TECHNICAL DATA SECTION
Reference Section

TERMINOLOGY

ACF = Actual Cubic Feet
A/D = Analog to Digital
ATM = Atmospheres
BTU = British Thermal Units
cc/min = Cubic Centimeters per Minute
CFH = Standard Cubic Feet per Hour (SCFH)
C_p = Specific Heat
C.S. = Carbon Steel
D = Diameter
Dia. = Diameter
Diam. = Diameter
D/A = Digital to Analog
EMI = Electromagnetic Interference
EPR = Ethylene Propylene Rubber
FDA = Food and Drug Administration
FNPT = Female National Pipe Thread
FPM = Feet Per Minute
FPS = Feet Per Second
F.S. = Full Scale
FT = Feet
gals = Gallons
gpm = Gallons Per Minute
gph = Gallons Per Hour
H_F = Latent Heat of Fusion
H/L = High-Low
H_V = Latent Heat of Vaporization
I.D. = Inside Diameter
I/0 = Input/Output
k = Thermal Conductivity
lbs = Pounds
lbs/in² = Pounds Per Square Inch
lpm = Liters Per Minute
L/min = Liters Per Minute
mL/min = Milliliters Per Minute
MNPT = Male National Pipe Thread
ms = Milliseconds
m/s = Meters Per Second
MSEC = Milliseconds
NiCad = Nickel Cadmium
NO/NC = Normally Open/ Normally Closed
NPT = National Pipe Thread
O.D. = Outside Diameter
P-P = Peak to Peak
PSIA = Pounds Per Square Inch Absolute
PSID = Pounds Per Square Inch Differential
PSIG = Pounds Per Square Inch Gage
PVC = Polyvinyl Chloride
PVDF = Polyvinylidene Fluoride (Kynaol)
RF = Raised Face
RFI = Radio Frequency Interference
RMS = Root Mean Square
SCCM = Standard Cubic Centimeters per Minute
SCHED. NO. = Schedule Number
SCFH = Standard Cubic Feet per Hour
SCFM = Standard Cubic Feet per Minute
SLM = Standard Liters per Minute
SLPM = Standard Liters per Minute
sq.ft. = Square Feet
SSU = Saybolt Seconds Universal
ΔT = Temperature Rise
TTL = Transistor-Transistor Logic
W = Watts
W-hr = Watt-Hours
W/in² = 2 Watt Density
W_T = Weight of Material

Conversion Factors

TO OBTAIN	MULTIPLY	BY
Atmospheres	In HG@32ºF	0.033421
BTU	Watt-hours	3.412
BTU	KWh	3412
Centimeters	Inches	2.540
Cm of Hg @ 0 deg C	Atmospheres	76.0
Cm of Hg @ 0 deg C	Grams/sq. cm	0.07356
Cm of Hg @ 0 deg C	Lb/sq in.	5.1715
Cm of Hg @ 0 deg C	Lb/sq ft	0.035913
Cm/(sec)(sec)	Gravity	980.665
Centipoises	Centistokes	Density
Centistokes	Centipoises	1/density
Cu cm	Cu ft	28,317
Cu cm	Cu in.	16-387
Cu cm	Gal (USA, liq.)	3785.43
Cu cm	Liters	1000.03
Cu cm	Quarts (USA, liq.)	946.358
Cu cm/sec	Cu ft/min	472.0
Cu ft	Cu meters	35.314
Cu ft	Gal (USA, liq.)	0.13368
Cu ft	Liters	0.03532
Cu ft/min	Cu meters/sec	2118.9
Cu ft/min	Gal (USA, liq.)/sec	8.0192
Cu ft/sec	Gal (USA, liq.)/min	0.0022280
Cu ft/sec	Liters/min	0.0005886
Cu in.	Cu centimeters	0.061023
Cu in.	Gal (USA, liq.)	231.0
Cu in.	Liters	61.03
Cu meters	Gal (USA, liq.)	0.0037854
Cu meters	Liters	0.001000028
Cu meters/hr	Gal/min	0.22712
Cu meters/kg	Cu ft/lb	0.062428
Cu meters/min	Cu ft/min	0.02832
Cu meters/sec	Gal/min	0.000063088
Feet	Meters	3.281
Ft/min	Cm/sec	1.9685
Ft/sec	Meters/sec	3.2808
Ft/(sec)(sec)	Gravity (sea level)	32.174
Ft/(sec)(sec)	Meters/(sec)(sec)	3.2808
Gal (Imperial, liq.)	Gal (USA, liq.)	0.83268
Gal (USA, liq.)	Barrels (Petroleum, USA)	42
Gal (USA, liq.)	Cu ft	7.4805
Gal (USA, liq.)	Cu meters	264.173
Gal (USA, liq.)	Cu yards	202.2
Gal (USA, liq.)	Gal (Imperial, liq.)	1.2010
Gal (USA, liq.)	Liters	0.2642
Gal (USA, liq.)/min	Cu ft/sec	448.83
Gal (USA, liq.)/min	Cu meters/hr	4.4029
Gal (USA, liq.)/sec	Liters/min	0.0044028
Grams	Pounds (avoir.)	453.5924

Conversion Factors

TO OBTAIN	MULTIPLY	BY
Grams/(cm)(sec)	Centipoises	0.01
Grams/cu cm	Lb/cu ft	0.016018
Grams/cu cm	Lb/cu in.	27.680
Grams/cu cm	Lb/gal	0.119826
Inches	Centimeters	0.3937
Inches of Hg @ 32° F	Atmospheres	29.921
Inches of Hg @ 32° F	Lb/sq in.	2.0360
Inches of Hg @ 32° F	In. of H_2O @ 4°C	0.07355
Inches/deg F	Cm/deg C	0.21872
Kg	Pounds (avoir.)	0.45359
Kg-cal/sq meter	BTU/sq ft	2.712
Kg/cu meter	Lb/cu ft	16.018
Kg/(hr)(meter)	Centipoises	3.60
Kg/liter	Lb/gal (USA, liq.)	0.11983
Kg/meter	Lb/ft	1.488
Kg/sq cm	Lb/sq in.	0.0703
Kg/sq meter	Lb/sq ft	4.8824
KWh	BTU	.0002930
KWh	watt-hours	.001
Liters	Cu ft	28.316
Liters	Cu in.	0.01639
Liters	Cu meters	999.973
Liters	Gal (Imperial, liq.)	4.546
Liters	Gal (USA, liq.)	3.785306
Liters/kg	Cu ft/lb	62.42621
Liters/min	Cu ft/sec	1698.963
Liters/min	Gal (USA, liq.)/min	3.785
Liters/sec	Cu ft/min	0.47193
Liters/sec	Gal/min	0.063088
Meters	Feet	0.3048
Meters/sec	Ft/sec	0.3048
Mete rs/sec)(sec)	Ft/(sec)(sec)	0.3048
Ounces	Grams	0.035274
Pounds (avoir.)	Kg	2.2046
Pounds/cu ft	Grams/cu cm	62.428
Pounds/cu ft	Pounds/gal	7.48
Pounds/cu in.	Grams/cu cm	0.036127
Pounds/(hr)(ft)	Centipoises	2.42
Pounds/inch	Grams/cm	0.0056
Pounds/(sec)(ft)	Centipoises	0.000672
Pounds/gal. (USA, liq.)	Kg/liter	8.3452
Pounds/gal. (USA, liq.)	Pounds/cu ft	0.1337
Pounds/gal. (USA, liq.)	Pounds/cu in.	231
Sq centimeters	Sq ft	929.0
Sq centimeters	Sq in.	6.4516
Sq ft	Sq meters	10.764
Sq in.	Sq centimeters	0.155
Sq meters	Sq ft	0.0929
W-hr	BTU	.2390
W-hr	KWh	1000

METRIC PREFIXES

MEGA =	1,000,000
KILO =	1,000
HECTO =	100
DECA=	10
DECI=	.1
CENTI =	.01
MILLI=	.001
MICRO =	.000,001

TEMPERATURE CONVERSION FORMULAS:

$^{\circ}F = (9/5\ ^{\circ}C) + 32$
$^{\circ}C = (^{\circ}F - 32) \times 5/9$

National Pipe Taper Thread Dimensions

NPT SIZE	THREADS PER INCH	DIM "A" (IN)	DIM "B" (IN)
1/16	27	.312	.261
1/8	27	.405	.264
1/4	18	.540	.402
3/8	18	.675	.408
1/2	14	.840	.534
3/4	14	1.050	.546
1	11 1/2	1.315	.683
1 1/4	11 1/2	1.660	.707