

Natural Gas Orifice Chart

FLOW IN C. F. H. OF 0.60 SPEC. GRAV. GAS

DRILL SIZE	DIAMETER (Inches)	DIAMETER (MM)	GAS PRESSURE "W.C.								
			2.0	3.0	4.0	5.0	6.0	7.0	10.0	14.0	27.7 (1#)
80	0.0135	0.343	.3	.4	.5	.6	.7	.8	.8	1.0	1.4
78	0.0160	0.406	.5	.6	.7	.8	.9	.9	1.1	1.3	1.8
76	0.0200	0.508	.8	.9	1.1	1.2	1.3	1.4	1.7	2.0	2.8
74	0.0225	0.572	1.0	1.2	1.4	1.6	1.7	1.8	2.3	2.5	3.6
72	0.0250	0.635	1.2	1.5	1.7	1.9	2.1	2.3	2.7	3.3	4.6
70	0.0280	0.711	1.5	1.9	2.2	2.4	2.6	2.9	3.4	4.1	5.8
68	0.0310	0.787	1.9	2.3	2.6	3.0	3.2	3.5	4.2	4.9	7.0
66	0.0330	0.838	2.1	2.6	3.0	3.3	3.7	4.0	4.7	5.7	8.0
64	0.0360	0.914	2.5	3.1	3.6	4.0	4.4	4.7	5.7	6.6	9.3
62	0.0380	0.965	2.8	3.5	4.0	4.5	4.9	5.3	6.4	7.5	10.5
60	0.0400	1.016	3.1	3.8	4.4	4.9	5.4	5.8	7.0	8.2	11.5
58	0.0420	1.067	3.4	4.2	4.9	5.4	5.9	6.4	7.6	9.0	12.7
56	0.0465	1.181	4.2	5.2	6.0	6.7	7.3	7.9	9.5	11.2	15.7
54	0.0550	1.397	5.9	7.2	8.3	9.3	10.2	11.0	13.2	15.6	21.9
52	0.0635	1.613	7.9	10.0	11.1	12.4	13.6	14.7	17.5	20.8	29.2
50	0.0700	1.778	9.5	11.7	13.5	15.1	16.6	17.9	21.4	25.3	35.6
48	0.0760	1.930	11.3	13.8	15.9	17.8	19.5	21.0	25.2	29.7	41.7
46	0.0810	2.057	12.8	15.7	18.1	20.2	22.1	23.9	28.6	33.8	47.5
44	0.0860	2.184	14.4	17.7	20.4	22.8	25.0	27.0	32.2	38.2	53.7
42	0.0935	2.375	17.1	20.9	24.1	27.0	29.6	31.9	38.2	45.1	63.4
41	0.0960	2.438	18.0	22.0	25.4	28.4	31.1	33.6	40.2	47.5	66.8
40	0.0980	2.489	18.7	22.9	26.5	29.6	32.4	35.0	41.9	49.5	69.6
39	0.0995	2.527	19.3	23.7	27.3	30.5	33.5	36.1	43.1	51.1	71.7
38	0.1015	2.578	20.1	24.6	28.4	31.8	34.8	37.6	45.0	53.2	74.7
37	0.1040	2.642	21.9	25.8	29.8	33.3	36.5	39.4	47.1	55.7	78.3
36	0.1065	2.705	22.1	27.1	31.3	35.0	38.3	41.4	49.5	58.5	82.3
7/64	0.1094	2.779	23.3	28.6	33.0	36.9	40.4	43.7	52.2	61.8	86.9
35	0.1100	2.794	23.6	28.9	33.4	37.3	40.8	44.1	52.7	62.4	87.6
34	0.1110	2.819	24.0	29.4	34.0	38.0	41.6	45.0	53.7	63.6	89.4
33	0.1130	2.870	24.9	30.5	35.2	39.4	43.1	46.6	55.7	65.9	92.6
32	0.1160	2.946	26.2	32.1	37.1	41.5	45.5	49.1	58.7	69.4	97.6
31	0.1200	3.048	28.1	34.4	39.7	44.4	48.6	52.5	62.8	74.2	104.3
1/8	0.1250	3.175	30.5	37.3	43.1	48.2	52.8	57.0	68.2	80.6	113.3
30	0.1285	3.264	32.2	39.4	45.5	50.9	55.7	60.2	72.0	85.1	119.6
29	0.1360	3.454	36.1	44.2	47.0	57.1	62.5	67.5	80.8	95.5	134.2
28	0.1405	3.569	38.5	47.1	54.4	60.8	66.6	72.0	86.0	101.8	143.1
9/64	0.1406	3.571	38.6	47.2	54.5	61.0	66.8	72.1	86.3	102.0	143.3
27	0.1440	3.658	40.4	49.5	57.2	64.0	70.1	75.7	90.5	107.0	150.5
26	0.1470	3.734	42.1	51.6	59.6	66.6	73.0	78.8	94.2	111.4	156.6
25	0.1495	3.797	43.6	53.4	61.6	68.9	75.5	81.5	97.3	115.3	162.0
24	0.1520	3.861	45.1	55.2	63.7	71.2	78.1	84.3	100.7	119.2	167.5
23	0.1540	3.912	46.3	56.7	65.4	73.1	80.1	86.5	103.4	122.3	171.9
5/32	0.1562	3.967	47.6	58.3	67.3	75.3	82.5	89.1	106.5	126.0	177.1
22	0.1570	3.988	48.1	58.9	68.0	76.0	83.3	89.9	107.5	127.1	178.7
21	0.1590	4.039	49.3	60.4	69.7	78.0	85.4	92.3	110.3	130.5	183.4

CHART BASED ON ORIFICE COEFFICIENT OF 0.82 AND 0.60 SPEC. GRAV. NATURAL GAS.
SEE BACK FOR FACTORS TO BE USED WHEN SPEC. GRAV. IS NOT 0.60.

GAS ORIFICE CHART
FLOW IN C. F. H. OF 0.60 SPEC. GRAV. GAS

DRILL SIZE	DIAMETER (Inches)	DIAMETER (MM)	GAS PRESSURE "W.C.								
			2.0	3.0	4.0	5.0	6.0	7.0	10.0	14.0	27.7 (1#)
20	0.1610	4.089	50.6	61.9	71.5	79.9	87.6	94.6	113.0	133.8	188.0
19	0.1660	4.216	53.7	65.8	76.0	85.0	93.1	99.7	120.2	141.0	198.2
18	0.1695	4.305	56.0	68.6	79.2	88.6	97.0	104.8	125.3	148.2	208.3
11/64	0.1719	4.366	57.6	70.6	81.5	91.1	99.8	107.7	128.8	152.3	214.1
17	0.1730	4.394	58.4	71.6	82.6	92.3	101.1	109.2	130.5	154.4	217.0
16	0.1770	4.496	61.1	74.8	86.4	96.6	105.9	114.3	136.6	161.6	227.2
15	0.1800	4.572	63.2	77.4	89.4	99.9	109.5	118.2	141.3	167.2	234.9
14	0.1820	4.623	64.6	79.1	91.4	102.1	111.9	120.9	144.4	171.0	240.3
13	0.1850	4.699	66.2	81.2	93.7	104.7	114.7	123.9	148.1	175.2	246.3
3/16	0.1875	4.763	68.6	84.0	96.9	108.4	118.8	128.2	153.3	181.3	254.8
12	0.1890	4.801	69.6	85.4	98.6	110.1	120.6	130.3	155.7	184.3	259.0
11	0.1910	4.851	71.1	87.1	100.7	112.5	123.2	133.0	159.1	188.1	264.3
10	0.1935	4.915	73.0	89.4	103.3	115.4	126.5	136.6	163.2	193.2	271.5
9	0.1960	4.978	74.9	91.7	106.0	118.5	129.8	140.1	167.6	198.1	278.4
8	0.1990	4.055	77.2	94.7	109.2	122.1	133.8	144.5	172.7	204.4	287.2
7	0.2010	5.105	78.8	96.5	111.4	124.6	136.5	147.4	176.2	208.5	293.0
13/64	0.2031	5.159	80.5	98.6	113.8	127.3	139.5	150.5	180.0	212.8	299.1
6	0.2040	5.182	81.2	99.4	114.8	128.3	140.6	151.9	181.4	214.8	301.9
5	0.2055	5.220	82.3	100.9	116.5	130.2	142.7	154.1	184.1	217.9	306.3
4	0.2090	5.309	85.1	104.3	120.5	134.7	147.6	159.4	190.5	225.4	316.8
3	0.2130	5.410	88.5	108.4	125.1	139.9	153.2	165.5	197.8	234.1	328.9
7/32	0.2188	5.558	93.3	114.3	132.0	147.6	161.7	174.6	208.7	246.9	347.0
2	0.2210	5.613	95.2	116.7	134.7	150.6	165.0	178.2	213.0	252.0	354.2
1	0.2280	5.791	101.4	124.2	143.3	160.3	175.6	189.7	226.7	268.3	377.0
A	0.2340	5.944	106.8	130.8	151.0	168.8	185.0	199.8	238.7	282.6	397.1
15/64	0.2344	5.954	107.1	131.1	151.5	169.4	185.5	200.4	239.6	283.4	398.3
B	0.2380	6.045	110.4	135.3	156.2	174.7	191.3	206.6	247.1	292.2	410.6
C	0.2420	6.147	114.1	139.9	161.6	180.6	197.9	213.7	255.4	302.2	424.7
D	0.2460	6.248	118.0	144.6	167.0	186.6	204.4	220.8	263.9	312.3	438.8
1/4	0.2500	6.350	121.9	149.3	172.4	192.8	211.1	228.1	238.7	322.6	453.3
17/64	0.2656	6.746	137.6	168.4	194.6	217.4	238.1	257.2	307.4	363.7	
9/32	0.2812	7.142	154.1	188.8	218.1	243.6	266.9	288.3	344.5	407.7	
19/64	0.2969	7.541	171.8	210.3	243.1	271.5	297.4	321.2	384.0	454.2	
5/16	0.3125	7.938	190.4	233.1	269.4	300.9	329.7	356.1	425.5	504.1	
21/64	0.3281	8.334	209.6	256.8	296.8	331.5	363.2	392.3	468.8	555.6	
11/32	0.3437	8.730	230.4	282.2	325.9	364.4	399.0	431.1	515.4	609.7	
23/64	0.3594	9.129	251.9	308.6	356.3	398.5	436.3	471.4	563.6	666.7	
3/8	0.3750	9.525	274.3	335.9	387.9	433.8	475.0	513.2	613.6	725.9	
25/64	0.3906	9.921	297.6	364.5	420.8	470.6	515.3	556.8	665.7	787.5	
13/32	0.4062	10.317	321.8	394.2	455.1	509.0	557.3	602.2	719.9	851.7	
27/64	0.4219	10.716	347.2	425.2	491.0	549.1	601.2	649.6	776.6	918.8	
7/16	0.4375	11.126	373.3	457.2	528.0	590.5	646.5	698.6	835.1	988.0	

CHART BASED ON ORIFICE COEFFICIENT OF 0.82 AND 0.60 SPEC. GRAV. NATURAL GAS. WHEN SPEC. GRAV. IS NOT 0.60 MULTIPLY THE FACTOR IN THE TABLE BELOW TIMES THE VALUE GIVEN IN THE ORIFICE CHART. (ALSO SEE 7-E 80.6 FOR PROPANE ORIFICE CHART.)

SPEC. GRAV.	FACTOR	SPEC. GRAV.	FACTOR	SPEC. GRAV.	FACTOR	SPEC. GRAV.	FACTOR
0.50	1.0954	0.80	0.8660	1.20	0.7070	1.60	0.6120
0.55	1.0444	0.85	0.8410	1.30	0.6800	1.70	0.5940
0.60	1.0000	0.90	0.8170	1.40	0.6550	1.80	0.5770
0.65	0.9608	1.00	0.7750	1.50	0.6320	1.90	0.5650
0.70	0.9258	PROPANE-AIR		PROPANE		BUTANE	
0.75	0.8944	1.10	0.7400	1.55	0.6220	2.00	0.5475