

# WESCHLER INSTRUMENTS

## Conversion Factors

To convert →	To →	Multiply By	To convert →	To →	Multiply By		
2.778 x 10 <sup>-4</sup>	Ampere-hours	Coulombs	3600	1.02 x 10 <sup>-5</sup>	Kiloponds per sq cm	Pascals	9.807 x 10 <sup>4</sup>
0.1550	Amperes per sq cm	Amperes per sq inch	6.452	7.031 x 10 <sup>-2</sup>	Kiloponds per sq cm	Pounds per sq inch	14.22
0.7958	Ampere-turns	Gilberts	1.257	2.930 x 10 <sup>-4</sup>	Kilowatt-hours	Btu	3413
0.3937	Ampere-turns per cm	Ampere-turns per inch	2.540	3.766 x 10 <sup>-7</sup>	Kilowatt-hours	Foot-pounds	2.655 x 10 <sup>6</sup>
1.316 x 10 <sup>-3</sup>	Atmospheres	Mm of mercury at 0°C	760	2.778 x 10 <sup>-7</sup>	Kilowatt-hours	Joules	3.6 x 10 <sup>6</sup>
2.950 x 10 <sup>-2</sup>	Atmospheres	Feet of water at 4°C	33.90	1.163 x 10 <sup>-3</sup>	Kilowatt-hours	Kilogram-calories	860
3.342 x 10 <sup>-2</sup>	Atmospheres	Inches of mercury at 0°C	29.92	2.724 x 10 <sup>-6</sup>	Kilowatt-hours	Kilogram-meters	3.671 x 10 <sup>5</sup>
9.678 x 10 <sup>-5</sup>	Atmospheres	Kg per sq meter	1.033 x 10 <sup>4</sup>	0.001	Liters	Cubic Centimeters	1000
0.9869 x 10 <sup>-5</sup>	Atmospheres	Newtonts per sq meter	1.0133 x 10 <sup>5</sup>	1000	Liters	Cubic meters	0.001
6.804 x 10 <sup>-2</sup>	Atmospheres	Pounds per sq inch	14.70	1.639 x 10 <sup>-2</sup>	Liters	Cubic Inches	61.02
6.894 x 10 <sup>-2</sup>	Bars	Pounds per sq inch	14.5	3.785	Liters	Gallons (liq US)	0.2642
1.285 x 10 <sup>-3</sup>	Btu	Foot-pounds	778.3	0.3048	Meters per min	Feet per minute	3.281
9.480 x 10 <sup>-4</sup>	Btu	Joules	1054.8	16.67	Meters per min	Kilometers per hour	0.06
3.969	Btu	Kilogram-calories	0.2520	0.8690	Miles (nautical)	Miles (statute)	1.1508
2545	Btu	Horsepower-hours	3.929 x 10 <sup>-4</sup>	0.6214	Miles (statute)	Kilometers	1.609
5/9 x (F-32)	Celsius	Fahrenheit	(°C x 9/5) + 32	1.894 x 10 <sup>-4</sup>	Miles (statute)	Feet	5280
70.31	Centimeters of water	Pounds per sq inch	1.422 x 10 <sup>-2</sup>	1.136 x 10 <sup>-2</sup>	Miles per hour	Feet per minute	88
1.973 x 10 <sup>5</sup>	Circular mils	Square centimeters	5.067 x 10 <sup>-6</sup>	0.6214	Miles per hour	Kilometers per hour	1.609
1.273	Circular mils	Square mils	0.7854	33.86	Millibars	Inches mercury (32°F)	0.02953
0.1337	Cubic feet	Gallons (liq US)	7.481	0.4788	Millibars	Pounds per sq foot	2.089
3.531 x 10 <sup>-2</sup>	Cubic feet	Liters	28.32	0.1151	Nepers	Decibels	8.686
6.102 x 10 <sup>-2</sup>	Cubic inches	Cubic centimeters	16.39	10 <sup>-5</sup>	Newtonts	Dynes	10 <sup>5</sup>
1728	Cubic inches	Cubic feet	5.787 x 10 <sup>-4</sup>	9.807	Newtonts	Kilograms	0.1020
6.102 x 10 <sup>4</sup>	Cubic inches	Cubic meters	1.639 x 10 <sup>-5</sup>	0.1383	Newtonts	Poundals	7.233
231	Cubic inches	Gallons (liq US)	4.329 x 10 <sup>-3</sup>	4.448	Newtonts	Pounds (avdp)	0.2248
2.832 x 10 <sup>-2</sup>	Cubic meters	Cubic feet	35.31	32	Ounces (fluid)	Quarts	3.125 x 10 <sup>-2</sup>
57.30	Degrees (angle)	Radians	1.745 x 10 <sup>-2</sup>	16	Ounces (avordupois)	Pounds	6.25 x 10 <sup>-2</sup>
4.448 x 10 <sup>5</sup>	Dynes	Pounds	2.248 x 10 <sup>-6</sup>	1.013 x 10 <sup>5</sup>	Pascals	Atmospheres	9.869 x 10 <sup>-6</sup>
1.356 x 10 <sup>7</sup>	Ergs	Foot-pounds	7.376 x 10 <sup>-8</sup>	98.07	Pascals	Centimeters of water	1.02 x 10 <sup>-2</sup>
1.133	Feet of water at 4°C	Inches of mercury at 0°C	0.8826	3.386 x 10 <sup>3</sup>	Pascals	Inches of mercury	2.953 x 10 <sup>-4</sup>
3.281 x 10 <sup>-3</sup>	Feet of water at 4°C	Kg per sq meter	304.8	9.81 x 10 <sup>4</sup>	Pascals	Kilograms per sq cm	1.02 x 10 <sup>-5</sup>
1.602 x 10 <sup>-2</sup>	Feet of water at 4°C	Pounds per sq foot	62.43	9.807	Pascals	Kiloponds per sq meter	0.102
1.98 x 10 <sup>6</sup>	Foot-pounds	Horsepower-hours	5.050 x 10 <sup>-7</sup>	100	Pascals	Millibars	10 <sup>-2</sup>
7.233	Foot-pounds	Kilogram-meters	0.1383	1.333 x 10 <sup>2</sup>	Pascals	Millimeters of mercury	7.5 x 10 <sup>-3</sup>
2.655 x 10 <sup>6</sup>	Foot-pounds	Kilowatt-hours	3.766 x 10 <sup>-7</sup>	6.89 x 10 <sup>3</sup>	Pascals	Pounds per sq inch	1.451 x 10 <sup>-4</sup>
264.2	Gallons (liq US)	Cubic meters	3.785 x 10 <sup>-3</sup>	1.02 x 10 <sup>-3</sup>	Ponds	Dynes	980.7
1.020 x 10 <sup>-3</sup>	Grams	Dynes	980.7	453.6	Ponds	Pounds	2.205 x 10 <sup>-3</sup>
28.35	Grams	Ounces (avordupois)	3.527 x 10 <sup>-2</sup>	34.53	Ponds per sq cm	Inches of mercury	2.896 x 10 <sup>-2</sup>
178.6	Grams per cm	Pounds per inch	5.600 x 10 <sup>-3</sup>	1.02	Ponds per sq cm	Millibars	0.981
27.68	Grams per cu cm	Pounds per cu inch	3.613 x 10 <sup>-2</sup>	1.3595	Ponds per sq cm	Millimeters of mercury	0.7356
0.4883	Grams per sq cm	Pounds per sq foot	2.0481	1.02 x 10 <sup>-2</sup>	Ponds per sq cm	Pascals	98.07
2.986 x 10 <sup>-5</sup>	Horsepower (boiler)	Btu per hour	3.347 x 10 <sup>4</sup>	70.3	Ponds per sq cm	Pounds per sq inch	1.422 x 10 <sup>-2</sup>
2.390 x 10 <sup>-2</sup>	Horsepower (metric)	Btu per minute	41.83	62.38	Pounds of water (dist)	Cubic feet	1.603 x 10 <sup>-2</sup>
	(542.5 ft-lb per sec)			8.347	Pounds of water (dist)	Gallons	0.1198
3.072 x 10 <sup>-5</sup>	Horsepower (metric)	Foot-lb per minute	3.255 x 10 <sup>4</sup>	0.05600	Pounds per inch	Kg per meter	17.86
	(542.5 ft-lb per sec)			0.6720	Pounds per foot	Kg per meter	1.488
9.485 x 10 <sup>-2</sup>	Horsepower (metric)	Kg-calories per minute	10.54	3.548	Pounds per mile (statute)	Kg per kilometer	0.2818
	(542.5 ft-lb per sec)			6.243 x 10 <sup>-2</sup>	Pounds per cu foot	Kg per cu meter	16.02
2.357 x 10 <sup>-2</sup>	Horsepower	Btu per minute	42.41	144	Pounds per sq foot	Pounds per sq inch	6.944 x 10 <sup>-3</sup>
	(550 ft-lb per sec)			1.422 x 10 <sup>-3</sup>	Pounds per sq inch	Kg per sq meter	703.1
3.030 x 10 <sup>-5</sup>	Horsepower	Foot-lb per minute	3.3 x 10 <sup>4</sup>	7.233 x 10 <sup>-5</sup>	Poundals	Dynes	1.383 x 10 <sup>4</sup>
	(550 ft-lb per sec)			32.17	Poundals	Pounds (avordupois)	3.108 x 10 <sup>-2</sup>
1.342	Horsepower	Kilowatts	0.745	4	Quarts	Gallons (liq US)	0.25
	(550 ft-lb per sec)			0.50	Quarts (liq US)	Pints	2
9.355 x 10 <sup>-2</sup>	Horsepower	Kg-calories per minute	10.69	3.108 x 10 <sup>-2</sup>	Slugs (mass)	Pounds (avordupois)	32.174
	(550 ft-lb per sec)			7.854 x 10 <sup>-7</sup>	Sq inches	Circular mils	1.273 x 10 <sup>6</sup>
0.3937	Inches	Centimeters	2.540	0.1550	Sq inches	Sq centimeters	6.452
12	Inches	Feet	8.33 x 10 <sup>-2</sup>	10.76	Sq feet	Sq meters	9.290 x 10 <sup>-2</sup>
0.001	Inches	Mils	1000	0.3861	Sq miles	Sq kilometers	2.590
2.036	Inches of mercury at 0°C	Lbs per sq inch	0.4912	5.067 x 10 <sup>-4</sup>	Sq millimeters	Circular mils	1973
3.937 x 10 <sup>-2</sup>	Inches of water at 4°C	Kg per sq meter	25.40	3.79 x 10 <sup>-3</sup>	(Temp rise, °C) x (U.S. gal water) / minute	Watts	264
1.729	Inches of water at 4°C	Ounces per sq inch	0.5782	1.102	Tons, short (avoir 2000 lb)	Tonnes (1000 kg)	0.9072
0.1922	Inches of water at 4°C	Pounds per sq foot	5.202	0.9842	Tons, long (avoir 2240 lb)	Tonnes (1000 kg)	1.016
13.60	Inches of water at 4°C	Inches of mercury	7.355 x 10 <sup>-2</sup>	10 <sup>-3</sup>	Torr	Microns of mercury	1000
1.356	Joules	Foot-pounds	0.7375	17.58	Watts	Btu per minute	5.689 x 10 <sup>-2</sup>
10 <sup>-7</sup>	Joules	Ergs	107	10 <sup>-7</sup>	Watts	Ergs per second	10 <sup>7</sup>
2.343 x 10 <sup>-3</sup>	Kilogram-calories	Kilogram-meters	426.9	2.260 x 10 <sup>-2</sup>	Foot-lb per minute	44.26	
0.2389	Kilogram-calories	Kilojoules	4.186	745.7	Watts	Horsepower	1.341 x 10 <sup>-3</sup>
1016	Kilograms	Tons, long (avdp 2240lb)	9.482 x 10 <sup>-4</sup>			(550 ft-lb per sec)	
907.2	Kilograms	Tons, short (avdp 2000lb)	1.102 x 10 <sup>-3</sup>	735.5	Watts	Horsepower (metric)	1.360 x 10 <sup>-3</sup>
0.4536	Kilograms	Pounds (avordupois)	2.205	69.77	Watts	Horsepower (metric)	1.433 x 10 <sup>-2</sup>
4.882	Kg per sq meter	Pounds per sq foot	0.2048	4.186	Watt-seconds (joules)	Gram-calories (mean)	0.2389
0.102	Kiloponds	Newtons	9.807	10 <sup>-4</sup>	Watt-seconds (joules)	Gausses	10 <sup>4</sup>
0.4536	Kiloponds	Pounds (avdp)	2.205				
1.033	Kiloponds per sq cm	Atmospheres	0.9678				
1.02	Kiloponds per sq cm	Bars	0.9807				
1.36 x 10 <sup>-3</sup>	Kiloponds per sq cm	Millimeters of mercury	735.6				

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