

SOUTHERN STEEL & SUPPLY

SIMPLE WEIGHT AND CONVERSION FORMULAS

There are two methods for deriving weight of steel products. Nominal weights are based on the theoretical weight of steel taken as 40.80 pounds per square foot, on inch thick. Standard weights are based on experience, taking into consideration the various manufacturing practices. There may be some slight differences between the two weights and both can vary from the actual scale weight.

The following formulae are based upon Nominal weights and should be considered approximations rather than actual weights.

SIMPLE WEIGHT FORMULAS

ROUNDS	Diameter squared x 2.67 = Weight per lineal foot
SQUARES	Diameter squared x 3.4 = Weight per lineal foot
HEXAGONS*	Diameter squared x 2.945 = Weight per lineal foot
OCTAGONS*	Diameter squared x 2.817 = Weight per lineal foot
FLATS-PLATE AND STRIP	Thickness (inches) x width (inches) x 3.4 = Weight per lineal foot or
	Thickness (inches) x width (inches) x .2833 = Weight per lineal foot
SHEET	Thickness (inches) x width (inches) x 3.485 = Weight per lineal foot or
	Thickness (inches) x width (inches) x .2904 = Weight per lineal foot
PLATE-CIRCLES	Diameter squared x thickness (inches) x .2225
SHEET-CIRCLES	Diameter squared x thickness (inches) x .228
COILS	Outside diameter squared - inside diameter squared x .2223 = Weight per inch of width

* The diameter of hexagons and octagons if measured across the flats.

CONVERSION FORMULAS

$$\text{ROUND TUBING} = 10.68 (D-t) t$$

$$\text{SQUARE TUBING} = 13.6 (D-t) t$$

$$\text{RECTANGULAR TUBING} = 13 \left(\frac{D1 + D2 - t}{2} \right) t$$

t = Nominal wall thickness D = Outside diameter