

VORTEX Washing Line: Germ reduction and prolongation of shelf life of Fresh-cut products

The Vortex line has been developed for the final treatment stage for vegetables (e.g. various leaf salads, root products) as well as for fruits such as apples and grapes to achieve germ reduction and prolongation of shelf life and thus, to increase the products' quality.



The pre-washed product enters gently into a pipe system by water coming out of lateral rotation nozzles and thus, without passing through a pump. Chemicals and sanitizing products can be added at different stages of the product transportation through the machine.

The length of the piping system can be adapted to dwell time according to individual customer requirements. The Vortex line offers a flexible contact and dwell time of the produce which is adjustable from 1 to 3 minutes by using frequency controlled pumps. In addition, the water flow can be adapted by ball valves at the Vortex inlet.

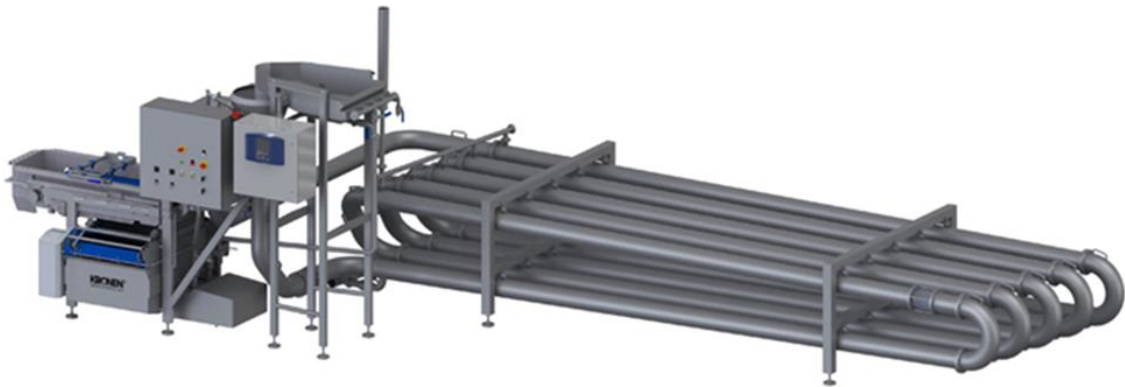
The product is flowing through the piping system (inside diameter 150 or 200 mm) in a laminar stream to the outlet. This treatment step is, therefore, very product-friendly. The water flow velocity within the tube system depends on the amount of supplied water and produce.

At the discharge, the product is rinsed with fresh water through special nozzles placed on top of the exit conveyor belt. Depending on the desired application the treated product will be delivered onto a vibration table or an outfeed conveyor.

Benefits of the Vortex line:

- **Optional dosing station:** For dosing and controlling suitable additives for product treatment in the water cycle.

- **Optimal integration into processing lines:** The modularly built and space saving Vortex line can simply be integrated into existing processing lines and adapted to customer-specific requirements. It can also be used as a closed transport system between two processings steps or two processing lines.
- **Simple cleaning:** For mechanical cleaning the pipelines can be disassembled easily and quickly by means of screw connections.
- **FDA approved:** All parts that are in contact with food are made of stainless steel or FDA approved plastic.
- **Solid construction:** As all KRONEN products, the Vortex line is constructed in a very solid way. It is therefore suitable for operation in challenging conditions, too.



Product data: VORTEX line

- **Capacity (depending on produce):** Iceberg up to 1,500 kg/h, baby leaf/rocket up to 800-900 kg/h
- **Voltage:** 3~400 V/N/PE/50Hz
- **Energy consumption:** 5.9 kW
- **Total volume (for 2 min dwell time):** 1,250 l (150 mm diameter)
- **Dimensions (LxWxH):** variable x variable x 2,100 mm

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.

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