

Case Study: Emergency VFD Repair



Quad Plus®



Air compressor distributor requested an expedited repair of their air compressor drive.

Objective

- Perform an emergency repair of a VFD with expedited shipping back to the customer.

Solutions

- Our technician performed an inspection and test of all parts and components.
- Defective components were found within the variable frequency drive (VFD) and replaced.
- The VFD was tested under load to guarantee that it is operating efficiently.
- The VFD was packed, crated, and delivered to the customer via expedited overnight shipping.

Results/Benefits

- The end customer was able to return to normal operation within three business days, saving considerable downtime and expense.
- The customer's VFD was successfully repaired and reinstalled to prolong its useful life.
- The customer was educated about cleaning and preventive maintenance routines for VFDs and air compressors to eliminate future catastrophic failures.
- Quad Plus gained another loyal customer as a result of their performance under time constraints and pressure.

Background

An air compressor distributor contacted Quad Plus with an emergency repair request. Their customer's compressor drive failed and there was no available spare. The customer was desperate for an expedited repair to avoid further delays to their production and customer satisfaction.

Quad Plus Solution

Our repair technician performed a complete inspection and test of all the parts and components. The variable frequency drive (VFD) was found to have defective components that needed to be replaced. New parts were installed, and the drive was tested under load.

Load testing is an important part of the process and typically takes between one and two hours. We have the capability to fully load test VFD units at the nominal amperage, and run the units for an extensive period of time to monitor current inputs for balance across each phase and verify that motor output signals match the self-monitoring that a VFD is equipped with. We also visually inspect each component individually to determine whether they are within tolerance and check date codes to adhere to the PM recommendations through OEM.

Once all the tests were passed, the VFD drive was sent to Shipping & Receiving where it was crated, secured, and shipped with overnight delivery. Upon receipt of the request, we guaranteed that the repair would be completed within three days, and the customer received the repaired VFD drive back to their facility on the third day. Once installed, the VFD worked flawlessly and without further disruption for the customer.