



Case Study

Increasing Hydro Generator Output and Efficiency

PREFORMED WINDINGS

A global leader in quality for over 50 years

CHALLENGE

The end user requested an increase in the capacity of their hydro generator from 12,000 kVA to 17,600 kVA, whilst improving the efficiency of the machine, reducing maintenance requirements, and extending the life of the asset.

SOLUTIONS

Prefomed Windings Ltd the coil manufacturer and Sidewinders LLC, the service provider, utilised their hundreds of years of combined experience working closely and collaboratively to redesign the coil. Using a state-of-the-art CAD system, manufacturing techniques and the latest insulation technologies, a coil design and specification suitable for the increased demand of the machine was agreed. The machine was rewound and upgraded using "QualCoil Life" coils with a superior quality that ensure the lowest Partial Discharge (PD) levels and the rewound machine was supplied with a warranty of 10 years on the coils and workmanship.

BENEFITS

Increased Capacity

An increase in output of nearly 50% while utilising the existing generator frame

Lowest Partial Discharge

Reduced Partial Discharge levels resulting in an extended asset life and reduced maintenance requirements

Long Warranty

Peace of mind with a 10 year warranty on the coils and workmanship

AT A GLANCE

Challenges

- 50% Increase in output capacity with fixed slot size
- Expectation for a very long service life

Benefits

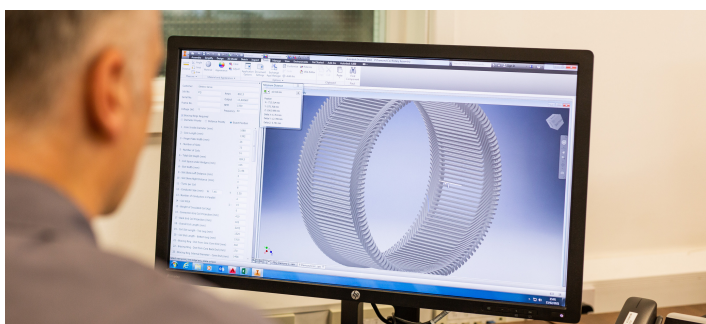
- Greater profitability
- Utilised existing generator frame
- Reduced maintenance requirements
- Extended asset life



Sidewinders LLC has used Prefomed Windings for many years, and they are our preferred winding provider. Prefomed Windings supplies exceptionally high quality HV diamond coils for hydrogenators, along with 24/7 technical support. Prefomed Windings' engineers listen to each client's needs and study the specific requirements of each project to provide precisely tailored solutions. Prefomed Windings uses their position as trusted thought leaders in the industry to not simply manufacture replacement coils, but to substantially improve coil designs. Prefomed Windings' process and focus on continuous improvement results in superior machine performance that will endure for many years to come

Glen Peterkin

President and Technical Director,
Sidewinders LLC



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