

# Appendix D

## Metric Conversion

*This appendix provides formulas to convert between inch-pound units and metric units.*

With the adoption by the United States of the Harmonized Tariff Schedule (HTS) and its use of metric units, there will be a natural shift to report quantities on invoices in metric units. Where a need to convert exists, the following metric conversion factors should be used. These factors have been taken from the Federal Standard 376A, a Government-wide standard developed through the Government's Interagency Committee on Metric Policy.

The following chart provides the multiplier to be used in converting from inch-pound units to metric units. Where there is a need to convert from metric units to inch-pound units, divide rather than multiply by the factor.

<b>Metric Conversion</b>			
<b>Quantity</b>	<b>From Inch-Pound Units</b>	<b>To Metric Units</b>	<b>Multiply By</b>
<b>Mass</b>	Ton (Long)	T (Metric Ton)(1T = 1,000 Kg.	1.016 047
	Ton (Short)	T (Metric Ton)	0.907 184 74
	Lb (Avdo)	Kg	0.453 592 37
	Oz (Troy)	G	31.103 48
<b>Length</b>	Yd	M	0.914 4
	Ft	M	0.304 8
	In	Cm	2.54
	In	Mm	25.4
<b>Area</b>	Yd <sup>2</sup>	M <sup>2</sup>	0.836 127 4
	Ft <sup>2</sup>	M <sup>2</sup>	0.092 903 04
	In <sup>2</sup>	Cm <sup>2</sup>	6.451 6
	In <sup>2</sup>	Mm <sup>2</sup>	645.16

<b>Metric Conversion</b>			
<b>Quantity</b>	<b>From Inch-Pound Units</b>	<b>To Metric Units</b>	<b>Multiply By</b>
<b>Volume</b>	Yd <sup>3</sup>	M <sup>3</sup>	0.764 554 9
	Bbl (Oil)	M <sup>3</sup>	0.158 987 3
	(42 Gallons)		0.028 316 85
	Ft <sup>3</sup>	M <sup>3</sup>	
	Ft <sup>3</sup>	L	28.316 85
	Gal (Liq)	L	3.785 412
	Quart (Liq)	L	0.946 352 9
	Pint (Liq)	L	0.473 176 5
	Fl Oz	ml	29. 573 53
	In <sup>3</sup>	Cm <sup>3</sup>	
<b>Frequency</b>	C/S (Formerly Cos. Cycles Per Second)	Hz	1.0
<b>Force</b>	Kip	kN	4.448 222
<b>Radioactivity</b>	Curie	MBq (Bq-becquerel)	37 000
<b>Stress</b>	Lbf/In <sup>2</sup> (formerly PSI)	MPa	0.006 894 757
	Lbf/In <sup>2</sup> (formerly PSI)	KPa	6.894 757
<b>Power</b>	Btu/S	kW	1.055 056
	hp (electric)	kW	0.746
	Btu/H	W	0.293 071 1
<b>Celsius</b>	°F	°C	t°C = (t°F 32)/1.8

**Note:** The following conversion procedure should be followed for beverages, spirits and vinegar classified in Chapter 22 of the Harmonized Tariff Schedule of the United States Annotated (HTS): Multiply the number of proof-liters by 0.264172 to obtain proof-gallons at 15.56°C (60. F). For wine, multiply the number of proof-liters by 0.26417. This allows for the calculation of the U. S. excise tax.

Refer to Appendix C for a list of the Unit of Measure Codes.