

Injector Selection Table for Mixed Coke Oven — Water Gas

Gas at 10 Lbs. Pressure; Approximate Mixture Pressure of 2.8" w.c.*;
560 B.T.U.; .53 Specific Gravity; 4.8 Air-Gas Ratio

Based on 100% Air Entrainment thru Injector

Capacity CF/HR at 10 Lbs.	Catalog Number Injectors	Suggested burner area in square inches when using various types of burners at coefficient of discharge shown				100% Coefficient Discharge Burner
		Walltites 125%	Drilled Round Nose 87%	Sticktite or Ferrofix 75%	Blast Tips 60%	
25	H3 —68	.04	.0575	.067	.0835	.05
50	H3 —57	.077	.110	.133	.160	.096
75	H3 —55	.112	.161	.187	.234	.140
100	H4 —53	.148	.213	.246	.308	.185
125	H4 —51	.227	.324	.38	.470	.282
150	H4 —48	.23	.330	.382	.478	.287
175	H5 —46	.270	.388	.451	.464	.338
200	H5 —44	.308	.442	.513	.641	.385
250	H5 —41	.382	.550	.635	.795	.477
300	H6 —37	.450	.644	.75	.938	.562
350	H6 —33	.530	.760	.880	1.102	.662
400	H6 —31	.600	.860	1.0	1.25	.75
450	H8 —30	.692	.995	1.15	1.44	.865
500	H8 —29	.77	1.10	1.28	1.60	.962
550	H8 — $\frac{3}{4}$.865	1.24	1.44	1.80	1.08
600	H8 —26	.920	1.32	1.535	1.92	1.15
650	H8 —23	.985	1.41	1.64	2.05	1.23
700	H8 —21	1.05	1.51	1.75	2.18	1.31
750	H8 —19	1.14	1.64	1.91	2.38	1.43
800	H8 —18	1.20	1.72	2.0	2.5	1.5
850	H10—16	1.30	1.87	2.17	2.72	1.63
900	H10—15	1.35	1.93	2.24	2.80	1.68
950	H10—13	1.43	2.06	2.39	3.00	1.79
1000	H10—11	1.52	2.18	2.53	3.17	1.9
1100	H10—7	1.68	2.42	2.80	3.50	2.1
1200	H12—4	1.82	2.62	3.04	3.80	2.28
1300	H12— $\frac{7}{32}$	1.98	2.86	3.32	4.15	2.49
1400	H12—A	2.28	3.28	3.8	4.75	2.85
1600	H12—C	2.44	3.5	4.06	5.09	3.05
1800	H16—F	2.75	3.96	4.6	5.74	3.44
2000	H16—I	3.08	4.43	5.12	6.42	3.85
2250	H16—K	3.28	4.72	5.5	6.85	4.11
2500	H16—N	3.80	5.45	6.35	7.92	4.75
2750	H16—O	4.15	6.00	6.95	8.65	5.2
3000	H16—Q	4.6	6.6	7.67	9.60	5.75
3500	H20—T	5.45	7.82	9.1	10.32	6.8
4000	H20—W	6.2	8.9	10.3	12.90	7.75
4500	H24— $\frac{13}{32}$	6.9	9.9	11.5	14.30	8.6
5000	H24— $\frac{7}{16}$	8.0	11.5	13.3	16.70	10.0
5500	H24— $\frac{3}{8}$	8.6	12.4	14.3	17.90	10.7
6000	H24— $\frac{15}{32}$	9.15	13.1	15.3	19.20	11.42

*Mixture Pressure:—The Mixture Pressure that can be developed will vary depending on piping conditions and draft and will vary directly with changes in Gas Pressure.

CORRECTION FACTORS FOR CAPACITIES AT OTHER THAN 10 LBS. PRESSURE

Pounds Pressure.....	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Correction Factor.....	.316	.447	.548	.632	.709	.775	.836	.895	.95	1.00	1.05	1.09	1.14	1.18	1.225