

Compressed Air Preventive Maintenance Programs

Advantages of preventive maintenance

Industrial compressed air systems, like all rotating equipment, require periodic maintenance to ensure efficiency and prevent down time. Inadequate maintenance can have a significant impact on energy consumption and down time. When a compressed air system is not properly maintained it will experience higher operating temperatures, excessive wear and tear on components, poor moisture control, and excessive contamination of downstream assets.

With regard to efficiency and cost, it always makes sense to practice at minimum preventive maintenance on air compressor equipment per the manufacturer's recommendations, which are designed to protect the equipment within its extended warranty period and beyond. A good technique for validating a compressed air system is to periodically baseline the compressed air system by tracking its power, pressure, flow, and temperature. Any deviation in these measurements informs user of changes in demand, and or reveals possible issues of efficiency related to controls and maintenance. On new air compressor systems, appropriate measurements should be recorded upon start-up in order to establish a baseline. The baseline will let you know if the compressor is operating at full capacity and efficiency as it ages. Proper preventive maintenance is critical to the efficiency and reliability of a compressed air system, follow the manufacturer's operation and maintenance manual guidelines at all times.

Types of compressed air system maintenance

- **Poor Maintenance:** Self explanatory
- **Preventive maintenance:** Preventive maintenance (or preventative maintenance) is maintenance that is regularly performed on a piece of equipment to lessen the likelihood of it failing. Preventive maintenance is performed while the equipment is still working, so that it does not break down unexpectedly.
- **Predictive Maintenance:** Predictive maintenance techniques are designed to help determine the condition of in-service equipment in order to predict when maintenance should be performed. This approach promises cost savings over routine or time-based **preventive maintenance**, because tasks are performed only when warranted.
- **Proactive Maintenance:** Is a preventive maintenance strategy for maintaining the reliability of machines or equipment. The purpose of proactive maintenance is to view

machine failure and similar problems as something that can be anticipated and dealt with before they occur.