

Industrial Fiberglass Specialties, Inc.

521 Kiser Street
Dayton, OH 45404-1641
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Email: sales@ifs-frp.com

Technical Bulletin

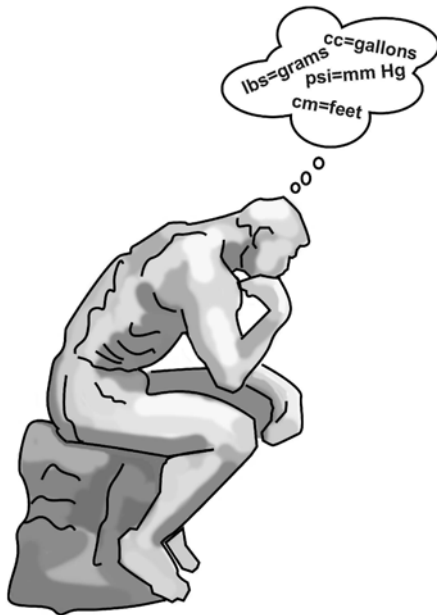
Conversion Factors

07-01-2011

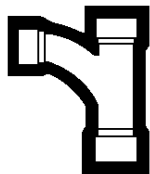
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To Convert	To	Multiply by
abampere	ampere	10.0
abcoulomb	coulomb	10.0
abcoulomb	statcoulombs	2.998E+10
abfarads	microfarads	1.0000E+15
abhenries	henries	1.0E-09
abhenries	millihenries	1.0000E-06
abmhos	siemens	1.00000E+09
abmhos/cubic cm	megmhos/cubic cm	1,000.0
abohms	megohms	1.0000E-15
abohms	microhms	0.001
abohms	ohms	1.0E-09
absolute amperes (US)	international amperes	1.0
absolute coulomb	international coulombs	1.0
absolute volt (US)	international volts	0.9997
absolute volt (US)	statvolts	0.003336
abvolts	volts	1.0E-08
abvolts per centimeter	volts per inch	2.54E-08
acre feet (based on US survey foot)	cubic meters	1,233.489
acre-feet	cubic feet	43,560.

To Convert	To	Multiply by
acre-feet	gallons	325,900.
acres	hectare or sq hectometer	0.4047
acres	rods	160.0
acres	rods (based on US survey foot)	160.0
acres	sq chain (Gunter's)	10.0
acres	sq feet	43,560.
acres	sq links (Gunter's)	100,000.
acres	sq meters	4,047
acres	sq miles	0.001562
acres	sq yards	4,840
acres	square kilometers	0.0040469
acres (based on US survey foot)	ares	40.468
ampere-hours	coulombs	3,600.0
ampere-hours	faradays	0.03731
amperes	abamperes	0.1
amperes (absolute)	faradays per second	1.0363E-05
amperes/sq cm	amps/sq in	6.452
amperes/sq cm	amps/sq meter	10,000.
amperes/sq in	amps/sq cm	0.155
amperes/sq in	amps/sq meter	1,550.0
amperes/sq meter	amps/sq cm	0.0001
amperes/sq meter	amps/sq in	0.0006452
ampere-turns	gilberts	1.257
ampere-turns /meter	amp/turns/cm	0.01
ampere-turns /meter	amp-turns/in	0.0254
ampere-turns /meter	gilberts/cm	0.01257
ampere-turns/cm	amp-turns/in	2.54
ampere-turns/cm	amp-turns/meter	100.0
ampere-turns/cm	gausses	1.2566
ampere-turns/in	amp-turns /meter	39.37
ampere-turns/in	amp-turns/cm	0.3937
ampere-turns/in	gilberts/cm	1.257
angstrom unit	inch	3.94E-06
angstrom unit	meters	1.00E-10
angstrom unit	microns	0.0001
angstroms	centimeters	1.0E-08
angstroms	nanometers	0.1
ares	acres	0.02471
ares	sq meters	100.0
ares	square yards	119.6



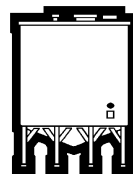
**Corrosion
Resistant
FRP
Composites**



Pipe



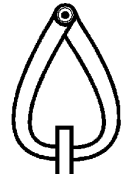
Duct



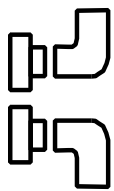
Tanks



Stacks



Engineering



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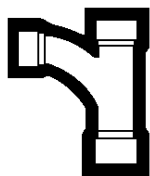
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To Convert	To	Multiply by
astromical init	kilometers	1.500E+08
astronomical units	meters	1.49598E+11
atmospheres	cms of mercury	76.0
atmospheres	ft of water (at 4 °C)	33.9
atmospheres	in of mercury (at 0 °C)	29.92
atmospheres	kgs/sq cm	1.0333
atmospheres	kgs/sq meter	10,332.
atmospheres	pounds/sq in	14.7
atmospheres	ton/sq inch	0.007348
atmospheres	tons/sq ft	1.058
atmospheres(std. at sea level pressure)	bars absolute	1.01325
atmospheres(std. at sea level pressure)	kilopascals	101.325
atmospheres(std. at sea level pressure)	torr	760.0
atmospheres, standard	bars	1.0133
atmospheres, standard	feet of water, conventional	33.898
atmospheres, standard	inches of mercury, conventional	29.922
atmospheres, standard	inches of water (4°C)	406.84
atmospheres, standard	kilograms per square centimeter	1.0332
atmospheres, standard	meters of mercury (0°C)	0.76
atmospheres, standard	pascals	101,325.
atmospheres, standard	pounds per square foot	2,116.4
atmospheres, standard	pounds per square inch	14.697
atmospheres, standard	tons per square foot	1.058
atmospheres, technical	kilopascals	98.0665
atmospheres, technical	pascals	98,066.5
barns	square meters	1.00E-28
barrels (of oil, 42 gallons (US))	cubic meters	0.1589873
barrels (of oil, 42 gallons (US))	liters	158.9873
barrels (oil)	gallons (oil)	42
barrels (US dry)	cubic inches	7,056.
barrels (US dry)	quarts (dry)	105.0
barrels (US, dry)	bushels (US)	3.281
barrels (US, liquid)	gallons	31.5
barrels, liquid, US	cubic meters	0.11924
barrels, petroleum	cubic meters	0.15899

To Convert	To	Multiply by
bars	atmospheres	0.9869
bars	dynes/sq cm	1,000,000.
bars	feet of water at 68°F	33.52
bars	inches of mercury at 0°C	29.53
bars	kgs/sq meter	10,200.
bars	kilograms-force/sq cm	1.0197
bars	kilopascals	100.0
bars	pascals	100,000.
bars	pounds/sq ft	2,089.0
bars	pounds/sq in	14.5038
bars	tons-force/sq foot	1.0443
bars	torr	750.06
barye	dynes per square centimeter	1.0
Baryl	Dyne/sq cm.	1.0
biots	amperes	10.0
bolt (US cloth)	meters	36.576
BTU	gram-force cm	10,751,000
BTU	ergs	1.060E+10
BTU	foot-lbs	778.3
BTU	gram-calories	252.0
BTU	horsepower-hrs	0.0003931
BTU	joules	1,054.8
BTU	kilogram-calories	0.252
BTU	kilogram-meters	107.5
BTU	kilowatt-hrs	0.0002928
BTU	liter-Atmosphere	10.409
BTU	watt hours	0.29307
BTU (IT) (39°F)	joules	1,059.67
BTU (IT) (59°F)	joules	1,054.8
BTU (IT) (60°F)	joules	1,054.68
BTU (IT) (mean)	calories, gram (mean)	251.99
BTU (IT) (mean)	joules	1,055.87
BTU (IT) ft per hr sq ft degree F	watts per meter kelvin	1.730735
BTU (IT) in per hr sq ft degree F	watts per meter kelvin	0.1442279
BTU (IT) in per sec sq ft degree F	watts per meter kelvin	519.2204
BTU (IT) per cubic foot	joules per cubic meter	37,258.95
BTU (IT) per degree Fahrenheit	joules per kelvin	1899.101

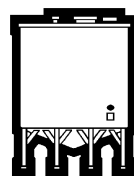
**Corrosion
Resistant
FRP
Composites**



Pipe



Duct



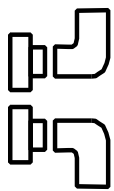
Tanks



Stacks



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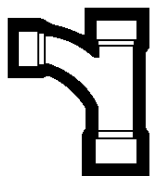
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To Convert	To	Multiply by
BTU (IT) per degree Rankine	joules per kelvin	1899.101
BTU (IT) per hour	foot pound forces per second	0.21616
BTU (IT) per hour	gram calories per second	0.069999
BTU (IT) per hour	horsepower (550 ft*lb/s)	0.0003929
BTU (IT) per hour	horsepower (boiler)	2.9833E-05
BTU (IT) per hour	watts	0.2930711
BTU (IT) per hr sq ft degree F	watts per square meter kelvin	5.678263
BTU (IT) per minute	ergs per second	1.76430E+08
BTU (IT) per minute	foot pound forces per minute	777.61
BTU (IT) per minute	foot pound forces per second	12.958
BTU (IT) per minute	horsepower (550 ft*lb/s)	0.02356
BTU (IT) per minute	kilowatts	0.01757
BTU (IT) per minute	watts	17.57
BTU (IT) per pound	joules per kilogram	2,326.0
BTU (IT) per pound degree Fahrenheit	joules per kilogram kelvin	4,186.8
BTU (IT) per pound degree Rankine	joules per kilogram kelvin	4,186.8
BTU (IT) per sec sq ft degree F	watts per square meter kelvin	20,441.75
BTU (IT) per second	watts	1,055.056
BTU (IT) per square foot	joules per square meter	11,356.53
BTU (IT) per square foot hour	watts per square meter	3.154591
BTU (IT) per square foot per minute	watts per square inch	0.122
BTU (IT) per square foot second	watts per square meter	11,356.53
BTU (th)	joules	1,054.35
BTU (th) ft per hour sq ft degree F	watts per meter kelvin	1.729577
BTU (th) in per hr sq foot degree F	watts per meter kelvin	0.1441314
BTU (th) in per sec sq foot degree F	watts per meter kelvin	518.8732
BTU (th) per cubic foot	joules per cubic meter	37,234.03
BTU (th) per degree Fahrenheit	joules per kelvin	1897.83

To Convert	To	Multiply by
BTU (th) per degree Rankine	joules per kelvin	1897.83
BTU (th) per hour	watts	0.2928751
BTU (th) per hour sq ft degree F	watts per square meter kelvin	5.674466
BTU (th) per minute	watts	17.5725
BTU (th) per pound	joules per kilogram	2324.444
BTU (th) per pound degree Fahrenheit	joules per kilogram kelvin	4,184
BTU (th) per pound degree Rankine	joules per kilogram kelvin	4,184
BTU (th) per second	watts	1,054.35
BTU (th) per second sq foot degree F	watts per square meter kelvin	20,428.08
BTU (th) per square foot	joules per square meter	11,348.93
BTU (th) per square foot hour	watts per square meter	3.152481
BTU (th) per square foot minute	watts per square meter	189.1489
BTU (th) per square foot second	watts per square meter	11,348.93
BTU (th) per square inch second	watts per square meter	1,634,246.
BTU/hr	foot-pounds/sec	0.2162
BTU/hr	gram-cal/sec	0.07
BTU/hr	horsepower-hrs	0.0003929
BTU/hr	watts	0.2931
BTU/min	foot-lbs/sec	12.96
BTU/min	horsepower	0.02356
BTU/min	kilowatts	0.01757
BTU/min	watts	17.57
BTU/sq ft/min	watts/sq in	0.1221
bucket (Brit. dry)	cubic cm	18,180.
bushels	cubic feet	1.2445
bushels	cubic inches	2,150.4
bushels	cubic meters	0.03524
bushels	liters	35.24
bushels	pecks	4.0
bushels	pint (dry)	64
bushels	quarts (dry)	32.0
bushels (US)	barrels (US, dry)	0.30479
caliber	inches	0.01
caliber	millimeters	0.254
calorie	foot-pounds	3.088
calorie	horsepower-hour	1.56E-06

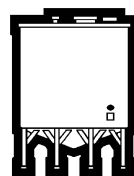
Corrosion Resistant FRP Composites



Pipe



Duct



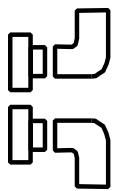
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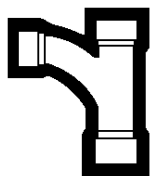
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To Convert	To	Multiply by
calorie	horsepower-hour (metric)	1.58E-06
calorie	joules	4.1868
calorie	kilowatt-hour	1.16E-06
calorie, gram (mean)	BTU (mean)	0.00396832
calories (15 °C)	joules	4.1858
calories (20 °C)	joules	4.1819
calories (IT)	joules	4.1868
calories (IT) per gram	joules per kilogram	4,186.8
calories (IT) per gram degree Celsius	joules per kilogram kelvin	4,186.8
calories (IT) per gram kelvin	joules per kilogram kelvin	4,186.8
calories (IT), kilograms	joules	4,186.8
calories (mean)	joules	4.19002
calories (mean), kilograms (nutrit)	joules	4,190.02
calories (th)	joules	4.184
calories (th) per square centimeter	joules per square meter	41,840.
calories (th) per cm sec deg Celsius	meters squared per second	418.4
calories (th) per gram	joules per kilogram	4,184
calories (th) per gram deg Celsius	joules per kilogram kelvin	4,184
calories (th) per gram kelvin	joules per kilogram kelvin	4,184
calories (th) per minute	watts	0.06973333
calories (th) per second	watts	4.184
calories (th) per sq centimeter minute	watts per square meter	697.3333
calories (th) per sq centimeter second	watts per square meter	41,840.
calories (th), kilogram (nutrition)	joules	4,184
calories, gram (mean)	BTU (IT) (mean)	0.0039685
candelas per square inch	candelas per square meter	1550.003
candle/sq cm	lamberts	3.142
candle/sq inch	lamberts	0.487
carats, metric	grams	0.2
carats, metric	kilograms	0.0002
celsius degrees (temp interval)	kelvin	1.0
centares	square meters	1.0
centares (centiares)	sq meters	1.0

To Convert	To	Multiply by
centigrade degrees (temp interval)	celsius degrees (temperature)	1.0
centigrade degrees (temperature)	celsius degrees (temperature)	1.0
centigrams	grams	0.01
centiliters	cubic inch	0.6103
centiliters	drams	2.705
centiliters	liters	0.01
centiliters	ounce fluid (US)	0.3382
centimeter grams	BTU	9.297E-08
centimeter grams	ergs	980.7
centimeter grams	joules	9.807E-05
centimeter grams	kilogram calories	2.343E-08
centimeter grams	kilogram meters	1.0E-05
centimeter-dynes	cm-grams	0.00102
centimeter-dynes	meter-kgs	1.02E-08
centimeter-dynes	pound-feet	7.38E-08
centimeter-grams	cm-dynes	980.7
centimeter-grams	meter-kgs	1.00E-05
centimeter-grams	pound-feet	0.07233
centimeters	angstroms	1.00000E+08
centimeters	ells	0.0087489
centimeters	ems, pica	2.3624
centimeters	feet	0.03281
centimeters	hands	0.098425
centimeters	inches	0.3937
centimeters	kilometers	1.00E-05
centimeters	meters	0.01
centimeters	microns	10,000.
centimeters	miles	6.21E-06
centimeters	miles (statute)	6.215E-06
centimeters	millimeters	10.0
centimeters	mils	393.7
centimeters	yards	0.01094
centimeters mercury, conventional	kilopascals	1.333224
centimeters of mercury	atmospheres	0.01316
centimeters of mercury	feet of water	0.4461
centimeters of mercury	kgs/sq meter	136
centimeters of mercury	pounds/sq ft	27.85
centimeters of mercury	pounds/sq in	0.1934
centimeters of mercury (0°C)	kilopascals	1.33322
centimeters of mercury (0°C)	pascals	1,333.22

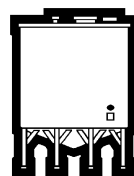
Corrosion Resistant FRP Composites



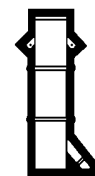
Pipe



Duct



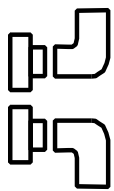
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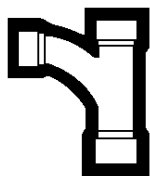
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To Convert	To	Multiply by
centimeters of water (4°C)	pascals	98.0638
centimeters of water, conventional	pascals	98.0665
centimeters/sec	feet/min	1.1969
centimeters/sec	feet/sec	0.03281
centimeters/sec	kilometers/hr	0.036
centimeters/sec	knots	0.1943
centimeters/sec	meters/min	0.6
centimeters/sec	miles/hr	0.02237
centimeters/sec	miles/min	0.0003728
centimeters/sec/sec	feet/sec/sec	0.03281
centimeters/sec/sec	kms/hr/sec	0.036
centimeters/sec/sec	meters/sec/sec	0.01
centimeters/sec/sec	miles/hr/sec	0.02237
centipoise	dyne-sec/sq cm	100.0
centipoise	grains per centimeter second	0.01
centipoise	gram/(cm sec)	100.0
centipoise	pascal second	0.001
centipoise	poise	0.01
centistokes	slugs	1.0E-06
chain	inches	792
chain	meters	20.12
chain (surveyor's or Gunter's)	yards	22.0
chains (based on US survey foot)	rods (based on US survey foot)	4.0
circular mils	sq cms	5.07E-06
circular mils	sq inches	7.85E-07
circular mils	sq mils	0.7854
circular mils	square feet	5.4555E-09
circular mils	square meters	5.067075E-10
circular mils	square millimeters	0.0005067075
circumference	radians	6.283
cm mercury at 0°C	atmospheres, standard	0.013158
cm mercury at 0°C	bar	0.013332
cm mercury at 0°C	feet of water at 68°F	0.4468
cm mercury at 0°C	inches of water at 68°F	5.362
cm mercury at 0°C	kilograms-force/sq cm	0.013595
cm mercury at 0°C	pounds-force/ sq foot	27.85
cm mercury at 0°C	pounds-force/sq inch	0.19337

To Convert	To	Multiply by
cm mercury at 0°C	torr	10.0
cord feet	cords (128 ft ^ 3)	0.125
cord feet	cubic feet	16.0
cords	cord feet	8.0
cords (128 ft ^ 3)	cubic meters	3.624556
coulombs	ampere hours	0.00027778
coulombs	faradays	1.04E-05
coulombs	statcoulombs	3.000E + 09
coulombs/sq cm	coulombs/sq in	64.52
coulombs/sq cm	coulombs/sq meter	10,000.
coulombs/sq in	coulombs/sq cm	0.155
coulombs/sq in	coulombs/sq meter	1,550.0
coulombs/sq meter	coulombs/sq cm	0.0001
coulombs/sq meter	coulombs/sq in	0.0006452
cubic centimeters	buckets (br dry)	5.4993E-05
cubic centimeters	cubic feet	3.53E-05
cubic centimeters	cubic inches	0.06102374
cubic centimeters	cubic meter	1.00E-06
cubic centimeters	cubic millimeter	1,000.0
cubic centimeters	cubic yards	1.31E-06
cubic centimeters	drachm (Brit. fluid)	0.2815606
cubic centimeters	drams (US fluid)	0.2705122
cubic centimeters	gallon (Brit liq.)	0.00022
cubic centimeters	gallons (US liq.)	0.0002642
cubic centimeters	gills {Canadian and UK (Imperial)}	0.0070388
cubic centimeters	gills {US}	0.0084538
cubic centimeters	imperial gallons	0.00022
cubic centimeters	liters	0.001
cubic centimeters	minims (British)	16.894
cubic centimeters	minims (US fluid)	16.231
cubic centimeters	pints (US liq.)	0.002113
cubic centimeters	quarts (US liq.)	0.001057
cubic centimeters per second	cubic feet per minute	0.0021186
cubic cm/minute	cubic cm/second	472.0
cubic cm/minute	cubic meters/hour	1.699
cubic cm/minute	liters/second	0.472
cubic cm/minute	pounds of water/minute at 68F	62.3
cubic cm/minute	US gallons/second	0.1247
cubic feet	acre feet	2.2957E-05
cubic feet	bushels (dry)	0.8036
cubic feet	cord feet	0.0625
cubic feet	cubic centimeters	28,320.

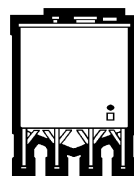
Corrosion Resistant FRP Composites



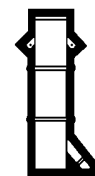
Pipe



Duct



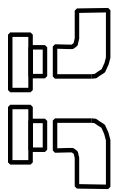
Tanks



Stacks



Engineering



Industrial Fiberglass Specialties, Inc.

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Conversion Factors

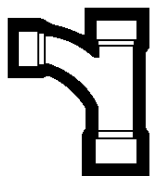
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To Convert	To	Multiply by
cubic feet	cubic cm	28,320.
cubic feet	cubic inches	1,728.0
cubic feet	cubic meters	0.02832
cubic feet	cubic yards	0.037037037
cubic feet	gallons (US liq.)	7.48052
cubic feet	hogsheads (British)	0.098873
cubic feet	hogsheads (US)	0.11874
cubic feet	imperial gallons	6.229
cubic feet	kiloliters	0.028316
cubic feet	liters	28.32
cubic feet	pints (US liq.)	59.84
cubic feet @60 F	pounds of water	62.366
cubic feet	quarts (US liq)	29.92
cubic feet per hour	gallons (US) per minute	0.12468
cubic feet per hour	tons of water per 24 hours	0.74912
cubic feet per minute	cubic meters per second	0.0004719474
cubic feet per minute	gallons (US) per second	0.1247
cubic feet per minute	inches (miner's)	0.66667
cubic feet per second	cubic yards per minute	2.2222
cubic feet per second	gallons (US) per minute	448.83
cubic feet per second	liters per minute	1,699.0
cubic feet per second	pounds of water per minute	3,745.3
cubic feet/min	cubic cms/sec	472.0
cubic feet/min	gallons/sec	0.1247
cubic feet/min	liters/sec	0.472
cubic feet/min	pounds of water/min	62.43
cubic feet/sec	gallons/min	448.831
cubic feet/sec	million gals./day	0.646317
cubic feet/second	cubic meters/minute	1.699
cubic feet/second	US gallons/minute	448.8
cubic inches	barrels (US, dry)	0.00014172
cubic inches	bushels (US)	0.00046503
cubic inches	centiliters	1.6385
cubic inches	cubic centimeters	16.39
cubic inches	cubic feet	0.0005787
cubic inches	cubic meters	1.64E-05
cubic inches	cubic yards	2.14E-05
cubic inches	gallons	0.004329
cubic inches	imperial gallons	3.61E-03

To Convert	To	Multiply by
cubic inches	liters	0.01639
cubic inches	mil-feet	106,100.
cubic inches	ounces (US fluid)	0.55402
cubic inches	pecks (British)	0.0018031
cubic inches	pecks (US)	0.0018601
cubic inches	pints (US dry)	0.029762
cubic inches	pints (US liq.)	0.03463
cubic inches	pounds of water	0.036127
cubic inches	quarts (US dry)	0.014881
cubic inches	quarts (US liq.)	0.01732
cubic inches per minute	cubic meters per second	2.731177E-07
cubic meters	bushels (dry)	28.38
cubic meters	bushels (US)	28.377
cubic meters	cubic centimeters	1,000,000.
cubic meters	cubic cms	1,000,000.
cubic meters	cubic feet	35.31
cubic meters	cubic inches	61,023.
cubic meters	cubic yards	1.307951
cubic meters	gallons (US liq.)	264.2
cubic meters	imperial gallons	220
cubic meters	liters	1,000.0
cubic meters	pints (US liq.)	2,113.0
cubic meters	quarts (US liq.)	1,057.0
cubic meters/hour	cubic meters/second	2.78E-04
cubic meters/hour	liters/second	0.2778
cubic meters/hour	US gallons/minute	4.403
cubic miles	cubic meters	4.168182E+09
cubic yards	cubic cms	764,600.
cubic yards	cubic feet	27.0
cubic yards	cubic inches	46,656.
cubic yards	cubic meters	0.7646
cubic yards	gallons	202
cubic yards	kiloliters	0.76453
cubic yards	liters	764.6
cubic yards	pints (US liq.)	1,615.9
cubic yards	quarts (US liq.)	807.9
cubic yards per minute	cubic meters per second	0.01274258
cubic yards/min	cubic feet/sec	0.45
cubic yards/min	gallons/sec	3.367
cubic yards/min	liters/sec	12.74
cups	cubic cms	236.588
cups (US)	cubic meters	0.0002365882

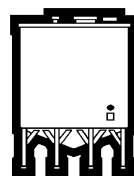
**Corrosion
Resistant
FRP
Composites**



Pipe



Duct



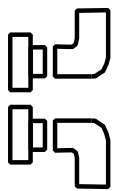
Tanks



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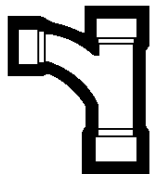
07-01-2011

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To Convert	To	Multiply by
cups (US)	milliliters	236.5882
curies	becquerels	3.7000E+10
Dalton	Gram	1.65E-24
darcies	meters squared	9.869233E-13
days	hours	24.0
days	minutes	1,440.0
days	seconds	86,400.
days (mean solar)	years (365 days)	0.0027378
days (sidereal)	seconds	86,164.09
debytes	coulomb meters	3.335641E-30
decigrams	grams	0.1
deciliters	liters	0.1
decimeters	meters	0.1
degree fahrenheit	kelvins per watt	1.895634
hours per BTU (IT)		
degree fheit hours sq ft per BTU (IT)	square meter kelvins per watt	0.1761102
degree fheit hr sq ft per BTU in (IT)	meter kelvins per watt	6.933472
degree fheit secs per BTU (th)	kelvins per watt	0.0005269175
degrees (angle)	minutes (angle)	59.988
degrees (angle)	quadrants	0.01111
degrees (angle)	radians	0.01745
degrees (angle)	revolutions	0.0027778
degrees (angle)	seconds	3,600.0
degrees (angle)	seconds (angle)	3,599.7
degrees geographic (decimal)	degrees, minutes, seconds	999,999.
degrees, angular	grade	1.111
degrees, minutes, seconds	degrees geographic (decimal)	999,999.
degrees/sec	radians/sec	0.01745
degrees/sec	revolutions/min	0.1667
degrees/sec	revolutions/sec	0.002778
dekagrams	grams	10.0
dekaliters	liters	10.0
dekameters	meters	10.0
deniers	grams per meter	0.0001111111
deniers	kilograms per meter	1.111111E-07
drams	grains	27.3437
drams	grams	1.7718
drams	ounces	0.0625
drams (apothecary or troy)	centiliters	0.36969

To Convert	To	Multiply by
drams (apothecary or troy)	grains	27.344
drams (apothecary or troy)	grams	1.7718
drams (apothecary or troy)	ounces (US fluid)	0.0625
drams (apothecary or troy)	pounds (troy or apothecary)	0.0039063
drams (avoirdupois)	grains	27.345
drams (apoth. or troy)	ounces (troy)	0.125
drams (apoth. or troy)	ounces (avoirdupois)	0.1371429
drams (US fluid or apoth.)	cubic cm	3.6967
drops	teaspoons	0.01666
dyne centimeters	centimeter grams	0.00102
dyne centimeters	ergs	1.0
dyne centimeters	foot pound forces	7.376E-08
dyne centimeters	meter kilograms	1.02E-08
dyne centimeters	newton meters	0.1
dyne centimeters per second	ergs per second	1.0
dyne/cm	erg/sq millimeter	0.01
dynes	grams	0.00102
dynes	joules/cm	1.00E-07
dynes	joules/meter (newtons)	1.00E-05
dynes	kilograms	1.02E-06
dynes	newtons	1.0E-05
dynes	poundals	7.23E-05
dynes	pounds	2.25E-06
dynes	pounds (troy or apothecary)	2.248E-06
dynes/sq cm	atmospheres	9.87E-07
dynes/sq cm	bars	1.00E-06
dynes/sq cm	barye	1.0
dynes/sq cm	ergs per square millimeter	0.01
dynes/sq cm	in of mercury at 0 °C	2.95E-05
dynes/sq cm	in of water at 4 °C	0.0004015
dynes/sq cm	kilograms per square centimeter	1.0197E-06
dynes/sq cm	kilograms per square meter	0.010197
dynes/sq cm	ounces (avoir) per square inch	0.00023207
dynes/sq cm	pascals	0.1
dyne-sec/sq cm	centipoise	0.01

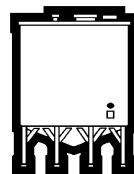
**Corrosion
Resistant
FRP
Composites**



Pipe



Duct



Tanks



Stacks



Engineering



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Conversion Factors

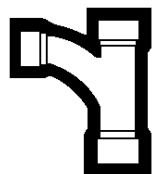
07-01-2011

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To Convert	To	Multiply by
electronvolts	joules	1.602177E-19
ell	cm	114.3
ell	inches	45.0
em (pica)	cm	0.4233
em (pica)	inch	0.167
emus of capacitance	farads	1.00000E+09
emus of current	amperes	10.0
emus of electric potential	volts	1.0E-08
emus of inductance	henries	1.0E-09
emus of resistance	ohms	1.0E-09
erg seconds	planck's quantum	1.5097E+26
erg/sec	dyne-cm/sec	1.0
ergs	BTU	9.48E-11
ergs	centimeter grams	0.0010197
ergs	dyne-centimeters	1.0
ergs	foot-pounds	7.37E-08
ergs	gram-calories	2.39E-08
ergs	grams-cms	0.00102
ergs	horsepower-hrs	3.73E-14
ergs	joules	1.00E-07
ergs	kg-calories	2.39E-11
ergs	kg-meters	1.02E-08
ergs	kilowatt hours	2.773E-14
ergs	watt hours	2.773E-11
ergs per square centimeter second	watts per square meter	0.001
ergs per square millimeter	dynes per square centimeter	100.0
ergs/sec	BTU/min	5.69E-06
ergs/sec	dyne centimeters per second	1.0
ergs/sec	ft-lbs/min	4.43E-06
ergs/sec	ft-lbs/sec	7.38E-08
ergs/sec	horsepower	1.34E-10
ergs/sec	kg-calories/min	1.43E-09
ergs/sec	kilowatts	1.00E-10
ergs/sec	watts	1.0E-07
fahrenheit degrees (temp interval)	celsius degrees (temperature)	0.5555556
fahrenheit degrees (temp interval)	kelvin	0.5555556
faraday/sec	ampere (absolute)	96,500.
faradays	ampere-hours	26.8
faradays	coulombs	96,490.
farads	abfarads	1.0E-09

To Convert	To	Multiply by
farads	microfarads	1,000,000.
fathoms	feet	6.0
fathoms	meters	1.828804
feet	centimeters	30.48
feet	fathoms (based on US survey foot)	0.16667
feet	furlongs	0.0015151
feet	inches	12.0
feet	kilometers	0.0003048
feet	meters	0.3048
feet	meters	0.3048
feet	miles (naut.)	0.0001645
feet	miles (stat.)	0.0001894
feet	millimeters	304.8
feet	mils	12,000.
feet	rods (based on US survey foot)	0.060606
feet	rope	0.05
feet	yards	0.3333
feet of mercury, conventional	kilopascals	40.63666
feet of mercury, conventional	pascals	40,636.66
feet of water	atmospheres	0.0295
feet of water	bar	0.02984
feet of water	in of mercury	0.8826
feet of water	kgs/sq cm	0.03048
feet of water	kgs/sq meter	304.8
feet of water	kilopascals	2.984
feet of water	kilowatts	9,809.
feet of water	pounds/sq ft	62.43
feet of water	pounds/sq in	0.4335
feet of water	standard atmospheres	0.02945
feet of water (39.2° F)	kilopascals	2.98898
feet of water (39.2° F)	pascals	2,988.98
feet of water, conventional	centimeters mercury, conventional	2.2417
feet of water, conventional	kilopascals	2.989067
feet of water, conventional	pascals	2,989.067
feet per hour	knots (nautical miles per hour)	0.00016447
feet per hour	meters per second	8.466667E-05
feet per minute	meters per second	0.00508

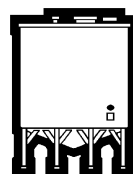
Corrosion Resistant FRP Composites



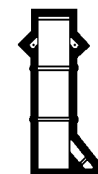
Pipe



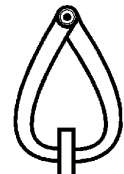
Duct



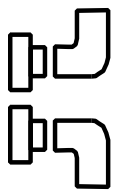
Tanks



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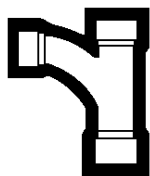
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To Convert	To	Multiply by
feet per second	feet per minute	59.988
feet per second	meters per second	0.3048
feet per second squared	kilometers per hour per second	1.097
feet per second squared	meters per second per second	0.3048
feet per second squared	meters per second squared	0.3048
feet to the fourth power	meters to the fourth power	0.008630975
feet/100 feet	per cent grade	1.0
feet/min	cms/sec	0.508
feet/min	feet/sec	0.01667
feet/min	kms/hr	0.01829
feet/min	meters/min	0.3048
feet/min	miles/hr	0.01136
feet/sec	cms/sec	30.48
feet/sec	kms/hr	1.097
feet/sec	knots	0.5921
feet/sec	meters/min	18.29
feet/sec	miles/hr	0.6818
feet/sec	miles/min	0.01136
feet/sec/sec	cms/sec/sec	30.48
feet/sec/sec	kms/hr/sec	1.097
feet/sec/sec	meters/sec/sec	0.3048
feet/sec/sec	miles/hr/sec	0.6818
fermis	femtometers	1.0
fermis	meters	1.0E-15
fluid ounces (US)	cubic meters	2.957353E-05
fluid ounces (US)	milliliters	29.57353
foot pound forces	centimeter grams	13,825.
foot pound forces	dyne centimeters	13,560,000
foot pound forces per hour	watts	0.0003766161
foot pound forces per minute	watts	0.02259697
foot pound forces per second	ergs per second	13,558,000
foot pound forces per second	foot pound forces per minute	59.988
foot poundals	joules	0.04214011
footcandles	lumens per square foot	1.0
footcandles	lumens per square meter	10.764
footcandles	lux	10.76391

To Convert	To	Multiply by
footlamberts	candelas per square meter	3.426259
foot-pounds	BTU	0.001286
foot-pounds	ergs	1,360,000.
foot-pounds	gram-calories	0.3238
foot-pounds	hp-hrs	5.05E-07
foot-pounds	joules	1.356
foot-pounds	kg-calories	0.000324
foot-pounds	kg-meters	0.1383
foot-pounds	kilowatt-hrs	3.77E-07
foot-pounds/min	BTU/min	0.001286
foot-pounds/min	foot-pounds/sec	0.01667
foot-pounds/min	horsepower	3.03E-05
foot-pounds/min	kg-calories/min	0.000324
foot-pounds/min	kilowatts	2.26E-05
foot-pounds/sec	BTU/hr	4.6263
foot-pounds/sec	BTU/min	0.07717
foot-pounds/sec	horsepower	0.000818
foot-pounds/sec	kg-calories/min	1.01945
foot-pounds/sec	kilowatts	0.001356
foot-pounds-force	BTU	0.001285
foot-pounds-force	horsepower-hours	5.05E-07
foot-pounds-force	joules	1.356
foot-pounds-force	kilocalories	3.24E-04
foot-pounds-force	kilogram-force-meter s	0.13825
foot-pounds-force	kilowatt-hours	3.77E-07
franklins	coulombs	3.335641E-10
furlongs	feet	660.0
furlongs	meters	200.17
furlongs	miles (US)	0.125
furlongs	rods	40.0
gallons	cubic cms	3,785.412
gallons	cubic feet	0.1337
gallons	cubic inches	231
gallons	cubic meters	0.003785
gallons	cubic yards	0.004951
gallons	liters	3.785
gallons (liq. British imp.)	gallons (US liq.)	1.20095
gallons (US)	acre feet	3.0684E-06
gallons (US)	barrels (US, dry)	0.031746
gallons (US)	gallons (imp.)	0.83267
gallons (US)	gallons {Canadian and UK (Imp)}	0.83271

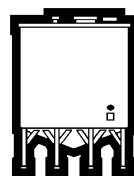
**Corrosion
Resistant
FRP
Composites**



Pipe



Duct



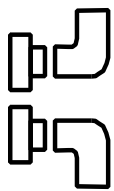
Tanks



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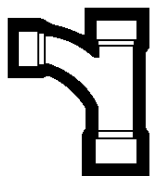
Conversion Factors

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To Convert	To	Multiply by
gallons (US)	hogsheads (US)	0.015873
gallons (US)	kiloliters	0.0037853
gallons (US)/1000 cu. ft.	liters/cubic meter	0.133
gallons (US)	pints (US liq.)	8.0
gallons (US)	pounds of water	8.3472
gallons (US)	quarts (US liq.)	4.0
gallons (US) per day	cubic feet per second	1.5472
gallons (US) per day	cubic meters per second	4.381264E-08
gallons (US) per day	liters per second	4.381264E-05
gallons (US) per horsepower hour	cubic meters per joule	1.410089E-09
gallons (US) per horsepower hour	liters per joule	1.410089E-06
gallons (US) per minute	cubic meters per second	6.30902E-05
gallons (US) per minute	tons of water per 24 hours	6.0085
gallons (US) per second	cubic feet per minute	8.0193
gallons (US) per second	cubic yards per minute	0.297
gallons (US) per second	liters per minute	227.12
gallons {Canadian and UK (Imp)}	cubic meters	0.00454609
gallons {Canadian and UK (Imp)}	gallons (US)	1.201
gallons {Canadian and UK (Imp)}	liters	4.54609
gallons of water	pounds of water	8.3453
gallons/min	cubic feet/hr	8.0208
gallons/min	cubic ft/sec	0.002228
gallons/min	liters/minute	3.785
gallons/min	liters/sec	0.6308
gallons/min	pounds of water/hour	500
gausses	ampere turns per centimeter	0.7958
gausses	gilberts per centimeter	1.0
gausses	lines per square centimeter	1.0
gausses	lines/sq inch	6.452
gausses	teslas	0.0001
gausses	webers/sq cm	1.00E-08
gausses	webers/sq inch	6.45E-08
gausses	webers/sq meter	0.0001

To Convert	To	Multiply by
gilberts	ampere-turns	0.7958
gilberts per centimeter	gausses	1.0
gilberts/cm	amp-turns/cm	0.7958
gilberts/cm	amp-turns/in	2.021
gilberts/cm	amp-turns/meter	79.581
gills	liters	0.1183
gills	pints (liq.)	0.25
gills (British)	cubic cm	142.07
gills {Canadian and UK (Imperial)}	cubic centimeters	142.07
gills {Canadian and UK (Imperial)}	cubic meters	0.0001420653
gills {Canadian and UK (Imperial)}	liters	0.1420653
gills {US}	cubic centimeters	118.29
gills {US}	cubic meters	0.0001182941
gons (also called grades)	radians	0.01570796
Grades	Radian	0.01571
grains	drams (apothecary or troy)	0.036571
grains	drams (avoirdupois)	0.03657143
grains	kilograms	6.479891E-05
grains	milligrams	64.79891
grains	ounces (troy or apothecary)	0.0020833
grains	ounces (US fluid)	0.0022857
grains	pounds (troy or apothecary)	0.00014286
grains	scruples	0.05
grains	weights	0.041667
grains (avoirdupois)	grains (troy)	1.0
grains (troy)	grains (avoirdupois)	1.0
grains (troy)	grams	0.0648
grains (troy)	ounces (avoirdupois)	0.0020833
grains (troy)	pennyweights (troy)	0.04167
grains (troy)	weights	0.04167
grains per gallon (US)	grams per liter	0.017118
grains per gallon (US)	kilograms per cubic meter	0.01711806
grains per gallon (US)	milligrams per liter	17.11806
grains/imp. gallon	parts/million	14.286
grains/US gallon	parts/million	17.118
grains/US gallon	pounds/million gal	142.86
gram/(cm sec)	centipoise	0.01
gram-calories	BTU	0.0039683

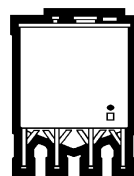
**Corrosion
Resistant
FRP
Composites**



Pipe



Duct



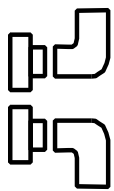
Tanks



Stacks



Engineering



Industrial Fiberglass Specialties, Inc.

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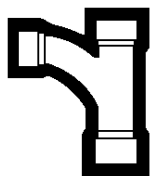
Conversion Factors

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To Convert	To	Multiply by
gram-calories	ergs	4.19E-07
gram-calories	foot-pounds	3.088
gram-calories	horsepower-hrs	1.56E-06
gram-calories	kilowatt-hrs	1.163E-06
gram-calories	watt-hrs	0.001163
gram-calories/sec	BTU/hr	14.286
gram-centimeters	BTU	9.297E-08
gram-centimeters	ergs	980.7
gram-centimeters	joules	980,700.
gram-centimeters	kg-cal	2.343E+08
gram-centimeters	kg-meters	100,000.
gram-forces per square centimeter	pascals	98.0665
grams	carat(metric)	5.0
grams	centigrams	100.0
grams	daltons	6.0606E+23
grams	decigrams	10.0
grams	dekagrams	0.1
grams	drams	0.56438339
grams	dynes	980.7
grams	grains	15.43
grams	hectograms	0.01
grams	joules/cm	9.81E-05
grams	joules/meter (newtons)	0.009807
grams - (water)	liters	0.001
grams	kilograms	0.001
grams	micrograms	1,000,000.
grams	milligrams	1,000.0
grams	moles	1.0
grams	ounces (troy)	0.032150747
grams	ounces (US fluid)	0.035275
grams	ounces(avoirdupois)	0.035273962
grams	pounds	0.07093
grams	pounds	0.0022046226
grams	weights	0.64309
grams force	newtons	9.81E-03
grams per centimeter second	poises	1.0
grams per cubic centimeter	kilograms per cubic meter	1,000.0
grams/cm	pounds/inch	0.0056
grams/cubic centimeter	pounds/cubic inch	0.03613
grams/cubic cm	pounds/cubic ft	62.43
grams/cubic cm	pounds/cubic in	0.03613

To Convert	To	Multiply by
grams/cubic cm	pounds/mil-foot	3.41E-07
grams/liter	grains/gal	58.417
grams/liter	parts/million	1,000.0
grams/liter	pounds/1000 gal	8.345
grams/liter	pounds/cubic ft	0.062427
grams/sq cm	pounds/sq ft	2.0481
grams-force/centimeter	newton/meter	98.07
hand	cm	10.16
hectares	acres	2.471
hectares	sq feet	107,600.
hectares	square meters	10,000.
hectograms	grams	100.0
hectoliters	liters	100.0
hectometers	meters	100.0
hectowatts	watts	100.0
hemispheres	steradians	6.2814
henries	abhenries	1.00000E+09
henries	millihenries	1,000.0
hogsheads (British)	cubic feet	10.114
hogsheads (US)	cubic feet	8.42184
hogsheads (US)	gallons (US)	63.0
horsepower	BTU/hour (mean)	2542.47
horsepower	BTU/min (mean)	42.375
horsepower	foot-lbs/min	33,000.
horsepower	foot-lbs/sec	550.0
horsepower	horsepower (metric)	1.014
horsepower	kg-calories/min	10.68
horsepower	kilowatts	0.7457
horsepower	watts	745.7
horsepower (550 ft*lb/s)	BTU (IT) per hour	2,545.2
horsepower (550 ft*lb/s)	ergs per second	7.4571E+09
horsepower (boiler)	BTU/hr	33,479.
horsepower (boiler)	kilowatts	9.803
horsepower (boiler)	watts	9,809.5
horsepower (electric)	watts	746.0
horsepower (metric)	horsepower	0.9863
horsepower (metric)	watts	735.4988
horsepower (UK)	watts	745.7
horsepower (water)	watts	746.043
horsepower hours	watt hours	745.71
horsepower-hours	BTU	2,546.1
horsepower-hours	foot-pounds-force	1,976,000.

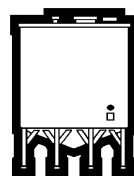
**Corrosion
Resistant
FRP
Composites**



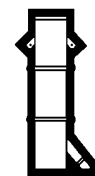
Pipe



Duct



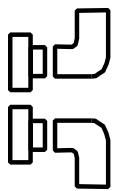
Tanks



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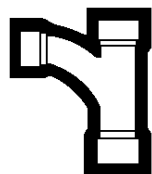
Conversion Factors

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To Convert	To	Multiply by
horsepower-hours	kilocalories	641.5
horsepower-hours	kilogram-force-meters	273,200.
horsepower-hrs	BTU (mean)	2,542.5
horsepower-hrs	ergs	2.6800E+13
horsepower-hrs	foot-lbs	1,980,000.
horsepower-hrs	gram-calories	641,190.
horsepower-hrs	joules	2,684,000.
horsepower-hrs	kg-calories	641.1
horsepower-hrs	kg-meters	273,700.
horsepower-hrs	kilowatt-hrs	0.7457
hours	days	0.04167
hours	minutes	59.988
hours	seconds	3,600.0
hours	weeks	0.005952
hours (mean solar)	days	0.04166667
hours (mean solar)	weeks	0.005952381
hours (mean solar)	years (365 days)	0.00011408
hours (sidereal)	seconds	3,590.17
hundredweight (long, 112 lb)	kilograms	50.80235
hundredweight (long, 112 lb)	tons, long (2240 lb)	500.0
hundredweight (short, 100 lb)	kilograms	45.35924
hundredweights (long)	pounds	112.0
hundredweights (long)	tons (long)	0.05
hundredweights (short)	ounces (avoirdupois)	1,600.0
hundredweights (short)	pounds	100.0
hundredweights (short)	tons (long)	0.0446429
hundredweights (short)	tons (metric)	0.0453592
imperial gallons	cubic centimeters	4,546
imperial gallons	cubic feet	0.16054
imperial gallons	cubic meters	0.004546
imperial gallons	cubic yards	5.95E-03
imperial gallons	liters	4.546
imperial gallons	pounds of water at 62°F in air	10.0
inches	angstroms	2.54000E+08
inches	centimeters	2.54
inches	centimeters	2.54
inches	chains (based on US survey foot)	0.0012626
inches	ells	0.022222
inches	ems, pica	5.988
inches	feet	0.08333333

To Convert	To	Multiply by
inches	kilometers	2.54E-05
inches	links (engineer's)	0.083333
inches	links (surveyor's)	0.12626
inches	meters	0.0254
inches	miles	1.578E-05
inches	millimeters	25.4
inches	mils	1,000.0
inches	nails	0.44444
inches	paces	0.033333
inches	pixels	72.0
inches	rods (based on US survey foot)	0.0050505
inches	yards	0.027777778
inches (miner's)	cubic feet per minute	1.5
inches of mercury	atmospheres	0.03342
inches of mercury	bar	0.03386
inches of mercury	feet of water	1.133
inches of mercury	inches of water at 68°F	13.62
inches of mercury	kgs/sq cm	0.03453
inches of mercury	kgs/sq meter	345.3
inches of mercury	kilopascals	3.3864
inches of mercury	millibars	33.86387
inches of mercury	pounds/sq ft	70.73
inches of mercury	pounds/sq in	0.4912
inches of mercury (0°C)	atmospheres, standard	0.033423
inches of mercury (0°C)	dynes per square centimeter	33,864.
inches of mercury (32°F)	kilopascals	3.38638
inches of mercury (32°F)	pascals	3,386.38
inches of mercury (60°F)	kilopascals	3.37685
inches of mercury (60°F)	pascals	3,376.85
inches of mercury, conventional	inches of water (4°C)	13.596
inches of water	bar	0.002487
inches of water	inches of mercury at 0°C	0.07342
inches of water	kilograms-force/sq cm	0.002535
inches of water	kilopascals	0.2487
inches of water	ounces-force/sq inch	0.577
inches of water	pounds-force/sq foot	5.193

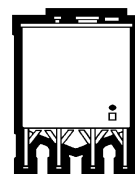
Corrosion Resistant FRP Composites



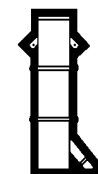
Pipe



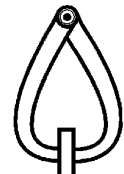
Duct



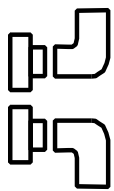
Tanks



Stacks



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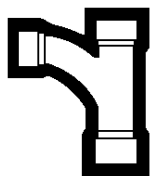
Conversion Factors

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To Convert	To	Multiply by
inches of water	pounds-force/sq inch	0.03606
inches of water	standard atmospheres	0.002454
inches of water (39.2°F)	pascals	249.082
inches of water (4°C)	dynes per square centimeter	2,490.7
inches of water (60°F)	pascals	248.84
inches of water (at 4°C)	atmospheres	0.002458
inches of water (at 4°C)	inches of mercury	0.07355
inches of water (at 4°C)	kgs/sq cm	0.00254
inches of water (at 4°C)	ounces/sq in	0.5781
inches of water (at 4°C)	pounds/sq ft	5.204
inches of water (at 4°C)	pounds/sq in	0.03613
inches of water, conventional	pascals	249.0889
inches per second	meters per second	0.0254
inches per second squared	meters per second squared	254.0
inches to the fourth power	meters to the fourth power	4.162314E-07
international coulombs	absolute coulomb	0.99984
international ampere	ampere (absolute)	0.9998
International Volt	Volts (absolute)	1.0003
joules	BTU	0.000948
joules	calories thermochemical	0.239
joules	centimeter grams	10,197.
joules	ergs	10,000,000
joules	foot-pounds	0.7376
joules	horsepower hours	3.7258E-07
joules	kg-calories	0.0002389
joules	kg-meters	0.102
joules	kilowatt hours	2.7778E-07
joules	poundals	723.3
joules	pounds	22.48
joules	watt-hrs	0.0002778
joules per centimeter	kilograms	10.197
joules per meter	dynes	100,000.
joules per meter	grams	101.97
joules per meter	joules per centimeter	0.01
joules per meter	kilograms	0.10197
joules per meter	poundals	7.2307
joules per meter	pounds (troy or apothecary)	0.22482
joules per second	watts (absolute)	1.0

To Convert	To	Multiply by
joules/cm	dynes	10,000,000
joules/cm	grams	10,200.
joules/cm	joules/meter (newton)	100.0
joules/cm	poundals	723.3
joules/cm	pounds	22.48
kaysers	reciprocal meters	0.01
kilocalories (IT)	joules	4,186.8
kilocalories (mean)	joules	4,190.02
kilocalories (th)	joules	4,184
kilocalories (th) per minute	watts	69.73333
kilocalories (th) per second	watts	4,184
kilogram calories	centimeter grams	42,680,000
kilogram calories	ergs	4.1859E+10
kilogram calories	watt hours	1.1621
kilogram calories per minute	ergs per second	6.97840E+08
kilogram calories per minute	foot pound forces per minute	3,085.5
kilogram calories per minute	foot pound forces per second	51.414
kilogram calories per minute	horsepower (550 ft*lb/s)	0.093633
kilogram calories per minute	kilowatts	0.069735
kilogram calories per minute	watts	69.784
kilogram meters	centimeter grams	100,000.
kilogram meters	horsepower hours	3.6536E-06
kilogram meters	watt hours	0.0027233
kilogram-calories	BTU	3.968
kilogram-calories	foot-pounds	3,088.0
kilogram-calories	hp-hrs	0.00156
kilogram-calories	joules	4,186
kilogram-calories	kg-meters	426.9
kilogram-calories	kilojoules	4.186
kilogram-calories	kilowatt-hrs	0.001163
kilogram-force meters	newton meters	9.80665
kilogram-force sec squared per meter	kilograms	9.80665
kilogram-forces	newtons	9.80665
kilogram-forces per sq centimeter	kilopascals	98.0665
kilogram-forces per sq centimeter	pascals	98,066.5

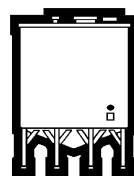
Corrosion Resistant FRP Composites



Pipe



Duct



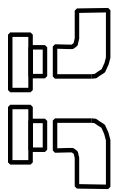
Tanks



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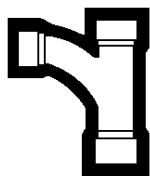
Conversion Factors

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To Convert	To	Multiply by
kilogram-forces per sq millimeter	pascals	9,806,650.
kilogram-forces per square meter	pascals	9.80665
kilogram-meters	BTU	0.009294
kilogram-meters	ergs	98,000,000
kilogram-meters	foot-pounds	7.233
kilogram-meters	joules	9.804
kilogram-meters	kg-calories	0.002342
kilogram-meters	kilowatt-hrs	2.723E-06
kilograms	dynes	980,665.
kilograms	grams	1,000.0
kilograms	hundredweight (long, 112 lb)	0.019684
kilograms	hundredweight (short, 100 lb)	0.022046
kilograms	joules/cm	0.09807
kilograms	joules/meter (newtons)	9.807
kilograms	moles	1,000.0
kilograms	myriagrams	0.1
kilograms	ounces (avoird)	35.274
kilograms	poundals	70.93
kilograms	pounds	2.205
kilograms	slugs	0.06854
kilograms	tons (long)	0.0009842
kilograms	tons (short)	0.001102
kilograms	tons, metric	0.001
kilograms per square centimeter	dynes per square centimeter	980,660.
kilograms per square centimeter	inches of water (4°C)	393.7
kilograms per square meter	centimeters mercury, conventional	0.0073529
kilograms per square meter	dynes per square centimeter	98.066
kilograms per square meter	pascals	4,848,000.
kilograms per square meter	tons, (short) per square inch	7.1124E-07
kilograms per square meter	tons, short per square foot	0.00010241
kilograms/cubic meter	feet of water	0.003281
kilograms/cubic meter	grams/cubic cm	0.001
kilograms/cubic meter	inches of mercury	0.002896
kilograms/cubic meter	pound/cubic ft	0.06243
kilograms/cubic meter	pounds/cubic in	3.613E-05

To Convert	To	Multiply by
kilograms/cubic meter	pounds/mil-foot	3.405E-10
kilograms/cubic meter	pounds/sq ft	0.2048
kilograms/cubic meter	pounds/sq in	0.001422
kilograms/meter	pounds/ft	0.672
kilograms/sq cm	atmospheres	0.9678
kilograms/sq cm	dynes	980,665.
kilograms/sq cm	feet of water	32.81
kilograms/sq cm	inches of mercury	28.96
kilograms/sq cm	pounds/sq ft	2,048.0
kilograms/sq cm	pounds/sq in	14.22
kilograms/sq meter	atmospheres	9.678E-05
kilograms/sq meter	bars	9.807E-05
kilograms/sq meter	feet of water	0.003281
kilograms/sq meter	inches of mercury	0.002896
kilograms/sq meter	pounds/sq ft	0.2048
kilograms/sq meter	pounds/sq in	0.001422
kilograms/sq mm	kgs/sq meter	1,000,000.
kilograms-force/sq cm	bar	0.9807
kilograms-force/sq cm	feet of water at 68°F	32.87
kilograms-force/sq cm	inches of mercury	28.96
kilograms-force/sq cm	kilopascals	98.07
kilograms-force/sq cm	pounds-force/sq foot	2,048.0
kilograms-force/sq cm	pounds-force/sq inch	14.223
kilograms-force/sq cm	standard atmospheres	0.9678
kilojoules	kilogram calories	0.23889
kilolines	maxwells	1,000.0
kilolines	webers	1.0E-05
kiloliters	cubic feet	35.316
kiloliters	cubic yards	1.308
kiloliters	gallons (US)	264.18
kiloliters	liters	1,000.0
kilometers	astronomical unit	6.68E-09
kilometers	centimeters	100,000.
kilometers	feet	3,280.84
kilometers	inches	39,370.
kilometers	light year	1.06E-13
kilometers	meters	1,000.0
kilometers	miles	0.6214
kilometers	miles (nautical)	0.5396
kilometers	millimeters	1,000,000.
kilometers	mils (0.001 in)	39,370,000
kilometers	myriameters	0.1
kilometers	parsecs	3.2425E-14
kilometers	yards	1,094

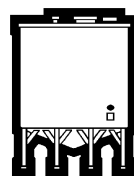
**Corrosion
Resistant
FRP
Composites**



Pipe



Duct



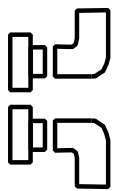
Tanks



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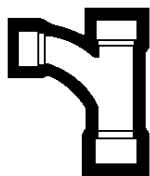
Conversion Factors

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To Convert	To	Multiply by
kilometers per hour	meters per second	0.2777778
kilometers per minute	meters per second	16.667
kilometers per minute	miles per hour	37.286
kilometers per minute	miles per minute	0.62139
kilometers/hr	cms/sec	27.78
kilometers/hr	feet/min	54.68
kilometers/hr	feet/sec	0.9113
kilometers/hr	knots	0.5396
kilometers/hr	meters/min	16.67
kilometers/hr	miles/hr	0.6214
kilometers/hr/sec	cms/hr/sec	27.78
kilometers/hr/sec	ft/sec/sec	0.9113
kilometers/hr/sec	meters/sec/sec	0.2778
kilometers/hr/sec	miles/hr/sec	0.6214
kilopascals	feet of water at 68°F	0.3351
kilopascals	inches of mercury at 32°F	0.2953
kilopascals	inches of water at 68°F	4.021
kilopascals	kilograms-force/sq cm	0.010197
kilopascals	newtons/sq meter	1,000.0
kilopascals	pascals	1,000.0
kilopascals	pounds-force/sq inch	0.145
kiloponds (kilogram-forces)	newtons	9.80665
kilowatt hours	megajoules	3.6
kilowatt hours	pounds of water evaporated	3.53
kilowatt hours	watt hours	500.0
kilowatt-hours	kilocalories	860
kilowatt-hours	kilogram-force meters	367,100.
kilowatt-hrs	BTU	3,413.0
kilowatt-hrs	ergs	3.60E+13
kilowatt-hrs	foot-lbs	2,655,000.
kilowatt-hrs	gram-calories	859,850.
kilowatt-hrs	horsepower-hrs	1.341
kilowatt-hrs	joules	3,600,000.
kilowatt-hrs	kg-calories	860.5
kilowatt-hrs	kg-meters	367,100.
kilowatt-hrs	lbs of water raised from 62° to 212° F.	22.75
kilowatts	BTU/min	56.92
kilowatts	ergs per second	1.0000E+10

To Convert	To	Multiply by
kilowatts	foot pound forces per minute	44,248.
kilowatts	foot-lbs/min	44,260.
kilowatts	foot-lbs/sec	737.6
kilowatts	horsepower	1.341
kilowatts	horsepower (boiler)	0.10201
kilowatts	kg-calories/min	14.34
kilowatts	kilocalories/minute	14.33
kilowatts	myriawatts	0.1
kilowatts	watts	1,000.0
kips (1 kip = 1000 lbf)	kilonewtons	4.448222
kips (1 kip = 1000 lbf)	newtons	4,448.222
kips (1 kip = 1000 lbf)	pounds (troy or apothecary)	1,000.0
kips per square inch	kilopascals	6,894.757
kips per square inch	pascals	6,894,757.
knots	feet/hr	6,080
knots	feet/sec	1.689
knots	kilometers/hr	1.8532
knots	nautical miles/hr	1.0
knots	statute miles/hr	1.151
knots	yards/hr	2,027.0
knots (nautical miles per hour)	centimeters per second	51.467
knots (nautical miles per hour)	meters per minute	30.883
knots (nautical miles per hour)	meters per second	0.5144444
knots (nautical miles per hour)	miles per hour	1.1515
knots per minute	miles per minute	1.1515
lamberts	candelas per square meter	3,183.099
lamberts	candles/sq cm	0.3183
lamberts	candles/sq in	2.054
langleys	joules per square meter	41,840.
lb/(ft hr)	centipoise	2.42
lb/(ft-sec)	centipoise	0.000672
league	miles (approx.)	3.0
light years	meters	9.46073E+15
light-year	astronomical unit	63,239.7
light-year	kilometers	9.460E+12
light-year	miles	5.90E+12
lines/sq cm	gausses	1.0
lines/sq in	gausses	0.155

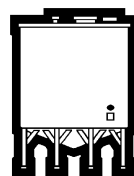
Corrosion Resistant FRP Composites



Pipe



Duct



Tanks



Stacks



Engineering



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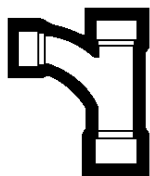
Conversion Factors

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To Convert	To	Multiply by
lines/sq in	webers/sq cm	1.55E-09
lines/sq in	webers/sq in	1.00E-08
lines/sq in	webers/sq meter	1.55E-05
links (engineer's)	inches	12.
links (surveyor's)	inches	7.92
liter atmospheres	BTU	0.096071
liters	bushels (US dry)	0.02838
liters	centiliters	100.0
liters	cubic centimeters	1,000.0
liters	cubic feet	0.03531
liters	cubic inches	61.02
liters	cubic meters	0.001
liters	cubic yards	0.001308
liters	deciliters	10.0
liters	dekaliters	0.1
liters	gallons (US liq.)	0.2642
liters	gills {US}	8.4531
liters (water)	grams (water)	1000.028
liters	hectoliters	0.01
liters	imperial gallons	0.22
liters	kiloliters	0.001
liters	microliters	1,000,000.
liters	milliliters	1,000.0
liters	ounces (US fluid)	33.818
liters	pecks (British)	0.10999
liters	pecks (US)	0.11351
liters	pints (US dry)	1.8162
liters	pints (US liq.)	2.113
liters	quarts (US liq)	1.057
liters	steres	0.001
liters per second	cubic feet per minute	2.1186
liters per second	cubic yards per minute	0.078493
liters per second	gallons (US) per minute	15.853
liters/min	cubic ft/sec	0.0005886
liters/min	gals/sec	0.004403
liters/second	cubic meters/hour	3.6
liters/second	cubic meters/second	0.001
liters/second	imperial gallons	13.2
liters/second	US gallons/minute	15.85
lumen	spherical candle power	0.07958
lumen	watt	0.001496
lumens per square foot	lux	10.76391

To Convert	To	Multiply by
lumens per square meter	footcandles	0.092902
lumens per square meter	lumens per square foot	0.092937
lumens/sq ft	foot-candles	1.0
lumens/sq ft	lumen/sq meter	10.76
lux	foot-candles	0.0929
mass weight in water (parts per million by mass)	grains/imperial gallon at 62F	0.07
mass weight in water (parts per million by mass)	grains/US gall at 60F	0.0583
mass weight in water (parts per million by mass)	grams/cubic meter at 15C	0.9991
mass weight in water (parts per million by mass)	pounds/million US gallons at 60F	8.328
maxwells	kilolines	0.001
maxwells	megalines	1.0E-06
maxwells	webers	1.00E-08
megalines	maxwells	1,000,000.
megapascals	kilograms-force/sq mm	0.102
megapascals	kilopascals	1,000.0
megapascals	newtons/ sq meter	1,000,000.
megapascals	pascals	1,000,000.
megapascals	pounds-force/sq inch	145.0
megmhos per cubic centimeter	abmhos per cubic centimeter	0.001
megmhos per cubic centimeter	megmhos per cubic inch	2.54
megmhos per cubic centimeter	mhos per mil foot	0.1662
megmhos per cubic inch	megmhos per cubic centimeter	0.3937
megohms	abohms	1.0000E+15
megohms	microhms	1.00E+12
megohms	ohms	1,000,000.
meter-kilograms	cm-dynes	98,100,000
meter-kilograms	cm-grams	100,000.
meter-kilograms	pound-feet	7.233
meters	angstroms	1.0000E+10
meters	bolts (US cloth)	0.02734
meters	centimeters	100.0
meters	chains (based on US survey foot)	0.049702

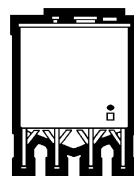
Corrosion Resistant FRP Composites



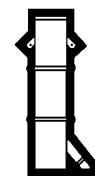
Pipe



Duct



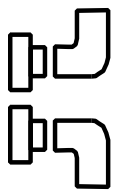
Tanks



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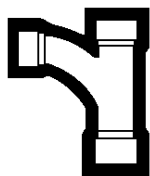
Conversion Factors

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To Convert	To	Multiply by
meters	decimeters	10.0
meters	dekameters	0.1
meters	fathoms (based on US survey foot)	0.54681
meters	feet	3.281
meters	furlongs	0.0049958
meters	hectometers	0.01
meters	inches	39.37
meters	kilometers	0.001
meters	micromicrons	1.0000E+12
meters	microns	1,000,000.
meters	miles (nautical)	0.0005396
meters	miles (statute)	0.0006214
meters	millimeters	1,000.0
meters	millimicrons	1.00000E+09
meters	rods (based on US survey foot)	0.19885
meters	varas	1.179
meters	yards	1.094
meters of mercury (0°C)	atmospheres, standard	1.3158
meters/min	cms/sec	1.667
meters/min	feet/min	3.281
meters/min	feet/sec	0.05468
meters/min	kms/hr	0.06
meters/min	knots	0.03238
meters/min	miles/hr	0.03728
meters/sec	feet/min	196.8
meters/sec	feet/sec	3.281
meters/sec	kilometers/hr	3.6
meters/sec	kilometers/min	0.06
meters/sec	miles/hr	2.237
meters/sec	miles/min	0.03728
meters/sec/sec	cms/sec/sec	100.0
meters/sec/sec	ft/sec/sec	3.281
meters/sec/sec	kms/hr/sec	3.6
meters/sec/sec	miles/hr/sec	2.237
microfarad	farads	1.00E-06
microfarads	abfarads	1.0E-15
microfarads	statfarads	900,000.
micrograms	grams	1.00E-06
microhms	abohms	1,000.0
microhms	megohms	1.00E-12
microhms	ohms	1.00E-06
microinches	meters	2.54E-08

To Convert	To	Multiply by
microinches	micrometers	0.0254
microliters	liters	1.00E-06
micro-meters	meters	1.0E-06
micromicrons	meters	1.0E-12
microns	angstroms	10,000.
microns	centimeters	0.0001
microns	inches	3.94E-05
microns	meters	1.00E-06
microns	micrometers	1.0
microns	pascals	0.1333
miles	centimeters	160,934.4
miles	feet	5,280
miles	inches	63,371.
miles	kilometers	1.609344
miles	leagues	0.33333
miles	light years	1.6949E-13
miles	meters	1609.344
miles	millimeters	1,609,300.
miles	parsecs	5.2632E-14
miles	rods (based on US survey foot)	320
miles	yards	1,760.0
miles (based on US survey foot)	furlongs	8.0
miles (nautical)	feet	6,080.27
miles (nautical)	kilometers	1.853
miles (nautical)	meters	1,853.0
miles (nautical)	miles (statute)	1.1516
miles (nautical)	yards	2,027.0
miles (statute)	centimeters	160,900.
miles (statute)	feet	5,280
miles (statute)	inches	63,360.
miles (statute)	kilometers	1.609
miles (statute)	light years	1.6900E+13
miles (statute)	meters	1,609.0
miles (statute)	miles (nautical)	0.8684
miles (statute)	yards	1,760.0
miles (statute) per hour	knots (nautical miles per hour)	0.86881
miles per gallon (US)	kilometers per liter	0.4251437
miles per gallon (US)	meters per cubic meter	425,143.7
miles per hour	meters per second	0.44704
miles per minute	meters per second	26.8224
miles per second	meters per second	1609.344

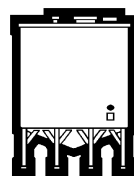
**Corrosion
Resistant
FRP
Composites**



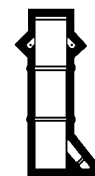
Pipe



Duct



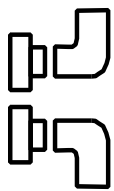
Tanks



Stacks



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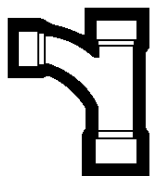
Conversion Factors

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To Convert	To	Multiply by
miles, nautical	meters	1,852.0
miles/hr	cms/sec	44.7
miles/hr	feet/min	88.0
miles/hr	feet/sec	1.467
miles/hr	kms/hr	1.609
miles/hr	kms/min	0.02682
miles/hr	knots	0.8684
miles/hr	meters/min	26.82
miles/hr	miles/min	0.1667
miles/hr/sec	cms/sec/sec	44.7
miles/hr/sec	feet/sec/sec	1.467
miles/hr/sec	kms/hr/sec	1.609
miles/hr/sec	meters/sec/sec	0.447
miles/min	cms/sec	2,682.0
miles/min	feet/sec	88.0
miles/min	kms/min	1.609
miles/min	knots/min	0.8684
miles/min	miles/hr	60.0
mil-foot	cubic inches	9.425E-06
millibars	inches of mercury	0.02953
millibars	kilopascals	0.1
millibars	pascals	100.0
milligrams	grains	0.01543236
milligrams	grams	0.001
milligrams/liter	parts/million	1.0
millihenries	abhenries	1,000,000.
millihenries	henries	0.001
milliliters	liters	0.001
millimeters	centimeters	0.1
millimeters	feet	0.003281
millimeters	inches	0.03937
millimeters	kilometers	1.00E-06
millimeters	meters	0.001
millimeters	miles	6.21E-07
millimeters	mils	39.37
millimeters	yards	0.001094
millimeters mercury, conventional	pascals	133.3224
millimeters of mercury (0°C)	atmospheres, standard	0.0013158
millimeters of water, conventional	pascals	9.80665
million gals/day	cubic ft/sec	1.54723
millmicrons	meters	1.00E-09
mils	centimeters	0.00254

To Convert	To	Multiply by
mils	feet	8.333E-05
mils	inches	0.001
mils	kilometers	0.00254
mils	yards	2.778E-05
mils (0.001 in)	kilometers	1.609344
mils (0.001 in)	meters	2.54E-05
mils (0.001 in)	millimeters	0.0254
mils (angle)	degrees (angle)	0.05625
mils (angle)	radians	0.0009817477
miner's inches	cubic ft/min	1.5
minims (British)	cubic cm	0.059192
minims (US fluid)	cubic cm	0.061612
minutes	days	0.00069444
minutes	hours	0.01667
minutes	weeks	9.9206E-05
minutes (angles)	degrees	0.01667
minutes (angles)	quadrants	0.0001852
minutes (angles)	radians	0.0002909
minutes (angles)	seconds	60.0
minutes (sidereal)	seconds	59.83617
molecular weight units	moles	1.0
myriagrams	kilograms	10.0
myriameters	kilometers	10.0
myriawatts	kilowatts	10.0
nails	inches	2.25
nepers	decibals	8.686
newtons	dynes	100,000.
newtons	kilograms-force	0.10197
newtons	poundals	7.233
newtons	pounds-force	0.2248
oersteds	amperes per meter	79.57747
ohm (international)	ohm (absolute)	1.0005
ohm centimeters	ohm meters	0.01
ohm circular-mils per foot	ohm meters	1.662426E-09
ohm circular-mils per foot	ohm square millimeters per meter	0.001662426
ohms	abohms	1.00000E+09
ohms	megohms	1.00E-06
ohms	microhms	1,000,000.
ohms (absolute)	ohms	0.9995
ounce (avoirdupois)-force inches	millinewton meters	7.061552

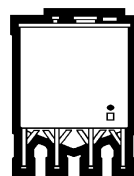
**Corrosion
Resistant
FRP
Composites**



Pipe



Duct



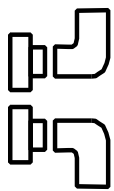
Tanks



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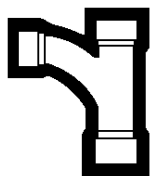
Conversion Factors

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To Convert	To	Multiply by
ounce (avoirdupois)-force inches	newton meters	0.007061552
ounce (avoirdupois)-forces	newtons	0.2780139
Ounce/sqinch	Dynes/sq cm.	4,309
ounces	drams	16.0
ounces	grains	437.5
ounces	grams	28.349527
ounces	ounces (troy)	0.9115
ounces	pounds	0.0625
ounces	tons (long)	2.79E-05
ounces	tons (metric)	2.835E-05
ounces (avoir) per cubic inch	kilograms per cubic meter	1729.994
ounces (avoir) per gal {Can, UK Imp}	grams per liter	6.236023
ounces (avoir) per gal {Can, UK Imp}	kilograms per cubic meter	6.236023
ounces (avoir) per gallon (US)	grams per liter	7.489152
ounces (avoir) per gallon (US)	kilograms per cubic meter	7.489152
ounces (avoir) per square foot	kilograms per square meter	0.3051517
ounces (avoir) per square inch	dynes per square centimeter	4,309
ounces (avoir) per square inch	inches of water (4°C)	1.7298
ounces (avoir) per square inch	kilograms per square meter	43.94185
ounces (avoir) per square inch	pounds per square inch	0.0625
ounces (avoir) per square yard	kilograms per square meter	0.03390575
ounces (avoir)	drams (apothecary or troy)	7.2918
ounces (avoir)	grains (troy)	48.001
ounces (avoir)	grams	28.34952
ounces (avoir)	kilograms	0.02834952
ounces (avoir)	ounces (troy or apothecary)	0.91158
ounces (avoir)	pounds (troy or apothecary)	0.075953
ounces (fluid)	cubic inches	1.805
ounces (fluid)	liters	0.02957
ounces (troy or apothecary)	drams (apothecary or troy)	8.0

To Convert	To	Multiply by
ounces (troy or apothecary)	grains	480
ounces (troy or apothecary)	grams	31.10348
ounces (troy or apothecary)	kilograms	0.03110348
ounces (troy or apothecary)	ounces (avoir)	1.097
ounces (troy or apothecary)	ounces (US fluid)	1.0971
ounces (troy or apothecary)	pounds (avoirdupois)	0.068573
ounces (troy or apothecary)	pounds (troy or apothecary)	0.068587
ounces (troy or apothecary)	tons, short	3.4287E-05
ounces (troy or apothecary)	weights	20.0
ounces (troy)	grains	480.0
ounces (troy)	grams	31.103481
ounces (troy)	ounces (avoirdupois)	1.09714
ounces (troy)	pennyweights (troy)	20.0
ounces (troy)	pounds (troy)	0.08333
ounces (US fluid)	centiliters	2.9568
ounces (US fluid)	cubic inches	1.805
ounces (US fluid)	cubic meters	2.957353E-05
ounces (US fluid)	drams (apothecary or troy)	16.0
ounces (US fluid)	grains	437.5
ounces (US fluid)	grams	28.349
ounces (US fluid)	liters	0.02957
ounces (US fluid)	milliliters	29.57353
ounces (US fluid)	ounces (troy or apothecary)	0.9115
ounces (US fluid)	pounds (troy or apothecary)	0.0625
ounces (US fluid)	tons, long (2240 lb)	2.79E-05
ounces (US fluid)	tons, short	3.125E-05
ounces {Can and UK fluid Imp}	cubic meters	2.841306E-05
ounces {Can and UK fluid Imp}	milliliters	28.41306
ounces av.	drams av.	16.0
ounces av.	grains	437.5
ounces av.	grams	28.35
ounces av.	pounds av.	0.0625
ounces av.	tonnes metric ton	2.84E-05

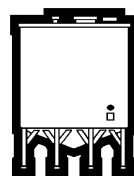
Corrosion Resistant FRP Composites



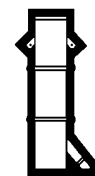
Pipe



Duct



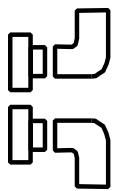
Tanks



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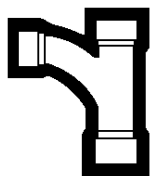
Conversion Factors

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To Convert	To	Multiply by
ounces av.	tons long	2.79E-05
ounces troy	pounds troy	0.08333
ounces, US fluid	cubic inches	1.8046
ounces, US fluid	liters	0.02957
ounces/sq inch	dynes/sq cm	4,309
ounces/sq inch	pounds/sq in	0.0625
paces	inches	30.0
parsec	kilometers	3.084E+13
parsec	miles	1.90E+13
parsecs	meters	3.085678E+16
parts per million	milligrams per liter	1.0
parts/million	grains/imperial gal	0.07016
parts/million	grains/US gal.	0.0584
parts/million	pounds/million gal	8.345
pascals	kilograms per square meter	0.101972
pascals	kilograms-force/sq cm	1.02E-05
pascals	kilopascals	0.001
pascals	microns	7.5019
pascals	newtons/sq meter	1.0
pascals	pounds per square inch	0.000145
pascals	pounds-force/sq inch	0.000145
pascals	torrs	0.0075006
pascal second	centipoise	1000
pecks (British)	cubic inches	554.6
pecks (British)	liters	9.091901
pecks (US)	bushels	0.25
pecks (US)	cubic inches	537.605
pecks (US)	cubic meters	0.008809768
pecks (US)	liters	8.809582
pecks (US)	quarts (dry)	8.0
pennyweights	grains	24.0
pennyweights	kilograms	0.001555174
pennyweights (troy)	grains	24.0
pennyweights (troy)	grams	1.55517
pennyweights (troy)	ounces (troy)	0.05
pennyweights (troy)	pounds (troy)	0.0041667
percent grades	feet per 100 feet	1.0
perm inches (0°C)	kilograms per pascal second meter	1.45322E-12
perm inches (23°C)	kilograms per pascal second meter	1.45929E-12

To Convert	To	Multiply by
perms (0°C)	kilograms per pascal sec sq meter	5.72135E-11
perms (23°C)	kilograms per pascal sec sq meter	5.74525E-11
phots	lux	10,000.
picas (computer)	meters	0.004233333
picas (computer)	millimeters	4.233333
picas (printer's)	meters	0.004217518
picas (printer's)	millimeters	4.217518
pints (Brit.)	cubic centimeters	568.26125
pints (Brit.)	cubic inches	34.67743
pints (Brit.)	gallons (Brit.)	0.125
pints (Brit.)	gills (Brit.)	4.0
pints (Brit.)	liters	0.56826125
pints (Brit.)	milliliters	568.26125
pints (Brit.)	ounces (Brit. fluid)	20.0
pints (Brit.)	pints (US dry)	1.032057
pints (Brit.)	pints (US liq.)	1.20095
pints (dry)	cubic inches	33.6
pints (US dry)	bushels (US)	0.015625
pints (US dry)	cubic centimeters	550.6105
pints (US dry)	cubic inches	33.6003125
pints (US dry)	cubic meters	0.0005506105
pints (US dry)	liters	0.5506105
pints (US dry)	milliliters	550.6105
pints (US dry)	pecks (US)	0.0625
pints (US dry)	pint (Brit. dry)	0.968939
pints (US dry)	quarts (US dry)	0.5
pints (US liquid)	cubic centimeters	473.1765
pints (US liquid)	cubic feet	0.01671
pints (US liquid)	cubic inches	28.875
pints (US liquid)	cubic meters	0.000473
pints (US liquid)	cubic yards	0.000619
pints (US liquid)	gallons (US)	0.125
pints (US liquid)	gills (US)	4.0
pints (US liquid)	liters	0.4731765
pints (US liquid)	milliliters	473.1765
pints (US liquid)	ounce (US fluid)	16.0
pints (US liquid)	pints (Brit. liquid)	0.8326742
pints (US liquid)	quarts (liquid)	0.5
Plank's quantum	erg-second	6.624E-27
points (computer)	meters	0.0003527778
points (computer)	millimeters	0.3527778
points (printer's)	meters	0.0003514598
points (printer's)	millimeters	0.3514598

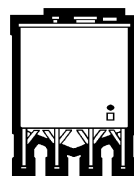
**Corrosion
Resistant
FRP
Composites**



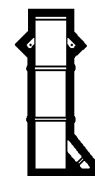
Pipe



Duct



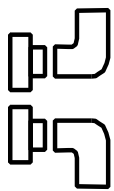
Tanks



Stacks



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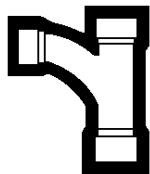
Conversion Factors

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To Convert	To	Multiply by
poise	centipoise	100.0
poise	gram/cm sec	1.0
poise	newton-seconds/sq meter	0.1
poise	pound-force-seconds /sq foot	0.0020886
poise	pounds/foot-second	0.06721
pound feet squared	kilogram meters squared	0.04214011
pound inches squared	kilogram meters squared	0.0002926397
poundal seconds per square foot	pascal seconds	1.488164
poundals	dynes	13,826.
poundals	grams	14.1
poundals	joules/cm	0.001383
poundals	joules/meter	0.1383
poundals	kilograms	0.0141
poundals	newtons	0.138255
poundals	pounds	0.03108
poundals per square foot	pascals	1.488164
pound-feet	cm-dynes	13,560,000
pound-feet	cm-grams	13,825.
pound-feet	meter-kgs	0.1383
pound-force feet	newton meters	1.355818
pound-force feet per inch	newton meters per meter	53.37866
pound-force inches	newton meters	0.1129848
pound-force inches per inch	newton meters per meter	4.448222
pound-force seconds per square foot	pascal seconds	47.88026
pound-force seconds per square inch	pascal seconds	6,894.757
pound-forces	newtons	4.448222
pound-forces per foot	newtons per meter	14.5939
pound-forces per inch	newtons per meter	175.1268
pound-forces per pound	newtons per kilogram	9.80665
pound-forces per square foot	pascals	47.88026
pound-forces per square inch	kilopascals	6.894757
pound-forces per square inch	pascals	6,894.757
pounds	drams	256.0

To Convert	To	Multiply by
pounds	dynes	444,823.
pounds	grains	7,000.
pounds	grams	453.5924
pounds	joules/cm	0.04448
pounds	joules/meter (newtons)	4.448
pounds	kilograms	0.4536
pounds	ounces	16.0
pounds	ounces (troy)	14.5833
pounds	poundals	32.17
pounds	pounds (troy)	1.21528
pounds	tons (short)	0.0005
pounds (avoirdupois)	kilograms	0.4535924
pounds (avoirdupois)	ounces (troy or apothecary)	14.583
pounds (avoirdupois)	ounces (troy)	14.5833
pounds (avoirdupois)	pounds (troy or apothecary)	1.2153
pounds (troy or apothecary)	drams (apothecary or troy)	256.0
pounds (troy or apothecary)	dynes	444,800.
pounds (troy or apothecary)	hundredweight (long, 112 lb)	0.0089286
pounds (troy or apothecary)	joules per centimeter	0.04448
pounds (troy or apothecary)	joules per meter	4.448
pounds (troy or apothecary)	kilograms	0.3732417
pounds (troy or apothecary)	kips (1 kip = 1000 lbf)	0.001
pounds (troy or apothecary)	ounces (US fluid)	16.0
pounds (troy or apothecary)	poundals	32.17
pounds (troy or apothecary)	pounds (troy or apothecary)	1.2153
pounds (troy or apothecary)	slugs	0.031085
pounds (troy)	grains	5,760
pounds (troy)	grams	373.24177
pounds (troy)	ounces (avoirdupois)	13.1657
pounds (troy)	ounces (troy)	12.0
pounds (troy)	pennyweights (troy)	240.0
pounds (troy)	pounds (avoirdupois)	0.822857
pounds (troy)	tons (long)	0.00036735

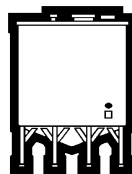
Corrosion Resistant FRP Composites



Pipe



Duct



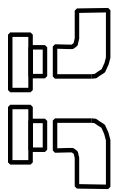
Tanks



Stacks



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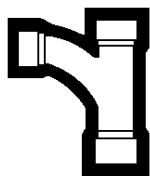
Conversion Factors

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To Convert	To	Multiply by
pounds (troy)	tons (metric)	0.00037324
pounds (troy)	tons (short)	0.00041143
pounds av.	drams av.	256.0
pounds av.	grains	7,000.
pounds av.	grams	453.6
pounds av.	ounces av.	16.0
pounds av.	pounds troy	1.2153
pounds av.	tons short	5E-04
pounds of water	cubic feet	0.01602
pounds of water	cubic inches	27.68
pounds of water	gallons	0.1198
pounds of water evaporated	kilowatt hours	0.28329
pounds of water per hour	tons of water per 24 hours	0.012001
pounds of water per minute	cubic feet per minute	0.016018
pounds of water raised fro	kilowatt hours	0.043956
pounds of water/min	cubic ft/sec	0.000267
pounds of water/minute at 60°F	cubic cm/second	7.576
pounds of water/minute at 60°F	cubic ft/second	0.0002675
pounds per 1000 gallons (US)	grams per liter	0.11983
pounds per cubic foot	grams per liter	16.019
pounds per cubic inch	kilograms per meter	1.4881
pounds per cubic yard	kilograms per cubic meter	0.5932764
pounds per foot	kilograms per meter	1.488164
pounds per foot hour	centipoise	0.41667
pounds per foot hour	pascal seconds	0.0004133789
pounds per foot second	centipoise	1,488.1
pounds per foot second	pascal seconds	1.488164
pounds per gallon (US)	grains per gallon (US)	0.0069999
pounds per gallon (US)	kilograms per cubic meter	119.8264
pounds per gallon (US)	kilograms per liter	0.1198264
pounds per gallon (US)	parts per million	0.11983
pounds per gallon {Can and UK Imp}	kilograms per cubic meter	99.77637
pounds per gallon {Can and UK Imp}	kilograms per liter	0.09977637
pounds per horsepower hour	kilograms per joule	1.689659E-07

To Convert	To	Multiply by
pounds per hour	kilograms per second	0.0001259979
pounds per inch	grams per centimeter	178.6
pounds per inch	kilograms per meter	17.85797
pounds per mil foot	kilograms per cubic meter	2.9369E+09
pounds per mil foot	pounds per cubic foot	1.83280E+08
pounds per mil foot	pounds per cubic inch	106,100.
pounds per minute	kilograms per second	0.007559873
pounds per second	kilograms per second	0.4535924
pounds per square foot	bars	0.0004787
pounds per square foot	centimeters mercury, conventional	0.035907
pounds per square foot	feet of water, conventional	0.01602
pounds per square foot	grams per square centimeter	0.48826
pounds per square foot	inches of mercury, conventional	0.01414
pounds per square foot	inches of water (4°C)	0.19216
pounds per square foot	kilograms per square centimeter	0.00048828
pounds per square foot	kilograms per square meter	4.882428
pounds per square foot	pounds per square inch	0.006944
pounds per square inch	bars	0.068966
pounds per square inch	centimeters mercury, conventional	5.1706
pounds per square inch	inches of water (4°C)	27.678
pounds per square inch	kilograms per square centimeter	0.070324
pounds per square inch	ounces (avoir) per square inch	16.0
pounds per square inch	pascals	6,895.
pounds per square inch	tons, (short) per square inch	0.0005
pounds per square inch	tons, short per square foot	0.072
pounds per yard	kilograms per meter	0.4960546
pounds troy	ounces troy	12.0
pounds/cubic ft	grams/cubic cm	0.01602
pounds/cubic ft	kgs/cubic meter	16.02
pounds/cubic ft	pounds/cubic in	0.0005787
pounds/cubic ft	pounds/mil-foot	5.456E-09
pounds/cubic in	gms/cubic cm	27.68
pounds/cubic in	kgs/cubic meter	27,680.

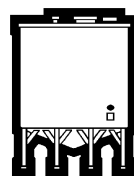
Corrosion Resistant FRP Composites



Pipe



Duct



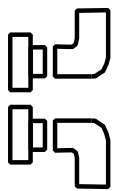
Tanks



Stacks



Engineering



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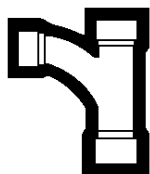
Conversion Factors

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To Convert	To	Multiply by
pounds/cubic in	pounds/cubic ft	1,728.0
pounds/cubic in	pounds/mil-foot	9.425E-06
pounds/ft	kgs/meter	1.488
pounds/in	gms/cm	178.6
pounds/mil-foot	gms/cubic cm	2,306,000.
pounds/sq ft	atmospheres	0.0004725
pounds/sq in	atmospheres	0.06804
pounds/sq in	feet of water	2.307
pounds/sq in	inches of mercury	2.036
pounds/sq in	kgs/sq meter	703.1
pounds/sq in	pounds/sq ft	144.0
pounds-force	kilograms-force	0.4536
pounds-force	newtons	4.448
pounds-force/foot	grams-force/centimeter	14.88
pounds-force/sq inch	feet of water at 68°F	2.311
pounds-force/sq inch	inches of water at 68°F	27.76
pounds-force/sq inch	kilopascals	6.895
pounds-force/sq inch	standard atmospheres	0.06805
pounds-mass of water at 60°F	cubic centimeters	453.98
pounds-mass of water at 60°F	cubic feet	0.01603
pounds-mass of water at 60°F	cubic inches	27.7
pounds-mass of water at 60°F	liters	0.45398
pounds-mass of water at 60°F	US gallons	0.1199
psi (pound-force per square inch)	kilopascals	6.894757
psi (pound-force per square inch)	pascals	6,894.757
quadrants	revolutions	0.25
quadrants (angle)	degrees	90.0
quadrants (angle)	minutes	5,400
quadrants (angle)	radians	1.571
quadrants (angle)	seconds	324,000.
quads (10 ¹⁵ BTU)	joules	1.055056E+18
quarts (liquid)	cubic centimeters	946.4
quarts (liquid)	cubic feet	0.03342
quarts (liquid)	cubic inches	57.75
quarts (liquid)	cubic meters	0.0009464
quarts (liquid)	cubic yards	0.001238

To Convert	To	Multiply by
quarts (liquid)	gallons	0.25
quarts (liquid)	liters	0.9463
quarts (liquid)	ounces	32
quarts (US dry)	barrels (US, dry)	0.0095238
quarts (US dry)	bushels (US)	0.03125
quarts (US dry)	cubic inches	67.2
quarts (US dry)	cubic meters	0.001101221
quarts (US dry)	liters	1.101221
quarts (US dry)	pecks (US)	0.125
quarts (US liquid)	pints (US liq.)	2.0
radians	circumferences	0.15916
radians	degrees	57.29578
radians	grades (also called gons)	63.654
radians	minutes	3,438.0
radians	quadrants	0.6366
radians	revolutions	0.15916
radians	seconds	206,300.
radians/sec	degrees/sec	57.29578
radians/sec	revolutions/min	9.549
radians/sec	revolutions/sec	0.1592
radians/sec/sec	revs./min/min	572.9578
radians/sec/sec	revs./min/sec	9.549
radians/sec/sec	revs./sec/sec	0.1592
rads (absorbed dose)	grays	0.01
reams	sheets	500.0
rems	sieverts	0.01
revolutions	degrees	360.0
revolutions	quadrants	4.0
revolutions	radians	6.283
revolutions per minute per second	radians per second per second	0.10472
revolutions per minute per second	revolutions per minute per minute	59.988
revolutions per minute per second	revolutions per second per second	0.016667
revolutions/min	degrees/sec	6.0
revolutions/min	radians/sec	0.1047
revolutions/min	revolutions/sec	0.01667
revolutions/min/min	radians/sec/sec	0.001745
revolutions/min/min	revs/min/min	0.01667
revolutions/min/min	revs/sec/sec	0.0002778
revolutions/sec	degrees/sec	360.0
revolutions/sec	radians/sec	6.283
revolutions/sec	revolutions/min	60.0

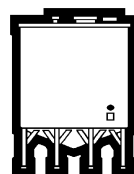
Corrosion Resistant FRP Composites



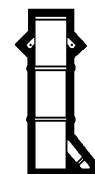
Pipe



Duct



Tanks



Stacks



Engineering



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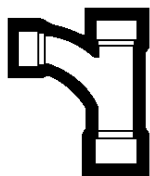
Conversion Factors

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To Convert	To	Multiply by
revolutions/sec/sec	radians/sec/sec	6.283
revolutions/sec/sec	revs/min/min	3,600.0
revolutions/sec/sec	revs/min/sec	60.0
rods	chain (Gunter's)	0.25
rods	feet	16.5
rods	meters	5.029
rods (based on US survey foot)	acres	0.00625
rods (based on US survey foot)	furlongs	0.025
rods (based on US survey foot)	inches	198.0
rods (based on US survey foot)	miles	0.003125
rods (surveyor's meas.)	yards	5.5
roentgens	coulombs per kilogram	0.000258
rope	feet	20.0
rpms (revolutions per minute)	radians per second	0.1047198
scruples	grains	20.0
seconds	days	1.1574E-05
seconds	degrees (angle)	0.00027778
seconds	hours	0.00027778
seconds	minutes	0.016667
seconds	minutes (angle)	0.016667
seconds	quadrants	3.0864E-06
seconds	radians	4.8473E-06
seconds	weeks	1.6534E-06
seconds (angle)	degrees	0.00027777778
seconds (angle)	minutes	0.01666667
seconds (angle)	quadrants	3.087E-06
seconds (angle)	radians	4.85E-06
seconds (sidereal)	seconds	0.9972696
shakes	nanoseconds	10.0
shakes	seconds	1.0E-08
sheets	reams	0.002
slug	kilograms	14.59
slug	pounds	32.17
slugs per cubic foot	kilograms per cubic meter	515.3788
slugs per foot second	pascal seconds	47.88026
span	inch	9.0
sphere	steradians	12.57
spherical candle power	lumens	12.566

To Convert	To	Multiply by
spherical right angles	steradians	1.5709
square centimeters	circular mils	197,300.
square centimeters	sq miles	3.861E-11
square centimeters	sq millimeters	100.0
square centimeters	sq yards	0.0001196
square centimeters	square feet	0.001076
square centimeters	square inches	0.155
square centimeters	square kilometers	1.0E-10
square centimeters	square meters	0.0001
square centimeters	square mils	154,990.
square chains (per US survey foot)	acres	0.1
square degrees	steradians	0.00030462
square feet	acres	2.296E-05
square feet	circular mils	1.833E+08
square feet	hectares	9.2937E-06
square feet	sq cms	929.0
square feet	sq inches	144.0
square feet	sq meters	0.0929
square feet	sq miles	3.587E-08
square feet	sq millimeters	92,900.
square feet	sq yards	0.1111
square feet	square kilometers	9.2937E-08
square feet per hour	square meters per second	2.58064E-05
square feet per second	square meters per second	0.09290304
square inches	circular mils	1,273,000.
square inches	sq cms	6.452
square inches	sq feet	0.006944
square inches	sq millimeters	645.2
square inches	sq mils	1,000,000.
square inches	sq yards	0.0007716
square inches	square kilometers	6.4516E-10
square inches	square meters	0.00064516
square kilometers	acres	247.1
square kilometers	sq cms	1.00E+10
square kilometers	sq feet	10,760,000
square kilometers	sq inches	1.550E+09
square kilometers	sq meters	1,000,000.
square kilometers	sq miles	0.3861
square kilometers	sq yards	1,196,000.
square links	acres	1.0E-05
square meters	acres	0.0002471
square meters	ares	0.01

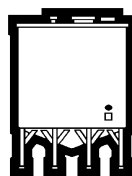
**Corrosion
Resistant
FRP
Composites**



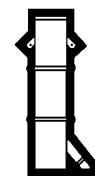
Pipe



Duct



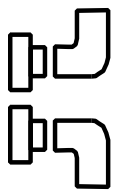
Tanks



Stacks



Engineering



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Technical Bulletin

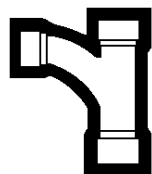
Conversion Factors

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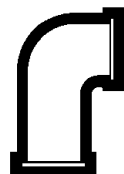
To Convert	To	Multiply by
square meters	centares	1.0
square meters	sq cms	10,000.
square meters	sq feet	10.76
square meters	sq inches	1,550.0
square meters	sq miles	3.861E-07
square meters	sq millimeters	1,000,000.
square meters	sq yards	1.196
square meters	square kilometers	1.0E-06
square miles	acres	640.0
square miles	sq feet	27,900,000
square miles	sq kms	2.59
square miles	sq meters	2,590,000.
square miles	sq yards	3,098,000.
square miles	square centimeters	2.5900E+10
square miles (per US survey foot)	square kilometers	2.589998
square miles (per US survey foot)	square meters	2,589,998.
square millimeters	circular mils	1,973.0
square millimeters	sq cms	0.01
square millimeters	sq feet	1.076E-05
square millimeters	sq inches	0.00155
square millimeters	square meters	1.0E-06
square millimeters	square yards	1.196E-06
square mils	circular mils	1.273
square mils	sq cms	6.452E-06
square mils	sq inches	1.00E-06
square yards	acres	0.0002066
square yards	ares	0.0083612
square yards	sq cms	8,361.
square yards	sq feet	9.0
square yards	sq inches	1,296.0
square yards	sq meters	0.8361
square yards	sq miles	3.228E-07
square yards	sq millimeters	836,100.
square yards	square kilometers	8.3612E-07
standard cubic feet/minute at 14.696psia and 60°F	cubic meters/hour at standard conditions	1.608
standard cubic feet/minute at 14.696psia and 60°F	liters/second at standard conditions	0.4474
statamperes	amperes	3.335641E-10
statcoulombs	abcoulombs	3.3356E-11
statcoulombs	coulombs	3.335641E-10
statfarads	farads	1.11265E-12

To Convert	To	Multiply by
statfarads	microfarads	1.1111E-06
stathenries	henries	8.987552E+11
stathms	siemens	1.11265E-12
stathms	ohms	8.987552E+11
statvolts	absolute volt (US)	299.76
statvolts	volts	299.7925
steradians	hemispheres	0.1592
steradians	spheres	0.079555
steradians	spherical right angles	0.6366
steradians	square degrees	3,283.0
steres	cubic meters	1.0
steres	liters	999.97
stilbs	candelas per square meter	10,000.
stokes	meters squared per second	0.0001
stokes	sq feet/second	0.001076
stokes	sq meters/second	0.0001
tablespoons	cubic meters	1.478676E-05
tablespoons	milliliters	14.78676
tablespoons (metric)	milliliters	15
tablespoons (US)	milliliters	14.79
teaspoons	cubic meters	4.928922E-06
teaspoons	milliliters	4.928922
teaspoons (metric)	milliliters	5.0
teaspoons (US)	cubic cms	4.93
texes	kilograms per meter	1.0E-06
therms (EC)	joules	1.05506E+08
therms (US)	joules	1.054804E+08
ton-forces	kilonewtons	8.896443
ton-forces	newtons	8,896.
tonnes (called "metric ton" in US)	kilograms	1,000.0
tons (long)	kilograms	1,016.0
tons (long)	pounds	2,240.0
tons (long)	tons (short)	1.12
tons (metric)	kilograms	1,000.0
tons (metric)	pounds	2,205.0
tons (short)	kilograms	907.1848
tons (short)	ounces	32,000.
tons (short)	ounces (troy)	29,166.66
tons (short)	pounds	2,000.0

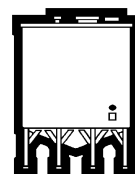
Corrosion Resistant FRP Composites



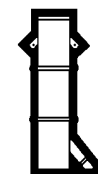
Pipe



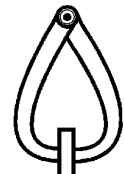
Duct



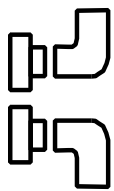
Tanks



Stacks



Engineering



Industrial Fiberglass Specialties, Inc.

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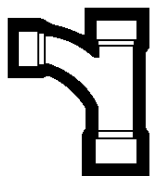
Conversion Factors

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To Convert	To	Multiply by
tons (short)	pounds (troy)	2,430.56
tons (short)	tons (long)	0.89287
tons (short)	tons (metric)	0.9078
tons (short)/sq ft	kgs/sq meter	9,765.
tons (short)/sq ft	pounds/sq in	2,000.0
tons of refrigeration	watts	3,516.853
tons of TNT (energy equivalent)	joules	4.1840E+09
tons of water/24 hrs	cubic ft/hr	1.3349
tons of water/24 hrs	gallons/min	0.16643
tons of water/24 hrs	pounds of water/hr	83.333
tons per square foot	atmospheres, standard	0.94518
tons per square inch	atmospheres, standard	136.09
tons short	pounds av.	2,000.0
tons short	tonnes	0.9072
tons, (short) per square inch	kilograms per square meter	1,406,000.
tons, (short) per square inch	pounds per square inch	2,000.0
tons, assay	grams	29.16667
tons, assay	kilograms	0.02916667
tons, long (2240 lb)	hundredweight (long, 112 lb)	0.002
tons, long (2240 lb)	hundredweight (short, 100 lb)	22.4
tons, long (2240 lb)	ounces (US fluid)	35,842.
tons, long, per cubic yard	kilograms per cubic meter	1,328.939
tons, metric	hundredweight (short, 100 lb)	22.046
tons, metric	tons, short	1.1016
tons, register	cubic meters	2.831685
tons, short per square foot	pounds per square inch	13.889
tons, short, per cubic yard	kilograms per cubic meter	1,186.553
tons, short, per hour	kilograms per second	0.2519958
torrs	pascals	133.3224
unit poles	webers	1.256637E-07
US gallons	pounds of water at 60°F in air	8.328
US gallons/minute US	cubic feet/hour	8.021
US gallons/minute US	cubic feet/second	0.002228
US gallons/minute US	cubic meters/hour	0.22715
US gallons/minute US	liters/second	0.06309

To Convert	To	Multiply by
volt (absolute)	statvolts	0.003336
volt/inch	volt/cm	0.3937
volts	abvolts	1.00000E+08
volts per centimeter	volts per inch	2.54
volts per inch	abvolts per centimeter	39,370,000
volts per inch	volts per centimeter	0.3937
watt (international)	watt (absolute)	1.0002
watt hours	joules	3,600.0
watt seconds	joules	1.0
watt-hours	BTU	3.413
watt-hours	ergs	3.60E+10
watt-hours	foot-pounds	2,656.0
watt-hours	gram-calories	859.85
watt-hours	kilocalories	0.86
watt-hours	kilogram-calories	0.8605
watt-hours	kilowatt-hrs	0.001
watts	BTU (IT) per minute	0.05688
watts	BTU/hr	3.4129
watts	BTU/min	0.05688
watts	erg/sec	107.0
watts	foot pound forces per second	0.7378
watts	foot-lbs/min	44.27
watts	foot-lbs/sec	0.7378
watts	foot-pounds-force/minute	44.25
watts	hectowatts	0.01
watts	horsepower	0.001341
watts	horsepower (metric)	0.00136
watts	kg-calories/min	0.01433
watts	kilowatts	0.001
watts (absolute)	BTU (mean)/min	0.056884
watts (absolute)	joules/sec	1.0
watts (absolute)	watts (international)	0.9998
watts (international)	watts (absolute)	1.0002
watts per square centimeter	watts per square meter	10,000.
watts per square inch	BTU (IT) per square foot per minute	8.1967
watts per square inch	watts per square meter	1550.003
webers	kilolines	100,000.
webers	maxwells	1.00E+08
webers per square centimeter	gausses	1.0000E+08

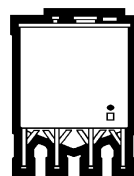
Corrosion Resistant FRP Composites



Pipe



Duct



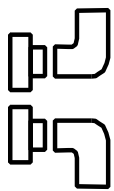
Tanks



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Technical Bulletin

Conversion Factors

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To Convert	To	Multiply by
webers per square centimeter	lines per square inch	6.45160E+08
webers per square centimeter	webers per square inch	6.4516
webers per square centimeter	webers per square meter	10,000.
webers/sq in	gausses	15,500,000
webers/sq in	lines/sq in	1.00E+08
webers/sq in	webers/sq cm	0.155
webers/sq in	webers/sq meter	1,550.0
webers/sq meter	gausses	10,000.
webers/sq meter	lines/sq in	64,500.
webers/sq meter	webers/sq cm	0.0001
webers/sq meter	webers/sq in	0.000645
week	days	7.0
week	hours	168.0
week	minute (time)	10,080.
week	month	0.2299795
week	seconds	604,800.
yards	centimeters	91.44
yards	chains (based on US survey foot)	0.045455
yards	fathoms	0.5
yards	foot	3.0
yards	inches	36.0
yards	kilometers	0.000914
yards	meters	0.9144
yards	miles (nautical)	0.000493
yards	miles (statute)	0.000568
yards	millimeters	914.4
yards	mils (0.001 in)	36,000.
yards	rods (based on US survey foot)	0.18182
yards per hour	knots (nautical miles per hour)	0.00049334
year (mean of 4 year period)	days	365.25
year (mean of 4 year period)	hours	8,766.
year (mean of 4 year period)	minute (time)	525,960.
year (mean of 4 year period)	seconds (time)	31,600,000
year (mean of 4 year period)	weeks	52.17857
years (sidereal)	seconds	31,558,150
years (tropical)	seconds	31,556,930

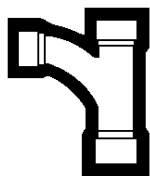
To Convert	To	Multiply by
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Caution!

These conversion factors and formulas were compiled from a wide variety of sources. While we have tried to carefully "proof" these factors, we have no way of guaranteeing that the original sources were correct.

As you use these conversion factors, if you should find one that is incorrectly stated, please share that information with us, so that we can correct future printings. Also, if you find that we have missed including your favorite conversion factors and formulas, please share them with us. We will then make every effort to include them in future editions.

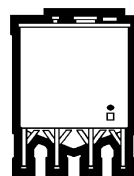
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FRP
Composites**



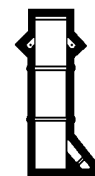
Pipe



Duct



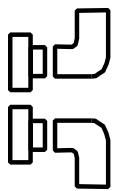
Tanks



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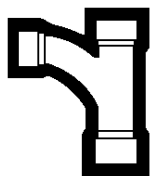
Conversion Factors

07-01-2011 Page 28 of 33

SI Metric Prefixes			
Prefix	Value	Value	Abbreviation
Exa	1,000,000,000,000,000,000	10^{18}	E
Peta	1,000,000,000,000,000	10^{15}	P
Tera	1,000,000,000,000	10^{12}	T
Giga	1,000,000,000	10^9	G
Mega	1,000,000	10^6	M
Kilo	1,000	10^3	k
Hecto	100	10^2	h
Deca	10	10^1	da
Deci	0.1	10^{-1}	d
Centi	0.01	10^{-2}	c
Milli	0.001	10^{-3}	m
Micro	0.000001	10^{-6}	μ
Nano	0.000000001	10^{-9}	n
Pico	0.000000000001	10^{-12}	p

Temperature Conversion Formulas	
Celsius (Centigrade) to Fahrenheit:	$(^{\circ}\text{C} \times 9/5) + 32 = ^{\circ}\text{F}$
Fahrenheit to Celsius (Centigrade):	$(^{\circ}\text{F} - 32) \times 5/9 = ^{\circ}\text{C}$
Kelvin to Celsius:	$^{\circ}\text{K} - 273.15 = ^{\circ}\text{C}$
Rankine to Fahrenheit:	$^{\circ}\text{R} - 459.67 = ^{\circ}\text{F}$
Celsius to Kelvin:	$^{\circ}\text{C} + 273.15 = ^{\circ}\text{K}$
Fahrenheit to Rankine:	$^{\circ}\text{F} + 459.67 = ^{\circ}\text{R}$

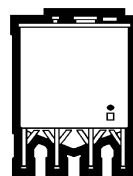
Corrosion
Resistant
FRP
Composites



Pipe



Duct



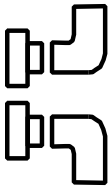
Tanks



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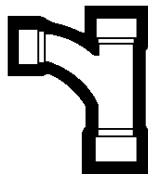
Technical Bulletin

Conversion Factors

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Temperature Conversions														
-459.4° to 0°			1° to 40°			41° to 80°			81° to 300°			310° to 1300°		
C	F/C	F	C	F/C	F	C	F/C	F	C	F/C	F	C	F/C	F
-273	-459.4		-17.2	1	33.8	5.0	41	105.8	27	81	178	154	310	590
-262	-440		-16.7	2	35.6	5.6	42	107.6	28	82	180	160	320	608
-251	-420		-16.1	3	37.4	6.1	43	109.4	28	83	181	166	330	626
-240	-400		-15.6	4	39.2	6.7	44	111.2	29	84	183	171	340	644
-229	-380		-15.0	5	41.0	7.2	45	113.0	29	85	185	177	350	662
-218	-360		-14.4	6	42.8	7.8	46	114.8	30	86	187	182	360	680
-207	-340		-13.9	7	44.6	8.3	47	116.6	31	87	189	188	370	698
-196	-320		-13.3	8	46.4	8.9	48	118.4	31	88	190	193	380	716
-184	-300		-12.8	9	48.2	9.4	49	120.2	32	89	192	199	390	734
-173	-280		-12.2	10	50.0	10.0	50	122.0	32	90	194	204	400	752
-169	-273	-459.4	-11.7	11	51.8	10.6	51	123.8	33	91	196	216	420	788
-168	-270	-454	-11.1	12	53.6	11.1	52	125.6	33	92	198	227	440	824
-162	-260	-436	-10.6	13	55.4	11.7	53	127.4	34	93	199	238	460	860
-157	-250	-418	-10.0	14	57.2	12.2	54	129.2	34	94	201	249	480	896
-151	-240	-400	-9.4	15	59.0	12.8	55	131.0	35	95	203	260	500	932
-146	-230	-382	-8.9	16	60.8	13.3	56	132.8	36	96	205	271	520	968
-140	-220	-364	-8.3	17	62.6	13.9	57	134.6	36	97	207	282	540	1004
-134	-210	-346	-7.8	18	64.4	14.4	58	136.4	37	98	208	293	560	1040
-129	-200	-328	-7.2	19	66.2	15.0	59	138.2	37	99	210	304	580	1076
-123	-190	-310	-6.7	20	68.0	15.6	60	140.0	38	100	212	316	600	1112
-118	-180	-292	-6.1	21	69.8	16.1	61	141.8	43	110	230	327	620	1148
-112	-170	-274	-5.6	22	71.6	16.7	62	143.6	49	120	248	338	640	1184
-107	-160	-256	-5.0	23	73.4	17.2	63	145.4	54	130	266	349	660	1220
-101	-150	-238	-4.4	24	75.2	17.8	64	147.2	60	140	284	360	680	1256
-96	-140	-220	-3.9	25	77.0	18.3	65	149.0	66	150	302	371	700	1292
-90	-130	-202	-3.3	26	78.8	18.9	66	150.8	71	160	320	382	720	1328
-84	-120	-184	-2.8	27	80.6	19.4	67	152.6	77	170	338	393	740	1364
-79	-110	-166	-2.2	28	82.4	20.0	68	154.4	82	180	356	404	760	1400
-73	-100	-148	-1.7	29	84.2	20.6	69	156.2	88	190	374	416	780	1436
-68	-90	-130	-1.1	30	86.0	21.1	70	158.0	93	200	392	427	800	1472
-62	-80	-112	-0.6	31	87.8	21.7	71	159.8	99	210	410	454	850	1562
-57	-70	-94	0.0	32	89.6	22.2	72	161.6	104	220	428	482	900	1652
-51	-60	-76	0.6	33	91.4	22.8	73	163.4	110	230	446	510	950	1742
-46	-50	-58	1.1	34	93.2	23.3	74	165.2	116	240	464	538	1000	1832
-40	-40	-40	1.7	35	95.0	23.9	75	167.0	121	250	482	566	1050	1922
-34	-30	-22	2.2	36	96.8	24.4	76	168.8	127	260	500	593	1100	2012
-29	-20	-4	2.8	37	98.6	25.0	77	170.6	132	270	518	621	1150	2102
-23	-10	14	3.3	38	100.4	25.6	78	172.4	138	280	536	649	1200	2192
-17.8	0	32	3.9	39	102.2	26.1	79	174.2	143	290	554	677	1250	2282
			4.4	40	104.0	26.7	80	176.0	149	300	572	704	1300	2372

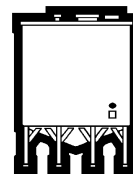
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FRP
Composites**



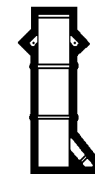
Pipe



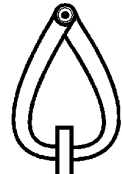
Duct



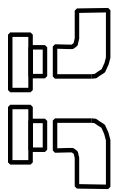
Tanks



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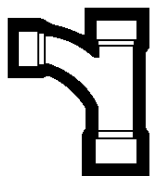
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**Conversion
 Factors**

Properties of Saturated Steam							
					Enthalpy		
					BTU/lb	BTU/lb	BTU/lb
			Temperature		Sat.	Sat.	
			°F	°C	Vapor	Liquid	Evap.
Psig	Psia	kg/cm ²	°F	°C			
0	14.696	0.00	212	100	1150	180	970
5	19.696	0.35	228	109	1156	196	960
10	24.696	0.70	240	116	1160	208	952
15	29.696	1.05	250	121	1164	218	946
20	34.696	1.41	259	127	1167	228	939
25	39.696	1.76	267	131	1169	236	933
35	49.696	2.46	281	138	1174	250	924
50	64.696	3.52	297	148	1178	267	911
60	74.696	4.22	307	153	1181	277	904
70	84.696	4.92	316	158	1183	286	897
80	94.696	5.62	324	163	1186	294	892
90	104.696	6.33	331	166	1187	302	885
100	114.696	7.03	338	170	1189	309	880
125	139.696	8.79	353	178	1193	324	869
150	164.696	10.55	366	185	1195	338	857
175	189.696	12.30	377	192	1197	350	847
200	214.696	14.00	388	198	1198	355	843
225	239.696	15.82	397	203	1200	372	828
250	264.696	17.58	406	208	1201	380	821
275	289.696	19.33	414	213	1202	387	815
300	314.696	21.08	422	216	1203	400	803
350	364.696	24.60	435	224	1204	412	792
400	414.696	28.12	448	231	1204	429	775
450	464.696	31.64	460	238	1204	439	765
500	514.696	35.15	470	243	1208	449	759

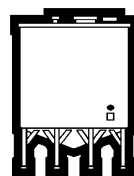
**Corrosion
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 FRP
 Composites**



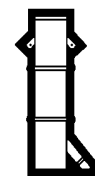
Pipe



Duct



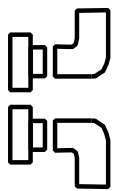
Tanks



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 Tel: 937-222-9000
 Fax: 937-222-9020

Email: sales@ifs-frp.com

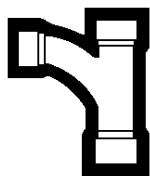
Technical Bulletin

Conversion Factors

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Pressure Conversions						
psi	in of H2O	in of Hg	mm of H2O	mm of Hg	bar	mbar
0.01	0.2768	0.020	7.031	0.5171	0.0007	0.6895
0.02	0.5536	0.040	14.062	1.0342	0.00138	1.379
0.03	0.8304	0.061	21.093	1.5513	0.00207	2.0685
0.04	1.1072	0.081	28.124	2.0684	0.00276	2.758
0.05	1.3840	0.101	35.155	2.5855	0.00345	3.4475
0.06	1.6608	0.122	42.186	3.1026	0.00413	4.137
0.07	1.9376	0.142	49.217	3.6197	0.00482	4.8265
0.08	2.2144	0.162	56.248	4.1368	0.00551	5.516
0.09	2.4912	0.183	63.279	4.6539	0.0062	6.2055
0.10	2.7680	0.203	70.31	5.171	0.00689	6.895
0.20	5.5360	0.407	140.62	10.342	0.01378	13.79
0.30	8.3040	0.610	210.93	15.513	0.02067	20.685
0.40	11.072	0.814	281.24	20.684	0.02756	27.58
0.50	13.840	1.018	351.55	25.855	0.03445	34.475
0.60	16.608	1.221	421.86	31.026	0.04134	41.37
0.70	19.376	1.425	492.17	36.197	0.04823	48.265
0.80	22.144	1.628	562.48	41.368	0.05512	55.16
0.90	24.912	1.832	632.79	46.539	0.06201	62.055
1.0	27.68	2.036	703.1	51.71	0.0689	68.95
2.0	55.36	4.072	1406.2	103.42	0.1378	137.9
3.0	83.04	6.108	2109.3	155.13	0.2067	206.85
4.0	110.72	8.144	2812.4	206.84	0.2756	275.8
5.0	138.40	10.18	3515.5	258.55	0.3445	344.75
6.0	166.08	12.216	4218.6	310.26	0.4134	413.7
7.0	193.76	14.252	4921.7	361.97	0.4823	482.65
8.0	221.44	16.288	5624.8	413.68	0.5512	551.6
9.0	249.12	18.324	6327.9	465.39	0.6201	620.55
10.0	276.80	20.36	7031	517.1	0.689	689.5
14.7	406.896	29.929	10335.57	760.137	1.01283	1013.565
15.0	415.2	30.54	10546.5	775.65	1.0335	1034.25
20.0	553.6	40.72	14062	1034.2	1.378	1379
25.0	692.0	50.9	17577.5	1292.75	1.7225	1723.75
30.0	830.4	61.08	21093	1551.3	2.067	2068.5
40.0	1,107	81.44	28124	2068.4	2.756	2758
50.0	1,384	101.8	35155	2585.5	3.445	3447.5
100.0	2,768	203.6	70310	5171	6.89	6895
150.0	4,152	305.4	105465	7756.5	10.335	10342.5
200.0	5,536	407.2	140620	10342	13.78	13790
250.0	6,920	509	175775	12927.5	17.225	17237.5

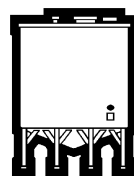
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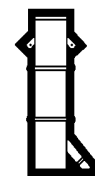
Pipe



Duct



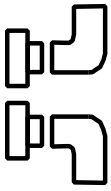
Tanks



Stacks



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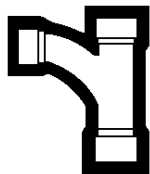
To convert	to	multiply by
kip per square inch (ksi)	megapascal (Mpa)	6.894757
pounds per square foot (psf)	kilogram per square meter (kg/sq m)	4.8824
pounds per square foot (psf)	pascal (Pa)	47.88
pounds per square inch (psi)	pascal (Pa)	6,894.757
pounds per square inch (psi)	megapascal (Mpa)	0.00689476
megapascal (Mpa)	pounds per square inch (psi)	145.04

Pressure Conversion Factors

- psi = in. of H₂O x (3.6127 x 10⁻²)
- psi = in. of Hg x (0.49118)
- psi = mm of H₂O x (1.4223 x 10⁻³)
- psi = mm of Hg x (1.9339 x 10⁻²)
- psi = cm of H₂O x (14.223 ~ 6-3)
- psi = kg/cm² x (14.223)
- psi = bar x (14.503)
- psi = mbar x (1.4503 x 10⁻²)
- psi = Pa x (1.4503 x 10⁻⁴)
- psi = kPa x (1.4503 x 10⁻¹)

- in. of H₂O = psi x 27.68
- in. of Hg = psi x 2.036
- mm of H₂O = psi x 703.1
- mm of Hg = psi x 51.71
- cm of H₂O = psi x 70.3
- kg/cm² = psi x .0703
- bar = psi x .0689
- mbar = psi x 68.95
- Pa = psi x 6895
- kPa = psi x 6.895

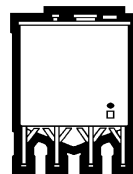
**Corrosion
Resistant
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Composites**



Pipe



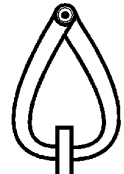
Duct



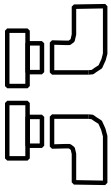
Tanks



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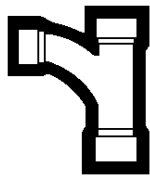
Technical Bulletin

Conversion Factors

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Pressure vs Altitude			
Altitude (feet)	Pressure		
	In of Hg	mm of Hg	psi
-1,000	31.02	787.9	15.25
-500	30.47	773.8	14.94
0	29.921	760.0	14.70
500	29.38	746.4	14.43
1,000	28.86	732.9	14.18
1,500	28.33	719.7	13.90
2,000	27.82	706.6	13.67
2,500	27.31	693.8	13.41
3,000	26.81	681.1	13.19
3,500	26.32	668.6	12.92
4,000	25.84	656.3	12.70
4,500	25.36	644.2	12.45
5,000	24.89	632.3	12.23
10,000	20.58	522.6	10.10
15,000	16.88	428.8	8.28
20,000	13.75	349.1	6.75
30,000	8.88	225.6	4.36
40,000	5.54	140.7	2.72
50,000	3.426	87.30	1.689
60,000	2.132	54.15	1.048
70,000	1.322	33.59	0.649
80,000	0.820	20.83	0.403

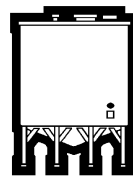
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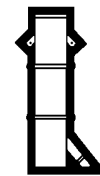
Pipe



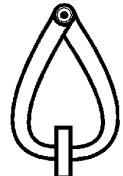
Duct



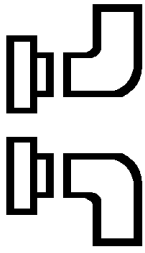
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- 3/8" through 168" diameter
- filament wound or contact molded
- round, rectangular, elliptical
- customized liner types and thicknesses
- customized resin matrices
- double containment systems
- factory assembled isometric spools

Fittings:

- NPT threaded couplings, adapters, reducer bushings, plugs, flanges, and nipples
- bell end, plain end, flanged end, and combination coupled fittings available
- couplings, adapters, nipples, reducer bushings, pipe caps, fitting caps, elbows, tees, concentric and eccentric reducers, laterals, true wyes, and more!

Flanges:

- 150 lb. socket
- 300 lb. socket
- reducing socket
- heavy duty hubless
- Van Stone style
- stub flanges

FRP Armored Thermoplastics:

- PVC
- CPVC

Engineered Resin Technology:

- vinylester (standard, high temperature, fire retardant), vinyl polyester, epoxy (standard, high temperature), polyester (isophthalic, terephthalic), furan, phenolics
- dual laminate construction
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Tanks, Vessels & Scrubbers:

- round or rectangular
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- Through 14 foot diameter

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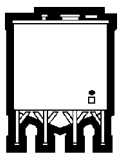
- inspection & consultation services
- emergency repair and replacement
- new installations
- training and supervision services
- remedial services
- coatings and linings

Associated "Sister" Companies:

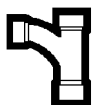
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- discuss your current and upcoming project requirements
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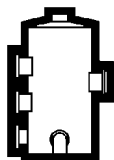
Tanks



Pipe



Duct



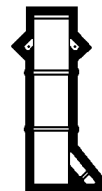
Scrubbers



Fans



Specials



Stacks



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