



Since emergencies and crises don't always happen between 9-5 on weekdays, Longo maintains a 24/7 hot line for customers with problems in the off hours. On a Saturday afternoon a customer called our Longo 24/7 hot line concerned about a large ventilation fan that was not just vibrating, but the fan was literally shaking the end of his building. He was anxious about the fan being repaired and he needed the repair done in time for the start up of his Monday morning production run.

Our Longo off hour associate quickly assigned a vibration technician to meet with the customer and evaluate the problem. The vibration specialist found there was a bad bearing and there was

excess wear in the bearing housing on the 300 hp motor. In fact, the unit had degraded to the point where a catastrophic failure was imminent. When a fan this large, approximately 8 feet in diameter, fails, it can come apart in a very deadly manner. The blades can detach and like huge scythes tear through walls and other structures, adding even more costs to an already expensive repair. Obviously, this problem had existed for some time, but it was ignored or someone thought it would just not get any worse...and they always do.

To do the required repairs, the motor would have to come back to the Longo to have the work done. However, we could not pull the motor, repair it and reinstall it in time to meet the Monday morning deadline. With panic spreading across the customer's face, we offered the possibility of getting him another motor. Locating a motor to meet this customer's specific specs on a Saturday afternoon was no small accomplishment.

We located a motor that would work, but it needed to have the connection box shifted to the opposite side and the mounting holes had to be revised due to the base irregularities...and it was 400 miles away! Once the customer ok'd the job, we contacted the source of the motor and made arrangements for a late night pick up. Our driver did an all night run getting the motor to the customer's site in time for the installation and modification work to be completed in time for his Monday morning start up.

This is not as an extreme situation as it might seem. More and more companies are postponing, putting off, deferring any kind of predictive maintenance and problems can go from annoying to critical very quickly...and from a serious expense to outrageously expensive just as fast.

Well, PM isn't cheap either...

Here is the dollars and cents comparison of how this job worked out and how it could have been done better. The total costs of the analysis, new motor, modifications, installation and pick up and delivery was \$18,000. If the customer had a Predictive Maintenance Program in place this incident could have been handled much differently. First, it would have pin pointed the problem early on, minimizing the damage. Secondly, the repair

could have been properly scheduled, eliminating the drama and excessive cost. Under those circumstances the cost to repair the motor would have been \$4,000. A savings of \$14,000!

That \$14,000 could have paid for a Predictive Maintenance Program for about 4 years, providing early warning on not just this fan motor combination, but all the rotating equipment in the facility.

