

> Earthing Systems Capability

FortEng | Fortis Engineering - Strength in Engineering.

FortEng has built a strong engineering reputation in the design and testing of earthing systems for high-voltage installations. FortEng works with you to ensure your new or existing high-voltage installations comply with all necessary safety criteria to protect assets, personnel and the public. FortEng has highly developed expertise in earthing design, modelling and testing, including developing cost-effective mitigation solutions.

FortEng supports utility, industrial and mining clients with superior expertise in the following services:

Engineering studies and design

- Earthing system design using CDEGS
- Lightning protection systems
- Low-frequency induction studies for pipelines
- Insulation coordination and transient studies using EMTP software
- Fault current distribution modelling
- Electric and magnetic fields modelling
- Risk-based analysis methods (ENA EGO)

Earthing system testing

- Generation, transmission, distribution sites
- Current injection and soil resistivity testing
- Industrial and commercial sites
- Auditing and incident investigations

Commissioning inspection and testing

- Current injection testing using the off-frequency method
- Continuity testing
- Earthing system compliance inspections
- Comprehensive reports of compliance or deficiencies, with proposed actions required to achieve compliance

Compliance standards

FortEng is able to test and model for compliance with the following standards:

- AS 2067
- AS/NZS 4853
- ENA EG1
- Client specific requirements
- AS/NZS 7000
- ENA EGO
- AS/NZS 3835

Equipment and software

FortEng owns and uses industry-leading test equipment and software:

- Red-Phase current injection set
- Mitton Instruments current injection set
- EMTP-RV
- CDEGS analytical software with all available modules
- MATLAB

FortEng's engineers, methodologies and equipment produce high quality test data to allow accurate representation of the performance and safety of any high-voltage installation. FortEng has proven performance with design and testing of earthing systems, from small sites up to complex interconnected systems.

**FortEng enjoys delivering high quality engineering.
We are passionate engineers making a difference.**