

Circuit Breaker Services

For Industrial and Nuclear Breakers

We offer a wide variety of services, including preventative maintenance, inspection, evaluation, repair, refurbishment, recondition, and retrofitting. Over the last 40 years, our team has been trusted with some of the most critical safety and non-safety power generation systems and power applications in every industry, from utilities and commercial to government and industrial providers.

Additionally, if feasible, we can perform 24/7 emergency turnaround service, have professionals pick up and deliver equipment, assist with inventory management and preventative maintenance programs, upgrade to arc flash compliant devices, and replace parts (including obsolete components). Our professional-quality control team tracks and documents each breaker from arrival to return, and we offer a one-year warranty on all reconditioned breakers and new parts replaced.

We support equipment such as low and medium voltage breakers up to 38KV, air break, vacuum, and oil-filled circuit breakers, SF6 breakers, 2.4 & 5KV medium voltage starters, disconnect devices, and insulated case breakers.

We provide maintenance on equipment from most manufacturers, including:

✓ Westinghouse

✓ BBC/ABB

✓ General Electric

✓ Mears

✓ Allis-Chalmers

√ Federal Pacific

✓ Roller Smith

✓ McGraw Edison

✓ ITE

✓ Nelson

✓ Siemens

✓ Square-D

✓ Eaton/Cutler-Hammer

Repair, Refurbishing and Reconditioning

We use only OEM or manufacturer-recommended parts without altering the breaker's original design. If parts are obsolete, we can have them remanufactured to OEM specifications with a viable sample. We offer partial reconditioning that focuses solely on problem areas or a complete teardown and rebuild of the breaker to return mature breakers into a "like new" condition. Every new OEM part replaced comes with a one-year warranty, so you can be confident of your repaired parts.

The process begins with disassembly, inspection, cleaning, and repainting (or zinc-dichromate plating) if required. The breaker is then reassembled with replacement parts, as required, and lubricated per OEM specifications, as needed. The final step is mechanical operation and electrical testing to verify the proper functioning of the breaker before returning it to the customer.



Testing

Visual and qualitative inspection to look for soundness, signs of overheating or excessive

arcing, alignment, pressure, wear, corrosion, and indicator operation. Includes (when present) power control fingers, main contacts, arc chutes and contacts, close, trip, and cell interlock mechanisms, auto trip indicator, and breaker frame. Additional tests include insulation resistance tests of power conductors, DC contact resistance measurements, high-potential tests, and operation of the breaker in the test position.

Evaluation

A test sheet will be supplied, showing results and observations along with recommended remedial actions. Each item is assigned with a grade of A, B, C, or E to indicate the breaker's condition, wear, use, and operation. Breakers given an "A" are in good condition with slight wear and used under light conditions. A "B" grade is satisfactory condition with normal wear under heavy conditions. A "C" indicated immediate action required for proper operation. An "E indicated unacceptable condition and the breaker should not be used.

Repair and Clean Up

Once the breaker has been repaired, it will be cleaned and prepared to be put back into operation. Dust and light residue will be removed as well as any mechanisms that need lubrication will be attended to. If the breaker shows any abnormal corrosion or is otherwise in an abnormal condition or state, this will be reported to the customer.

Circuit Breaker Retrofitting

Quad Plus will retrofit circuit breakers to provide a robust and reliable system that reduces losses resulting from downtime and upgrades. Retrofit components can be installed and are custom designed for the breakers they are used in.

Quad Plus experts will retrofit with solid-state upgrades, state-of-the-art trip units, and arc flash compliant devices. Gain additional safety and security without the hassle and expense of a complete system upgrade.

Connect with us