

Flow Rate Chart for Orifice Union Hole Sizes (Gallons Per Minute)

Differential Pressure (PSI)	Velocity of Discharge in Feet per second "C" = 0.61	Diameter of Orifice in Inches										
		1/64"	1/32"	1/16"	1/8"	3/16"	1/4"	3/8"	1/2"	5/8"	3/4"	7/8"
1	7.45	0.0046	0.0186	0.072	0.286	0.642	1.140	2.560	4.560	7.130	10.250	14.000
2	10.50	0.0064	0.0263	0.103	0.408	0.908	1.610	3.620	6.450	10.05	14.500	19.700
3	12.95	0.0081	0.0324	0.125	0.496	1.118	1.980	4.460	7.950	12.40	17.850	24.300
4	14.90	0.0093	0.0372	0.144	0.573	1.280	2.280	5.130	9.120	14.30	20.500	28.000
5	16.70	0.0104	0.0418	0.161	0.640	1.440	2.560	5.750	10.02	16.00	23.000	31.400
6	18.20	0.0113	0.0455	0.176	0.700	1.570	2.780	6.280	11.15	17.48	25.100	34.200
7	19.75	0.0123	0.0493	0.191	0.760	1.700	3.020	6.800	12.05	18.90	27.200	37.200
8	21.10	0.0132	0.0527	0.204	0.812	1.820	3.230	7.280	12.90	20.20	29.100	39.700
9	22.20	0.0139	0.0550	0.215	0.853	1.910	3.400	7.650	13.60	21.30	30.600	41.700
10	23.60	0.0147	0.0590	0.230	0.940	2.030	3.610	8.130	14.45	22.50	32.400	44.200
20	33.40	0.0209	0.0835	0.317	1.280	2.860	5.100	11.50	20.40	31.90	45.700	63.200
30	40.80	0.0255	0.1020	0.392	1.560	3.510	6.230	14.05	25.00	39.00	56.200	76.400
40	47.20	0.0294	0.1180	0.452	1.810	4.050	7.220	16.20	28.90	45.00	64.800	88.600
50	52.60	0.0329	0.1320	0.507	2.020	4.530	8.070	18.10	32.30	50.40	72.700	99.000
60	57.60	0.0361	0.1440	0.550	2.210	4.960	8.850	19.85	35.30	55.20	79.300	108
70	62.40	0.0390	0.1560	0.598	2.390	5.360	9.600	21.50	38.10	59.70	86.000	116
80	66.70	0.0417	0.1670	0.642	2.550	5.700	10.20	23.00	40.80	63.50	91.800	125
90	70.50	0.0440	0.1765	0.678	2.710	6.070	10.80	24.40	43.30	68.00	97.700	132
100	74.50	0.0465	0.1865	0.716	2.850	6.400	11.40	25.70	45.60	85.00	123.00	165
200	105.0	0.0655	0.2630	1.010	4.030	9.100	16.10	36.30	64.60	101.00	145.00	197
300	129.5	0.0810	0.3240	1.230	4.940	11.10	19.80	44.50	79.50	123.50	178.00	243
400	149.0	0.0930	0.3720	1.440	5.730	12.85	22.80	51.30	91.80	143.00	205.00	280
500	166.0	0.1038	0.4150	1.600	6.350	14.30	25.40	57.40	104.00	159.00	229.00	312
Volumes given are based on the following coefficients:												
Contraction Coefficient = 0.620												
Velocity Coefficient = 0.985												
Discharge Coefficient (0.620 x 0.9851) = 0.61												

Differential Pressure (PSI)	Velocity of Discharge in Feet per second "C" = 0.61	Diameter of Orifice in Inches										
		1/64"	1/32"	1/16"	1/8"	3/16"	1/4"	3/8"	1/2"	5/8"	3/4"	7/8"
600	183.0	0.1140	0.4570	1.770	7.040	15.75	28.10	63.00	112.50	176.00	252.00	345
700	198.0	0.1235	0.4950	1.930	7.640	17.00	30.40	68.40	121.50	189.00	274.00	372
800	212.0	0.1330	0.5300	2.050	8.130	18.25	32.30	73.00	130.00	203.00	292.00	398
900	225.0	0.1405	0.5630	2.180	8.600	19.40	34.40	77.50	138.00	216.00	310.00	423
1000	236.0	0.1480	0.5850	5.280	9.050	20.30	36.00	81.30	144.00	226.00	325.00	443
1100	247.0	0.1540	0.6170	2.380	9.470	21.20	37.70	85.00	152.50	236.00	341.00	464
1200	258.0	0.1620	0.6470	2.500	9.940	22.30	39.60	89.00	158.70	247.00	356.00	487
1300	269.0	0.1680	0.6720	2.600	10.30	23.20	41.00	93.00	165.00	256.00	369.00	505
1400	278.0	0.1730	0.6960	2.700	10.68	24.10	42.80	96.00	170.00	266.00	385.00	525
1500	288.0	0.1800	0.7200	2.790	11.05	24.90	44.00	99.00	176.50	275.00	396.00	542
1600	298.0	0.1860	0.7450	2.880	11.48	25.60	45.60	102.50	182.00	285.00	410.00	561
1700	307.0	0.1920	0.7650	2.980	11.85	26.50	46.90	106.00	188.00	294.00	424.00	578
1800	316.0	0.1970	0.7950	3.070	12.15	27.40	48.40	109.00	194.00	303.00	437.00	597
1900	325.0	0.2030	0.8140	3.150	12.45	28.00	49.70	112.00	199.00	311.00	449.00	610
2000	334.0	0.2090	0.8350	3.240	12.80	28.80	51.00	115.00	204.00	320.00	458.00	628
2500	373.0	0.2330	0.9300	3.610	14.30	32.20	57.00	128.50	222.00	358.00	515.00	700
3000	408.0	0.2550	1.0200	3.940	15.60	35.70	62.30	140.00	250.00	390.00	563.00	770

Volumes given are based on the following coefficients:

Contraction Coefficient = 0.620

Velocity Coefficient = 0.985

Discharge Coefficient (0.620 x 0.985) = 0.61