# Press Release For immediate release

**Trelleborg Partners with Krones to Solve Issue of Aroma Carryover in Beverage Filling**

Trelleborg Sealing Solutions partnered with Krones, a specialist in beverage bottling, to analyze the reasons behind unintentional flavor carryover during the filling process. The companies found elastomer sealing components to be a relevant factor in aroma carryover and that the selection of the optimum sealing material is crucial in preventing the transfer of flavors from one filling process to the next, and the following ones.

Konrad Saur, Vice President Innovation & Technology at Trelleborg Sealing Solutions, says: “The prevention of flavor carryover plays a significant role in enhancing sustainability in the food and beverage industry. Through our research partnership with Krones, we combined our expertise in elastomer sealing materials with Krones expertise in beverage trends and developments. The result is that we were able to successfully identify that selecting the optimum sealing material is critical in preventing aroma carryover, positively impacting both ours and Krones’ customers.

“Engineering, along with product and material development, play a valuable role in moving toward a more sustainable future. We help our customers optimize the performance of their product and manufacturing processes, while reducing waste and lowering impact on the environment and, at the same time, meeting market demands. This is one of the topics we will be highlighting at our European Virtual Conference on November 25, when Dr. Eva Beierle, the lead engineer at Krones involved in the aroma carryover R&D project, will be joining me for a panel discussion.”

Dr. Eva Beierle, Development Engineer Aseptic and Process Technology at Krones, understands the aroma carryover issue from the bottlers' point of view. She says: "One trend in the latest beverages is toward increasingly intense flavors. This poses challenges, since beverages with high concentrations of flavors naturally tend to leave perceptible traces of aroma in the bottling lines. Working with Trelleborg Sealing Solutions has given us a deep understanding of how to avoid unacceptable aroma carryover during filling."

Together with Krones, Trelleborg Sealing Solutions performed tests to understand where and why aroma carryover occurs in bottling plants. The elastomer materials used in sealing components in filling machines, which are in contact with beverages proved to be a significant factor. The aromas used for beverages, especially when used in high concentrations, diffuse into elastomer materials. The seals can then release the absorbed aromas even after thorough rinsing between beverage filling processes.

Analysis of sealing materials showed that seals made of ethylene propylene diene rubber (EPDM) absorbed more aroma molecules, while fluorocarbon (FKM) materials demonstrated significantly better performance making it suitable for use with many beverages. Tests also concluded that seals made of perfluoroelastomer (FFKM), such as the Trelleborg Sealing Solutions Isolast® FoodPro® compounds, can be an effective solution. The FFKM materials did not absorb aromas and showed virtually no detectable effect on the taste of subsequent beverages, even under unfavorable conditions. This makes these sealing materials ideal for use on bottling lines processing beverages with intense flavors.

Martin Krüger, Area Sales Manager responsible for food & beverage at Trelleborg Sealing Solutions, adds: "Our customers must be able to rely on the performance of the sealing solutions they specify. We can adapt our sealing systems in geometry and material exactly to specific requirements. In bottling lines, selecting the optimum seal, either FKM or FFKM materials, such as the Trelleborg Sealing Solutions Isolast® FoodPro® compounds, is important to prevent aroma carryover. In addition to this, these materials are also proven to be stable against the chemicals and high temperatures found in bottling lines, as well as possessing the approvals required for contact with foodstuffs."

The joint Trelleborg Sealing Solutions and Krones project will be featured at the upcoming Virtual Conference to be held by Trelleborg Sealing Solutions on November 25. Dr. Eva Beierle will be a guest speaker in the panel discussion “Engineering Towards a More Sustainable Future”. For more information or to register go to <https://www.tss-virtualconference.com/>

**ENDS**

**For more information or high-resolution pictures, please contact:**

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**About Trelleborg Sealing Solutions and Trelleborg Group**

***Trelleborg Sealing Solutions*** *is one of the world’s leading developers, manufacturers and suppliers of precision seals, bearings and custom-molded polymer components. It focuses on meeting the most demanding needs of aerospace, automotive and general industrial customers, including those from the pharmaceutical industry, with innovative solutions. Its network extends to over 25 production facilities and more than 50 customer solutions centers globally. The business area accelerates the progress of its customers through outstanding local support, an unrivalled product range including patented products and proprietary materials, a portfolio of established brands, unique process offerings, its ServicePLUS value chain solution and ‘Ease of Doing Business’ philosophy.*[*www.tss.trelleborg.com*](http://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 solutions accelerate performance for customers in a sustainable way. The Trelleborg Group has annual sales of about SEK 37 billion (EUR 3.46 billion, USD 3.87 billion) and operations in about 50 countries. The Group comprises three business areas: Trelleborg Industrial Solutions, Trelleborg Sealing Solutions and Trelleborg Wheel Systems, and a reporting segment, Businesses Under Development. The Trelleborg share has been listed on the Stock Exchange since 1964 and is listed on Nasdaq Stockholm, Large Cap.* [*www.trelleborg.com*](http://www.trelleborg.com )

***About Krones***

*The Krones Group, headquartered in Neutraubling, Germany, plans, develops and manufactures machines and complete lines for the fields of process, filling and packaging technology. And Krones also offers a fit-for-purpose solution for bottle-to-bottle recycling of PET containers. The product portfolio subsumed in the House of Krones is rounded off by numerous products and services from Krones’ subsidiaries, themed around digitalization, for example, digital container decoration, intralogistics and in-house valve production. Every day, millions of bottles, cans, and special-shaped containers are handled on lines from Krones, particularly in breweries, the soft-drinks sector and at producers of still or sparkling wines, and spirits, but also in the food and luxury-goods industries, plus the chemical, cosmetics and pharmaceutical sectors. Worldwide, Krones employs around 17,500 people. Consolidated sales in 2019 totaled 3.96 billion euros. The group includes not only Krones AG, but also more than 100 subsidiaries and further sales and service companies worldwide.* [*www.krones.com*](http://www.krones.com)