FAQ – Saylor Beall Air Compressor Information

How much horsepower do I need?

While this is not an easy question to answer, consider the following as a basic rule of thumb: For a mechanic's shop 1 1/2 -2 horsepower will be needed per worker. For an autobody shop, 2-2 1/2 horsepower per worker would be needed. If using a rotary screw compressor for an automotive repair facility, 1 horsepower per bay would be the rule of thumb.

What is SCFM?

Scfm, standard cubic feet per minute, is the amount of air in one cubic foot at 60 degrees F, 14.69 psi and 36% relative humidity. Only at these conditions will one cubic foot of air actually occupy one cubic foot of volume. A standard cubic foot of air varies in volume as it deviates from these standard conditions, but always weighs seventy-five thousandths of a pound. SCFM is a measure of weight, regardless of volume.

What is ACFM?

ACFM, actual cubic feet per minute, refers to a volume of air at ambient conditions. Changes in pressure, temperature and relative humidity do not change these ratings. ACFM is a measure of volume, regardless of weight.

What is the difference between SCFM and ACFM?

These terms can be compared to gallons and pounds. A gallon is a measure of volume, like ACFM, regardless of weight and a pound is a measure of weight, like SCFM, regardless of volume.

How are air compressors rated (cfm)?

Air compressors are rated on the volume of air entering the compressor and stated as cfm. The amount of air entering the air compressor, referenced as displacement cfm, is not equal to the amount of air the compressor exhausts, delivered cfm. The less efficient an air compressor is, the greater the difference between displacement cfm and delivered cfm. Efficiency is affected by many factors, such as type of valves used, compressor rpm and, on two stage air compressors, the effectiveness of cooling between stages.

What is the difference between splash lubrication and pressure lubrication?

A pressure lubricated air compressor pump uses an oil pump to force lubricating oil to all of the friction points. These points include the rod journals, wrist pins and piston skirts. A splash lubricated air compressor pump uses dippers fastened to the connecting rods to splash lubricant to these areas. Pressure lubrication is generally recommended for severe applications, such as

high duty cycle or high ambient temperature conditions. Most air compressors use splash lubrication.

What is duty cycle?

Duty cycle is the amount of time an air compressor compresses air compared to the amount of time the air compressor is not compressing air. For example if the air compressor runs for seven minutes and is off for three minutes, the total cycle is ten minutes. The duty cycle would be seventy percent, seven divided by ten.

Why is duty cycle important?

Heat is a by-product of compressed air. The build up of heat can shorten the life of the air compressor pump if it is not allowed to cool. The air compressor will dissipate heat when it is not pumping. Choose an air compressor that will allow for a cool down time period.

Why is water in my compressed air lines?

The water is condensation. Humidity in the air being compressed is drawn into the air compressor along with the air. The higher the humidity the more moisture contained in the air. Compression causes heat, so as the air cools the moisture in the air forms condensation and collects in low points in the compressed air systems, such as the air receiver, airlines and/or airline drops. Some or most of the moisture can be removed with the use of aftercoolers, dryers and/or filters.

What kind of oil should I use in my compressor and how often should it be changed?

For 700 and 9000 series pumps use a 30# non-detergent type. Oil should be changed after each 500 hours of use.

How do I find a Saylor-Beall distributor?

That would be us! Please call Clark Heintz Tools & Equipment LLC at 603-234-2612. All of our compressors ship for free within the continental United States.