

$$G_a = V \times \gamma = V \times \frac{P}{R T}$$

$G_a$  : Intake air volume [kg/cycle]

$V$  : Stroke capacity [ $m^3$ ]

$\gamma$  : Specific weight of intake air [ $kg/m^3$ ]

$P$  : Average intake manifold pressure per cycle [ $kg/m^3$ ]

$T$  : Intake air temperature [K]

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