



## How to Choose the Right Air Compressor for Your Application

By eHow Contributor

### Instructions

1. You first must think about your current and future applications. Will it power a sandblasting rig, be used for painting or drive several pneumatic tools? Does the application require high pressure? Do you have limited space in your shop? Will you be running the machine fully loaded for extended periods of time? The answers to these questions will directly affect your compressor choice. Write down all the particulars of your application.
2. Every piece of pneumatic equipment requires a specific volume of air to operate properly. Refer to the manufacturer of the tool or piece of equipment you plan to operate for the correct CFM specification needed. If you plan to use multiple tools at once, add together the CFM requirements for each tool. Once you have the final CFM amount, add 25 percent for system leaks, additional tools and future growth. This should be the minimum CFM your compressor should produce.
3. Do you need a portable or stationary compressor? Do you want to mount your compressor on a work truck? ... to move it around a job site? If so, you will need a compressor with a gas-powered engine. A wheelbarrow-style compressor is ideal for on-the-job portability. If you plan to install your compressor in one location, an electric unit will most likely be your best choice.
4. Determine the electrical requirements prior to purchase and select the correct configuration. The most common options are 115v single-phase and 230v three-phase.
5. Most stationary compressors are available in either a horizontal or vertical tank-mounted configuration. This is really a personal choice, since the orientation of the receiver tank does not effect performance. Pick the orientation that best matches your needs and installation requirements.

6. A single-stage air compressor is ideal for light-duty, intermittent use at pressures of 100 PSIG and below. Two-stage compressors are better suited for heavy-duty, continuous-run applications at pressures of 100 PSIG and greater, and where greater efficiency is a concern. Again, refer to your tool/equipment specs for the minimum pressure required to operate the equipment and plan your compressor selection accordingly
7. One of the most overlooked considerations is the overall quality of a compressor's construction. High end compressors use more durable components and tend to last many years longer than cheaper compressors. You can either pay more for quality up-front, or plan to replace your compressor after a few short years of service. Some things to look for in high quality compressors are cast iron crankcase and cylinders, ductile iron crankshaft, 2-piece connecting rods, stainless steel valves and totally enclosed belt guards.
8. Air compressor manufactures offer many options and upgrades to their standard models. Depending on your specific needs, wants and budget, the following "goodies" are often offered, although not required: integrated aftercooler, automatic tank drain, low oil shutdown, overload protection, magnetic starter, TEFC, or totally enclosed, motor, vibration isolators and dual control
9. You get what you pay for with air compressors. Many price points and warranties are available from model to model. Always choose the features and warranty that offer the best value over time.

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