



# Quad Plus™

## CAPACITOR RE-FORMING

Electrolytic capacitors (caps) have been used in LV AC Drives for many years. These caps provide filtering of the DC bus, and they do a great job in a small package

But here is the problem: in drives that are stored over long periods of time, the insulating layer between the internal foils will deteriorate, creating uneven layers of insulation, essentially limiting the ability of the cap to operate at rated voltage. The worst case is a breakover and catastrophic failure when you spare is installed and energized.

This is a dangerous, but avoidable, failure!

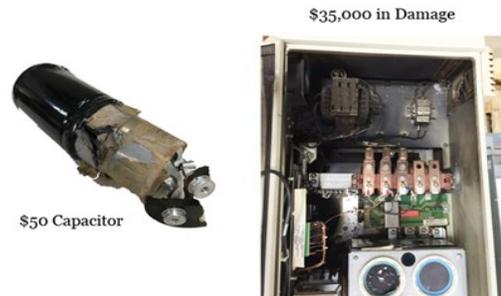


*“Converter DC link capacitors need to be reformed (re-aged) if the converter has been non-operational for more than one year.”—ABB*

*“Electrolytic Capacitors suffer gradual deterioration during storage...may cause venting if full voltage is applied abruptly.”—Siemens*

*“If a VFD has not been powered up for 9 months to 1 year it is REQUIRED that the capacitors be “reformed” prior to the drive being put into service”—WEG*

### Do you have drives in storage?



The good news is that Quad Plus offers capacitor re-forming services that can be performed on your capacitors, providing operational assurance and increased safety.

Performed after 18 to 24 months in storage

- At our repair depot
- On your site
- DIY– We rent you the tools



## About Quad Plus

Quad Plus provides industrial control systems, solutions, and services. We offer an uncompromising level of service and expertise to maintain our customers' productivity. Our extensive process knowledge spans from the utility pole to the motor shaft. With an on-going commitment to follow-up service, parts, and repairs, we are all you need for continued success.

We are recognized in the field as a leader in drive and motor control. Solutions are designed in-house through research and development tailored to meet each client's specific needs. Our design staff includes electrical, mechanical, civil/structural, chemical, and controls.



### FACILITIES

- Chicago, IL
- Atlanta, GA
- Appleton, WI
- Houston, TX

### SATELLITE FACILITIES

- Boston, MA
- Evansville, IN
- Fort Myers, FL
- Mobile, AL
- St. Louis, MO
- Bend, OR
- Los Angeles, CA
- Kansas City, MO

LARGE DRIVES - AUTO SHREDDING



INDUSTRIAL APPLICATIONS



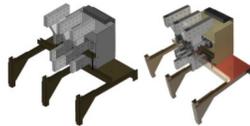
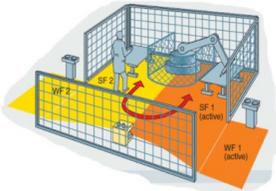
OIL, GAS and MARINE



POWER SERVICES



INDUSTRIAL SAFETY SERVICES



**Modern Thinking  
Better Design**



**Quad Plus**™

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