

Customary to Metric Conversions

9173

Common Conversion Factors		
Volume, Density, Concentration		
<i>Multiply</i>	<i>By</i>	<i>To Obtain</i>
Cubic Meters	220.1	Imperial Gallons
Cubic Yards	27	Cubic Feet
	0.7646	Cubic Meters
	202.0	U.S. Gallons
	168.17	Imperial Gallons
Gallons (US)	0.1337	Cubic Feet
	231	Cubic Inches
	0.83267	Imperial Gallons
Gallons, Water (US)	8.3453	Pounds Of Water
Grains per US Gallon	17.118	Parts per Million (ppm)
Grains per Imperial Gallon	14.286	Parts per Million (ppm)
Liters	0.03531	Cubic Feet
	61.02	Cubic Inches
Ounces (Fluid)	1.805	Cubic Inches
	0.02957	Liters
	1/128	Gallons (US)
Parts per Million (ppm)	0.584	Grains per US Gallon
	0.07016	Grains per Imperial Gallon
Measure		
<i>Multiply</i>	<i>By</i>	<i>To Obtain</i>
Feet	30.48	Centimeters
	0.3048	Meters
Inches	2.540	Centimeters
	0.0254	Meters
Kilometers	0.6214	Miles
Meters	3.281	Feet
	39.37	Inches
Miles	5280	Feet
	1.609	Kilometers
Weight		
<i>Multiply</i>	<i>By</i>	<i>To Obtain</i>
Grains	1/7000	Pounds (average)
Mass Transfer		
<i>Multiply</i>	<i>By</i>	<i>To Obtain</i>
Cubic Feet per Minute	1.70	Cubic Meters per Hour
	0.4720	Liters per Second
	62.43	Pounds of Water per Minute
Cubic Meters per Hour	0.5885	Cubic Feet per Minute
	4.403	US Gallons per Minute
	3.666	Imperial Gallons per Minutes
Gallons per Minute	1440	Gallons per Day
US Gallons per Minute	193	Cubic Feet per Day

Factors (International System Of Units)		
<i>Factor</i>	<i>Customary Units</i>	<i>International System Of Units</i>
Pressure	1 inch H ₂ O 4°C	0.0131 kilograms per square centimeter (kg/cm ²)
	1 foot H ₂ O 4°C	0.1624 kilograms per square centimeter (kg/cm ²)
	1 inch Hg 20°C	0.1840 kilograms per square centimeter (kg/cm ²)
	1 PSI	0.07032 kilograms per square centimeter (kg/cm ²) or 0.068 bars
Flow	1 cubic inch per minute	0.273 cubic centimeters (cm ³) per second or 16.38 cm ³ per minute
	1 cubic foot per minute	0.471 liters per second or 28.26 liters per minute
	1 gallon per minute	3.785 liters per minute or 227.1 liters per hour
	1 million gallons per day	3785 cubic meters (m ³) per day or 2.62 m ³ per minute
Mass	1 ounce	0.028 kilograms (kg)
	1 pound	0.453 kilograms (kg)
	1 ton (2240 pounds)	1,1016.046 kilograms (kg)
	1 ton (2000 pounds)	907.184 kilograms (kg)
Area	1 square inch	645.16 square millimeters (mm ²)
	1 square foot	0.092 square meters (m ²)
	1 square yard	0.836 square meters (m ²)
	1 acre	4,046.856 square meters (m ²)
	1 square mile	2,589.0 square kilometers (km ²)
Volume	1 quart	0.946 liters
	1 gallon	3.785 liters
	1 million gallons	3.785 x 10 ⁶ liters
	1 cubic foot	0.028 cubic meters (m ³)
	1 cubic yard	0.764 cubic meters (m ³)
Ion exchange capacity (as CaCO ₃)	Kgr. per cubic foot	0.0457 eq per liter
	Grains per cubic foot	4.57 x 10 ⁻⁵ eq per liter

Standards (International System Of Units)		
<i>Factor</i>	<i>Customary Units</i>	<i>International System Of Units</i>
Chemical Dosage	parts per million (ppm)	milligrams per liter (mg/L)
Chemical Feed Rate	pounds per day	kilograms per day
	gallons per hour	liters per hour or milliliters per second
Ion Exchange Capacity	grains per cubic foot	grains per liter or eq per liter
Pipe Cross-Section	square inches	square millimeter (mm ²) or square centimeter (cm ²)
Pipe Diameter	inches	millimeters (mm)
Pipe Flow Velocity	feet per second	meters per second
Pipe Length	feet	meters
Pressure	PSI	bars or kilograms per square centimeter (kg/cm ²)
Pump Capacity	gallons per minute	liters per minute
	cubic feet per minutes	
Residual Chlorine	parts per million (ppm)	milligrams per liter (mg/l)
Retention Time	hour	hour
Water Consumption	gallons	cubic meters (m ³) or liters
	cubic feet	cubic meters (m ³)
Water Flow	gallons per day	cubic meters (m ³) per hour
	gallons per minute	liters per minute
Water Temperature	degrees Fahrenheit (°F)	degrees Celsius (°C)
Water Turbidity	NTU	NTU

