

Definitions of English & Metric Units

°C	= degrees Celsius	in.	= inch	mm	= millimeter
cfm	= cubic feet per minute	kg	= kilogram	N	= Newton
cm	= centimeter	km	= kilometer	Nm	= Newton-meter
°F	= degrees Fahrenheit	kPa	= kilopascal	oz.	= ounce
ft	= foot	l	= liter	psi	= pounds per square inch
fpm	= feet per minute	lb.	= pound	rpm	= revolutions per minute
g	= gram	lbf	= pound force	rps	= revolutions per second
Hg	= mercury	lb _m	= pound mass	sec.	= second
hp	= horsepower	m	= meter	W	= Watts
hpm	= metric horsepower	min.	= minute	wg	= water gauge
hr.	= hour				

Pressure Equivalent Chart

This chart shows pressure values in inches water gauge and the equivalent pressure in other commonly used unit.

INCHES WATER (IN. WG)	INCHES MERCURY (IN. Hg)	OUNCES PER SQ. IN. (oz/in ²)	POUNDS PER SQ. IN. (lb/in ²)	PASCALS (Pa)	KILOPASCALS (kPa)	MILLIMETERS WATER (mm WG)
1	0.0733	0.577	0.0360	250	0.25	25.4
2	0.1467	1.154	0.0720	500	0.50	50.8
3	0.2200	1.730	0.1081	750	0.75	76.2
4	0.2934	2.307	0.1441	990	0.99	101.6
5	0.3667	2.884	0.1801	1240	1.24	127.0
6	0.4400	3.461	0.2161	1490	1.49	152.4
7	0.5134	4.038	0.2522	1740	1.74	177.8
8	0.5867	4.614	0.2882	1990	1.99	203.2
9	0.6601	5.191	0.3242	2240	2.24	228.6
10	0.7334	5.768	0.3602	2480	2.48	254.0
11	0.8067	6.345	0.3962	2730	2.73	279.4
12	0.8801	6.922	0.4323	2980	2.98	304.8
13	0.9534	7.498	0.4683	3230	3.23	330.2
14	1.027	8.075	0.5043	3480	3.48	355.6
15	1.100	8.652	0.5403	3730	3.73	381.0
16	1.173	9.229	0.5763	3970	3.97	406.4
17	1.247	9.806	0.6124	4220	4.22	431.8
18	1.320	10.382	0.6484	4470	4.47	457.2
19	1.393	10.959	0.6844	4720	4.72	482.6
20	1.467	11.536	0.7204	4970	4.97	508.0
21	1.540	12.113	0.7565	5220	5.22	533.4
22	1.613	12.690	0.7925	5460	5.46	558.8
23	1.687	13.266	0.8285	5710	5.71	584.2
24	1.760	13.843	0.8645	5960	5.96	609.6
25	1.834	14.420	0.9005	6210	6.21	635.0
26	1.907	14.997	0.9366	6460	6.46	660.4
27	1.980	15.574	0.9726	6710	6.71	685.8
28	2.054	16.150	1.009	6950	6.95	711.2
29	2.127	16.727	1.045	7200	7.20	736.6
30	2.200	17.304	1.081	7450	7.45	762.0
31	2.274	17.881	1.117	7700	7.70	787.4
32	2.347	18.458	1.153	7950	7.95	812.8
33	2.420	19.034	1.189	8200	8.20	838.2
34	2.494	19.611	1.225	8440	8.44	863.6
35	2.567	20.188	1.261	8690	8.69	889.0
36	2.640	20.765	1.297	8940	8.94	914.4
37	2.714	21.342	1.333	9190	9.19	939.8
38	2.787	21.918	1.369	9440	9.44	965.2
39	2.860	22.495	1.405	9690	9.69	990.6
40	2.934	23.072	1.441	9930	9.93	1016.0
41	3.007	23.649	1.477	10180	10.18	1041.4
42	3.080	24.226	1.513	10430	10.43	1066.8
43	3.154	24.802	1.549	10680	10.68	1092.2
44	3.227	25.379	1.585	10930	10.93	1117.6
45	3.300	25.956	1.621	11180	11.18	1143.0

English & Metric Conversions

AREA		
MULTIPLY	BY	TO OBTAIN
in ²	0.006944	ft ²
	0.0006452	m ²
	645.16	mm ²
ft ²	144	in ²
	0.09290	m ²
	92903	mm ²
m ²	10.76	ft ²
	1550	in ²
	10 ⁶	mm ²
DENSITY		
MULTIPLY	BY	TO OBTAIN
lb/ft ³	16.02	kg/m ³
kg/m ³	0.06243	lb/ft ³
LENGTH		
MULTIPLY	BY	TO OBTAIN
ft	12	in
	0.3048	m
	304.80	mm
in	0.0833	ft
	0.02540	m
	25.4	mm
m	3.2808	ft
	39.37	in
	1000	mm
mm	0.003281	ft
	0.03937	in
	0.001	m
MASS		
MULTIPLY	BY	TO OBTAIN
lb _m	16	oz
	453.59	grams
	0.45359	kg
oz	0.0625	lb _m
	28.35	grams
	0.0283	kg
grams	0.002205	lb _m
	0.03527	oz
	0.001	kg
kg	2.2046	lb _m
	35.274	oz
	1000	grams
MOMENT OF INERTIA		
MULTIPLY	BY	TO OBTAIN
lb-in ²	0.0069	lb-ft ²
	0.0002926	kg-m ²
lb-ft ²	144	lb-in ²
	0.04214	kg-m ²
kg-m ²	23.73	lb-ft ²
	3417.2	lb-in ²
POWER		
MULTIPLY	BY	TO OBTAIN
HP	33000	ft-lb/min
	550	ft-lb/s
	745.7	W
	0.7457	kW
	76.04	kg-m/sec
ft-lb/min	0.0000303	HP
	0.0167	ft-lb/s
	0.0226	W
	0.0023	kg-m/sec
ft-lb/s	0.0018	HP
	60	ft-lb/min
	1.3558	W
	0.1388	kg-m/sec
W	0.00134	HP
	44.254	ft-lb/min
	0.73756	ft-lb/s
	0.1019	kg-m/sec
	0.01	hp
kg-m/sec	434.78	ft-lb/min
	7.20	ft-lb/s
	9.81	W

PRESSURE		
MULTIPLY	BY	TO OBTAIN
psi	27.728	in-wg
	2.036	in-Hg
	6894.8	Pa
	704.28	mm-wg
	51.715	mm-Hg
in-wg	0.06805	atm
	0.03607	psi
	0.07343	in-Hg
	248.66	Pa
	25.4	mm-wg
in-Hg	1.8651	mm-Hg
	0.002454	atm
	0.49115	psi
	13.619	in-wg
	3386.4	pa
Pa	345.91	mm-wg
	25.4	mm-Hg
	0.03342	atm
	0.000145	psi
	0.004022	in-wg
mm-wg	0.0002953	in-Hg
	0.10215	mm-wg
	0.007501	mm-Hg
	0.0000099	atm
	0.00142	psi
mm-Hg	0.03937	in-wg
	0.002891	in-Hg
	9.7898	Pa
	0.07343	mm-Hg
	0.0000966	atm
atm	0.01934	psi
	0.53616	in-wg
	0.03937	in-Hg
	133.32	Pa
	13.619	mm-wg
ROTATING SPEED		
MULTIPLY	BY	TO OBTAIN
RPM	0.0167	rps
	0.0167	Hertz
RPS	60	rpm
	1	Hertz
Hertz	60	rpm
	1	rps
TORQUE		
MULTIPLY	BY	TO OBTAIN
lb-in	0.083	lb-ft
	0.11298	N-m
lb-ft	12	lb-in
	1.3558	N-m
N-m	0.73756	lb-ft
	8.8507	lb-in
TEMPERATURE		
°F = 9/5 C + 32		
°C = 5/9 (F - 32)		

See page 12 for expanded Temperature Conversion table.

VELOCITY		
MULTIPLY	BY	TO OBTAIN
fpm	0.0167	fps
	.2	in/sec
	0.005080	m/s
fps	0.30480	m/min
	60	fpm
	12	in/sec
in/sec	0.30480	m/s
	18.288	m/min
	5	fpm
m/s	0.0833	fps
	0.02540	m/min
	1.524	m/min
m/min	196.85	fpm
	3.2808	fps
	39.37	in/sec
m/min	60	m/min
	3.2808	fpm
	0.05468	fps
m/min	0.65617	in/sec
	0.0167	m/s
VOLUME		
MULTIPLY	BY	TO OBTAIN
ft ³	1728	in ³
	28.317	l
	0.02832	m ³
in ³	0.000579	ft ³
	0.01639	l
	0.0000164	m ³
l	0.03531	ft ³
	61.024	in ³
	0.001	m ³
m ³	35.315	ft ³
	61024	in ³
	1000	l
VOLUME FLOW		
MULTIPLY	BY	TO OBTAIN
CFM	0.0004719	m ³ /sec
	0.02832	m ³ /min
	1.6990	m ³ /hr
	0.47195	l/s
	28.317	l/min
m ³ /sec	2118.9	CFM
	60	m ³ /min
	3600	m ³ /hr
	1000	l/s
	60000	l/min
m ³ /min	35.315	CFM
	0.0167	m ³ /sec
	60	m ³ /hr
	16.667	l/s
	1000	l/min
m ³ /hr	0.58858	CFM
	0.0167	m ³ /min
	0.0003	m ³ /sec
	0.2778	l/s
	16.667	l/min
l/s	2.1189	CFM
	0.001	m ³ /sec
	0.06	m ³ /min
	3.6	m ³ /hr
	60	l/min
l/min	0.03531	CFM
	0.000016	m ³ /sec
	0.001	m ³ /min
	0.06	m ³ /hr
	0.0167	l/s

Area and Circumference of Circles

DIA. (IN.)	AREA		CIRCUM- FERENCE	
	IN ²	FT ²	IN	FT
1	0.785	0.005	3.14	0.262
2	3.14	0.022	6.28	0.523
3	7.07	0.049	9.42	0.785
4	12.57	0.087	12.57	1.054
5	19.63	0.136	15.71	1.31
6	28.27	0.196	18.85	1.57
7	38.48	0.267	21.99	1.83
8	50.27	0.349	25.13	2.09
9	63.62	0.441	28.27	2.36
10	78.54	0.545	31.42	2.62
11	95.03	0.659	34.56	2.88
12	113.00	0.785	37.70	3.14
13	133.00	0.921	40.84	3.40
14	154.00	1.07	43.98	3.66
15	177.00	1.23	47.12	3.93
16	201.00	1.40	50.27	4.19
17	227.00	1.57	53.41	4.45
18	254.00	1.77	56.55	4.71
19	284.00	1.97	59.69	4.97
20	314.00	2.18	62.83	5.23
21	346.00	2.40	65.97	5.50
22	380.00	2.64	69.12	5.76
23	415.00	2.88	72.26	6.02
24	452.00	3.14	75.40	6.28
25	491.00	3.41	78.54	6.54
26	531.00	3.68	81.68	6.80
27	573.00	3.97	84.82	7.07
28	616.00	4.27	87.96	7.33
29	661.00	4.58	91.11	7.59
30	707.00	4.90	94.25	7.85
31	755.00	5.24	97.39	8.11
32	804.00	5.58	100.53	8.37
33	855.00	5.93	103.67	8.64
34	908.00	6.30	106.81	8.90

DIA. (IN.)	AREA		CIRCUM- FERENCE	
	IN ²	FT ²	IN	FT
35	962	6.68	109.96	9.16
36	1018	7.06	113.10	9.42
37	1075	7.46	116.24	9.68
38	1134	7.87	119.38	9.94
39	1195	8.29	122.52	10.21
40	1257	8.72	125.66	10.47
41	1320	9.16	128.81	10.73
42	1385	9.61	131.95	10.99
43	1452	10.08	135.09	11.25
44	1521	10.55	138.23	11.51
45	1590	11.04	141.37	11.78
46	1662	11.53	144.51	12.04
47	1735	12.04	147.65	12.30
48	1810	12.56	150.80	12.56
49	1886	13.08	153.94	12.82
50	1963	13.62	157.08	13.08
51	2043	14.17	160.22	13.35
52	2124	14.74	163.36	13.61
53	2206	15.31	166.50	13.87
54	2290	15.89	169.65	14.13
55	2376	16.49	172.79	14.39
56	2463	17.09	175.93	14.65
57	2552	17.71	179.07	14.92
58	2642	18.33	182.21	15.18
59	2734	18.97	185.35	15.44
60	2827	19.62	188.50	15.70
61	2922	20.28	191.64	15.96
62	3019	20.95	194.78	16.23
63	3117	21.63	197.92	16.49
64	3217	22.32	201.06	16.75
65	3318	23.03	204.20	17.01
66	3421	23.74	207.35	17.27
67	3526	24.46	210.49	17.53
68	3632	25.20	213.63	17.80

DIA. (IN.)	AREA		CIRCUM- FERENCE	
	IN ²	FT ²	IN	FT
69	3739	25.95	216.77	18.06
70	3848	26.70	219.91	18.32
71	3959	27.47	223.05	18.58
72	4072	28.25	226.19	18.84
73	4185	29.04	229.34	19.10
74	4301	29.84	232.48	19.37
75	4418	30.66	235.62	19.63
76	4536	31.48	238.76	19.89
77	4657	32.31	241.90	20.15
78	4778	33.16	245.04	20.41
79	4902	34.01	248.19	20.67
80	5027	34.88	251.33	20.94
81	5153	35.76	254.47	21.20
82	5281	36.64	257.61	21.46
83	5411	37.54	260.75	21.72
84	5542	38.45	263.89	21.98
85	5675	39.37	267.04	22.24
86	5809	40.31	270.18	22.51
87	5945	41.25	273.32	22.77
88	6082	42.20	276.46	23.03
89	6221	43.17	279.60	23.29
90	6362	44.14	282.74	23.55
91	6504	45.13	285.88	23.81
92	6648	46.13	289.03	24.08
93	6793	47.14	292.17	24.34
94	6940	48.15	295.31	24.60
95	7088	49.18	298.45	24.86
96	7238	50.23	301.59	25.12
97	7390	51.28	304.73	25.38
98	7543	52.34	307.88	25.65
99	7698	53.41	311.02	25.91
100	7854	54.50	314.16	26.17

Equations: Area = πr^2 (r = radius of circle)

Circumference = $2\pi r$ or πd (r = radius of circle; d = diameter of circle)

Gauges & Equivalent Metal Thickness

Steel Sheet Gauges & Weights

GAUGE	THICKNESS		WEIGHT	
	IN.	MM	LB/FT ²	KG/M ²
1"	1	25.4000	41.829	204.379
3/4"	3/4	19.0500	31.372	153.280
5/8"	5/8	15.8750	26.143	127.73
1/2"	1/2	12.7000	20.915	102.187
3/8"	3/8	9.5250	15.686	76.640
5/16"	5/16	7.9375	13.072	63.867
1/4"	1/4	6.3500	10.457	51.093
3/16"	3/16	4.7625	7.843	38.320
7	.1793	4.5542	7.500	36.644
8	.1644	4.1758	6.875	33.591
9	.1495	3.7973	6.250	30.537
10	.1345	3.4163	5.625	27.483
11	.1196	3.0378	5.000	24.429
12	.1046	2.6568	4.375	21.376
13	.0897	2.2784	3.750	18.322
14	.0747	1.8974	3.125	15.268
15	.0673	1.7094	2.813	13.744
16	.0598	1.5189	2.500	12.215
17	.0538	1.3665	2.250	10.993
18	.0478	1.2141	2.000	9.772
19	.0418	1.0617	1.750	8.550
20	.0359	0.9119	1.500	7.329
21	.0329	0.8357	1.375	6.718
22	.0299	0.7595	1.250	6.107
23	.0269	0.6833	1.125	5.497
24	.0239	0.6071	1.000	4.886
25	.0209	0.5309	0.875	4.275
26	.0179	0.4547	0.750	3.664
27	.0164	0.4166	0.688	3.361

Fractions to Equivalent Decimal Values

FRACTION	DECIMAL
1/64	.016
1/32	.031
3/64	.047
1/16	.063
5/64	.078
3/32	.094
7/64	.109
1/8	.125
9/64	.141
5/32	.156
11/64	.172
3/16	.188
13/64	.203
7/32	.219
15/64	.234
1/4	.250
17/64	.266
9/32	.281
19/64	.297
5/16	.313
21/64	.328
11/32	.344

FRACTION	DECIMAL
23/64	.359
3/8	.375
25/64	.391
13/32	.406
27/64	.422
7/16	.438
29/64	.453
15/32	.469
31/64	.484
1/2	.500
33/64	.516
17/32	.531
35/64	.547
9/16	.563
37/64	.578
19/32	.594
39/64	.609
5/8	.625
41/64	.641
21/32	.656
43/64	.672
11/16	.688

FRACTION	DECIMAL
45/64	.703
23/32	.719
47/64	.734
3/4	.750
49/64	.766
25/32	.781
51/64	.797
13/16	.813
53/64	.828
27/32	.844
55/64	.859
7/8	.875
57/64	.891
29/32	.906
59/64	.922
15/16	.938
61/64	.953
31/32	.969
63/64	.984
1	1.00

Temperature Conversions

°C	°F	°C	°F	°C	°F	°C	°F	°C	°F	°C	°F	°C	°F
-40	-40.0	-2	28.4	36	96.8	74	165.2	160	320	350	662		
-39	-38.2	-1	30.2	37	98.6	75	167.0	165	329	355	671		
-38	-36.4	0	32.0	38	100.4	76	168.8	170	338	360	680		
-37	-34.6	1	33.8	39	102.2	77	170.6	175	347	365	689		
-36	-32.8	2	35.6	40	104.0	78	172.4	180	356	370	698		
-35	-31.0	3	37.4	41	105.8	79	174.2	185	365	375	707		
-34	-29.2	4	39.2	42	107.6	80	176.0	190	374	380	716		
-33	-27.4	5	41.0	43	109.4	81	177.8	195	383	385	725		
-32	-25.6	6	42.8	44	111.2	82	179.6	200	392	390	734		
-31	-23.8	7	44.6	45	113.0	83	181.4	205	401	395	743		
-30	-22.0	8	46.4	46	114.8	84	183.2	210	410	400	752		
-29	-20.2	9	48.2	47	116.6	85	185.0	215	419	410	770		
-28	-18.4	10	50.0	48	118.4	86	186.8	220	428	420	788		
-27	-16.6	11	51.8	49	120.2	87	188.6	225	437	430	806		
-26	-14.8	12	53.6	50	122.0	88	190.4	230	446	440	824		
-25	-13.0	13	55.4	51	123.8	89	192.2	235	455	450	842		
-24	-11.2	14	57.2	52	125.6	90	194.0	240	464	460	860		
-23	-9.4	15	59.0	53	127.4	91	195.8	245	473	470	878		
-22	-7.6	16	60.8	54	129.2	92	197.6	250	482	480	896		
-21	-5.8	17	62.6	55	131.0	93	199.4	255	491	490	914		
-20	-4.0	18	64.4	56	132.8	94	201.2	260	500	500	932		
-19	-2.2	19	66.2	57	134.6	95	203.0	265	509	510	950		
-18	-0.4	20	68.0	58	136.4	96	204.8	270	518	520	968		
-17	1.4	21	69.8	59	138.2	97	206.6	275	527	530	986		
-16	3.2	22	71.6	60	140.0	98	208.4	280	536	540	1004		
-15	5.0	23	73.4	61	141.8	99	210.2	285	545	550	1022		
-14	6.8	24	75.2	62	143.6	100	212.0	290	554	560	1040		
-13	8.6	25	77.0	63	145.4	105	221.0	295	563	570	1058		
-12	10.4	26	78.8	64	147.2	110	230.0	300	572	580	1076		
-11	12.2	27	80.6	65	149.0	115	239.0	305	581	590	1094		
-10	14.4	28	82.4	66	150.8	120	248.0	310	590	600	1112		
-9	15.8	29	84.2	67	152.6	125	257.0	315	599	650	1202		
-8	17.6	30	86.0	68	154.4	130	266.0	320	608	700	1292		
-7	19.4	31	87.8	69	156.2	135	275.0	325	617	750	1382		
-6	21.2	32	89.6	70	158.0	140	284.0	330	626	800	1472		
-5	23.0	33	91.4	71	159.8	145	293.0	335	635				
-4	24.8	34	93.2	72	161.6	150	302.0	340	644				
-3	26.6	35	95.0	73	163.4	155	311.0	345	653				



Twin City Fan & Blower

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