

Strong Supplier Relationships Keep Critical Maintenance Services Close at Hand

Written by Bill Moore, SKF USA Inc.
Wednesday, 09 June 2010 13:18



Are the pricing demands of your purchasing department undermining the reliability of your plant's rotating equipment?

If you're seeing repeated equipment failures in areas that you haven't seen in the past, it may be because of shifts in your company's buying patterns. Charged with management mandates for reducing procurement costs during harsh recessionary times, purchasing departments in some instances are squeezing their distributors of rotating components for immediate and dramatic price cuts. In response, the distributor that has long delivered premium components to your doorstep might now be forced to provide cheaper, lower-quality product.

The loss in quality is multidimensional. It doesn't only involve lower-grade components, such as off-brand bearings, seals, shafts and lubricants—*it also hampers your ability to access the expert maintenance services available from manufacturers of premium products*. Indeed, premium-rotating-component manufacturers house vast amounts of maintenance knowledge about their products and the equipment in which they are used. But such companies typically deploy their resources only to customers who purchase their products on a regular basis.

Having access to a premium-component maker's maintenance expertise is particularly important in today's manufacturing environment. Forced early retirements and layoffs of experienced maintenance personnel have left many businesses short on maintenance knowledge, with the steel, paper, chemical and food industries being especially hard hit. Moreover, where maintenance-savvy distributors could once routinely fill such gaps, a trend is now at work where even they are offloading technical personnel. To be sure, distributors with technical expertise exist, but many are concentrating on less labor-intensive business areas, such as logistics excellence. And virtually any distributor today would be hard pressed to call in

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the help of a premium-component manufacturer unless it is to service its own brand. When a purchasing manager employs a price-based procurement model, the much-desired assistance of a component manufacturer's technical services are usually out of reach.

Getting the help you need

So how do you, as a manager responsible for the reliable operation of the very equipment that makes your company a profit-generating enterprise, secure the services of premium-component manufacturers when machinery repeatedly fails? One way might be by demonstrating the overall value of sourcing from premium manufacturers to your purchasing department. Can you document instances where mean-time-between-failure (MTBF) of a critical component has decreased? Perhaps a critical bearing now needs replacement every four months instead of just once per year. Perhaps you've recently paid handsomely for expert maintenance services that, in the past, had been supplied for less or at no cost. Such examples might be accompanied by hard figures showing dollars lost due to equipment downtime and purchasing costs for replacement components and labor.

You also could point to the need for ready access to asset management, failure analysis and related assistance. Such services can provide extraordinary value. A Wisconsin paper manufacturer, for example, recently sought the aid of a premium-rotating-component supplier when a dryer supply fan exhibited performance irregularities. This fan is a critical part of the company's papermaking process. If it failed unexpectedly, paper production would have screeched to a halt at an unplanned downtime cost of \$18,000 per hour.

The component manufacturer—*that had regularly been supplying branded products to the mill through an authorized distributor*—responded in very short order. Soon, an industry specialist was on-site with tools designed to analyze the application. By using a stroboscope to slow the fan's motion, the specialist determined that the fan had a loose coupling, but that replacement could wait for a planned shutdown just two days away. In the meantime, the specialist alerted the authorized distributor, who arranged for all necessary replacement parts to be on hand during the shutdown.

Upon further inspection, the specialist identified the cause of the problem: The coupling was worn and dry from a lack of lubrication and would almost certainly fail before the next planned downtime, four weeks away. He then recommended a lubricant with the proper viscosity and specified the proper amount of lubricant to prevent the problem from recurring due to the same cause. Because all component parts were already on hand, the dryer supply fan was put back into service with no delay.

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In another instance, a Kentucky gearbox manufacturer known for its high level of quality suddenly experienced a rash of product returns. The bring-backs didn't simply threaten the company's sterling reputation, they were costing it money in warranty claims.

Suspecting that the gearbox problems might be bearing-related, the manufacturer sent a selection of failed units to the bearing manufacturer's labs. There, technicians identified a series of axial dents that were equally spaced on the bearings' outer raceways. To trained eyes, these dents told a sad story: They were the result of improper bearing installation. Assembly workers at the gearbox company had been applying force to each bearing's outer ring to drive the component onto the shaft. The correct procedure was to apply force to the inner ring. This led the bearing manufacturer to develop a customized training program that would teach assembly workers best practices for both cold and hot bearing mounting. As a result, bearing returns dropped by 42% and scrap, caused by faulty assembly, dropped 48%.

Establishing contacts

Purchasing rotating components from premium suppliers on a regular basis is the most direct route to that supplier's expert maintenance services. Most often, it will be your authorized distributor who facilitates the connection. Other avenues also exist. For example, does your branded manufacturer have a technical assistance program? Most brand-name producers of quality rotating components and technology will have a technical hotline or a Web-based resource to respond to technical inquiries.

Another way to interact with component manufacturers is by participating in local forums held by engineering organizations such as the American Society of Mechanical Engineers (ASME). Here, by networking and building business friendships, you can establish valuable contacts that may one day prove critical when addressing an equipment malfunction. **MT**

Bill Moore is senior vice president, Channel Management, SKF USA Inc. E-mail: William.C.Moore@skf.com.

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