



Press release

LSR know-how

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Trelleborg Sealing Solutions manufactures LSR for high-tech products

Text and images: www.pressearbeit.org

Making the impossible possible

(Düsseldorf) Tiny precision tooling can produce big results in the life sciences industry. When a membrane in the cap of a medicine bottle weighs just three one-thousandths of a gram, extremely demanding accuracy is crucial through the production of millions of items.

Life science matters to us all – after all, it could be our life that's at stake. And we want to be sure that, if we have to depend on it, we get only the best. The industry, which includes medicine, pharmaceuticals, biotechnology and patient care, is one with which we may have a very intimate relationship, often at a time when we need all the protection we can get.

So it's no surprise that the standards for products in the life sciences industry are extremely demanding. It may take years to bring something to market, as validation, approval and adjustment follow discovery and development. And a company like Trelleborg, whose solutions are used extensively in life sciences, has to meet those high demands. Ursula Nollenberger, Product Line Director for Liquid Silicone Rubber (LSR) Components at Trelleborg Sealing Solutions, says there are three main areas in which Trelleborg can offer its expertise on a global basis. "We have design competence, we have manufacturing competence, and we have material competence," she says.

Many of the parts that Trelleborg makes for the life sciences market are very small, and micromolding presents its own challenges. The smallest piece Trelleborg manufactures is a septum, the membrane in the cap of a medicine bottle through which one can insert and withdraw a syringe. This weighs just 0.003 grams and at that size you can hardly pick the part up with standard molding burrs being bigger than the object itself. Manufacturing a micro-component such as this requires extreme accuracy in tool construction, control of shot weight and the molding process. Automatic handling of the product after molding is done by a unique, specially developed robot gripper arm. The process ensures levels of accuracy are maintained reliably for millions of shots.

"We are always pushing the envelope in tool and process design," Nollenberger says. "The global team thrives on developing the tiniest precision tooling, finding ever-newer

Contact and information:

Trelleborg Sealing Solutions Germany GmbH Petra Drewes Head of Product and Online Marketing Germany Handwerkstr. 5-7 70565 Stuttgart, Germany T: +49 (0) 711 7864 577 F: +49 (0) 711 7864 344 petra.drewes[at]trelleborg.com http://www.tss.trelleborg.com/de http://www.trelleborg.com







solutions for the dosage of ever smaller weights and devising new process automation tools to handle and control such small parts. Perhaps as Stein am Rhein is in Switzerland, where there's always been a watchmaking industry, we have a special tradition of dealing with tiny and complex components."

412 words, 2.569 characters

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((About Trelleborg Sealing Solutions))

Developer and manufaturer of a wide portfolio of sealing solutions

Trelleborg Sealing Solutions is one of the leading developers, manufacturers and suppliers of precision sealing technology worldwide. 20 production sites and over 40 marketing companies worldwide support customers the aerospace, automotive and industrial markets and has a special focus on life sciences.

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

The German marketing company focuses on automotive supply, mechanical engineering, stationary hydraulics, mobile hydraulics, propulsion and electrical engineering, the chemical industry, process engineering, food and pharmaceuticals, semiconductor and chip manufacturing, oil and gas, sanitation and heating as well as biomedical engineering.

((About Trelleborg))

Trellebora AB

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 2.3 billion, USD 3.2 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 14 billion (EUR 1.55 billion, USD 2.2 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





Trelleborg Sealing Solutions, LSR images Download images in just 2 clicks at www.pressearbeit.org



Image ref. 43-01 TB_SC-Produktion.jpg.
The Trelleborg Sealing Solutions facility in Stein am Rhein is one of the leading processors of liquid silicone rubber.



Image ref. 43-02 TB_SC-Produkte.jpg. With its extensive technological competence, the Trelleborg Sealing Solutions facility in Stein am Rhein manufactures highly precise and complex LSR moulding components and multi-component parts for the life sciences and medical engineering industries.



Image ref. 43-03 TB_SC-Reinraum.jpg. The Trelleborg Sealing Solutions facility in Stein am Rhein is equipped with class 100,000 (ISO 8) and class 10,000 (ISO 7) cleanrooms. The most recent round of expansion doubled site capacity.



Image ref. 43-04 TB_SC-Stillhuetchen.jpg.
In the field of life sciences, Trelleborg
Sealing Solutions manufactures membranes,
bearings, masks, O-rings and special nipple
shields out of LSR.