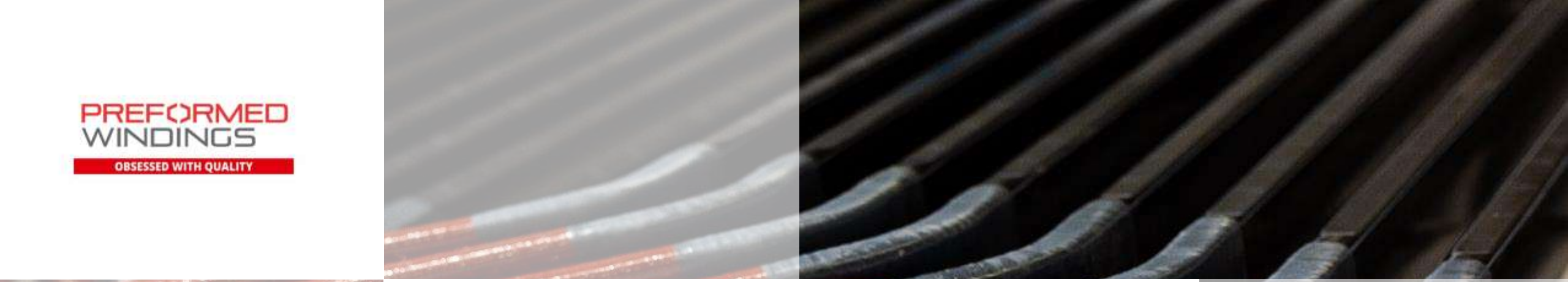
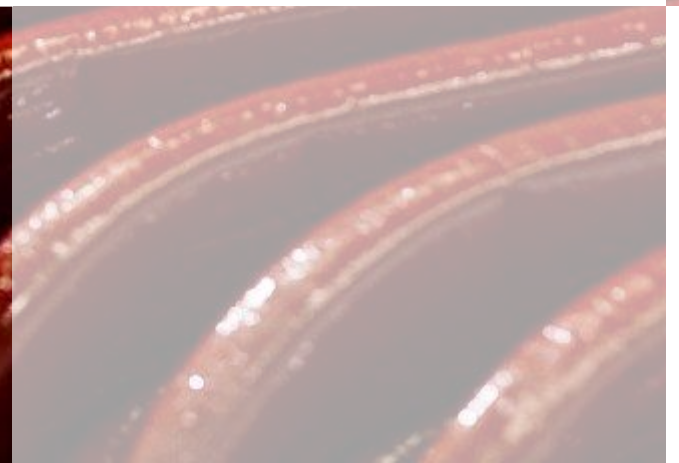
PREFORMED WINDINGS

OBSESSED WITH QUALITY



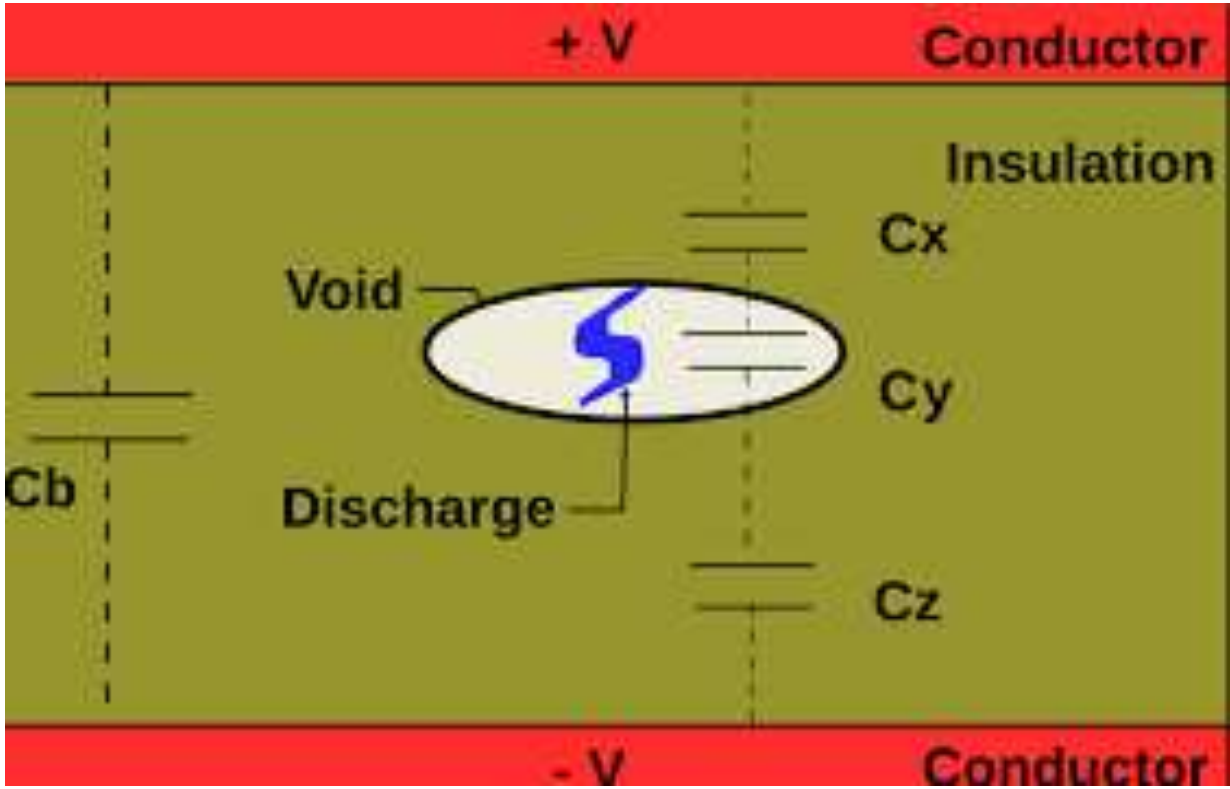
What is Partial Discharge (PD)?



OUR PARTNERS
RELY ON US TO
DELIVER QUALITY

Definition of Partial Discharge

- PD is a localised electrical discharge that partially bridges the insulation between conductors, occurring either adjacent to a conductor or not, as defined by IEC60270.
- It serves as the most effective ‘early warning’ sign indicating the deterioration of medium or high-voltage insulation.



How do we test for PD?

- During PD testing, the equipment under test is subjected to high-voltage stress while monitoring for PD activity. This is typically done using specialised sensors, such as capacitive or electromagnetic sensors.
- At Preformed Windings, we use Omicron waveform testing, and we also have a dedicated PD camera to test for PD.
- Testing can be conducted both online and offline using various apparatus.

Why do we test for PD?

- Partnerships are at the heart of everything we do at Preformed Windings, so as a thought leader in the industry, we believe that our valued customers should receive the highest-quality coils possible.
- Continuous monitoring of PD activity can help predict impending insulation failures and allow for proactive maintenance or replacement of equipment before catastrophic failures occur.
- Examining PD in great volume allows us to promise excellent performance to our partners.

What if PD is untreated?

- PD activity can indicate the presence of defects or weaknesses in the insulation, such as voids, impurities, cracks, or other forms of degradation.
- If left unchecked, PD can escalate to electrical treeing and surface tracking, leading to a breakdown.

Preformed Windings' services

- When unsustainable PD levels are identified, Preformed Windings offers an alternative to costly asset replacement through high-quality, low-PD coil manufacturing to minimize downtime and reduce PD in existing machinery.
- Additionally, we excel in designing coils for enhanced efficiency and faster winding.

What our customers say

GE Renewables

"Their products offer significant benefits such as very low partial discharge and a long service life."

Koontz Wagner Services

"No one can compare to the speed, performance and quality of Preformed's coils."

Andritz Hydro

"Preformed coils have successfully passed a rigorous set of qualification testing for Andritz Hydro."

Sidewinders LLC

"Preformed Windings' process and focus on continuous improvement results in superior machine performance that will endure for many years to come."

GE Renewables

"We enjoy collaborative and cutting-edge research and development with Preformed Windings."

Want to learn more?

To learn more about Partial Discharge:

- Visit our PD website page.
- Contact a member of the team on LinkedIn or through our website contact form.
- We are available 24/7 to answer any queries.