

$$Ga = V \times \gamma = V \times \frac{P}{RT}$$

Ga : Intake air volume [kg/cycle]

V : Stroke capacity [m³]

γ : Specific weight of intake air [kg/m³]

P : Average intake manifold pressure per cycle [kg/m³]

T : Intake air temperature [K]

R : Gas constant (29.27 for air) [kgm/kgK]