

PRESS RELEASE

12 February 2019

REVIEW FRUIT LOGISTICA 2019:

The “SMART Machines” by KRONEN convince the Fresh-cut sector

Food processing technology manufacturer KRONEN premiered its new “SMART Machines” at Fruit Logistica 2019 in Berlin from 6 to 8 February 2019. They were shown live and in function and KRONEN visitors experienced how “Industry 4.0” applications can work in Fresh-cut production. Further world premieres were on show as well: The thermal washing process DECONWA, which is the result of a research project, and the newly developed apple peeling and slicing machine AS 6.

Numerous visitors from more than 50 countries visited the KRONEN stand at Fruit Logistica for experiencing the innovations and proven solutions, which were demonstrated live and in function by the family business KRONEN. The international KRONEN team, represented with about 20 countries at the trade show, was pleased by the big interest of the visitors: “By displaying the “SMART Machines” and the DECONWA washing machine KRONEN presented two real pioneering achievements, which are completely new at the Fresh-cut market. We are very happy about the huge interest these innovations have met” says CEO Stephan Zillgith. “Especially the topic of Industry 4.0 is a very new one for many of the vegetable and fruit processors. Our goal was to show what can be possible in future. We are very pleased with the results of this year’s fair”.

Industry 4.0 in Fresh-cut: KRONEN „SMART Machines“

“Industry 4.0” is actually reality in many areas already. It is all about the networking of machines in production. With „SMART Machines“ KRONEN presents machines which are able to communicate over the internet, for example belt cutting machine GS 10-2 SMART, washing machine DECONWA SMART, vegetable spiral cutting machine SPIRELLO 150 SMART and pineapple and melon peeling machine AMS 220 SMART.

At Fruit Logistica 2019 KRONEN displayed how SMART applications can work in Fresh-cut production. SMART Machines or an entire SMART Factory can transmit machines’ statuses into the KRONEN Cloud in real-time. The production manager, technician or the foreman can monitor the production status of the machine or line on their laptop or mobile device from any location and at any time. The collected data helps to make production processes more efficient, for example in regards to productivity, quality and process reliability. By implementing predictive maintenance the user can prevent possible breakdowns.

The KRONEN SMART solutions are modular: There is a basic module. Beyond, the SMART machines are individually adapted to the specific needs of the customers and the performance range can be expanded continuously throughout the future.

→ **Video: Industry 4.0 in Fresh-cut – „SMART Machines“**
www.kronen.eu/smart-machines

Sample application: GS 10-2 SMART - Basic module:

Machine's extra hardware to communicate over the internet:

- PLC (Programmable Logic Controller)
- VPN (Virtual Private Network) Router
- Cloud connection via Edge-Gateway
- Optional: Wi-Fi module for communicating within an independent machines network

For using SMART Machines a Wi-Fi network is necessarily required.

The user can collect, send and receive information as well as create notifications. Thus, the user can learn about the statuses of machine's functions, such as:

- Safety switches (belt door, knife door, safety bracket, emergency stop)
- Switches (ON, OFF, brake)
- Selected program
- Knife speed and belt speed
- Frequency converter: voltage, power consumption, temperature, fault memory, working hours

Optionally GS 10-2 SMART can communicate with other machines which are networked along the same process line. This allows all machines to be optimally coordinated and automatically controlled. Also, the handling becomes more flexible and efficient.

- Automatic sequential start and stop of the different machines
- Automatic speed adaption of the different machines
- No time-consuming wiring
- Machines can be set-up more flexibly
- Cleaning is easier and hygiene is improved

Innovations and a comprehensive portfolio in Fresh-cut

Besides, the following further novelties attracted many visitors:

- **Thermal washing process DECONWA:** The new washing system disinfects apples for Fresh-cut fruit salads and increases shelf-life as well as consumers' safety. By using temperature guided and controlled processes with a temperature around 50 °C bacterial load is reduced. Benefits:
 - **Without using any additives or chemicals**
 - Can be **integrated into an existing processing line** flexibly and can be transferred to **similar products**.

- Optimized for **application in cold rooms**

The system was developed by KRONEN in the context of a research project together with ATB Leibniz Institute for Agricultural Engineering and Bioeconomy and Mirontell Fein und Frisch AG. The project was funded by the Federal Ministry for Economic Affairs and Energy by a decision of the German Bundestag.

- **Apple peeling and cutting machine AS 6:** The multifunctional AS 6 is perfectly suitable for peeling, coring, wedging or slicing apples. It allows the processing of up to **900 apples per hour** and thus, it is optimized for industrial application. There is the option to set up several machines parallelly to further increase capacities. The **automatic loading, processing and outfeed** improves the speed and efficiency of the process and guarantees ergonomic operation.

Next to these premieres, KRONEN presented a range of developments such as vegetable and salad spin-dryer KS-100 PLUS, disinfection UVC Lock and de-watering system BDS 3000/800 as well as proven machines, e.g. belt cutting machine GS 20. And once again the visitors at the stand were delighted by the popular “Live Cooking”. The chefs Wolfgang Blum and Andreas Eigner offered inspirational and delicious Fresh-cut delicacies.

Photo gallery: www.kronen.eu

About KRONEN GmbH

KRONEN develops and manufactures stand alone and special machines as well as complete processing lines according to the customers' requirements – high-duty machinery for washing, cutting, dividing, peeling, de-watering, drying, and packaging food.

Today, KRONEN has 100 employees and is a globally operating supplier of machines and systems for the Fresh-cut, convenience, catering, specialty food and food industry with representations in over 80 countries and is selling its solutions in over 100 countries worldwide. Due to the close co-operation with our customers and international partners, we consider it our commitment to keep traditional values such as quality awareness but also to react creatively and actively to the challenges of the global market. Wherever crisp salads, fine vegetables and appetizing fresh fruit are beautifully prepared in quantity – KRONEN machinery is there, around the world.

In 2018 KRONEN celebrated its 40th company anniversary.

Further information: www.kronen.eu

Contact person:

Esther Müller

Phone. + 49 (0)7854 9646-161

Fax: + 49 (0)7854 9646-5161

Email: esther.mueller@kronen.eu

Christina Maier

Phone: + 49 (0)7854 9646-160

Fax: + 49 (0)7854 9646-5160

Email: christina.maier@kronen.eu

Videos:

SMART Machines:

www.kronen.eu/smart-machines

KS-100 PLUS:

<https://www.kronen.eu/en/maschinen/ks-100-plus/maschinen-videos>

Pictures:

KRONEN stand at Fruit Logistica 2019:



KRONEN showed new and proven machinery, live and in function – also its new „SMART Machines“. The presentations created much interest among the visitors. Visitors from more than 50 countries could be welcomed at the KRONEN stand.

Industry 4.0 - SMART Machines:



KRONEN presented several web-enabled „SMART Machines“, and showed live how Industry 4.0 can be realized in Fresh-cut production

DECONWA – thermal washing process:



Supported by:



Federal Ministry
for Economic Affairs
and Energy



on the basis of a decision
by the German Bundestag

Innovative washing machine DECONWA is the result of a research project and was presented live and in function, too. It is one of the “Industry 4.0” enabled SMART Machines being displayed at the KRONEN stand.

AS 6 Apple peeling and slicing machine:



The newly developed apple peeling machine AS 6 for peeling, coring, wedging and slicing apples allows the automatic processing of up to 900 apples per hour

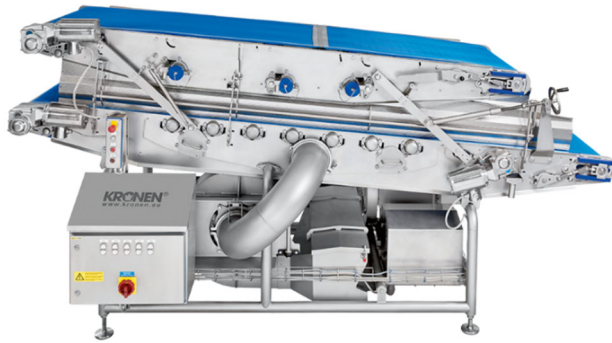
UVC Disinfection Lock:



New version: The UVC Disinfection Lock was further developed according to the users' needs (Optional: base with castors)

The KRONEN UVC Lock is equipped with the latest UVC technology of sterilAir® – it offers high throughput capacity and highly efficient disinfection

BDS 3000/800:



The new version of the belt de-watering system BDS 3000/800 dewater lettuce, baby leaf and Leaf vegetable and reduces the residual moisture to 3 – 8 %.

KS-100 PLUS:



New version: The vegetable and salad spin- dryer is particularly easy to clean – there are no dirt traps in spin area