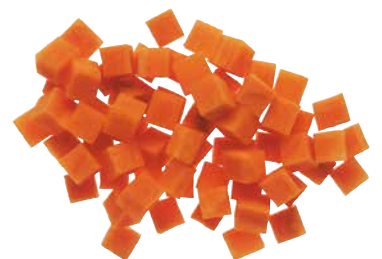


## From preparation to packing – KRONEN does it all



Food processing solutions designed and built  
for the fresh produce industry.



# Innovations for the food processing industries



## Benefit from over 40 years of experience as an innovative partner to the food processing industry



As one of the world's leading machine manufacturers, KRONEN offers tailor-made solutions for food processing. The machine portfolio ranges from stand alone machines for industrial use to complex, high-tech process systems for a wide variety of processing steps. For preparing, cutting, washing, drying, peeling, sterilizing, and packaging a multitude of foods, KRONEN does it all.

KRONEN's specialized solutions for processing lettuce, fruit, vegetables, meat, fish, baked goods, and pet food are in use worldwide. And KRONEN machines provide value to a variety of industries with versatile and reliable machines.

For over 40 years, KRONEN has been developing and producing high-quality machines and process systems for the food industry in Germany – today with over 100 employees. The company

is managed by Rudolf Hans Zillgith, graduate engineer Stephan Zillgith as well as graduate engineer Eric Lefebvre and graduate food technologist Johannes Günther.

The KRONEN team will be pleased to advise you – our solutions are the Crown for Freshness!

## KRONEN stands for:

### CUSTOMER FOCUS

We adapt our products flexibly and efficiently to your requirements. With us, you will find the right solution for all requirements and performance areas – from individual machines for industrial use to complex systems – everything from a single source.

### INNOVATION

We set standards with our KRONEN quality standards; customers from all over the world rely on us. We promote innovations for the benefit of our customers and their long-term business success.

### SUSTAINABILITY

Our expertise is extensive: the highly qualified KRONEN project team develops and plans with partners from industry and research in a targeted manner. And we advise you on hygienic, safe and resource-saving automated production.

### PARTNERSHIP

We know the industry – worldwide – and are at your service personally with our sales and customer service team in over 100 countries. As a family business, we attach particular importance to fair, reliable, and constructive cooperation.

In short:

**KRONEN is your committed partner for the production of healthy food**



**Rudolf Hans Zillgith**  
Managing Director



**Stephan Zillgith**  
Managing Director



**Johannes Günther**  
Managing Director  
Sales Director



**Eric Lefebvre**  
Managing Director  
Technical Director



**ISO 9001**  
Certified  
Quality Management System

[www.tuv-sud.com/ms-cert](http://www.tuv-sud.com/ms-cert)

The KRONEN quality management system (QMS) is certified according to the international standard ISO 9001: 2015. Further information: [https://www.kronen.eu/en/company\\_certification](https://www.kronen.eu/en/company_certification)

# KRONEN

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## **KRONEN Show room**

Our modern show room gives visitors the opportunity to test a wide variety of processing techniques for salad, vegetables and fruit with newly developed as well as proven KRONEN machines. Come and visit us!

## **Consulting competence for optimal processing results in your company**

A particular strength of KRONEN is the ability to respond to the individual needs of our customers and to offer them solutions optimally tailored to their requirements.

### **Many years of experience & market knowledge**

Comprehensive know-how and extensive experience in the planning, implementation and commissioning of complex and customer-specific systems for food processing guarantee short project times and trouble-free operation on site. Of course, the KRONEN planners take into account the circumstances of existing systems and buildings and also integrate machines from other manufacturers.

To tap the throughput potential of each machine, all KRONEN machines are optimally coordinated with one another. This avoids bottlenecks in the production process, reduces maintenance and repair costs and saves energy.

### **One-stop solutions**

Our customers benefit from the close cooperation with our long-term partners who complement our product portfolio. From the first consultation to the end of the service life of the machines and systems, we are the solution-oriented, competent partner for










our customers. We meet a wide range of customer wishes and requirements, such as cutting meat products according to Halal regulations or kosher salad washing - on high quality standards and taking into account the cost-effectiveness of our solutions.

We would be happy to advise you and together we will find the solution optimally tailored to your requirements.



# Content

Continuous high-quality combined with technical know-how and an optimal blend of precision, reliability and innovation guarantee a constructive cooperation.

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# Cutting

## GS 10-2, GS 20

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**For industrial cutting of salad, vegetables, fine herbs, fruit and many more products.**



**Belt Cutter  
GS 10-2**

The belt cutting machines GS 10-2 and GS 20, tried and tested a thousand times, impress with their innovative functions and perfect cutting quality.

The GS models are multifunctional belt cutting machines for cutting lettuce, vegetables, fruit, herbs, meat, fish, sausage; for grating bread, cheese, nuts and much more. The GS 10-2 and the GS 20, which is designed for larger capacities, are ideally suited for use in large kitchens, catering and industry.

A wide variety of cutting discs for different applications is available for both models. The knife can be changed within a few seconds without any additional tools.

The robust industrial design is made entirely of stainless steel AISI 304 and is easy to clean and maintain.



The GS 10-2 scores with optimized equipment such as:

- ▶ drainage slopes on all sides on the entire machine casing
- ▶ modern hygienic design
- ▶ Ejection-optimized knife box (product is not damaged during ejection)
- ▶ Downholding technology for exact cuts without damaging the product
- ▶ Safety interlock system on the knife box for high work safety

A variety of cutting disc accessories for a wide variety of applications is available:

- ▶ Cutting delicate leaf salads and herbs of all kinds, e.g. chives, dill, parsley, etc.
- ▶ Cutting / dicing / segmenting vegetables and fruit, etc.
- ▶ Grating of raw vegetables, cheese, bread, nuts, etc.
- ▶ Cutting / shredding / pulling chicken breast, meat, etc.

Measures		Products & capacity	
L x w x h	1610 x 670 x 1275 mm	Lettuce	up to 1500 kg/h
Weight	235 kg	Vegetables	up to 2500 kg/h
Belt width	125 mm	Fruit	up to 2000 kg/h
Max. product height	130 mm	Herbs	up to 80 kg/h
Conveyor speed	2,2-16,4 m/min	Cabbage	up to 1200 kg/h
Knife rotation speed	105-795 r/min	Field mushroom	up to 700 kg/h
Theoretical cutting thickness	1-130 mm	Cheese	up to 300 kg/h
Power		Meat + sausages	up to 1000 kg/h
Total power	1,8 kW	Fish	up to 1500 kg/h



**Belt Cutter  
GS 10-2 TTS**



**Belt Cutter  
GS 20**

Based on the proven technique of the world wide most sold belt slicer GS 10-2 the GS 10-2 TTS belt cutting machine has been developed to be able to control the cut size and minimize the waste on product cut in combination with the horizontal out feed belt. By measuring the product size, the GS 10-2 TTS is able to calculate the right number of cuts, eliminating or reducing waste to a minimum. This is given by a PLC and servo motors that allow the knife to make every cut exactly where we need it to be, following customer's specification. We can achieve minimum waste on applications like melon chunks, pineapple tid bits, chicken breast slices and many others. The GS 10-2 TTS offers as well the possibility to top and tail (cut both ends) of the product, in addition to slice it (or not) to customer's specification. If the special TTS feature is not needed, the machine will operate as a standard GS 10-2 belt slicer. The solid industrial machine is completely made of stainless steel AISI 304 and can easily be cleaned and maintained.

The illustration shows the GS 10-2 TTS with an optional cleaning table and an optional discharge belt

Measures		Products & capacity	
L x w x h	3800 x 630 x 1300 mm	Lettuce	up to 1500 kg/h
Weight	275 kg	Vegetables	up to 2500 kg/h
Belt width	125 mm	Fruit	up to 2000 kg/h
Max. product height	130 mm	Herbs	up to 80 kg/h
Conveyor speed	1,7-15,7 m/min	Cabbage	up to 1200 kg/h
Knife rotation speed	110-800 r/min	Field mushroom	up to 700 kg/h
Theoretical cutting thickness	1-130 mm	Cheese	up to 300 kg/h
<b>Power</b>		Meat + sausages	up to 1000 kg/h
Total power	3 kW	Fish	up to 1500 kg/h

The GS 20 belt cutting machine is equipped with a conveyor belt 250mm wide and a product down-holder to apply gentle pressure for product control. This key feature holds and controls the product until point of cutting. The GS 20 feeding belt is capable of conveying whole heads of lettuce or cabbage. Individually definable programs (up to 99) can be stored and selected by the simple use of control buttons and features digital cutting size adjustment from 1 to 50 mm when using a knife with 3 blades.

The GS 20 complements our series of established GS belt cutting machines with the following optimizations: knife door designed for optimized outfeed and gentle product handling; down-holder assembly with reduced number of parts; display lights indicate the status of all safety sensors; a locking system combined with a belt cover for high safety around the knife. As with all KRONEN machines, its excellent hygiene properties are a major advantage.

Measures		Products & capacity	
L x w x h	2628 x 1059 x 1485 mm	Lettuce	up to 4000 kg/h
Weight	530 kg	Vegetables	up to 4000 kg/h
Belt width	250 mm	Fruit	up to 6500 kg/h
Max. product height	210 mm	Herbs	up to 700 kg/h
Conveyor speed	2,6-19 m/min	Cabbage	up to 2250 kg/h
Knife rotation speed	130-590 r/min	Field mushroom	up to 1500 kg/h
Theoretical cutting thickness	1-50 mm	Cheese	up to 625 kg/h
<b>Power</b>		Meat + sausages	up to 1375 kg/h
Total power	3 kW	Fish	up to 1375 kg/h

# Cutting

## KUJ V, KSM 100



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**Cube, strip & slice cutting machine KUJ V**



**Vegetable cutter type KSM 100**

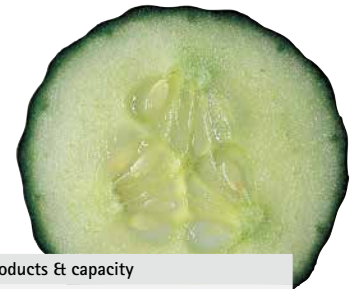
The KRONEN high performance dicer KUJ V cuts slices from 2 up to 12 mm, strips from 2 up to 20 mm and cubes from 3 up to 20 mm in precise, perfect cutting quality. Depending on the product and cutting thickness, the capacity is between 300 and 3.500 kg per hour. Even delicate products (such as onions, peppers, mushrooms, tomatoes, zucchini or slightly frozen products) can be processed. A frequency inverter with 7 adjustable speeds allows the gentle cutting of very sensitive products like e.g. strawberries or beetroot, etc.

In addition to larger cubes cut from apples, melons, ham, cooked chilled meat and a variety of vegetables, tiny cubes as small as 3 x 3 x 3 mm (Brunoise) can be cut. The KUJ V can cut strips as small as 2 x 2 mm in section for dips, soups, sauces, salads and much more.

The KSM 100 cutting machine is perfectly suited for cutting vegetables, salads as well as fruit. It is easy to handle with its big cutting door with two infeed openings for every requirement:

- ▶ Big opening for products like cabbage, leafy vegetable and broad leaf endive
- ▶ Small opening for long products such as cucumbers, courgettes, carrots, radishes, etc.

**Suitable for the production of vegetable rice!**



Measures		Products & capacity	
L x w x h	1105 x 978 x 1492 mm	Vegetables	up to 3500 kg/h
Weight	260 kg	Fruit	up to 3500 kg/h
Infeed / feeding height	1492 mm	Meat + sausages	up to 1500 kg/h
Discharge / outfeed height	472 mm	Fish	up to 1200 kg/h
<b>Power</b>			
Total power	1,1 kW		

Measures		Products & capacity	
L x w x h	1003 x 856 x 1235 mm	Lettuce	up to 200 kg/h
Weight	80 kg	Vegetables	up to 375 kg/h
Infeed / feeding height	1185 mm	Fruit	up to 187 kg/h
Discharge / outfeed height	519 mm	Cabbage	up to 325 kg/h
<b>Power</b>			
Total power	0,9 kW		

# Cutting, dividing, coring

## TT 450, Multicorer



**Top & Tail-Maschine  
TT 450**



**Multicorer**

The top & tail machine TT 450 is perfectly suited for automatic removal of the core of lettuce with flat stem (e.g. Frisee, Endive, Romaine) and cutting leaf tips.

It allows for a considerable increase in productivity by up to 110 % per person (Frisee and Endive) and at the same time an improved yield of up to 6 %.

The operators place the heads of lettuce on the horizontal conveyor belt which transports them to the cutting device. The gentle hold-down technology ensures an optimal cutting position.

The stalk and leaf tips are removed in one step (dry leaf tips or brown color); the cutting lengths of the stalk (10-60 mm) and leaf tips (120-450 mm) are variably adjustable.

Either both functions or just the de-stemming process can be selected.

The TT 450 is equipped with an automatic waste sorting system, which can optionally be supplemented with additional outfeed and waste belts.

The robust industrial design is made entirely of stainless steel AISI 304, equipped with hinged doors and removable cover and is therefore very easy and quick to clean.

The Multicorer cores salads and cabbage in a fast and neatly way and divides products into 2 or 4 segments, if required.

Highest throughput and minimal waste: Compared with conventional processes, the Multicorer allows an increase of productivity of up to 300% and reduces the waste rate considerably at the same time.

Decoring height can be adjusted according to product height in order to optimize the cycle times for the product to be processed, e.g. iceberg lettuce, endive, cauliflower, broccoli, cabbage, radicchio etc.



Measures		Products & capacity	
L x w x h	4500 x 1800 x 1800 mm	Lettuce	up to 4000 kg/h
Weight	900 kg		
<b>Power</b>			
Total power	1,8 kW		

Measures		Products & capacity	
L x w x h	3568 x 2024 x 2447 mm	Cabbage	up to 2800 pcs/h
Weight	1877 kg	Eisbergsalat	up to 4800 pcs/h
Max. height of raw product	240 mm		
Max. diameter of raw product	240 mm		
<b>Power</b>			
Total power	5,2 kW		

# Coring, cutting

## KSB-2, CAP 68

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**Cabbage Corer  
KSB-2**

The KSB-2 cabbage corer efficiently cores cabbage heads (e.g. red and white cabbage, pointed cabbage) and is characterized by its user-friendly operation, stability and hygienic design.

Due to the compact, yet easily accessible design, the KSB-2 takes up little space and at the same time enables simple and quick replacement of all wearing parts.

With the KSB-2, up to 600 heads of cabbage can be de-stemmed per hour.

The freely adjustable drilling depth enables the drilling of cabbages of all sizes. The oriented waste ejection guarantees a clean working method.

Optionally, a drill head reduction is available as an accessory, which enables optimized processing of small cabbages.



Measures		Products & capacity	
L x w x h	837 x 810 x 1403 mm	White cabbage	up to 2700 kg/h
Weight	193 kg	Red cabbage	up to 2400 kg/h
Infeed / feeding height	1008 mm		
Discharge / outfeed height	1008 mm		
<b>Power</b>			
Total power	0,6 kW		



**Cabbage Shredder  
CAP 68**

The CAP 68 cabbage shredder handles whole head cabbage and is particularly suitable for cutting large quantities of cabbage. Highlights of this equipment are hygienic, stainless steel construction and easy to remove blade and funnel. CAP 68 can also be supplied with shred shorteners on the knives to control the length of the cabbage strips.



Measures		Products & capacity	
L x w x h	1385 x 1010 x 1690 mm	White cabbage	up to 2500 kg/h
Weight	450 kg	Red cabbage	up to 2500 kg/h
Infeed / feeding height	1120 mm		
Discharge / outfeed height	545 mm		
<b>Power</b>			
Total power	1,5 kW		

# Cutting

## S 021, SPIRELLO 150



**Vegetable cutting machine S021**

The vegetable cutting machine S021 is perfectly suited for cutting decorative spirals of vegetables (e.g. carrots, potatoes, pumpkins, radishes, celeriac, beetroots, zucchinis, etc.) very quickly and easily.

By means of variable tools a multitude of spiral thicknesses (e.g. 2 x 2 mm, 2 x 8 mm, 2 x 10 mm - other versions on request) can be produced with a max. product length of 250 mm.

The original result is enabling vegetable-processing companies to add a new touch to conventional product presentation in the market with very attractive, fine, springy strands similar to cooked spaghetti.



Measures		Products & capacity	
L x w x h	1050 x 270 x 500 mm	Carrot	up to 20 kg/h
<b>Pneumatic</b>		Potato	up to 20 kg/h
Operating pressure	6 bar	Radish	up to 20 kg/h



**Vegetable spiral cutting machine SPIRELLO 150**

With the SPIRELLO 150 you are able to cut large quantities of vegetables in decorative spirals in a quick and clean way.

With up to 680 revolutions per minute, the SPIRELLO 150 cuts vegetables within seconds into meter-long spirals, which optionally can be shortened with a length limit knife by interval switchings (7 levels).

The machine is equipped with removable magazines, one of which can be fitted with the raw product while the vegetable in the second magazine is processed. This means that the SPIRELLO 150 can be operated without interruption!

An optimal cutting result is achieved with a variable speed control in 7 steps depending on the nature of the product.

The machine is featured with an automatic separation system between product and waste product. The SPIRELLO 150 scores with a very minimal amount of waste since the vegetable product is cut completely in spirals – except a small piece from the top.

We also offer an optional discharge conveyor for quick and effective discharge.

Measures		Products & capacity	
L x w x h	600 x 845 x 1700 mm	Carrot	up to 160 kg/h
Weight	180 kg	Courgette	up to 80 kg/h
max. height of raw product	300 mm	Cabbage turnip	up to 120 kg/h
<b>Pneumatic</b>		Radish	up to 180 kg/h
Operating pressure	6 bar	Beetroot	up to 50 kg/h
<b>Power</b>		Sweet potato	up to 210 kg/h
Total power	0,9 kW	Butternut	up to 340 kg/h

# Cutting

S 195, S 198, HGW, PGW

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**Table top grid cutter S 195**  
**Sticks cutter S 198**



**Pneumatical grid cutter PGW**  
**Manual grid cutter HGW**

The S 195 grid cutter is a table top device perfectly suited to cut small-caliber fruit and vegetables (e.g. apples, lemons, tomatoes, potatoes) into wedges, sticks and figurines.

The S 198 sticks cutter is a compact, horizontal-working table top machine for cutting vegetable sticks in various sizes (standard size 8 x 8 mm) up to max. 100 mm length and 95 mm diameter with the standard machine.

Best suited for cutting potatoes, carrots, courgettes, radish, cucumbers, celeriac etc. Additionally, a slicing insert (for length cut of cucumbers) and various figurine cutting inserts are available.



These grid cutting machines enable special cuts of fruit, salad, vegetables and cheese in various forms.

While the HGW is operated manually, the PGW works with pneumatic support. Both machines offer over 200 cut variations thanks to a wide variety of inserts.

The HGW or PGW can be equipped with a pineapple cutting insert that cuts out the entire cylinder, cabbage corer / divider and cauliflower cutting inserts are also available.

Grid cutter S195		Products & capacity	
<b>Measures</b>		Vegetables	up to 235 kg/h
L x w x h	360 x 210 x 940 mm	Fruit	up to 370 kg/h
Weight	8,5 kg		
Max. height of raw product	105 mm		
Sticks cutter S198		Products & capacity	
<b>Measures</b>		Vegetables	up to 120 kg/h
L x w x h	652 x 205 x 250 mm		
Weight	25 kg		
Max. height of raw product	105 mm		

Pneumatical grid cutter PGW		Products & capacity	
<b>Measures</b>		Lettuce	up to 150 kg/h
L x w x h	440 x 530 x 1100 mm	Vegetables	up to 1600 kg/h
Weight	55 kg	Fruit	up to 2340 kg/h
Max. height of raw product	240 mm	Cabbage	up to 760 kg/h*
<b>Pneumatic</b>			
Operating pressure	6 bar		
Air consumption	17 NI per cycle		* special PGW
Manual grid cutter HGW		Products & capacity	
<b>Measures</b>		Vegetables	up to 1680 kg/h
L x w x h	483 x 950 x 900 mm	Fruit	up to 560 kg/h
Weight	36 kg		

# Cutting

## Tona grid cutting machines



**Tona rapid,  
Tona rapid 3D, Tona rapid XL**



**Tona S180K**

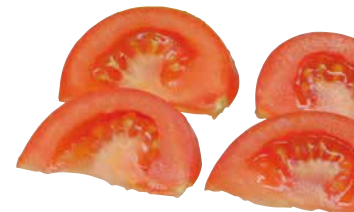
The Tona rapid provides a practical way to cut fruit and vegetables into segments, slices, sticks and other special shapes. As a special feature the Tona rapid 3D has the possibility to cut produce into slices before they are cut into segments, slices or sticks. This results in a three dimensional cut like small chunks from apples and many more possibilities. A continuous variable speed feed system ensures high capacity and high quality results. Tona rapid XL is best suited for cutting big fruit & vegetables (e.g. pineapples, eggplants, onions etc) in segments or slices. Pineapples can even be peeled, cored and segmented. The product is inserted manually, kept in place by the product holders and pushed through the cutting tools. The cut product falls directly into a container or on a conveyor belt.

For precise cutting of fruit and vegetables like apples, tomatoes, carrots, onions, potatoes, kiwi fruits, pears, mushrooms, citrus fruit etc. in segments, slices, sticks and figurines. The Tona S180K is a smart combination of the proven machines Tona E (wegder) & Tona S (slicer). The Tona S180K is equipped with centring fingers (on 16 standard product holders), fruit and vegetables are gently fixed in the centre of the holder. Various cutting inserts assure to achieve the required cutting results.

Optimal feed – With the Tona S180K it is possible to process product at a capacity of 20 pieces per minute (1200pcs/h). All cutting inserts used on the Tona Rapid can now be used as well on the Tona S180K. Simple operation – The neatly arranged push buttons on the machine enable quick and easy operation. The cutting / wedging inserts are exchanged easily.

	Tona rapid	Tona rapid 3D	Tona rapid XL
<b>Measures</b>			
L x w x h (mm)	2000 x 945 x 1700	2000 x 950 x 1700	3300 x 1700 x 2185
Weight	460 kg	290 kg	820 kg
<b>Power</b>			
Total power	0,55 kW	0,55 kW	0,55 kW
<b>Pneumatik</b>			
Operating pressure	6 bar	6 bar	6 bar
Air consumption	34 NI per cycle	34 NI per cycles	36 NI per cycle
<b>Processing data</b>			
Strokes per hour	1800 strokes/h	1800 strokes/h	1200 strokes/h
Max. height of raw product	110 mm	90 mm	220 mm
Max. diameter of raw product	85 mm	75 mm	130 mm
<b>Products &amp; capacity</b>			
Vegetables & Fruit	up to 3600 pcs/h	up to 3600 pcs/h	up to 2400 pcs/h

Measures		Products & capacity	
L x w x h	800 x 1000 x 1400 mm	Vegetables	up to 1200 pcs/h
Infeed / feeding height	800 mm	Fruit	up to 1200 pcs/h
<b>Pneumatic</b>			
Operating pressure	6 bar		
Air consumption	17 NI pro Zyklus		
<b>Processing data</b>			
Strokes per hour	1200 Takte/h		



# Germ reduction

## Vortex-line, UVC-Lock

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**VORTEX-line for germ reduction of fresh-cut products**

The Vortex-line from KRONEN has been developed for final treatment stage of vegetables (like e.g. various leaf salads, root products, etc.) but also fruit like apples and grapes, achieving germ reduction and prolongation of shelf life and, consequently, increase of quality of products.

The principle of the system is characterized by a pipe system with an infeed and an discharge opening. The pre-cleaned product (vegetables, fruit) is transferred to a funnel.

The side rotating nozzles wash the product gently and reliably into the system. The product then flows through the entire length of the pipe and is conveyed to the outfeed in a chute. It transfers the product to a discharge belt or vibration screen.

The variable contact and dwell time of the product can be set between 1 and 3 minutes.

The pipe system has a modular structure and can be flexibly integrated into existing salad lines to save space as a standard solution or as an adaptation. All pipelines can be quickly and easily dismantled using screw connections for mechanical cleaning.



**UVC-Lock Disinfection lock**

The UVC Lock has been developed in close cooperation with sterilAir® (CH-Weinfeld) for surface disinfection of fruit and vegetable products\* as well as of packaging materials such as boxes, crates and tools etc.

The UVC Lock is equipped with the latest UVC technology and is optimized in regards to hygiene, usability and easy maintenance. As a standard the UVC Lock includes 12 or 20 ET 2236-4H tubes. Optionally it is available with hybrid tubes and a configuration from 6 to 26 tubes.

An adequate sterility of products as well as of packaging materials and storage boxes is one major requirement for the shelf life and hygiene of food, especially in the salads, vegetables and fruit processing industry.

UVC treatment with sterilAir® components disinfects in a highly effective, safe and reliable way: without heat, undesirable additives and residues - and within very short times.

\* Use with food depends on the legislation in the country of the user.

Measures		Products & capacity	
L x w x h	variable x variable x 2100 mm	Iceberg	up to 1500 kg/h
Total volume	1250 l	Spinach / rocket	up to 800 kg/h
<b>Power</b>			
Voltage	3~400 V/N/PE/ 50 Hz		
Total power	5,9 kW		

Measures		Products & capacity	
L x w x h	3044 x 960 x 1286 mm	Product size (l x w x h):	up to variable x 550 x 300 mm
Infeed / feeding height	750 mm	Throughput capacity / hour:	approx. 400 pcs/h
Discharge / outfeed height	750 mm		
<b>Power</b>			
Total power	1,2 kW		

# Product treatment



**Dipping bath  
KDB 120**



**DECONWA Prep**

The KDB 120 dipping bath has been developed for final treatment of peeled or cut fruit or vegetables. By application of e.g. Nature Seal®, other liquids or water soluble powders a prolongation of shelf life and, increase of product quality will be achieved.

Working principle:

- ▶ The product will be transported through the filled tank and, additionally, sprayed from the top. The open and easy access construction guarantees a very gentle product treatment.
- ▶ The contact time of the product is adjustable from 30 to 120 seconds.
- ▶ The water level in the dipping bath is infinitely variable according to product quantity and size.
- ▶ With a minimum water filling of 24 l, corresponding to a water level of 10 mm, the function of the machine is fully guaranteed (up to max. 130 l content). The KDB dipping bath is the device with the smallest fill quantity on the market!
- ▶ At the end of the process, the product can be dried by an air knife (optional) and then will be discharged directly into a container or on a conveyor belt (optional) for further processing.

The DECONWA Prep prepares whole fruits and vegetables for further processing through a washing process. By washing with fresh water with the addition of hygienizing additives as required, the germ load on the product surface is reduced.

This reduces **cross-contamination** by preventing the transmission of germs between the products and from the product skin to sensitive cut surfaces. The shelf life of end products such as fruit salad can thus be improved.

The DECONWA Prep can be adapted to different products (floating and non-floating) and requirements using various settings and options.

As a solution for the transition from "low care" to "high care" production areas, the DECONWA Prep ensures optimum hygiene right at the start of the processing. It is generally suitable for all applications in which raw products are to be decontaminated before further processing, as e.g. peeling and / or cutting, to reduce cross-contamination.

Measures		Products & capacity	
L x w x h	2600 x 1500 x 1600 mm	Fruit	up to 650 kg/h
<b>Power</b>			
Total power	2,2 kW		
<b>Water</b>			
Total water volume	24 - 130 l		

Measures		Products & capacity	
L x w x h	3399 x 1178 x 1559 mm	Apple	up to 1125 kg/h
Infeed / feeding height	890 mm		
Discharge / outfeed height	979 mm		
<b>Power</b>			
Total power	2,9 kW		

**Efficient and gentle washing of lettuces, vegetables and fruit by means of adjustable water rotation.**

## Washing GEWA 3800B PLUS

### GEWA ECO and GEWA PLUS series

Washing herbs and vegetables, salads or cut products thoroughly and hygienically and in line with market requirements - a task for the proven GEWA ECO and GEWA PLUS washing machines from KRONEN.

All GEWA washing machines clean the products continuously and particularly gently using the flow process (without mechanical immersion) with optimized water consumption.

With various options for customer-specific adaptation and additional options, the washing machines are versatile and suitable for processing a wide variety and also particularly sensitive products.

#### Advantages:

- ▶ **HELICAL washing system:** ensures that the product travels a spiral path in the washing tank and thus enables the small footprint
- ▶ Valve control for product-dependent adjustment of the water flow – adjustable conveying speed and direction from „gentle wash“ for sensitive salads to „intensive wash“ for harder root and tuber products
- ▶ **Reduction of water consumption** by returning the water to the washing system
- ▶ **Optimal hygiene** thanks to the open and freely accessible design with removable components (e.g. pipes, nozzles, filter screens) for quick and thorough cleaning
- ▶ **Seamlessly welded stainless steel workmanship:** durable, high quality
- ▶ **Various filtration systems:** sand trap, insect and fines removal system (optional), lateral fines removal drum (optional) for high water quality by discharging dirt particles in the washing water
- ▶ **Air system (optional):** Air bubbles generated by a pipe system in the wash tank - for gently washing sensitive products such as whole lettuce leaves
- ▶ **Water Management System (WMS, optional):** fill level control and centrally controlled filling and emptying
- ▶ **Water recycling system (WRS, optional):** fill level management in washing lines with at least 2 washing machines
- ▶ **Adaptation of the machine to customer-specific requirements:** PLUS or ECO equipment version, different sizes (capacities), belt or vibration discharge, various useful accessories and options

**Powerful salad and vegetable washing machines in proven quality!**



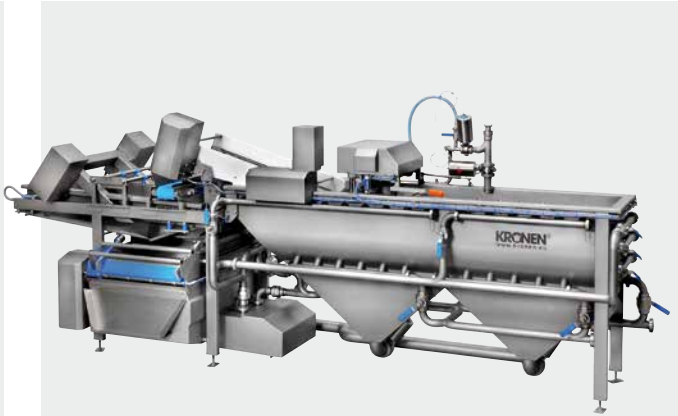
Washing machine GEWA 3800B PLUS with belt outfeed for medium capacities, for example approx. 200-1000 kg per hour, depending on product. Efficient and gentle washing of lettuces, vegetables and fruit by means of adjustable water rotation.

The removable belt can be offered with straight or inclined options and dipping belt, to allow connection between different washing machines at the same height. Furthermore, the conveyor belt is provided with a standard air scraper to allow smooth product discharge. As special options, the discharge belt can be provided with de-watering devices, just as knocking belt or air blowing/suction devices. KRONEN Belt conveyor discharge are easy to clean and especially suited to run very delicate products, such as baby leaf and whole salad leaves.

Measures		Products & capacity	
L x w x h	4270 x 1380 x 1690 mm	Lettuce	up to 700 kg/h
Weight	590 kg	Vegetables	up to 900 kg/h
Infeed / feeding height	1232 mm	Fruit	up to 900 kg/h
Discharge / outfeed height	759 mm	Herbs	up to 300 kg/h
<b>Power</b>		Cabbage	up to 900 kg/h
Total power	7.7 kW	Field mushroom	up to 400 kg/h
<b>Water</b>			
Total water volume	814 l		

# Washing

## GEWA 3800V PLUS, GEWA 5000V ECO



**Washing & sorting machine  
GEWA 3850V PLUS  
for bell peppers**



**Washing machine  
GEWA 5000V ECO**

The GEWA 3850V PLUS has been specially designed for washing and sorting sliced bell pepper (completely cut with core and kernels). Due to the automatic special separation method different kinds of bell pepper (diced or sliced) can be processed.

By means of a sophisticated water streaming system the waste and good product are separated thus saving extensive costs. The machine can easily be adjusted, e.g. for various kinds of bell pepper. Furthermore, it can be used as a standard washing machine by just lifting the link conveyor.

A capacity of >800 kg (good product) can be achieved. The standard design of the GEWA 3850 V PLUS washing & sorting machine includes WMS and sand trap funnels and many more features.

We offer processing systems for washing & sorting up to 7 tons of raw goods.

The washing machine GEWA 5000V ECO with vibration outfeed (product outfeed over vibration screen) is suitable for bigger capacities. Depending on the product, for example approx. 600 - 2500 kg per hour can be processed.

Efficient and gentle washing of lettuces, vegetables and fruit by means of adjustable water rotation.



Measures		Products & capacity	
L x w x h	3815 x 1389 x 1675 mm	Lettuce	up to 700 kg/h
Weight	560 kg	Vegetables	up to 900 kg/h
Infeed / feeding height	1232 mm	Fruit	up to 900 kg/h
Discharge / outfeed height	933 mm	Herbs	up to 300 kg/h
<b>Power</b>		Cabbage	up to 900 kg/h
Total power	6,4 kW	Field mushroom	up to 400 kg/h
<b>Water</b>			
Total water volume	912 l		

Measures		Products & capacity	
L x w x h	4810 x 1290 x 1540 mm	Lettuce	up to 1750 kg/h
Infeed / feeding height	1073 mm	Vegetables	up to 2250 kg/h
Discharge / outfeed height	825 mm	Fruit	up to 2250 kg/h
<b>Power</b>		Herbs	up to 500 kg/h
Total power	10,7 kW	Cabbage	up to 2250 kg/h
<b>Water</b>		Field mushroom	up to 800 kg/h
Total water volume	1400 l		

# Washing

## GEWA XL

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**Washing machine  
GEWA XL**

The GEWA XL washing machine offers optimal washing results for large quantities of salads and vegetables.

- ▶ Powerful and gentle washing using the continuous flow process
- ▶ Compact design for processing large quantities, e.g., iceberg 5 t / h or babyleaf 1.5 t / h.
- ▶ Dwell time of 45 seconds
- ▶ Reduced water consumption during spraying and washing
- ▶ Reduction of biofilm
- ▶ Extension of the product shelf life
- ▶ Low carryover of water due to belt suction
- ▶ Standard equipment with sand trap, insect removal system with increased surface contact, filter screen, WMS (Water Management System), centrally controlled filling and draining.
- ▶ Wide range of additional functions and useful accessories

Measures	
L x w x h	6738 x 2417 x 1920 mm
Volume wash tank	2 m <sup>3</sup>
Volume filter tank	max. 1 m <sup>3</sup>
Power	
Total power	14 kW

# De-Watering

## FDS 5000



**Flow de-watering system  
FDS 5000**

The FDS 5000 Flow de-watering system is optimized for removing excessive surface moisture from products such as fruit (cut or whole), hard vegetables (cut or whole), cut lettuce and baby leaf etc. while keeping the product in perfect condition. With the possible settings the machine can be optimised on capacity, product quality and residual moisture.

The FDS 5000 is flexible and safe to operate:

- ▶ Blowing action and belt speed can be controlled via frequency inverter.
- ▶ The suction intensity is variable via adjustable air intake openings.
- ▶ The special air knives are height adjustable in several steps and can therefore be set for maximum surface water removal.
- ▶ Noise reduction boxes reduce the noise of the suction units and separate the water from the air coming from the suction units.
- ▶ Hygienic design is guaranteed due to open stainless steel construction, quick detension on the belt, easy opening and access of the pipe work.

There are different sizes of FDS systems available to suit the customers' specific needs.

Measures	
L x w x h (incl. electrical cabinet)	5050 x 1830 x 1870 mm
Infeed	1150 mm
Outfeed	925 mm
Power	
Total power	32 kW

# Spin-drying

## KS series, Basket Carousel



KS-7 ECO, KS-600 ECO, KS-900 ECO



KS-100 PLUS



KS-7 PLUS

### Spin-dryers KS ECO, KS-100 PLUS und KS-7 PLUS

KS ECO and KS PLUS series are ideal for spin-drying salad, vegetable and various other applications. KRONEN ECO spin-dryers are available with one speed (600 or 900 rpm) or with 7 speeds (KS-7 ECO) and a transparent cover. The infeed height is 850 mm.

The KS-100 PLUS as the TOP model among the KRONEN vegetable and salad spin-dryers scores with an ergonomically low lifting height. Individual setting options for the spin speed and duration on 99 freely programmable memory locations ensure the greatest possible convenience and optimal adaptation to the product to be processed.

The model KS-7 PLUS offers 7 settings of individually adjustable spin speeds and freely adjustable spin times.



#### Basket-Carousel

The basket carousel is an efficient link between the KRONEN washing machines of the GEWA series and the KRONEN spin-dryers.

The basket carousel ensures a continuous workflow, simplifies the change of baskets and catches possible product overflow in the stainless steel container. Also available as automatic model with weight control.



Spin-dryer KS-100 PLUS, KS-7 PLUS		Products & capacity	
L x w x h	954 x 644 x 985 mm	Lettuce	up to 575 kg/h
Weight	160 kg	Vegetables	up to 1260 kg/h
Total power	0,8 kW	Fruit	up to 750 kg/h
Basket volume	44 l	Cabbage	up to 810 kg/h
Speed	325 - 1050 U/min	Herbs	up to 440 kg/h
Spin time	free adjustable	Spices	up to 300 kg/h
Spin-dryer KS-7 ECO		Products & capacity	
L x w x h	862 x 595 x 927 mm	Lettuce	up to 360 kg/h
Weight	140 kg	Vegetables	up to 600 kg/h
Total power	0,75 kW	Fruit	up to 520 kg/h
Basket volume	44 l	Cabbage	up to 560 kg/h
Speed	250 - 850 U/min	Herbs	up to 210 kg/h
Spin time	free adjustable	Spices	up to 300 kg/h
Spin-dryer KS-600 ECO, KS-900 ECO		Products & capacity	
L x w x h	862 x 595 x 927 mm	Lettuce	up to 270 / 360 kg/h
Weight	140 kg	Vegetables	up to 480 / 600 kg/h
Total power	0,75 kW	Fruit	up to 390 / 520 kg/h
Basket volume	44 l	Cabbage	up to 420 / 560 kg/h
Speed	600 / 900 U/min	Herbs	up to 140 / 210 kg/h
Spin time	fixed	Spices	up to 200 / 300 kg/h

# Peeling

## PL 25K, PL 25S, PL 40K



PL 25K



PL 25S



PL 40K

### Peelers

### PL 25K, PL 25S, PL 40K

#### Peeler PL Series

The PL Series has two peeling systems and a washing system to choose from.

The abrasive system peels quick and price effective for further processing. The knife system peels the potatoes, carrots, beetroot, turnips and other hard vegetables like hand peeled and therefore is the ideal solution for whole peeled product with longer shelf life. The rubber knob system can be used for washing potatoes, carrots, etc. The rounded, easy-to-clean peeling chamber guarantees residue-free waste management that helps ensure a hygienic environment. The automatic top-down water sprinkler washes the product so it's ready to process. The pneumatic door opening (optional for PL 40K) allows trouble-free integration of the machine into an automatic production process. Emptying via pneumatic door opening is followed by automatic closing of the door for next peeling.



#### Complete & continuous peeling line

Processing line for washing, peeling, cutting / dicing up to 1.200 kg per hour of root and tuber vegetables. The loading and peeling process is controlled centrally.

<b>PL 25K</b>		<b>Products &amp; capacity</b>	
<b>Measures</b>		Carrot	up to 250 kg/h
L x w x h	815 x 705 x 1285 mm	Cabbage turnip	up to 300 kg/h
<b>Power</b>		Potato	up to 400 kg/h
Total power	1,12 kW	Beetroot	up to 250 kg/h
<b>Processing data</b>			
Processing volume per hour	400 kg/h		
Kg per batch	25 kg		
<b>PL 25S</b>		<b>Products &amp; capacity</b>	
<b>Measures</b>		Cabbage turnip	up to 300 kg/h
L x w x h	735 x 750 x 1195 mm	Potato	up to 400 kg/h
<b>Power</b>		Beetroot	up to 250 kg/h
Total power	1,5 kW		
<b>Processing data</b>			
Processing volume per hour	400 kg/h		
Kg per batch	25 kg		
<b>PL 40K</b>		<b>Products &amp; capacity</b>	
<b>Measures</b>		Carrot	up to 500 kg/h
L x w x h	930 x 910 x 1395 mm	Cabbage turnip	up to 400 kg/h
<b>Power</b>		Potato	up to 600 kg/h
Total power	1,52 kW	Beetroot	up to 600 kg/h
<b>Processing data</b>			
Processing volume per hour	600 kg/h		
Kg per batch	40 kg		

# Peeling

## AS 2, AS 4, AS 6, AMS 220



**Apple peelers  
AS 2, AS 4, AS 6**



**Pineapple &  
melon peeler  
AMS 220**

### Apple Peeler AS 2+4

The Apple Peeler AS 2 peels, cuts and cores up to 600 apples per hour. A spring-loaded knife adjusts automatically to provide a consistent result on uneven surfaces. The peeling thickness can be adjusted. The multifunctional AS 4 is a logical upgrade that provides the additional option to slice apples in rings or apple wedges in small pieces for apple pie for example.

### Apple Peeler AS 6

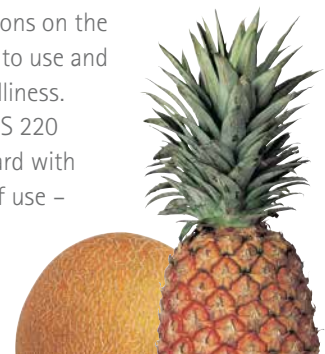
The multifunctional apple peeling machine AS 6 is perfectly suitable for peeling, coring, wedging and/or slicing apples with a diameter of 55 - 85 mm. It allows the processing of up to 900 apples per hour and thus, it is optimized for industrial application. One crucial benefit is the automatic loading of apples as well as the automatic outfeed of the final product. By this means, the speed and efficiency of the production are significantly increased.

Apple Peeler AS 2   AS 4		Products & capacity	
L x w x h	660 x 300 x 400 mm	Apple	up to 90 kg/h
Weight	30 kg   35 kg		
Total power	0,15 kW		
<b>Processing date</b>			
Processing volume per hour	600 pc/h		
Apple Peeler AS 6		Products & capacity	
L x w x h	861 x 823 x 1715 mm	Apple	up to 135 kg/h
Weight	163 kg		
Total power	0,25 kW		
<b>Processing date</b>			
Processing volume per hour	900 pc/h		

The AMS 220 pineapple & melon peeling machine is ideally suited to peel fruit in a great variety of different shapes and sizes:

- ▶ Many kind of fruit such as e.g. pineapples, melons of all kind, pumpkins with a smooth surface (e.g. butternut) can be peeled regardless of the products contours. The AMS 220 scores with this significant flexibility benefit!
- ▶ Pineapples can not only be peeled but also cored simultaneously (on/off switching function)
- ▶ The peeling depth is adjustable from 1,5 to 10 mm by changing the specially developed contour control system – without any tooling within seconds. An extremely smooth and almost score-free surface is achieved by this control unit following the shape of each (individual) fruit.

The clearly arranged push buttons on the machine switchboard are easy to use and emphasize the high user friendliness. The compact design of the AMS 220 and the combination as standard with a mobile frame ensures ease of use – anytime and anyplace.



Measures		Products & capacity	
L x w x h	843 x 737 x 1390 mm	Capacity depending on product:	
<b>Power</b>		up to 4 fruit / min.	
Total power	0,7 kW		

# Peeling

## Mango Peeler-de-Cheeker, ORKI



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**Mango Peeler-de-Cheeker**

The Mango Peeler-de-Cheeker automatically peels the mango and removes the 'cheeks' in one cycle. The mango is placed and positioned in the machine's infeed station and then passes through the peeling and pitting stations.

### Unique processing method

The mango is a very tender fruit and so demands special care in processing. Conventional peeling methods fail to provide the desired result, as the fruit is often damaged. So the Mango Peeler-de-Cheeker holds the fruit not on the outside, but by the stone.

The fruit is peeled along the length of the fruit, comparable with hand-peeled fruit. The result of this peeling method is a nice authentic, smooth cut. After peeling the mango 'cheeks' are sliced with two sharp, driven blades. This unique processing method increases the shelf life of your product.



Measures		Products & capacity	
L x w x h	7285 (incl. infeed conveyor) x 1471 x 2450 mm	Maximum diameter of fruit	140 mm
<b>Processing data</b>		Length of fruit	min. 115 mm up to 160 mm
Processing volume per minute	30-40 mangos		



**Citrus and kiwi peeler ORKI**

The machine is a fully-automatic peeler, corer and 'top and tailer' and is suitable for processing oranges, kiwi fruit and grapefruit. After setting the fruit type, the desired peeling thickness and the peeling speed, each fruit (product diameter: 60 - 120 mm) is processed efficiently. Zest cutting is also possible. The result is a visually appealing end product, prepared for further processing.

The ORKI citrus & kiwi peeling machine has a mechanism that can automatically vary the peeling thickness.

The variable peeling thickness can be preset (thicker at the stem than at the tip). This ensures maximum yield and prevents layers that are too thick from being removed and yields unnecessarily lost.

### Features of the ORKI Citrus & Kiwi Peeler

- ▶ Optimal handling of the products
- ▶ optimal adjustability in order to obtain maximum yield and optimal quality
- ▶ easy access to the machine for service and cleaning

Measures		Products & capacity	
L x w x h	1800 x 1800 x 2000 mm	Orange	up to 160 kg/h
Weight	625 kg	Kiwi fruit	up to 80 kg/h
<b>Power</b>		Grapefruit	up to 150 kg/h
Total power	2 kW		
<b>Processing data</b>			
Processing volume per hour	1080 pc/h		

# De-stemming

## GDM 35



**Grape de-stemmer  
GDM 35**



De-stemming grapes no longer needs to be done by hand. The GDM 35 GRAPE DE-STEMMER is perfectly suited for automatic de-stemming of grapes. The machine ensures that the grapes are neatly loosened without damaging the grapes.

Capacity:  
up to 450 kg per hour  
(depending on grapes sizes and varieties)

An integrated air knife prevents condensation. Furthermore, the machine is equipped with a gap width adjustment (for optimal adaption to grapes sizes). The de-stemmed grapes will then be gently put on a conveyor belt for further processing or end control.

Measures		Products & capacity	
L x w x h	1635 x 1117 x 1805 mm	Grape	up to 450 kg/h
Weight	500 kg		
<b>Power</b>			
Total power	2,5 kW		
<b>Processing date</b>			
Processing volume per hour	450 kg/h		

# Packaging

## MINI, CP, UP, Flow



**Packaging machine  
MINI**



**Packaging machine  
CP 350 PLUS**

The compact packaging machine MINI is made of stainless steel and has a modular structure. Its low height, small footprint and its wheels make it versatile and flexible, as it can easily be placed under various dosing systems. It is also suitable for manual filling. Thanks to the large selection of package sizes (40 to 160 mm bag width and unlimited bag length) and a capacity of up to 50/60 bags per minute, the MINI can be used for a wide range of packaging applications. Pillow bags are produced in the standard configuration. Optionally, the machine can also produce stand-up pouches. Options and components can be retrofitted quickly and easily.

- ▶ Allen Bradley PLC allows for 99 programs to be saved
- ▶ Full color touch screen for easy operation
- ▶ Compact, solid design made of stainless steel
- ▶ Easy cleaning due to the open design
- ▶ Easy maintenance, as components can be retrofitted quickly

#### Technical specifications MINI:

Bag width (pillow) min./max.	40 mm - 160 mm
Max. bag length	unlimited (170 mm per sealing step)
Film thickness	25 - 120 µ
Max. production speed	50-60 bags/min.
Max. film width	360 mm
Max. outer diameter film roll	320 mm
Voltage	230 Volt, 50/60 Hz
Air consumption	6 bar, 156 ltr/min.
Machine dimensions (L x w x h)	1330 x 650 x 1140 mm

The CP 350 PLUS is very compact and suitable for packing various products. The form, fill and seal machine transforms film into a bag by using a specially developed former set.

The machine fills and seals the bags into representative packaging. The CP 350 is suitable for all flowing bulk goods (vegetables, fruit, salad, baked goods, sweets) and also non-food products.

Pillow bags are produced in the standard configuration, but self standing bags can also be formed. Essential characteristics of the CP 350 are its high flexibility and user friendliness as well as a high standard equipment. Various accessories are also available, such as photocell for film marking, connection for gas supply, vibration unit, perforation systems, automatic recognition of the end of the film, synchronization unit for weighing / dosing systems, etc.

Options & components can also be retrofitted quickly.

#### Technical specifications CP 350 PLUS

Bag width (pillow)	75 - 350 mm
Max. bag length	unlimited mm
Max. bag length per sealing step	230 mm
Max. production speed	40 bags/min
Film thickness	25 - 120 µ
Core diameter	76 mm (3")
Max. film width	750 mm
Max. outer diameter film roll	320 mm
Voltage	230 V, 50/60Hz
Machine dimensions (L x w x h)	1.495 x 962 x 1.647 mm

Vertical form-, fill- and sealing machines form a flat film into a tubular shape by means of a specially former set. The funnel can be filled with any type of free flowing product by hand or automatically via a weighing or dosing system. Finally the machine seals and cuts the bag with its contents and a perfectly formed bag is made. The packaging machines are suited for packing all free flowing products, food or non-food.



**Packaging machine  
UP 350**

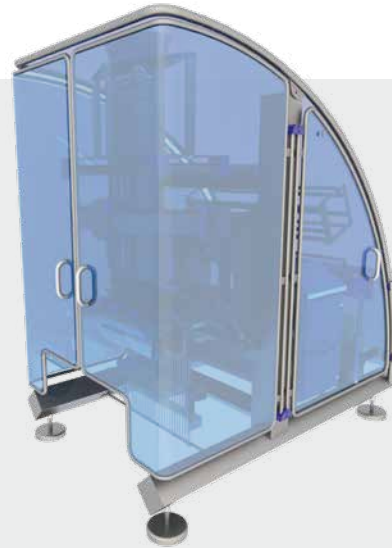
The UP 350 has a hygienic stainless steel design and is easy to clean and maintain thanks to its open and easily accessible construction. This packaging machine is very well suited for applications in the food industry. With a wide range of packaging sizes (75 to 350 mm bag width and unlimited length), this flexible machine can suit many different packaging requirements. As an option, self-standing block bottom bags can be produced.

The UP 350 scores with a high level of standard equipment and is also modular, so that each individual functional group (e.g. sealing mechanism or electrical cabinet) can be replaced within minutes. This results in reduced downtimes and costs during maintenance work.

Various accessories are available, options and components can be retrofitted quickly.

**Technical specifications UP 350:**

Bag width (pillow)	75 - 350 mm
Max. bag length	unlimited mm
Max. bag length per sealing step	480 mm
Max. production speed	50 bags/min
Film thickness	25 - 120 µ
Core diameter	76 mm (3")
Max. film width	750 mm
Max. outer diameter film roll	320 mm
Voltage	230 V, 50/60Hz
Machine dimensions (L x w x h)	1.495 x 962 x 1.999 mm



**Packaging machine  
Flow 500**

FLOW 500 is the next generation vertical, form, fill and sealing machine. FLOW 500 distinguishes itself from other packaging machines by its hygienic design, full stainless steel construction (no aluminum parts), high packaging speeds and very user friendly interface. The machine is fully servo driven, both on the film transport as well as on the sealing system. Especially processes in which hygiene and cleaning are highest priority FLOW 500 is the machine to beat. It is available with various continuous heated sealing systems to process a wide variety of packaging materials, PP, PE, laminated and coextruded films. The bag length is determined by an encoder on the film which guarantees a high accuracy.

For processing printed films an eye mark reader is installed. The intuitive touch screen provides the possibilities to create and store programs (up to 200). The user friendly interface which is divided into an operator and administrator level guarantees a trouble free operation in every situation. A lot of options are available.

**Technical specifications FLOW 500:**

Bag width (pillow)	200 - 500 mm
Max. bag length	unlimited mm
Max. production speed	90 packs/min
Maximum film width	1.040 mm
Film thickness	25 - 130 micron
Core diameter	76 mm (3")
Outer diameter film roll	500 mm
Voltage	230 Volt / 50 Hz / 16 Amp
Machine dimensions (L x w x h)	2.340 x 1.430 x 2.140 mm

# Trimming & sorting, transporting

## Ergonomic trimming tables, conveying belts

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### Ergonomic trimming tables

We offer convenient and ergonomic trimming & sorting tables, automatic waste separation systems and automatic conveying equipment fully integrated in complete processing lines. For example, our trimming & sorting stations – for 1 up to 16 and even more persons – are perfectly suited for adaption directly to the infeed belts of our cutting machines. These tables are equipped with stepless belt speed adjustment, product guides, removable cutting boards, waste chute, etc. Various options and accessories are available such as hopper extensions, waste belts, crate supports, etc. – allowing improved yield and considerable increase in productivity!



### Conveying belt systems

We offer various conveying belt systems for the efficient and smooth transport of your food products. Our product portfolio includes solutions for any given conveying demands from simple standard belt conveyors to complete conveying systems with electronic control. Due to the compact and modular construction the belts and other parts are quickly removable without any tools for cleaning. All parts that are in contact with food are made of stainless steel AISI 304 or FDA approved plastic.



### Roller inspection tables

These tables can be placed before or after the peeling and/or cutting machines and are made for visual product control. The product quality of the raw material or the peeling / cut quality is controlled and poor quality products can easily be sorted out. Different models and designs can be supplied.



The illustration shows a water bunker belt, a PL 40K and a roller inspection table

### Water tank for pre-cleaning

Products (e.g. potatoes) are filled into the robust water tank for temporary storage & pre-cleaning and are lifted with an effective conveyor to the next production line element. The water tank fits together with the PL peelers and further production line elements.

# Weighing & mixing, central controlling

## Weighing systems, central control



**Automatic weighing system**

- ▶ To determine product weight
- ▶ Continuous dosing of various products allows thorough blending for e.g. salad mixtures

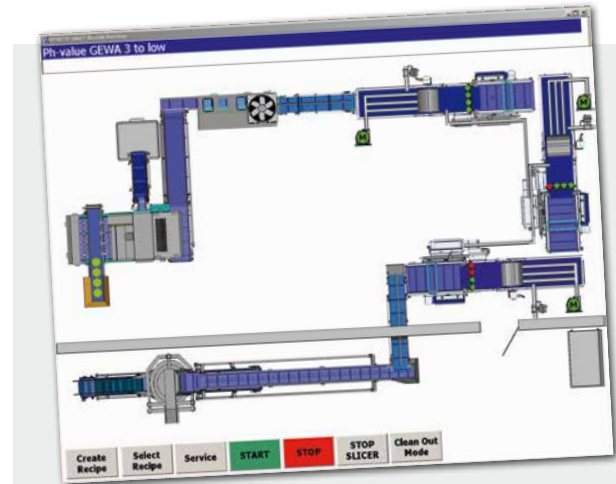
The innovative KRONEN washing and processing technique in combination with the proven automatic weighing belt system allows a precise, continuous and automatic dosing and mixing of different products, e.g. salad and cabbage. A thorough blending of the products takes place in a KRONEN GEWA washing machine, for example (other customized weighing systems are available).

Example:

Iceberg, Frisee, radicchio and other leaf lettuce with capacities of 1300 - 1400 kg per hour are processed adding a mixture of 5 - 45 % (depending on produce). Dosing sliced cabbage but also other products such as carrot sticks (julienne), shall be provided automatically always in the same mixture ratio.

The advantages are obvious:

Automatic operation and, thereby savings in personnel; continuous weighing process without belt stop on main product; storage of production data (statistics); control on raw material input; high accuracy of the finished mix achieving cost savings on expensive products, etc.



**Process automation and visualisation for complete lines**

For use in processing lines KRONEN has developed a standardized central control system offering an optimal cost-to-benefit ratio. The complete line can be controlled by means of an operator via touchscreen or PC. The control can be adapted individually to the production processes. This facilitates the adaption of the performance of the line in respect to varying capacities, products or product mixes.

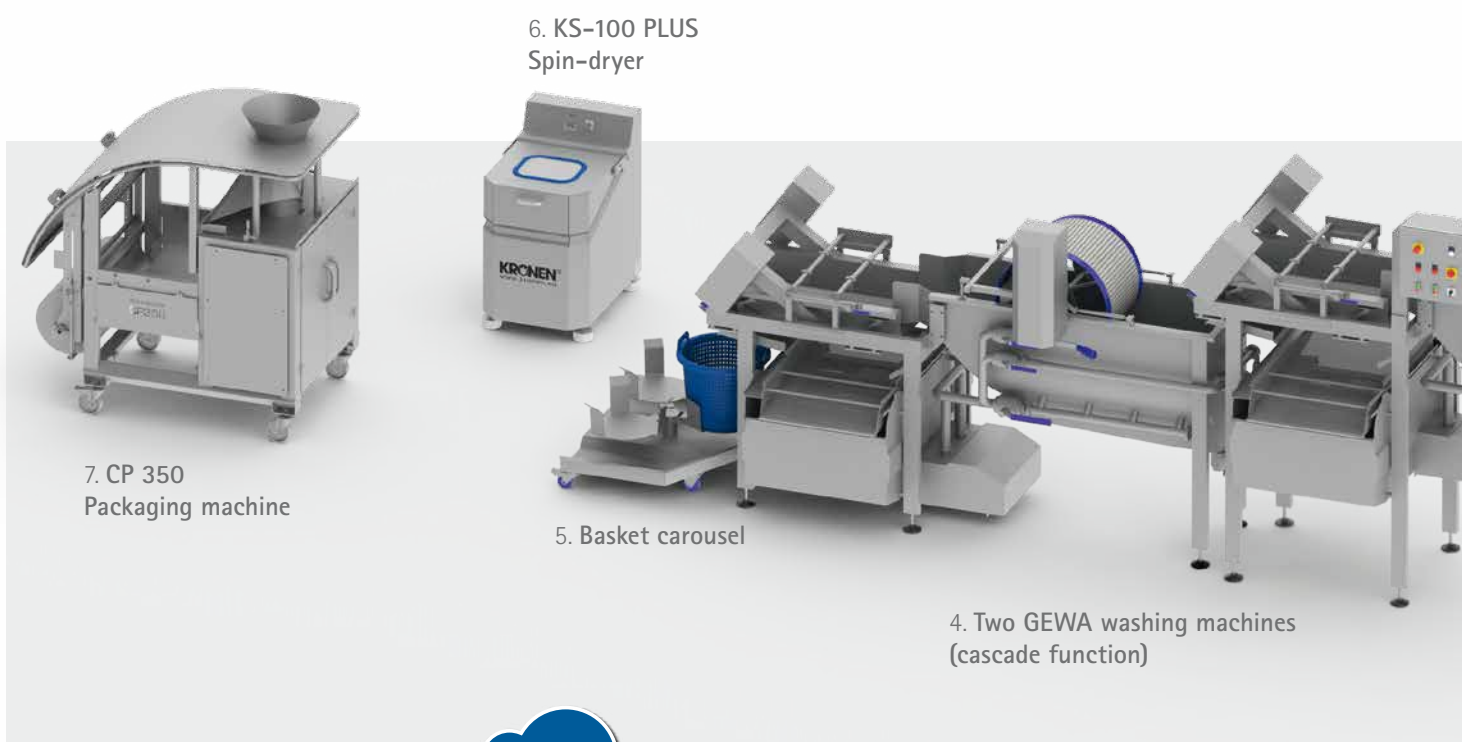
Complex lines need an intelligent interaction which is assured by means of KRONEN process control components.

These process visualisation components, combined with the optional bus-system, allow to locate system messages, as e.g. maintenance messages or error messages and react without delay. For instance, in case of a machine stop in the production line, the system stops automatically upstream machines and avoids the waste of valuable raw material.

### Advantages in detail:

- ▶ Quality
- ▶ Traceability
- ▶ Detailed process information
- ▶ Standardized process
- ▶ Easy handling on product changes
- ▶ Process control on the work floor
- ▶ Less downtime
- ▶ Remote Service access possible
- ▶ Maintenance / error messages can be promptly located
- ▶ Avoids waste of raw material

# Concepts for complete production lines and processes.



## KRONEN SMART Machines

Many KRONEN machines, such as the GS 10-2 belt cutting machine, GEWA 3800V PLUS washing machine or the KS-100 PLUS salad spin-dryer are also available as SMART machines. Complete production lines can also be implemented as SMART lines that can be centrally controlled.

The KRONEN SMART machines are internet and communication capable machines that transfer machine statuses in real time to the KRONEN cloud. Production managers, technicians or foremen can monitor the production status of the machine / line on the laptop or mobile device at any time, regardless of location. With the collected data, production processes can also be made even more efficient, e.g. with regard to productivity, flexibility, quality and process reliability.

### Benefits

-  Real-time inspection
-  Continuously high quality
-  Process reliability
-  Productivity

## Planning

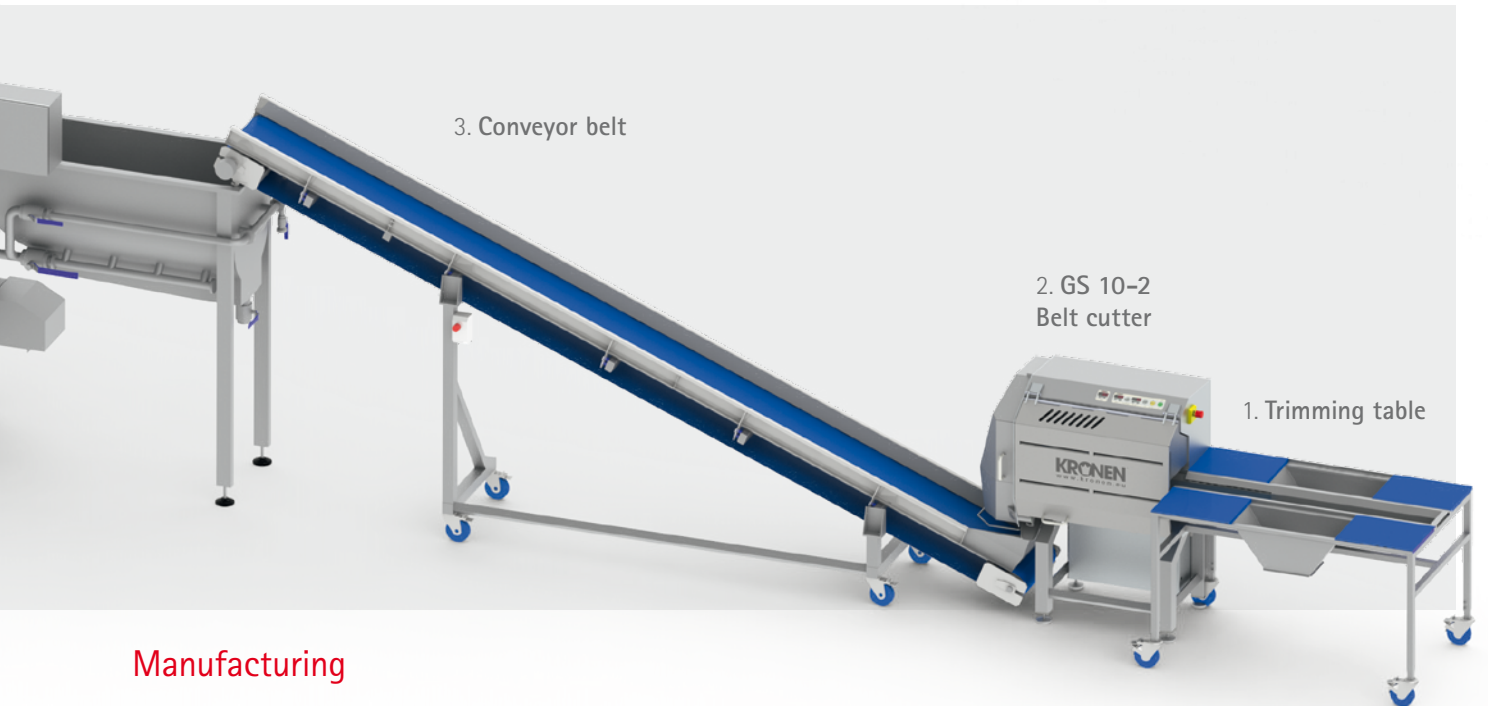
In addition to the standard range, KRONEN is always interested in discussing specific customer requirements. Thanks to the extensive range of machine accessories and our knowledge of the food processing industry, all machines can be enhanced to meet the customers individual needs. We will be happy to sit down with you and plan the solution that best suits your needs. Thanks to the skill and knowledge of our staff we are ideally qualified to advise you about all areas of salad, vegetable and fruit processing, from individual machines to complete purpose designed factory layouts. We pride ourselves on our ability to work in partnership with our customers to oversee the design, construction, installation and commissioning of the equipment.

**In short: KRONEN creates solutions that work.**

Further information



# The integration of special-purpose machines.



## Manufacturing

The fact that KRONEN machines can be individually customised represents an important step towards building processing lines that provide real benefits to the user. Even existing customer machines can be modified to become part of a new line concept. Recently, for example, KRONEN modified a machine from its GS range to meet the unusual request of one of its customers. In doing this we took a machine that normally operates in a factory environment and modified it so that it was mounted onto a chive harvesting machine, slicing chives in the field. This development protected the delicate nature of the chives, by eliminating additional handling of the product prior to slicing, and delivered a superior finished product.

Proof that KRONEN really do create solutions that work. The layouts shown are just two examples of the ideas available from KRONEN, why not contact us to discuss how we can be of assistance to your business?

**Full integration and high effectiveness – guaranteed by KRONEN.**



## Some of our many reference projects



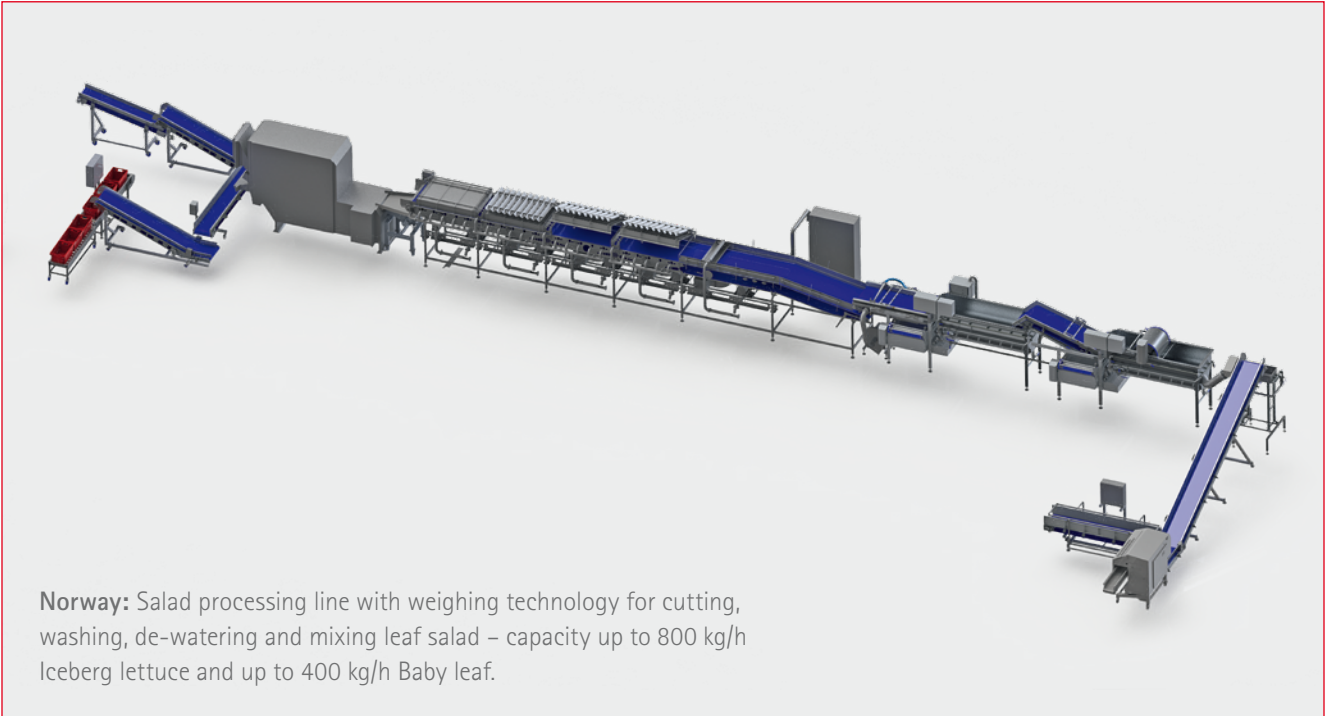
Portugal: Processing line for washing & sorting bell peppers - capacity up to 7 tons/h.



Sweden: Processing line for cutting, washing, drying and weighing lettuce and different vegetables - capacity up to 1000 kg/h



Austria: Processing line for trimming, slicing, washing, treating, spin-drying and mixing leaf salad - capacity up to 500 kg/h.



**United Kingdom:** Large salad processing line – capacity up to 1.500 kg/h Iceberg lettuce and up to 800 kg/ Baby leaf.



**Turkey:** Large salad processing line – capacity up to 1.500 kg/h



**Germany:** Harvest & slice cut at chives field with 4 big KRONEN GS 20 belt cutting machines – capacity up to 1,8 tons/h



**International Cruise liner:** Economic cutting and washing technology – capacity up to 500 kg/h

## Product Range:



- **Belt cutting machines** GS 10-2, GS 20
- **Slice and wedge cutter**  
Tona S, Tona E, Tona S 180K
- **Special cutting and grid cutting machines**  
Tona Rapid, Tona Rapid 3D, Tona Rapid XL, Multicorer, TT 450
- **Cube and strip cutting machine** KUJ V
- **Spiral cutting machines** SPIRELLO 150, S 021
- **Multi purpose cutting machine** KSM 100
- **Cabbage cutting machine** CAP 68
- **Cabbage corer** KSB-2
- **Dicing, wedging and shaping machine**  
PGW, HGW
- **Vegetable and salad washing equipment**
- **Peeling machines**  
for citrus fruit, melons, apples, pineapples, potatoes, carrots, cucumbers, radish, celery, etc.
- **Spin-dryers and de-watering systems**
- **Packaging machines**
- **Special machines**
- **Complete production lines**



We develop and manufacture stand alone and specialized machines and combine them into complete processing lines for the food processing industry. We work with you to successfully implement solutions for your business.

KRONEN - smart solutions and convincing technology for the food processing industry!



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