

PRESS RELEASE

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PFISTERER Revolutionizes Offshore Repair of Subsea Cables up to 170 kV

Universal plug-in repair solution

Winterbach, Germany – With its new repair joint for high-voltage subsea cables up to 170 kV, the PFISTERER Holding SE, international quality leader in electrical connection technology for energy infrastructure, has developed a world first for transmission grid operator Tennet. The one-size-fits-all solution allows the connection of a wide variety of three-core subsea cable types using the plug-in principle – completely independent of the design or manufacturer. This means that defective subsea cables can be repaired efficiently, and the stock of spare parts can be reduced to a minimum. With the successful completion of the type tests, PFISTERER is once again underlining its role as a driver of innovation in power transmission.



The universal repair joint allows the connection of a wide variety of HVAC subsea cable types using the plug-in principle – completely independent of the design or manufacturer of the cables used. Source: PFISTERER

THE ONE-SIZE-FITS-ALL SOLUTION OFFERS MANY ADVANTAGES

The innovative repair solution for the offshore industry is based on the plug-in epoxy resin joint up to 170 kV from the CONNEX product family from PFISTERER for connecting high-voltage cables. This technology is already in use on numerous offshore wind and oil platforms as a connection between platform cables and export cables. The joint housing and internal optical fibre connection system were developed by the British engineering company Power CSL. The housing is highly robust and makes the CONNEX connection solution completely waterproof and suited to underwater use. “The universal repair joint can be used for any polymeric-insulated HVAC subsea cable up to 170 kV and can be installed independently

on any cable thanks to the plug-in principle. This offers a lot of flexibility in planning. All three phases in the subsea cable are connected in parallel to a centrally prefabricated unit in a single plug-in procedure. This saves valuable assembly time at sea and reduces the number of spare parts required,” says Vukašin Basara, Senior Product Manager at PFISTERER.

PFISTERER was awarded the contract to develop the innovative universal joint by TenneT, one of Europe’s leading transmission system operators based in Germany and the Netherlands. In addition to developing and designing the repair joint, the order also included performing all type tests for mechanical and electrical product qualification in accordance with IEC 60840 as well as CIGRÉ 490 and 623.



With the universal repair solution, TenneT can significantly reduce its spare parts inventory. Source: PFISTERER

EFFICIENT REPAIR MANAGEMENT

The client TenneT operates offshore grid connection systems in the North Sea off the German and Dutch coasts, to transmit wind power from sea to land. The electricity generated in the wind farm is transmitted as AC power to a converter platform, where it is converted for further transmission. Multiple AC cables from various cable manufacturers are installed between the wind farm and the converter platform. There are also some direct three-phase connections from sea to land. If a cable fault or interruption occurs at any point, for example due to ageing cables or mechanical impact, it was previously necessary to keep spare cables, repair joints, and spare parts in stock for each specific connection in order to be able to respond as quickly as possible. This ties up considerable logistics capacity, time and costs.

The universal repair joint now provides a solution that significantly simplifies the repair of defective HVAC subsea cables – with minimal need for spare parts and assembly tools. As a result, TenneT can significantly reduce its spare part inventory.

UNIVERSAL SUBSEA CABLE REPAIR JOINT UP TO 245 KV

In addition to the plug-in version for up to 170 kV, there is also a slip-on repair joint available for high-voltage subsea cables up to 245 kV. It utilizes the same mechanical components as the 170 kV solution, with a central joint body that enables the connection of cables with different conductor cross-sections and geometries.

ABOUT PFISTERER

PFISTERER is a globally leading and independent technology company with head offices in Winterbach near Stuttgart, Germany. The company develops, produces, and sells solutions for the insulation and connection of electrical conductors for power grid interfaces – from the generation to the transmission to the distribution of electrical energy – on land, at sea, and in the air. With its powerful innovation, state-of-the-art production capabilities, and global sales network, PFISTERER offers advanced solutions for the challenges of electrification. Since its founding in 1921, PFISTERER has established itself internationally as a pioneer in modern energy infrastructure and is an attractive employer in a future-oriented industry with exciting development opportunities for more than 1,200 employees. PFISTERER Holding SE has a global presence with 17 operational locations across 15 countries. Karl-Heinz Pfisterer, grandson of the company's founder, has made decisive contributions to this development since the 1970's and today is the Chair of the Supervisory Board.

PRESS CONTACT FOR FURTHER QUESTIONS

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