Direct-Fired Formulas

Heating Requirements

Input BTU/Hr = \( \frac{(\text{Blower SCFM} \times \text{Temp Rise} \times \text{Density Factor})}{.92} \)

\[ \text{Temp Rise} = \frac{\text{Input BTU/Hr} \times .92}{\text{Blower SCFM} \times \text{Density Factor}} \]

\[ \text{Density Factor} = \frac{1.08 + (70 - \text{Blower Temp}) \times .024}{10} \]

Output BTU/Hr

Output BTU/Hr = Input BTU/Hr \times .92

Profile Velocity

Profile Velocity = \( 945 \times \sqrt{\frac{\text{Profile Pressure}}{0.075}} \)

Burner Areas

6 Inch Straight = .32 sq ft.
12 Inch Straight = .65 sq ft.
T Section = .77 sq ft.
El Section = .65 sq ft.