Transformer Remanufacturing

ABB Transformer Remanufacturing Reduces Downtime and Minimizes Risk, which Extends the Life of Your Critical Assets

Reducing Downtime
Transformers are critical assets in an electrical system. If a service plan of action is not in place before an unexpected failure occurs, production comes to a standstill causing revenues to be lost and repair costs to grow.

ABB Transformer Remanufacturing and Engineering Services (TRES) understands that both utility and industrial companies strive to maintain the reliability of their transformers, but that failures do occur. Reducing system downtime becomes a critical factor.

ABB’s transformer repair operation in St. Louis, Missouri is equipped with the personnel, resources, and equipment to promptly get your unit back in service. The process starts with an assessment of the situation before the failed unit even leaves the site. As the owner of the most extensive OEM database in the transformer industry, ABB is capable of pulling the original design drawings on approximately 70% of the installed base in North America. Current and legacy manufacturers include:
- ABB
- Asea
- BBC
- General Electric
- Maloney
- National Industri
- Westinghouse

This means that cycle times can be reduced since engineering and fabrication of parts can begin before the unit physically arrives at the repair facility. New windings and components can be ready for installation shortly after the unit has been dismantled. Complete in-house diagnostics and testing further ensure that remanufactured units leave ready for installation.

Minimizing Risk
Companies routinely operate with similar sized units throughout their system (including spares), whether located at a single site or spread across multiple locations. As a fleet continues to age, a structured replacement program may be a traditional approach, but a remanufacture program may prove more economical. Proactively remanufacturing ‘at-risk’ transformers avoids failures before they occur and extends the life of a fleet at reduced cost and time.

Solutions
With top quality work backed by comprehensive OEM technology, years of repair experience, and the largest transformer design database in the world, ABB offers superior reliability, resulting in less time, money, and personnel that companies have to devote to maintenance.
Transformer Remanufacturing Resources at a Glance

- Maintenance of the most extensive OEM design and drawing database in the industry
- Employment of design engineers with various OEM backgrounds
- Utilization of technology from numerous ABB transformer factories worldwide
- Development of engineering analysis and design studies
- Deployment of field engineers and technicians for customer field support
- Operation and logistics management of ABB fleet of heavy-duty depressed center and Schnabel rail cars as well as off-road platform trailers

Plant Equipment, Systems, and Testing Capabilities

Major Equipment and Systems

- Disassembly isolation/remediation area
- 200 ton overhead crane capacity
- Insulation fabrication
- Dry process ovens for newly manufactured windings
- VapoTherm processing
- Paint shop and specialty shipping department
- ISO 9001 registered
- Core stacking table for disassembly, inspection, and assembly
- Core form winding areas that include horizontal, vertical, and GE layer machines

Testing Capabilities

- Impulse tests to 1300kV BIL
- Haefely/Tettex TMS580 Loss Measurement System
- TTR SPY Raytec transformer turns ratio set
- Hipotronics 800kV DC applied test set
- Biddle PD and RIV Detection System
- Temperature test with gas in oil analysis
- Doble 4000 for power factor testing
- Doble M5100 Swept Frequency Response Analysis test set
- Bruel & Kjaer with digital octave filter set for sound testing
- Flir thermal imaging camera
- Haefely HIAS-743 HiResolution Analysis System for impulse testing

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