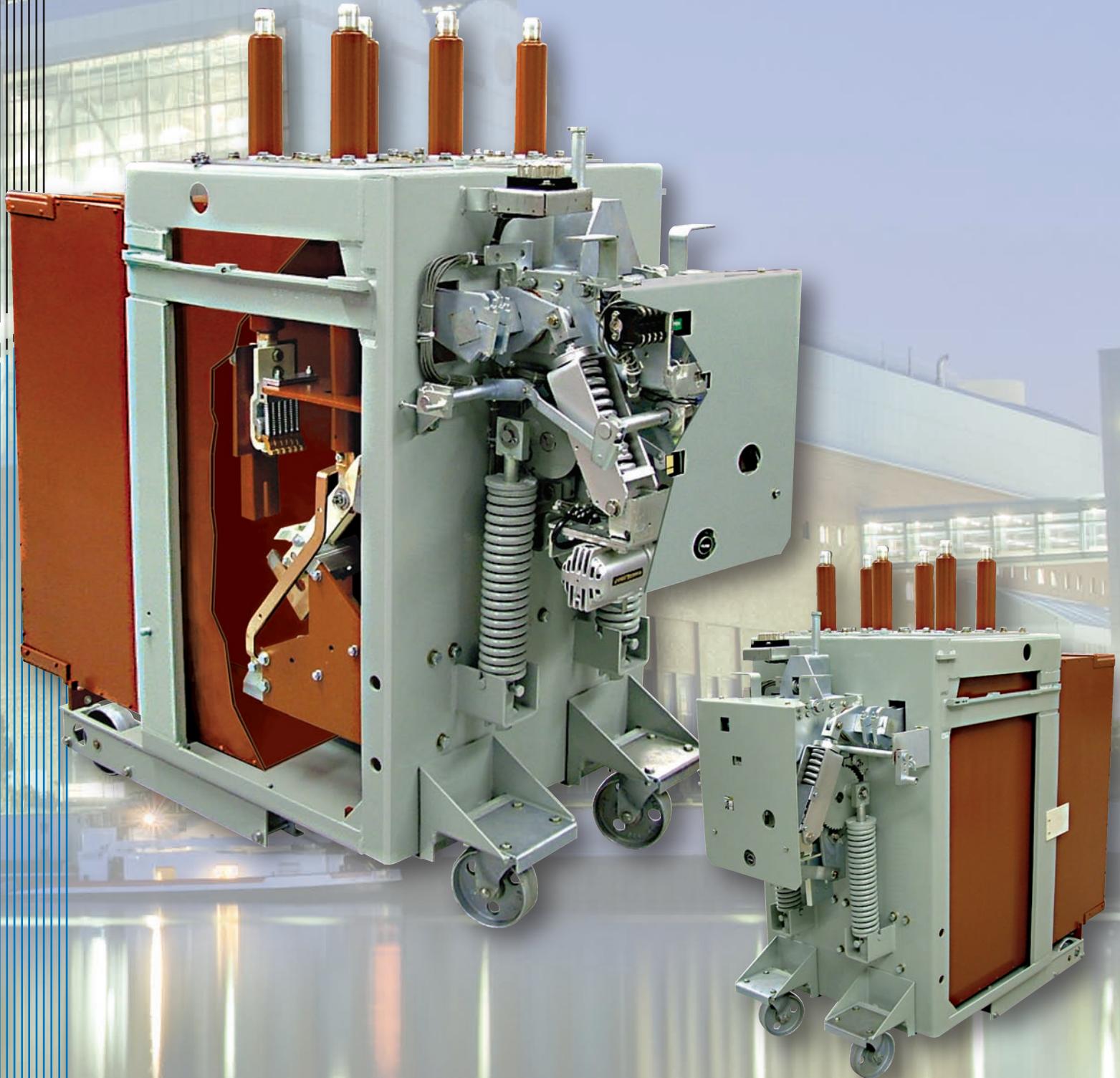




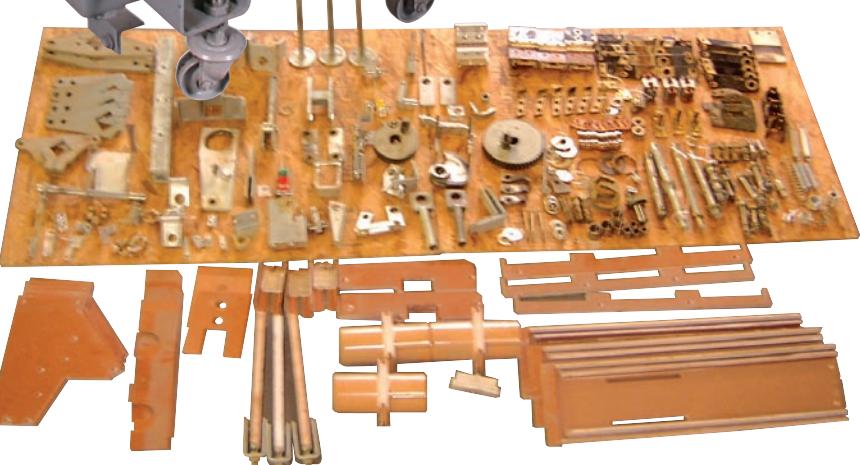
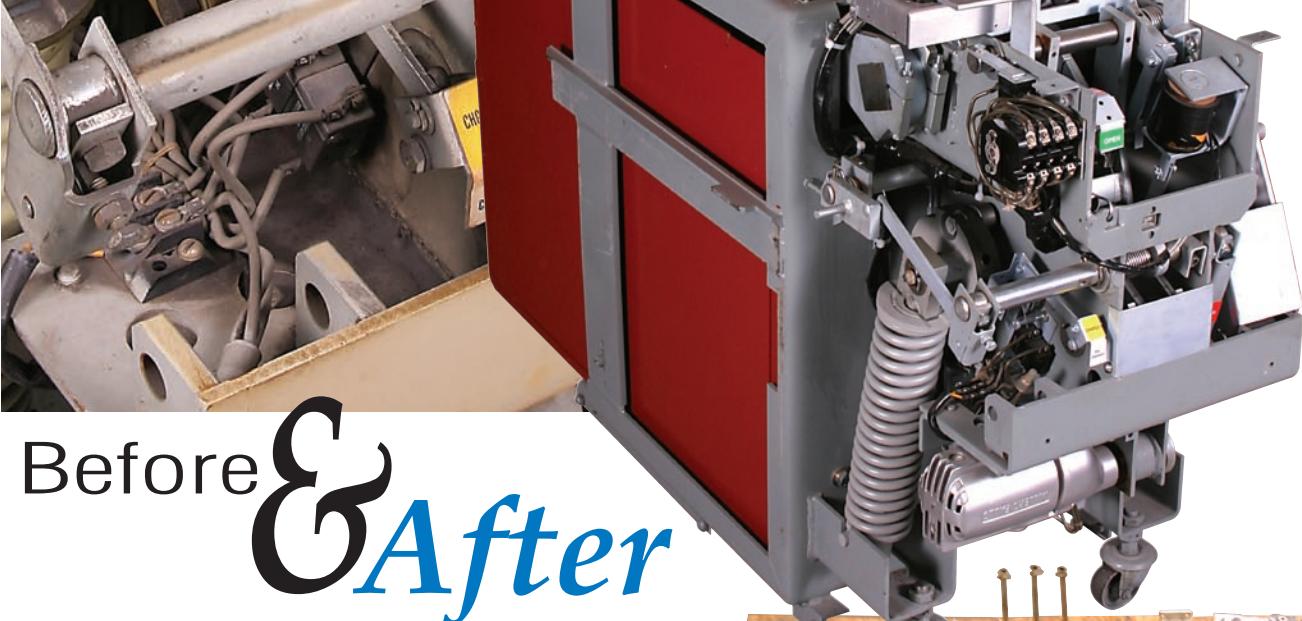
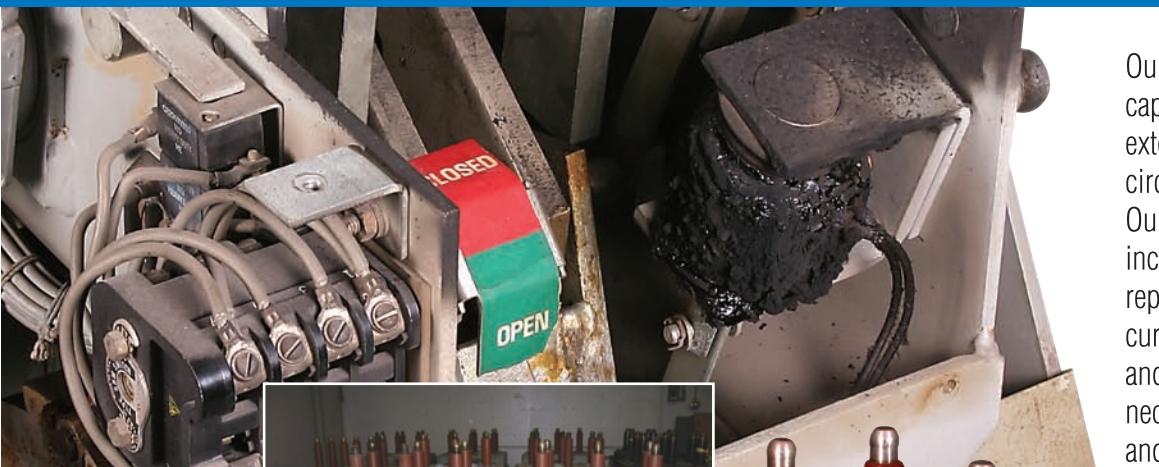
Midwest  
**Switchgear**<sup>®</sup>

S E R V I C E S



Circuit Breaker

# Recondition & Repair:



Our reconditioning and repair capabilities offer a proven life extension option to existing circuit breakers and switchgear. Our extensive scope of work includes complete disassembly, replating of all mechanism and current carrying components, and replacement of all necessary bushings, bearings, and hardware.

Your reconditioned equipment will look, perform, and be tested to factory new specifications.

Before & After

2



## We Supply:

### Remanufactured Circuit Breakers & Parts for All Manufacturers

Our vast inventory includes Low and Medium Voltage circuit breakers, ground/test breakers, and switchgear from all major OEMs such as GE, Westinghouse, ITE, Allis Chalmers, Siemens, Federal Pacific, Square D, and Cutler Hammer. This inventory allows us to supply, swap-out, and loan breakers to our customers.

### Low Voltage Solid-state Trip Retrofits

Many Low Voltage power circuit breakers have older trip units that often require replacement or upgrade. Midwest Switchgear can retrofit these trip units with new trip devices that offer pre-trip data, metering information, and communications. This data can be beneficial for troubleshooting, maintenance, and planning purposes.



3



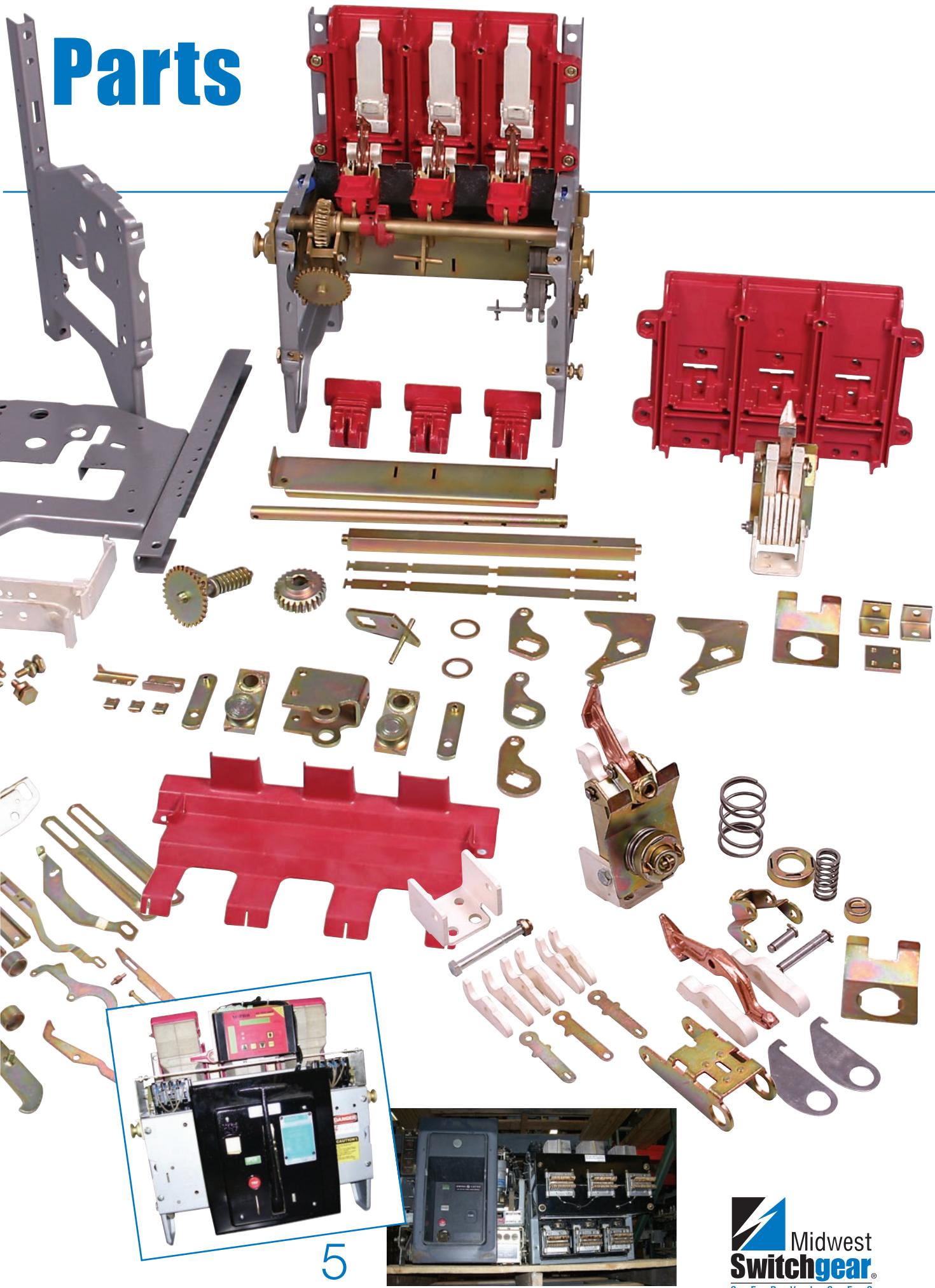
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**Reconditioned**  
will look and perform

*Like New!*



# Parts



5



# Repairing & Refurbishing

## Years Of Experience



### **Midwest Switchgear Services**

has many years of experience repairing and refurbishing GE Magnablast Switchgear. After many years in service, two specific components tend to develop problems: the elevator/racking mechanism and the primary disconnect bottles.



6

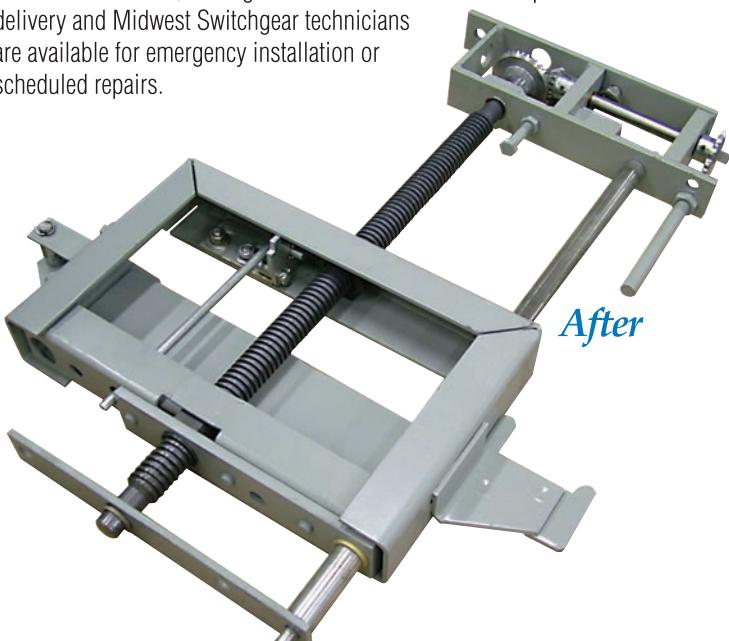


### **Primary Disconnect Bottle Solution:**

The pitch material found in the primary disconnect bottles may leak onto the circuit breaker primary disconnect bushings. This can lead to insulation degradation and a possible electrical fault condition. After removing the old pitch material, Midwest Switchgear can "re-pitch" the primary disconnect bottles using a silicon-based material. This work can be done with the bottles still mounted in the switchgear. During this process, we will inspect your bus and re-insulate if necessary.

### **Elevator/Racking Mechanism Solution:**

Midwest Switchgear has created a replacement part kit that includes all bearings, bushings, gears, sprockets, shafts, and pins for both the left-hand and right-hand sides of the elevator/racking mechanism. These kits are kept in stock for immediate delivery and Midwest Switchgear technicians are available for emergency installation or scheduled repairs.



[www.midwestswitchgear.com](http://www.midwestswitchgear.com)

# Match-In Line Cubicles



## Switchgear Match-In-Line

Midwest Switchgear can match-in-line with your existing switchgear lineup, regardless of the manufacturer. We have completed projects using ITE, Westinghouse, GE, McGraw Edison, Allis Chalmers, and Siemens. With our experienced staff of technicians and engineering, we can also offer turnkey installation and start-up of this equipment as well.



## Turn-Key Services

Midwest Switchgear offers turn-key services to provide new or up grade existing relay panels.

We can provide new microprocessor relays for motor, distribution, transformer and power quality requirements. New wiring diagrams and schematics can also be provided.



Up-Graded Relay Panel (front & back view)

# Power Engineering Services



## Engineering Services

Midwest Switchgear Services offers many Engineering Services for Power Distribution Systems. Listed below are the most common type services provided. If you have a need not listed below, please give us a call to discuss your situation to see if we may be of assistance to you.

### Power System Studies

- Fault Analysis
- Load Flow
- Device Coordination and Application
- NFPA 70E Hazard Labeling
- Grounding Techniques for Industrial Facilities

### Custom Switchgear Design

- Electronic Relay Upgrades for medium Voltage Switchgear
- Complete Controls Replacement for Older Switchgear
- Additions to Obsolete Switchgear Line-Ups to Match Existing Type and Style
- Unique Applications

### Project Management

We offer complete project engineering management from initial proposal through successful start-up, including Turn-Key type installations. Some of the services we offer are:

- Proposals
- Preliminary Designs for Customer Review and Approval
- Detailed Design Drawing Packages
- Scheduling
- Bid Packages for Construction Cost Estimates
- Field Inspections and Progress Reporting
- Equipment Check-Out
- Start-up Services
- AS-Built Documentation

### Power System Designs for New Systems or Expansion of Existing Systems

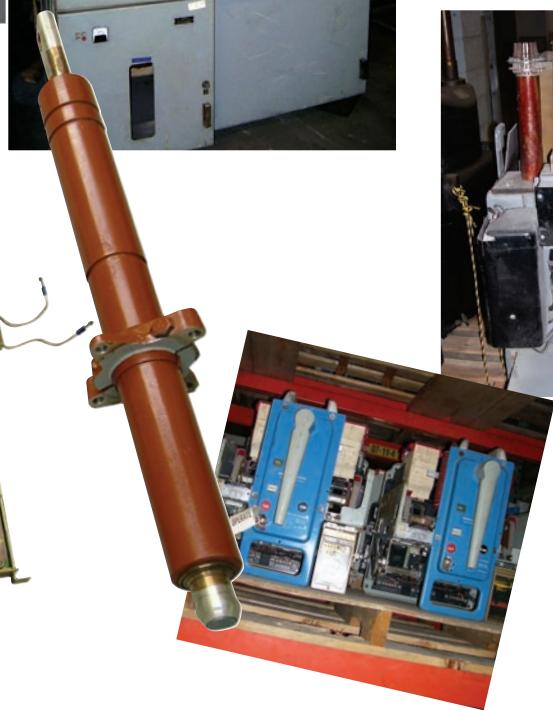
Design services for installation of new equipment in existing facilities as well as complete power distribution system designs.

# Circuit Breaker & Cubicle Spare Parts:



## Spare Parts

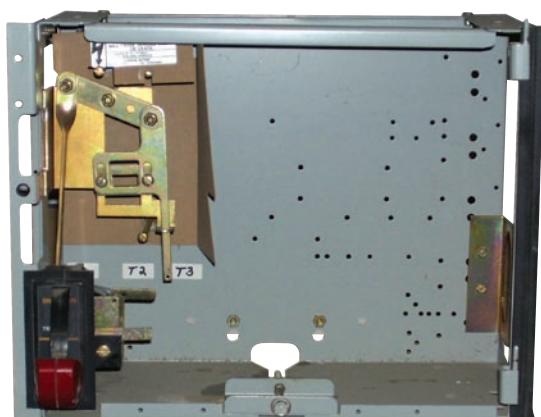
Due to our increasing inventory of Low and Medium Voltage circuit breakers and switchgear, we are positioned to supply any spare part, such as coils, contacts, secondary disconnects, control relays, mechanism parts, etc. In addition, our experience has allowed us to reverse engineer and improve many of the obsolete parts you may encounter.



# Motor Control Center Equipment

## Motor Control Center Equipment

Midwest Switchgear stocks several molded case circuit breakers, starters, combination buckets, and complete line-ups to meet our customers' motor control center needs.



Circuit Breaker & Cubicle Spare Parts  
Motor Control Center Equipment

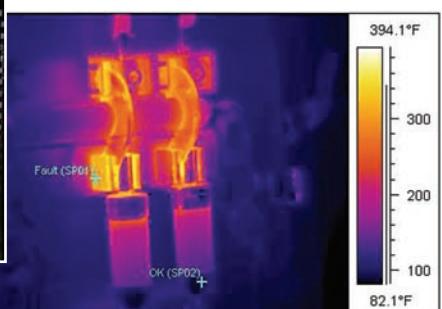
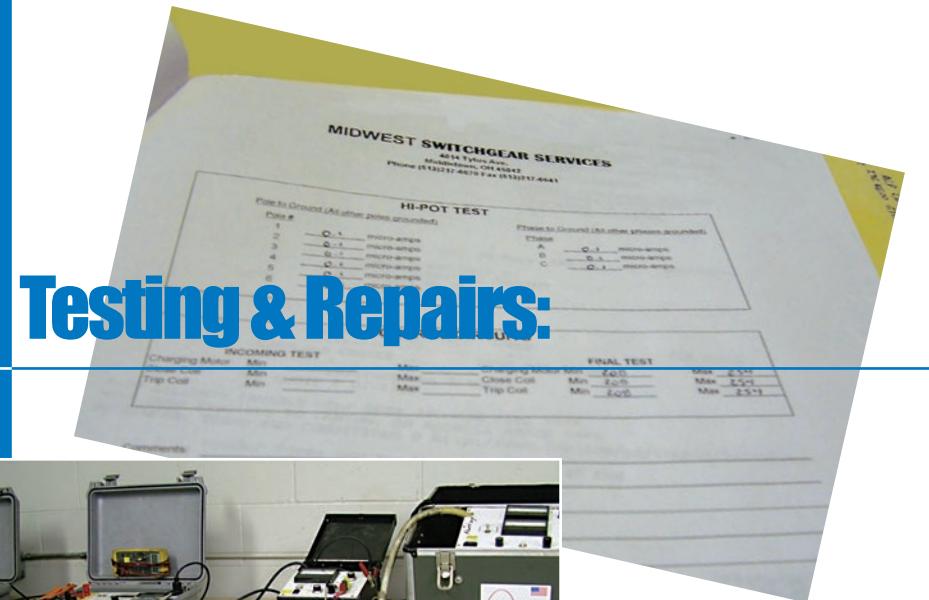
# On-Site Service, Maintenance, Testing & Repairs:

## On-site Maintenance, Testing, and Repair

Midwest Switchgear technicians are often required to maintain, test, and repair our customers equipment in the field. Many times this work is scheduled around plant outages. Our testing capabilities include:

- Hi-pot testing
- High current testing
- Secondary current injection
- Contact resistance (ductor)
- Megger
- Breaker timing
- Relay testing
- Infrared testing
- Transformer oil testing

Final test reports also include a general equipment assessment and recommendations.



# 24-Hour Emergency Services



## Pick-Up & Delivery Service



Midwest Switchgear maintains a full fleet of cargo vans and box trucks so that we can provide pick-up and delivery services. We realize the critical nature of the equipment that we service. Therefore, we want the responsibility of transporting this equipment to and from our customer's facility.

### 24 Hour Emergency Services

Midwest Switchgear has a 24 hour emergency response team to react quickly to any circuit breaker or switchgear failure. We take tremendous pride in restoring your equipment back to service in around the clock fashion. Our experienced technicians and our large inventory have positioned us to be an industry leader in switchgear restoration.

[www.midwestswitchgear.com](http://www.midwestswitchgear.com)

## History:

Midwest Switchgear Services was founded in 2003 to service the Low and Medium Voltage electrical service needs throughout the Power Industry. Our customer base includes electrical generation plants, steel and paper mills, refineries, foundries, and large government facilities such as water and wastewater plants. We specialize in preventative maintenance and testing of all electrical apparatus 600 volt through 15kv, including circuit breakers, transformers, and relays. Midwest Switchgear operates out of a 28,000 square foot facility in Middletown, Ohio.

## Services Excellence:



# **Services**

- Circuit Breaker Reconditioning And Repair
- Supply Of Circuit Breakers And Switchgear
- Circuit Breaker and Cubicle Spare Parts
- Power Engineering Services
- On-Site Maintenance, Testing, And Repair
- 24 Hour Emergency Services
- Match-In-Line Cubicles
- Solid State Trip Device Retrofits
- Motor Control Center Equipment
- Pick-Up And Delivery Service
- Sales Office

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513.217.6670 - fax 513.217.6641

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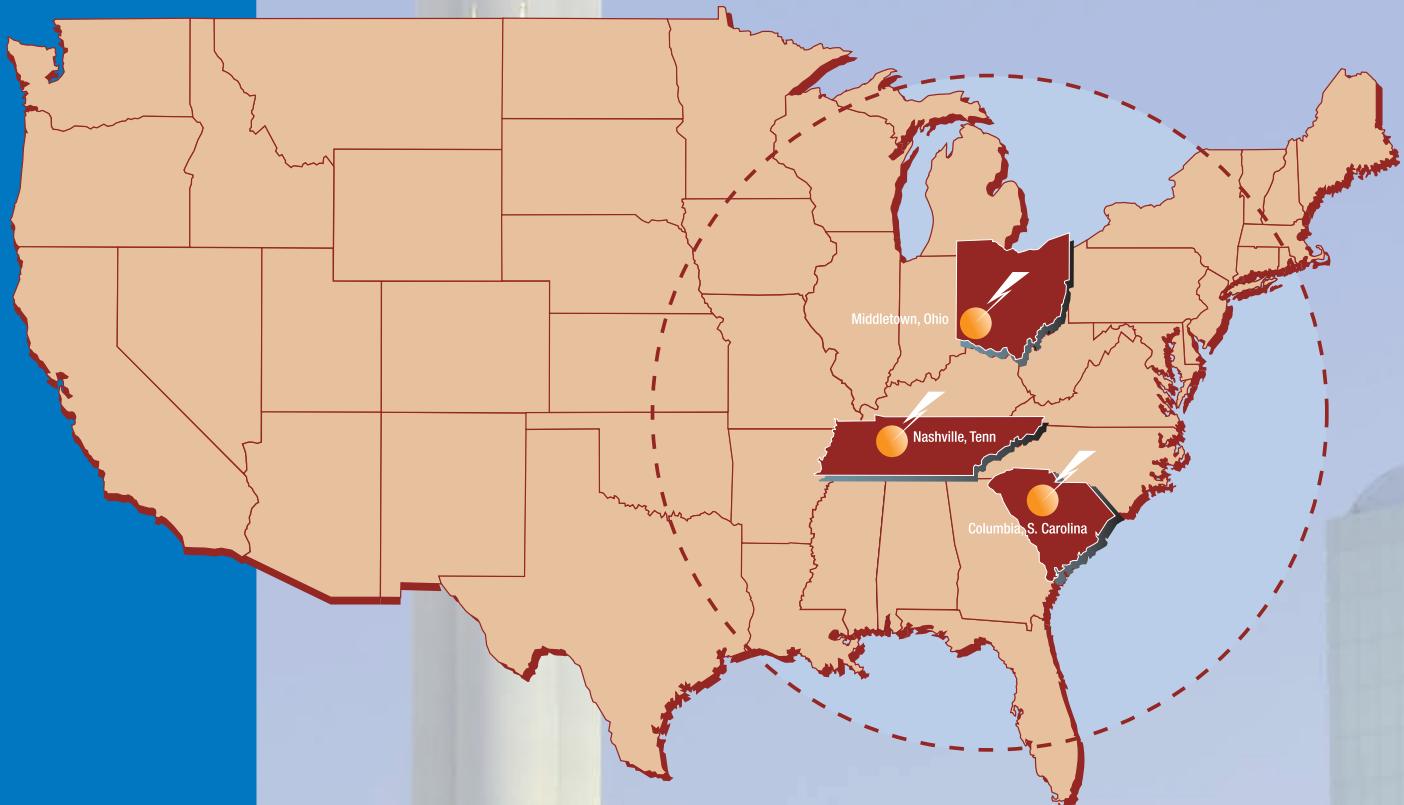
# Corporate Headquarters

- 4014 Tytus Avenue  
Middletown, Oh 45042



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513.217.6670 - fax 513.217.6641

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**Conveniently Located To Serve Your Needs**