CONVERSION FACTORS

JOHN VALVES™
The Valve People Since 1896

LENGTH

inches	x	25.4	=	millimetres (mm)
feet	x	0.3048	=	metres (m)
yards	x	0.9144	=	metres (m)
chain	x	20.12	=	metres (m)
mile	x	1609	=	metres (m)

AREA

Square inches	x	645.16	=	mm^2
Square feet	x	0.092	=	m^2
Square yards	x	0.836	=	m^2
acre	x	4047	=	m^2
hectare (ha)	x	10,000	=	m^2

VOLUME

cubic inches	x	16,387	=	mm^3
cubic feet	x	0.0283	=	m^3
cubic yards	x	0.9143	=	m^3

VELOCITY

ft. per second (ft/s)	x	0.3048	=	m/s
ft. per minute(ft/min)	x	0.00508	=	m/s
miles per hour	x	0.4470	=	m/s
miles per hour	x	1.609	=	km/h

FORCE

Poundal (pdl)	x	0.1383	=	N
Pound-force (lbf)	x	4.448	=	N
ton-force (tonf)	x	9.964	=	kN
kilogram-force (kgf)	x	9.807	=	N

FORCE PER UNIT LENGTH

pounds-force per inch (lbf/in)	x	175.1	=	N/m
pounds-force per foot (lbf/ft)	x	14.59	=	N/m
ton-force per foot (ton/ft)	x	32.69	=	kN/m

TORQUE

Poundal-foot (pdl.ft)	x	0.04214	=	N.m
pound-force inch				
lbf.inch	x	0.1130	=	N.m
lbf.inch	x	1.152	=	kgf.cm
pound-force feet				
lbf.ft	x	1.356	=	N.m
lbf.ft	x	13.83	=	kgf.cm
ton-force feet				
ton.ft	x	3.037	=	kN.m
kilogram-force				
kgf.m	x	9.807	=	N.m
kgf.cm	x	0.09807	=	N.m

POWER

Btu per hour (Btu/hr)	x	0.2931	=	W
horsepower (hp)	x	0.7457	=	kW
ton of refrigeration	x	3.517	=	kW

MASS

ounce	x	28.35	=	grams (g)
pound	x	0.4536	=	kilograms (kg)
slug	x	14.59	=	kg
ton (2240 lb)	x	1016.05	=	kg
short ton (2000 lb)	x	907.2	=	kg
ton (2240 lb)	x	1.016	=	tonne (t)
pounds per foot (lb/ft)	x	1.488	=	kg/m
pounds per yard (lb/yd)	x	0.4961	=	kg/m

DENSITY

lb/in	x	27.68	=	t/m^3
lb/ft	x	16.02	=	kg/m^3
lb/yd	x	0.5933	=	kg/m^3

VOLUME CAPACITY

cubic inch (in)	x	16387	=	mm^3
cubic foot (ft)	x	0.02832	=	m^3
cubic yard (yd)	x	0.7646	=	m^3
litre (L)	x	1,000,000	=	mm^3
litre (L)	x	0.001	=	m^3
gallons (Imp)	x	0.004546	=	m^3
fluid ounce	x	28.41	=	millilitre (ml)
pint (20 fl. oz)	x	568.3	=	millilitre (ml)
quart (2 pints)	x	1.137	=	litre (L)
gallon (Imp)	x	4.546	=	litre (L)
litre (water 4°C)	x	1.000	=	litre (L)
Imp. gallons (water 20 °C)	x	4.536	=	kilograms (kg)

VOLUME RATE OF FLOW

Imp. gal. per minute (gal/min)	x	0.0000758	=	m^3/s
Imp. gal per minute	x	0.272765	=	m^3/hr
Imp. gal per minute	x	0.0758	=	litre per second(L/s)
cubic ft. per minute	x	0.000472	=	m^3/s
cubic ft. per minute	x	0.472	=	litre per second(L/s)

ENERGY

1. ELECTRICAL ENERGY

Killowatt hour (kWh)	x	3.6	=	MJ

2. HEAT ENERGY

British thermal unit (BTU)	x	1.055	=	kJ
Btu/gal	x	0.2321	=	kJ/L
btu/ft	x	37.26	=	kJ/m

3. MECHANICAL ENERGY

foot poundal (ft.pdl)	x	0.04214	=	J
inch pound-force (in.lbf)	x	0.1130	=	J
foot pound-force (ft.lbf)	x	1.356	=	J
foot ton force (ft.tonf)	x	3.037	=	kJ
metre kilogram force (m.kgf)	x	9.807	=	J