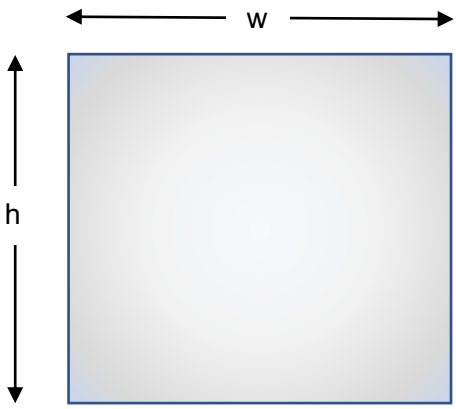
Ductwork Cross Sectional Area (CSA) Calculations



Height (H), Width (W)

h x w = CSA

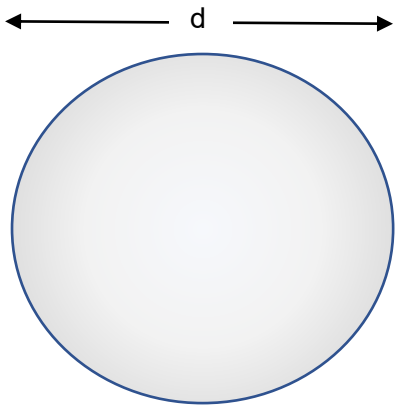
h (mm) x w (mm) = CSA (mm²)

h (m) x w (m) = CSA (m²)

Example

300(mm) x 300(mm) = 90,000mm²

90,000 ÷ 1,000,000 = 0.09m²



Diameter (d), Radius (r), Pi (π)

d ÷ 2 + r $\pi = 3.142$

πr^2 = CSA

π x (r x r) = CSA

Example

3.142 x (150(mm) x 150(mm))

3.142 x 22,500 = 70,695mm²

Ductwork Volumetric Air Flow (q) Calculations

Air Flow Volume (q) = Velocity (v) x CSA

v x CSA = q

Examples

15(m/s) x 0.09(m²) = 1.35m³ 1.35 x 1000 = 1350 l/s

Velocity Measurement Method

● Measurement Point