

Combatting corrosion with traditional and new methods



PES Wind caught up with Ed Hall, President of Oxifree, to discover the latest corrosion solutions. Our readers have always been interested in this sector, as it has a real impact on maintenance and life span of the wind turbines. Research and development are at the forefront. The core product encapsulates the part, rather than sticking to it, which lends itself to many different possibilities. Read on to find out more...



technologies focused on corrosion prevention, fire and temperature protection, as well as cathodic protection.

PES: We know you are involved in various industries and would like to know how important the wind sector is for you?

EH: The offshore wind energy industry has seen enormous growth in KWH of energy produced and now needs to look to the role of preventative maintenance to secure its future in the energy sector.

It is highly difficult to operate in due to logistics for both construction and maintenance, along with the aggressive and corrosive environment. Specifying the correct corrosion mitigation technology is vastly important for efficiency, in terms of both time and effectiveness.

Without long term effective preservation, it could prove too inefficient and costly to be viable.

Our experience in the wind sector to date has shown us that we absolutely have a role to play in asset integrity and providing a flexible solution that allows operators to keep things running whilst providing vital corrosion prevention. We really want to support this industry to keep things moving, as it becomes more integral to keeping our business and homes running.

PES: Is research and development an integral part of your business?

EH: Absolutely, without research and development a business simply stands still. We have always valued the role of R&D and it is integrated into our own testing in house, through the projects we perform under our Global Services division and through the relationships with our distributors and clients.

We continually review how our products are performing and how we can develop new offerings to combat new, or changing requirements. For instance, right now our GenLab (laboratory oven) is running product



Ed Hall

PES: A warm welcome to PES Wind Ed, it's good to talk with you. Would you like to begin by giving us an overview of Oxifree?

Ed Hall: Thank you for having me! Well, in short Oxifree offers anti corrosion solutions for complex metal assets. Our core product is TM198, which is a thermoplastic coating melted down from a solid resin, in the supply unit and applied using a heated hose and gun.

The coating requires minimal surface

preparation and can often be applied to live equipment since it does not depend on adhesion but instead encapsulates the asset. The built-in corrosion inhibitor actively protects the metal structure preventing the ingress of air and moisture. It is a versatile product and has potential to bring major savings to infrastructure spend.

In 2020 Oxifree became part of the Seal For Life Industries Group joining a long line of comprehensive protection products and



Windmill Flange courtesy Robke De



Windmill flange results courtesy Robke De

testing, we like to be on the front foot.

PES: We were wondering about your geographical reach and if you have plans to expand into other areas?

EH: We have always worked on a global scale with our distribution network. In 2017 we launched our Global Services Division, which allowed us to take on projects within the UK and The Netherlands, as well as supporting our partners projects worldwide through our own in-house team.

We see no limitations to our business and have been in talks with new representation in recent weeks. The issue of corrosion is global and with our own infrastructure and that of SFL, we are keen to reach as far and wide as needed.

PES: Do you have any interesting projects in the pipeline that you are able to share with us?

EH: We are currently working with a major city utility company to combat corrosion in their sector.

We are also working on a new short-term

preservation product to inhibit corrosion with little to no surface preparation. It's early days and we will share more when we can.

PES: What makes your solutions stand out from the competition, what are the benefits to the end user?

EH: A major difference in TM198 is the fact it doesn't adhere but encapsulates. That makes us stand out because there are so many situations that require the ability to remove the protective coating for maintenance, e.g. structural bolting, or repair or simply for moving parts. The fact we can protect a working cat link and it can still be utilised, or protecting hydraulic fittings and actuators allowing them to move within the coating with use is a big benefit.

A lot of other products also require extensive surface preparation which can involve blasting. This can produce dust and debris and harmful pollutants. TM198 only requires an ST2 surface which can be achieved using a wire brush. It's also not dependent on a perfect weather environment – the asset just

needs to be dry; humidity or cold don't impact application.

This all makes for a speedier application process which in turn keeps manpower costs down. It can often be applied to live equipment saving expensive shutdown costs. The fact that our technologies are designed to maintain preservation whilst remaining easily inspectable, i.e. NDT or visual, over the life of the product provides operators better efficiency.

PES: How has the current coronavirus situation impacted on your business and how you run it? What changes have you had to make? How do you see this developing over the next 6-12 months?

EH: Well first and foremost it has impacted our travel. Our business development team usually travel up to around 20 countries a year. This year that figure will be very low. So, we have gone virtual along with the rest of the world, using Zoom and Microsoft Teams to deliver our meetings and perform presentations.

The second major area is in our training. We usually conduct a 5 day in-person course at our facility in the UK. This has morphed into a 5-day online course through Microsoft Teams, with live demonstrations and auditing on both sides of the call. We have found it to be very successful and have been able to conduct audits across the globe for representatives who were due to have their skills evaluated. We have even supervised our first virtual project in the past few months.

It's amazing what can be achieved online, but I know myself and the team are looking forward to some face to face meetings again. For now, we continue to work remotely and support our customers with greater efficiency than ever before.

Going forward I think travel will start to come back into our lives, and hopefully we can return to exhibitions next year. But my priority is to keep my team safe and we will follow the guidelines.





Catlink Transverter Station courtesy PeperEnergy

PES: What do you think will be the greatest opportunities and the greatest challenges, for the wind industry in general and Oxifree in particular, over the next few years, and where do you see yourselves in 5 years' time?

EH: I think the biggest changes we will see now is cost. It's been an incredibly tough year for all businesses and I think this is going to linger for a while yet. We know maintenance managers already run a tight budget when it comes to preventative maintenance spend, but I like to think we can start to show that spending

efficiently now will save in the years to come.

We will continue to grow and expand our product offerings and educate the market on the benefits of our technologies, which will always be focused on performance as well as effective integration into asset integrity programmes.

We will also continue to reap the benefits of this forced adoption of technology making our working practices more efficient than ever before.

Alternative corrosion protection

In today's changing markets new and alternative corrosion protection methods are welcomed. Introducing Easyqote: a brand developed by STOPAQ, an inventor and manufacturer of Polyisobutene (PIB) coatings, to expand the uses of such technology beyond the Oil and Gas focused markets. The brand was born out of the idea that should corrosion solutions be applied simply as a sticker, rather than painting and spraying.

The wind energy sector

The wind energy sector is a contributor to a cleaner way in creating energy, with EasyQote the mission is equal. 'We are here to contribute to sustainability of wind energy related assets by arresting corrosion and thus increasing the lifetime of the same. As the implementation of wind energy sector grows, we plan to be a part of it from new build to the days ahead reducing the maintenance period to a minimum,' Dinko Cudic, Business Line Director for STOPAQ, Seal For Life Industries.

The design life for EasyQote is a minimum 30 years in preventing corrosion, but it comes with the added value in doing the job once and in the safest possible way. The product is 100% safe for the user and the environment. On the offshore towers,



all it takes is a wire brush, a piece of the Coating Repair Patch that is already pre coated, add to the substrate and the job is done. It's as simple as applying a structural band aid if you can call it that.

Whilst the focus for EasyQote has been in Europe, the ultimate aim to have a global reach and support SFL clients worldwide. Alongside that the teams continue to explore new ways for expanding their PIB coating technology to different industry sectors but also to work on solutions for the future developing alternative ways to solve the new challenges industries face.

What does the future look like?

'The current situation the world is experiencing has exposed the benefits of simple and durable solutions. Limited amount of skilled personnel allowed in workspaces has increased the demand of our solutions where anyone with minimum online training can become an expert in corrosion prevention. We see that in the future the minimum surface preparation and single coat systems will be in growing demand,' continues Dinko.

'Fast forward a few more years and we believe we will see an increase in the acceptance of our 'alternative' ways of stopping corrosion, as the industry will be looking for products that are less labour intensive and with minimum operational or environmental impact to apply'.

The world is changing, as the wind energy market has proven, and SFL are no different in what they wish to achieve. 'Patience for any acceptance is detrimental and we will be patient to get rewarded for our contribution to a safer and sustainable world'.

For more information on EasyQote please visit www.sealforlife.com

or www.oxifree.com

