

# Cost of Air Leaks



## AIR LEAK COST CALCULATOR

  = Manual Input      Total System HP: 22.1  
  = Calculated Cell      System Pressure (PSIG): 100  
  = Fixed Value

|                                 |          |             |    |
|---------------------------------|----------|-------------|----|
| kWh Cost:                       | \$ 0.075 | hours/day:  | 24 |
| kW:                             | 16.48    | days/week:  | 7  |
| Total acfm:                     | 100      | weeks/year: | 52 |
| kw/acfm                         | 0.16     |             |    |
| Specific Power<br>(kW/100 acfm) | 16.48    |             |    |

| Diameter of Leak | Cubic Feet/Min* | Cubic Feet/Day | Loss/Day Dollars** | Loss/Week Dollars** | Loss/Month Dollars** | Loss/Year Dollars** |
|------------------|-----------------|----------------|--------------------|---------------------|----------------------|---------------------|
| 1/64"            | 0.406           | 585            | \$ 0.12            | \$ 0.84             | \$ 3.65              | \$ 43.84            |
| 1/32"            | 1.62            | 2,333          | \$ 0.48            | \$ 3.36             | \$ 14.58             | \$ 174.92           |
| 1/16"            | 6.49            | 9,346          | \$ 1.92            | \$ 13.48            | \$ 58.40             | \$ 700.77           |
| 1/8"             | 26              | 37,440         | \$ 7.69            | \$ 53.99            | \$ 233.95            | \$ 2,807.40         |
| 1/4"             | 104             | 149,760        | \$ 30.74           | \$ 215.95           | \$ 935.80            | \$ 11,229.58        |
| 3/8"             | 234             | 336,960        | \$ 69.18           | \$ 485.90           | \$ 2,105.55          | \$ 25,266.56        |
| 1/2"             | 415             | 597,600        | \$ 122.68          | \$ 861.74           | \$ 3,734.20          | \$ 44,810.35        |
| 5/8"             | 649             | 934,560        | \$ 191.86          | \$ 1,347.63         | \$ 5,839.74          | \$ 70,076.91        |
| 3/4"             | 934             | 1,344,960      | \$ 276.11          | \$ 1,939.43         | \$ 8,404.19          | \$ 100,850.28       |
| 7/8"             | 1272            | 1,831,680      | \$ 376.03          | \$ 2,641.28         | \$ 11,445.54         | \$ 137,346.42       |
| 1"               | 1661            | 2,391,840      | \$ 491.03          | \$ 3,449.03         | \$ 14,945.78         | \$ 179,349.38       |

\* Based on 100psig and Table 13.34 "Discharge of Air through an Orifice" from the Compressed Air and Gas Handbook, 5th Edition.

\*\* Based on annualized (24/7) kWh Cost of \$0.075 x (kW/acfm) x Total acfm and Table 13.31 "Approximate Brake Horsepower Required by Air Compressors" from the Compressed Air and Gas Handbook, 5th Edition.