

How to Size a Compressor

Use the chart below to get a general estimate of how much air you will need.

1. What is the maximum pressure you need?		PSI	
2. Electrical requirements - Voltage		115	
		230	
		460	
		Other:	
		Single Phase	
		Three Phase (10 HP and above must be 3 phase)	
3. How many people (max) will be using air at any time:		People	
4. Is this a:	Body Shop:	12 - 15 cfm/man X ___ people =	CFM Table See below
	Mechanical Shop:	3 - 15 cfm/man X ___ people =	CFM Table See below
	Industrial application/other:		CFM Table See below
		Total CFM Required:	
Now add at least 25% to your total CFM required in order to allow for duty cycle.			
		Total CFM X 1.25 =	

Air compressors should be sized based on the volume of air (CFM) and air pressure (PSI) needed to do the job. Do not base it off of horsepower (HP).

Single Stage air compressors have a maximum pressure around 130 PSI, and Two Stage air compressors have a maximum air pressure of 175 PSI.

Tank size typically is not a critical factor in sizing a compressor.

CFM CONSUMPTION TABLE

Tool/Equipment	Air Pressure Required (psi)	Air Consumed (cfm)
Impact Wrench 3/8-1/2	70-90	5
Impact Wrench 1/2-3/4	70-90	10
Impact Wrench 3/4-1 3/4	70-90	20
Air Ratchet	70-90	3-5
*Body Sander (Orbital)	70-90	12
Tire Changer	125-150	2
Bead Breaker	125-150	12
Blow Gun	70-90	3
*Die Grinder	70-90	7
Screwdriver #2-6 Screw	70-90	5
Screwdriver #6-5/16 Screw	70-90	10
Paint Spray Gun (Touch Up)	70-90	4
Paint Spray Gun (HVLV)	40-60	15
Nailers/Staplers	70-90	2-4