SIEMENS
Ingenuity for life

Transformer Lifecycle Management

Bushing replacement

In addition to being a global technology leader in transformer manufacturing, Siemens provides installation, and aftermarket services on large power transformers through our U.S.-based transformer services group.

We provide a factory-trained project engineer and an experienced crew committed to supplying you with complete life-cycle services from equipment installation to maintenance and replacement.

One vital component that is commonly replaced during a transformer's lifetime is the bushing. A bushing failure could translate into a catastrophic and expensive transformer failure, so keeping all components of a transformer in good operating condition is important in maintaining and extending its life.

Reasons to replace transformer bushing

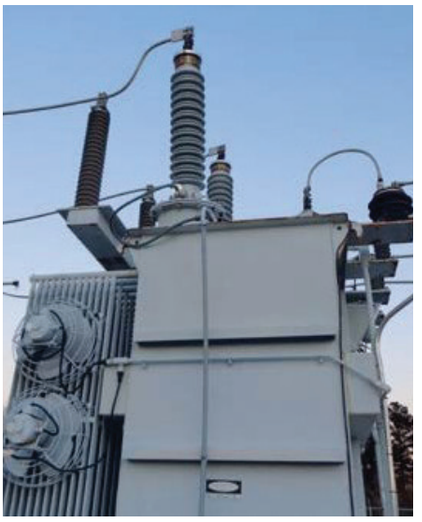
- Failed Power Factor/Capacitance
- Bushing type or model failure history
- Damaged bushing
- No oil in reservoir or identified leak
- Older style bushing which may not allow for installation of on-line monitoring sensors

Customer benefits

Siemens engineering, factory and field services experience combine to find the most suitable bushing replacement solution in **form, fit, and function** through:

- Direct contact with factory engineering at all times
- Access to proprietary design information
- Direct communication with bushing factories
- Project Management team specialized in synchronizing parts, outage, and services
- Factory trained field services personnel

Siemens turnkey services include the required engineering, provisioning, and installation of new gaskets, turrets (when applicable), and required internal connection adaptors to maintain tolerances for internal clearances inside the individual units.



Transformer bushings

Typical services provided

We provide an experienced project engineer and field crew for our installation and replacement projects. Our crews work to stringent procedures for replacement and testing. Services include:

- Drain oil from transformer; partial for draw lead
- Lift and rig bushings per OEM recommendations (manual) using lifting eyes, correct slings and rated crane
- Disconnect high-voltage and low-voltage internal connections (confined space)
- Remove flange bolts; paint rusted bolts
- Lift and remove existing bushing to a safe lay down area; includes disposal planning
- Rig and lift new bushing per OEM recommendations (manual)
- Replace turrets and CTs if applicable and install new gaskets
- Carefully set new bushing in place (CTs)
- Connect high-voltage and low-voltage internal connections (confined space)

Existing bushings and power transformer assessment services

Siemens offers assesssment services for existing power transformers and bushings on:

- Capacitance
- Power F actor
- Dissolved Gas Analysis

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For more information, please contact our Customer Support Center.
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Order No: EMTS-B400200-00-4AUS
Printed in USA