferrofix nozzles have a steel shell with male threads and either steel or cast iron spools. They are also available in heat resisting alloy. As in the Sticktite nozzle, maximum flame retention is achieved by use of the built-in flame retention feature.

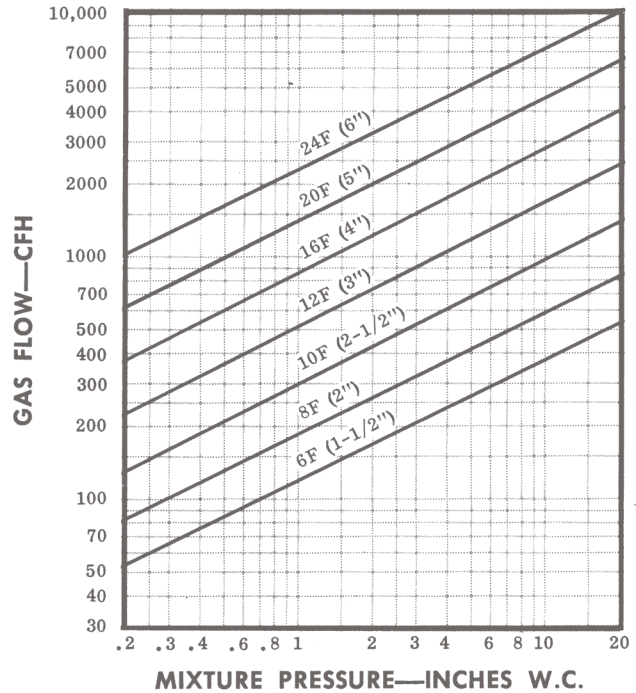
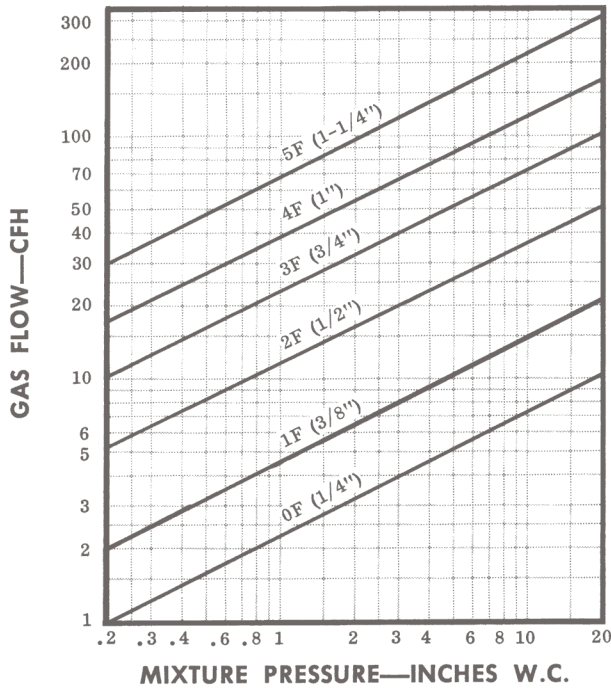
Ferrofix nozzles are available in three types: Type 1 has a short thread, Type 2 has a long thread and Type 3 is threaded at both ends. Ferrofix nozzles are furnished in thirteen different pipe sizes ranging from 1/4" through 6". Alloy nozzles, however, are available in 1/2" through 2-1/2" sizes (Type 1 only). With 6" w.c. mixture pressure, capacities range from 6,090 Btu/hr. through 5,700,000 Btu/hr. For a complete listing of sizes, types and capacities, see page 3.

**ECLIPSE COMBUSTION**

FERROFIX NOZZLES

CAPACITIES

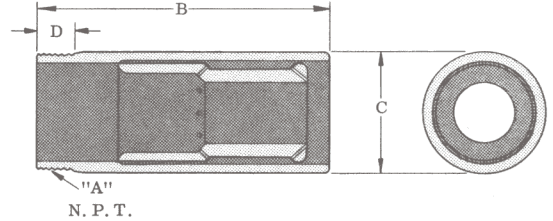
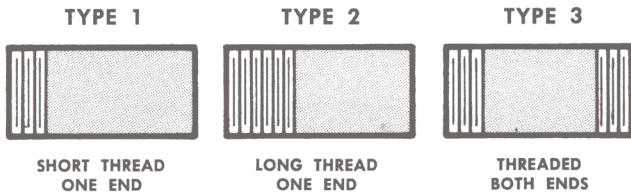
(Natural Gas—0.6 Sp. Gr.—8:1 Air/Gas Ratio)



FOR AIR/GAS RATIOS OTHER THAN 8:1 APPLY CFH x MULTIFACTOR BELOW

AIR/GAS RATIO	7:1	8:1	9:1	10:1	11:1
MULTIFACTOR	1.12	1.0	.91	.82	.75

DIMENSIONS & SPECIFICATIONS



CATALOG NUMBER	TYPE NUMBER	ASSEMBLY NUMBERS		ACTUAL BURNER AREA SQ. INCHES	DIMENSIONS				SHIP. WT. LBS.
		STEEL	ALLOY		A	B	C	D	
0 F-1	1	103201	---	.018	1/4	1-3/4	17/32	11/32	1/4
1 F-1	1	103202	103227	.037	3/8	3	11/16	3/8	1/4
2 F-1	1	103204	103228	.0895	1/2	3	27/32	1/2	1/4
2 F-3	3	103240	---	.0895	1/2	3	27/32	1/2 TBE*	1/4
3 F-1	1	103206	103229	.1657	3/4	3	1-1/16	9/16	1/3
3 F-2	2	103207	---	.1657	3/4	4-1/2	1-1/16	2	1/2
3 F-3	3	103241	---	.1657	3/4	3	1-1/16	9/16 TBE*	1/3
4 F-1	1	103208	103230	.3021	1	3-1/2	1-5/16	11/16	2/3
4 F-2	2	103209	---	.3021	1	5	1-5/16	2	1
4 F-3	3	103255	---	.3021	1	3-1/2	1-5/16	11/16 TBE*	2/3
5 F-1	1	103210	103231	.5169	1-1/4	3-1/2	1-11/16	11/16	1
5 F-2	2	103211	---	.5169	1-1/4	5	1-11/16	2	2
6 F-1	1	103212	103232	.8266	1-1/2	3-1/2	1-15/16	11/16	1-1/2
6 F-2	2	103213	---	.8266	1-1/2	5	1-15/16	2	2-1/2
8 F-1	1	103214	103233	1.2736	2	6-1/2	2-3/8	3/4	3
8 F-2	2	103216	---	1.2736	2	5	2-3/8	3-3/4	4
10 F-1	1	103217	103234	2.128	2-1/2	6-1/2	2-7/8	15/16	4-1/2
10 F-2	2	103218	---	2.128	2-1/2	8	2-7/8	3-3/4	5-1/2
12 F-1	1	103219	103235	3.62	3	6-1/2	3-1/2	1	6
12 F-2	2	103220	---	3.62	3	8	3-1/2	3-3/4	7-1/2
16 F-1	1	103251	---	6.0244	4	8	4-1/2	1-1/8	15
16 F-2	2	103222	---	6.0244	4	12-1/2	4-1/2	3-3/4	20
20 F-1	1	103252	---	9.751	5	8	5-9/16	1-1/4	17
20 F-2	2	103224	---	9.751	5	12-1/2	5-9/16	3-3/4	23
24 F-1	1	103225	103238	16.099	6	11	6-5/8	1-5/16	24

NOTE: All dimensions are in inches.

*Threaded both ends.

STICKTITE NOZZLES

CAPACITIES—CFH

(Natural Gas—0.6 Sp. Gr.—8:1 Air/Gas Ratio)*

STEEL

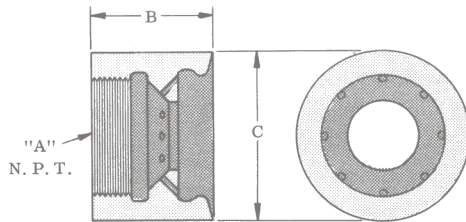
CATALOG NUMBER	MIXTURE PRESSURE - INCHES W. C.																	
	.2	.3	.4	.5	.6	.7	.8	.9	1	2	3	4	5	6	7	8	9	10
ST-102-10	---	---	---	10.5	11.5	12.5	13.3	14.2	15	21.2	26	30	33.8	37	40	43	45	48
ST-103-14	10.7	13	15	17	18.5	20	21.5	22.8	24	34	42	48	54	59	64	68	72	76
ST-204-18	23.5	28.8	33.2	37	41	44	47	50	52.5	75	91	105	118	130	140	150	160	168
ST-205-28	51	62.5	72	80	88	95	102	108	114	162	198	230	255	280	302	325	345	362
ST-206-36	81	100	115	130	142	153	164	174	184	260	320	370	410	450	488	520	550	580
ST-208-42	109	132	154	172	188	203	218	230	243	345	420	490	545	600	645	690	735	770
ST-208-46	130	160	182	205	225	243	260	275	290	410	502	580	655	718	770	830	875	920
ST-210-56	192	235	272	305	332	360	385	410	430	610	750	865	965	1,050	1,130	1,220	1,300	1,350
ST-212-68	280	340	395	440	482	525	560	595	625	890	1,080	1,250	1,400	1,540	1,670	1,780	1,890	2,000
ST-216-84	422	520	600	670	740	795	850	900	950	1,350	1,650	1,900	2,120	2,330	2,520	2,700	2,850	3,000
ST-224-128	960	1,180	1,350	1,510	1,680	1,800	1,910	2,030	2,150	3,050	3,700	4,300	4,800	5,250	5,700	6,100	6,400	6,800

ALLOY

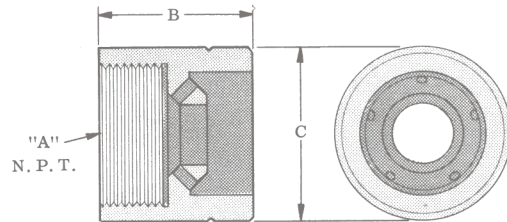
CATALOG NUMBER	MIXTURE PRESSURE - INCHES W. C.																	
	.2	.3	.4	.5	.6	.7	.8	.9	1	2	3	4	5	6	7	8	9	10
ST-102-A18-8-7	4	5	5.7	6.4	7	7.6	8.1	8.6	9	12.8	15.8	18	20	22	24	25.5	27	28
ST-102-A18-8-10	5.8	7.1	8.2	9.2	10	10.9	11.7	12.4	13	18.3	22.5	26	29	32	34	36.5	39	41
ST-102-A18-8-12	7.6	9.3	10.8	12	13	14.2	15.2	16	17	24	29.5	34	38	42	45	48	51	54
ST-103-A18-8-12	8.5	10.3	12	13.4	14.8	16	17	18	19	27	33	38	42	46	50	54	57	60
ST-103-A18-8-14	10.2	12.5	14.5	16	17.8	19	20.5	21.8	23	32.3	39.5	46	51	56	60	64.5	68	72
ST-104-A18-8-18	19	23	26.5	30	32.5	35	37.5	40	42	59.5	73	84	94	102	110	120	125	132
ST-105-A18-8-22	27	33	38	42	46	50	53.8	57	60	84	104	120	134	146	160	170	180	190
ST-105-A18-8-28	44.2	54	63	70	77	84	90	95	100	140	172	200	222	245	263	280	300	310
ST-106-A18-8-36	73	89	102	115	125	135	146	155	162	230	280	322	360	395	430	455	485	505
ST-108-A18-8-46	125	153	178	198	218	235	250	267	280	390	480	558	620	680	730	775	830	870

*For air/gas ratios other than 8:1 see multifactor chart on page 3.

DIMENSIONS & SPECIFICATIONS



STEEL



ALLOY

CATALOG NUMBER	PART NUMBER	ACTUAL PORT AREA SQ. INCHES	DIMENSIONS		
			A	B	C
ST 102-10	18902-1	.114	1/2	1-1/4	1-1/16
ST 103-14	18903-1	.199	3/4	1-3/8	1-5/16
ST 204-18	03612	.309	1	1-3/4	2-1/8
ST 205-28	03663	.669	1-1/4	2-3/16	2-7/16
ST 206-36	03619	1.069	1-1/2	2-1/4	2-3/4
ST 208-42	03620-1	1.443	2	2-5/16	3-1/4
ST 208-46	03620-2	1.713	2	2-5/16	3-1/4
ST 210-56	03665	2.525	2-1/2	2-3/4	4
ST 212-68	03664	3.682	3	3-1/16	4-3/8
ST 216-84	03677	5.59	4	3-3/16	5-1/2
ST 224-128	03679	12.8	6	3-5/8	7-11/16

CATALOG NUMBER	PART NUMBER	ACTUAL PORT AREA SQ. INCHES	DIMENSIONS		
			A	B	C
ST 102-A18-8-7	10097-2	.0745	1/2	1-1/4	1-1/16
ST 102-A18-8-10	18902-2	.114	1/2	1-1/4	1-1/16
ST 102-A18-8-12	18902-6	.148	1/2	1-1/4	1-1/16
ST 103-A18-8-12	11895-2	.159	3/4	1-3/8	1-5/16
ST 103-A18-8-14	18903-2	.199	3/4	1-3/8	1-5/16
ST 104-A18-8-18	19174-2	.310	1	1-11/16	1-3/4
ST 105-A18-8-22	19231	.433	1-1/4	2	2
ST 105-A18-8-28	19404	.675	1-1/4	2	2
ST 106-A18-8-36	18874	1.09	1-1/2	2-1/4	2-1/2
ST 108-A18-8-46	18875	1.75	2	2-1/2	3

NOTE: All dimensions are in inches.

NOTE: All dimensions are in inches.