

Wire Facts

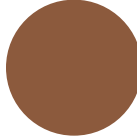


Wire Length

Round Wire

$$\text{Ft/Lb} = \frac{.1061}{\rho \times D^2}$$

ρ = Alloy Density, lb/in³
D = Wire Diameter, in.



$$\text{m/kg} = \frac{1273.24}{\rho \times D^2}$$

ρ = Alloy Density, gm/cm³
D = Wire Diameter, mm

Square or Rectangular Wire

$$\text{Ft/Lb} = \frac{.0833}{\rho (w \times t - .8584R^2)}$$

ρ = Alloy Density, Lb/in³
w = Wire Width, in.
t = Wire Thickness, in.
R = Corner Radius, in.



$$\text{m/kg} = \frac{1000}{\rho (w \times t - .8584R^2)}$$

ρ = Alloy Density, gm/cm³
w = Wire Width, mm
t = Wire Thickness, mm
R = Corner Radius, mm

Round Edge Flat Wire

$$\text{Ft/Lb} = \frac{.0833}{\rho \times w \times t \times C_f}$$

ρ = Alloy Density, lb/in³
w = Wire Width, in.
t = Wire Thickness, in.
C_f = Correction Factor



$$\text{m/kg} = \frac{1000}{\rho \times w \times t \times C_f}$$

ρ = Alloy Density, gm/cm³
w = Wire Width, mm
t = Wire Thickness, mm
C_f = Correction Factor

C_f = Correction factor for the area loss from a true rectangle to the round edge.

Width/Thickness Ratio	Correction Factor	Width/Thickness Ratio	Correction Ratio	Width/Thickness Ratio	Correction Factor
1	.785	1.7	.905	2.8-3.0	.950
1.05	.805	1.8	.910	3.1-3.3	.955
1.1	.820	1.9	.915	3.4-3.7	.960
1.15	.840	2.0	.920	3.8-4.3	.965
1.2	.850	2.1	.925	4.4-5.2	.970
1.3	.865	2.2	.930	5.3-6.2	.975
1.4	.875	2.3-2.4	.935	6.3-7.9	.980
1.5	.885	2.5-2.6	.940	8.0-9.1	.985
1.6	.895	2.7	.945	9.2-9.9	.990