

# Engineering Information

## Conversion Powder Table

CONVERSION FACTORS – One horse-power in terms of per hour to convert per min. and per sec.

**Engineering Information**

GENERAL CONVERSION TABLE - (Contd.)			
Multiply by	To Convert	To	By
4.5460000	Gallons	Litres	2200000
10.0000000	Gallons of water	Pounds	1000000
4.5400000	Pounds of water	Litres	2.2020000
70.3000000	Lb. per sq. in.	Gm./sq. cm.	0.1420000
2.3000000	Lb. per sq. in.	Head of water (ft.)	4340000
0.7000000	Lb. per sq. in.	Head of water (M)	1.4285000
0.6800000	Lb. per sq. in.	Atmospheres	14.7000000
1.5750000	Tons per sq. mm.	Kgm./sq. metre	6350000
4.9883000	Lb. per sq. ft.	Kgm./sq. metre	2050000
5930000	Lb. per cub. yd.	Kgm./cub. metre	1.6860000
16.0200000	Lb. per sq. ft.	Kgm./cub. metre	0.6200000
0.9980000	Lb. per gallon	Kgm./metre	10.0200000
1.8330000	Foot lb	K.grammetres	7.2300000
3300000	Foot-lb	Tonne-metres	3.0000000
1.0140000	Horse-power	Force de cheval	9861000
746.0000000	Horse-power	Watts	0.013400
33,000.0000000	Horse-power	Ft. lb./mm.	—
7600000	Horse-power	Kg-m./sec.	0.131600
44.0000000	Watts	Ft-lb./min.	0.3270000
0.1000000	Watts	Kgm. sec.	10.0000000
0.2520000	Hat Unit	Calories	3.9700000
14.7000000	Atmospheres	Lb. sq. inch	0.6800000
	To Obtain	From	Multiply by above

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**Engineering Information**

CONVERSION POWER TABLE			
One horse-power in terms of	Per hour	Per min.	Per sec.
Water cub. feet x feet fall	31.731	528.8	8.813
Fluid gallons flow x 1b. per sq. in pressure	85.800	1.430	23.83
Fluid cub. feet flow x 1b. per sq. in pressure	13.750	229 1/6	3.82
Fluid cub. feet flow x inches water gauge	6.38 x 10 <sup>6</sup>	6.346	105 3/4
Lb. °F heat units (each 778 ft. 1b)	2,545	42.24	0.707
Lb. °C heat units (each 1400 ft. 1b)	1,415	23.6	0.393
Kilogram. °C heat units (Metric h.p.)	632.65	10.45	0.1757
Steam 1b. evaporated from and at 212 °F	2.63	0.0438	.73 + 10 <sup>6</sup>
Fuel burnt 1b. at 14,000 heat units per 1b.	0.1818	3.03 + 10 <sup>3</sup>	50.5 + 10 <sup>6</sup>
Fuel burnt 1b. at 12,725 heat units per 1b.	0.2	2.3 + 10 <sup>3</sup>	55 + 10 <sup>6</sup>
Fuel Oil burnt, at 19,99 heat units per 1b.	0.18	2.16 + 10 <sup>3</sup>	36 + 10 <sup>6</sup>
Lighting gas burnt cub. ft. at 500 heat unit			1
Per cub. ft.	5	1	720
Producer gas burnt cub. feet at 127 heat		12	-
units per cub. foot.	20	1/6	1
Joules = Watt-s cs = 107 Ergs.	2.68 x 10	44.760	160
			.746
Hgrammetres	237.753	4562.38	34 Kilowatt-sec.
			76.0398

K. H. P. - hr. = 273742.9 Kgm. = 0.7456 k.w., - hr = 84,6 kg. cal.

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