Maintenance Guidelines for Centrifugal Fans and Blowers

Centrifugal fans and blowers are generally simple and reliable, which can make it easy to overlook regular preventive maintenance. Neglecting routine preventative maintenance, however, can increase the risk of breakdowns, unscheduled outages and subsequent business interruptions. An effective preventive and predictive maintenance program is important to help ensure this equipment operates at optimum levels and to reduce the risk of unexpected and costly shutdowns.

Recommended Safeguards and Controls

Some fans and blowers may have safety features and monitoring equipment designed to prevent damage. Although these devices may not be crucial on smaller equipment or in non-critical applications, the following safeguards and controls are recommended for equipment that is vital to your operation or is rated 500 HP or greater:

- Low lubrication oil pressure trip, if installed with a forced lubrication system
- High bearing temperature alarm
- Vibration monitors or monitoring system with alarm.

Recommended Preventive and Predictive Maintenance

The interval between preventative and predictive maintenance activities should be determined by the manufacturer's recommendations along with conditions such as the environment, run time, age and importance. The following maintenance activities should be performed by a qualified technician at least annually:

- Inspect foundation, bolts and shims
- Grease anti-friction bearings according to the manufacturer's instructions
- Replace, sample and test lubricating oil
- Inspect alignment, couplings and bearing clearances
- Inspect and clean the rotating element
- Test and calibrate installed controls
- Perform vibration monitoring and diagnostics
- Conduct a non-destructive examination of the rotating element

In addition to having a preventative and predictive maintenance program, develop a contingency plan that identifies the availability of spare parts, the lead time required to order replacements and the expected time needed to restore service in the event of an outage.