

# GAS PIPE SIZING CHART



## ≡ NATURAL GAS (NG)

| Pipe Length (ft.) | 1/2" | 3/4" | 1"  | 1 - 1 1/4" | 1 - 1 1/2" | 2"   | 2 - 2 1/2" | 3"   | 4"   |
|-------------------|------|------|-----|------------|------------|------|------------|------|------|
| 10                | 108  | 230  | 387 | 793        | 1237       | 2259 | 3640       | 6434 | -    |
| 20                | 75   | 160  | 280 | 569        | 877        | 1610 | 2613       | 5236 | 9521 |
| 30                | 61   | 129  | 224 | 471        | 719        | 1335 | 2165       | 4107 | 7859 |
| 40                | 52   | 110  | 196 | 401        | 635        | 1143 | 1867       | 3258 | 6795 |
| 50                | 46   | 98   | 177 | 364        | 560        | 1041 | 1680       | 2936 | 6142 |
| 60                | 42   | 89   | 159 | 336        | 513        | 957  | 1559       | 2684 | 5647 |
| 70                | 38   | 82   | 149 | 317        | 476        | 896  | 1447       | 2492 | 5250 |
| 80                | 36   | 76   | 140 | 239        | 443        | 840  | 1353       | 2315 | 4900 |
| 90                | 33   | 71   | 133 | 275        | 420        | 793  | 1288       | 2203 | 4667 |
| 100               | 32   | 68   | 126 | 266        | 411        | 775  | 1246       | 2128 | 4518 |
| 125               | 28   | 60   | 117 | 243        | 369        | 700  | 1143       | 1904 | 4065 |
| 150               | 25   | 54   | 105 | 215        | 327        | 625  | 1008       | 1689 | 3645 |
| 175               | 23   | 50   | 93  | 196        | 303        | 583  | 993        | 1554 | 3370 |
| 200               | 22   | 47   | 84  | 182        | 280        | 541  | 877        | 1437 | 3160 |
| 300               | 17   | 37   | 70  | 145        | 224        | 439  | 686        | 1139 | 2539 |

Pipe length must include additional length for all fittings. Add approximately 5 feet of pipe per fitting.

Natural Gas (NG) flow is given in thousands of BTU/hr. One cubic foot of NG gas - 1000 BTU.

Nominal pressure at the burner for Natural Gas is 3.5" of water column. (Typical machine supply 5" - 7").

Natural Gas Example: A machine with a burner that requires 440,000 BTU would need a 1 - 1/4" pipe for a 20' long run.

## ≡ LIQUID PROPANE (LP)

| Pipe Length (ft.) | 1/2" | 3/4" | 1"   | 1 - 1 1/4" | 1 - 1 1/2" | 2"   | 2 - 2 1/2" | 3"    | 4"    |
|-------------------|------|------|------|------------|------------|------|------------|-------|-------|
| 10                | 275  | 567  | 1071 | 2205       | 3307       | 6221 | 10140      | 17990 | 35710 |
| 20                | 189  | 393  | 732  | 1496       | 2299       | 4331 | 7046       | 12510 | 25520 |
| 30                | 152  | 315  | 590  | 1212       | 1858       | 3465 | 5695       | 10110 | 20620 |
| 40                | 129  | 267  | 504  | 1039       | 1559       | 2992 | 4778       | 8481  | 17300 |
| 50                | 114  | 237  | 448  | 913        | 1417       | 2646 | 4343       | 7708  | 15730 |
| 60                | 103  | 217  | 409  | 834        | 1275       | 2394 | 3908       | 6936  | 14150 |
| 70                | 89   | 185  | 346  | 724        | 1086       | 2047 | 3329       | 5908  | 12050 |
| 80                | 78   | 162  | 307  | 630        | 976        | 1811 | 2991       | 5309  | 10830 |
| 90                | 69   | 146  | 275  | 567        | 866        | 1606 | 2654       | 4711  | 9613  |
| 100               | 63   | 132  | 252  | 511        | 787        | 1496 | 2412       | 4281  | 8736  |
| 125               | 54   | 112  | 209  | 439        | 665        | 1282 | 2083       | 3618  | 7382  |
| 150               | 48   | 100  | 185  | 390        | 590        | 1138 | 1808       | 3210  | 6549  |
| 175               | 43   | 90   | 168  | 353        | 534        | 1030 | 1637       | 2905  | 5927  |
| 200               | 40   | 83   | 155  | 325        | 491        | 947  | 1505       | 2671  | 5450  |
| 300               | 37   | 77   | 144  | 303        | 458        | 887  | 1404       | 2492  | 5084  |

Pipe length must include additional length for all fittings. Add approximately 5 feet of pipe per fitting.

Liquid Propane (LP) flow is given in thousands of BTU/hr. One cubic foot of NG gas - 2516 BTU.

This chart refers to low pressure LP, after regulation, standard nominal pressure at the burner for Liquid Propane Gas is 11" of water column

Liquid Propane Example: A machine with a burner that requires 440,000 BTU would need a 1" pipe for a 20' long run.

NOTE: The sizing charts above list the specific pipe sizes required for the amount of BTU's for a new gas line installations. If you are using an existing gas line you must take into consideration the existing gas line capacities to ensure you will have proper pressure.

This chart is for reference only, we recommend you consult with a Licensed Plumber/Gas Fitter or NFPA54 (National Fuel Gas Code - current edition) for more details.

HIGH ELEVATION INSTALLATION

This appliance is listed for elevations from 0 - 4500ft in Canada and the United States. If elevation exceeds 4500ft it may be necessary to decrease the input rating by changing the existing burner orifice to a smaller size. Input should be reduced 4% for each 1000ft beyond the 4500ft above sea level.

Check with your local utility for assistance in determining the proper orifice in your location. In some cases the heating value may already be reduced and downsizing the orifice may not be necessary.