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Menopause, Andropause And Other Hormone Imbalances
Impair Healthy Healing In People Over The Age Of 30!**

What You Need To Know About Compressed Air Systems

By Scott Michaels

Compressed air is used in many operations and processes and as a source of energy for heating, ventilating, and air conditioning (HVAC) and process actuators and motors. It may also be supplied for low pressure systems and used for pneumatic control. Air can be compressed in several different ways and supplied at varying pressures and degrees of filtration depending on its use.

A typical compressed air system is capable of producing instrument quality air for pneumatic HVAC controls, tools, conveying systems, and general plant air. The system consists of a single motor driven single stage rotary screw compressor with inlet air filter, a safety relief valve, aftercooler, air/oil separator, air receiver with safety relief valve, prefilter, air dryer, afterfilter, oil/water traps, and oil/water separator.

Compressors are most often supplied skid mounted as a packaged unit. The assembled package includes all major components, controls, and a sound attenuation enclosure. The unit only requires mounting to a foundation, hook up to system piping, connection to the oil water separator, and power connection.

There are various types of compressors: Rotary helical screw air compressors are positive displacement machines. A twin-screw compressor consists of accurately matched rotors [one lobe (male) and one helix (female)] that mesh closely when rotating within a close tolerance common housing. One rotor is motor driven while the other is gear driven, turning it in a counter-rotating motion.

The rotors uncover inlet posts at one end allowing air to flow in. As the rotors continue to rotate the air is compressed by the minishing volume between the rotors . At the end of the rotors, ports allow the now compressed air to exit. One or more stages may be used.

These compressors are used in systems up to 3000 cubic feet per minute (cfm). They are usually oil injected to increase sealing, lubricate rotors, and provide cooling. They can also be oil free. One or two stages can be used. They have a low initial cost, no pulsation, are almost free of vibration, and do not require special foundations.

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Centrifugal compressors compress air as it enters the center of a fluted casting, housing a rotating impeller. The impeller imparts kinetic energy to the gas which turns into potential energy as the gas velocity slows, thus increasing pressure. Compression is a continuous process. One or more stages may be used. Centrifugal compressors are used in large systems up to 15,000 cfm. A blow-off silencer is needed to control noise. Centrifugal compressors require no lubrication in contact with the air stream and therefore provide oil free air. Reciprocating or positive displacement compressors use a piston in a cylinder to compress air up to a capacity of 6,000 cfm . Air enters the cylinder through a valve when the piston is going down. The valve closes when the piston starts to go up. As the piston approaches the top of the cylinder, the air is compressed by the decreasing volume. An exhaust valve opens when the piston is near the top of the cylinder allowing the compressed air to exit. The cycle is then repeated.

Rotary sliding vane compressors use a rotor eccentrically mounted in a cylinder. The rotor has eight or

more slots cut along its length . Vanes are placed in the slots. As the rotor rotates, the vanes move out from centrifugal force. As the rotor continues through a rotation, the rotor housing causes the vanes to move back in the slot of the rotor.

The volume of air between the housing, eccentrically mounted rotor, and two vanes changes as the rotor rotates, compressing the air.

Air compressors are used in many operations and processes and as a source of energy for heating, ventilating, and air conditioning.

<http://www.aircompressorfaqs.com>

Are You Buying A Central Air Conditioning?

By Claire Sessions

So you have decided to buy central air conditioning. The best way and most important thing when buying central air conditioning equipment is to have it installed by a qualified contractor.

If you get the central air conditioner properly installed then the unit would be tightly sealed and no energy can be wasted, which saves you money. When one talks about saving money through efficient air conditioning systems the topic of SEER usually comes up. SEER or seasonal energy efficiency ratio, rates the central air conditioning unit. To keep it simple the higher the SEER the more efficient your central conditioning system is, meaning the more money you save and the more you're saving the environment.

Central air cooling systems have been running on Freon for many years, but this is apparently going to change. Freon will be replaced with Puron, which is friendlier to the environment. This change is expected to occur no later than the year 2010. Even though the systems would initially cost more, keeping the systems with Freon will cost you even more, as it would be hard to find the parts if they

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were to ever break down. Because the parts for the older systems would no longer be manufactured, it would be hard to get them as they will become quite rare. So in the end it will probably save you more money to get the new cooling system with Freon.

The cost is the one reason many people do not go for central cooling systems. Since it must be installed first, the cost for the system is more. But it cools your house faster and is not a big eye sore as the unit air conditioning systems. So you make the decision, if you pay a little more it can give you more benefits.

Claire Sessions is a successful freelance author that writes regularly for

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