

Case Study: Customized Preventative Maintenance for ABB ACS800 & ABB 880 Drives



Enhanced Reliability and Reduced Downtime for a Petrochemical Customer with Preventative Maintenance Services

Objectives

- Conduct a Comprehensive Evaluation of the ABB ACS800 and ABB 880 Drives
- Repair faulty components
- Prevent drive failure recurrence by replacing components that are likely to fail

Solutions

- Used a customized 9-year PM kit, focusing on the replacement of failed fans and bad IGBTs
- Conducted in-depth troubleshooting to identify recurring faults and failures
- Replaced blown capacitors and conducted power supply tests to prevent future failures

Results/Benefits

- Extended the lifecycle for the ABB ACS800 and ABB 880 drives
- Achieved a significant increase in the reliability and performance of the drives
- Reduced unexpected downtimes

Background

A long-time petrochemical company customer contacted Quad Plus. They experienced recurring interruptions in operations due to faults and failures in their ABB ACS800 and ABB 880 drives. The Quad Plus team was contracted to fix these issues and prevent recurrence.

Quad Plus Solution

Preventative Maintenance (PM) services are manufacturer endorsed and essential for optimal performance and reliability, yet are often overlooked by companies. Several factors can affect the type of PM services that are required, including: the year the drive was initially installed, environmental conditions and whether the unit is operating at peak capacity. Quad Plus supports manufacturer's recommended preventative maintenance programs with 3-year, 6-year, 9-year, and 12-year plans. With these services, ACS800 drive life can be extended to up to 21 years. Each plan includes a specific kit that targets the components most likely to fail in that particular year of the drive's lifecycle. This extends the life of the drive while improving performance, reliability, and efficiency.

For our petrochemical customer, we evaluated the drives. Then, we recommended our 9-year PM kit and shorter maintenance intervals. We also educated the customer on why regular maintenance is critical to the drives' lifespan.

The customer felt relief after seeing immediate improvements. They were particularly impressed with the cost-effective solution that Quad Plus PM services provided which could have prevented the costly downtime they experienced.



Quad Plus®