

**PREFORMED  
WINDINGS**

# A global leader in coil manufacturing for over 50 years

Superior quality coils for high voltage motors,  
generators and traction motors delivered in days,  
not weeks.





### **Customer satisfaction**

"The QC process is very effective resulting in zero rejects during a recent 468 slot rewind. The communication, technical support and order updates are very beneficial and make doing business across time zones transparent."

- Magnetech

# High quality coil manufacturing

As a business, we promote a culture of excellence, always ensuring our customers can rely on industry leading quality and excellent customer service.

Preformed Windings is a high-quality manufacturer with over **50 years of experience** of manufacturing high voltage coils for high voltage motors, generators and traction motors. Our coils provide the **lowest partial discharge** levels and most accurate and consistent shape for ultimate performance and longevity.

As a member of EASA and AEMT, Preformed Windings is a **trusted partner** to the largest OEM's and rewind shops around the world and is uniquely positioned in the marketplace as **we only make coils**. We are therefore the supplier of choice for repair facilities that require a quality focused partner to supply coils to them without worrying that we will compete with them for the rewind.

Using the latest technologies and only the best materials, we create bespoke, **high quality** solutions for end users, repairers and OEMs anywhere in the world. Our state-of-the-art

manufacturing facility, highly skilled and experienced team and rigorous testing and quality control processes ensure that we consistently deliver the highest quality products. We don't stop there though; we offer a redesign service where required and thanks to the accuracy of every coil we manufacture, combined with our range of flexible coils we reduce winding times and **extend the life** expectancy of our customers' machinery.

We are highly experienced in working within **very short lead times** measured in calendar days not weeks, making us the supplier of choice for emergency repairs where minimising downtime is critical.

Offering industry leading, **24/7 technical support** to service our global customer base we are the preferred supplier of coils globally to OEM's and rewind shops.

## Industries served

Hydro

Nuclear

Oil & Gas

Industrial

Transportation





### **Customer satisfaction**

“Preformed have provided multiple sets to us for the project we’re currently working on. The latest set was ordered right at the onset of the Covid-19 shut down, which created obstacles that no one would have anticipated a year ago. Preformed did an admirable job working with us and shuffling resources to provide our coil set on time and with their usual excellent level of quality.”



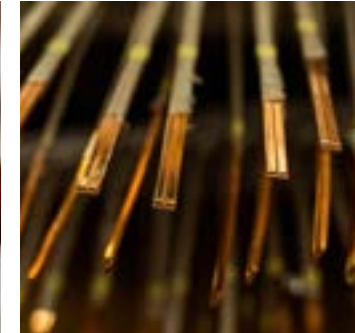
- Westinghouse Nuclear

# Product range

We take great pride in our ability to supply the highest quality products and industry leading turnaround times, every time.

Our business is built around ensuring we provide a smooth and efficient service from start to finish. Working with the highest quality materials including copper that is sourced from locally approved suppliers within hours of a clients request, combined with our state-of-the art manufacturing facilities and highly skilled team, we ensure that all specific product requirements are met.

In addition, our full range of products are fully traceable throughout the manufacturing process. This means that we maintain full control and can provide you with real-time updates throughout the production process.

Diamond Coils	Armature Coils	Traction Coils	Winding Kits
			
<p>We work with clients across a range of industries, covering everything from traction to power generation.</p>	<p>A broad range of custom armature coils for clients in the water, transport and power generation industries.</p>	<p>We work to ensure that the completed coils are extremely robust and hard wearing.</p>	<p>Winding kits incorporating all essential materials for overhauling a broad range of electric motors. Winding kits include:</p>
<ul style="list-style-type: none"><li>• For high voltage motor &amp; generators</li><li>• 2,300-18,000V</li><li>• Resin Rich, VPI, Hybrid &amp; Fully Cured insulation</li><li>• Film back / glass back</li><li>• Flexible, cured, hybrid customer specifications</li><li>• Class F &amp; H insulation</li></ul>	<ul style="list-style-type: none"><li>• For AC/DC traction motors</li><li>• Up to 3,000V</li><li>• Resin &amp; VPI insulation</li><li>• Custom &amp; hybrid specifications</li></ul>	<ul style="list-style-type: none"><li>• Resin &amp; VPI insulation – Class F &amp; Class H</li><li>• Purpose built shaping formers</li><li>• Copper, enamel and glass conductors</li><li>• Quick turnaround</li></ul>	<ul style="list-style-type: none"><li>• All types of slot wedges</li><li>• Packing strips</li><li>• Insulation tape</li><li>• Thermistors / RTD's</li><li>• HV cables</li></ul>





### **Customer satisfaction**

*"Preformed Windings' coils are the highest quality produced. I have tried other manufactures of High Voltage Coils. No one can compare to the speed, performance and quality of Preformed's coils. Every part of my experience with the team has been top shelf."*

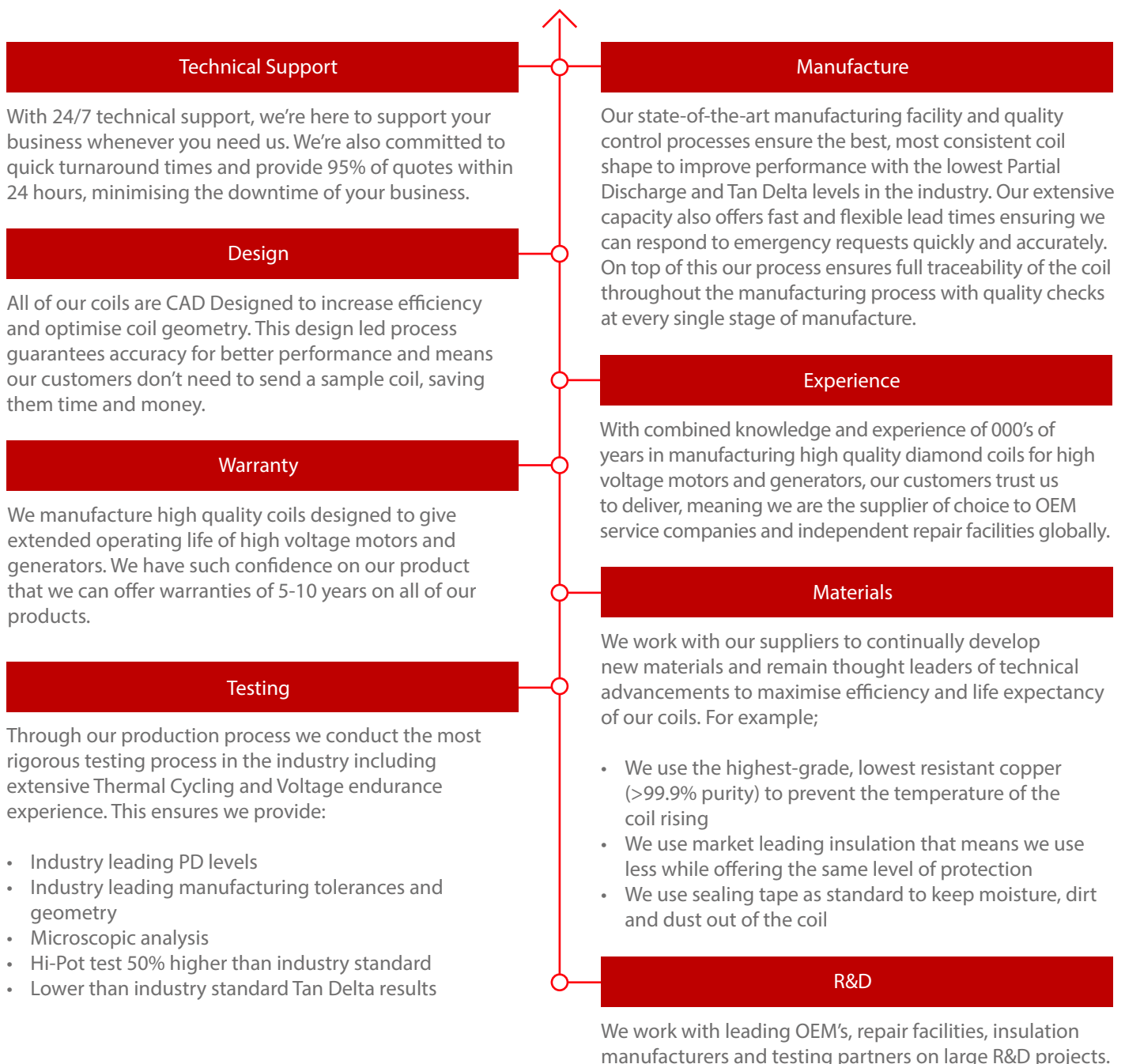
*- Koontz Wagner Services*

# Quality is at the heart of everything we do

Everything we do is built around ensuring we produce highly accurate coils that substantially improve winding time and extend life expectancy. Get in touch and join our experienced team for a virtual tour of our facility.

Our business is built around designing and manufacturing high quality replacement coils in the tight time-scales required to get customers' motors and generators running again.

## Low PD. High efficiency. Longer life.





### **Customer satisfaction**

“Preformed coils have successfully passed a rigorous set of qualification testing for Andritz Hydro. These tests included thermal cycling and voltage endurance to IEEE standards. We have had success using their coils.”

- Andritz Hydro



# Quality at every stage

Our manufacturing process has been designed and enhanced over 50 years to ensure we produce the highest quality coils, every time.

## Looping



Our de-reeler rotates through 360 degrees and can carry multiple copper reels.

- Enables coil twist transpositions to be formed consistently and accurately
- Turn taping in line with looping reducing voids and ripples in insulation
- We can loop up to 18-off conductors in parallel

## Forming



We employ the latest forming machines which are fully computer controlled to produce repeatable shapes rapidly.

- Cuts coil forming time by up to 70% over alternative methods – particularly important for larger coil runs delivered quickly
- Stores coil shape in internal memory to allow future production of full or part sets of identical shape and size

## Taping



We can manufacture coils with a range of insulation systems including Hot Pressed Resin Rich, Un-pressed Resin Rich, Vacuum Pressure Impregnation and Hybrid.

- Optimum insulation system for your machine
- Sealing tape are added as standard

## Pressing



Utilising the latest pressing machines we can insulate and press to the tightest tolerances.

- Void-less insulation resulting in low PD
- Ensures best coil fit in the stator slot to give machine optimum performance
- Makes coil fitting up to 40% faster than inferior coils
- Increases coil life

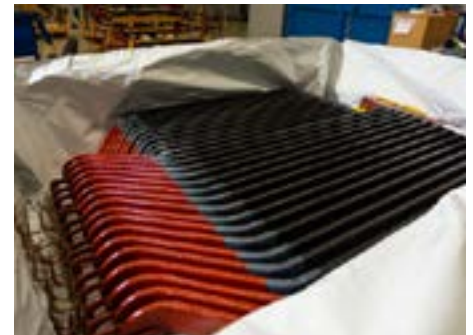
## Testing



Extensive tests and checks form part of our quality assurance system which is strictly adhered to and regularly audited by our customers and the British Standards institute.

- Dimensional & fit checks
- Tan delta
- Inter-turn
- Partial discharge
- Corona camera
- High potential

## Packing



All coils packed in boxes suitable for international travel and long term storage

- Heavy duty boxes as standard
- All coils are foil lined and packed with desiccant

# Solving our customers problems... Fast!

Our worldwide customers choose Preformed Windings for a quality and reliable service.

## North America

**Project:**  
Hydro Generator  
**Product:**  
13.8kV, 20,000kVA -  
150-off coils  
**Brief:**  
Upgrading of hydro coils  
**Completion Time:**  
50 calendar days

## Europe

**Project:**  
Nuclear Industry  
**Product:**  
11kV – 56-off coils  
**Brief:**  
End user will only use  
our coils due to quality  
**Completion Time:**  
40 calendar days

## Middle East

**Project:**  
Industrial Application  
**Product:**  
11kV, 9800kW – 74-off coils  
**Brief:**  
Upgrading of industrial coils  
for severe environment  
**Completion Time:**  
15 calendar days

## Australasia

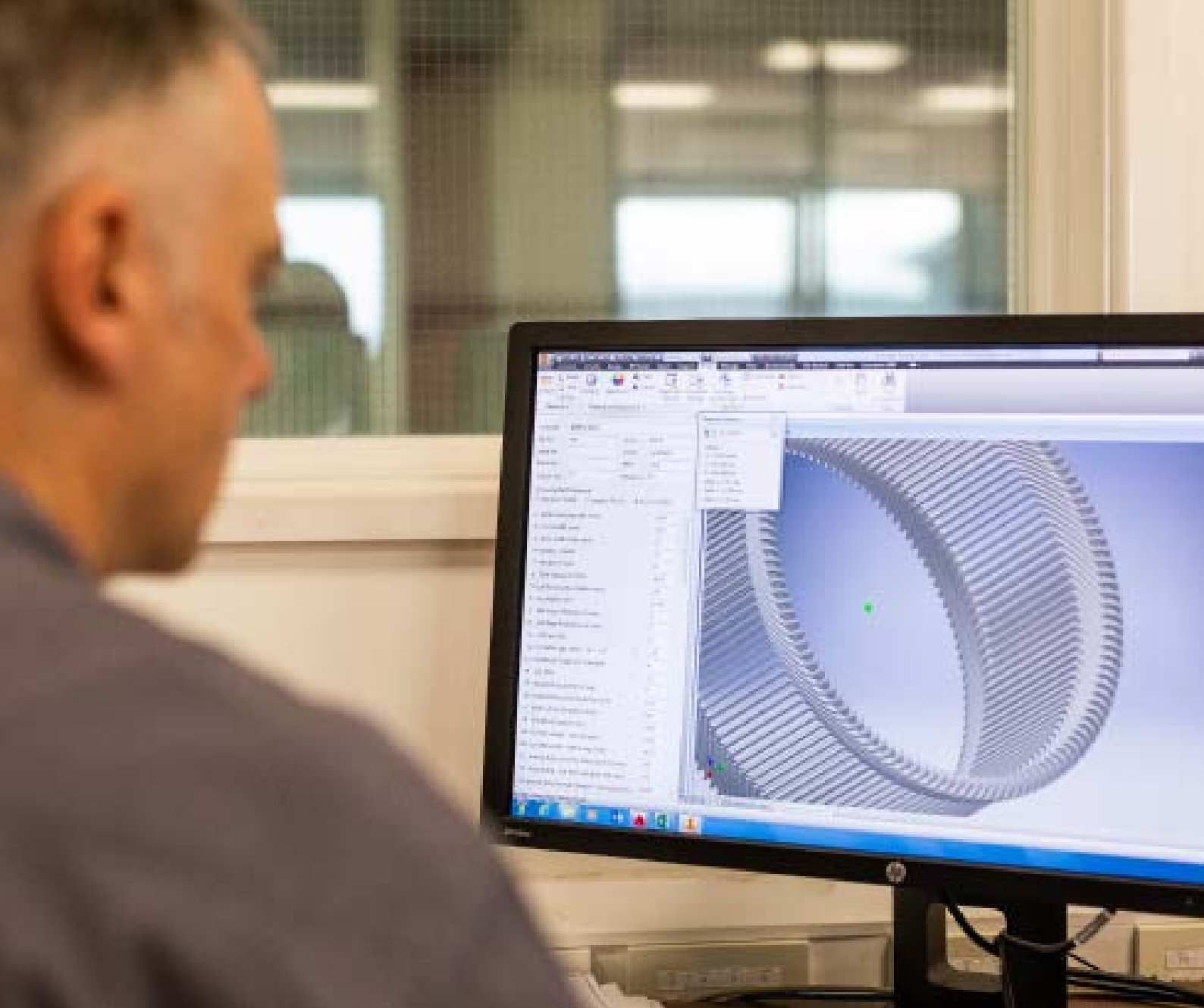
**Project:**  
Industrial application  
(emergency)  
**Product:**  
11kV, 5,000 kW – 92-off coils  
**Brief:**  
Emergency repair  
**Completion Time:**  
12 calendar days



## Customer satisfaction

"...this may be the most uniform set of coils that I have ever seen. My winders told me it is a rare pleasure to wind with such a well-made set of coils. If you continue to make a product this outstanding, you are far above your competition."

- Benny Beneux, Evans Enterprises



## Coil upgrade expertise

Unlike many manufacturers that will simply copy previous coil designs resulting in similar machine performance, Preformed Windings are different. In many cases we will upgrade the coils used for the rewind. Using our collective experience and CAD system, where appropriate, modify designs as follows:

- Increased copper cross section – to improve heat transfer, reduce I<sup>2</sup>R loss and winding temperature, which ultimately improves motor efficiency
- Improved coil insulation materials – allows for better heat transference which can lead to enhanced machine performance
- Optimised geometry – can make the coil easier and faster to fit and in some cases allow for diamond coils rather than more expensive bars to be used In summary the coils used for your rewind will normally be superior to those being replaced.

# PREFORMED WINDINGS

For more information contact:

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