

Formulas of Weight Calculation

Weight of Carbon Steel Pipes & Tubes

Dia.(mm)-W.T.(mm) X W.T.(mm) x 0.02466=Kg.PerMtr.

Weight of Carbon Steel Sheets & Plates

Length (mtr.) x Wdth(mtr.) x Thk(mm) x 7.85=Kg Per Sheet

Weight Calculation: Extra weight of chequers length (m) x width (m) x 2.1 = kg/plate

Total weight: length (m) x width (m) x thickness (mm) x 7.85 + extra weight = kg/plate

Eg:

2400 x 1220 x 6mm Chequer Plate

Extra weight: 2.4 x 1.22 x 2.1 = 6.15 kg/plate

Total weight: 2.4 x 1.22 x 6 x 7.85 + 6.15 = 144.06 kg/plate

Weight of Copper Pipes

OD(mm)-W.T. (mm) X W.T.(mm) x 0.0256=Kg.per Mtr.

Weight of Lead Pipes (approx)

OD(mm)-W.T. (mm) X W.T.(mm) x 0.0345=per Mtr.

Weight of Lead Sheets (approx)

Length (mtr.) X Width(mtr.) X Thk(mm) x 11.2=Kg Per Sheet

Weight of Aluminium Pipes (approx)

OD(mm)-W.T. (mm) X W.T.(mm) x 0.0082=Kg per Mtr.

Weight of Aluminium Sheets (approx)

Length (mtr.) X Width(mtr.) X Thk(mm) x 2.66=Kg Per Sheet

Tensile Strength Conversion Table

Kg/mm² x 9.81 = N/mm²=MPa

PSi x 0.0007 = Kg/mm²

KSi x 1000 = PSi

Kg/mm² x 1.422 = KSi

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Weight of S.S. Sheets & Plates :

Length (Mtrs) X Width (Mtrs) X Thick (MM) X 8 = Wt. Per PC
Length (fit) X Width (Mtrs) X Thick (mm) X ¾ = Wt. Per PC

Weight of S.S. Circle

Dia (mm) X Dia (mm) X Thick (mm) / 160 = Gms. Per PC
Dia (mm) X Dia (mm) X Thick (mm) X 0.00000063 = Kg. Per PC.

Weight of S.S. Pipe

O.D. (mm) – W Thick (mm) X W.Thick (mm) X 0.0248 = Wt. Per Mtr.
O.D. (mm) – W Thick (mm) X W.Thick (mm) X 0.00758 = Wt. Per Mtr.

Weight of S.S. Round Bar.

Dia (mm) X Dia (mm) X 0.00623 = Wt. Per. Mtr.
Dia (mm) X Dia (mm) X 0.0019 = Wt. Per. Feet.

Weight of S.S. Square Bar

Dia (mm) X Dia (mm) X 0.00788 = Wt. Per. Mtr
Dia (mm) X Dia (mm) X 0.0024 = Wt.Per. Feet.

Weight of S.S. Hexagonal Bar

Dia (mm) X Dia (mm) X 0.00680 = Wt. Per.Mtr
Width (mm) X Dia (mm) X 0.002072 = Wt. Per Feet

Weight of S.S. Flate Bar

Width (mm) X Thick (mm) X 0.00798 = Wt.Per Mtr.
Width (mm) X Thick (mm) X 0.00243 = Wt.Per Feet.

Weight of Brass Pipe / Copper Pipe

O.D. (mm) – Thick (mm) X Thick (mm) X 0.0260 = Wt. Per Mtr.



O.D. (mm) – Wt (mm) X Wt (mm) X 0.0345 = Wt. Per Mtr.

Weight of Aluminium Pipe

O.D. (mm) – Thick (mm) X Thick (mm) X 0.0083 = Wt.Per. Mtr.

Weight of Aluminium Sheet

Length (Mtr) X Width (Mtr) X Thick (mm) X 2.69 = Wt.Per PC

Weight of Conversion of Mtr to Feet

Wt of 1 Mtr. 3.2808 = Wt.Per Feet.

Barlow's Formula for calculating bursting pressure

$P = \frac{2ST}{D \text{ or } t} - \frac{DP}{2S} \text{ or } S - \frac{DP}{2t} \text{ or } D = \frac{2st}{p}$

P = Bursting Pressure P. si.

S = Tensile Strength of tube.

T = Well Thickness (In Inches)

D = Outside diameter (In Inches)

