



Centrifugal Air Compressor Maintenance: The Importance of OEM Parts

Keeping up with preventative maintenance is a vital part of maintaining a centrifugal air compressor's efficiency and lifespan. This requires periodic replacement of air compressor parts such as air filters, oil filters, and lubricants.

Maintenance kits and replacement parts by the Original Equipment Manufacturer (OEM) are manufactured specifically for the compressed air equipment for which they were designed, and therefore offer the best overall performance. Generic parts on the other hand do not provide this assurance and the use of generic, will-fit, aftermarket components may significantly decrease the performance and reliability of your compressed air equipment.

Although generic parts may be less expensive than genuine OEM parts, it is oftentimes at the sacrifice of performance. The money you save by purchasing generic parts is often the most expensive money you will ever save.

Fit, Form, Function

Fit, form, and function are three key aspects of any aftermarket part. Aftermarket genuine parts ensure that the compressed air system will continue to meet the requirements it was engineered to achieve. Replacement parts must fit the compressor correctly so that operation continues to function properly. Parts that are not fitted properly could affect the function of the unit downstream.

Even if a generic part fits properly, the end-user must be aware of the form of the part. This includes shape, size, and weight. Generic parts are generally made without regard to quality and often with inferior materials. For example, using aluminum for a part originally designed with stainless steel could result in a generic part that has a much different weight and size in comparison to the genuine part.

The functionality of a genuine part is the most difficult aspect to replicate. Genuine parts go through specific quality testing to ensure that they will perform as designed under a defined set of conditions. Additionally, trusted OEM vendors are experts in producing the materials to manufacture the genuine parts, while generic parts typically demonstrate little consistency in quality as vendors change frequently to maintain the least expensive sourcing.

An air filter is one example of the importance of correct fit, form, and function. A genuine OEM air filter with a lower micron rating and a greater number of pleats provides better filtration, as the increased surface area offers more protection against small particles that could make it through the filter. A generic part that is manufactured to less stringent standards may have a higher micron rating and may lead to the introduction of larger particles to the machine, allowing wear to occur to compressor components over time.



Warranty and Accountability

Many genuine air compressor spare parts come with the added reassurance of warranty coverage in instances of malfunction, wear, or failure. Sellers of generic parts are not held to these same higher accountability standards.

Genuine OEM parts have design and manufacturing specifications that the manufacturer has determined to best deliver the required performance needed to assure warrantable equipment reliability and functionality. Genuine parts are designed to maintain unit efficiency and reliability. By using genuine components, you are assured that you are installing parts with the proper fit, form, and function.

Just as OEMs are continually upgrading the performance and reliability of their equipment, so too are they improving the performance of the components that go into the manufacturing of the equipment. Ultimately, centrifugal air compressors are engineered machines that require periodical maintenance using specially designed and tested genuine parts. Contacting an authorized OEM of your centrifugal air compressor is the best way to ensure the component needed will not interfere or cause future issues.

The Compressed Air and Gas Institute (CAGI) is the united voice of the compressed air industry, serving as the unbiased authority on technical, educational, promotional, and other matters that affect compressed air and gas equipment suppliers and their customers. CAGI educational resources include e-learning coursework, selection guides, videos, and the *Compressed Air & Gas Handbook*.

The Centrifugal Compressor Section consists of the following member companies:

- Atlas Copco Compressors
- FS-Elliott
- Hanwha Power Systems
- Ingersoll Rand
- Sullair, LLC

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