



# TECH TIP #57

## CONVERSION FACTORS



### Conversion Tables

#### Engineering Information

| PRESSURE    |          |           |        |        |        |         |           |
|-------------|----------|-----------|--------|--------|--------|---------|-----------|
|             | In Water | Ft. Water | PSI    | In Hg. | MM Hg  | Atm     | Kg/Sq. Cm |
| In Water =  | 1.0      | 0.083     | 0.0361 | 0.0736 | 1.87   | 0.353   | 0.0025    |
| Ft. Water = | 12.0     | 1.0       | 0.433  | 0.883  | 22.43  | 0.0295  | 0.0304    |
| PSI =       | 27.72    | 2.31      | 1.0    | 2.040  | 51.816 | 0.068   | 0.0703    |
| In Hg =     | 13.596   | 1.133     | 0.491  | 1.0    | 25.40  | 0.0334  | 0.0345    |
| MM Hg =     | 0.535    | 0.0446    | 0.0193 | 0.0394 | 1.0    | 0.00132 | 0.0014    |
| Atm =       | 2.829    | 33.947    | 14.7   | 29.921 | 760.0  | 1.0     | 1.0033    |
| Kg/Sq. Cm = | 393.6    | 32.80     | 14.22  | 28.97  | 736.03 | 0.968   | 1.0       |

| VOLUME             |           |           |         |                  |         |         |         |
|--------------------|-----------|-----------|---------|------------------|---------|---------|---------|
|                    | U.S. Gal. | Imp. Gal. | Cu. Ft. | Lb. Water @ 60°F | Cu. M   | Quart   | Liter   |
| U.S. Gal. =        | 1.0       | 0.833     | 0.134   | 8.33             | 0.00379 | 4.0     | 3.785   |
| Imp. Gal. =        | 1.2       | 1.0       | 0.161   | 10.0             | 0.00455 | 4.8     | 4.546   |
| Cu. Ft. =          | 7.481     | 6.232     | 1.0     | 62.37            | 0.0283  | 29.92   | 28.32   |
| Lb. Water @ 60°F = | 0.12      | 0.10      | 0.016   | 1.0              | 0.00045 | 0.48    | 0.454   |
| Cu. M =            | 264.2     | 220.0     | 35.31   | 2,202.9          | 1.0     | 1,057.0 | 1,000.0 |
| Quart =            | 0.25      | 0.208     | 0.0334  | 2.086            | 0.00095 | 1.0     | 0.946   |
| Liter =            | 0.264     | 0.22      | 0.0353  | 2.204            | 0.001   | 1.057.0 | 1.0     |

| POWER       |       |           |       |          |          |         |
|-------------|-------|-----------|-------|----------|----------|---------|
|             | HP    | Metric HP | kW    | HP Hr.   | kW Hr    | BTU     |
| HP =        | 1.0   | 1.014     | 0.746 | ---      | ---      | ---     |
| Metric HP = | 0.986 | 1.0       | 0.736 | ---      | ---      | ---     |
| Kw =        | 1.341 | 1.36      | 1.0   | ---      | ---      | ---     |
| HP Hr. =    | ---   | ---       | ---   | 1.0      | 0.746    | 2,545.0 |
| Kw Hr. =    | ---   | ---       | ---   | 1.341    | 1.0      | 3,413.0 |
| BTU =       | ---   | ---       | ---   | 0.000393 | 0.000293 | 1.0     |

| LENGTH |         |       |         |        |         |       |       |
|--------|---------|-------|---------|--------|---------|-------|-------|
|        | mm      | cm    | m       | in     | ft      | yd    | mi    |
| mm =   | 1.0     | 0.1   | 0.001   | 0.0394 | 0.00328 | ---   | ---   |
| cm =   | 10.0    | 1.0   | 0.01    | 0.394  | 0.0328  | ---   | ---   |
| m =    | 1,000.0 | 100.0 | 1.0     | 39.37  | 3.281   | 1.094 | ---   |
| km =   | ---     | ---   | 1,000.0 | ---    | ---     | ---   | 0.621 |

| AREA     |          |       |         |         |         |
|----------|----------|-------|---------|---------|---------|
|          | Sq. cm   | Sq. m | Sq. in. | Sq. ft. | Sq. yd. |
| Sq. cm = | 1.0      | ---   | 0.155   | ---     | ---     |
| Sq. m =  | 10,000.0 | 1.0   | 1,550.0 | 10.76   | 1.196   |

#### ABBREVIATIONS

- |                            |                              |
|----------------------------|------------------------------|
| Atm. = Atmosphere          | Kg = Kilogram                |
| BTU = British Thermal Unit | KM = Kilometer               |
| cm = Centimeter            | Kw = Kilowatt                |
| Cu. = Cubic                | Lb. = Pound                  |
| Ft. = Foot                 | m = Meter                    |
| Gal. = Gallon              | Mi. = Mile                   |
| Hg. = Mercury              | ml = Milliliter              |
| HP = Horsepower            | mm = Millimeter              |
| Hr. = Hour                 | PSI = Pounds per Square inch |
| Imp. = Imperial            | Sq. = Square                 |
| in. = inch                 | yd. = Yard                   |