

# Unità di Misura

## Energy and power:

Btu = 0.252 kg-cal  
Btu = 0.293 watt-hr  
Btu = 0.555 pecu (pound centigrade unit)  
Btu = 778 ft-lb  
Btu/min = 0.236 hp  
Hp = 42.4 Btu/min  
Hp = 33,000 ft-lb/min  
Hp = 0.7457 kw  
Hp-hr = 2543 Btu  
Kw = 1.3415 hp  
Watt-hr = 3.415 Btu

## Fluid flow:

Bbl/hr = 0.0936 cfm  
Bbl/hr = 0.700 gpm  
Bbl/day = 0.0292 gpm  
Bbl/day = 0.0039 cfm  
Cfm = 10.686 bbl/hr  
Gpm = 1.429 bbl/hr  
Gpm = 34.3 bbl/day  
Gpm  $\times$  s (specific gravity) = 500  $\times$  s lb/hr

## Heat-transfer coefficients:

Btu/(hr)(ft<sup>2</sup>)(°F) = 1.0 pecu/(hr)(ft<sup>2</sup>)(°C)  
Btu/(hr)(ft<sup>2</sup>)(°F) = 4.88 kg-cal/(hr)(m<sup>2</sup>)(°C)  
Btu/(hr)(ft<sup>2</sup>)(°F) = 0.00204 watts/(in.<sup>2</sup>)(°F)

## Length, area, and volume:

Bbl = 42 gal  
Bbl = 5.615 ft<sup>3</sup>  
Cm = 0.3937 in.  
Ft<sup>3</sup> = 0.1781 bbl  
Ft<sup>3</sup> = 7.48 gal  
Ft<sup>3</sup> = 0.0283 m<sup>3</sup>  
M<sup>3</sup> = 6.290 bbl  
M<sup>3</sup> = 35.314 ft<sup>3</sup>  
Ft = 30.48 cm  
Ft = 0.3048 m  
Gal = 0.02381 bbl  
Gal = 0.1337 ft<sup>3</sup>  
Gal = 3.785 liter  
Gal = 0.8327 gal (Imperial)  
In. = 2.54 cm  
Liter = 0.2642 gal  
Liter = 1.0567 qt  
M = 3.281 ft  
Ft<sup>2</sup> = 0.0929 m<sup>2</sup>  
M<sup>2</sup> = 10.76 ft<sup>2</sup>

## Pressure:

Atm = 33.93 ft of water at 60°F  
Atm = 29.92 in. Hg at 32°F  
Atm = 760 mm Hg at 32°F  
Atm = 14.696 psi  
Atm = 2116.8 lb/ft<sup>2</sup>  
Atm = 1.033 kg/cm<sup>2</sup>  
Ft of water at 60°F = 0.4331 psi  
In. of water at 60°F = 0.0361 psi  
Kg/cm<sup>2</sup> = 14.223 psi  
Psi = 2.309 Ft of water at 60°F

## Temperature:

Temperature °C = 5/9(°F - 32)  
Temperature °F = 9/5(°C + 32)  
Temperature °F absolute (°R) = °F + 460  
Temperature °C absolute (°K) = °C + 273

## Thermal conductivity:

Btu/(hr)(ft<sup>2</sup>)(°F/ft) = 12 Btu/(hr)(ft<sup>2</sup>)(°F/in.)  
Btu/(hr)(ft<sup>2</sup>)(°F/ft) = 1.49 kg-cal/(hr)(m<sup>2</sup>)(°C/m)  
Btu/(hr)(ft<sup>2</sup>)(°F/ft) = 0.0173 watts/(cm<sup>2</sup>)(°C/cm)

## Viscosity:

Poise = 1 g/(cm)(sec)  
Centipoise = 0.01 poise  
Centipoise = 2.42 lb/(ft)(hr)

## Weight:

Lb = 0.4536 kg  
Lb = 7000 grains  
Ton (short or net) = 2000 lb  
Ton (long) = 2240 lb  
Ton (metric) = 2205 lb  
Ton (metric) = 1000 kg

## Constants:

Acceleration of gravity = 32.2 ft/sec<sup>2</sup>  
Acceleration of gravity = 4.18  $\times$  10<sup>8</sup> ft/hr<sup>2</sup>  
Density of a cubic foot of water = 62.5 lb/ft<sup>3</sup>