



# MAINTENANCE AND TESTS TO ELECTRICAL DISTRIBUTION SWITCHGEARS

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## MAINTENANCE TESTING SERVICE FOR ELECTRICAL DISTRIBUTION SWITCHGEARS

As part of our experience in electrical engineering services, we offer maintenance tests as a complement to electrical distribution switchgear maintenance tasks. Maintenance and maintenance tests are recommended once a year.

## MAINTENANCE ACTIVITIES FOR DISTRIBUTION SWITCHGEARS

The following maintenance activities are recommended in addition to testing:

### SWITCHGEAR

- Vacuuming of bus sections, switch cubicles and control sections.
- Cleaning of buses and insulating parts with dielectric solvent.
- Retightening of bolts in control sections after tests.

### CIRCUIT BREAKERS

- Circuit breaker removal.
- Aspirate.
- Cleaning with dielectric solvent.
- Application of dielectric grease on moving parts.
- Application of dielectric grease in jaws.
- Manual loading.
- Manual operation.
- Electric operation.



Fig.1 Hi-Pot tests to a medium voltage circuit breaker.

## POWER TESTS

The recommended power tests for distribution switchgears are:n:

- Insulation resistance (Megger) to switchgear and circuit breakers.
- Resistance of contacts in circuit breakers (Ducter).

Additionally for medium voltage

- Test of high potential applied (Hi-Pot) to switchgear and circuit breaker.
- Vacuum integrity test to circuit breakers.

## TESTING OF PROTECTION SCHEMES



Fig. 2 Tests to protection relays.

The recommended tests for protection schemes in distribution switchgears are:n:

- Tests to trip units of low voltage circuit breakers.

For medium voltage switchgears:

- Protection relay tests.
- Instrument transformers tests.



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