



For Immediate Release

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**TRELLEBORG LAUNCHES SPRING-ENERGIZED SEALS FOR DEEPER WELL
CONDITIONS**

Trelleborg Sealing Solutions supports offshore oil & gas companies in their pursuit of untapped supplies of crude oil and gas by offering two new variations of Turcon® Variseal® spring-energized seals, the 600 and 700 series. Specifically engineered for deeper well conditions, the seals withstand increased pressures and higher operating temperatures, while an enhanced compression range means the seals can handle larger groove depth variations.

The Variseal® 600 and 700 series seals are suitable for groove depths from 0.49 inch and 0.685 inch/12.5 mm and 17.4 mm, supporting up to 0.197 inch/ 5 mm of hardware deflection. In deeper wells, higher pressures and temperatures cause a higher level of hardware separation. The larger single spring of the Variseal® 600 and 700 series can absorb this greater separation without loss of sealing performance.

John Findlay, Product Manager at Trelleborg Sealing Solutions facility in Bridgwater, England, where the seals are made, says: "Starting out on the design of the Turcon® Variseal® 600 and 700 series required thorough analysis and validation of our existing products, producing 3D CAD solid modelling and detailed FEA modelling, supported by our global R&D network, bringing unique insights to the table. But of course, this kind of theoretical testing cannot be taken alone, so we began extensive testing of the spring load performance to validate our FEA results.

"When these proved successful, physical testing of critical parameters of the entire spring and Variseal® assembly was undertaken, both in testing facilities and in situ on FPSO swivels. This has led to the development of a product that both Trelleborg and the customer know will outperform current seals in high pressure, extreme temperature applications."

With all the flexibility and high performance that would be expected from a Variseal® spring-energized seal, the 600 and 700 series are available in a range of Turcon® grades, including NORSOK approved polytetrafluoroethylene (PTFE) based compounds and NACE compliant spring materials. Offering a wide operating range in rod, piston and axial designs, the seals can be individually tailored to suit specific applications. Inch conversions sizes, corner reinforcement and Back-up Rings are also available.

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Company and profile of the Trelleborg group:

Trelleborg Sealing Solutions is one of the world's leading developers, manufacturers and suppliers of precision seals and bearings. It supports its aerospace, industrial and automotive customers through over 20 production facilities and more than 40 marketing companies globally. Within its portfolio are some of the longest established sealing brands, including Busak+Shamban, Chase Walton, Dowty, Forsheda, GNL, Palmer Chenard, Shamban, Skega and Stefa along with a large number of proprietary products and materials such as Turcon®, Zurcon®, Orkot®, Isolast®, Stepseal® and Wills Rings®. www.tss.trelleborg.com

Trelleborg is a world leader in engineered polymer solutions that seal, damp and protect critical applications in demanding environments. Its innovative engineered solutions accelerate performance for customers in a sustainable way. The Trelleborg Group has annual sales of about SEK 21 billion (EUR 2.5 billion, USD 3.3 billion) in over 40 countries. The Group comprises five business areas: Trelleborg Coated Systems, Trelleborg Industrial Solutions, Trelleborg Offshore & Construction, Trelleborg Sealing Solutions and Trelleborg Wheel Systems. In addition, Trelleborg owns 50 percent of TrelleborgVibracoustic, a global leader within antivibration solutions for light and heavy vehicles, with annual sales of approximately SEK 15 billion (EUR 1.7 billion, USD 2.3 billion) in about 20 countries. The Trelleborg share has been listed on the Stock Exchange since 1964 and is listed on NASDAQ OMX Stockholm, Large Cap. www.trelleborg.com