## Natural GAS

| $\begin{gathered} \text { 16M BTU } \\ \text { SUPPLY } \end{gathered}$ |  |  |  | 4 Million BTU / Hour |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SUPPLY GAS FLOW $\longrightarrow$ |  |  | D | Supply PSI | Pipe Length (Feet) | Min Pipe Size |
|  |  |  | Length 35 | 10 | 200 | 1.5 |
|  |  |  |  | 15 |  | 1.5 |
|  |  |  |  | 20 |  | 1 |
|  |  |  |  | 25 |  | 1 |
| Pipe sizing is a function of BTUs travelling through the pipe, effective length of the pipe, and the supply pressure. BTUs are simple to calculate (as shown above), effective pipe length is a little more complex (see below), and supply pressure is from your gas company. |  |  |  | 10 | 500 | 2 |
|  |  |  |  | 15 |  | 1.5 |
|  |  |  |  | 20 |  | 1.5 |
|  |  |  |  | 25 |  | 1.5 |
| The effective length of pipe $A$ is the longest path from the start of pipe $A$ (supply) to the furthest machine (Humidaire). So effectivly pipe $A$ is 240 feet long $(A+C+E)$. |  |  |  | 10 | 1000 | 3 |
|  |  |  |  | 15 |  | 1.5 |
|  |  |  |  | 20 |  | 1.5 |
|  |  |  |  | 25 |  | 1.5 |
| The effective length of Pipe $C$ is the longest path from the start of pipe $C$ ("T" junction where $A, B, C$ intersect) to the furthest machine (Humidaire). So effectivly pipe C is 90 feet long $(\mathrm{C}+\mathrm{E})$. |  |  |  | 10 | 5280 | 3 |
|  |  |  |  | 15 |  | 2 |
|  |  |  |  | 20 |  | 2 |
|  |  |  |  | 25 |  | 2 |

Pipes $B, D$, and $E$ are simply their respective lengths:
$B$ is 35 feet, $D$ is 35 feet, and $E$ is 50 feet.

| 8 Million BTU / Hour |  |  | 16 Million BTU / Hour |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Supply PSI | $\underset{\text { (Feet) }}{\text { Pipe Length }}$ | Min Pipe Size (Inches) | Supply PSI | Pipe Length (Feet) | Min Pipe Size (Inches) |
| 10 | 200 | 2 | 10 | 200 | 3 |
| 15 |  | 1.5 | 15 |  | 2 |
| 20 |  | 1.5 | 20 |  | 2 |
| 25 |  | 1.5 | 25 |  | 1.5 |
| 10 | 500 | 3 | 10 | 500 | 4 |
| 15 |  | 2 | 15 |  | 3 |
| 20 |  | 1.5 | 20 |  | 2 |
| 25 |  | 1.5 | 25 |  | 2 |
| 10 | 1000 | 3 | 10 | 1000 | 4 |
| 15 |  | 2 | 15 |  | 3 |
| 20 |  | 2 | 20 |  | 3 |
| 25 |  | 1.5 | 25 |  | 2 |
| 10 | 5280 | 4 | 10 | 5280 | 6 |
| 15 |  | 3 | 15 |  | 4 |
| 20 |  | 3 | 20 |  | 3 |
| 25 |  | 3 | 25 |  | 3 |

Pipe sizes are for schedule 40 pipe and based on a minimum of 9 PSIG delivered to the inlet of the Heater or Humidaire. Use the pipe length that is equal to or longer than the effective length: for 240 feet use 500 feet in the table. Use the BTU rating that is equal to or higher than the BTU needed: for 12 M use 16 M .

Natural GAS

24 Million BTU / Hour

| Supply PSI | Pipe Length (Feet) | Min Pipe Size (Inches) |
| :---: | :---: | :---: |
| 10 | 200 | 4 |
| 15 |  | 3 |
| 20 |  | 2 |
| 25 |  | 2 |
| 10 | 500 | 4 |
| 15 |  | 3 |
| 20 |  | 3 |
| 25 |  | 2 |
| 10 | 1000 | 6 |
| 15 |  | 3 |
| 20 |  | 3 |
| 25 |  | 3 |
| 10 | 5280 | 6 |
| 15 |  | 4 |
| 20 |  | 4 |
| 25 |  | 4 |

40 Million BTU / Hour

| Supply PSI | Pipe Length (Feet) | Min Pipe Size (Inches) |
| :---: | :---: | :---: |
| 10 | 200 | 4 |
| 15 |  | 3 |
| 20 |  | 3 |
| 25 |  | 3 |
| 10 | 500 | 6 |
| 15 |  | 4 |
| 20 |  | 3 |
| 25 |  | 3 |
| 10 | 1000 | 6 |
| 15 |  | 4 |
| 20 |  | 4 |
| 25 |  | 3 |
| 10 | 5280 | 8 |
| 15 |  | 6 |
| 20 |  | 6 |
| 25 |  | 4 |

32 Million BTU / Hour

| Supply PSI | Pipe Length (Feet) | Min Pipe Size (Inches) |
| :---: | :---: | :---: |
| 10 | 200 | 4 |
| 15 |  | 3 |
| 20 |  | 3 |
| 25 |  | 2 |
| 10 | 500 | 6 |
| 15 |  | 3 |
| 20 |  | 3 |
| 25 |  | 3 |
| 10 | 1000 | 6 |
| 15 |  | 4 |
| 20 |  | 3 |
| 25 |  | 3 |
| 10 | 5280 | 8 |
| 15 |  | 6 |
| 20 |  | 4 |
| 25 |  | 4 |

64 Million BTU / Hour

| Supply PSI | Pipe Length (Feet) | Min Pipe Size (Inches) |
| :---: | :---: | :---: |
| 10 | 200 | 6 |
| 15 |  | 4 |
| 20 |  | 3 |
| 25 |  | 3 |
| 10 | 500 | 6 |
| 15 |  | 4 |
| 20 |  | 4 |
| 25 |  | 3 |
| 10 | 1000 | 6 |
| 15 |  | 6 |
| 20 |  | 4 |
| 25 |  | 4 |
| 10 | 5280 | 10 |
| 15 |  | 6 |
| 20 |  | 6 |
| 25 |  | 6 |

Pipe sizes are for schedule 40 pipe and based on a minimum of 9 PSIG delivered to the inlet of the Heater or Humidaire. Use the pipe length that is equal to or longer than the effective length: for 240 feet use 500 feet in the table. Use the BTU rating that is equal to or higher than the BTU needed: for 12 M use 16 M .

## Propane Gas

4 Million BTU / Hour

| Supply PSI | Pipe Length <br> (Feet) | Min Pipe Size <br> (Inches) |
| :---: | :---: | :---: |
| 10 | 200 | $\mathbf{1 . 5}$ |
| $n$ |  |  |
| 15 | 500 | $\mathbf{1 . 5}$ |
|  |  | $\mathbf{1}$ |
| 10 | 1000 | $\mathbf{2}$ |
| 15 |  |  |
| 10 | 5280 | $\mathbf{3}$ |
| 15 |  | $\mathbf{1 . 5}$ |
| 10 |  |  |

16 Million BTU / Hour

| Supply PSI | Pipe Length <br> (Feet) | Min Pipe Size <br> (Inches) |
| :---: | :---: | :---: |
| 10 | 200 | $\mathbf{2}$ |
| $n$ |  | $\mathbf{1 . 5}$ |
| 15 | 500 | $\mathbf{3}$ |
| 10 |  | $\mathbf{2}$ |
| 15 | 1000 | $\mathbf{3}$ |
| 10 |  | $\mathbf{4}$ |
| 15 |  | $\mathbf{3}$ |
| 10 |  |  |
| 15 |  |  |

32 Million BTU / Hour

| Supply PSI | Pipe Length (Feet) | Min Pipe Size (Inches) |
| :---: | :---: | :---: |
| 10 | 200 | 3 |
| 15 |  | 2 |
| 10 | 500 | 4 |
| 15 |  | 3 |
| 10 | 1000 | 4 |
| 15 |  | 3 |
| 10 | 5280 | 6 |
| 15 |  | 4 |

64 Million BTU / Hour

| Supply PSI | Pipe Length (Feet) | Min Pipe Size (Inches) |
| :---: | :---: | :---: |
| 10 | 200 | 4 |
| 15 |  | 3 |
| 10 | 500 | 6 |
| 15 |  | 3 |
| 10 | 1000 | 6 |
| 15 |  | 4 |
| 10 | 5280 | 8 |
| 15 |  | 6 |

8 Million BTU / Hour

| Supply PSI | Pipe Length <br> (Feet) | Min Pipe Size <br> (Inches) |
| :---: | :---: | :---: |
| 10 | 200 | $\mathbf{1 . 5}$ |
| $n$ |  |  |
| 15 | 500 | $\mathbf{2}$ |
| 10 |  | $\mathbf{1 . 5}$ |
| 15 | 1000 | $\mathbf{3}$ |
| 10 |  | $\mathbf{1 . 5}$ |
| 15 | 5280 | $\mathbf{3}$ |
| 10 |  | $\mathbf{2}$ |
| 15 |  |  |

## 24 Million BTU / Hour

| Supply PSI | Pipe Length <br> (Feet) | Min Pipe Size <br> (Inches) |
| :---: | :---: | :---: |
| 10 | 200 | $\mathbf{3}$ |
| $n$ |  | $\mathbf{1 . 5}$ |
| 15 | 500 | $\mathbf{3}$ |
| 10 |  | $\mathbf{2}$ |
| 15 | 1000 | $\mathbf{3}$ |
| 10 |  | $\mathbf{3}$ |
| 15 |  | $\mathbf{3}$ |
| 10 |  |  |
| 15 |  |  |

40 Million BTU / Hour

| Supply PSI | Pipe Length <br> (Feet) | Min Pipe Size <br> (Inches) |
| :---: | :---: | :---: |
| 10 | 200 | $\mathbf{3}$ |
|  |  | $\mathbf{2}$ |
| 15 | 500 | $\mathbf{4}$ |
|  |  | $\mathbf{3}$ |
| 10 | 1000 | $\mathbf{4}$ |
|  |  | $\mathbf{3}$ |
| 15 | 5280 | $\mathbf{6}$ |
| 10 |  | $\mathbf{4}$ |
| 10 |  |  |
| 15 |  |  |

Pipe sizes are for schedule 40 pipe and based on a minimum of 9 PSIG delivered to the inlet of the Heater or Humidaire. Use the pipe length that is equal to or longer than the effective length: for 240 feet use 500 feet in the table. Use the BTU rating that is equal to or higher than the BTU needed: for 12 M use 16 M .

