

# **Tabelle fattori conversione Unità di Misura**

Prof. Carmine Napoli

**LUNGHEZZA:** unità base del sistema SI : metro (m)

| unità di misura | Simbolo | m                    | cm        | mm      | in      | hd                   | ft                   | yd                   | fm                   | rod                  |
|-----------------|---------|----------------------|-----------|---------|---------|----------------------|----------------------|----------------------|----------------------|----------------------|
| metro           | m       | 1                    | $10^2$    | $10^3$  | 39,3701 | 9,8425               | 3,2808               | 1,0936               | 0,5468               | 4,9710               |
| centimetro      | cm      | $10^{-2}$            | 1         | 10      | 0,3937  | 0,0984               | 0,0328               | 0,0109               | 0,0055               | 0,0020               |
| millimetro      | mm      | $10^{-3}$            | $10^{-1}$ | 1       | 0,0394  | $9,84 \cdot 10^{-3}$ | $3,28 \cdot 10^{-3}$ | $1,09 \cdot 10^{-3}$ | $0,55 \cdot 10^{-3}$ | $0,20 \cdot 10^{-3}$ |
| pollice         | in      | $2,54 \cdot 10^{-2}$ | 2,54      | 25,4    | 1       | 0,25                 | 0,0833               | 0,0278               | 0,0139               | $0,51 \cdot 10^{-2}$ |
| mano            | hd      | 0,1016               | 10,16     | 101,60  | 4       | 1                    | 0,3333               | 0,1111               | 0,0556               | $2,02 \cdot 10^{-2}$ |
| piede           | ft      | 0,3046               | 30,48     | 304,80  | 12      | 3                    | 1                    | 0,3333               | 0,1667               | 0,0606               |
| iarda           | yd      | 0,9144               | 91,44     | 914,40  | 36      | 9                    | 3                    | 1                    | 0,5                  | 0,1818               |
| braccio         | fm      | 1,8286               | 182,88    | 1828,80 | 72      | 18                   | 6                    | 2                    | 1                    | 0,3636               |
| pertica         | rod     | 5,0212               | 502,92    | 5029,20 | 198     | 49,50                | 16,5                 | 5,5                  | 2,75                 | 1                    |

| unità di misura     | Simbolo | m        | km        | ml                     | ml (UK                 | lg                     | lg(UK)                 |
|---------------------|---------|----------|-----------|------------------------|------------------------|------------------------|------------------------|
| metro               | m       | 1        | $10^{-3}$ | $0,6214 \cdot 10^{-3}$ | $0,5396 \cdot 10^{-3}$ | $0,1800 \cdot 10^{-3}$ | $0,1799 \cdot 10^{-3}$ |
| chilometro          | km      | $10^3$   | 1         | 0,6214                 | 0,5396                 | 0,1800                 | 1760,00                |
| miglio              | ml      | 1609,344 | 1,609     | 1                      | 0,8684                 | 0,2897                 | 2026,67                |
| miglio (nautico UK) | ml (UK) | 1853,184 | 1,853     | 1,515                  | 1                      | 0,3335                 | 6076,12                |
| lega                | lg      | 5556,00  | 5,556     | 3,4523                 | 2,9981                 | 1                      | 6080,00                |
| lega ( nautico UK)  | lg (UK) | 5559,552 | 5,560     | 3,4545                 | 3                      | 1,0006                 | 1                      |

$$3 \text{ cm} = 3 \cdot 10^{-2} \text{ m} = 0,003 \text{ m}$$

**MASSA:**                      unità base del sistema SI : chilogrammo (kg)

| unità di misura | Simbolo   | kg       | lb      | lb (troy) | t                     | ton (US)               | ton (UK)               |
|-----------------|-----------|----------|---------|-----------|-----------------------|------------------------|------------------------|
| chilogrammo     | kg        | 1        | 2,2046  | 2,6792    | $10^{-3}$             | $1,1023 \cdot 10^{-3}$ | $0,9842 \cdot 10^{-3}$ |
| libbra (avdp)   | lb        | 0,4536   | 1       | 1,2153    | $0,454 \cdot 10^{-3}$ | $0,500 \cdot 10^{-3}$  | $0,446 \cdot 10^{-3}$  |
| libbra (troy)   | lb (troy) | 0,3732   | 0,8229  | 1         | $0,373 \cdot 10^{-3}$ | $0,411 \cdot 10^{-3}$  | $0,367 \cdot 10^{-3}$  |
| tonnellata      | t         | $10^3$   | 2204,62 | 2679,23   | 1                     | 1,1023                 | 0,9842                 |
| tonnellata (US) | ton (UK)  | 907,1847 | 2430,56 | 2430,56   | 0,9072                | 1                      | 0,8929                 |
| tonnellata (UK) | ton (US)  | 1016,047 | 2722,22 | 160       | 1,0160                | 1200                   | 1                      |

| unità di misura | Simbolo | g        | gr      | oz (avdp)             | oz (troy)            | lb                     | lb (troy)              |
|-----------------|---------|----------|---------|-----------------------|----------------------|------------------------|------------------------|
| grammo          | g       | 1        | 15,4324 | 0,0353                | 0,0322               | $2,205 \cdot 10^{-3}$  | $2,679 \cdot 10^{-3}$  |
| grano           | gr      | 0,0648   | 1       | $2,286 \cdot 10^{-3}$ | $2083 \cdot 10^{-3}$ | $0,1429 \cdot 10^{-3}$ | $0,1736 \cdot 10^{-3}$ |
| oncia (avdp)    | oz      | 28,3495  | 437,48  | 1                     | 0,9115               | 0,0625                 | 0,0760                 |
| oncia (troy)    | oz      | 31,1035  | 480     | 1,0971                | 1                    | 0,0686                 | 0,0833                 |
| libbra          | lb      | 453,5923 | 7000,00 | 16                    | 14,5833              | 1                      | 1,2153                 |
| libbra (troy)   | lb      | 373,2417 | 5760,00 | 13,1657               | 12                   | 0,8228                 | 1                      |

**LAVORO, ENERGIA, CALORE, ENTELPIA:**                      unità base del sistema SI : joule (J=Nm)

| unità di misura    | Simbolo             | J                      | kg <sub>f</sub> m      | kcal                   | Wh                     | CVh                   | ft. lb <sub>f</sub>  | Btu                    | CHU                    |
|--------------------|---------------------|------------------------|------------------------|------------------------|------------------------|-----------------------|----------------------|------------------------|------------------------|
| joule              | J                   | 1                      | 0,10197                | $0,2388 \cdot 10^{-3}$ | $0,2776 \cdot 10^{-3}$ | $0,378 \cdot 10^{-6}$ | 0,7376               | 0,9478                 | $0,5286 \cdot 10^{-3}$ |
| chilogrammetro     | kg <sub>f</sub> m   | 9,807                  | 1                      | $2,724 \cdot 10^{-3}$  | $2,724 \cdot 10^{-3}$  | $0,370 \cdot 10^{-5}$ | 7,233                | $9,295 \cdot 10^{-3}$  | $5,164 \cdot 10^{-3}$  |
| chilocaloria       | kcal                | 4186,80                | 426,92                 | 1                      | 1,163                  | $1,581 \cdot 10^{-3}$ | 3087,6               | 3,9683                 | 2,2046                 |
| wattora            | Wh                  | 3600                   | 367,08                 | 0,8605                 | 1                      | $1,360 \cdot 10^{-3}$ | 2654,87              | 3,413                  | 1,8956                 |
| cavallo vapore ora | CVh                 | $2647,8 \cdot 10^{-3}$ | $269,91 \cdot 10^{-3}$ | 632,53                 | 735,5                  | 1                     | $1952,92 \cdot 10^3$ | 2512,2                 | 1394,23                |
| libbra piede       | ft. lb <sub>f</sub> | 1,356                  | 0,1383                 | $0,3238 \cdot 10^{-3}$ | $0,3767 \cdot 10^{-3}$ | $0,512 \cdot 10^{-6}$ | 1                    | $1,2853 \cdot 10^{-3}$ | $5,2656 \cdot 10^{-3}$ |
| BTU                | Btu                 | 1056,06                | 107,56                 | 0,2520                 | 0,2930                 | $0,398 \cdot 10^{-3}$ | 778,03               | 1                      | 0,5556                 |
| CHU                | CHU                 | 1899,11                | 193,65                 | 0,4536                 | 0,5275                 | $0,717 \cdot 10^{-3}$ | 1400,52              | 1,8                    | 1                      |

*LPOTENZA (MECCANICA, ELETTRICA, TERMICA):*

unità base del sistema SI : watt (W)

| unità di misura            | Simbolo  | W      | kcal/h | kgm/s   | BTU/h  | ft lb /s | HP                    | CV                    |
|----------------------------|----------|--------|--------|---------|--------|----------|-----------------------|-----------------------|
| watt                       | W        | 1      | 0,8605 | 0,102   | 3,413  | 0,7375   | $1,341 \cdot 10^{-3}$ | $0,318 \cdot 10^{-3}$ |
| chilocaloria/ora           | kcal/h   | 1,1628 | 1      | 0,1186  | 3,9683 | 0,8576   | $1,559 \cdot 10^{-3}$ | $1,581 \cdot 10^{-3}$ |
| chilogrammetro/secondo     | kgm/s    | 9,807  | 8,434  | 1       | 33,47  | 7,233    | $1,315 \cdot 10^{-2}$ | $1,333 \cdot 10^{-2}$ |
| Brithis Thermal Unit /hour | BTU/h    | 0,2930 | 0,2930 | 0,02988 | 1      | 0,2161   | $0,393 \cdot 10^{-3}$ | $0,398 \cdot 10^{-3}$ |
| Libbra piede /secondo      | ft lb /s | 1,356  | 1,166  | 0,1383  | 4,627  | 1        | $1,818 \cdot 10^{-3}$ | $1,844 \cdot 10^{-3}$ |
| Cavallo vapore (UK)        | HP       | 745,7  | 641,3  | 76,04   | 2547,0 | 550      | 1                     | 1,0139                |
| Cavallo vapore             | CV       | 735,5  | 632,53 | 75,0    | 2512,2 | 542,4    | 0,986                 | 1                     |