



HSM Wire International, Inc

Ph: 330-244-8501 Fax: 330-244-8561

www.hsmwire.com

General Measuring Units and Conversions

Length		Destiny	
1 mil	= 0.0254 mm	1 cu. in. (cubic inch)	= 16.39 cm ³
1 in (inch)	= 25.4 mm	1 cu. ft. (cubic foot)	= 0.0283 m ³
1 ft (foot)	= 0.3048 m	1 cu. yd. (cubic yard)	= 0.7646 m ³
1 yd (yard)	= 0.9144 m	1 gal. (US gallon)	= 3.785 l
1 ch (chain)	= 20.1 m	1 gal. (Brit gallon)	= 4.546 l
1 mile (land mile)	= 1.609 km / 1760 yards	1 US Pint	= 0.473 l
1 mile (nautical mile)	= 1.852 km	1 US quart	= 0.946 l
1 mm	= 0.039370 in	1 US barrel	= 158.8 l
1 m	= 39.370079 in		
Area		Temperature	
1 CM (circ. mil)	= 0.507 • 10 ⁻³ mm ²	F (Fahrenheit)	= (1.8 • C) + 3°
1 MCM	= 0.5067 mm ²	C (Celsius)	= 0.5556 • (F-32°)
1 sq. inch	= 645.16 mm ²	Velocity	
1 sq. foot	= 0.0929 m ²	1 mile/h	= 1.609 km/h
1 square yard	= 0.836 m ²	1 Knoten	= 1.852 km/h
1 acre	= 4047 m ²	1 ft/s	= 0.305 m/s
1 square mile	= 2.59 km ²	1 ft/min	= 5.08 • 10 ⁻³ m/s
Weight		Force	
1 grain	= 64.8 mg	1 lb	= 4.448 N
1 dram	= 1.77 g	1 brit. ton	= 9954 N
1 oz (ounce)	= 28.35 g	1 pdl (poundal)	= 0.1383 N
1 lb (pound)	= 0.4536 Kp	1 kp	= 9.81 N
1 stone	= 6.35 Kp	1 N	= 0.102 kp
1 qu (quarter)	= 12.7 Kp	Energy	
1 US-cwt (hundred-weight)	= 45.36 Kp	1 lb/mile	= 0.282 kg/m
1 US ton (short ton)	= 0.907 t	1 lb/yard	= 0.496 kg/m
1 brit. ton (long ton)	= 1.016 t	1 lb/foot	= 1.488 kg/m
Density		Power Rate	
1 lb/cu. ft	= 16.02 kg/m ³	1 PS	= 0.736 kW
1 lb/cu. in	= 27.68 t/m ³	1 kW	= 1.36 PS / 1.31 hp
		1 hp	= 0.7457 kW



HSM Wire International, Inc

Ph: 330-244-8501 Fax: 330-244-8561

www.hsmwire.com

General Measuring Units and Conversions

Radiation Absorbed Dose		Horsepower	
1 Gray	= 1 J/kg	1 BTU (brit. therm. unit)	= 1055 Joule
1 rad	= 10^{-2} J/kg = 1 Centri Gy = 0.01 Gy = cJ/kg = 0.01 Gy	1 hp • h	= 1.0139 PS • h = $2.684 \cdot 10^6$ Joule = 746 W • h
1 Centri	= 100 Joule		
1 Mrad	= $1 \cdot 10^6$ cJ/kg		
Pressure		Electrical Units	
1 PSI (lb/sq.)	= 68.95 mbar = $6.895 \cdot 10^{-3}$ Nmm ²	1 ohm/1000 yd	= 1.0936 Ω/km
1 lb/sq.ft.	= 0.478 mbar	1 ohm/1000 ft	= 3.28 Ω/km
1 pdl/sq.ft.	= 1.489 N/m ²	1 μF/mile	= 0.62 μF/km
1 in Hg	= 33.86 mbar	1 megohm/mile	= 1.61 MΩ/km
1 ft H ₂ O	= 29.89 mbar	1 μpf/foot	= 3.28 pF/m
1 in H ₂ O	= 2.491 mbar	1 decibel/mile	= 71.5 mN/m
1 N/mm ²	= 145 psi = 10 bar		
1 kp/mm ²	= 1422 psi		
1 at	= 736 Torr = 1 kp/cm ²		
1 Torr	= 1 mm Hg		
1 bar	= 0.1 H Pa		
1 Pa	= 1 N/m ²		

**To be used as a guideline only