

# Conversion Tables and Factors

# MC

## Conversion table

| Volumetric unit  | Volumetric units |                      |                     |       |                       |                       |                       |
|------------------|------------------|----------------------|---------------------|-------|-----------------------|-----------------------|-----------------------|
|                  | Cubic centimeter | Fluid Ounce          | Pound water         | Litre | US Gallon             | Cubic foot            | Cubic meter           |
| Cubic centimeter | •                | 0.034                | 2.2x10 <sup>3</sup> | 0.001 | 2.64x10 <sup>-4</sup> | 3.53x10 <sup>-5</sup> | 1.0x10 <sup>-6</sup>  |
| Fluid Ounc       | 29.4             | •                    | 0.065               | 0.030 | 7.81x10 <sup>-3</sup> | 1.04x10 <sup>-3</sup> | 2.96x10 <sup>-5</sup> |
| Pound water      | 454              | 15.4                 | •                   | 0.454 | 0.12                  | 0.016                 | 4.54x10 <sup>-4</sup> |
| Litre            | 1,000            | 33.8                 | 2.2                 | •     | 0.264                 | 0.035                 | 0.001                 |
| US Gallon        | 3.785            | 128                  | 8.34                | 3.785 | •                     | 0.134                 | 3.78x10 <sup>-4</sup> |
| Cubic foot       | 28.320           | 958                  | 62.4                | 28.3  | 7.48                  | •                     | 0.028                 |
| Cubik meter      | 1.0x106          | 3.38x10 <sup>4</sup> | 2,202               | 1,000 | 264                   | 35.3                  | •                     |

| Linear unit | Linear units         |                      |                       |                       |                       |                       |        |
|-------------|----------------------|----------------------|-----------------------|-----------------------|-----------------------|-----------------------|--------|
|             | µm                   | Micron               | Millimeter            | Centimeter            | Inch                  | Foot                  | Meter  |
| µm          | •                    | 0.039                | 0.001                 | 1.0x10 <sup>-4</sup>  | 3.94x10 <sup>-4</sup> |                       |        |
| Micron      | 25.4                 | •                    | 2.54x10 <sup>-2</sup> | 2.54x10 <sup>-3</sup> | 0.001                 | 8.33x10 <sup>-5</sup> |        |
| Millimeter  | 1,000                | 39.4                 | •                     | 0.10                  | 0.0394                | 3.28x10 <sup>-3</sup> | 0.001  |
| Centimeter  | 10,000               | 394                  | 10                    | •                     | 0.394                 | 0.033                 | 0.01   |
| Inch        | 2.54x10 <sup>4</sup> | 1,000                | 25.4                  | 2.54                  | •                     | 0.083                 | 0.0254 |
| Foot        | 3.05x10 <sup>5</sup> | 1.2x10 <sup>4</sup>  | 305                   | 30.5                  | 12                    | •                     | 0.305  |
| Meter       | 1.0x10 <sup>6</sup>  | 3.94x10 <sup>4</sup> | 1,000                 | 100                   | 39.4                  | 3.28                  | •      |

| Liquid pressure          | Liquid pressure             |          |                    |            |       |                 |                     |
|--------------------------|-----------------------------|----------|--------------------|------------|-------|-----------------|---------------------|
|                          | Lb/In <sup>2</sup><br>(psi) | Ft Water | Kg/Cm <sup>2</sup> | Atmosphere | Bar   | Inch<br>Mercury | kPa<br>(kilopascal) |
| Lb/In <sup>2</sup> (psi) | •                           | 2.31     | 0.070              | 0.068      | 0.069 | 2.04            | 6.895               |
| Ft water                 | 0.433                       | •        | 0.030              | 0.029      | 0.030 | 0.882           | 2.99                |
| Kg/Cm <sup>2</sup>       | 14.2                        | 32.8     | •                  | 0.968      | 0.981 | 29.0            | 98                  |
| Atmosphere               | 14.7                        | 33.9     | 1.03               | •          | 1.01  | 29.9            | 101                 |
| Bar                      | 14.5                        | 33.5     | 1.02               | 0.987      | •     | 29.5            | 100                 |
| Inch Mercury             | 0.491                       | 1.13     | 0.035              | 0.033      | 0.034 | •               | 3.4                 |
| kPa (kilopascal)         | 0.145                       | 0.335    | 0.01               | 0.009      | 0.01  | 0.296           | •                   |

## Conversion factors

Volume U.S. gallon = 3.785 litre = 0.1337 ft<sup>3</sup> = .003785 m<sup>3</sup>  
1 ft<sup>3</sup> = 0.02832 m<sup>3</sup> = 7.48 U.S. gallons

Pressure 1 psi = 6895 N/m<sup>2</sup> = 6,895 Pa = .069 bar = .069 Kg/cm<sup>2</sup>  
1 in Hg = 25.4 mm Hg = .4912 psi = 3,386 N/m<sup>2</sup>  
1 in H<sub>2</sub>O = 25.4 mm H<sub>2</sub>O = .0361 psi = 249.1 N/m<sup>2</sup>  
1 atmosphere = 14.7 psi = 29.92 in Hg = 760 mm Hg = 101.325 kN/m<sup>2</sup>  
1 bar = 14.504 psi = 100 kN/m<sup>2</sup> = 1.02 Kg/cm<sup>2</sup>  
1 foot head (water) = .433 psi

Flow velocity 1 U.S. gallon per minute = 0.1337 ft<sup>3</sup>/min = 3.785 l/min  
1 ft<sup>3</sup>/sec. = .02832 m<sup>3</sup>/sec = 28.32 l/sec

Length 1 in = 25.4 mm  
1 ft = .3048 m  
1 mile = 1.609 km