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PRESS RELEASE

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Research under realistic conditions: The INP commissions a climate chamber with the HEWA 2600

A simulated production environment for practice-based research on food processing

The Leibniz Institute for Plasma Science and Technology e.V. (INP) and KRONEN GmbH have been cooperating on joint projects aiming to optimize industrial food processing for several years. In August 2025, the INP commissioned a new climate chamber that simulates realistic production conditions at its site in Greifswald, Germany. The heart of the new system is a HEWA 2600 B washing machine from KRONEN, which was configured especially for the research application.

The continuously operating HEWA washing machines are used at many production facilities in the food industry for the continuous washing, disinfection, and treatment of fruit, vegetables, salad leaves, and herbs. In preparation for its use at the INP, the HEWA 2600 B was equipped with a measuring and dosage system specially configured for research purposes, which facilitates the precise control and monitoring of the process water. The system is able to perform series of tests under constant conditions, for example to examine the effectiveness of innovative and conventional wash water additives.

New findings for hygienically optimized processing

The climate chamber can be used to simulate specifically defined environmental conditions such as temperature, humidity, temperature drops, etc. It can therefore realistically reproduce industrial production environments. The combination of the climate chamber and industrial washing technology offers the ideal prerequisites for examining and further developing the treatment of fresh-cut products under controlled conditions – for example with regard to hygienization, use of resources, and process reliability.

A successful cooperation between research and the industry

KRONEN and the INP have already worked together successfully on a project focusing on plasma-based disinfection technology. Dr. Uta Schnabel and Dr. Jörg Ehlbeck from the INP recently presented the benefits of the partners' joint work on research projects in their talk at this year's KRONEN Customer Day. Plans are also in place to continue the cooperation in the future, with projects in the field of sensor technology and on the use of plasma when processing fresh foods currently in the planning stages.

A future-oriented research partnership providing ideas and impetus for practice

The close cooperation between the industry and science provides new opportunities for practical innovations in food technology and offers both partners the chance to research and develop solutions for optimizing the hygiene and

processing of delicate foods together. Dr. Uta Schnabel summarized the benefits of the cooperation, stating that: “Our cooperation with the KRONEN team brings us closer to industrial practice in the field of food processing – and the research findings are incorporated directly into the new and further development of machines. The new climate chamber enables us to significantly lower the complexity of tests performed under extreme or even real ambient conditions, thus allowing us to more efficiently achieve results that can then be applied to areas such as food processing.”

Alongside its new climate chamber, the INP also has a walk-in high-light phytochamber. The combination of both systems now facilitates the parallel simulation of climatic conditions for food production, environmental conditions for stress tests, and growth conditions for plants. As a result, it offers high potential for the analysis, development, and optimization of entire production and value creation chains.

Contact details and further information

Companies, research establishments, or organizations seeking to examine specific questions concerning the processing of fresh foods under practical conditions can use the expertise and infrastructure of the INP on request.

Interested parties can receive more information on the research cooperation with KRONEN from:
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About the Leibniz Institute for Plasma Science and Technology e.V. (INP)

The Leibniz Institute for Plasma Science and Technology e.V. (INP) is one of the world’s leading research institutes in the area of physical plasmas, their basics, and their technical applications. It is the largest non-university research institute for low-temperature plasmas in Europe, currently employing approximately 200 scientists, engineers, and other experts. In addition to application-oriented basic research, the INP promotes the development of plasma-assisted processes and products.

About KRONEN GmbH

KRONEN is a family-managed, globally operating producer and supplier of stand-alone machines, special-purpose machines, and high-tech processing facilities for the fresh-cut industry. The product program of KRONEN and its partners covers fruit, vegetable, and salad processing: from preparing, cutting, washing, drying, dewatering, peeling and sterilizing right through to packaging.
KRONEN also offers machines for the processing of meat and fish, special vegan products, baked goods, and pet food.
The company, which is based in Kehl am Rhein, Germany, and has a second production site in the nearby city of Achern, currently employs more than 130 members of staff, has representatives in over 80 countries worldwide, and supplies its products to more than 120 nations all over the globe.
With more than 45 years of experience in food technology, KRONEN prides itself on its quality awareness and constantly strives to achieve the best possible solutions in its day-to-day work. The machine manufacturer focuses on taking a sustainable, holistic approach toward the hygienic, reliable, and resource-friendly production of fresh foods. KRONEN considers itself to be a think tank that provides innovative solutions to benefit

its customers and meet all their needs. It guarantees top-quality advice and planning expertise in close cooperation with the industry and research establishments.

For more information, please visit www.kronen.eu

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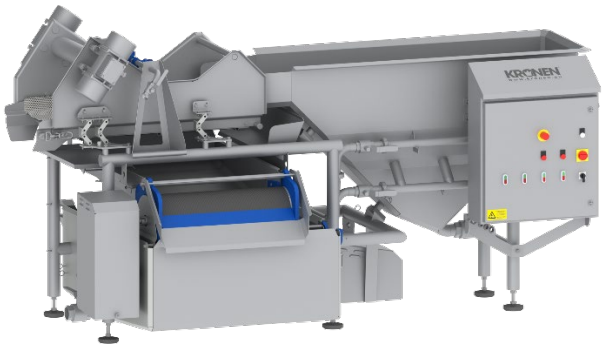
KRONEN GmbH photo material:

Matthias Sahr (2nd from left) and Andreas Ell (4th from left) from KRONEN traveled to Greifswald in October to visit INP and commissioned the HEWA 2600 together with Jörg Ehlbeck, Jörg Stachowiak, Maik Klietz, and Uta Schnabel (from left to right).

The HEWA 2600 B is used for research purposes in the new climate chamber.



The HELICAL HEWA 2600 washing machine for salad, vegetables, fruit, herbs, and other foods is optimized for hygiene and easy cleaning.