

# CROWN NATIONAL INDUSTRIAL EQUIPMENT CATALOGUE

Providing Solutions To The Meat And Food Industry









Dear Customer

Crown National celebrated its centenary year with the launch of a new product catalogue together with a new website. It is with great pride that we now introduce the addition of our Industrial Meat Equipment catalogue for your convenience.

We have been supplying the retail and industrial meat industries with equipment for many years, however, this is the first time that we have promoted our industrial meat equipment offering together in a concise, easy – to – use, digital format.

You can view this brochure on-line, from start to finish, or you can skip right to the bits that you're interested in. For your convenience, you can zoom in on a page and print specific pages, download the entire brochure or simply watch the interactive videos from the various international principals.

We are the preferred distributors of a number of world-class equipment brand names such as:

VEMAG industrial filling equipment,  
TALSA hydraulic sausage fillers and bowl cutters,  
INOTEC meat processing equipment,  
FORMATIC patty forming and food portioning equipment,  
HENKOVAC vacuum packaging and thermoforming equipment,  
HOLAC dicing, grating and shredding equipment and SECTOMAT slicing and portioning equipment,  
LASKA meat cutters and mixers,  
GRASSELLI slicing and skinning equipment.  
RED ARROW smoking and browning equipment

To complement the equipment offering, Crown National's very own GOLD CROWN CASINGS as well as cellulose and collagen casings from NATURIN and VISCOFAN have been included in this catalogue. In addition, we supply equipment accessories such as band saw blades, handsaws, mincer knives and plates, butcher knives and steels, filler nozzles, meat hooks and aluminium scoops. Please see the Accessories and Sundries section of our website for more.

Crown National owns and is the sole distributor for OKTO in Southern Africa. This famous brand has become a household name in the South African meat processing industry. All equipment supplied by Crown National is sold with appropriate guarantees and is backed by a comprehensive after sales service.

Thank you for your continued support and remember "we're 'here to help".

Kind regards

John Morris  
Managing Director





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# Laska

This traditional family company has served the food industry and above all the meat processing industry since 1880 through many generations. LASKA manufacture specialised machinery for the food industry, in particular for the meat processing industry. This includes cutters, mincers, frozen meat cutters, grinders and emulsifiers, mixers, and complete production lines.



**LASKA**

MEAT PROCESSING MACHINERY



## Tradition and Innovation



More Than 130 Years Of Experience



Since 1880, the family enterprise has been active as a supplier of the food industry and closely associated with the latter.

The machines produced by Laska are high-grade products made of stainless steel featuring a number of auxiliary equipment. Although LASKA is generally known for the best processing of meat, there are numerous other applications in practice, such as the processing of grease, cheese, fruit, vegetable, yeast, pasta, sweets, etc.

Today, LASKA machines are famous for their high quality in more than 130 countries on all continents, where they work to the complete satisfaction of national and international customers.

#### OUR PRODUCT RANGE:

- Cutters
- Grinders & mixer-grinders
- Frozen meat cutters
- Emulsifiers
- Mixing machines
- Production lines



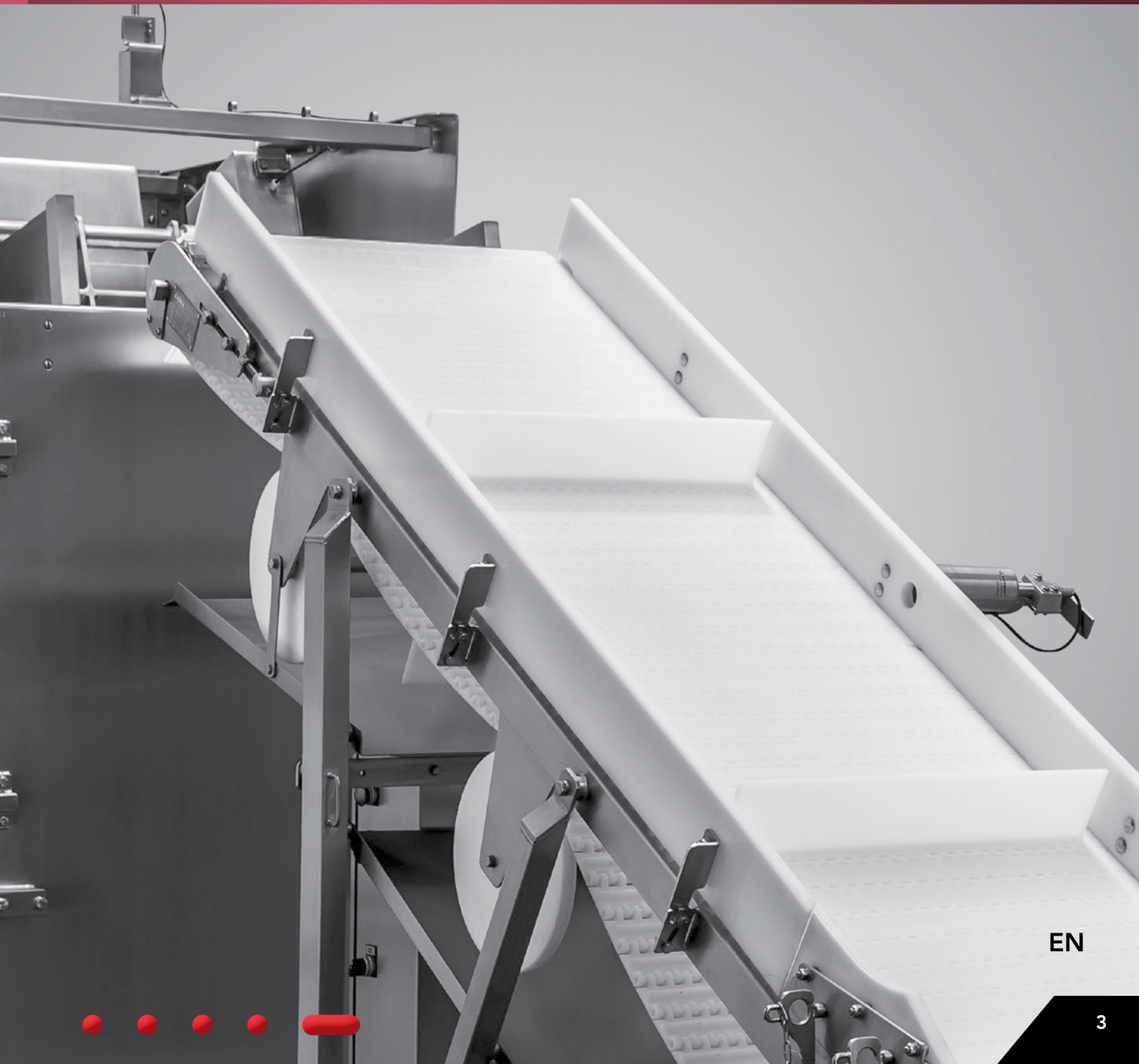
MEAT PROCESSING MACHINERY

[www.laska.at](http://www.laska.at)



# PRODUCTION LINES

HIGHEST PROCESS QUALITY, PRODUCTIVITY,  
AND RELIABILITY TAILORED TO YOUR PRODUCT



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## APPLICATIONS OF THE PRODUCTION LINES

The demand for automatic production lines is rising sharply worldwide. Production lines are used for the following products: fine sausage meat, cooked or raw sausage, minced meat and burgers, as well as convenience products. This unbroken trend towards production lines is driven by the needs to constantly reduce production costs (while keeping quality constant), to standardize the processing of raw materials, and to ensure traceability.

### PROFESSIONAL ENGINEERING

Together with you we'll compose the optimum combination of machines for your needs from among our broad range of proven single units, considering the room size available, the production volumes, the processing methods, and the diversity of products. We ensure the material flow and link the plant both mechanically and in terms of operation, data processing and safety technology for you to get high-quality, efficient, and reliable production processes for your products. The results are turn-key solutions from the raw material to the product ready to portion.

### OPTIMUM COMPONENTS

The basis of our successful projects are our proven single units like mincers, cutters, mixers, and emulsifiers. This range also includes a variety of transport and conveyor systems such as conveyor belts, worm conveyors, or pump and pipeline solutions. Specific components such as control stations including control and observation facilities, as well as optimum safety solutions complete the production line. Depending on the requirements, the suitable online analysis system for recording and quality assurance of your production processes can be integrated.





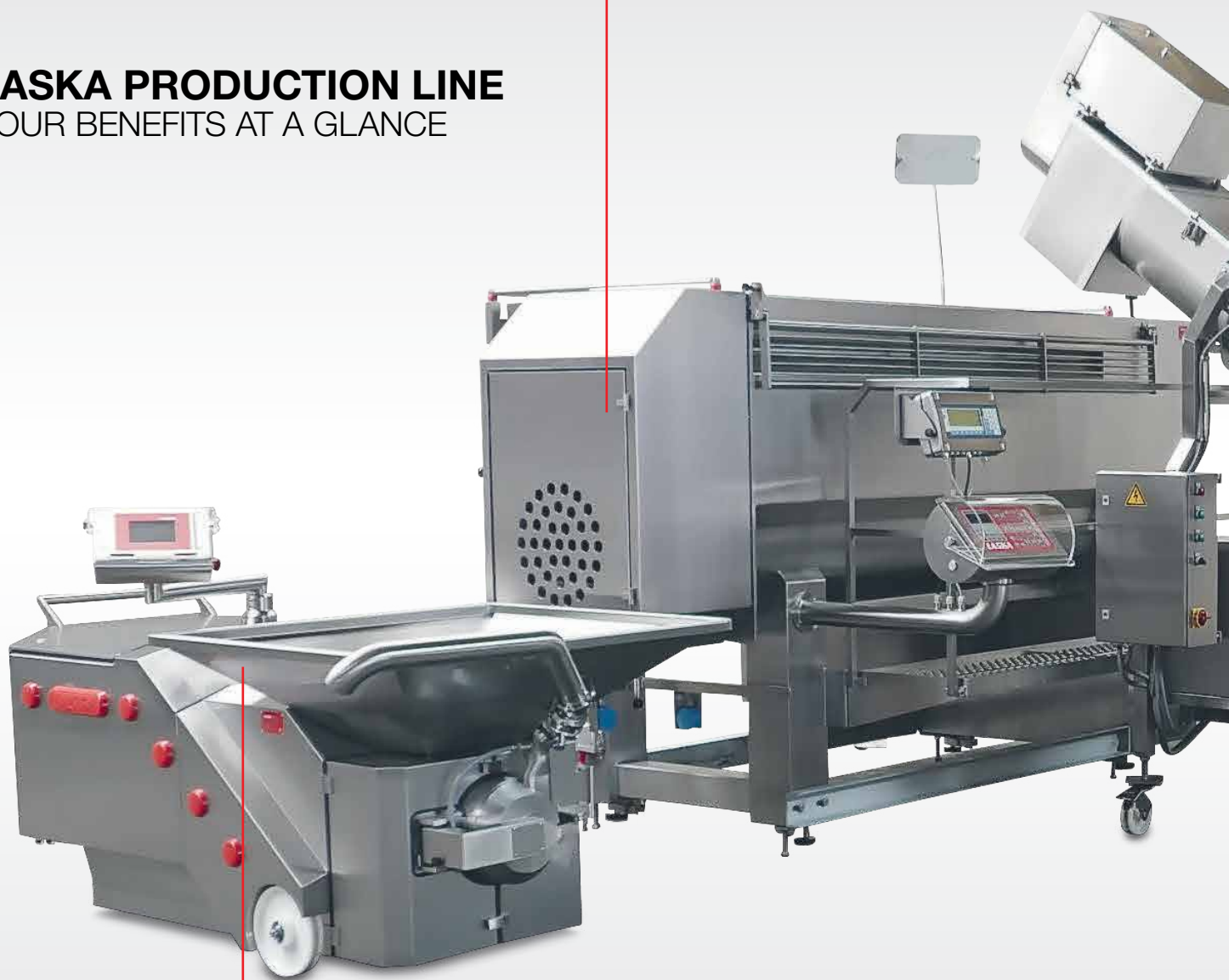


## LASKA PRODUCTION LINE

YOUR BENEFITS AT A GLANCE

### TRANSPARENT PROCEDURES

- › Standardization of raw materials and production sequences used
- › Clearly arranged control system
- › Easy handling, e.g. via LASKA programme control „PMS“ (Production Management System)
- › Traceability, when and where and by whom the goods were processed



### HIGH PRODUCTION OUTPUT

- › High hourly rate due to use of high-capacity machines
- › Optimum adjustment of the machines for a smooth procedure

### HYGIENE

- › Good accessibility for cleaning
- › Polished surfaces for highest possible cleaning standard

### HIGH SAFETY

- › Practice-oriented safety installations for optimum working safety
- › User-friendly control elements

### EASY SERVICING

- › Minimum maintenance required due to an elaborate machine concept
- › Easily accessible inspection doors
- › Worldwide service network

### ROBUST MACHINES

- › High operating safety due to robust machines fabricated according to high standards
- › Compact, space-saving design
- › Low energy consumption due to a modern drive and control concept
- › Long service life of the machines

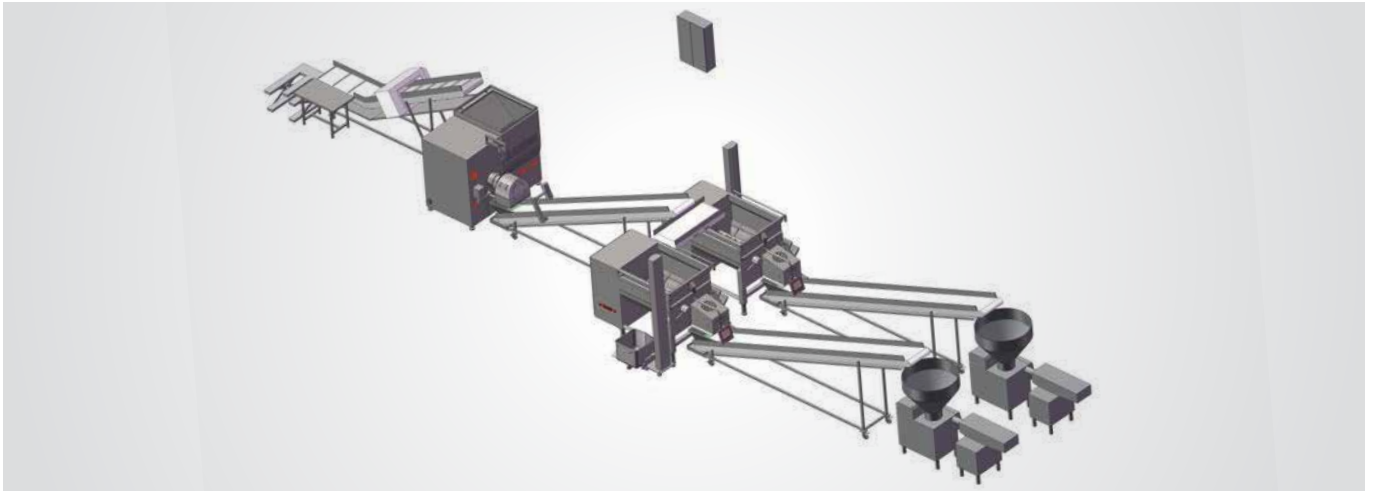






# EQUIPMENT

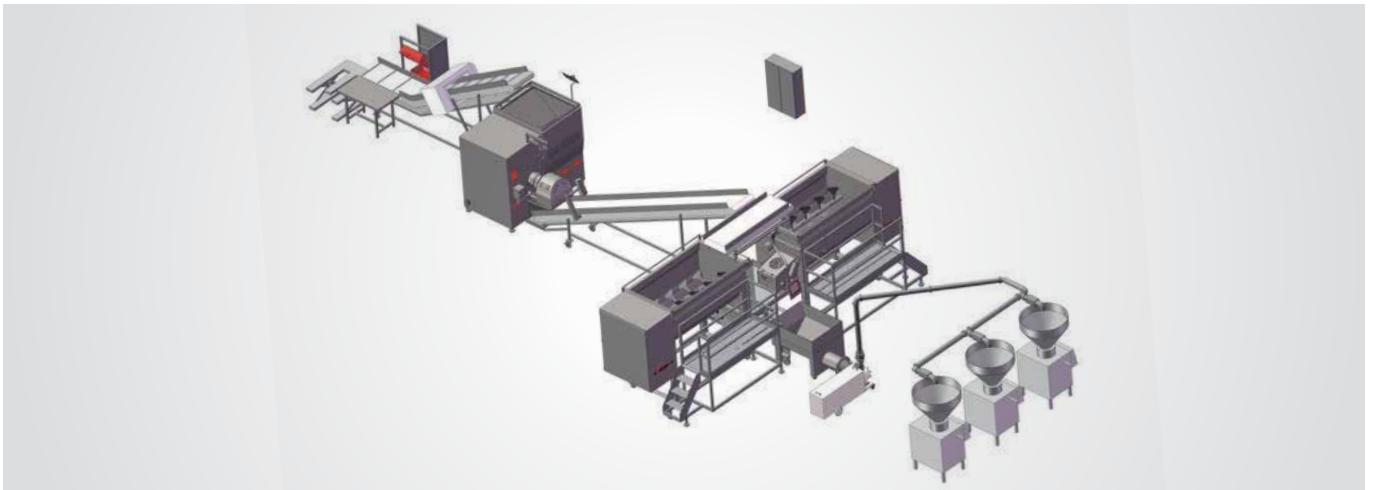
## OF OUR PRODUCTION LINES



### MINCED MEAT, BURGER, OR RAW SAUSAGE LINE (EXAMPLE)

- › Raw material is put onto the unpacking table
- › Material is conveyed into the mincer via a conveyor belt provided with a metal detector
- › After mincing, the material is conveyed to the mixers / Angle mixer-mincers
- › Ingredients can be added via the loading unit
- › After the mixing cycle the product ready to portion is conveyed to the filling units

Please note that the above description is just an example. The line will be exactly adapted to your needs.



### BOILED OR COOKING SAUSAGE LINE (EXAMPLE)

- › Raw material is put onto the unpacking table
- › Material is conveyed into the mincer via a conveyor belt provided with a metal detector
- › After mincing, the material is conveyed to the mixers
- › Ingredients can be added via the loading unit
- › The mixers of the cooked sausage lines are equipped with a cooking device
- › After the mixing cycle the product is gently crushed and emulsified in the emulsifier.
- › Subsequently, the product ready to portion is pumped to the filling units.

Please note that the above description is just an example. The line will be exactly adapted to your needs.

# MACHINE TYPES

## KEY TECHNOLOGY FOR YOUR PRODUCTION LINE



### ANGLE MINCERS AND ANGLE MIXER-MINCERS

- › For processing fresh meat or several frozen meat blocks simultaneously, depending on the type
- › Version with two worms arranged at an angle for gentle processing, low heating, and high hourly rate
- › Cleaning ducts for perfectly hygienic cleaning



### MIXERS

- › Container size: up to 4500 litres
- › Intermeshing paddle mixing shafts
- › Infinitely variable speed
- › Cleaning ducts for perfectly hygienic cleaning
- › Unloading flap with protective hood
- › Many options: vacuum facility, cooking/heating and cooling facility via closed circuit or direct injection, ...



### EMULSIFIERS

- › Holeplate diameters: 175 and 225 mm
- › Highest hourly rate
- › Patented knife adjustment for highest possible and reliable product quality at low wear
- › Optimized design of cutting system
- › Excellent product flow and fluid flow behaviour in the cutting chamber



### CUTTERS

- › Container size: up to 750 litres
- › Infinitely variable drives
- › Special bearing technology and sealings for highest speeds and high operating safety
- › Many options: vacuum, cooking facility, nitrogen cooling, forced ventilation, ...



# MATERIALS HANDLING EQUIPMENT

## OPTIMUM ADJUSTMENT FOR YOUR PRODUCTION LINE



### CONVEYOR BELTS

- › Inclined/horizontal/angled conveyor belt
- › PE link conveyors with carrier pegs for frozen meat block transport
- › PU positive drive conveyor for minced material and/or sausage meat
- › Frame can be cleaned quickly and properly, stainless
- › Option: infinitely variable speed, filling level sensor control, pneumatic swivel chute, can be lowered for cleaning



### METAL DETECTOR

- › Installed at the conveyor belt
- › Detects traces of metals in the base material



### WORM CONVEYOR

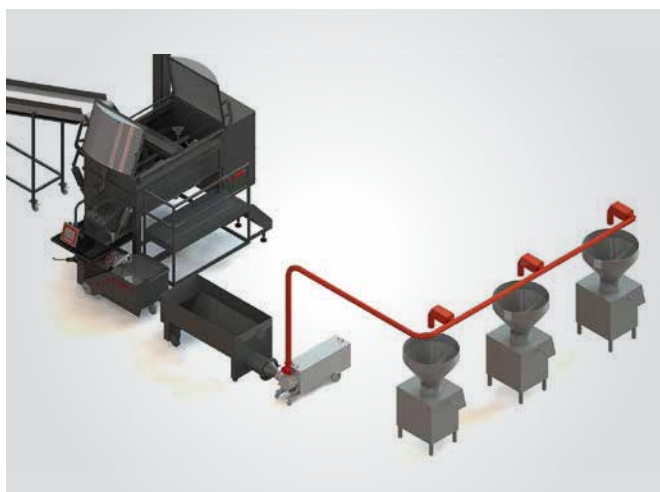
- › Large diameter of conveyor worm
- › Can be cleaned quickly and properly, stainless
- › Option: infinitely variable speed, filling level sensor control, hydraulic swivel chute, can be lowered for cleaning



### HOPPER WORM CONVEYOR

- › Large diameter of conveyor worm
- › Can be cleaned quickly and properly, stainless
- › Option: weighing cells, mixer arm (to prevent bridging), infinitely variable speed, filling level sensor control, hydraulic swivel chute





### PUMPS AND PIPELINES

- › Special pump for gentle pumping of sausage meat
- › Pipelines with valves for distributing the product (e.g. to several filling plants)
- › Option: infinitely variable speed of pump, pig transmission and receiving stations for cleaning and emptying of pipeline



### SAUSAGE MEAT HOPPER WITH PUMP

- › Hopper with emptying worm filling the connected sausage meat pump
- › Can be cleaned quickly and properly, stainless
- › Option: infinitely variable speed



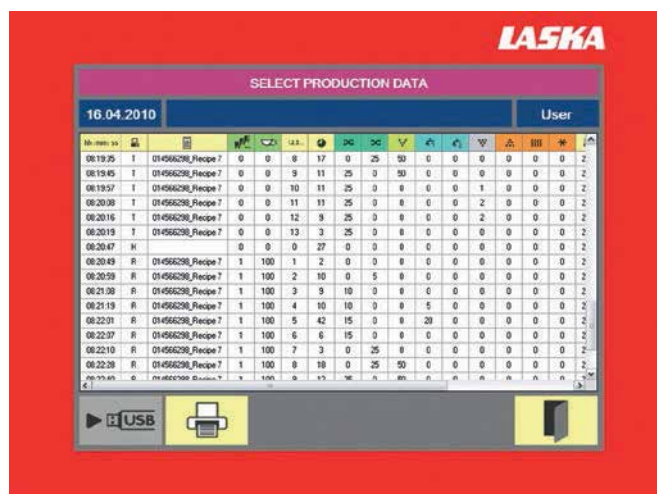
# CONTROL AND FEEDBACK CONTROL SYSTEMS

## OVERVIEW AND SAFETY FOR YOUR PRODUCTION LINE



### LINE CONTROL STATION

- › Control station for plant visualization, operation, and central error display
- › Integral touch screen 12"
- › Operation of the machines in manual or automatic mode
- › Filling level indicator and monitoring of the hoppers
- › Weight indicators
- › Display of analysis values



### PMS MIXING PROCESS CONTROL SYSTEMS

- › Freely programmable automatic work sequence
- › Creation, storage, and automation of recipes and production lists
- › Programming of machine options
- › Up to 999 programmes depending on customer requirement



### NIR ANALYSIS SYSTEMS

- › Fat analysis integrated in the mixer (optional display of water, meat protein, connective tissue protein)
- › Fat analysis installed at the conveyor belt



### WATER DOSING

- › Automatic addition of freely selectable amount of water
- › Can be preselected and called during production at the push of a button
- › Other liquids than water up to +90 °C can be added





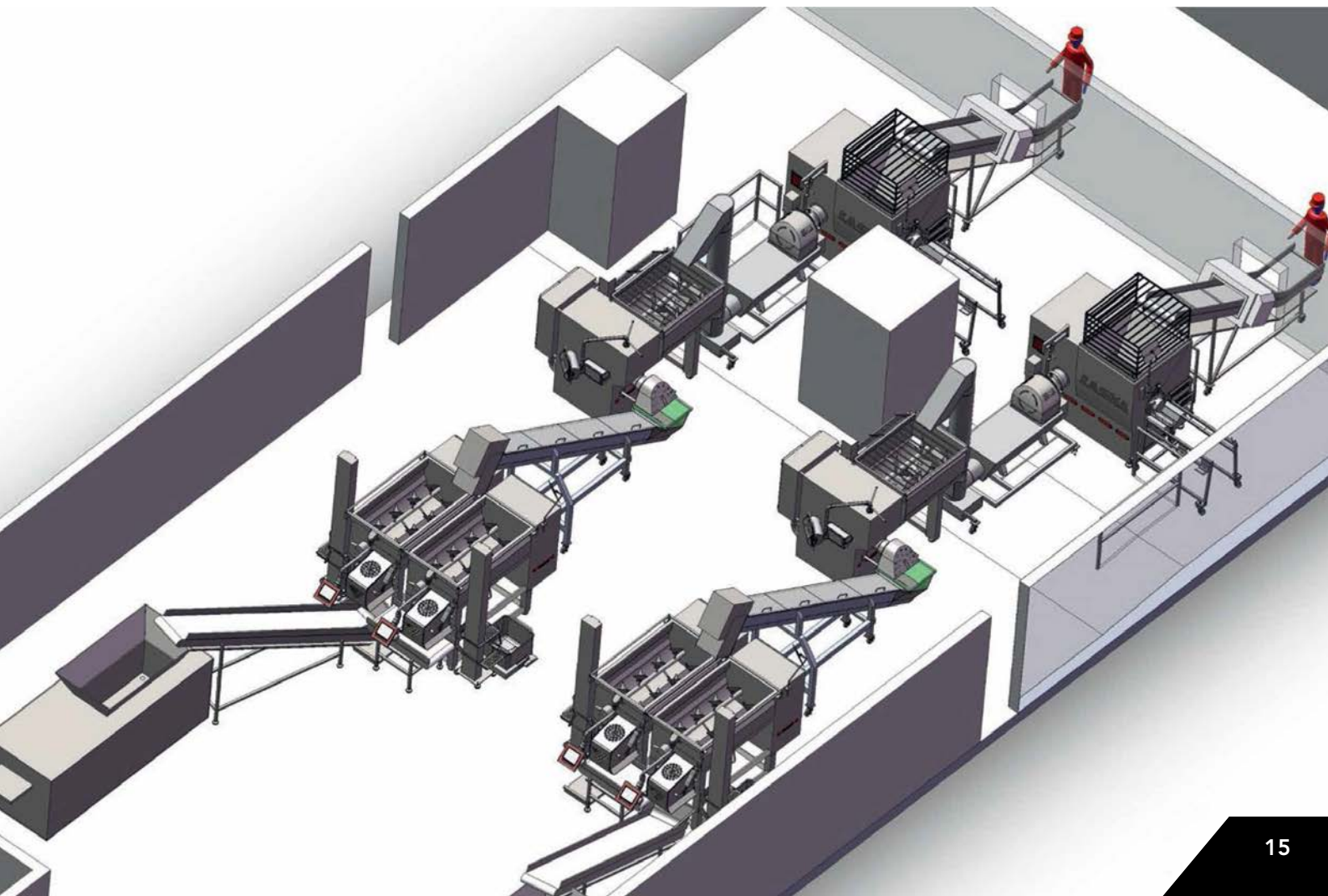
### WEIGHING EQUIPMENT

- › Various versions depending on application and requirement.
- › Display of the weights of mixed quantities, added quantities, removed quantities
- › Automatic starting and stopping of loading and unloading processes possible



### SPICE DOSING (DRY MATERIALS)

- › Spice dosing via big bag stations and pneumatic conveyance via pipeline
- › Spice dosing with silos and pneumatic conveyance via pipeline





## THAT'S WHAT OUR CUSTOMERS SAY



**COOPERCENTRAL AURORA  
ALIMENTOS**  
BRASILIAN

„We are using the equipment brand Laska in the industrialization of hamburger more than four years. This is a very good technology with robust equipment that meets the need of the industrial process, providing good productivity, easy cleaning and operational safety.

The equipments work in sequential line on step of the preparation of raw materials optimizing the physical space. The mixer provides reversibility and the speed variation resulting in a very uniform product. Good equipment.“

**MR. CAETANO DE OLIVEIRA JUNIOR**  
MANAGING DIRECTOR



**DEKAMARKT**  
NETHERLANDS

„When we were faced with the challenge to double our production within half a year, we opted for machines by Laska. What was important to us, was both the quality and the reputation of the supplier, and that we could depend on the delivery date to be met.

Laska improved our existing minced meat line with breakers, mixers, mincers, vacuum filling units, and free-flow units, thus designing a new state-of-the-art hamburger production line. We are also very satisfied with after-sales and customer service.“

**MR. WESSELING**  
PRODUCTION MANAGER

**JOSEF WERNKE**  
**VERSANDSCHLACHTEREI GMBH**  
GERMANY

„We opted for Laska because space problems forced us to look for customized solutions. Laska was very flexible implementing our individual wishes and was the obvious choice with the proven and robust quality of their machines.

The NIR analysis made us sure to produce absolutely reliable quality, confirmed by our customers. Due to the reliable measurements, we don't have any complaints - just as it was in times of visual standardization. Moreover, the control panel makes reloading extremely easy.“

**MR. PILLE**  
PRODUCTION MANAGER









**LASKA**

MEAT PROCESSING MACHINERY

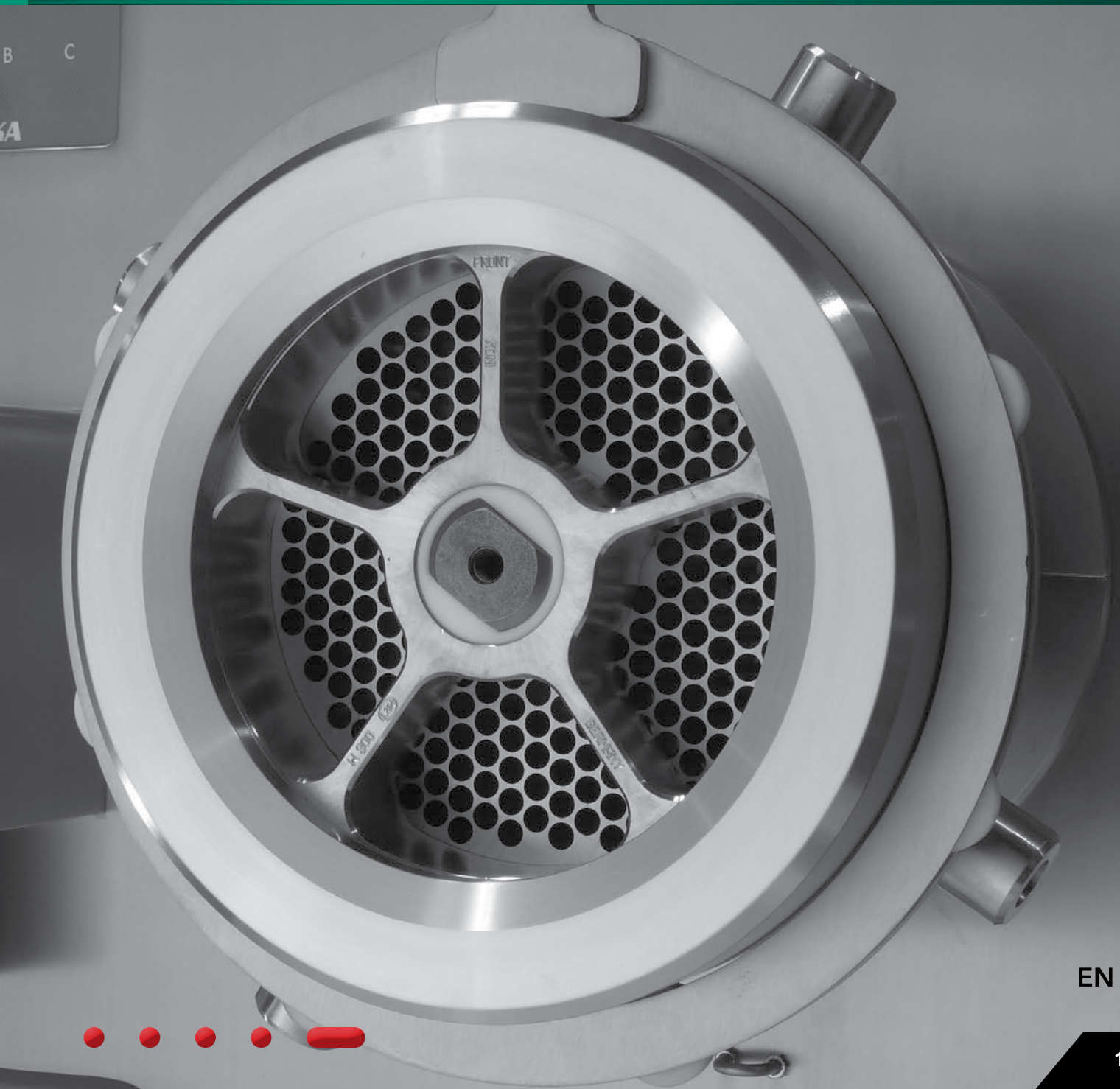
# INDUSTRIAL GRINDER

EXCELLENT CUT QUALITY AT HIGH HOURLY RATE

WW 160 / 200 / 280

WWB 200 / 300

WMW 1330 / 1680 / 2080 / 2012 / 2020



EN

## APPLICATIONS OF THE LASKA GRINDERS

For many decades, LASKA has been on the market with various types of grinders for trade and industry. The excellent cut and the robust, low-maintenance design has convinced LASKA customers, who use their grinders to make the following products:

- › **Scalded sausage**
- › **Raw sausage**
- › **Cooked sausage**
- › **Pies**
- › **Various fish products**
- › **Ground Meat and Hamburger**
- › **Cheese, butter**
- › **Fruit and vegetable products**
- › **Pet food**
- › **Sweets**

### STRENGTHS AND BENEFITS

LASKA grinders are appreciated for their excellent cut, the numerous safety measures, and the perfect cleaning concept. The high capacity ensures the processing of fresh meat within the shortest possible time. If provided with the appropriate equipment, the machine can also excellently process frozen meat.

### QUALITY PROVEN IN USE

Just like all other LASKA machines, the grinders are made of solid stainless materials. They meet strict hygienic requirements and are easy to clean. The design allows for the unusual operating conditions and provides easy and safe operating options as well as good access for servicing.



WWB 300



# LASKA

## OPERATION

- › Easy handling and user-friendly, robust operating elements
- › Easy and quick exchange of cutting set

# LASKA INDUSTRIAL GRINDER

## YOUR BENEFITS AT A GLANCE

## ELECTRICAL EQUIPMENT

- › Low current consumption due to state-of-the-art drive and control technology
- › Integral control cabinet ensures compact design as well as long service life of electrical components

## SERVICE AND MAINTENANCE

- › Minimum maintenance required due to field-tested machine concept
- › Easily accessible inspection doors
- › Worldwide service network and competent advice on all continents





### HYGIENE AND SAFETY

- › Cleaning ducts provided with special sealings to ensure perfectly hygienic cleaning
- › Base plate prevents soiling of the machine interior
- › Polished surfaces for highest possible hygienic standard
- › Clearly arranged control system and high operating safety
- › Safety features for optimum working safety

### DESIGN

- › Compact and space-saving design with integral control cabinet
- › Long service life
- › Low operating noise
- › Low wear of cutting set minimizes costs
- › Attractive and elegant design

### PRODUCTION

- › Fresh meat, frozen meat, desinewing or defrosting cutting set as required for the product
- › High hourly output
- › Gentle and continuous feeding of material to be cut
- › Low heating of material to be cut
- › Excellent cut quality
- › Perfect self-unloading down to the cutting set
- › Hydraulic worm ejector



# MACHINE TYPES

## THE VERSATILE LASKA PRODUCT RANGE



### FROZEN MEAT GRINDERS SuperGrinder WWB 200 / WWB 300

- › Holeplate diameters: 200 and/or 300 mm
- › Version with two worms arranged at an angle of 90°: gentle operation, low heating, and high hourly rate
- › Built-in control box - can be swivelled out for maintenance
- › Speed of feed worm is changed automatically and infinitely depending on the material to be cut, temperature, and holeplate



### APPLICATION OF FROZEN MEAT GRINDERS SuperGrinder

- › Processing of several blocks of frozen meat simultaneously, but also fresh meat
- › -18 °C frozen meat blocks up to 3 mm holeplate in one process
- › Automatic positioning of the feed worm for comfortable installation and dismantling
- › Hydraulic worm ejector



### ANGLE GRINDERS WW 160 / WW 200 / WW 280

- › Holeplate diameters: 160, 200 and/or 280 mm
- › Version with two worms arranged at an angle of 90°: gentle operation, low heating, and high hourly rate



### APPLICATION OF ANGLE GRINDERS

- › Processing of fresh meat and pre-chopped frozen meat
- › High-volume filling hopper
- › Feed worm can be drawn out laterally for easy cleaning
- › Hydraulic worm ejector



### ANGLE MIXER-GRINDERS

**WMW 1330 / WMW 1680 / WMW 2080 /  
WMW 2012 / WMW 2020**

- › Holeplate diameters: 130, 160 and/or 200 mm
- › Angle structure: feed worm over the entire length of the mixing hopper
- › During mixing, the feed worm rotates backwards, thus supporting mixing

### APPLICATION OF ANGLE MIXER-GRINDERS

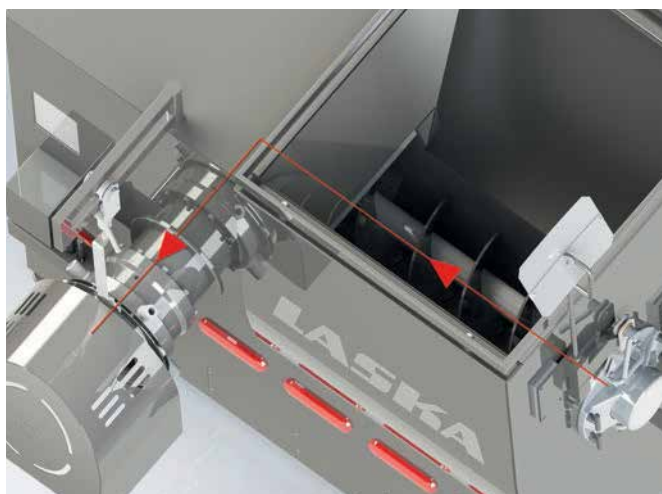
- › For mixing and mincing in one process
- › Mixing hopper with 2 intermeshing paddle mixing shafts for quick and even mixing
- › Direct unloading of mixing hopper (option)





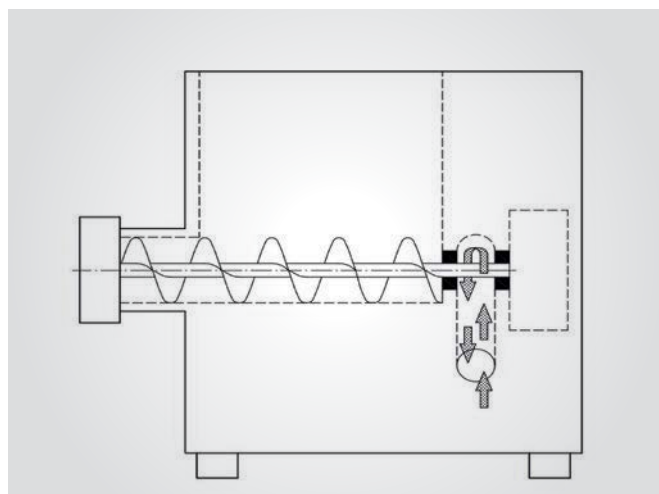


# EQUIPMENT OF OUR GRINDERS



## ANGLE STRUCTURE:

- › Material is gently taken by the feed worm and conveyed continuously to the working worm
- › High hourly outputs
- › Gentle treatment of the material to be processed
- › Robust and quiet
- › Low heating of material to be cut



## HYGIENE

- › Double sealing between product and drive areas
- › Product areas in the worm housing are reliably protected against the penetration of bearing lubricants and/or gear oils
- › Drive areas are reliably protected against the penetration of product residues



## HYDRAULIC WORM EJECTOR

not for WMW 1330

- › The worm with the cutting set is ejected at the push of a button
- › Easy cleaning of the worm including the cutting set



## COMPLETE UNLOADING

- › Perfect self-unloading in case of product changeover and/or at the end of production due to the special geometry of the worm housing and worm
- › Facilitates cleaning of the machine
- › Maximum utilization of raw materials

## EQUIPMENT OF OUR GRINDERS



### SOLID CONSTRUCTION

- › Solid, self-supporting construction
- › No joints, stainless, highly polished
- › Quick and easy cleaning
- › Long service life
- › For quiet operation



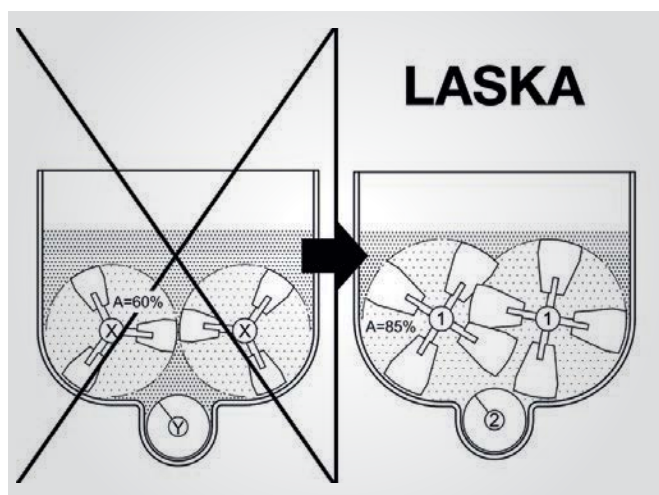
### GENEROUS MAINTENANCE ACCESS

- › Perfect access for all maintenance and servicing work
- › Quick and easy maintenance



### SPEED OPTIMIZATION FOR FROZEN MEAT GRINDERS

- › The speed of the feed worm is changed automatically and infinitely depending on the material temperature and holeplate bore
- › Ensures a high hourly output
- › Prevents overloading of the drives



### INTERMESHING PADDLE MIXING SHAFTS

only for WMW

- › Large effective area of the mixing shafts in relation to the effective mixing hopper volume
- › Short unloading time (compared with mixing machines with mixing shafts arranged side by side, see schematic) due to especially large unloading flap

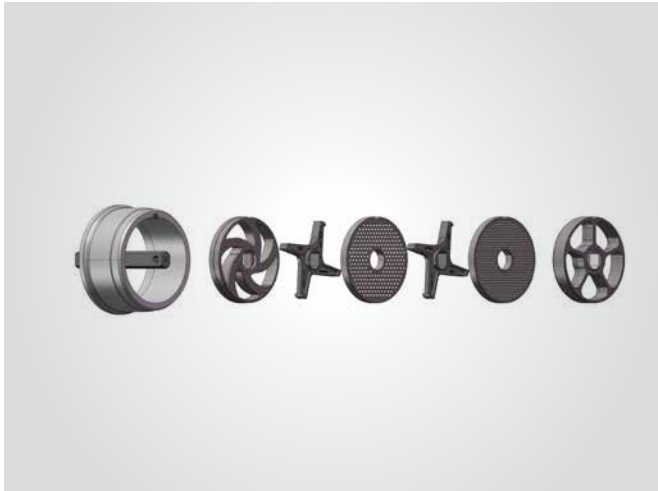






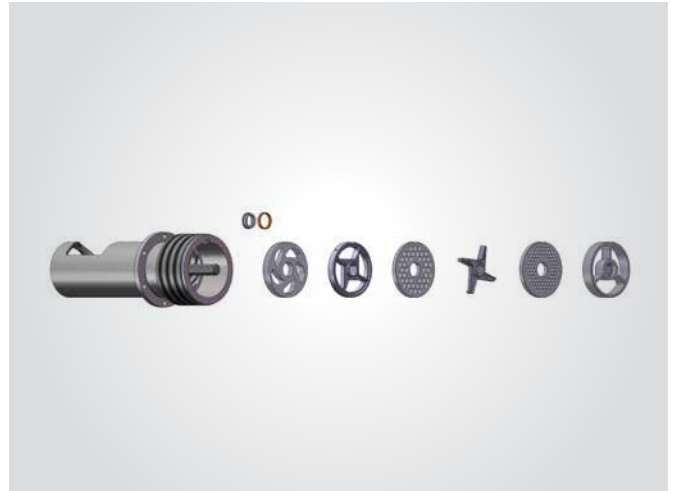
# CUTTING TOOLS

THE OPTIMUM CUTTING SET FOR THE CUSTOMER'S REQUIREMENTS



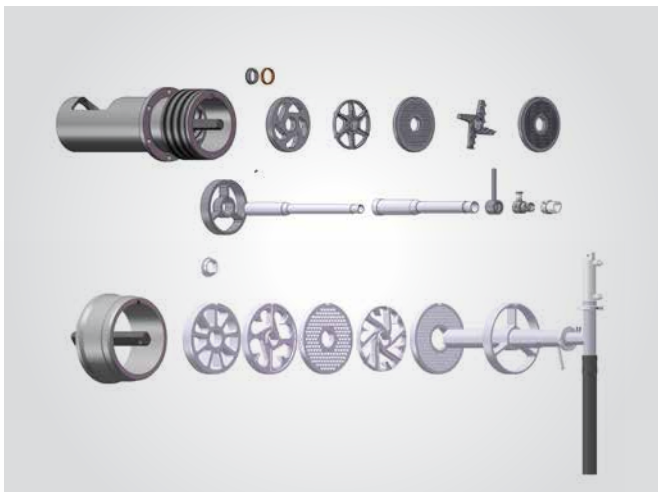
## FRESH MEAT CUTTING SET

- › For processing fresh meat of a temperature of up to -4 °C
- › 5-part cutting set (pre-cutting plate, knife, holeplate 13 mm, knife, holeplate 8 mm, 5 mm and/or 3 mm)
- › Use of 3-part set also possible (pre-cutting plate, knife, holeplate)



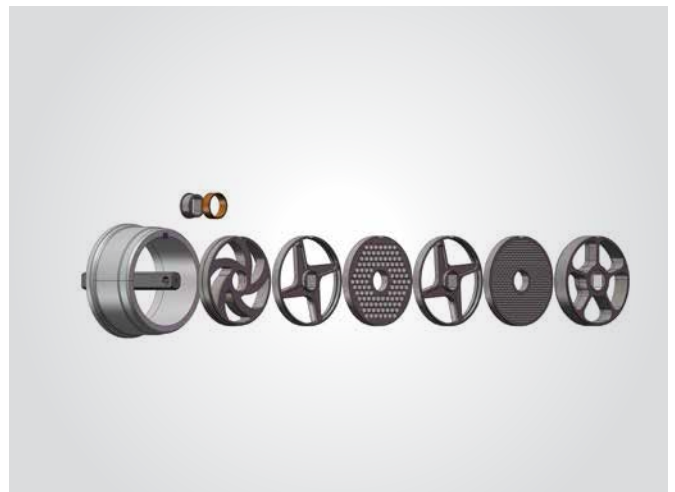
## DEFROST CUTTING SET

- › For processing slightly frozen meat of a temperature of up to -10 °C
- › 5-part cutting set (pre-cutting plate, spacer ring knife, holeplate 20 mm, knife, holeplate 13 mm, 8 mm and 5 mm)
- › Use of 3-part set also possible (pre-cutting plate, knife, holeplate)



## DESINEWING CUTTING SETS

- › Pneumatic (upper image) or manual (lower image)
- › 5-part cutting set (pre-cutting plate, ring knife, holeplate 8 mm, desinewing knife, holeplate 2.5 mm) plus cross bracing with discharge pipe and control valve
- › For sorting out sinews and hard components of the meat to be processed
- › Quality class of the meat is increased substantially

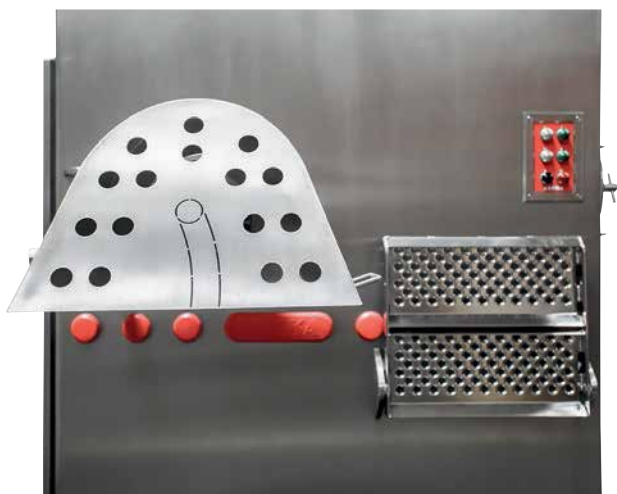


## FROZEN MEAT CUTTING SET

- › For processing frozen meat
- › For coarse grain size
- › 5-part cutting set (pre-cutting plate, knife, holeplate 13 mm, knife, holeplate 8 mm, 5 mm and/or 3 mm)
- › Use of 3-part set also possible (pre-cutting plate, knife, holeplate)



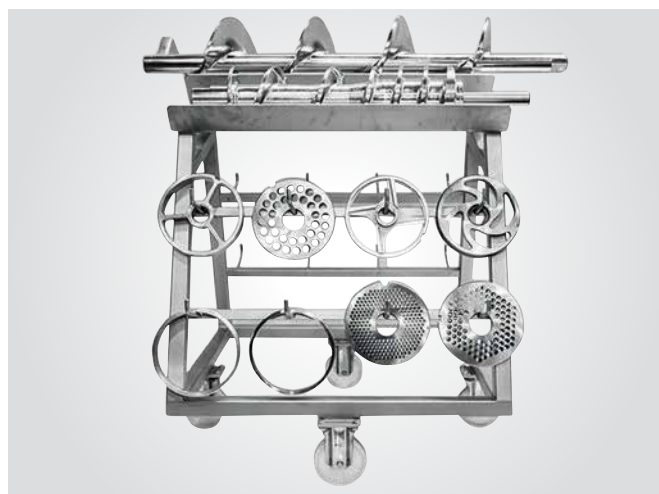
## OPTIONS FOR YOUR LASKA GRINDER



### SAFETY COVER FOR CUTTING SET

required for CE marking

- › Hinged and electrically interlocked
- › Machine can be switched on only if safety cover is closed



### SAFETY SWITCHING RAIL

required for CE marking

- › Safeguard for hopper
- › Machine stops immediately as soon as the switching rail is actuated



### CLEANING TROLLEY

required for CE marking

- › For working and feed worm, cutting sets and cap nut
- › Worms can be drawn out of the machine direct onto the trolley
- › For cleaning and storage
- › Hygienic and space-saving



### IDLE CUT-OFF MECHANISM

- › Automatic disconnection of the machine in case of running idle
- › Prevents cutting set from running hot, thus going easy on it





#### HYDRAULIC LOADING HOIST FOR 200 LITRE STANDARD TRANSPORT TROLLEY

- › Stainless, hydraulic
- › Easy to operate
- › Robust, low-maintenance, and durable due to hydraulic drive



#### INCLINED OR ANGLED BELT CONVEYOR

- › Modular plastic belt
- › Side guides on both sides of the belt, foldable for cleaning
- › Incl. drip tray and collection pan
- › Frame height adjustable +/- 75 mm with 4 lockable castors



#### ENLARGED GRINDER HOPPER WITH MIXING SYSTEM

only WW

- › Paddle mixing shaft or Z-mixing arms
- › Machine with enlarged hopper
- › For mixing in of ingredients and/or for salting
- › Gentle treatment of goods to be mixed (interval switching possible)
- › Prevents bridging in the mincing hopper



#### Z-SHAPED MIXING ARMS

only WMW

- › Ideal form for tough products that are to be kneaded
- › Perfect for mixing in of fillings in the sausage meat as well as for fluid products
- › Ideal for frequent product changes
- › Especially easy to clean
- › Complete unloading of- non-sticking material

# OPTIONS

## FOR YOUR LASKA GRINDER



### CO<sup>2</sup> OR NITROGEN (N<sub>2</sub>) REFRIGERATION

only for WMW

- › Via cover or bottom nozzles for various applications
- › Automatic temperature control
- › Stainless mixing hopper cover, hydraulic or pneumatic
- › Suction flange



### DIRECT UNLOADING OF MIXING HOPPER

only for WMW

- › After mixing, the mixed material can be unloaded from the mixing hopper direct into a standard transport trolley
- › Feed worm runs backwards



### AUTOMATIC MIXING CONTROL MA 1, MA 20, MAC 20

only for WMW

- › Freely programmable automatic work sequence
- › Up to 20 programmes depending on customer requirement
- › Presetting of speed and time of mixing shaft rotating direction (forward, reverse, mixing pause)
- › Infinitely variable speed as an option
- › Programme-controlled automatic mixing controls options



### WATER DOSING

only for WMW

- › Automatic addition of freely selectable amount of water
- › Can be preselected and called during production at the push of a button
- › Other liquids than water up to +90 °C can be added







## THAT'S WHAT OUR CUSTOMERS SAY



**PERUTNINA PTUJ**  
SLOVENIA

"Food industry is technologically a complex and very demanding industrial branch. Thereof we are taking into account and giving a large importance to the reliability of our partners in the implementation of technological equipment. LASKA is in this regard a constant. We are cooperating with LASKA since 1989 and have with its help built our food concern.

From the very first cutting machine forward, the decision on modernization and implementation of our technological lines has been clear. We will be choosing LASKA. Reliability, high quality, and additional value on the side of our customers are just a few very important reasons for our choice."

**MR. GLASER**  
CHIEF EXECUTIVE OFFICER



**LANDENA KG.**  
AUSTRIA

"Being our long-term supplier, LASKA has become a very important partner assisting us in some production areas. In case of the latest projects the decisive factors were quality and the reliability of the production process, as well as the price-performance ratio.

Moreover, we set great store by being close to our suppliers, since it helps us to avoid long and costly waiting times in the fields of service and spare parts management."

**MR. SCHACHNER**  
TECHNICAL DIRECTOR



**DÖLLINGHAREICO GMBH & CO. KG**  
GERMANY

"Some years ago we had to make a major investment in grinders.

Why we opted for Laska at that time? Because the grinders have an excellent cut and are able to process both frozen meat blocks and fresh meat, and because of the ideal infinite adjustability of the feed worm to the work worm. Moreover, the machines are robust, and the spare parts supply works smoothly."

# TECHNICAL DATA

## PERFORMANCE LIST

PERFORMANCE CHARACTERISTICS							
TYPE			WW 160	WW 200	WW 280	WWB 200	WWB 300
Holeplate Ø	mm		160	200	280	200	300
Hopper volume standard	ltr		370	370	430	550	800
Motor rating depending on version	kw	- 1 - 2 - G 1 - G 2	22 34 30 38	30 38 45 55	90 120	55	132
Nominal output depending on version	kw	- 1 - 2 - G 1 - G 2	25 37 33 41	33 41 48 58	97 127	66	155
Fuse, slow-blow depending on version	A	- 1 - 2 - G 1 - G 2	63 80 80 100	80 100 125 160	200 250	160	315
Feed pipe cross section depending on version	mm² CU	- 1 - 2 - G 1 - G 2	16 25 25 35	25 35 50 70	95 120	70	185
Speed optimization			(-1G & -2G)	(-1G & -2G)	(-1G & -2G)	•	•
Safety cover¹			o (CE)	o (CE)	o (CE)	o (CE)	o (CE)
Safety switching strip			o (CE)	o (CE)	o (CE)	o (CE)	o (CE)
Cleaning trolley			o (CE)	o (CE)	o (CE)	o (CE)	o (CE)
Operation			push button	push button	push button	push button	push button
Hopper and/or mixing hopper mirror			•	•	•	•	•
Infinitely variable feed worm			o (-1 & -2)	o (-1 & -2)	—	—	—
Infinitely variable feed worm and working worm			o (-1 & -2)	o (-1 & -2)	—	—	—
Worm ejector			hydr.	hydr.	hydr.	hydr.	hydr.
Machine elevation			o	o	—	o	o
Idle cut-off mechanism			o	o	o	o	o
Starting reactor "soft start"			—	—	—	o	o
Desinewing device	pneum. or mech.		o	o	o	o	o
Enlarged hopper volume	ltr		—	—	—	approx. 1000	on request
Stirrer² + enl. hopper	ltr		o approx. 600	o approx. 600	—	—	—
Loading hoist			o	o	o	o	o
Conveyor belt charging			o	o	o	o	o





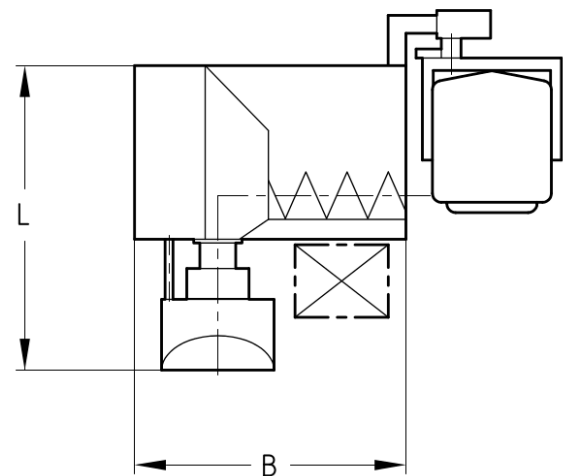
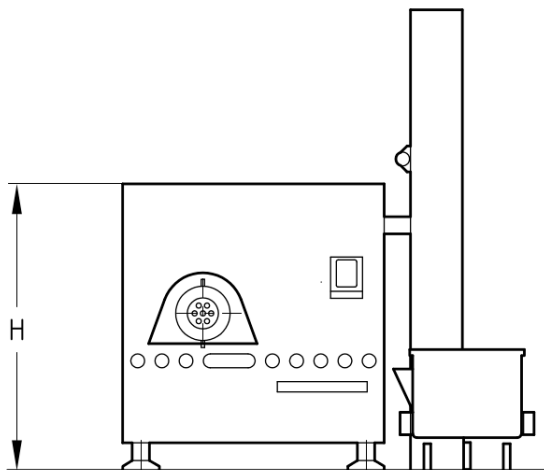
#### DIMENSIONS AND WEIGHT

TYPE	WW 160	WW 200	WW 280	WWB 200	WWB 300
Length mm   <b>L</b>	1.650	1.650	1.800	2.300	2.560
Width mm   <b>B</b>	1.760	1.850	2.310	1.800	2.270
Height mm   <b>H</b>	1.710	1.710	1.810	1.950	2.130
Height mm   <b>G</b>	2.700	2.700	3.100	2.900	3.150
Weight kg	1.560	1.650	2.700	2.900	5.000

#### SEAWORTHY CASE\*

Length mm   <b>L</b>	2.220	2.220	2.500	2.580	2.830
Width mm   <b>B</b>	1.900	1.900	2.000	2.200	2.200
Height mm   <b>H</b>	2.100	2.100	2.000	2.200	2.400
Weight kg	330	330	370	400	420

\* depending on type of transport



#### CAPTION

•	standard	- 1	1-speed grinder	1	for cutting set
o	option	- 2	2-speed grinder	2	paddle or Z-arm
—	not available	- G 1	1-speed grinder, frozen meat version		
		- G 2	2-speed grinder, frozen meat version		

Data and dimensions without engagement - subject to change.

# TECHNICAL DATA

## PERFORMANCE LIST

PERFORMANCE CHARACTERISTICS							
TYPE			WMW 1330	WMW 1680	WMW 2080	WMW 2012	WMW 2020
Holeplate Ø	mm		130	160	200	200	200
Hopper volume standard	ltr		380	800	800	1200	2000
Motor rating (grinder/mixing shafts)	kw	- 1 - 2	11 / 4 15 / 4	22 / 11 34 / 11	30 / 11 38 / 11	30 / 15 38 / 15	30 / 22 38 / 22
Nominal output	kw	- 1 - 2	17 21	36 48	44 52	48 59	56 63
Fuse, slow-blow	A	- 1 - 2	50 50	80 100	100 125	125 125	125 160
Feed pipe cross section	mm² CU	- 1 - 2	10 10	25 35	35 50	50 50	50 70
Safety cover²			o (CE)	o (CE)	o (CE)	o (CE)	o (CE)
Safety switching strip			o (CE)	o (CE)	o (CE)	o (CE)	o (CE)
Cleaning trolley			o (CE)	o (CE)	o (CE)	o (CE)	o (CE)
Operation			PLC¹	PLC¹	PLC¹	PLC¹	PLC¹
Hopper and/or mixing hopper mirror			•	•	•	•	•
Z-mixing arms³			o	o	o	o	o
Infinitely variable feed worm			o	o	o	o	o
Idle cut-off mechanism			–	o	o	o	o
Infinitely variable mixing shaft speed			o	o	o	o	o
Temperature display			o	o	o	o	o
MA 1 automatic mixing control⁴			o	o	o	o	o
MA 20 automatic mixing control⁴			o	o	o	o	o
MAC 20 programme-controlled automatic mixing⁵			o	o	o	o	o
Weighing system			–	o	o	o	o
Direct unloading⁶			o	o	o	o	o
Desinewing device	pneum. or mech.		o	o	o	o	o
Loading hoist			o	o	o	o	o
CO² or nitrogen refrigeration			o	o	o	o	o
Programmed water dosing			o	o	o	o	o



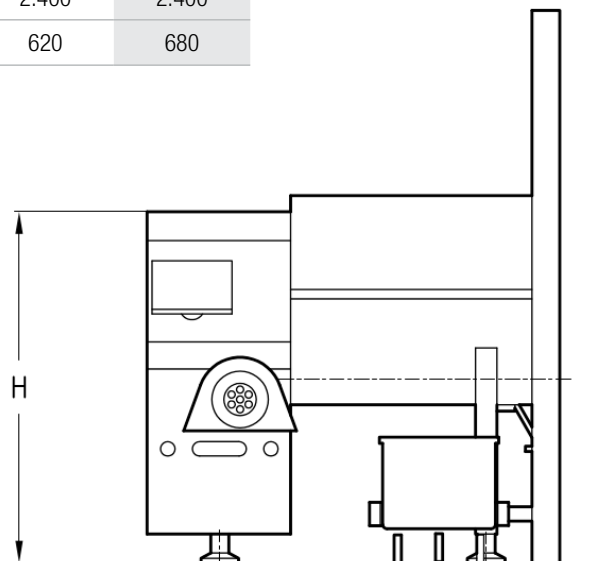
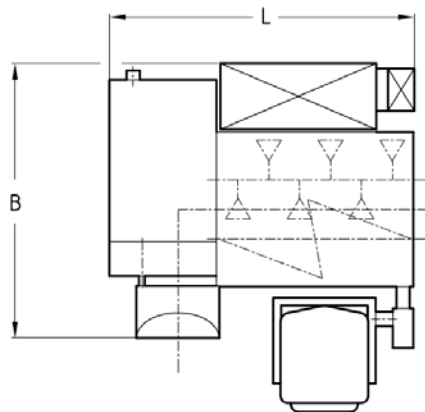
#### DIMENSIONS AND WEIGHT

TYPE	WMW 1330	WMW 1680	WMW 2080	WMW 2012	WMW 2020
Length mm   <b>L</b>	1.570	2.150	2.150	2.390	2.900
Width mm   <b>B</b>	1.260	2.170	2.260	2.460	2.460
Height mm   <b>H</b>	1.930	1.950	1.950	2.100	2.100
Weight kg	1.350	2.550	2.700	2.800	3.300

#### SEAWORTHY CASE\*

Length mm   <b>L</b>	2.200	2.900	2.900	3.260	3.830
Width mm   <b>B</b>	2.030	2.330	2.330	2.300	2.300
Height mm   <b>H</b>	2.200	2.270	2.270	2.400	2.400
Weight kg	400	500	500	620	680

\* depending on type of transport



#### CAPTION

•	standard	- 1	1-speed grinder	1	micro process control
o	option	- 2	2-speed grinder	2	for cutting set
—	not available			3	instead of paddle arms
				4	forward/reverse/pause/total time
				5	forward/reverse/pause/total time and additional options
				6	via feed worm

Data and dimensions without engagement - subject to change.





# MACHINES FOR TRADE

THE KEY TO SUCCESS FOR PREMIUM PRODUCTS

W 130 / WW 130

ME 130 N / ME 250 N

K 65 / K 130 / KCU 200 / K 60 VAC / K 130 VAC



EN

## APPLICATIONS

### THE TRADE MACHINES

LASKA trade machines are suitable for smaller production quantities to medium batch sizes. They are also the equipment of choice when new products are to be developed. The range of products includes all important machine groups and applications: cutting, mixing, mincing, emulsifying. Customers use the trade machines to produce:

- › **Boiled sausage**
- › **Raw sausage**
- › **Cooked sausage**
- › **Pies**
- › **Fish**
- › **Soups and sauces**
- › **Cheese and butter**
- › **Fruit and vegetable products**
- › **Pet food**
- › **Sweets**

#### STRENGTHS AND BENEFITS

LASKA trade machines are appreciated for their various features and the special challenges they are expected to meet. The most important aspect is the easy and reliable processing of your premium products.

#### QUALITY PROVEN IN USE

Just like all other LASKA machines, the trade machines are made of solid stainless materials. They meet strict hygienic requirements and are easy to clean. The design allows for the unusual operating conditions and provides easy and safe operations as well as good access for servicing.







# LASKA GRINDERS

## YOUR BENEFITS AT A GLANCE

### OPERATION

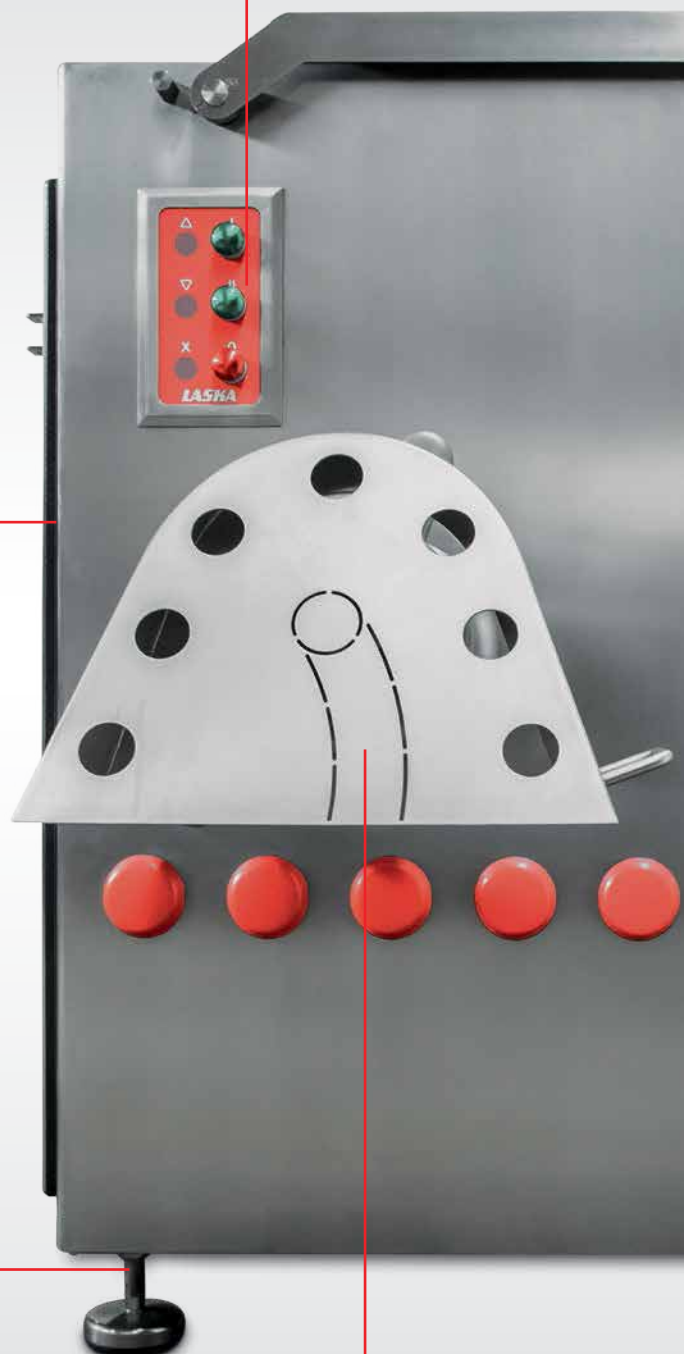
- › Easy handling and user-friendly, robust operating elements
- › Easy and quick exchange of cutting set
- › Ergonomic operation

### ELECTRICAL EQUIPMENT

- › Low current consumption due to state-of-the-art drive and control technology
- › Integrated control box ensures compact design as well as long service life of electrical components

### SERVICE AND MAINTENANCE

- › Minimum maintenance required due to proven, field-tested machine concept
- › Easily accessible inspection doors
- › Worldwide service network and competent support on all continents





## HYGIENE AND SAFETY

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- › Polished surfaces for highest possible hygienic standards
- › Closed base plate prevents contamination of the machine interior
- › Cleaning ducts provided with special sealing to ensure perfectly hygienic cleaning (applies only to WW 130)
- › Clearly arranged control system and high operating safety
- › Safety equipment for optimum working safety

## DESIGN

---

- › Compact and space-saving design with integrated control box
- › Long service life
- › Low operating noise
- › Low wear of cutting set minimizes costs
- › Attractive and elegant design

## PRODUCTION

---

- › High number of various cutting sets depending on product requirements
- › High hourly rate
- › Gentle and continuous material loading
- › Low heating of material to be cut
- › Excellent cut
- › Perfect self-unloading down to the cutting set



# LASKA GRINDERS - OVERVIEW



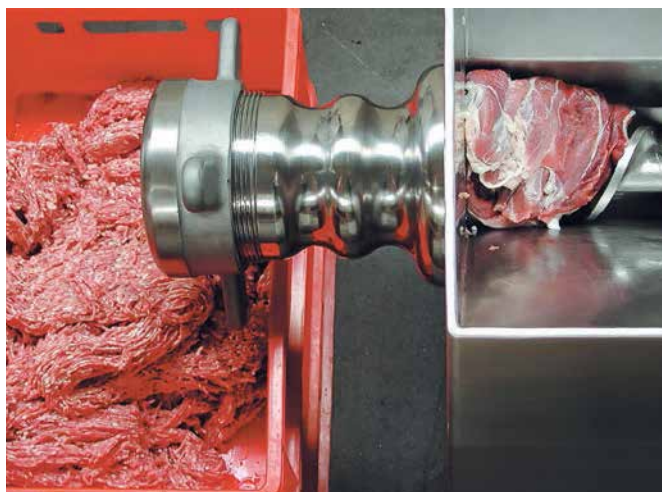
**FILLING GRINDER**  
**W 130**

- › Hopper volume 42 litres
- › Working worm with worm pull-out device
- › Easy loading



**ANGLE GRINDER**  
**WW 130**

- › Hopper volume 175 and/or 295 litres
- › LASKA angle structure: feed worm conveys material to be cut gently and evenly to the working worm
- › Easy loading



**APPLICATION**  
**W 130**

- › Production of all types of premium quality sausages
- › Clear clean cut, no crushing and smearing
- › Low heating of material to be cut



**APPLICATION**  
**WW 130**

- › Production of all types of premium quality sausages
- › Clear clean cut, no crushing and smearing
- › Low heating of material to be cut
- › Very quick and complete unloading of the loadinghopper due to angle structure



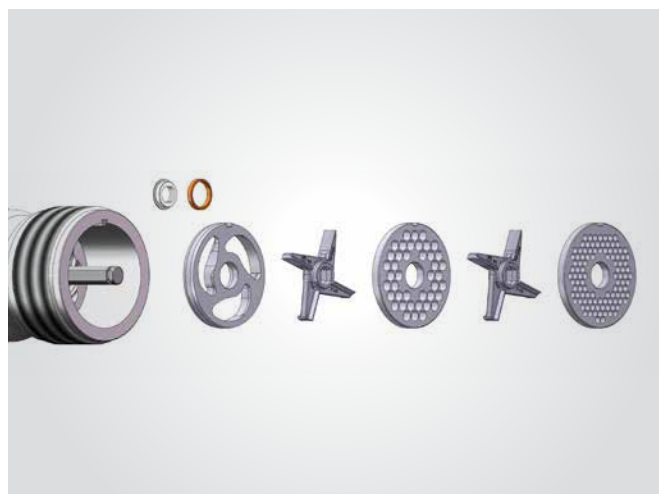
# EQUIPMENT

## FOR YOUR LASKA GRINDER



### EASY LOADING

- › Large loading hopper
- › Ergonomic loading height



### CUTTING TOOLS

- › Fresh meat cutting set: for processing fresh meat (up to -4 °C)
- › Desinewing cutting set: for eliminating scraggy and hard parts
- › Defrost cutting set: for processing slightly frozen meat (up to -10°C)
- › Frozen meat cutting set: for processing frozen meat and for coarse granulation



### COMPLETE UNLOADING

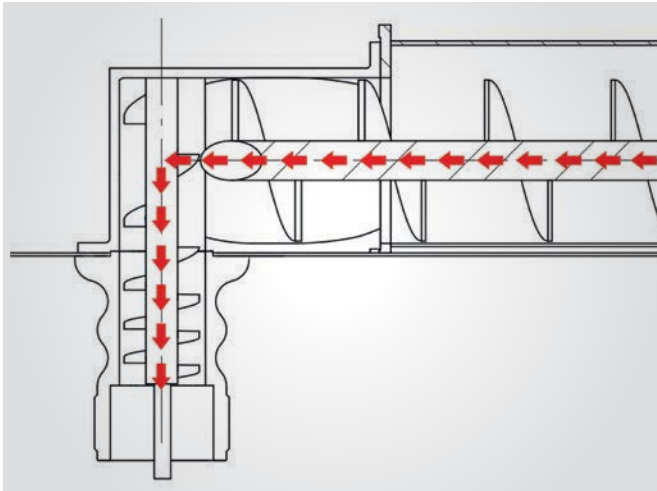
- › Perfect self-unloading in case of product changeover and/or at the end of production due to the special geometry of the worm housing and worm
- › Facilitates cleaning of the machine
- › Maximum utilization of raw materials



### ELECTRICAL EQUIPMENT

- › Low current consumption due to state-of-the-art drive and control technology
- › Easy to operate due to clearly arranged control system
- › Robust special driving motor with motor protection device
- › Easy and clearly arranged relay control for high operational reliability

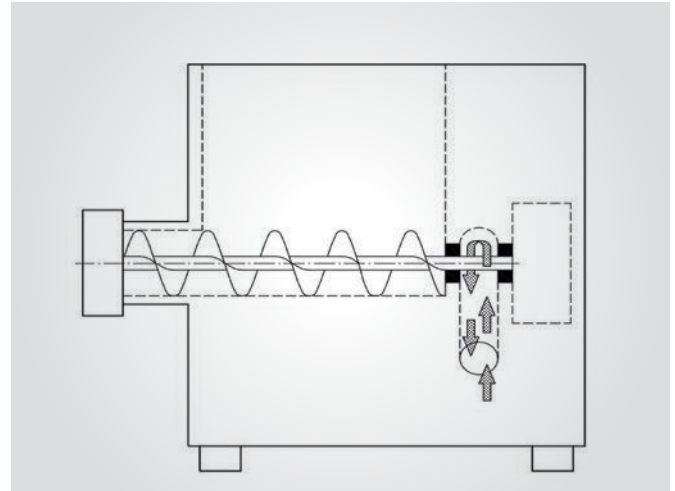




### ANGLE STRUCTURE

only WW 130

- › Material is gently taken by the feed worm and conveyed continuously to the working worm
- › High hourly rates
- › Gentle treatment of the material to be processed
- › Low heating of material to be cut
- › Robust and quiet



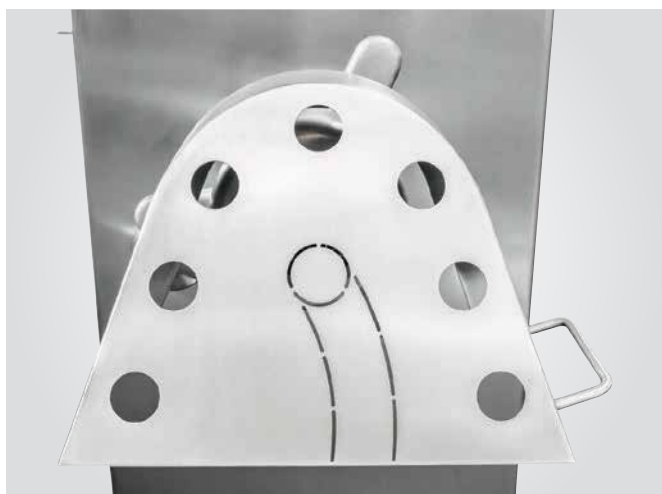
### HYGIENE

only WW 130

- › Double sealing between product and drive areas
- › Product areas are reliably protected against the penetration of bearing lubricants and/or gear oils
- › Drive areas are reliably protected against the penetration of product residues



## OPTIONS FOR YOUR LASKA GRINDER



### SAFETY COVER FOR CUTTING SET

required for CE marking

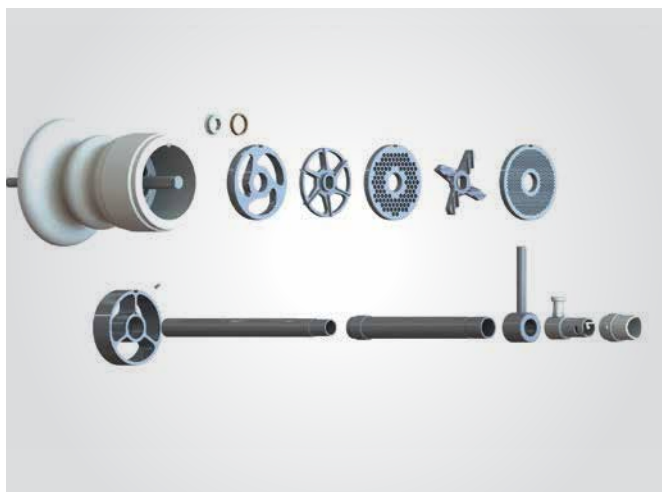
- › Hinged and electrically interlocked
- › Machine can be switched on only if safety cover is closed



### ENLARGED GRINDER HOPPER WITH MIXING SYSTEM

only WW 130

- › Paddle mixing shaft or Z-mixing arms
- › Machine with enlarged hopper
- › For mixing in of ingredients and/or for salting
- › Gentle treatment of mixture (interval switching possible)
- › Prevents bridging in the mincing hopper



### DESINEWING FACILITY FOR FRESH MEAT

- › Automatic elimination of hard parts and unwanted materials such as sinews or gristles from the product to be cut
- › Desinewing facility with desinewing cutting set
- › With adjustable discharge pipe for the desired degree of separation



### HYDRAULIC LOADING FOR 200 LITRE STANDARD TRANSPORT TROLLEY

only WW 130 with machine elevation

- › Including enlarged hopper with a volume of 295 litres
- › Easy to operate
- › Stainless, hydraulic
- › Robust, low-maintenance, and durable due to hydraulic drive





## THE LASKA CUTTER

### YOUR BENEFITS AT A GLANCE

#### HYGIENE AND SAFETY

- › Polished surfaces for highest possible hygienic standards
- › Closed base plate prevents contamination of the machine interior
- › Knife hood swings wide open, providing good accessibility for knife change and cleaning
- › Clearly arranged control system and high operating safety
- › Safety equipment for optimum working safety

#### PRODUCTION

- › Excellent cut
- › Infinitely variable knife shaft speed
- › High hourly rate

#### SERVICE AND MAINTENANCE

- › Easily exchangeable knives
- › Low-wear special sealing of the knife shaft
- › Minimum maintenance required due to proven, field-tested machine concept
- › Easily accessible inspection doors
- › Worldwide service network and competent advice on all continents



## OPERATION

- › Easy handling and user-friendly, robust operating elements
- › Control panel with membrane keyboard and plain text display - with touch screen on request
- › Noise protection cover of acrylic glass - or stainless steel on request
- › 4 infinitely variable and freely selectable speeds for perfect product adaptation
- › Perfectly accessible knife head due to knife hood swinging open wide
- › Mixing cycle forward and reverse



## ELECTRICAL EQUIPMENT

- › Low current consumption due to state-of-the-art drive and control technology
- › Programmable logic controller with microprocessors
- › Low-maintenance three-phase AC motors
- › Control box integrated in the machine housing

## DESIGN

- › Compact and space-saving design with integral control box as an option
- › No bending stress on knife shaft, since the bearing is located exactly within the axis of the belt force
- › Cutter bowl with reliable true-running accuracy
- › Long service life
- › Low operating noise
- › Attractive and elegant design

# LASKA CUTTERS - OVERVIEW



## CUTTERS

### K 65 / K 130

- › Bowl volume 65 and/or 130 litres
- › Low-maintenance three-phase AC motor, either 22 kW or 60 kW
- › Microprocessor control with automatic error diagnosis - for increased operational reliability and easier maintenance
- › Knife head units quick and easy to insert



## VACUUM CUTTERS

### K 60 VAC / K 130 VAC

- › Bowl volume 60 and/or 130 litres
- › Low-maintenance three-phase AC motors, either 22 kW or 60 kW
- › Stainless vacuum cover, knife hood, pneumatic
- › Vacuum version minimizes entrapped air



## APPLICATION

### K 65 / K 130

- › Processing of both fresh meat and frozen meat
- › Processing straight from the chunk, without pre-grinding
- › Excellent cut and even granulation
- › Extreme degree of fineness with maximum protein yield



## APPLICATION

### K 60 VAC / K 130 VAC

- › Intensive, even reddening
- › Improved quality and longer shelf life
- › Attractive appearance and improved taste
- › Vacuum lid with feed window permitting observation of cutting procedure





### COOLCUTTER KCU 200

- › Bowl volume 200 litres
- › Low-maintenance 90 kW three-phase AC motor
- › High hourly rate
- › Microprocessor control with automatic error diagnosis - for increased operational reliability and easier maintenance
- › Knife head units quick and easy to insert



### APPLICATION KCU 200

- › Processing of both fresh meat and frozen meat
- › Processing of large chunks without pre-grinding
- › Excellent cut and even granulation
- › Extreme degree of fineness with maximum protein yield



## EQUIPMENT FOR YOUR LASKA CUTTER



### KNIFE SHAFT

- › Infinitely variable speed
- › 4 freely programmable fixed speeds
- › Special bearing technology and seals for highest speeds and high operating safety
- › Low-wear special seals
- › No bending stress on knife shaft
- › Long service life of bearings and seals



### KNIVES

- › Optimum knife shape depending on product requirements: universal knife FL (boiled, cooked and raw sausage), special knife FLT and/or FLTH (extra-fine emulsions and rind processing), special knife FLR (raw sausage)
- › Minimum distance between cutter bowl and knives
- › Unequalled edge-holding property and premium cut
- › Easy and quick knife change



### KNIFE HEAD

- › Knife head easy and quick to install
- › Optionally up to 6 knives to be inserted
- › Best access to knife head for knife exchange
- › Knife balancing device avoids imbalance and vibrations (K 130 and KCU 200)



### KNIFE HOOD

- › Solid double-jacket construction
- › Spring-borne sealing easy to dismantle for cleaning
- › Knife hood hydraulically operated (KCU 200)



### MIXING CYCLE

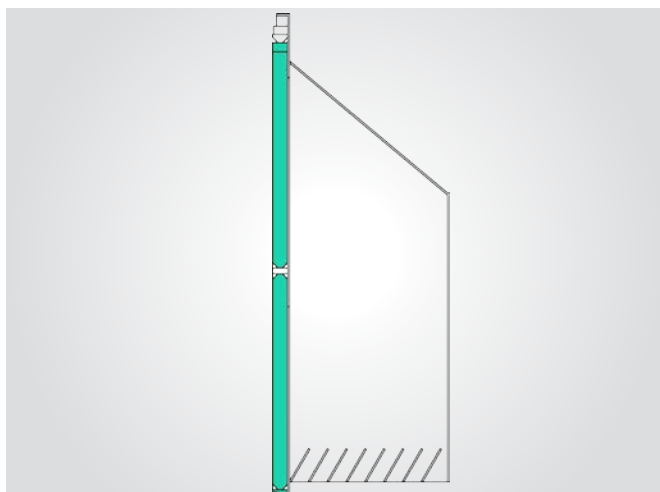
- › Gentle mixing of chunks or ingredients into the sausage meat
- › Infinitely variable forward and reverse
- › Optimum sausage meat ventilation
- › Maintaining the grain size and texture on unloading



### VACUUM VERSION

only K 60 and K 130

- › Time, duration, and degree of vacuum freely selectable as a function of the product and the operating mode
- › Entrapped air is minimized
- › Clear cut
- › Intensive, even reddening
- › Flavour is kept
- › Smaller volume of sausage meat means less casing required



### AIR FILTER SYSTEM

- › Integral filter mat in the machine lid for coarse filtering
- › No thermal short-circuit through specific routing of air flow in the machine
- › Interchangeable filter



### ELECTRONIC EQUIPMENT

- › Compact, hygienic design due to integral control box
- › Low current consumption due to optimized control and drive technology
- › Separate fan for dissipation of heat from machine interior
- › Permanent monitoring of voltage, current consumption, speeds, and temperatures



# OPTIONS

## FOR YOUR LASKA CUTTER



### SAUSAGE MEAT EJECTOR

- › Quick unloading of bowl
- › Hydraulic movement in and out at the push of a button (K 130 optional, KCU 200 standard)



### KNIFE BALANCING DEVICE

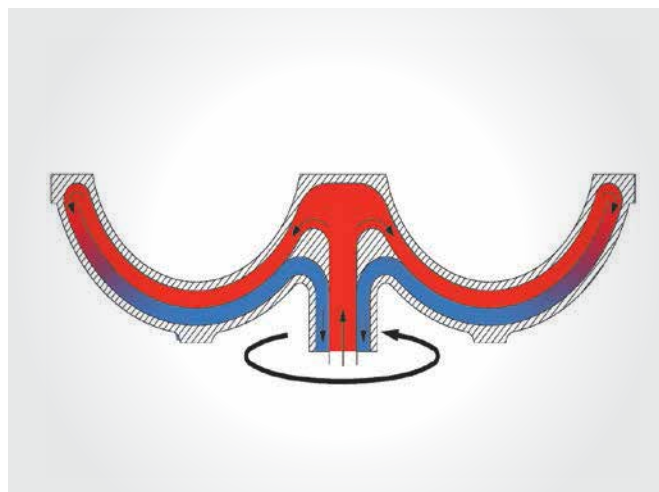
- › Easy balancing of knife head units
- › Avoids imbalance and vibrations



### LOADING FOR 200 LITRE STANDARD TRANSPORT TROLLEY

except for K 65

- › Easy to operate
- › Stainless, hydraulic
- › Robust, low-maintenance, and durable due to hydraulic drive

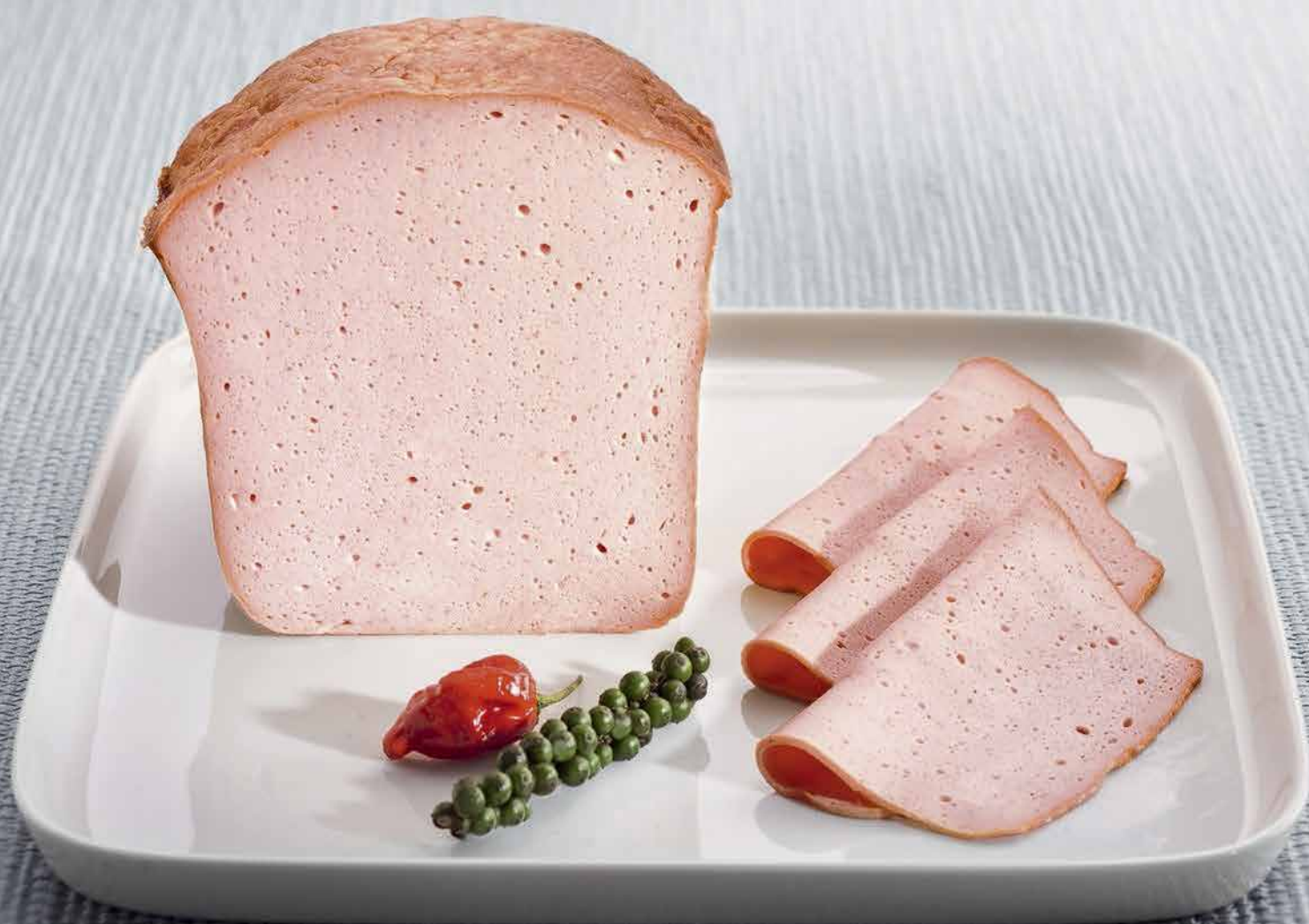


### COOKING FACILITY

deliverable only with vacuum version

- › Production of cooked sausage and pies in one process
- › Improved quality due to intense taste
- › No undesired watering
- › Short process times and optimum efficiency factor
- › Savings of personnel costs





# LASKA MIXERS

## YOUR BENEFITS AT A GLANCE

### PRODUCTION

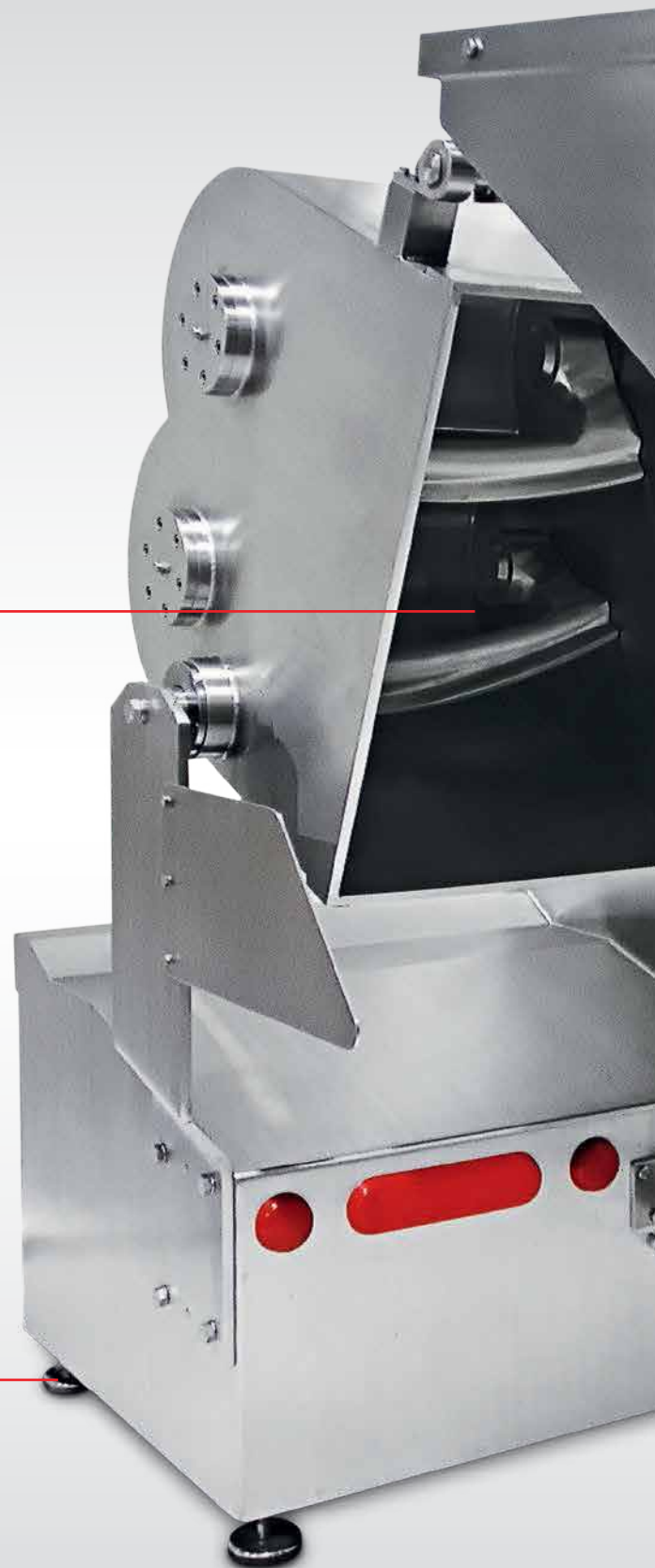
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- › Intermeshing paddle mixing shafts for largest possible operating range (including hopper corners)
- › Gentle mixing in, exact and quick distribution of the mixture and its ingredients
- › Ideal, even mixing at consistent quality also in the case of delicate mixtures which can be difficult to mix
- › No smearing caused by „overmixing“ of the mixture
- › Quick, complete, and gentle unloading of the mixture by tilting of the mixing hopper

### SERVICE AND MAINTENANCE

---

- › Minimum maintenance required due to proven field-tested machine concept
- › Easily accessible inspection doors
- › Worldwide service network and support on all continents





### HYGIENE AND SAFETY

- › Special double sealing system with cleaning ducts for perfectly hygienic cleaning
- › Polished surfaces for highest possible hygienic standard
- › Safety devices for optimum working safety

### OPERATION

- › Easy handling and user-friendly, robust operating elements
- › Automatic mixing to control speed, direction of rotation, and mixing time

### ELECTRICAL EQUIPMENT

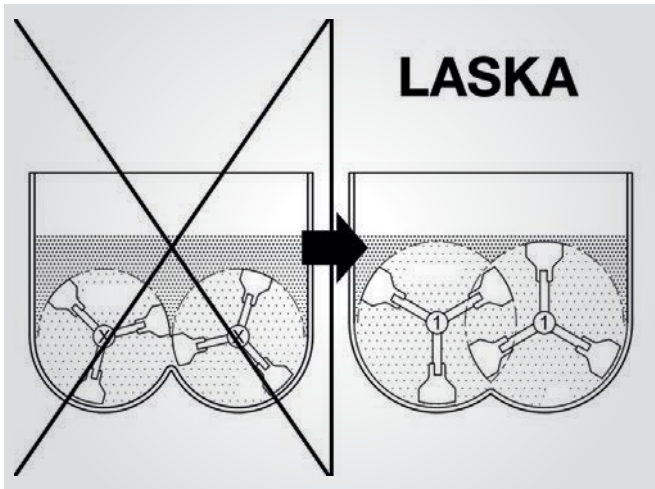
- › Low current consumption due to state-of-the-art drive and control technology
- › Infinitely variable mixing shaft speed (ME 130 N optional and/or ME 250 N standard)

### DESIGN

- › Compact, space-saving design
- › Long service life
- › Low operating noise
- › Attractive, elegant design

# EQUIPMENT

## FOR YOUR TILTABLE MIXER



### INTERMESHING PADDLE MIXING SHAFTS

- › Large effective area of the mixing shafts in relation to the effective mixing hopper volume



### UNLOADING

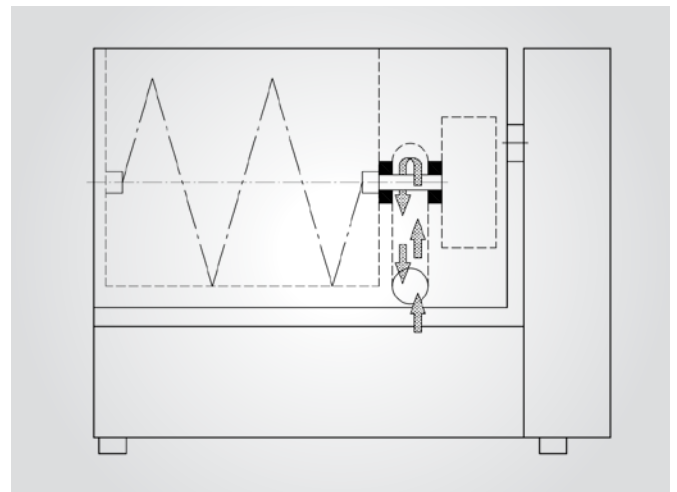
- › Short unloading time due to tilting of the mixing hopper (compared with mixers with lateral unloading flaps)
- › Excellent unloading of the mixture even in the case of very compact products
- › Therefore no overmixing of mixture on unloading



### INFINITELY VARIABLE SPEED OF MIXING SHAFTS

ME 130 N optional / ME 250 N standard

- › Particularly gentle mixing of the material
- › Perfect adaptation of mixing shaft speed to the respective mixture
- › Prevents overmixing of the mixture



### HYGIENE

- › Double sealing of mixing shafts between product and drive areas
- › Product area is reliably protected against the penetration of bearing lubricants and/or gear oils
- › Drive areas are reliably protected against the penetration of product residues
- › Cleaning ducts for perfectly hygienic cleaning





# OPTIONS

## FOR YOUR LASKA MIXER



### Z-SHAPED MIXING ARMS

- › Ideal form for tough products that are to be kneaded, e.g Kebab meat
- › Perfect for mixing of fillings into sausage meat as well as for fluid products
- › Ideal for frequent product changes
- › Especially easy to clean
- › Complete unloading of non-sticking material



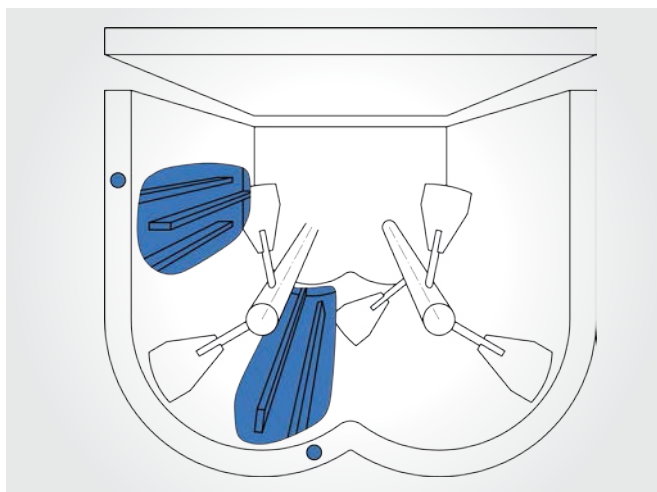
### CO<sub>2</sub> OR NITROGEN (N<sub>2</sub>) REFRIGERATION

- › Via cover or bottom nozzles for various applications
- › Automatic temperature control due to temperature sensor
- › Stainless mixing hopper lid
- › Suction flange



### VACUUM VERSION

- › Little air entrapped, therefore longer shelf life of products
- › For quality and taste improvement
- › For nice, flesh-coloured, and dense sausage meat
- › Intensive, even reddening
- › Fresh and attractive appearance



### COOKING AND/OR COOLING FACILITY VIA CLOSED STEAM OR COOLING CIRCUIT

only ME 250 N

- › Closed steam or cooling system due to double jacket of mixing hopper
- › Automatic temperature control
- › Electric control
- › Direct steam injection additionally possible



### **WATER DOSING**

- › Automatic addition of freely selectable amount of water
- › Can be preselected and called during production at the push of a button
- › Other liquids than water up to +90 °C can be added



### **HYDRAULIC LOADING HOIST FOR 200 LITRE STANDARD TRANSPORT TROLLEY**

only ME 250 N

- › Stainless, hydraulic
- › Easy to operate
- › Robust, low-maintenance, and durable due to hydraulic drive



ME 250







LASKA PRODUCES MACHINES FOR TRADE  
AND INDUSTRY MEETING HIGH PRODUCT  
STANDARDS AND INDIVIDUAL PROCESSING  
CONDITIONS

## TECHNICAL DATA

### PERFORMANCE LIST

PERFORMANCE CHARACTERISTICS OF GRINDERS			
TYPE		W 130	WW 130
Holeplate Ø	mm	130	130
Hopper volume standard	ltr	42	175
Motor rating	KW	7,5 11 <sup>3</sup>	- 1: 11 - 2: 12,5/15 - G: 15
Nominal output	KW	7,5 11 <sup>3</sup>	- 1: 26 - 2: 29 - G: 34
Fuse, slow-blow	A	25 35 <sup>3</sup>	- 1: 35 - 2: 50 - G: 50
Feeder cross section	mm <sup>2</sup> CU	4 6 <sup>3</sup>	- 1: 6 - 2: 10 - G: 10
Safety cover <sup>1</sup>		o (CE)	o (CE)
Cleaning trolley		—	o
Operation		push button	push button
Infinitely variable feed worm		—	o
Automatic speed optimization of the feed worm		—	o (G)
Infinitely variable feed worm and working worm		—	o
Worm ejector		—	o (mech.)
Machine elevation with enlarged hopper 295 l		—	o
Desinewing device	pneum. or mech	o	o
Stirrer <sup>2</sup> + enl. hopper	ltr	—	o
Loading hoist		—	o

CAPTION	
•	standard
o	option
—	not available
- 1	1-speed grinder
- 2	2-speed grinder
G	1-speed grinder, frozen meat version
1	for cutting set
2	paddle or Z-arm
3	reinforced version

Data and dimensions without engagement - subject to change.



#### DIMENSIONS AND WEIGHT

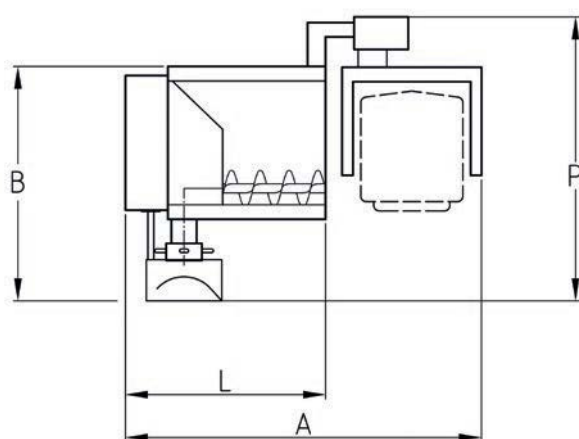
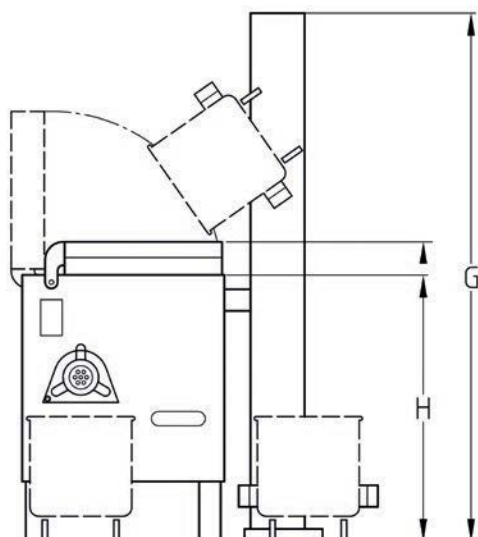
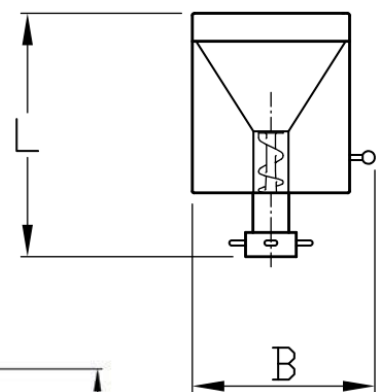
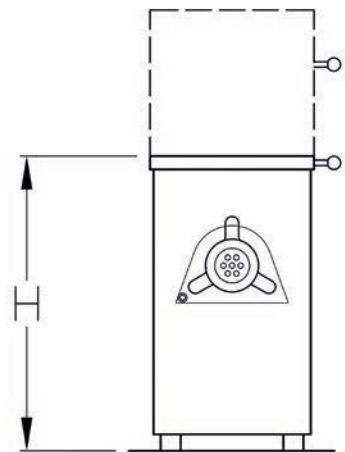
TYPE	W 130	WW 130		WW 130 <sup>1</sup>
Length mm   <b>L</b>	1220	1350	Länge A	2180
Width mm   <b>B</b>	770	1250	Breite P	1660
Height mm   <b>H</b>	1100	1260	Höhe G	2900
Height incl. lid mm	1650	2170		
Weight kg	300	780		850

#### SEAWORTHY CASE\*

Length mm   <b>L</b>	1500	1800		1800
Width mm   <b>B</b>	900	1500		1580
Height mm   <b>H</b>	1390	1650		1890
Weight kg	130	250		280

\* depending on type of transport

<sup>1</sup> incl. loading and required machine elevation



# TECHNICAL DATA

## PERFORMANCE LIST

### PERFORMANCE CHARACTERISTICS OF CUTTER

TYPE		K 65	K 130	KCU 200	K 60 VAC	K 130 VAC
Bowl volume	ltr	60	130	200	60	130
Motor rating	KW	22	60	90	22	60
Fuse	A	63	125	200	63	125
Feeder cross section	mm <sup>2</sup> CU	16	50	95	16	50
Speed knife shaft max.	Upm	5100	4700	4600	5100	4700
Speed mixing cycle max.	Upm	260	240	230	260	240
Knife radius	mm	187,5	240	365	187,5	240
Cutting rate	m/sec	100	120	128	100	120
Bowl speed	Upm	13	13	16	14	14
Suction capacity vacuum pump	m <sup>3</sup> /h	—	—	—	63	100
Ejector		o	o	o	o	o
Knife hood		(man.) <sup>1</sup>	o (pneum.)	(hydr.)	—	(pneum.)
Stainless noise protection cover and/or vacuum cover		o	o	o	(pneum.)	(pneum.)
Cooking facility		—	—	—	o	o
PMS program control		—	—	o	o	o
Touch screen		—	—	—	o	o
Multi-speed version <sup>2</sup>		o	o	o	o	o
Balancing device		—	o	o	—	o
Cooling facility		—	—	—	o	—
Forced ventilation		—	—	o	—	—
Water dosing		—	—	o	—	—
Internal control box		•	•	DC	—	—
External control box		—	—	DC o AC	•	•
Loading		—	o	o	—	o

### CAPTION

•	standard	<sup>1</sup>	manually operated with lifting assistance
o	option	<sup>2</sup>	8 + 2 freely programmable knife speeds and/or mixing cycles
—	not available		

Data and dimensions without engagement - subject to change.





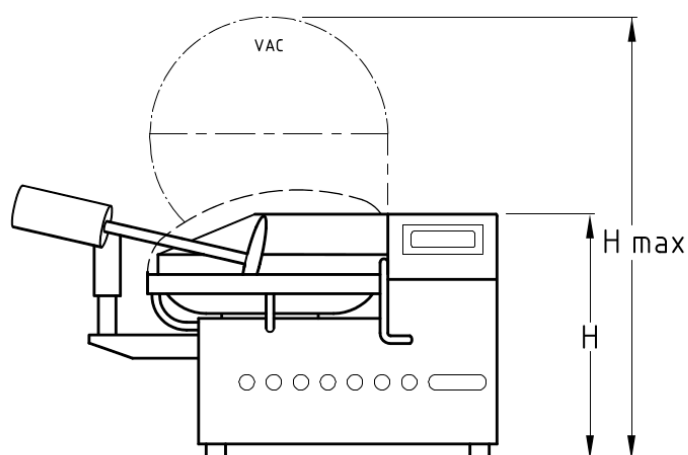
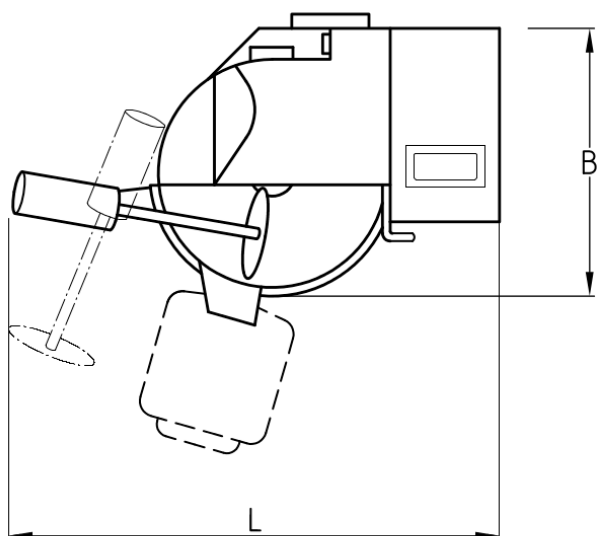
#### DIMENSIONS AND WEIGHT

TYPE	K 65	K 130	KCU 200	K 60 VAC	K 130 VAC
Length mm   <b>L</b>	1520	2350	2700	1500	2350
Width mm   <b>B</b>	1110	1370	1880	1200	1630
Height mm   <b>H</b>	1140	1270	1380	1300	1450
Height incl. lid mm	1700	1950	2000	2100	2400
Weight kg	950	1700	2900	1300	1650

#### SEAWORTHY CASE\*

Length mm   <b>L</b>	1800	2700	3330	1800	2800
Width mm   <b>B</b>	1500	2100	2220	1600	2400
Height mm   <b>H</b>	1500	2100	2240	1500	2300
Weight kg	300	550	850	300	650

\* depending on type of transport



## TECHNICAL DATA

### PERFORMANCE LIST

#### PERFORMANCE CHARACTERISTICS OF MIXERS

TYPE		ME 130 N	ME 250 N
Mixing hopper	ltr	130	250
Max. filling quantity	kg	110	200
Motor rating	KW	4	5,5
Fuse	A	20	25
Feeder cross section	mm <sup>2</sup> CU	2,5	4
Intermeshing mixing shafts - standard		2 paddles	2 paddles
Intermeshing mixing shafts - option		2 Z-arms	2 Z-arms
Speed of mixing shafts	Upm	55	35
Infinitely variable speed of mixing shafts	Upm	o	•
Vacuum version		o	o
Suction capacity vacuum pump	m <sup>3</sup> /h	63	63
CO <sub>2</sub> or nitrogen (N <sub>2</sub> ) refrigeration		o	o
Temperature display		o	o
Water dosing		o	o
Cooking and/or cooling facility (closed system)		–	o
Loading hoist		–	o
Automatic tumbling function		o	o
PMS program control		–	o
Automatic mixing function		o	o

Electrical data: degree of protection IP 55

#### CAPTION

•	standard
o	option
–	not available

Data and dimensions without engagement - subject to change.



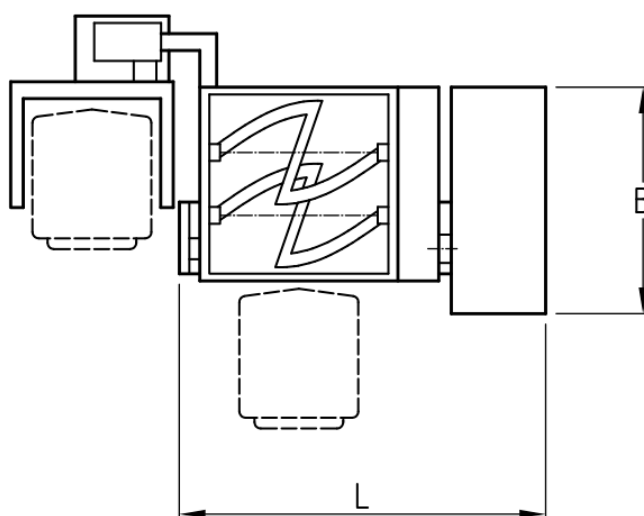
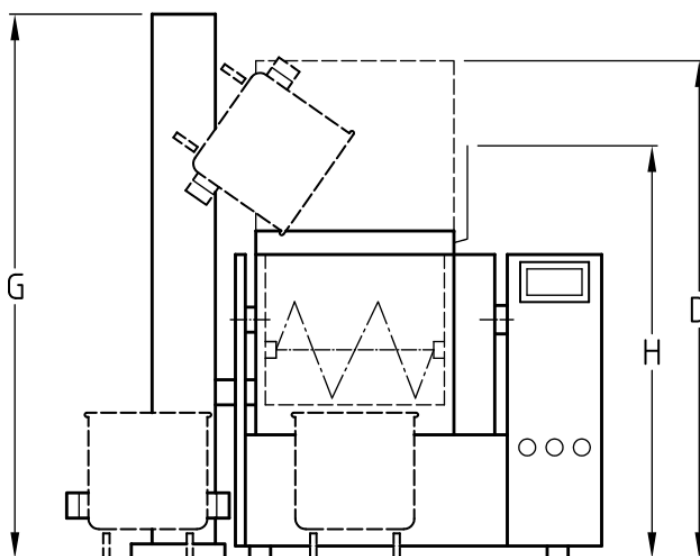
#### DIMENSIONS AND WEIGHT

TYPE	ME 130 N	ME 250 N
Length mm   <b>L</b>	1170	1430
Width mm   <b>B</b>	730	1200
Height mm   <b>H</b>	1450	1920
Height mm   <b>D</b>	1740	2770
Height mm   <b>G</b>		2600
Weight kg	600	1250

#### SEAWORTHY CASE\*

Length mm   <b>L</b>	1300	1600
Width mm   <b>B</b>	1300	1500
Height mm   <b>H</b>	1600	1850
Weight kg	200	300

\* depending on type of transport









# FROZEN MEAT CUTTERS

CUTTING TO THE OPTIMUM SIZE FOR EFFICIENT FURTHER PROCESSING

G 530  
G 740

GS 510  
GFS 620



## APPLICATIONS

### THE FROZEN MEAT CUTTERS

LASKA frozen meat cutters are highly regarded for their cutting performance and low energy consumption. LASKA customers use frozen meat cutters for the following products:

- › **Meat**
- › **Fat**
- › **Fish**
- › **Vegetables**
- › **Fruit**

**And much more ...**

#### STRENGTHS AND BENEFITS

LASKA frozen meat cutters process frozen meat and other frozen food of a temperature down to -25 °C. The infinitely variable lifting height of the cutting bar of the guillotine ensures the highest possible cutting performance of the machine due to customized adaptation to the product size. Applying comparatively low force, the LASKA frozen meat cutters are very gentle on the material. This also has a beneficial effect on the machine, which is not strained needlessly, thus ensuring it becomes a long-term partner and an attractive investment.

#### QUALITY PROVEN IN USE

Just like all other LASKA machines, the frozen meat cutters are made of solid stainless materials. They meet strict hygienic requirements and are easy to clean. The design allows for harsh operating conditions and provides easy and safe operation as well as good access for servicing.



# LASKA FROZEN MEAT CUTTERS

## YOUR BENEFITS AT A GLANCE

### DESIGN

- › Compact and space-saving design with integrated control box
- › Long service life and proven cost benefits
- › Height adjustable machine feet
- › Attractive, elegant design
- › Closed base plate for silent operation

### SERVICE AND MAINTENANCE

- › Minimum maintenance required due to proven, field-tested machine concept
- › Easily accessible inspection doors
- › Worldwide service network and competent advice on all continents

### ELECTRICAL EQUIPMENT

- › Low current consumption due to optimized drive and control technology
- › Built-in control box for longer service life
- › Simple safety circuit for highest working safety





## PRODUCTION

- › Gentle cutting of frozen meat blocks
- › High output
- › No loss of quality caused by poor block handling
- › Continuous feeding for higher performance
- › Loading rocker / loading platform also suitable as unpacking area
- › Processing even of larger and spherical frozen meat blocks



## HYGIENE AND SAFETY

- › Closed base plate prevents contamination and dust in the interior
- › Polished surfaces for the highest possible hygienic standard
- › Safety devices for optimum working safety

## OPERATION

- › Easy handling and user-friendly, robust operating elements
- › Push-button control and/or control panel with membrane keyboard and plain text display
- › Adjustable cutting size and infinitely variable cutting height in case of guillotines



# LASKA FROZEN MEAT CUTTERS - OVERVIEW



## FEATURES OF GUILLOTINE-TYPE FROZEN MEAT CUTTERS G 530 / G 740

- › For frozen meat blocks up to a max. cross section of 520 x 300 mm (G 530) and/or 700 x 400 mm (G 740)
- › High hourly rate and short cutting time due to infinitely variable lifting height of the knife bar
- › Continuous loading results in higher performance
- › Damped reversing of knife stroke prevents hard impacts and overstraining of the machine
- › Robust machine with long-term cost benefits



## FEATURES OF FROZEN MEAT CUTTERS WITH ROLLER KNIVES - GS 510 / GFS 620

- › For frozen meat blocks up to a max. cross section of 500 x 300 mm (G 510) and/or 600 x 380 mm (G 620)
- › High hourly rate due to continuous loading and powerful drive
- › Drive designed for very heavy duty application
- › Robust machine with long-term cost benefits



## APPLICATION OF GUILLOTINE-TYPE FROZEN MEAT CUTTERS - G 530 / G 740

- › Gentle processing of the material to be cut (especially for raw sausage)
- › Processing temperature down to -25 °C
- › Cutting size adjustable from 27 to 64 mm
- › Smaller pieces possible due to optional cross-cutting knives
- › Due to a hydraulic block pressure pad, round or spherical blocks can be processed perfectly



## APPLICATION OF FROZEN MEAT CUTTERS WITH ROLLER KNIVES - G 510 / G 620

- › Gentle processing of the material to be cut
- › Processing temperature down to -25 °C (GFS 620) and/or -15 °C (GS 510)
- › Cutting size GS 510: 25 mm (bow knives)
- › Cutting size GS 620: 35 mm (cutting teeth)
- › Due to the double-roller cutting system, round or spherical blocks can be processed perfectly

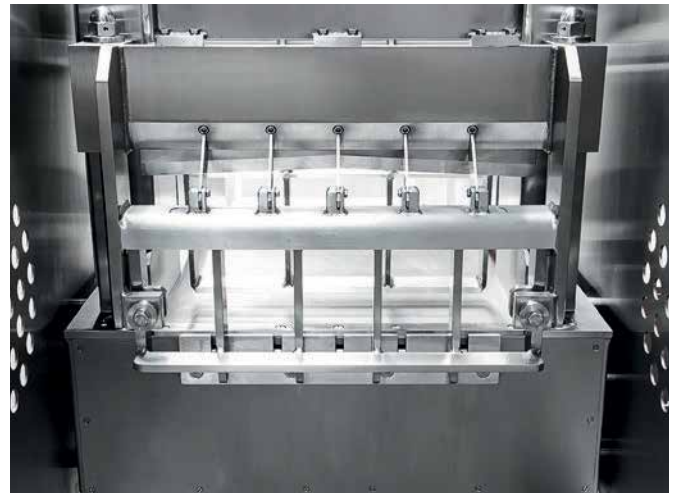
# EQUIPMENT

## FOR YOUR GUILLOTINE-TYPE FROZEN MEAT CUTTER



### DRIVE

- › Drive elements in closed machine housing
- › Hydraulic drive
- › Machine can be switched on only with the standard transport trolley being in the right position
- › Low current consumption due to optimized control and drive technology
- › Subdued operating noise



### CUTTING BAR

- › Hydraulically driven
- › Damped reversing of knife stroke prevents hard impacts and overstraining of the machine
- › Infinitely variable knife stroke adjustable via control panel at the level of the blocks provides for shorter cutting time
- › Exchangeable, two-part guillotine knife
- › Optional cross cutting knives for smaller pieces



### PRESSURE PAD

- › Fixes blocks automatically during the cutting process
- › Prevents escaping of the blocks
- › Special advantage with round, spherical frozen meat blocks
- › Permanent synchronous movement of pressure pad and cutting bar
- › Hydraulically driven



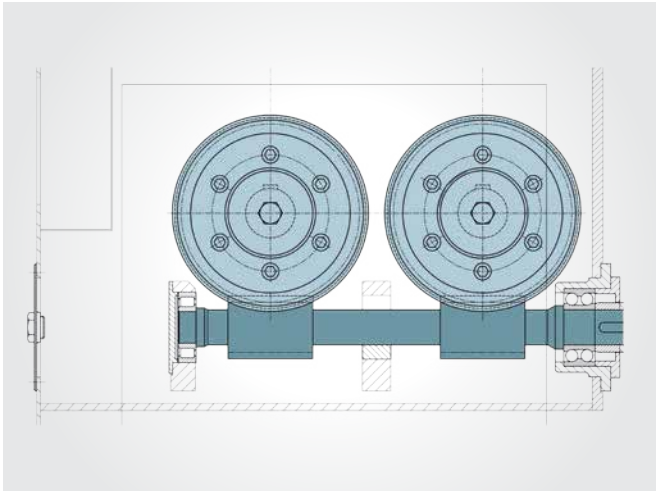
### ELECTRICAL EQUIPMENT

- › Built-in control box and main motor
- › Robust and powerful unit with motor circuit breaker
- › Programmable logic controller with microprocessors
- › Easy to operate due to clearly arranged control system



# EQUIPMENT

## FOR YOUR FROZEN MEAT CUTTER WITH ROLLER KNIVES



### DRIVE

- › Worm gear pair in oil bath for very heavy duty
- › Safety devices prevent overloading and reduce damage caused by foreign matter penetrating into the cutting area
- › Drive elements in closed machine housing
- › Machine can be switched on only with the standard transport trolley being in the right position
- › Low current consumption due to optimized control and drive technology



### DIFFERENCES IN ROLLER KNIVES

- › With cutting teeth (GFS 620): Particularly suitable for standardization, for sections approx. 38 (optional 30) x 40 x 80 mm in size
- › With bow knives (GS 510): Particularly suitable for the production of raw sausage to prevent pulling out of sinews and tendons, for palm-sized sections 25 mm in thickness



### PATENTED ROLLER KNIVES

- › Two counter-rotating roller knives prevent escaping of the blocks
- › Special advantage with round, spherical frozen meat blocks
- › Regrinding of bow knives (GS 510): approx. every 3 years; not necessary with cutting teeth (GFS 620)



### ELECTRICAL EQUIPMENT

- › Built-in control box and main motor
- › Robust and powerful unit with motor circuit breaker
- › Easy to operate due to clearly arranged control system





# OPTIONS

## FOR YOUR LASKA FROZEN MEAT CUTTER



### LOADING ROCKER

G 530 standard – GS 510, GFS 620 optional

- › Stainless, hydraulic
- › Easy to operate
- › Also acts as a very convenient unpacking area



### INCLINED BELT CONVEYOR

- › Stainless steel
- › Incl. trip tray and collection pan
- › Side guides on both sides, foldable for cleaning
- › Frame height adjustable +/- 75 mm with 4 lockable castors
- › Auxiliary equipment: sensor control via light barriers for optimum filling



### LOADING PLATFORM

G 740

- › Stainless, hydraulic
- › Easy to operate
- › Horizontal, open platform facilitates placement of frozen meat blocks
- › Also provides a very convenient unpacking area
- › Platform size: 1000 x 820 mm



### METAL DETECTOR

- › To detect metal foreign matter
- › Conveyor belt running forward and backward
- › Visual and acoustic warning signal





## THAT'S WHAT OUR CUSTOMERS SAY



### **DELIKA A/S** DENMARK

„Since 2011 we are producing salami with our LASKA frozen meat cutter and are very satisfied for the following reasons:

The machine is made so strong, that it cuts the meat directly from the freezer at over -20 degrees with no problems. Also the cut of the meat is very nice and we never have problems with the meat block getting stuck in the machine. The lifting device is perfect for the operator and the fact that the operator can load more than one block into the machine saves us a lot of time.

We decided to buy a Laska machine not only because of the significant heavy weight of the machine, but also because of the great reputation LASKA's frozen meat cutters and the company have in denmark.“

### **MR. HANSEN** OWNER



### **PERUTNINA PTUJ** SLOVENIA

“Food industry is technologically a complex and very demanding industrial branch. Thereof we are taking into account and giving a large importance to the reliability of our partners in the implementation of technological equipment. LASKA is in this regard a constant. We are cooperating with LASKA since 1989 and have with its help built our food concern.

From the very first cutting machine forward, the decision on modernization and implementation of our technological lines has been clear. We will be choosing LASKA. Reliability, high quality, and additional value on the side of our customers are just a few very important reasons for our choice.”

### **MR. GLASER** CHIEF EXECUTIVE OFFICER

# TECHNICAL DATA

## PERFORMANCE LIST

PERFORMANCE CHARACTERISTICS					
TYPE		GS 510	GFS 620	G 530	G 740
Block cross section (width x height)	mm	500 x 300	600 x 380	520 x 300	700 x 400
Processing temperature	° C	to - 15	to - 20	to - 25	to - 25
Size of pieces / cutting thickness	mm	130 x 80 x 25	80 x 40 x 35	28 - 60	27 - 64
Type of cutting	mm	bow knives	cutting teeth	guillotine	guillotine
Motor rating	KW	18,5	22	5,5	16,5
Fuse	A	63	80	25	50
Feeder cross section	mm² CU	16	25	4	10
Speed	RPM	50	50	—	—
Loading rocker		o	o	•	—
Loading platform		—	—	—	o
Cross cutting knives				o 2 and/or 5 pieces	o 5 pieces
Conveyor belt loading		o	o	o	o
Sensor control (for conveyor belt loading)		o	o	o	o
Metal detector (for conveyor belt loading)		o	o	o	o
Cleaning system (for conveyor belt loading)		o	o	o	o
Infinitely variable rate of feed (for conveyor belt loading)		o	o	o	o

CAPTION	
•	standard
o	option
—	not available

Data and dimensions without engagement - subject to change.



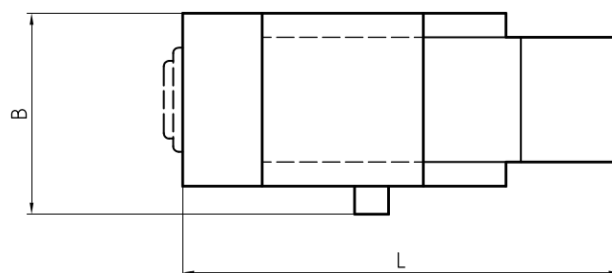
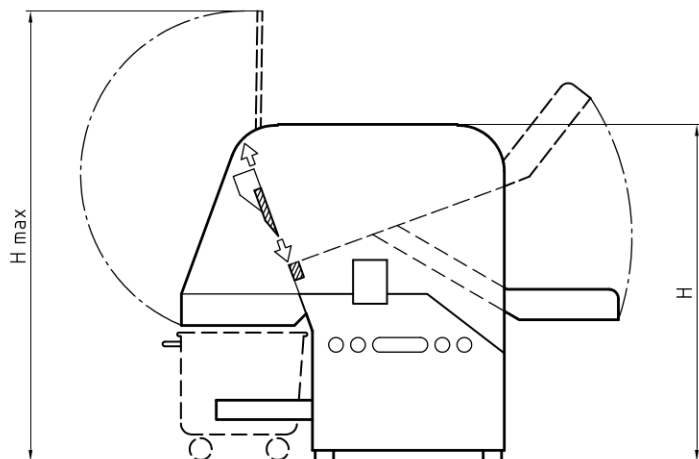
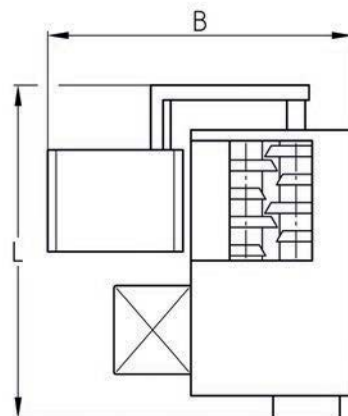
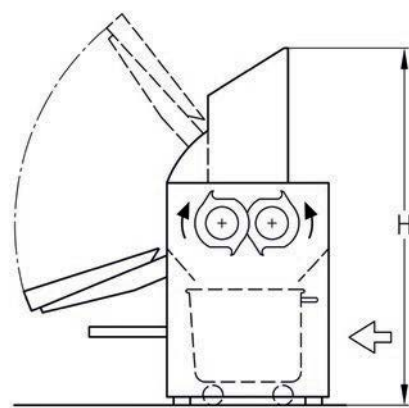
#### DIMENSIONS AND WEIGHT

TYPE	GS 510	GFS 620	G 530	G 740
Length mm   <b>L</b>	1580	2020	2400	2700
Width mm   <b>B</b>	1620	1900	1100	1350
Height mm   <b>H</b>	2050	2150	1860	2200
Max. height mm	2470	2350	2470	–
Weight kg	1360	1500	1000	2600

#### SEAWORTHY CASE\*

Length mm   <b>L</b>	1930	2330	2550	3020
Width mm   <b>B</b>	1900	2200	1350	1720
Height mm   <b>H</b>	1610	1710	2150	2360
Weight kg	260	400	300	420

\* depending on type of transport



## Laska Videos



SUPERGRINDER  
WWB200



26 PRODUCTION LINE-  
BOILED SAUSAGES



MEAT PROCESSING MACHINERY

[www.laska.at](http://www.laska.at)



# Inotec

INOTEC was established in 1988 with the aim to automate the production of food products, specifically sausages. The initial development was a fully atomised emulsifier. In 1993 INOTEC introduced their first sausage cutting machine. They still deliver complete production lines including mixers with integrated analysing systems, emulsifiers and stand-alone equipment.



## Inotec



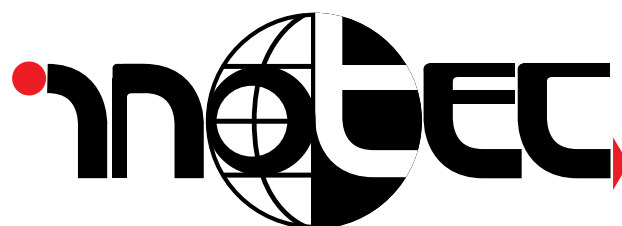
### Introduction



In 1993 INOTEC introduced their first sausage cutting machine and is presently worldwide known as the company with the solution for cutting all types of sausages.

Today INOTEC delivers complete production lines including mixers with integrated analyzing systems , emulsifiers as well as stand-alone equipment.

Our customers around the world are mainly in the meat industry but also in industries to produce melted cheese, baby- and hospital food, fruits and vegetables, sweets and petfood. A network of agents around the world together with our sales and service force is guaranteeing a constant quality of INOTEC products



[www.inotecgmbh.de](http://www.inotecgmbh.de)

# Fine Mincing Technique

INOTEC has developed a new 4-plate cutting system and already introduced successfully in the market. Mainly the following production parameters will be improved:

- fineness
- protein extraction
- production capacity

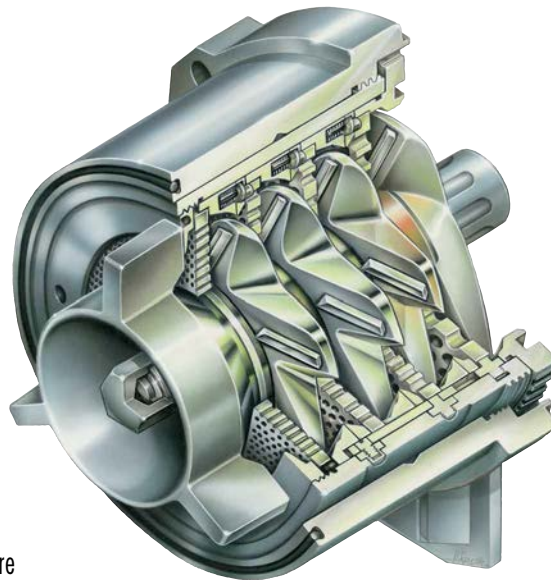
The 4-plate cutting system is driven by a step motor in combination with a PLC to guarantee always the optimal cutting point and therefore a constant product quality at a minimum of wear on the cutting tools.

The actual cutting position as well as the quality of the cutting tools are shown constantly on a display.

Inlet- and outlet temperature are shown during the production on the display.

## Cutting system

The INOTEC-cutting system can be built in the cutting housing without a presetting



procedure and will be driven automatically in the selected cutting position by means of the PLC.

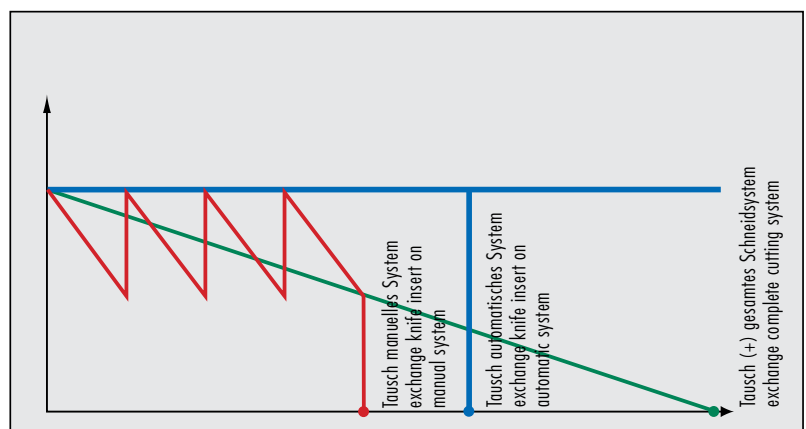
The cutting system consists of the following components:

- 3 or 4 knife holders (3- or more winged) with exchangeable insert blades
- 3 or 4 holeplates (hole diameter according to the required product fineness)
- two compensation lugs
- expeller

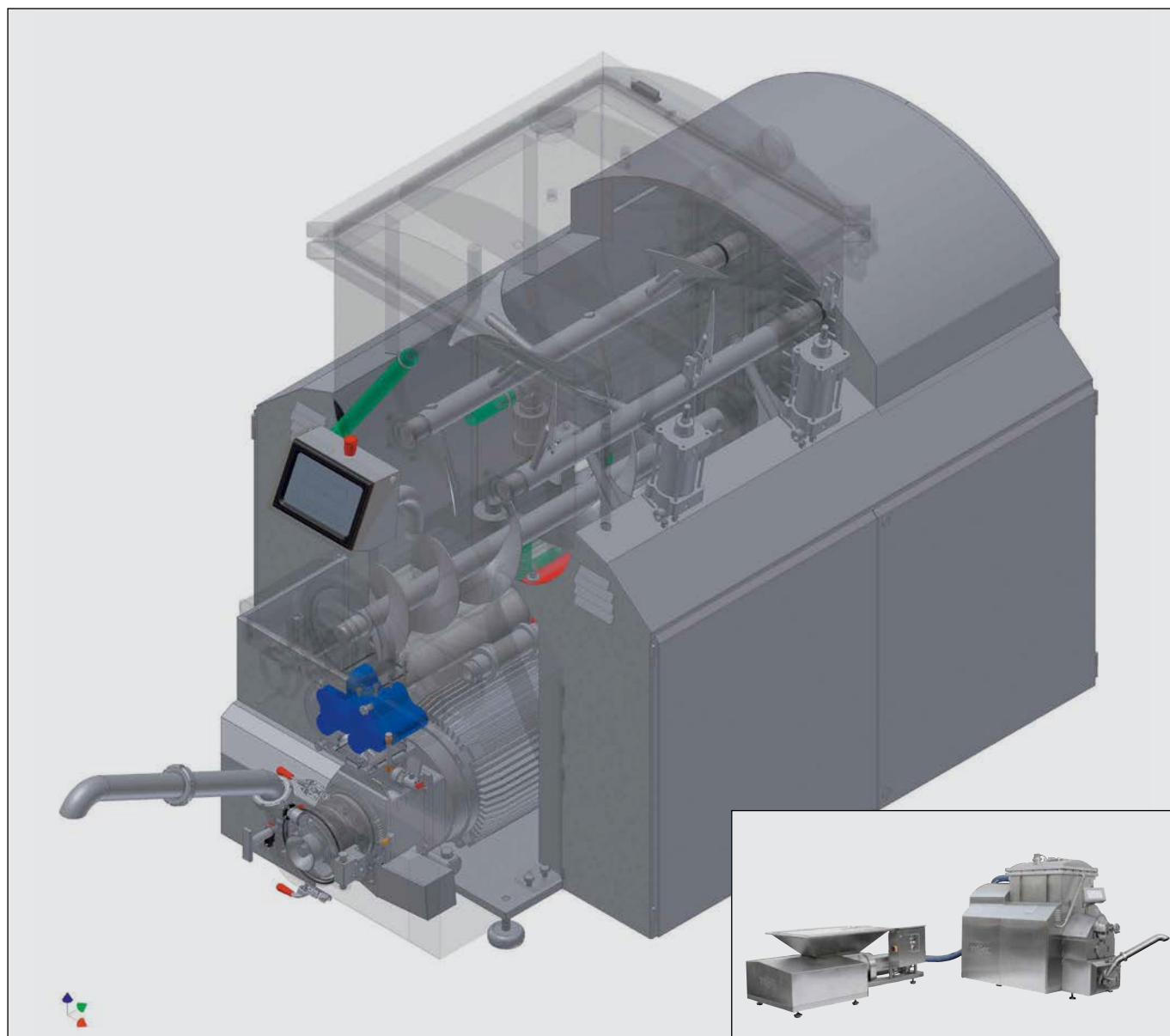
## Comparison Cutting Systems

automatic adjustment - manual adjustment - without adjustment

- static cutting system  
= constant worsening of cutting result
- manual adjusted system  
= constant changing cutting position
- automatic adjustment system  
= constant cutting position



# I 175 CDVMP – I 225 CDVMP



## I 175CDVMP - I 225 CDVMP

The INOTEC-emulsifier type I 175 CDVMP / I 225 CDVMP is mainly used in continuous production lines. After the mixing process the product is fed continuously into the vacuumized hopper by means of an external pump. 2 intermeshing paddle shafts in the hopper allow vacuums up to 98%.

The horizontal feeding screw in combination with a pressure controlled lobe pump are guaranteeing an optimal supply of the cutting set.





# I 175 CD-RW – I 225 CD-RW

## I 175 CD-RW - I 225 CD-RW

The Inotec-emulsifier type I 175 CD-RW - I 225 CD-RW is used in continuous production lines for the processing of firm and high viscose products in the pet food and confectionery industry. The hopper is fed by a screw feed conveyor or pump. Inline-version with pump-fed alternatively available (see picture below).

### Service / Cleaning

The cleaning of the machine is executed in the cleaning position, which can be activated by means of the control panel. The cutting set is therefore driven to the position with maximum gap between holeplates and knife holders. The machine can be started without wear and prewashed in pumping water through the cutting housing. The installation of the cutting set takes place in the service position.



# I 140 CD-D – I 175 CD-D – I 225 CD-D



## I 140 CD-D – I 175 CD-D – I 225 CD-D

Main aspects for the design of the INOTEC-emulsifiers have been the hygienic and safety requirements of the food industry.

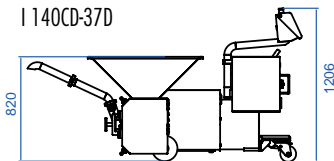
The standard machine type I 140 CD-D – I 175 CD-D – I 225 CD-D is equipped with a product hopper and is mainly used in combination with bowl choppers and/or mixing machines.



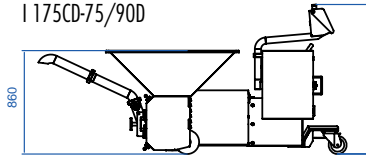
# Technical Data

Type	Hopper			Vacuum		Stuffingscrew	
	I 140CD-37D	I 175CD-75/90D	I 225CD-110/132D	I 175 CDVMP	I 225 CDVMP	I 175CD-RW	I 225CD-RW
Motor drive	37 kW	75/90 kW	110/132 kW	90 kW	132 kW	90 kW	110 kW
Rpm in min-1	2950	2950	2950	2950	2950	2950	2950
Hopper	130 l	200 l	200 l	720 l	720 l	530 l	530 l
Vacuum pump	-	-	-	1,1 kW	1,1 kW	-	-
Agitator Pump	-	-	-	2,2 kW	2,2 kW	1,5 kW	1,5 kW
Paddle	-	-	-	5,5 kW	5,5 kW	-	-
Screw	-	-	-	7,5 kW	7,5 kW	-	-
Holeplate mm	140	175	225	175	225	175	225
Cable 400 V	4x35 mm <sup>2</sup>	4x70 mm <sup>2</sup>	4x95 mm <sup>2</sup>	4x95 mm <sup>2</sup>	4x95 mm <sup>2</sup>	4x70 mm <sup>2</sup>	4x95 mm <sup>2</sup>
Current 400 V	75 A	142/169 A	206/242 A	202 A	274 A	169 A	204 A
Prefuse 400 V (NH)	3 x 100 A	3 x 200/250 A	3 x 315/400 A	3 x 315 A	3 x 400 A	200 A	250 A
Weight	530 kg	800 kg	1000/1250 kg	3000 kg	3250 kg	1950 kg	2000 kg

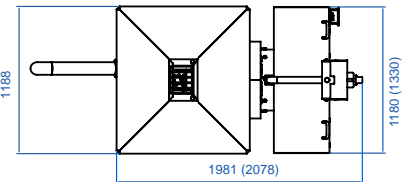
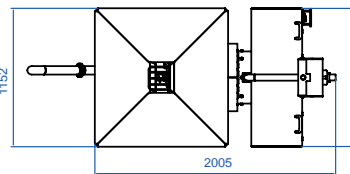
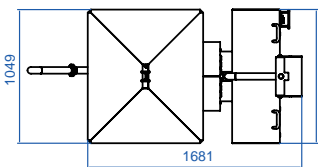
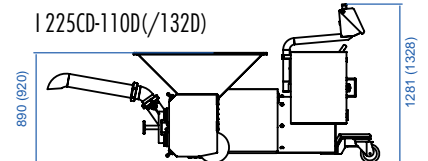
I 140CD-37D



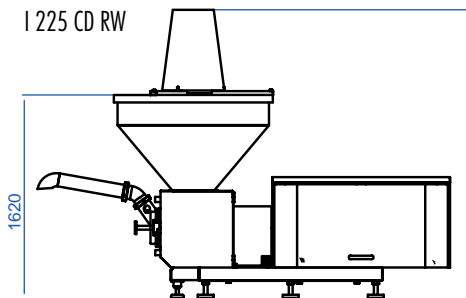
I 175CD-75/90D



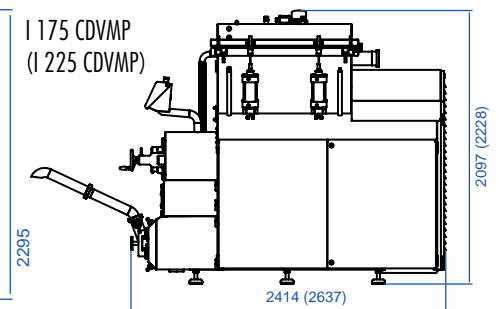
I 225CD-110D(/132D)



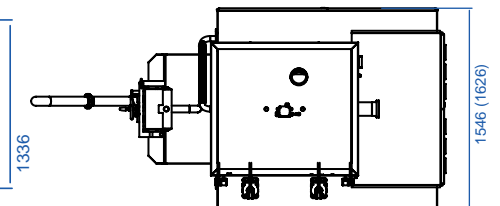
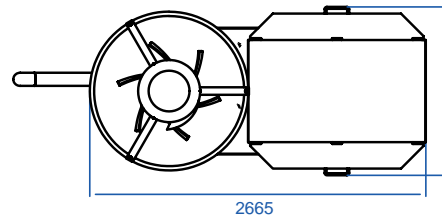
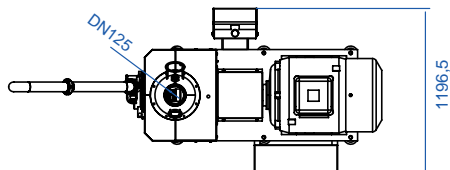
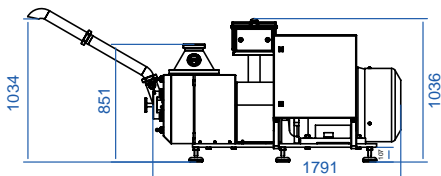
I 225 CD RW



I 175 CDVMP  
(I 225 CDVMP)



I 175CDI

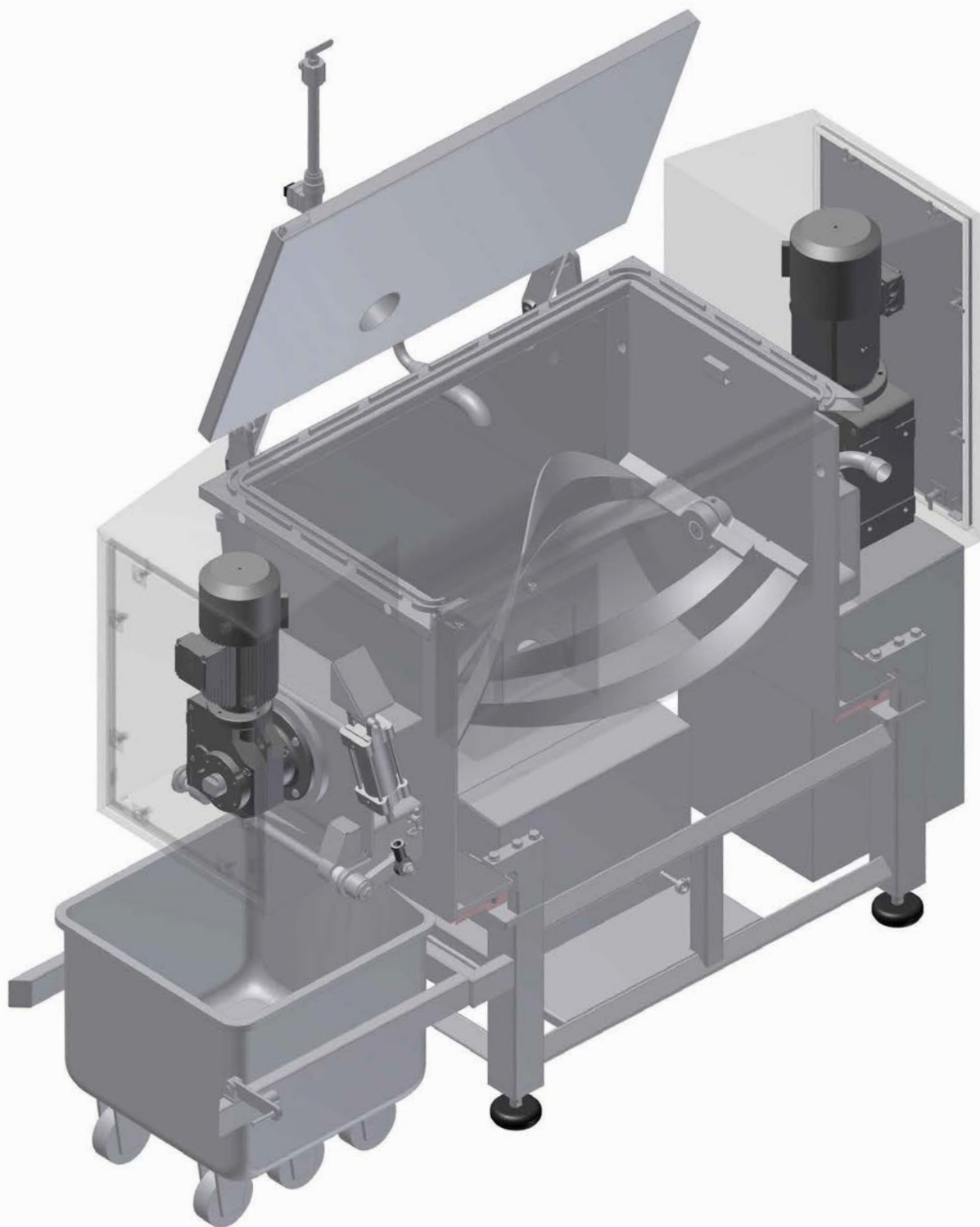


# INOTEC Vario Mix — ultimate mixing technology





# INOTEC Vario Mix — fast — gentle — clean — universal



# INOTEC – Accessories and options

The loading of the mixer is done by Inotec belt or screw conveyors or by one- or two-column lifting units for different trolleys or boxes. For size reduction of block material prior to mixing a breaker can be integrated into belt conveyors. An integrated metal detection system increases the product safety. Water, liquid and dry ingredients are added with dosing systems according to the application.

The Inotec control with touch screen panel shows the working procedure and helps to achieve the desired mixing result independently from the operator.



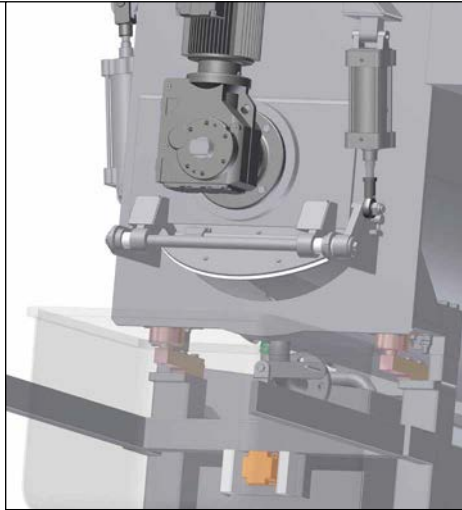
Inotec Vario Mix is also available as vacuum mixer – optionally with a cover in two parts. Vacuum helps at applications to bring liquid in the product or to eliminate air bubbles.

The product temperature can be adjusted by direct steam injection, cooling gas injection or double jacket which are available optionally.



# UNLOADING – transport of the mixed product

In order to unload the product quickly after the mixing process, the Inotec Vario Mix is equipped with a big front outlet flap. A bottom outlet flap is available optionally.



Different product buffer/pump combinations designed by Inotec are taking the product after the mixing process and convey it to filling installations. In order to avoid demixing of the mix in the buffer, Inotec offers special agitating systems to keep a gentle move of the product.



# INOTEC Vario Mix — fast — gentle — clean — universal

## FAST

Significant time saving on the mixing and unloading process. The mixing result is obtained on a gentle way and very quick due to the geometry and the movement of the spirals. The outlet flap of the Inotec Vario Mix covers the complete front part which corresponds to approx. 25 % more surface for the product outlet. The productivity gets doubled or even tripled.

## GENTLE

Delicate products conserve structure and are not squeezed during the mixing process. The binding of the product can be influenced by the mixer speed. The product is in permanent, constant and smooth movement for an optimum and gentle mixing with minimum temperature increase.

## CLEAN

No dead spaces in the mixer — no nests are coming up, the product can not seat, stick or clump anywhere. Unloading via one big central front outlet flap by moving both spirals towards the outlet. Optionally the external spiral can be equipped with a special scraper in order to reduce the rest quantity even more. The Inotec Vario Mix

The patented Inotec Vario Mix system works without any central mixing shaft. Two horizontal interacting mixing shafts are operating in opposite directions in adjustable mixing intervals. For a better adaption to the product the mixing speed can be adjusted stepless for both spirals.



series are equipped with cleaning facilities for the bearings of the shafts — the design is confirm to the highest hygiene requirements.

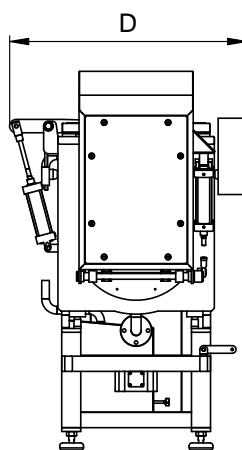
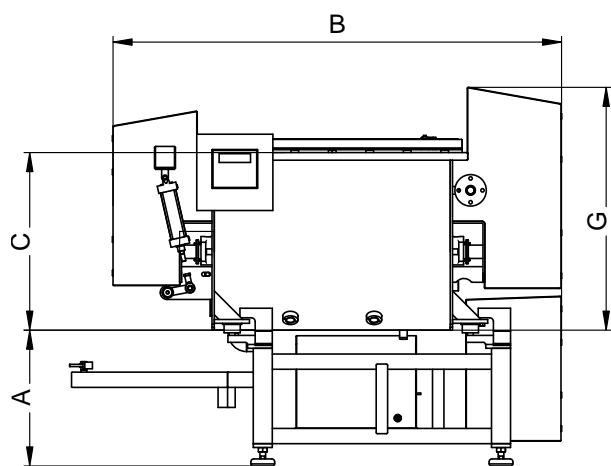
## UNIVERSAL

The Inotec Vario Mix series cover the complete spectrum of applications of the food industry as well as multiple applications of non food sectors like chemical, cosmetic and pharmaceutical industries. Best mixing results are guaranteed for every product — either soft or tough, liquids or powders. Special options designed for each individual application are making the Inotec Vario Mix series suitable for each product.



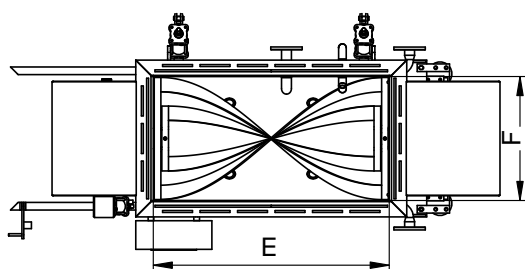


# Application fields and technical data – INOTEC Vario Mix



Quick mixing times, gentle preparation, optimum homogeneity, minimum rest quantity – the Inotec Vario Mix series reach these targets better than any other mixing system.

Application fields for food are salami and minced meat products, fine minced products / mixing-in of dices and decorations, processed cheese blends, pastes and doughs, powders, gourmet salads – specially with delicate products like fish or seafood as well as multiple convenience and non food products.



Inotec Vario Mix IVM	Net volume [Liter]	Total volume [Liter]	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	Drive [kW]
150	150	210	720 (920)	1870	730	1050	610	530	990	1,5 + 1,5
350	350	460	720 (920)	2060	900	1220	810	700	1230	4,0 + 2,2
500	500	680	720 (920)	2600	900	1220	1200	700	1320	5,5 + 3,5
750	750	950	720 (920)	2830	1000	1320	1360	800	1460	7,5 + 5,5
1000	1000	1200	720 (920)	3110	1000	1320	1750	800	1530	11,0 + 7,5
1500	1500	1800	720 (920)	3280	1150	1560	1850	950	1600	11,0 + 7,5
2000	2000	2400	720 (920)	3900	1150	1560	2480	950	1600	11,0 + 7,5

# Mixing Technology



# Mixing Technology



# Mixing Technology



Two mixing shafts with interleaving paddles mounted on different levels. Applications: Meat and sausages, pet food. Product approx. 5 mm up to fist size.



Two parallel mounted mixing shafts (spirals, paddles or combined spiral / paddle).

Applications: Vegetables, processed cheese, stiff products and/or bigger pieces.



Two direct driven mixing shafts with screws. Applications: Cheese (Mozarella, String Cheese).



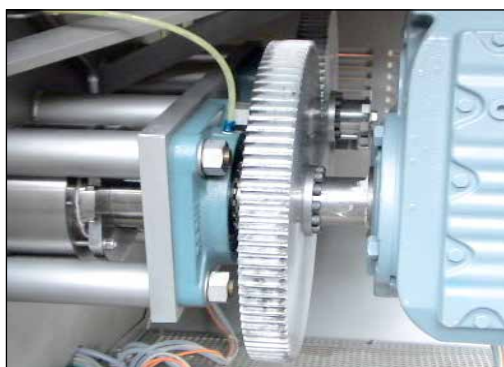
One shaft mixers (Coarse mixes) upon request.



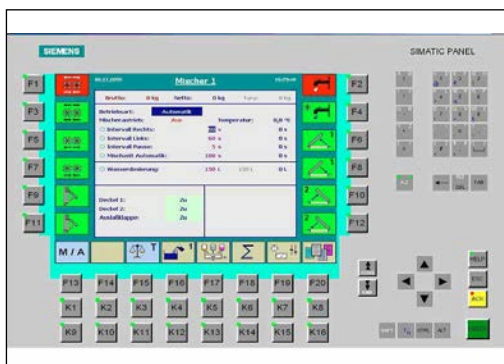


# Mixing Technology

A fast emptying of the INOTEC mixers is made possible by one or two (dependent on the mixing shaft configuration) widely opened discharge flap(s). Generously dimensioned stainless steel pneumatic cylinders for the mixer cover(s) and discharge flap(s) provide short opening and closing times and keep the mixer leak-proof. Discharge on the mixer bottom by 2 pneumatic valves for liquid products.



INOTEC mixers are operated via a SIEMENS control panel (mounted on a swivelling arm as option). More sophisticated operating panels with recipe and process administration, data transfer to a computer network, speed control of the mixing shafts, vacuum-, cooking and cooling control, line controls, INOTEC NIR online analysis, screen and touchscreen panel are available as option.



Both mixing shafts at both shaft sides are sealed with maintenance-free stuffing seal packages. The drive is synchronized by a spur gear in clock- and anticlockwise direction. The duration of the turning cycles and the stop times are programmable. The mixing shafts and drive components are electronically protected from mechanical blocking.

To get control over the batch weights the mixer can be equipped with load cells which are mounted in a water protected height between the mixer body and the mixer base. Retrofit of load cells is possible due to the modular design.

# Mixing Technology

INOTEC gets your product mixed. Meat standards, pre blends for sausage, vegetables and fruits, cheese, soups, sauces, dips, salads and delicatessen and sweets up to pet food. A complete range of mixers from 200 to 6000 liters usable volume is available. INOTEC mixer are used as stand alone machines or are integrated in production lines.

INOTEC offers customized and product specific solutions for the food industry.

For a cost efficient and high quality production, INOTEC offers the NIR Online Analyzer integrated in mixers. Approx. 90% of the mixer batch is analyzed continuously during the mixing process. The quantities of the meat components like fat, protein, water



and collagen are displayed. The system indicates the required correction quantities which shall be added for the current batch exactly according to the recipe. The range of accuracy is up to  $\pm 0,5\%$ . The achievement of the NIR Online Analyzer is a very exact and cost efficient production.



# Mixer Options

In order to fulfill all demands of your production INOTEC offers all mixers with the following options:

Vacuummixer with a one or two parts cover.

Mixer with CO<sub>2</sub> or N<sub>2</sub> cooling with injection nozzles from the bottom for a optimum product penetration or from above by snow pipes.

Mixer with integrated steam nozzles for direct steam injection (f.e.: liver paté, processed cheese vegetables, baby- and hospital food, convenience food, pet food).



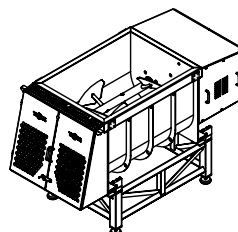
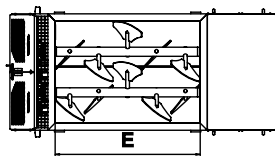
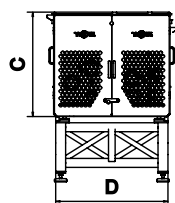
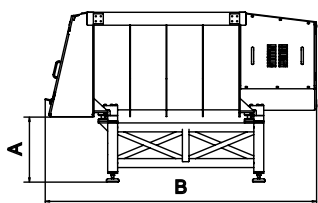
Mixer with double jacket for a soft heating or to maintain the temperature of the product (f.e.: soups and sauces, cheese).



Accessories for an efficient loading, discharging and conveying.



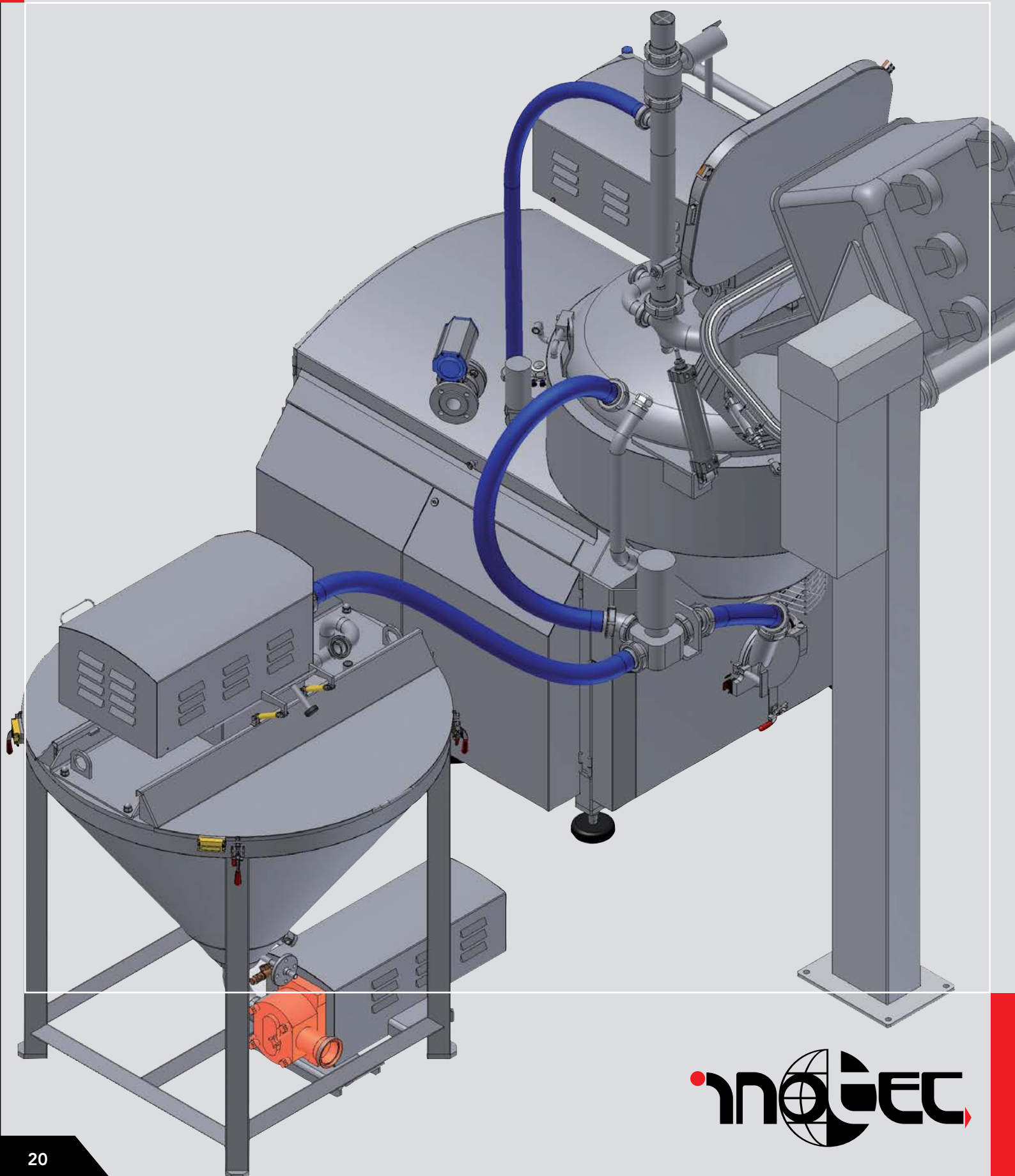
CIP preparation for quick automatic cleaning process.



Typ	Vol. [Liter]	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	Power [kW]
IM	200	920	2193	603	743	1013	3
	500	920	3030	942	950	1500	5,5
	750	920	3030	1058	1100	1500	7,5
	1000	920	3120	1018	1194	1570	7,5
	1500	920	3420	1253	1390	1750	11
	2000	920	3970	1253	1390	2200	15
	2500	920	4070	1323	1516	2300	18,5
	3000	920	4120	1405	1625	2350	22
	4500	920	4770	1500	1744	3000	30
	6000	920	5322	1608	1914	3322	37



# INOTEC – Production of Processed Cheese and Delicatessen





# INOTEC — equipment and production plants for processed cheese



# INOTEC – equipment and production plants for processed cheese



INOTEC designs and realizes complete production plants for processed cheese. Raw material in form of deep frozen or fresh cheese and butter blocks are size reduced, heated up to max. 98°C, mixed with dry and liquid ingredients and homogenized. All components are coming from one hand: production, conveying of raw materials and the final products and the efficient cleaning and sanitation of the complete plant.



INOTEC mixer with 50l usable volume for smallest batch sizes and laboratory assures a product development under real production conditions



INOTEC inline emulsifiers are fed by a product pump. The integrated pressure control gives a constant product flow through the cutting house where hard particles and powder clumps are smashed and under high speed homogenized.

## MIXING SHAFT CONFIGURATIONS:

Two parallel mounted spiral shafts, each one directly driven – best mixing for stiff products or for big product pieces.



Two parallel mounted screw shafts, each one directly driven – highest mixing action for cheese or compounds of small pieces with the quickest unloading.





# INOTEC – equipment and production lines for delicatessen

The INOTEC Vario Mix series with its patented interacting spiral shafts is designed for a quick, homogenous and careful mixing of delicatessen like salads or spreadable pastes – available in sizes from 75 to 5000 liter.

This unique mixing technology in combination with the patented vacuum and microwave technology is heating up the product in a very short time in order to cook it or to prepare it for drying. The mixing system guarantees a constant heat distribution. Vacuum helps in the product drying process and makes the cooling of the product quick and efficient.



For delicatessen INOTEC offers the right equipment to pre-cut deep frozen vegetable blocks for subsequent processing steps and to convey the product pieces in a mixer. Mixers with direct steam injection and/or microwave technology are defrosting or heating up the raw materials up to 98°C.

# INOTEC – automatic processing unit I 175 CD 37 VZV 300/500

The I 175 CD 37 VZV 300 / 500 offers the possibility to produce processed cheese and delicatessen in a closed system. The equipment consists in a cylindrical / conical hopper with a total volume of 300 or 500 liter with an incorporated cooking, vacuumizing and homogenizing system.

The process hopper has a precutting knife and a scraper – each with adjustable speed. Previously size reduced raw material pieces are cut and mixed with dry and liquid ingredients.

The product can be heated up to 98°C by injecting directly food process steam. Optionally the processing hopper can be equipped with a double jacket.

The processing hopper is equipped with a vacuumizing system in order to eliminate the air from the mixed product before the homogenizing process. The vacuumizing system can also be used to aspire dry or liquid ingredients.

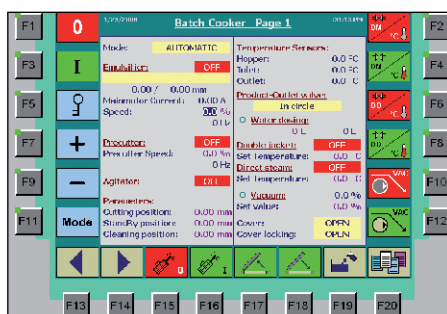


After the heating process, the product is passed through an INOTEC I 175 C homogenizer with a modular cutting set consisting of a combination of knife heads and hole plates - available with variable speed as option. The I 175 C homogenizer can be used for circulate the product in the processing unit.

The INOTEC automatic processing unit can be loaded by belt conveyor, pump or trolley lifter.

The production with the INOTEC automatic processing unit is controlled by an operating panel. Each production step can be adjusted individually and the whole process can be automatically controlled and graphically displayed.

The preparation for CIP allows a quick cleaning procedure of the whole unit and existing CIP systems can be used.



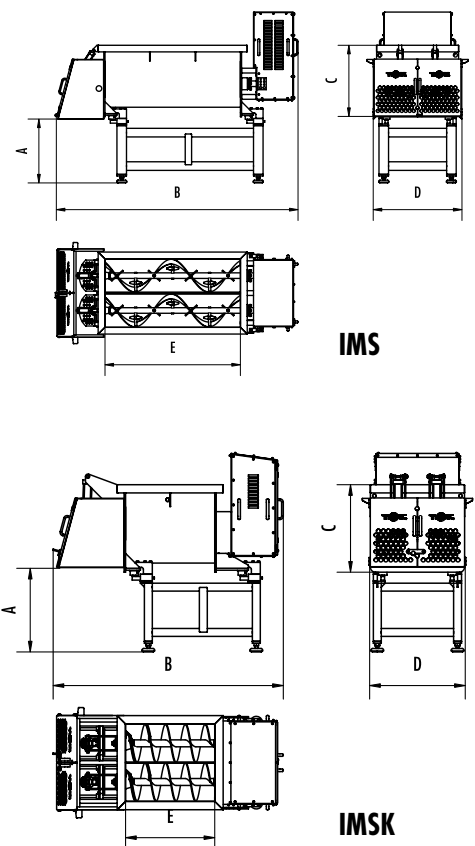
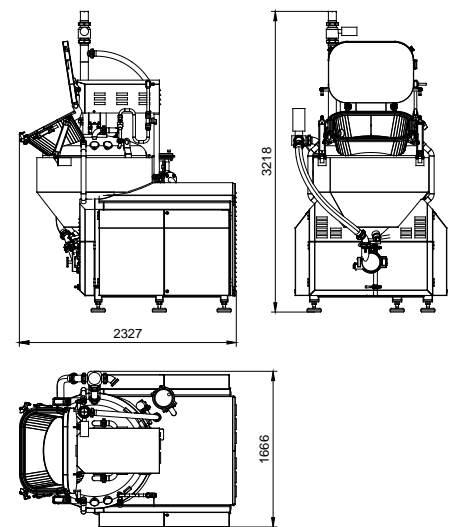


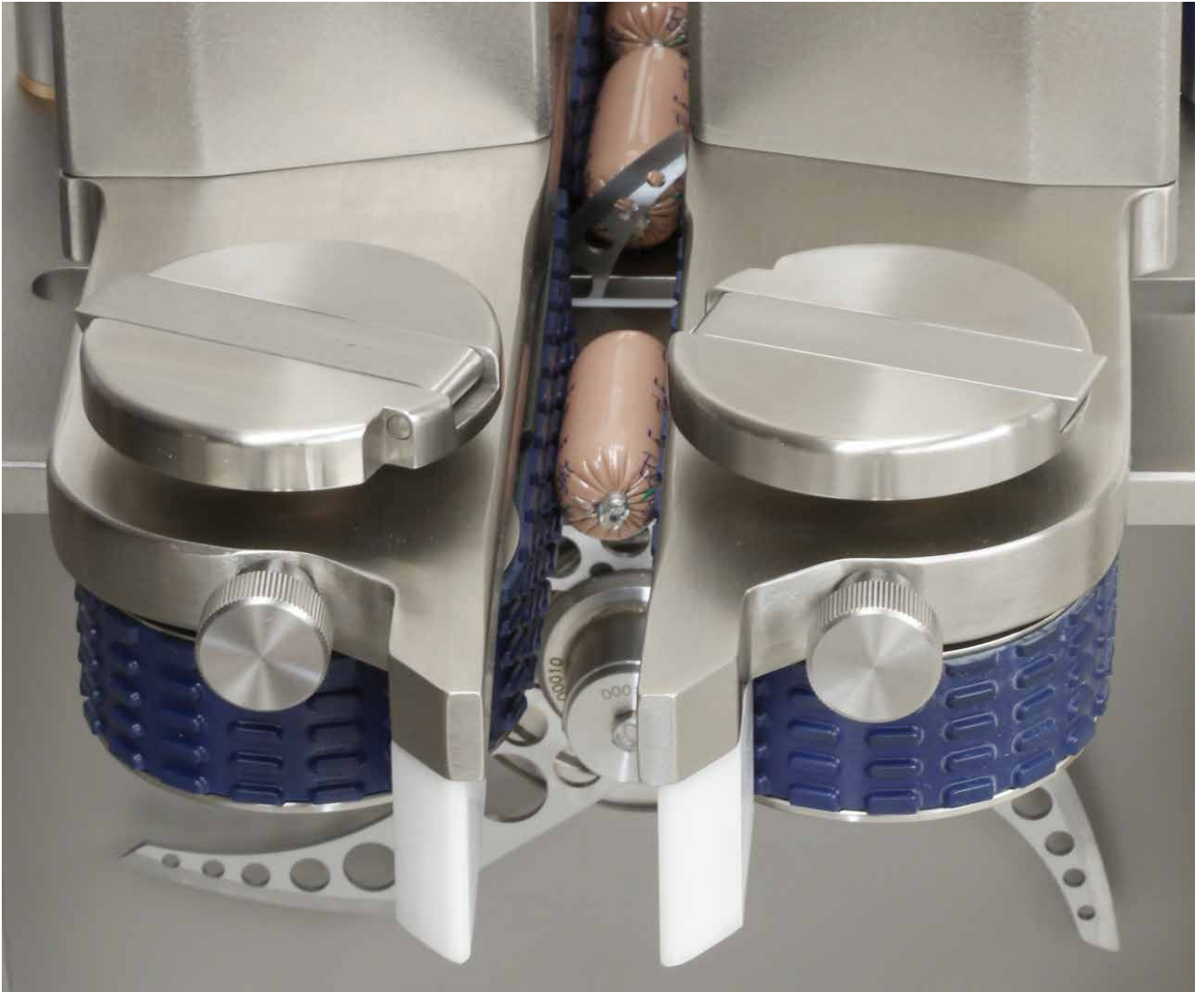
# INOTEC – Technical Data

Automatic processing equipment	I 175 C 300 VZV	I 175 C 500 VZV
Capacity (depending on the product)	Ca. 600 kg/h	Ca. 1000 kg/h
Usable volume processing hopper	300 Liter	500 Liter
Speed of precutter and homogenizer	750 – 2950 RPM	750 – 2950 RPM
Vacuum pump	integrated	Integrated
Complete equipment power	85 kW	85 kW
Hole plate diameter of homogenizer	175 mm	175 mm
Supply cable 400 V(**)	4 x 70 mm <sup>2</sup> Cu	4 x 70 mm <sup>2</sup> Cu
Pre fuse 400 V	250 A, NH (time lag)	250 A, NH (time lag)
Weight	Approx. 2.200 kg	Approx. 2.400 kg

(\*) depending on additional equipment minimum

Type	Usable Vo-lume [Liter]	Total Vo-lume [Liter]	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	Height [mm]	Power (*) [kW]	
IMS	50	110	920	1750	500	750	650	1420	1,5+1,5	(*) in-creased drives ffor stiff pro-ducts availa-ble
	200	420	920	2180	745	880	1000	1835	3+3	
	500	890	920	2830	870	1132	1300	1945	5,5+5,5	
	750	1250	920	3030	935	1260	1500	2015	7,5+7,5	
	1000	1640	920	3250	985	1360	1700	2040	11+11	
IMSK	1500	2360	920	3670	1055	1500	2000	2195	11+11	
	2000	2950	920	3870	1135	1660	2100	2280	15+15	
	2500	3690	920	4070	1195	1780	2300	2415	18,5+18,5	
	3000	4190	920	4270	1215	1820	2500	2405	22+22	
	4500	6220	920	4620	1350	2088	2850	2545	30+30	
	6000	7990	920	5100	1450	2292	3100	2695	37+37	





# Cutting Technology

The smart way to your product.





INOTEC separators were developed for the separation of products filled into casings (natural, collagen or artificial casings) and linked by torsions or by clips. The main application is for all kind of sausage products. But also for dairy products, soups or pastes which are filled in plastic casings the Inotec separators are doing an exact cutting job while the product can also be counted and grouped.

A programmable cutting mode allows the cutting of individuals but also chains of a free defined number of products can be cutted. A constant cutting function can cut endless sausages in defined lengths.



# WT 99 Twin



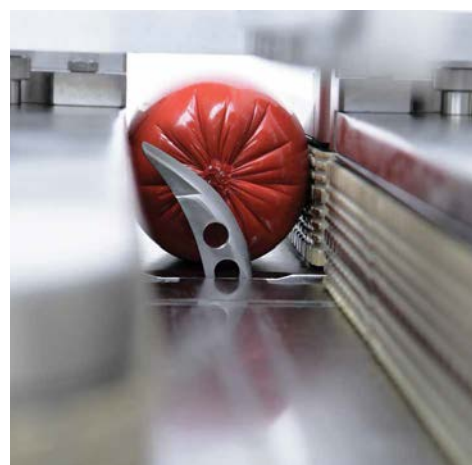
With the WT 99 TWIN Inotec has created a unique high performance sausage cutting machine (which cuts even in between double clips). The WT 99 TWIN has two independent cutting lanes. The sausage transport system is servo driven and has for each lane an optical sausage detection system and a three wings knife. The knives are independently driven by two high

speed servo motors. An automatic and programmable caliber adjustment puts the sausage transport system to the required caliber just by pushing a button. The WT 99 TWIN is designed for highest cutting performance: Compared with the WT 99 S one operator can cut the double quantity of sausages.

# WT 99 Big



The Inotec specialist for big calibers.





# WT 97 SH



Inotec WT 97SH separators for curved sausages are specially designed for curved sausage products in natural, collagen and artificial casings. Only the circular product guiding allows the separation of curved products. A special knife together with the WT 97SH permits at certain product types the simultaneous cutting and declipping of single clips.

The smart way to your product.

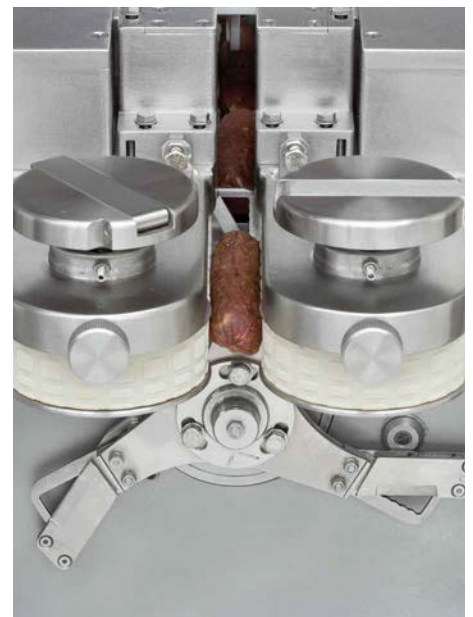


# WT 99 S / WT 99 DS

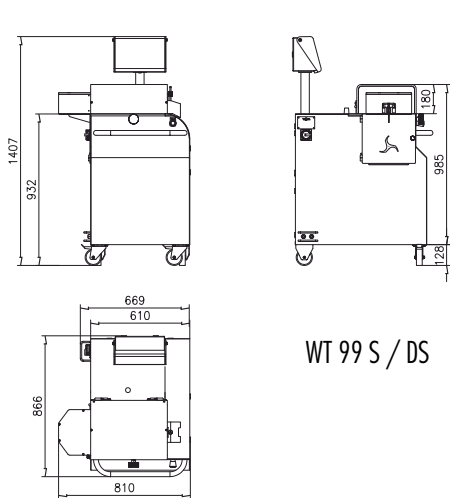


WT 99 S – the universal single lane link cutter. The highest precision level merged with speed to cut your fresh, cooked, smoked and raw products. With an optional data link in order to work in line with fillers or packaging lines. An unique modular top plate system grants an outstanding flexibility for any product.

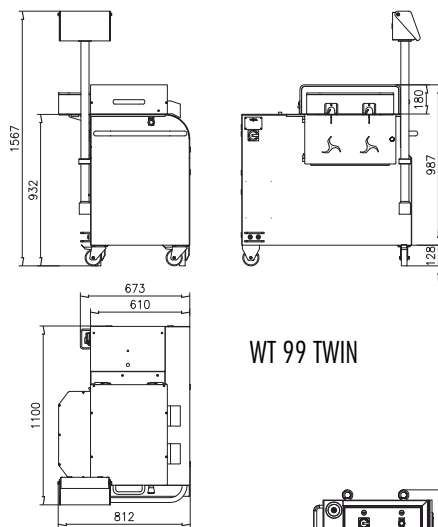
WT 99 DS - the INOTEC double cutting machine with double knife and counter knife for the elimination of the twists (3-10 mm) and with the corresponding top plates suitable for exact cutting of extremely short cocktail sausages (length from approx. 25 mm)



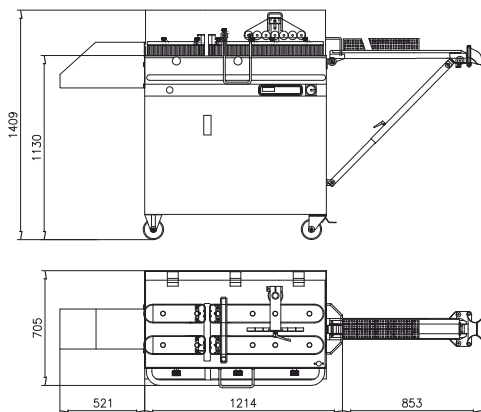
# Technical Data



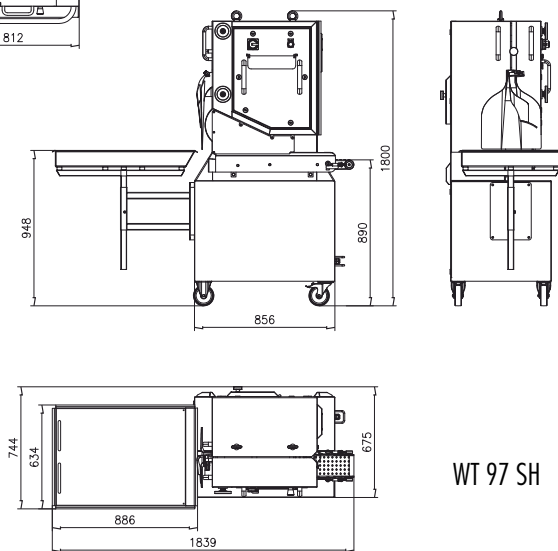
WT 99 S / DS



WT 99 TWIN



WT 99 BIG



WT 97 SH

	WT 99 S	WT 99 DS	WT 99 TWIN	WT 99 BIG	WT 97 SH
Belt Speed (m/s)	0,25 - 1,8	0,25 - 1,0	0,25 - 1,8	0,25 - 1,0	0,25 - 1,4
Connected power (kW)	1,5	1,5	2,6	2,2	2,2
Max. Capacity (cuts / min.)	1800	700	2 x 1800	600	1600
Caliber (mm)	10 - 50	8 - 32	10 - 32	30 - 100	15 - 45
Top Plates					
Standard - Product length (mm)	> 50	-	> 50	> 80	-
CO - Product length (mm)	> 32	> 32	> 32	-	-
COX - Product length (mm)	> 22	> 22	-	-	-
COXX - Product length (mm)	> 20	> 20	-	-	-
Salami - Product length, Cal. 30 - 60 (mm)	> 50	-	-	-	-



## Inotec Videos



SMALL GOODS LINE





# VEMAG

From humble beginnings during the post-war reconstruction years, there gradually emerged a company which made a key contribution to the development of continuous vacuum fillers. In recent years, VEMAG has placed increasing emphasis on the systematic nature of specific solutions and, more specifically, the integration of complex processing steps into the filling/portioning process.



## Our Philosophy: Working Together



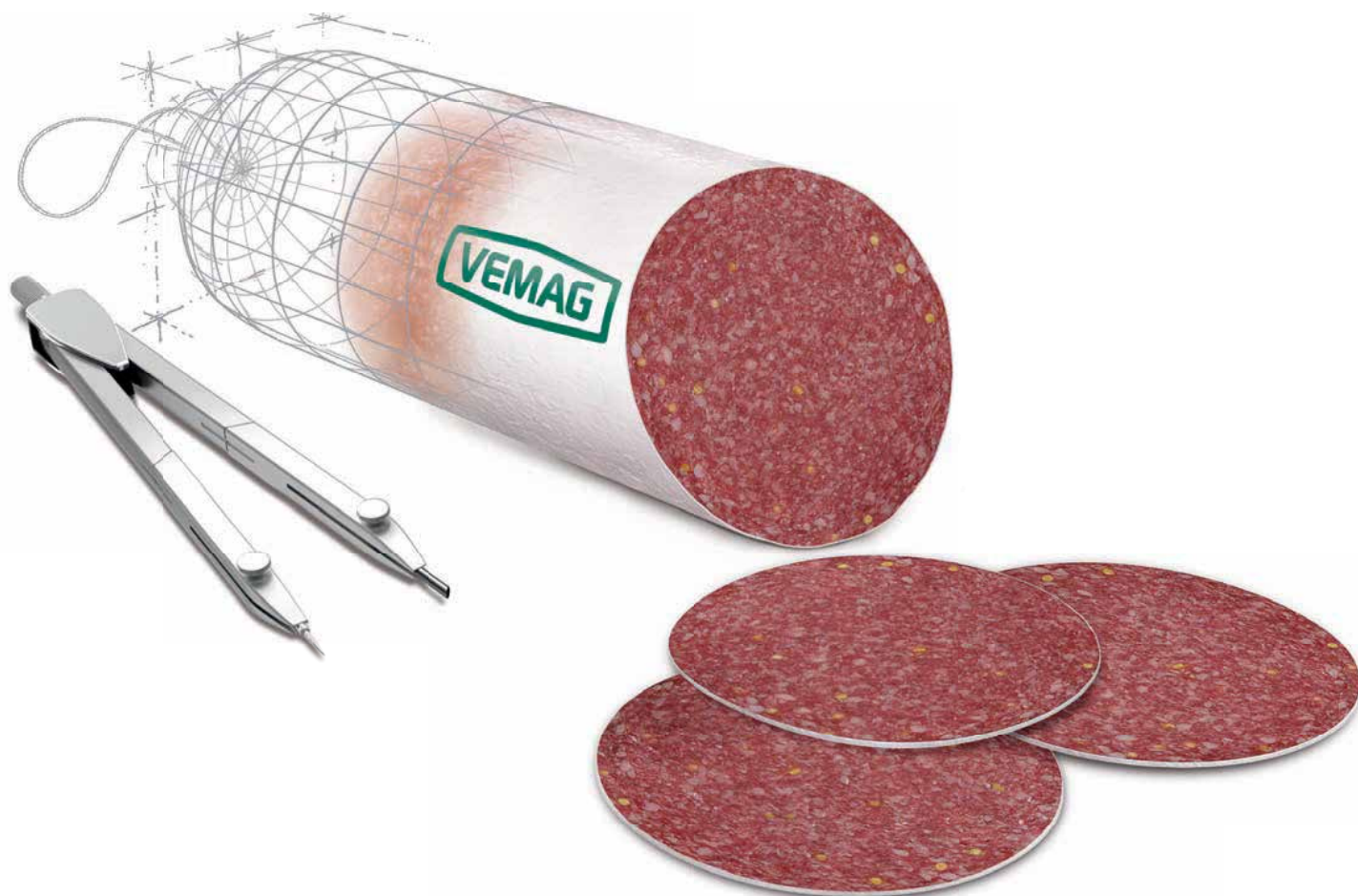
Our customers themselves decide on the best solution for their situation. Our contribution, alongside providing reliable, flexible machine system and customer-oriented service, is primarily the creation of a solution-focused dialogue with you - our customers - as partners, on an equal footing.

We engage with you as an equal, without being condescending, and provide advice on a continuous basis rather than just an occasional exchange. In addition to machines in line with the market for an efficient, cost-effective production, we also offer you a broad support for the versatile and flexible areas of use. We are passionate about your products and will create individual solutions just for you. This is what the VEMAG seal represents.



[www.vemag.de](http://www.vemag.de)





VEMAG HP Series Vacuum Fillers:

**State-of-the-art technology with the double screw -  
strong, flexible and easy to tool up**



# Are you looking for a machine that gives you obvious competitive advantages?

The VEMAG HP Series offers you:

- > **Optimized efficiency and reliability** through continuous process monitoring
- > **High process reliability and product integrity** through the ability to configure structures thanks to VEMAG grinding technology
- > **Increased reliability during use** thanks to the latest servo technology combined with years of tried and tested material handling technology
- > **Optimal hygiene characteristics** through use of easy-to-clean components



## We handle your raw material as gently as possible:



The double screws are at the heart of VEMAG filling machines. The double screws transport even raw materials containing large pieces especially gently all the way from the inlet to the outlet of the machine without a compression zone. The raw material is transported gently and without stress, making your products look ready-to-eat. The double screws operate almost without wearing, reducing

maintenance costs. Quick dismantling and easy cleaning ensure minimum downtime during product changes. This lowers the machine and staff costs per quantity, ensuring reliable and efficient production.

## Your **benefits**:

- > **Quality benefits:** extremely gentle product handling and reproducible quality
- > **Efficiency benefits:** fastest tooling-up and shortest downtime
- > **Service benefits:** ease of access to a machine's interior through separate doors and protection of electronics by the box-in-box system
- > **Profit benefits:** maximum speed and ultimate flexibility
- > **Hygiene benefits:** vacuum-closed sealing system and cleaning with all commercially available equipment



## HP10E/12E



The HP10E as the sausage specialist with optimal machine efficiency for maximum output: the solution for all filling tasks in sausage production. Your skill with casing holding devices or length portioning equipment becomes particularly evident.

And the HP12E as vacuum filler with double screw for flexible use and first-class machine efficiency for maximum output. The one machine for all tasks, also available with sausage grinder. By replacing the double screws, every HPE machine can be adapted optimally to any product, regardless of the weight range.

- > Optimal product feed from the VEMAG Duo Drive
- > Intuitive operation of the graphical control
- > The tried and tested VEMAG box-in-box system offers maximum protection of the electronic components
- > Filling rate\*, depending on feed element up to 5,700 kg/h (HP10E) and up to 3,600 kg/h (HP12E)
- > Portion weight: 1-99,000 g (infinitely adjustable)
- > Vacuum system: 16 m³/h or 40 m³/h (optional)
- > Hopper system: 250 L/350 L (optional)
- > Total nominal connected load: 16 kW at 50/60 Hz

## HP15E



The specialist for clip applications for cooked sausage and cooked ham products, as well as for all high-performance linking applications. The HP15E is the high-performance filler for sausage lines, e.g. for production of hot dogs or as a pump for several sausage lines.

- > Optimal product feed from the VEMAG Duo Drive
- > Intuitive operation of the graphical control
- > The tried and tested VEMAG box-in-box system offers maximum protection of the electronic components
- > Filling rate\*, depending on feed element up to 9,800 kg/h
- > Portion weight: 1-99,000 g (infinitely adjustable)
- > Vacuum system: 16 m³/h or 40 m³/h (optional)
- > Hopper system: 250 L/350 L (optional)
- > Total nominal connected load: 22 kW at 50/60 Hz

## HP20E



The universal vacuum filler with double screws for flexible use in all applications — the HP20E is the all-rounder among filling machines. Formed, ground or link products and even cold mixtures can be portioned with very little effort, since the VEMAG modular system consisting of vacuum filler and perfectly matched attachments provides maximum flexibility.

- > Optimal product feed from the VEMAG Duo Drive
- > Intuitive operation of the graphical control
- > The tried and tested VEMAG box-in-box system offers maximum protection of the electronic components
- > Can be combined with the VEMAG sausage grinder
- > Filling rate\*, depending on feed element up to 6,300 kg/h
- > Portion weight: 1-99,000 g (infinitely adjustable)
- > Vacuum system: 16 m³/h or 40 m³/h (optional)
- > Hopper system: 250 L/350 L (optional)
- > Total nominal connected load: 22 kW at 50/60 Hz



## HP25/30E



The HP25E is the fastest vacuum filler on the market for production of large-caliber sliced products. Flexible replacement of the double screws means that the machine can be tooled up for your product with a few simple motions. This not only saves costs, but time as well.

The most powerful vacuum filler on the market for optimal grinding when producing raw sausage is the HP30E. Whether it's cold products or high output, the HP30E will never let you down.

- > Optimal product feed from the VEMAG Duo Drive
- > Intuitive operation of the graphical control
- > The tried and tested VEMAG box-in-box system offers maximum protection of the electronic components
- > Filling rate\*, depending on feed element up to 25,000 kg/h (HP25E) and up to 8,700 kg/h (HP30E)
- > Portion weight: 1-99,000 g (infinitely adjustable)
- > Vacuum system: 40 m<sup>3</sup>/h
- > Hopper system: 350 L
- > Total nominal connected load: 38 kW at 50/60 Hz

## HP3



The HP3 is the reliable and robust vacuum filler with double screws for small businesses and furthermore the smallest vacuum filler ever made by VEMAG. The hopper has been completely redesigned. Its optimized shape improves product feed and minimizes the amount of residual material on the inside walls of the hopper for optimal utilization of raw material.

- > Can be combined with a variety of attachments such as filling horns, casing holding devices and length portioning equipment as well as filling heads
- > Intuitive operation of the graphical control
- > Can also be used as a Coex-B machine
- > Filling rate: up to 2,000 kg/h
- > Portion weight: 1-99,000 g (infinitely adjustable)
- > Vacuum system: 16 m<sup>3</sup>/h
- > Hopper system: 105 L, 45 L or 75 L (optional)
- > Total nominal connected load: 5.3 kW at 50/60 Hz

## HP10L



The HP10L is the linking specialist with double screws for flexible use. The solution for all filling tasks encountered in sausage production without a grinder. Your skill with casing holding devices or VEMAG flexible sausage lines becomes particularly evident. As a result, linking and portioning, even of soft products, is child's play.

- > Flexible use, also as Coex-B machine
- > Line control via touch panel
- > The tried and tested VEMAG box-in-box system offers maximum protection of the electronic components
- > Filling rate\*, depending on the feed element up to 5,700 kg/h
- > Portion weight: 1-99,000 g (infinitely adjustable)
- > Vacuum system: 16 m<sup>3</sup>/h or 40 m<sup>3</sup>/h (optional)
- > Hopper system: 250 L
- > Total nominal connected load: 10.5 kW at 50/60 Hz

\* The technical filling rate data reflects values achievable in actual practice. The theoretical values may be higher.



## Total Vacuum System TVS149

Producing continuously without disruption means producing economically. The VEMAG Total Vacuum System 149 enables precisely this, while simultaneously maintaining high product quality. It produces cooked sausage, raw sausage and cooked ham with optimal coloring, cover retention, a perfect cross-section and no trapped air whatsoever. Since the product is kept in a vacuum at all times, product quality is improved. Together with the universal applicability of VEMAG attachments and the tried and tested VEMAG grinding technology, products can be ground directly to the final size while simultaneously separating pieces of sinew and bone.



- > The vacuum system complements the tried and tested HP Series vacuum fillers for production of raw and cooked sausage products as well as cooked ham products
- > Two separately controlled vacuum systems for perfect evacuation and optimal product quality
- > Thanks to the ease with which the double screws can be replaced, the TVS149 is the most flexible system on the market when used with the HP30E

## Dairy Design

The Dairy Design offers the highest standards for product integrity and hygiene. All issues relating to the selection of materials and processing of the filling machines comply with current USDA specifications contained in the 3-A Sanitary Standard, Number 23-05 and are therefore suitable for production of any dairy products. Areas such as the feed unit, double screw housing and double screw are optimized in terms of material selection and processing. Special seals protect the product-routing area from any contamination.



- > HP Series equipped to comply with USDA specifications
- > High-gloss polishing of the stainless steel surfaces in the hopper and cover ensures perfect cleaning
- > Hinged hopper cover with feeding pipe to protect the raw material from contamination



Formed and ground products



Clipped sausage products



Linked sausage products



Convenience products



## Your benefits at a glance

**VEMAG E Series Duo Drive:** Two separate drives for feed element and feed system that operate independently of one another and ensure that operation is never interrupted, even in the case of mixtures that are difficult to process.

**Multiple uses:** Whether it's filling, clipping, grinding or separating — through a combination with special attachments, the machine can be matched perfectly to the specific production conditions. Integrative and automatic functions ensure efficient production. This makes it possible to eliminate upstream operations and reduce transport distances as well as downtime.

**Optimal hygiene and production reliability:** The hopper with optimized feed unit seals ensures reliable sealing under all production conditions. For cleaning, the feed unit seal is removed from the front in a few simple steps when the hopper is open, so that the infeed scroll and feed unit seal are readily accessible.

**Assured vacuum monitoring:** The vacuum pot is located in the direct line of sight of the operator. Meat drawn in by the vacuum is recognized immediately, so that damage to the vacuum pump can be prevented.

**Convenient operation:** The portioning computer with graphic control provides optimal assistance to the operator during daily tasks. With the aid of only 14 function keys, the operator has direct access to all parameters, all of which can be saved individually. The control system processes all line functions if the machine is integrated into a production line. Up to 99 programs can be stored. All outputs are displayed in clear text in the desired language. A protective cover shields the portioning computer from splashes of water.



## The VEMAG mono screw — flexible when it comes to cooked ham

Large juicy pieces of muscle — transported gently. This is what you get from the optimum pumping system. The quality of cooked ham is defined by, among other things, the size of the pieces processed. The larger the size, the higher the quality of the end product. With the mono screw, VEMAG satisfies the requirements for large-piece filling and at the same time offers a unique solution for everyone who produces cooked ham, but does not want to do without the flexibility of a universal filler. The mono screw is an add-on for the standard HP Series vacuum filler, allowing cooked ham to be filled gently. Every modern standard vacuum filler with double screws can serve as the basis for cooked ham filling. The double screws and the screw housing are removed from the standard filler. The small attachment drive is then pushed in and the mono screw inserted. That's it — the machine is now ready for filling cooked ham.



## Smart Link / Online Doc

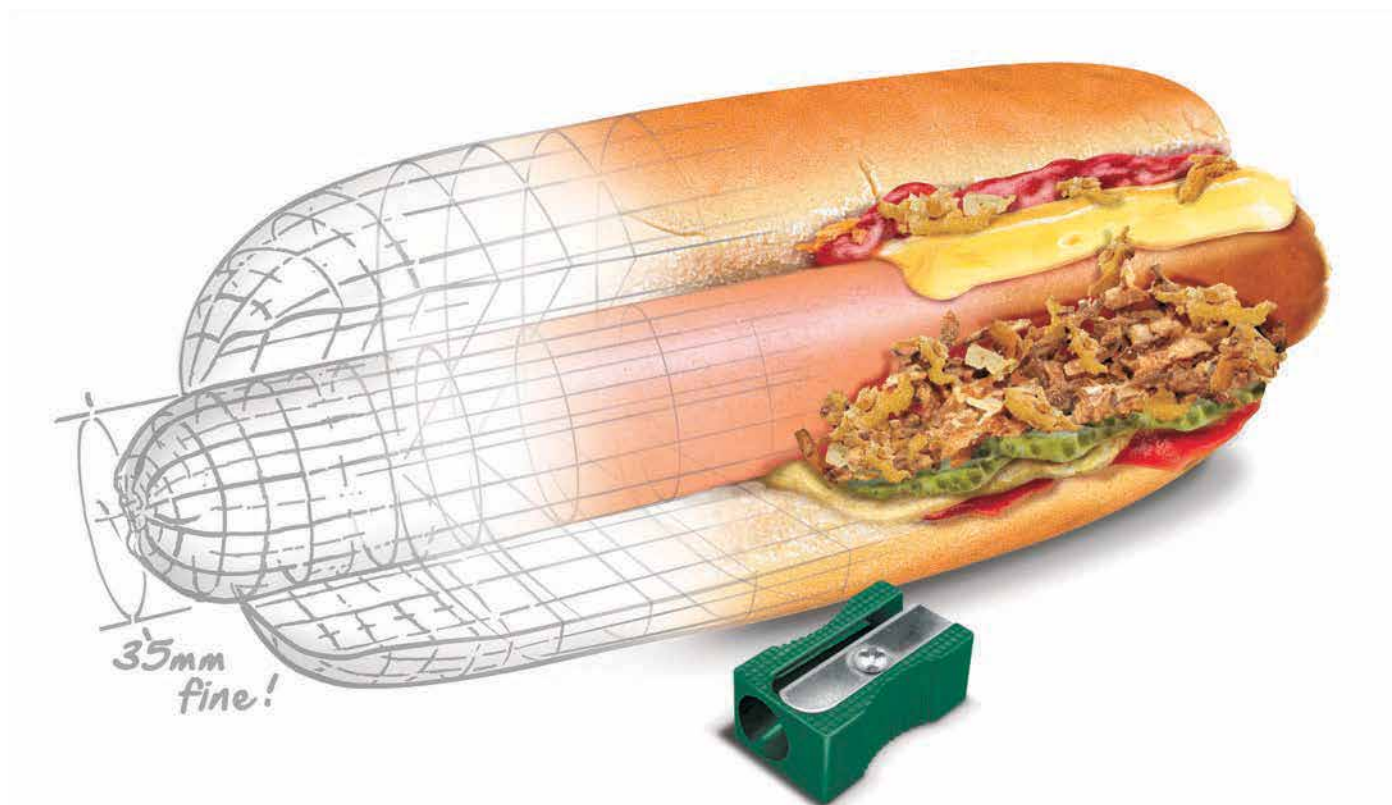
Evaluate operating data and machine data effectively and quickly via remote access — know what happened when and on which line: all of this is possible with the VEMAG Smart Link. By analyzing and visualizing entire production lines, it is possible to detect any weak spots that might be present, further optimize what is already performing well and track batches down right to the last detail. After all, knowledge is power. The power to improve line effectiveness and increase profit. Or simply to allow VEMAG Service to access the machine remotely — this not only saves time, but also reduces service costs: VEMAG Online Doc makes it possible. Two connections to assist your production.



## We grind and separate as we portion

Expand your forming line with integrated grinding solutions from VEMAG and exploit the benefits of grinding and separating as you portion. Hard product constituents are automatically separated, giving you a product characterized by a crisp bite and pleasant texture. Moreover, you increase the safety of your products and render upstream process steps superfluous.





VEMAG DP Series Vacuum Fillers:

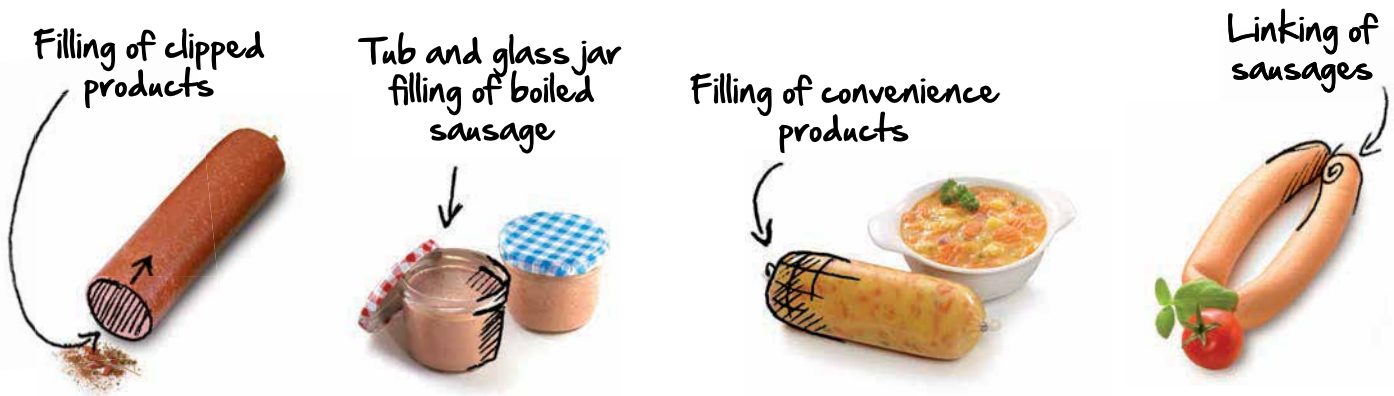
# Proven technology with the rotary vane pump — reliable and flexible



# Are you looking for a technology that has proven itself in the market multiple times?

The VEMAG DP Series offers you:

- > **Optimal efficiency and reliability** without time-consuming disruptions to production
- > **High process reliability and product integrity** thanks to a vacuum-closed sealing system
- > **Increased reliability** during use thanks to ideal cleaning conditions provided by the VEMAG box-in-box system
- > **Flexible use** to help convert your product ideas into reality with ease



## The heart of the DP machine — the VEMAG rotary vane pump:



The rotary vane pump transports the filled product very gently from the feed to the machine outlet. The almost frictionless conveyance of the filled product ensures extremely precise portion weights.

The user can choose from different rotary vane pumps in order to match the machines perfectly to the filled product. The individual components of the rotary vane pump can be replaced in a few simple motions, and are also easy to clean.

## Your **benefits**:

- > **Efficiency benefits:** fastest tooling-up and shortest down-times
- > **Service benefits:** ease of access to a machine's interior through separate doors and protection of electronics by the box-in-box system
- > **Profit benefits:** maximum speed and optimal flexibility
- > **Quality benefits:** consistent appearance of the product and reproducible quality
- > **Hygiene benefits:** vacuum-closed sealing system and cleaning with all commercially available equipment



## DP3



The space-saving DP3 is a reliable and robust vacuum filler with rotary vane pump technology that was developed specifically for the requirements of small-scale production. It is extremely versatile and is ideally suited for small to medium-sized meat processing operations.

- > Flexible use
- > Universal use for all sausage types
- > Can be connected to all common clip machines
- > Adaptable to the specific requirement
- > Intuitive operation of the touch-screen
- > Ideal hygiene properties
- > Can be used as a Coex-B machine
- > Encapsulated electronics (box-in-box system)
- > Easy to clean thanks to divided hoppers
- > Filling rate of up to 2.3 t/h
- > With integrated CAN BUS control

## DP5



Ideal for small to medium-sized batches and frequent product changes as well as for customers who produce larger batches on a seasonal basis. The benefit is the large hopper and the industrial-grade lifting device that can be used whenever the customer works with a bowl-cutter and a reject unit with a bowl-cutter cart. It is intended especially for use in traditional sausage applications. The DP5 is flexible and can be adapted to your requirements.

- > Flexible use
- > Universal use for all sausage types
- > Can be connected to all common clip machines
- > Adaptable to the specific requirement
- > Intuitive operation of the touch-screen
- > Ideal hygiene properties
- > Can be used as a Coex-B machine
- > Encapsulated electronics (box-in-box system)
- > Filling rate of up to 2.3 t/h
- > Optionally available with divided hopper
- > With integrated CAN BUS control

## DP6



When the objective is continuous filling, then DP6 is the right choice. Whether it's large batches in the sausage production kitchen or production of convenience products, the DP6 has the ideal reserve capacity. The DP6 features a 250-liter divided hopper. This allows you to easily place small quantities of meat into the hopper manually. The ideal solution for medium to large businesses.

- > Flexible use
- > Universal use for all sausage types
- > Can be connected to all common clip machines
- > Adaptable to the specific requirement
- > Intuitive operation of the touch-screen
- > Ideal hygiene properties
- > Can be used as a Coex-B machine
- > Encapsulated electronics (box-in-box system)
- > Increased production capacity
- > Filling rate of up to 2.7 t/h
- > Optionally with all-in-one hopper
- > With integrated CAN BUS control





## DP10E



The DP10E defines a new standard for vacuum fillers with a rotary vane pump. The modular system consisting of vacuum filler and specially adapted attachments enables customized solutions for linking and clipping soft products.

- > Optimal product feed from the VEMAG Duo Drive
- > Readily accessible and removable feed unit seal as well as easy inspection of the feed unit seal
- > Encapsulated electronics (box-in-box system)
- > Can be connected to all common clip machines
- > Adaptable to the specific requirement
- > Intuitive operation of the graphical control
- > Easily cleaned with commercially available cleaning agents
- > Ideal for processing of soft products and emulsions
- > Filling capacity of up to 6 t/h
- > Optionally available with divided hopper
- > With integrated CAN BUS control

## DP12E



The DP12E is the universal vacuum filler with rotary vane pump for portioning of firmer masses in the industry. The all-in-one hopper with optimized feed unit seals guarantees reliable sealing under all production conditions. The infeed scroll can be removed for cleaning with just a few simple motions when the hopper is open. The operator can release even the hinged housing with a single motion to gain access to the rotor.

- > Optimal product feed from the VEMAG Duo Drive
- > Readily accessible and removable feed unit seal as well as easy inspection of the feed unit seal
- > Encapsulated electronics (box-in-box system)
- > Can be connected to all common clip machines
- > Adaptable to the specific requirement
- > Intuitive operation of the graphical control
- > Easily cleaned with commercially available cleaning agents
- > Ideal for processing of firm masses, e.g. breakfast sausages
- > Filling capacity of up to 7 t/h
- > Optionally available with divided hopper
- > With integrated CAN BUS control

## DP14E



The powerful DP14E is the fastest vacuum filler with rotary vane pump technology. Thanks to its especially high filling rates, it is also ideally suited for large industrial operations. It is easy to operate and allows all entries to be saved in the portioning computer as well as all process data to be retrieved at the push of a button, for instance, for production of clipped and link products.

- > Optimal product feed from the VEMAG Duo Drive
- > Readily accessible and removable feed unit seal as well as easy inspection of the feed unit seal
- > Encapsulated electronics (box-in-box system)
- > Can be connected to all common clip machines
- > With integrated CAN BUS control
- > Intuitive operation of the graphical control
- > Adaptable to the specific requirement
- > Easily cleaned with commercially available cleaning agents
- > For processing of all masses at a high portioning rate
- > Filling capacity of up to 10 t/h
- > Optionally available with divided hopper

## Smart Link / Online Doc

Evaluate operating data and machine data effectively and quickly via remote access — know what happened when and on which line: all of this is possible with the VEMAG Smart Link. By analyzing and visualizing entire production lines, it is possible to detect any weak spots that might be present, further optimize what is already performing well and track batches down right to the last detail. After all, knowledge is power. The power to improve line effectiveness and increase profit. Or simply to allow VEMAG Service to access the machine remotely — this not only saves time, but also reduces service costs: VEMAG Online Doc makes it possible. Two connections to assist your production.



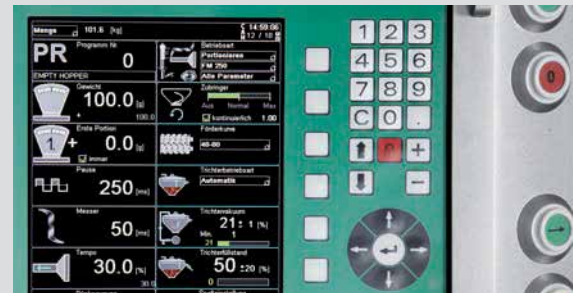
## Durable Components

All components, such as the feed element and transmission, are designed to last. The use of high-quality materials together with its extremely robust construction ensure stable working conditions and low wear and tear. For instance, the feed element is made entirely from stainless steel. A low level of maintenance helps to shorten disruptive downtime.

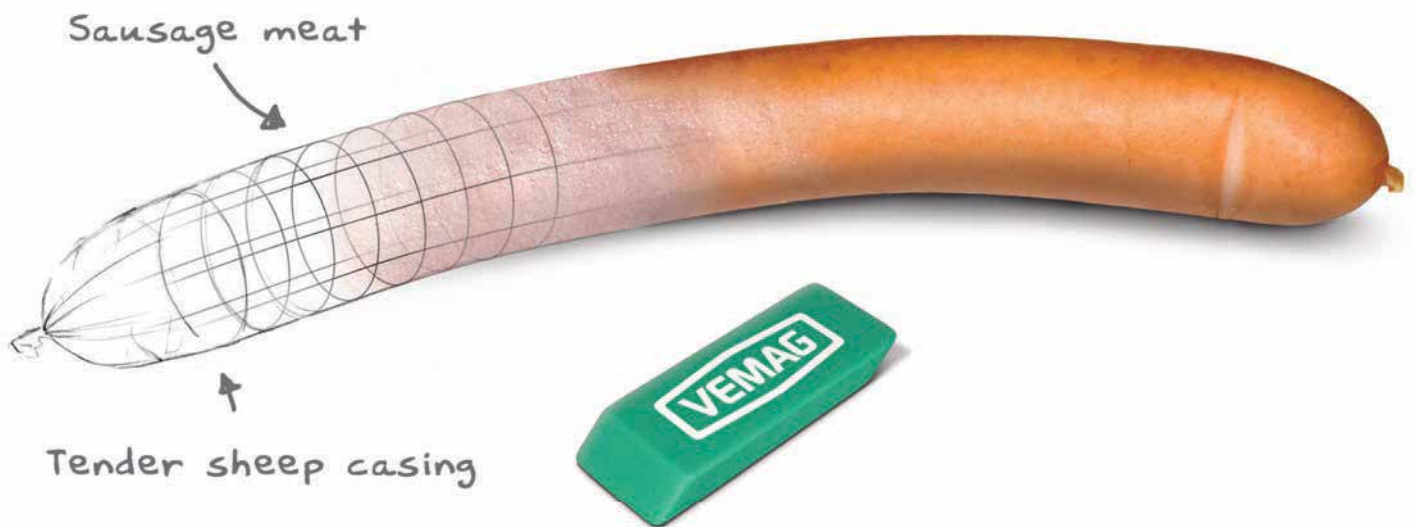


## Carefully Designed Machines

The engineering incorporated into VEMAG machines extends far beyond a structured layout of the machine and its technical components. It allows for easy and thus inexpensive maintenance. Carefully selected servomotors that can be adjusted to each product optimize your production. The easy-to-operate intuitive graphical controls for executing machine programs help you save valuable time. Quality can be seen not only in the workmanship of the individual components - it is found in every detail.



[www.venag.de](http://www.venag.de)



VEMAG Maschinenbau GmbH:

# Flexible solutions for small-scale sausage production





# Small-scale machines — developed by experts for experts

We are the right partner for you:

- > **The best advice** in line with your needs
- > **Efficient machines** that are highly flexible and capable of producing exactly what you require
- > **Perfect products** according your ideas



## The possibilities: flexible, customer-oriented, hygienic and efficient production

**Our focus is on the customer. The right equipment is crucial in order to meet customers' requirements.**

Depending on your products, your personal requirements and the size of your company, here at VEMAG Maschinenbau GmbH we will develop a suitable solution that is tailored to your needs.

All of our filling machines and attachments are extremely gentle on products and deliver the highest level of flexibility while taking your requirements into consideration.

All of this enables you to produce sausages entirely in line with your requirements for your individual specialties.

You are able to select the feeding mechanism technology between VEMAG rotary vane pump and VEMAG double screws.

For a **wide range of products** with no long lead times:

- > Frankfurters
- > Thick Frankfurters
- > Fresh grilling sausage
- > Cocktail sausages
- > Chorizo
- > Salami
- > White pudding (Bavarian style)
- > And many more

## The benefits for you:

- > **Profit benefits:** as a result of maximum flexibility and ultimate yield, among other factors
- > **Efficiency benefits:** as a result of the quickest tooling-up times and lowest downtimes, among other factors
- > **Service benefits:** as a result of machines requiring the least maintenance and experiencing the lowest levels of wear, among other factors
- > **Cost benefits:** as a result of optimum utilisation of casings and lowest give-away, among other factors
- > **Quality benefits:** as a result of highest degree of weight accuracy and consistently precise lengths, even with natural casings, among other factors
- > **Hygiene benefits:** as a result of large stainless steel surfaces and separately encapsulated electronics (VEMAG box-in-box system), among other factors





## Casing holding device DHV841



The casing holding device DHV841 is designed as an attachment for vacuum fillers and is mounted directly onto the linking gear. Unlike similar systems on the market, the device does not need its own drive. An integrated, pneumatically driven casing pusher facilitates the processing of artificial casings. A caddy holder located on the casing feed accommodates standard commercial casing caddies and provides short routes for changing the casing.

- > All casing types possible
- > Integrated casing feed
- > Possible to link on the table
- > Automatic hanging possible (optional)
- > Calibre 16–42+ mm
- > No separate drive
- > Extremely reliable and accurate linking
- > Virtually no wear and no maintenance required
- > Up to 700 portions/min.
- > Practical placement
- > Low level of wear

## Casing holding device DHV937



Whether its sheep or hog casings — the casing holding device DHV937 makes linking sausages of any calibre child's play. The device is mounted directly onto the linking gear and does not need its own drive. The casing brake can be adjusted during operation, making it possible to achieve optimum production results and be extremely easy to use.

- > All casing types possible
- > Short design — for linking horns with a length of 290 mm
- > Long design — for linking horns with a length of 390 mm
- > Possible to link on the table
- > Calibre 16–42+ mm
- > Virtually no wear and no maintenance required
- > More than 700 portions/min.

## Length portioning device LPV802



Identical lengths, weights and calibre — the LPV802 is ideal for use for cooked and raw sausages in sheep and hog casings. It processes standard casing types. The device's ease of use and ability to adapt to different calibres and lengths saves time and lowers costs. All settings can always be reproduced, thereby considerably improving the scope to standardise products.

- > Simple, cost-effective solution
- > Virtually no wear and no maintenance required
- > Extremely easy to use
- > Little training necessary
- > Use of standard casing types
- > Reduction of casing bursts
- > Results offer a high level of reproducibility
- > Minimised sorting outlay for packaging of goods
- > Calibre 15/17 to 26/28 (sheep casing)
- > Calibre 26/28 to 42/+ (hog casing)

## Universal length portioning device LPV802



The LPV802 breaks new ground in the length portioning of natural casings. Thanks to the high level of reproducibility offered by the results, the device achieves a degree of standardisation hitherto only possible for sausages in artificial casings. A special calibre horn guides and calibrates the sausage during filling. In this way, it always reaches the specified filling calibre even with over-calibrated casings. Thanks to the automatic casing pusher, the LPV802 universal is equally suitable for processing collagen and cellulose casings.

- > Calibre 15/17 to 26/28 (sheep casing)
- > Calibre 26/28 to 42/+ (hog casing)
- > Calibre 13–36 (collagen/cellulose casing)
- > Simple, cost-effective solution
- > Extremely easy to use
- > Ergonomic workflow
- > Little training necessary
- > Use of standard casing types
- > Reduction of casing bursts
- > Results offer a high level of reproducibility
- > Minimised sorting outlay for packaging of goods
- > Automatic casing feed for collagen and cellulose casings

## Casing applier DAG804



The casing applier DAG804 facilitates the application of natural casings with all VEMAG length portioning machines and casing holding devices. A special applying wheel quickly and very gently applies the casing to the linking horn, thereby reducing application times by 30 to 40 %. The casing applier can be cleaned using low-pressure equipment. It does not require maintenance.

- > Very quick application of sheep and hog casings
- > Reduction of casing changeover times
- > Higher yield
- > Gentle treatment of casings
- > Low level of manual work required

## Casing holding device DHV810



It couldn't be faster — extremely high linking speeds provide a portioning rate of up to 700 portions per minute, with clean and precise linking points. The DHV810 optimises production of low-calibre goods in natural casing, such as Nuremberg sausages. If necessary, the device can also be set up for collagen and cellulose casings. The casing holding device DHV810 is primed for attachment onto the VEMAG high-speed linking gear. It can be attached to filling machines in the HP and DP series.

- > Calibre 13–40 mm
- > Up to 700 portions per minute
- > Virtually no wear and no maintenance required
- > Optimum hygiene properties
- > Ideal for low-calibre sausages
- > Can be optionally used for collagen and cellulose casings
- > Even casing tension
- > Ready for use immediately





## 982/801 sausage grinder with optional separation device

Grinding of the product to the final size, and if necessary, simultaneous separation of bone fragments and sinew — directly during the filling and linking processes.



## 707 filling table

A notch in the table allows the user to work closer to the machine — standing up and without having to bend over.



## AH212 hanging machine

Attachment for automatic hanging of sausage chains. A high hanging rate paired with a high level of flexibility — all hanging types feasible.



## TM203 cutting machine

The three-edged sickle-shaped blade on the TM203 cuts sausages in natural and collagen casings in the link point with a high level of accuracy. Easy to use with LPG, LPV and DHV devices.



## HPE series

The hopper and housing are fully sealed by an easily accessible double seal, thereby ensuring optimum levels of hygiene.

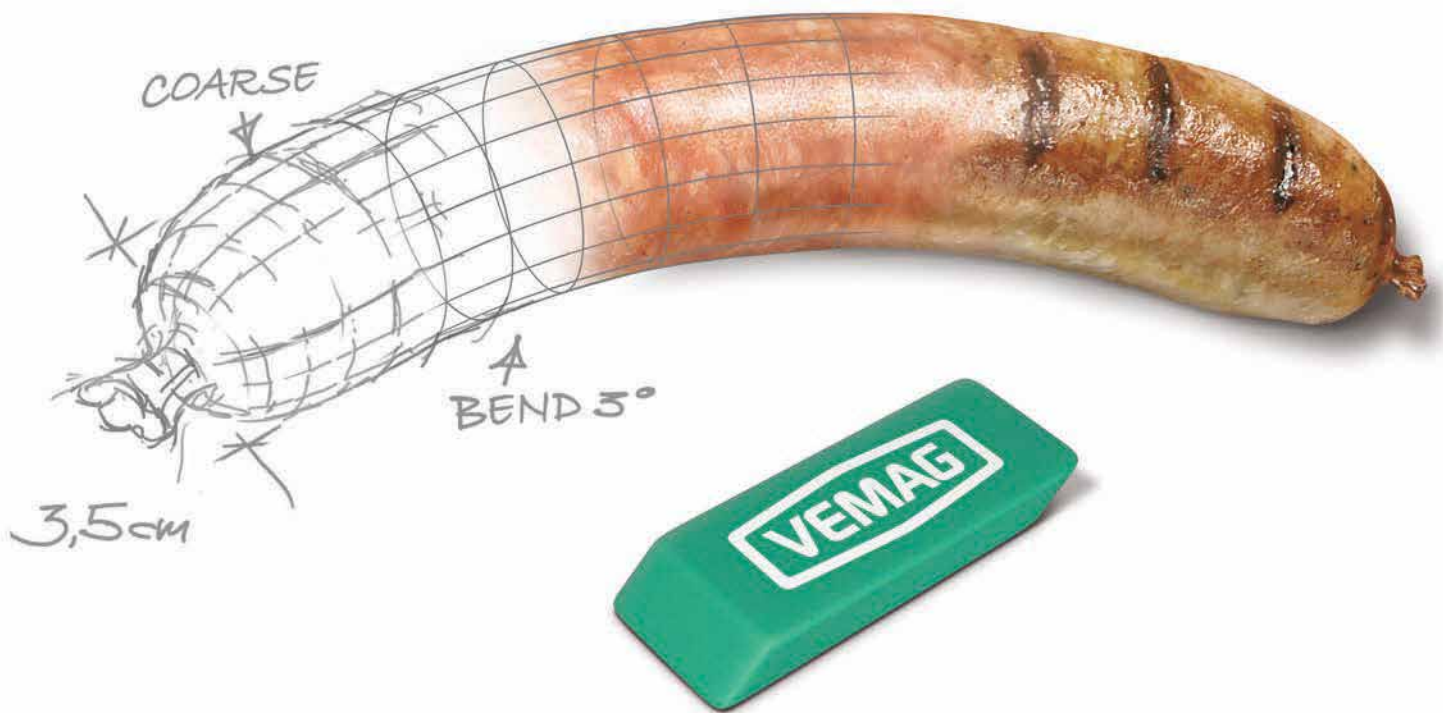


## HP3 vacuum filler

Specially developed in collaboration with master craftsmen to meet the requirements of small-scale production. The HP3 is the world's smallest vacuum filler equipped with a double screw.







VEMAG Maschinenbau GmbH:

# Flexible Solutions for industrial sausage production

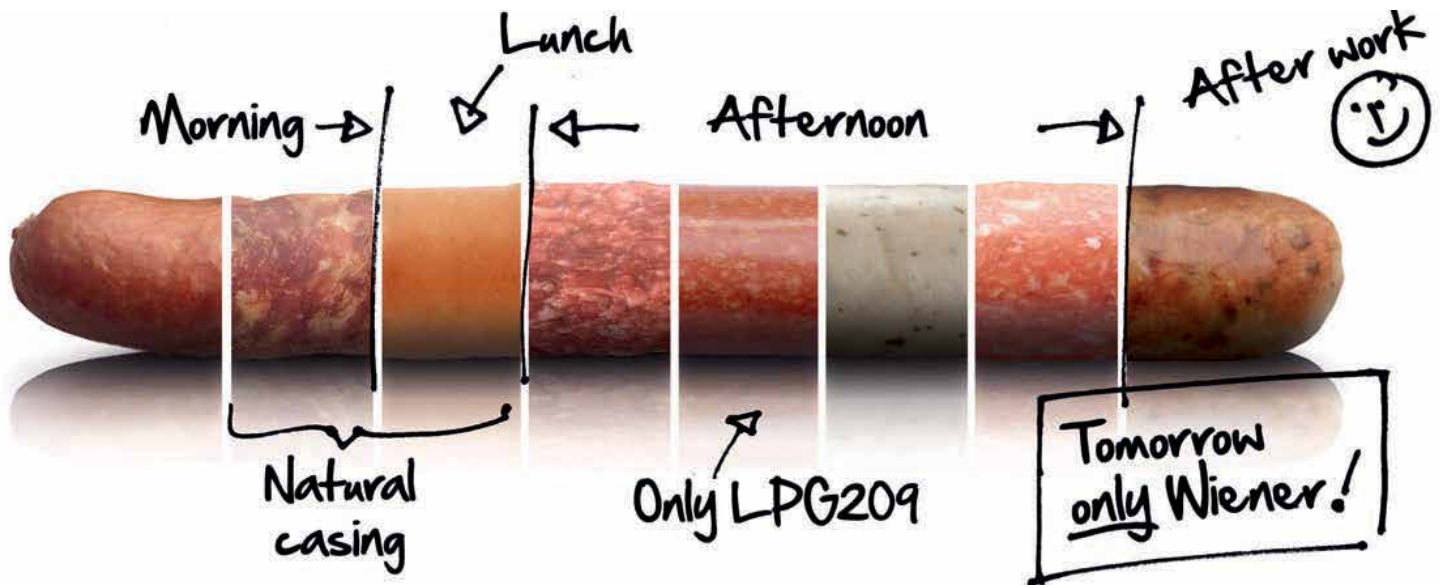




# You're looking for the ideal solution for your sausage production?

Then we are the right partner for you:

- > **Ideal advice** which looks at your requirements
- > **Efficient machines** which produce cost-effective and reliably
- > **Highest flexibility** for your production



## The possibilities: Automatic, flexible, efficient and hygienic production

If you want to react flexibly to customer requirements, then you need the right equipment.

At VEMAG Maschinenbau GmbH we work jointly with you to find suitable and individual solutions for your requirements. Both the individual machines and accessories as well as their combination to production lines made up from different components fulfil the highest degree in efficiency and flexibility in consideration of your requirements. This gives you a sausage production which is tailored to your requirements enabling you to create the products and the time planning for the production. Also, the feeding technology is selected according to

your needs - since VEMAG works both with double screw as well as with rotary vane pumps.

For a **broad product range** without long lead times:

- > Frankfurter
- > Merguez
- > Breakfast sausage
- > Cocktail sausage
- > Chorizo
- > Raw sausage
- > Hot Dog
- > Fresh fried sausage
- > And many more

## Your **benefits**:

- > **Winning edge**: e.g. due to a largest yield and highest speed
- > **Efficiency benefits**: e.g. due to fast setup and down times
- > **Service benefits**: e.g. due to machines low in maintenance and low in wear
- > **Cost benefits**: e.g. due to the best use of casings and lowest give-away
- > **Quality benefits**: e.g. due to greatest exactness in weight and always exact lengths even for natural casings
- > **Hygiene benefits**: e.g. due to great stainless steel surfaces and extra enclosed electronics (VEMAG Box-in-Box System)

## Length portioning machine LPG208



The high speed model with twin head and optional fully-automatic casing pusher. The LPG208 Servo links sausages with the greatest exactness for length and weight, no matter which casing you use. The twin head ensures short casing changeover times of less than 2.5 seconds and hence ensures increasing output quantities and more profit in the same time. You can save valuable time for refitting to other products using the quick releases for sensor-controlled dividing belts giving you greatest exactness in length.

- > Twisting and handover to hanging or separating
- > For natural, collagen, polyamide and cellulose casings
- > Boiled, raw and fresh sausages can be produced
- > Casing burst control (optional)
- > Short fitting times due to quick release (< 1 min)
- > Fill speed up to 4,400 kg/h
- > Casing end control
- > Calibre 13 to 40+ mm
- > Optional casing pusher for artificial and cellulose casings

## Length portioning machine LPG209



Fast, innovative and productive: that is the best description for the length portioning device LPG209 for all casing types. The integrated casing magazine reduces casing changeover times and increases the production capacity - up to 2,200 sausages per minute. Quick releases for the dividing belts ensure shortest refitting times.

- > Twisting and handover to hanging or separating
- > For natural, collagen, polyamide and cellulose casings
- > Boiled, raw and fresh sausages can be produced
- > Casing changeover times < 2.5 sec
- > Calibre 13 to 40+ mm
- > Processing of overlapping natural casings possible
- > Personnel saving due to fully-automatic operation and casing storage
- > Short fitting times due to quick release (< 1 min)

## HP20E + LPG208 Servo + TM203



The industrial top performer consists of an HPE-series vacuum filling machine, the LPG208 Servo length portioning device and the cutting machine TM203 for twisting and separating of sausages e.g. fresh fried sausage.

## HP10E + LPG208 + AH212



Rapid twisting and hanging of sausages with an HPE-series vacuum filling machine, the LPG208 Servo length portioning device and the hanging machine AH212.

## Flexible Sausage Line FSL210



The FSL210 gives you the best possible flexibility for your entire sausage production with natural, collagen and cellulose casings. The FSL210 is able to generate the correct sausage length fully-automatic by entering the calibre and weight and consequently it provides a maximum of flexibility. And if you want, the divider unit is also able to separate your sausages. The patented belt pairs stretch for this purpose the twisting location, fix the intersection ideally and ensure even more precise cuts.

- > Up to 800 cycles/min (650 for cellulose casings)
- > Integrated divider unit
- > For natural, collagen and cellulose casings
- > Sausage lengths can be adjusted (e.g. underfilling)
- > Flexible, exact length portioning by determination of calibre and weight
- > Calibre 13 to 40 mm
- > Optional natural casing end detection
- > Short fitting times due to quick release (< 1 min)

## Flexible Sausage Line FSL211



The flexible sausage line FSL211 is a device to generate exact portioning and twisting of sausages. Thanks to the compact dimensions, it can also be connected to any modern VEMAG vacuum filler even if space is limited. Ideal for frequent product change thanks to unrivalled fast refitting times of less than 2 minutes.

- > Flexible, exact length portioning by determination of calibre and weight
- > Start-/Stop-Sensor with Quick-Start-Function for higher productivity times
- > Cost savings due to less wear parts
- > Flexible ball head connection to the filling machine
- > Short fitting times due to quick release (< 1 min)
- > Calibre 13 to 50 mm
- > For natural, collagen and cellulose casings

## HP20E + LPG209 + TM203



Fastest twisting and separating of sausages with lowest employment of personnel thanks to a line made up from HPE-series vacuum filling machine, the length portioning device LPG209 and the cutting machine TM203.

## HP30E + Separation grinder 982 + LPG209 + AH212



The high-speed model for the automation e.g. for raw sausages and snack products in artificial or cellulose casings. It consists of an HPE-series vacuum filling machine, the length portioning device LPG209 and the hanging machine AH212.



## Length portioning machine LPG213



The length portioning machine has a fully automatic casing magazine with casing change times of less than 2.5 seconds; to increase the hourly output, the LPG213 is equipped with extended linking horns so that longer casings can be used. This innovation increases the time available for production, keeping down-time to a minimum.

- > More efficient production processes
- > Very high production speed
- > Ideal hygiene properties
- > Less give away thanks to long casings
- > Consistent quality standard
- > Automatic casing changes in less than 2.5 seconds
- > Linking of all casing types
- > Monitoring of split casings for synthetic and collagen casings
- > Flexible to use
- > Continuous production process
- > Very high degree of length and weight accuracy
- > Careful handling of casings
- > Linking speed can be adapted to casing type
- > Rapid set-up times

## Coex Casing CC215



An attachment for producing sausages in alginate casings — ideal for products such as fresh grilling sausage and purely halal or vegetarian sausages. The extra long dividing belts continuously portion up to 800 sausages per minute.

- > Low-maintenance
- > Flexible to use
- > Continuous production process
- > Costs reduced as time is no longer required for casings changes
- > More efficient production processes
- > High production speed
- > Ideal hygiene properties
- > Alginate is much more cost-effective than natural casing
- > Endless rope of sausage means less rework
- > Less added salt
- > Price stability, as alginate is not subject to any seasonal fluctuations
- > Production of pure poultry, halal, kosher and vegetarian products possible
- > Consistent quality standard

## Cutting machine TM203



TM203 - the cutting machine for best cutting performance with up to 1,300 cuts/min. Its triple sickle shaped blade cuts the sausages precisely in the twisting location, even if the product is curved. The good conveying of the supply and output belts and the precise cut of the blade result in extremely impressive cutting results which are reflected in the appearance of your products.

- > High cutting performance up to 1,300 cuts/min
- > Simple operation
- > Easy to clean
- > For natural, collagen and cellulose casings
- > Sausage lengths as of 40 mm
- > From caliber 13 mm

## Hanging machine AH212



The AH212 hanging machine is a device for automatically hanging strings of sausages. Thanks to the easily adjustable hook spacing, the machine can be adjusted to the optimum position for your smoke trolley and sticks to ensure the all the available space is used. The AH212 offers two operating heights: The sausages are gathered from the hooks higher up for finishing, and transported on the lower hooks when the string of sausages is simply removed.

- > Flexible hook spacing
- > Optimum use of the smoke stick
- > All hanging types possible (individual, in pairs, etc.)
- > Formation of hook groups possible
- > Ergonomic fatigue-proof workflow





*Talk to us about your „dream product“. We are happy to help you to make this dream come true.*



## HP12E + FSL210



A line for portioning, twisting and dividing of sausages whilst providing best flexibility, consisting of a vacuum filling machine of the HPE-series and the flexible sausage line FSL210.

## HP10E + FSL211 + AH212



The flexible line for the production and hanging of same length sausages of any type with an HP10L, a FSL211 and AH212.



### **FSL210 + AH212**

Clean and precise handover of the twisted sausage to the hanging



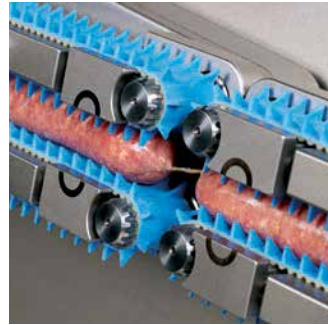
### **HPE-Series**

The hopper and the housing are perfectly sealed by an easily accessible double seal and ensure hence perfect hygiene.



### **LPG208**

The divider belts held together with the quick release guarantee exact same lengths and weights of the sausages whilst maintaining highest twisting speeds.



### **FSL210 – Extension**

Extension of the twisting location by a second belt pair for clean and exact cuts.



### **LPG209**

The LPG209 with fully automated casing storage guarantees the highest speed in production and operation of the line with fewer members of staff.



### **FSL210 – Blade**

Ideal hygiene thanks to an easily accessible precision blade.



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# Length Portioning Machine LPG213



## Highly efficient hot dog production

### Flexible high speed

A fully automatic casing magazine with casing change times under 2.5 seconds. To increase hourly output, the LPG213 is equipped with extended linking horns so that the longer casings can be used. This innovation increases the time available for production, keeping downtime to a minimum.



LPG213

The LPG213 combines high output with efficiency when linking sausages – at the same time, it links with high length precision and exact weights.

### Efficiency

The LPG213 has a fully automatic casing magazine for loading synthetic and collagen casings and permits semi-automatic use with natural casings. The casings are simply placed in the magazine – the machine does the rest. This fully automatic unit reduces casing change times to a minimum. Changing over takes less than 2.5 sec., allowing optimal use of the time available.

Extended linking horns permit use of casing magazines with a length of 580 mm, i.e. not only are the longest commercially available casings accepted, but considerably longer, customer-specific types are as well. As a result, casing changes are less frequent and more efficient use can be made of production time.

The casing is guided into the correct position during loading and then held gently by the surrounding claw mechanism. This can be seen by the high degree of operational reliability of the LPG213, as there is no kinking of casings.

### Transfer

This is where the universal VEMAG modular system comes in. The

LPG213 can be combined with the VEMAG AH212 hanging machine and the TM203 cutting machine. This gives you flexibility and, depending on your requirements, you can transfer the sausages for heat treatment, additional processing or packaging.

### Mirror image arrangement

The controls for the LPG213 are located on the side opposite the graphic display of the filler, it has a mirror-image arrangement in contrast to the other VEMAG length portioning machines. When transferring to equipment from other manufacturers that have the controls located on the same side, this allows for a continuous production process, since distances are eliminated and time saved.

### Flexible set-up

You'd struggle to find shorter set-up times. It only takes a few minutes to switch the length portioning machine from artificial and collagen casings to natural casings and resume production. The operator can quickly learn the simple steps involved – ensuring maximum flexibility in sausage production.

### Hygiene

Like all VEMAG machines and attachments, the LPG213 can be cleaned with low-pressure equipment and commercially available cleaning agents.

### Sensors

Intelligent recognition of the end of artificial and collagen casings, and optionally of natural casings, stops the portioning process when the end of the casing is reached and triggers a casing change.

The innovative length portioning machine also eliminates the risk of split casings when using artificial or collagen casings; something that is often spotted too late by the operator when using conventional machines. Each of these split casings is immediately registered and produces a signal on the filler so that it immediately comes to a stop. Uncontrolled escape of sausage meat is thus effectively prevented. Hygiene is increased, the costs associated with lost product reduced and the production process is continuous – with a decreased error rate, hourly output increases.



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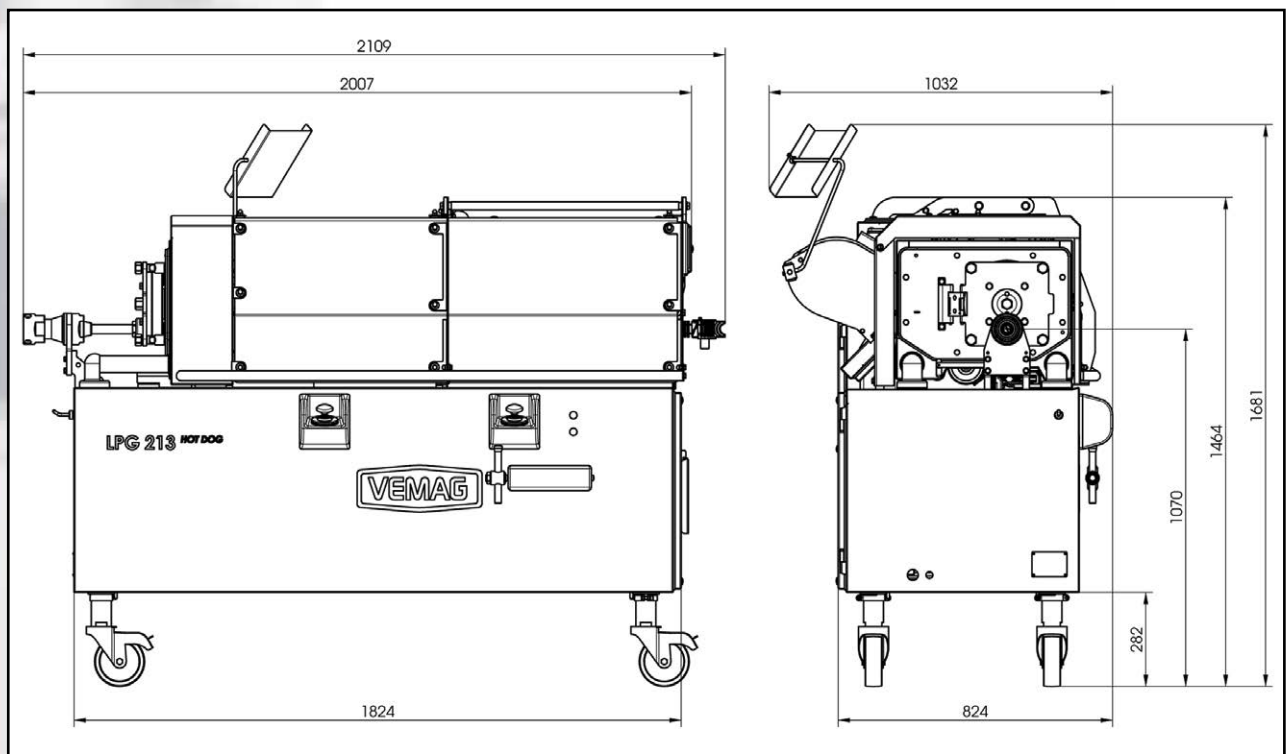


### All the benefits at a glance:

- Low maintenance
- Flexible use
- Continuous production process
- More efficient production processes
- Very high production speed
- Ideal hygiene characteristics
- Reduced giveaway thanks to long casings
- Consistent quality
- Automatic casing changes in less than 2.5 sec.
- Linking of all casing types
- Split casing monitoring for artificial and collagen casings
- Very high length and weight accuracy
- Gentle handling of casings
- Linking speed adaptable to casing type
- Short set-up times

## Technical data

Casing types:	Natural, collagen, polyamide and cellulose casings
Portioning rate/min.:	up to 1.300 sausages in natural casing up to 2.200 sausages in artificial or collagen casing
Casing length:	580 mm
Caliber:	13 - 40 mm
Sausage length:	20 - 400 mm, additional lengths upon request



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# CC215 Alginate Line

## Sausage – flexibly produced in alginate casings

### Modern, healthy and cost-effective

Sausage is traditionally portioned in natural, collagen and cellulose casings, a process that is extremely well-suited for most products. Innovative products, however, require new solutions. VEMAG has developed an alginate line with extra-long dividing belts for these sausage types. The result: cleanly divided sausages with a portioning rate of up to 1.800 pieces per minute. The sausages have the perfect bite and, in terms of casing cost, lower production costs enormously.



CC215

The CC215 is an attachment for the production of sausage in an alginate casing. The sausages can either be discharged on a hanging unit or individually on a belt.

### Alginate

Alginate is a gel obtained from algae that is used, among other things, as a substitute casing. Alginate is a natural product and purely vegetable-based. It imparts the perfect texture and a pleasant mouthfeel. After curing, it feels perfectly cool and dry. It does not soften again, even when exposed to hot water.

The alginate encapsulates the sausage in a transparent skin, allowing the product to remain visible. Since they have an exceptional ability to retain the aroma of smoke, alginate casings are ideally suited for smoked products.

### Specialties

Alginate permits production of „pure“ products such as halal sausage or poultry sausage. Sheep and hog casings are no longer needed, so the product remains „pure“. One unique aspect is that it allows the production of purely vegetarian sausage, allowing you to develop new markets. Alginates consist of algae and their casing therefore means they remain purely vegetable-based products.

Moreover, the CC215 is ideal for production of fresh grilling sausage products such as breakfast sausage, merguez or

even sausage by the meter (long smoked sausages or snack sticks).

There really is no limit to the caliber of your specialties. Everything between caliber 10 and 32 is now possible – it really couldn't be faster or simpler.

### Usage

This is where the universal VEMAG modular system comes in. Every vacuum filler in the HPE and DPE Series can be used for portioning of sausage meat. As a B-machine, the HP coex alginate filler delivers directly to the coextrusion head, where the meat is encased in a casing of uniform thickness. The highly accurate casing thickness guarantees reproducible quality and material costs – for an accurate calculation and satisfied customers.

Immediately upon exiting the coextrusion head of the CC215, the finished alginate is sprayed with a calcium chloride solution, which immediately begins the curing process.

### Flexible use

The strand of sausage meat can now be processed further on the basis of your requirements:

- Directly to a hanging line, e.g. for long smoked sausages
- Divided and singulated on a belt or for a heat process, e.g. fresh grilling sausage.

For singulating, the dividing belts come together at an angle while transporting

the meat strand forward. The especially long dividers form the round ends of the sausages and separate them completely from one another, if necessary. This process allows a noticeably higher portioning rate: the CC215 has an output of up to 1.800 sausages per minute. Compare the output.

### Reduce costs

The CC215 continuously encases the product strand in alginate. Rework, caused by the beginning and end of natural and synthetic casings, is thus eliminated. There are no casing change times thanks to continuous production. You use production time efficiently and produce more product in the same amount of time.

The VEMAG CC215 is suitable for use with all alginate gel brands. This saves costs, since you can create the optimal gel for your needs without being tied to a specific manufacturer. This means flexibility, with costs reduced even further.

Like all VEMAG machines and attachments, the CC215 can be cleaned with low-pressure equipment and commercially available cleaning agents.



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### All the benefits at a glance:

- Low maintenance
- Flexible use
- Continuous production process
- Costs are reduced as time is no longer required for casing changes
- More efficient production processes
- High production speed
- Ideal hygiene characteristics
- Alginate is much more cost-effective than natural casing
- Endless sausage rope means less rework
- Less added salt
- Price stability, as alginate is not subject to any seasonal fluctuations
- „Pure“ halal, poultry, vegetarian and kosher products are possible
- Consistent quality

## Technical data

Sausage length: 40 mm – 1.400 mm

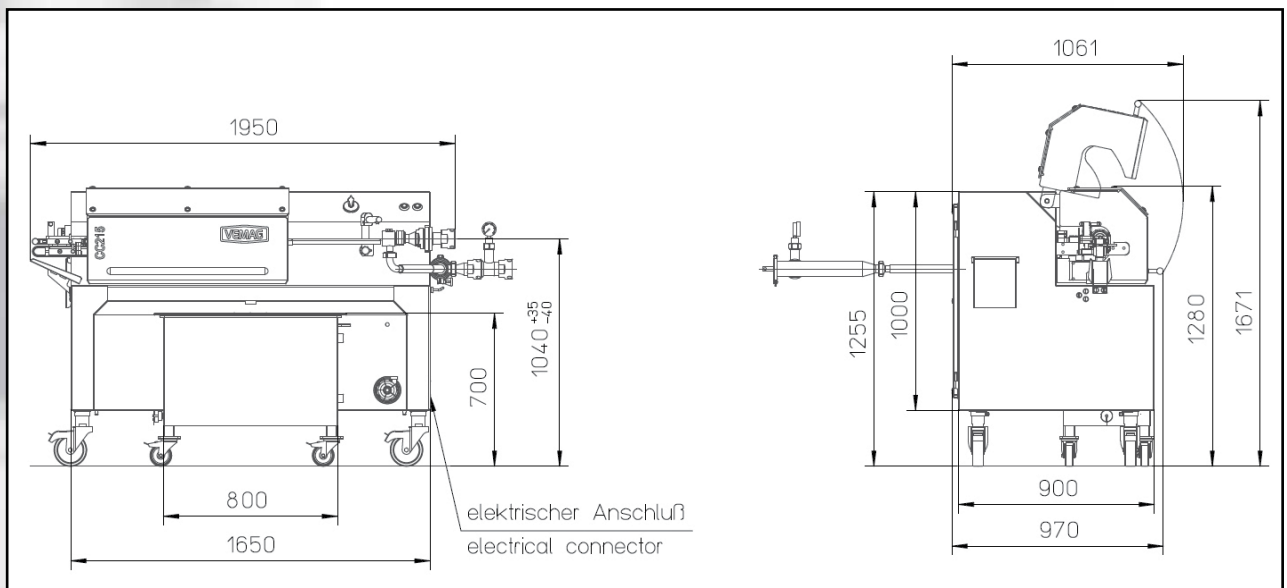
Caliber: 10 – 32 mm

Portioning speed:  
(Depending on calibre)

Length	Portions/min.
40 mm	1.800 (Cal. 10)
100 mm	720
120 mm	600
600 mm	120



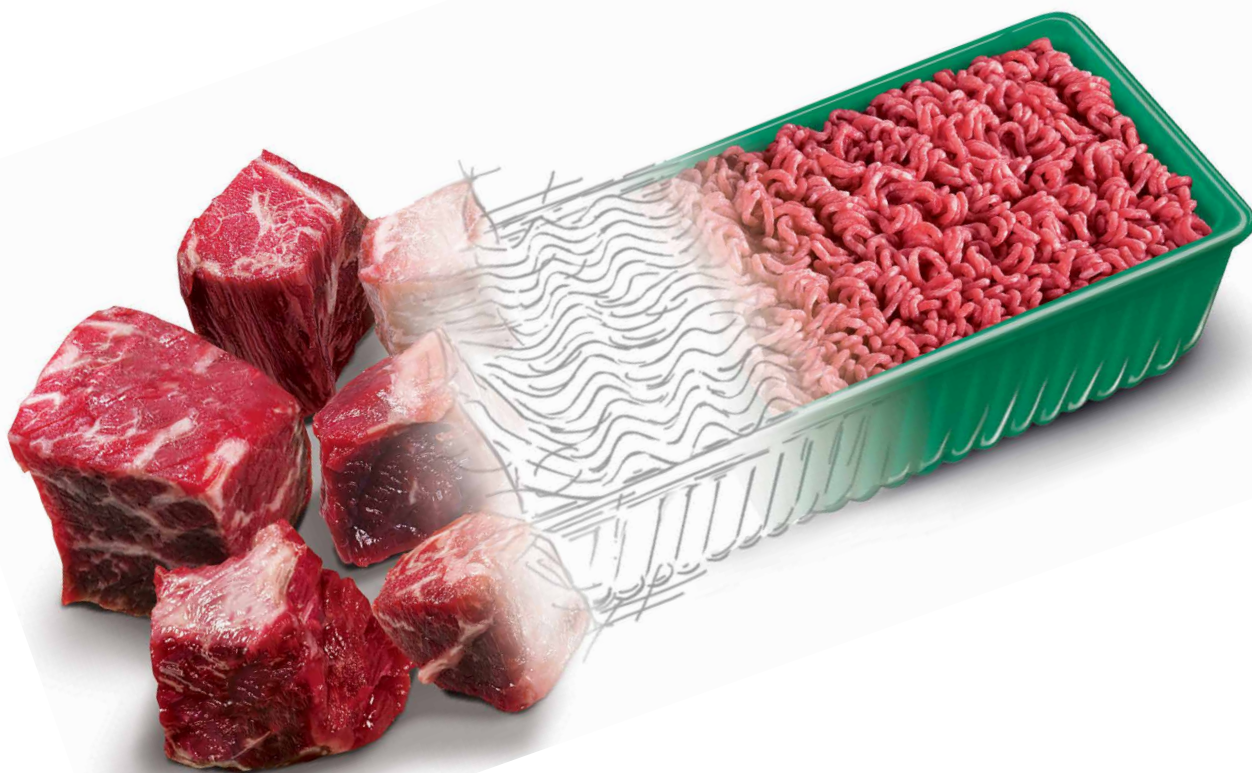
American breakfast sausage



ISO 9001  
BUREAU VERITAS  
Certification



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VEMAG Maschinenbau GmbH:

# Endless possibilities for formed and ground products

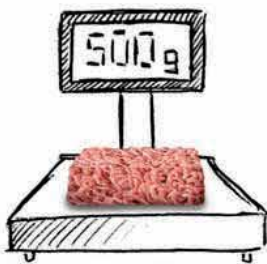




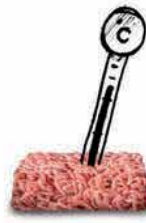
# Do you set high standards for individually formed fresh products?

Then we are the right partner for you:

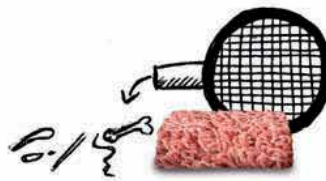
- > **The best advice** in line with your needs
- > **Many technology-based solutions** for production of ground and formed fresh products with highly accurate weight portions in a variety of packaging types
- > **Innumerable product possibilities**, e.g. for ground meat, burgers, fresh grilling sausages and much more



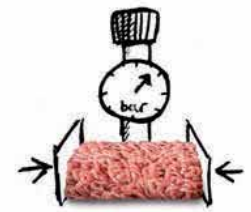
Weightcheck



Temperature monitoring



Separation of unwanted components



Pressure monitoring

## The possibilities: efficient, flexible, hygienic and automated production via a monitored process

To react flexibly to customer demands, you need the right equipment.

At VEMAG Maschinenbau GmbH, we offer complete process monitoring for our fresh meat lines to guarantee the highest product quality: Pressure, temperature and weight are measured continuously and all data is logged. You can also expect top production speeds, short conversion times and simple handling.

Working together with you, we develop a suitable, custom solution tailored to meet your needs. Whether it's individual machines and attachments, or assembling several components to form production lines —

all of our solutions meet the highest standards in efficiency and hygiene while taking your requirements into consideration.

For a wide range of products with no long lead times:

- > Ground meat
- > Cevapcici
- > Burgers
- > Fresh grilling sausage
- > Meatballs
- > Adana Köfte (Turkish ground lamb meatballs)
- > Doner kebab strips
- > And much more

## Your Benefits:

- > **Profit benefits:** maximum speed and ultimate flexibility
- > **Efficiency benefits:** fastest tooling up and lowest downtimes
- > **Service benefits:** machines requiring the least maintenance and experiencing the lowest amount of wear
- > **Cost benefits:** maximum torque and minimal giveaway
- > **Quality benefits:** maximum product standardization possible and optimal process monitoring
- > **Hygiene benefits:** large stainless steel surfaces and separately encapsulated electronics (cleaning possible by means of low-pressure equipment)



## Minced Meat Portioner MMP220



Grinding, separating and portioning — The minced meat portioner MMP220 converts the VEMAG grinding system into an automatic production line. With up to 100 portions per minute, it is the high-speed solution for integrated minced meat production. In the MMP220, the product stream coming from the minced meat attachment is automatically deposited on a carrier (paper belt) and transported to the blade, which cuts individual portions to the precise weight required. The flexibility of the system enables the use of many different tray types and sizes.

- > For all portion sizes
- > Optimum hygiene
- > Simple to clean
- > High portioning rates
- > May be expanded to a fully automatic production line
- > Tray stacker may be coupled
- > Portion weight 100–3000 g

## Forming Machine FM250



The forming machine FM250 forms shape-retaining meat, cheese and vegetable mixtures into products by means of a low-pressure process. The products coming from the forming machine are characterized by a unique texture and natural bite. Since the forming machine conveys the raw material extremely gently, meat fibers are not crushed or destroyed as they can be in conventional processes. The meat fibers in the finished product retain their natural alignment, so that the final product has the bite of a handmade specialty.

- > Suitable for a variety of products such as burgers, chopped steak, cevapcici, ribs and nuggets
- > Rapid change of product form by using push-on forming nozzles
- > Easy adjustment of product size
- > High product quality with a great texture and natural bite
- > High product integrity as the result of grinding and separating while processing
- > Accurate weights
- > Shape retention during cooking

## Shuttle Conveyor SC260



The shuttle conveyor SC260 is an add-on for all single-strand VEMAG production lines. The SC260 can be used wherever products are portioned in a single strand and conveyed away, stacked or shingled in multiple strands. It can also be effortlessly integrated into VEMAG production lines. With a retracting edge travel of 650 mm, the shuttle conveyor executes up to 40 strokes a minute.

- > Easily integrated into VEMAG production lines
- > Flexible use in all single-strand applications
- > Maximum transfer rates
- > Exact positioning of products
- > Creation of fully automatic production systems
- > Can be used for distributing, depositing, stacking, shingling

## Filling Flow Divider FST803



The FST803 filling flow divider is a device that flexibly divides identical filling streams. The FST803 is fully automatic; the operator does not need to configure any manual settings, thereby guaranteeing a high level of product standardization. This means that fluid raw ingredients, in addition to solid products such as meat, fish, cheese and vegetables, can be filled or portioned in multiple strands.

- > Low maintenance
- > Fully automatic operation
- > Guarantees high product standardization
- > Multi-strand processing
- > Multi-strand portioning and cutting of viscous to solid products with the aid of pneumatic cutters

## Process Check PC706



The VEMAG Process Check conducts a 100% weight check of packaged and unpackaged portions. The average weight calculated for the last portions is automatically reported back to the filler, which readjusts if necessary. When used in fully automatic, complex production lines, the PC706 diverts incorrect weights by means of a drop-down belt. This makes it possible to calculate the material used more accurately, making giveaway something that can be planned.

- > Effortless integration into VEMAG-production lines
- > Prevents underweight and/or overweight products
- > Minimal giveaway
- > Minimal rework
- > Automatic discharge of faulty weights
- > Suitable for harsh surroundings
- > Display of the statistical portion weights
- > Control over the mean product weight

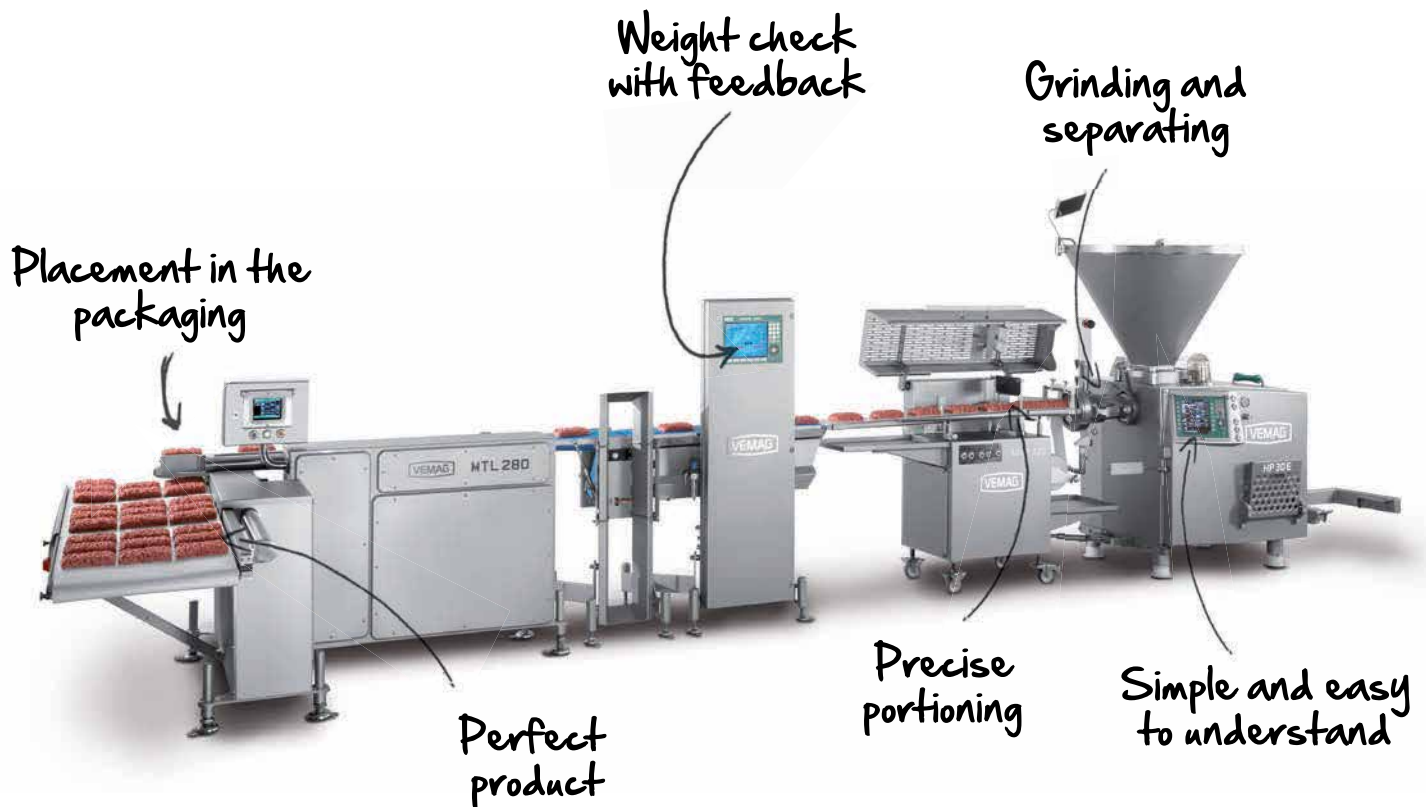
## AnyTray



The AnyTray feeds up to 120 trays per minute to the shuttle conveyor or indexing conveyor — a perfect combination. It consists of a tray magazine, denester and portion inserter. Formats can be easily changed at any time and within the space of a minute by quickly changing the denester cassettes. This makes it possible to place ground and formed products into just the right tray.

- > Perfect integration in VEMAG ground meat and forming lines
- > Can be used flexibly for all tray formats up to half castro
- > Fast format change by exchanging the denester cassette (approx. 1 min)
- > Trays fed to the denester automatically from the traymagazine
- > Simple to operate
- > Automatic stop/start
- > Programmable display for different programs/formats/speeds
- > Fault analysis and fault display
- > Up to 120 trays per minute denesting rate

# Fully automatic minced meat production with comprehensive process monitoring



## Grinding, separating, portioning:

The grinding line for fully automatic production of high-quality fresh meat products such as ground meat or cevapcici, guarantees perfect hygiene and exceptional quality. Automatic separation of hard elements guarantees increased value of already valuable raw materials and maximum product integrity. Products processed in a single strand are precisely positioned on trays in multiple strands by the multitrayloader.

### Benefits:

- Maximum weight precision
- Comprehensive process monitoring (e.g. temperature monitoring)
- Higher frost content possible
- Use with and without paper
- Integrated end of paper detection
- Output rate of up to 150 portions per minute (135 p. of 500 g each)
- Automatic separation of hard elements
- Consistent and clear particle size for a perfect product appearance
- Intense contrast in the product
- No smearing of the product
- Maximum torque available on the grinder thanks to positive connection between the double screw and grinder
- Product travels straight through; no dead spots where leftover product can accumulate
- 3- or 5-blade configuration for individual adjustment to the product



## Multitrayloader MTL280

The MTL280 multitrayloader is used wherever products are portioned in a single strand and transported on toward the packaging machine or distributed to freezing or cooking equipment via multiple strands.



- > Easily integrated into VEMAG production lines
- > Flexible use in all single-strand applications
- > High transfer rates
- > Exact positioning of products
- > Complete synchronization
- > Simple product switch by changing programs
- > Multi-strand product distribution



## We treat your raw material with utmost care

The heart of our filling machines are the VEMAG double screws. They gently transport, without compression zone raw materials with large pieces from the feed to the machine outlet. The raw material is not stressed and smearing is effectively prevented: this means that your products look mouth-watering. The double screws work almost wear-free and reduce the maintenance cost. Fast dismantling and simple cleaning ensure for shortest idle times during product changes. This reduces machine and personnel costs per quantity unit - for a safe and efficient production.



## Smart Link / Online Doc

The operating data and machine data can be analyzed quickly and effectively by remote access - you know what happens when and at which line: all of this is possible with the current VEMAG Smart Link. You can discover potential weaknesses or can improve good processes even more and follow batches right down into the detail by analyzing and visualizing entire production lines. Knowledge is power. This improves line efficiency and the profit increases. Or simply let VEMAG work on the machines via remote access - this not only saves time but also reduces the service costs: VEMAG Online Doc makes it possible. Two connections which support your production.





# Do you set high standards for processing of your fresh products?

Then take a minute to familiarize yourself with our variety of individual attachments that can be used in combination on any machine:



## Automatic Separation Valve

Automatic separation of unwanted product components during grinding and portioning for production of high-quality products. The automatic separation valve can be used with all VEMAG grinders.



## 980 Sausage Grinder

Ideal for production of cooked and raw sausages — simplifies preparations for processing and reduces the number of processing steps.



## 982 Separation Grinder

The separation grinder automatically separates hard elements and ensures a uniform, distinct particle size as well as a perfect product appearance: filling, portioning and grinding in one step.



## 801 Minced Meat Attachment

For production of ground meat with a clear structure, distinct particle size and uniform particle distribution. With a variety of hole plates for different types of ground meat such as „angel hair“, chili, etc.



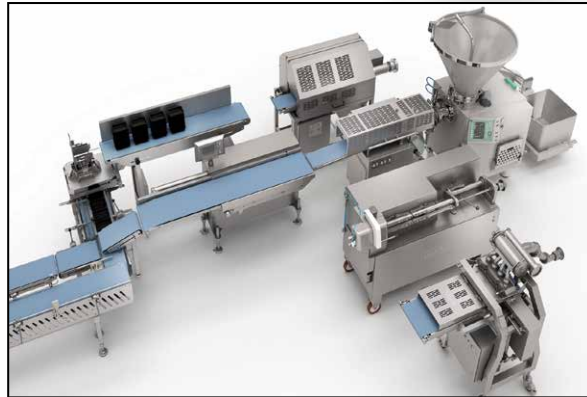
# Flexible Fresh Meat Line



## Different attachments for all applications on a line

### Maximum flexibility in production

The need to have several lines for production of different products is now a thing of the past. Innovative production possibilities can be achieved by simply exchanging attachments with the same length in the existing line. The savings are impressive: for instance, instead of four lines previously, there is now only one – reducing space requirements to a minimum.



Flexible Fresh Meat Line

The flexible fresh meat line allows the production of different products on a single line. It consists of three sections. The vacuum filler with separation grinder as well as the loading system are fixed in position. Attachments have the same length and are interchangeable. They are suitable for the production of burgers, Adana Köfte (Turkish ground lamb meatballs) minced meat, cevapcici, fresh grilling sausages, meatballs, and many other specialties.

### Endless possibilities

The interchangeable attachments include:

#### Forming Machine FM250:

The products coming from the forming machine are characterized by an exceptional texture and bite. The meat fibers in the finished product retain their natural alignment, so that the final product has the texture of a handmade specialty.

#### Minced Meat Portioner MMP220:

The minced meat portioner is suitable for producing minced meat from beef, pork or poultry. The shape of the product can be adjusted easily to different tray sizes.

#### Ball Control BC236:

The ball control BC236 is a universally applicable machine used for producing convenience products. These can be filled with a single product or, following an expansion, by means of coextrusion. Whether it's meatballs and croquettes,

cheese balls with a fruit filling or chopped steak with feta – this is where you create your products for your customers: fast, cost-effectively and within exact shape and weight.

#### Flexible Sausage Line FSL210

The FSL210 is a machine offering flexible and accurate length portioning, linking and separating of sausages in natural and collagen casings.

### Operation

Anyone who has already operated a vacuum filler will also be able to operate this flexible line. Intuitive. The entire line is controlled solely by the filler.

### Hygiene

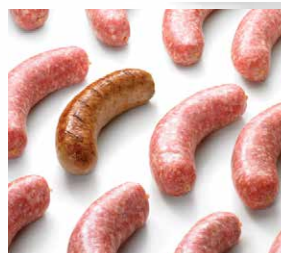
Like all VEMAG machines and attachments, this flexible line can be cleaned with low-pressure equipment and commercially available cleaning agents.

### Loading system

The loading system switches to the stored packaging type depending on the specialty being produced. A shuttle conveyor places minced meat, burgers and cevapcici into trays automatically and transports them on for further processing – on request, the products can be stacked, overlapped or arranged next to one another in the trays.

Sausages and meatballs are placed in the trays by hand, with the trays

presented to the operator in accordance with the production speed.

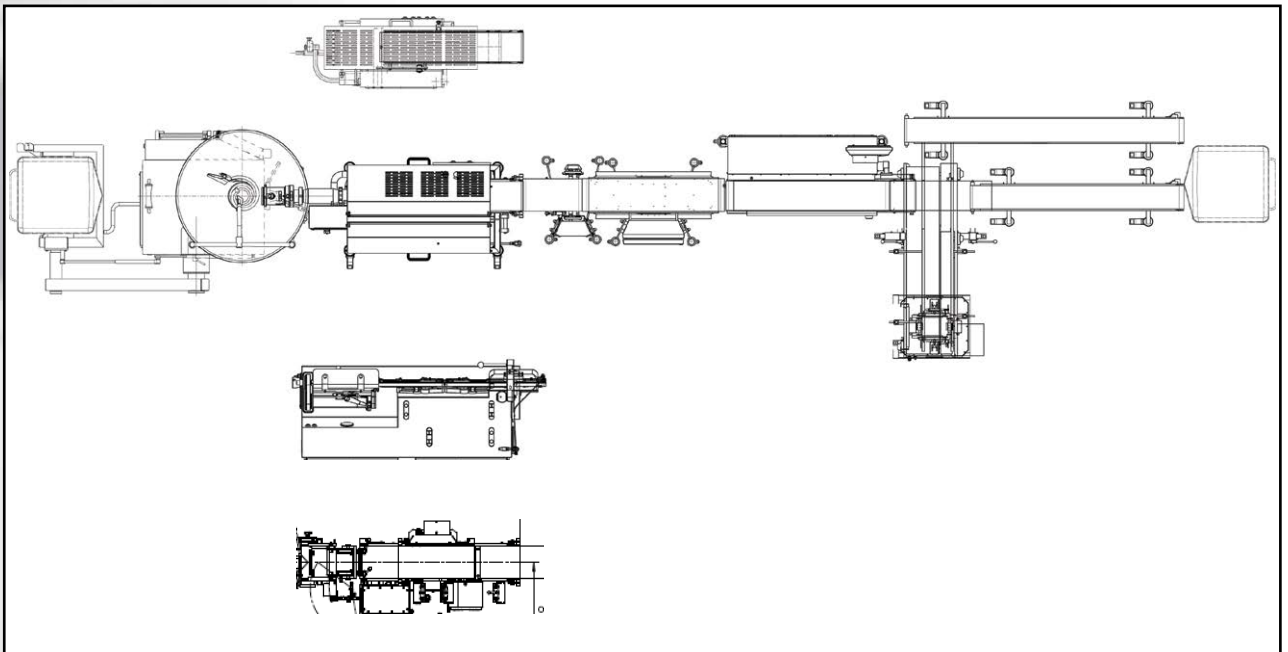


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#### All the benefits at a glance:

- Flexible use
- More efficient production processes
- Ideal hygiene characteristics
- May be used for all product groups
- One filler for all applications
- Minimal space requirement
- Shortest set-up times
- Maximum utilization of production time
- Minimal capital outlay
- Short response times during production



# Loading line

## Fully automated loading of fresh meat products

### Save on personnel with increased flexibility

Product loading into trays and transportation on to the packaging lines is directly connected to production. Goods flow in production must work smoothly, otherwise a higher level of automation is not possible. Efficiency is the key to profit.

This loading line can do it all, whether it's shaped, co-extruded or ground products. Optimally adjusted for the flexible fresh meat line, it loads burgers, cevapcici, meatloaf, minced meat and much more into trays, fully automatically.



Loading line

The loading line loads products precisely and fully automatically into dishes and feeds them through to the appropriate packaging.

### Inspirational technology

The user can quickly and easily adjust the desired product using the intuitive touch panel for the vacuum filler, saving time and reducing training time. The filler also controls the loading line as well as the attachment, rendering tedious adjustment for several devices obsolete.

With the option for fully automated loading into trays, e.g. when producing burgers or minced meat, the individual portions move from the attachment onto a shuttle conveyor. Under the moving part of the shuttle conveyor, there is an index belt, which continuously provides a supply of trays under the shuttle conveyor, placing them onto the belt from a tray container. Due to

the movable section's quick retraction, products can be loaded into trays, with even a choice for burgers to be next to each other, stacked or staggered. There is a conveyor belt available for removing the filled trays.

### Hygiene

The base frame is made completely of stainless steel. The durable belts are resistant to water, and commercially available cleaning and disinfecting agents. The loading system can be cleaned using low pressure systems.

### Operation

The loading system is easy to operate. Controlling the speed and the tray selection type is fully handled by simply calling up a program in the shuttle conveyor's central operating panel. All entries affecting the initial programming or subsequent updates may be made directly using the intuitive

graphic display. During operation, loading line management occurs in the background as soon as a product is selected.

### All the benefits at a glance:

- A loading system for all products
- High-speed packaging
- Personnel savings
- No modifications necessary for product changes
- Commercially available trays of 1/2-1/8 gastro type may be used
- Low maintenance
- Optimal hygiene features
- Highest levels of product safety
- Up to 125 portions of minced meat or 250 burgers per minute







# Cup Filling Line

## Clean portioning

### Special requirements

Precise, fast and reliable – the latest filler for portioning of all masses –whether it's liver sausage, minced pork or creams. The rim of the tubs remains clean, the amounts filled are identical: for reproducible quality.



Cup Filling Line

The cup filling system is a fully automatic line for multistrand filling of viscous masses into cups, trays, thermoformed packaging, etc. with a highly accurate weight.

### No drips

The filling system consists of the vacuum filler, a filling flow divider and filling heads with a closing mechanism tailored to the product. And herein lies the secret of the system: The closing mechanisms operate not only quickly and reliably, they also eliminate frequent dripping. The conveyor belts remain clean, which in turn increases hygiene levels.



### Exact amounts filled

Short product paths for gentle treatment of your raw materials. The entire double screw feed system consists of only two components: double screw and housing.

Thanks to the wide range of double screws, the machines can be perfectly adapted for a wealth of products and feed rates.

The VEMAG double screws are the feed element for you if you set store by gentle product conveying and the highest degree of weight accuracy. The double screws operate on the double spindle principle. They transport the filled product very gently from the feed to the machine outlet. The almost frictionless movement of the filled product ensures extremely precise portion weights.

A filling flow divider divides the mass and portions it by means of adjustable filling heads directly into the cups. Portioning is exact;

the rim of the cups remains clean.

### Simply spotless

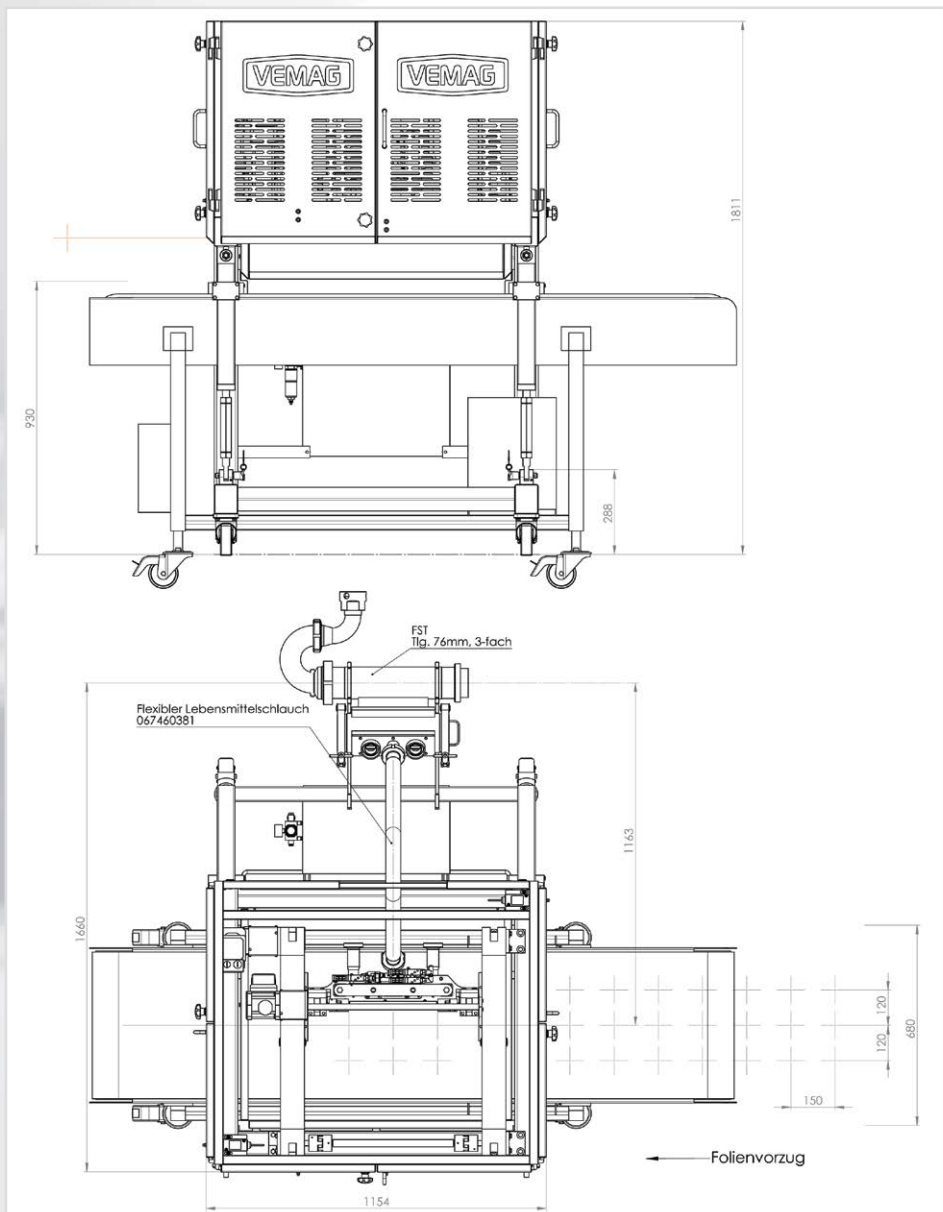
The cup filling system has clean lines. Cleaning is quick and simple using all industry-standard cleaning agents and low pressure. The equipment can be disassembled easily, making all areas of the cup filling system accessible. All parts coming into contact with the product are made from high-quality stainless steel and plastic.

### All the benefits at a glance

- Fast filling of cups, trays, thermoformed packaging etc.
- The rims of the containers remain clean
- Flexible, as it handles many viscosities
- Accurate weight
- Optimum hygiene
- Low maintenance
- Minimal wear

# Technical data

Filling rate:	40 cycles/min. 120 portions/min.
Portion weight:	up to 400 g



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# Glass and can filler

## Clean portioning

### Special requirements

The latest filler for portioning into glasses and cans is fast, precise and reliable – whether it's cooked or boiled sausage, with or without pieces in it. The rims of the containers remain clean and the amounts filled are identical: for reproducible quality. The can guiding device and the volumetric filler work together to achieve a cycle rate of up to 180 portions per minute.



Glass and can filler

### Precise portioning

The filler comprises a VEMAG vacuum filler and a downstream six-track volumetric portioning unit. And herein lies the secret of the system: The valves on the volumetric portioning unit cut in precisely the right place, ensuring that the filling flow is separated perfectly. Not only are these valves fast and reliable, they also eliminate the dripping that otherwise often occurs.

### Exact amounts filled

Short product paths for gentle treatment of your raw materials. The entire double screw feed system consists of only two components: double screw

and housing.

The VEMAG double screws are the feed element for you if you set store by gentle product conveying and the highest degree of weight accuracy. The double screws operate on the double spindle principle. They transport the filled product very gently from the feed to the machine outlet. The almost frictionless conveyance of the filled product ensures extremely precise portion weights.

The six volumetric fillers units are filled at a consistent pressure by means of the filler pressure control system. Once the filling cylinders have been filled, the defined volumes, i.e. a defined weight, are separated from the product stream by the valves and fed in precise measures into the glasses or cans via the pistons. Simultaneously lowering the cans/glasses ensures an optimum filling pattern.

### Optimum, air-free container filling

The integrated vacuum-assisted can lifting device ensures air-free filling of your containers.

### All the benefits at a glance

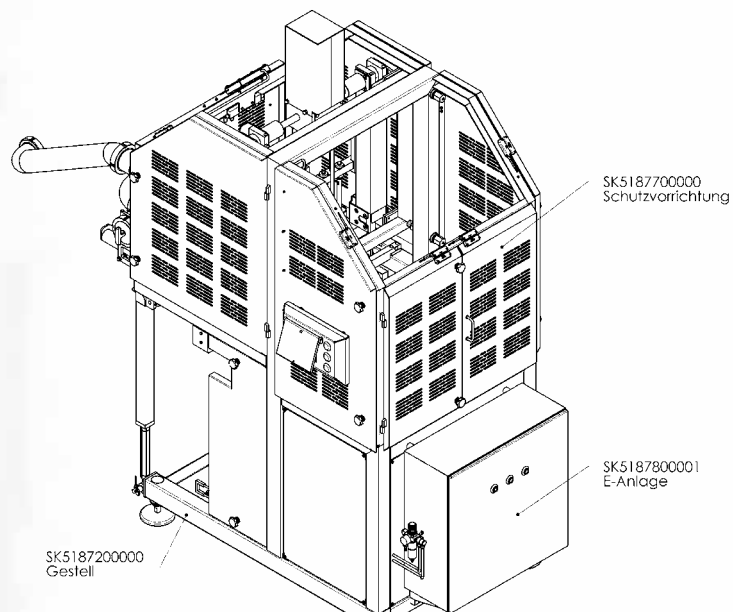
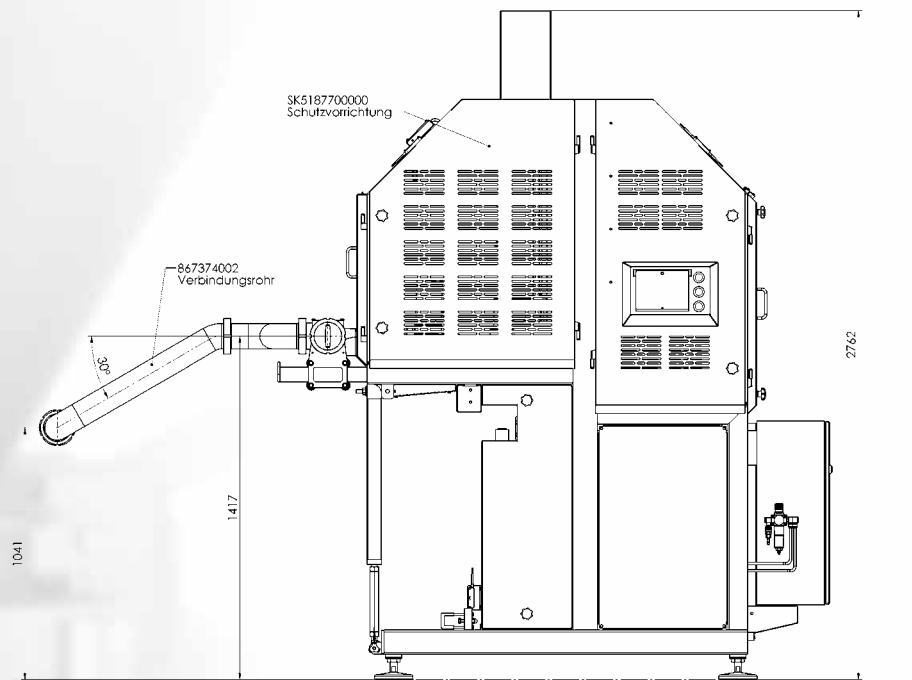
- Can be connected to all available VEMAG vacuum fillers
- High output with consistent weight accuracy
- Also suitable for viscous masses with pieces (e.g. ham sausage)
- Optimum hygiene
- Minimal wear





# Technical Data

Filling capacity:	30 cycles/min. 180 portions/min.
Portion weight:	up to 400 g



# sausage-linker.com

## Set up, connect and ready to go!



### Just get started

It couldn't be easier. Simply order sausage-linker.com on the website and it will be on its way to you. As an „all-inclusive package“, it includes everything required for sausage production: a vacuum filler with double screws technology, a casing holding device with linking horn and a filling horn.

The sausage-linker.com is the first vacuum filler that can be ordered online.

### Order quickly and easily

There is no sausage-linker.com in the retail market – buy it exclusively online. Assembled with or without a plug at your request, it will be packaged for you within 24 hours. We ship worldwide, via renowned freight forwarders, to ensure that you receive your new vacuum filler as quickly as possible for your sausage production.

Your special VEMAG service starts right here. All operating steps required for setting up the filler are printed on the outer packaging. This makes sure you are on the right page from the start.

### Set-up assistant

Operating the sausage linker is easy and intuitive. Immediately after start-up, you will see the set-up assistant in the touch panel. It will lead you step by step through the whole set-up process for the filler and give tips on producing your products.



### Informationen

You can find all relevant information on the intuitive website. Whether you're looking for technical data, tutorial videos or the store, everything is online and always within your grasp.

### Hopper

The all-in-one hopper has a 45 liter capacity. Protected by a transparent cover, you can always identify the filling level and are therefore able to produce your specialties without any issues.

### Professional

The sausage-linker.com is equipped with everything you need for the convenience of sausage making. Whether straight-filling, clipping, or linking collagen, cellulose, or natural casings, this filler fulfills all of your requirements.

### Optimal hygiene

Cleaning is quick and easy with low pressure equipment and commercially available cleaning materials.

### The heart of the machine – VEMAG double screws

VEMAG double screws are the heart of the fillers. They transport raw ingredients containing large constituents particularly gently and without a compression zone from machine input to discharge. The raw



[sausage-linker.com](https://sausage-linker.com)

ingredients are not put under stress and smearing is effectively prevented, so your sausages really will look good enough to eat.

The whole feeding system is corrosion-free. More importantly, the double screws, made from stainless steel, undergo little wear and portion the product to the exact weight required.



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### All the benefits at a glance:

- Ideal for the transition from piston filler to modern vacuum fillers
- Easy to order
- Good value
- Corrosion-free conveyor system
- Flexible use
- Gentle on products
- Low maintenance
- Optimal hygiene features
- Intuitive touchscreen operation
- A machine for any product
- Low wear due to fixed mounting of linking gear
- Conveyor technology comprises just 2 parts: double screw and housing
- Simple handling: casing holding device and counter arm may remain on the machine
- No tools required to set up casing holding device
- No wear to the casing holding device

## Technical Data

Filling rate:

up to 2.000 kg/h

Portion weight:

0 – 100.000 g in increments of

0,1 g to 1.000 g

1 g over 1.000 g

Portioning speed:

Weight	Portions/min.
25 g	320
50 g	250
100 g	180
200 g	110

Vacuum system:

16 m<sup>3</sup>/h

Weight:

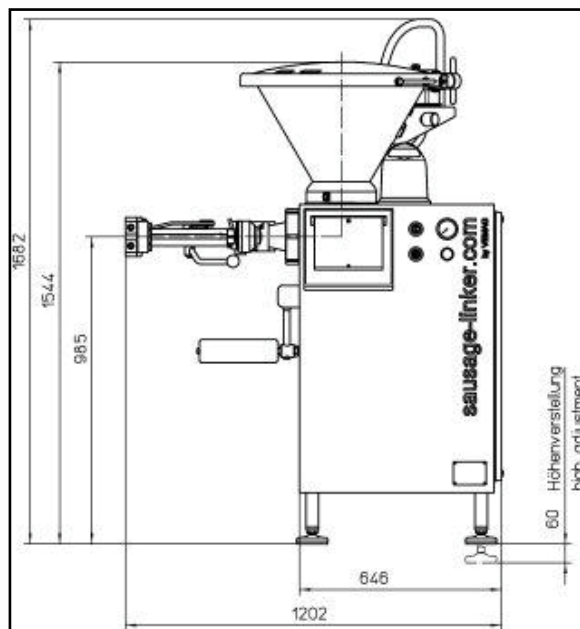
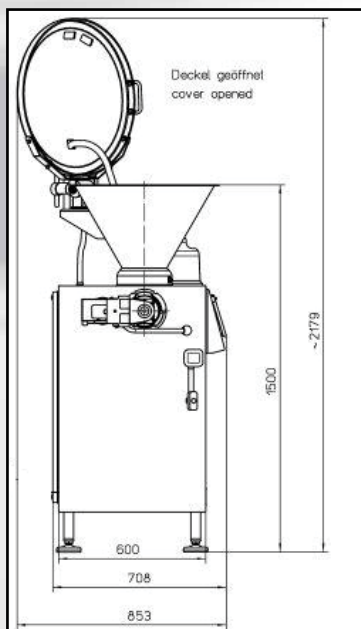
290 kg

Hopper content:

45 L with cover

Total nominal output:

4,0 kW



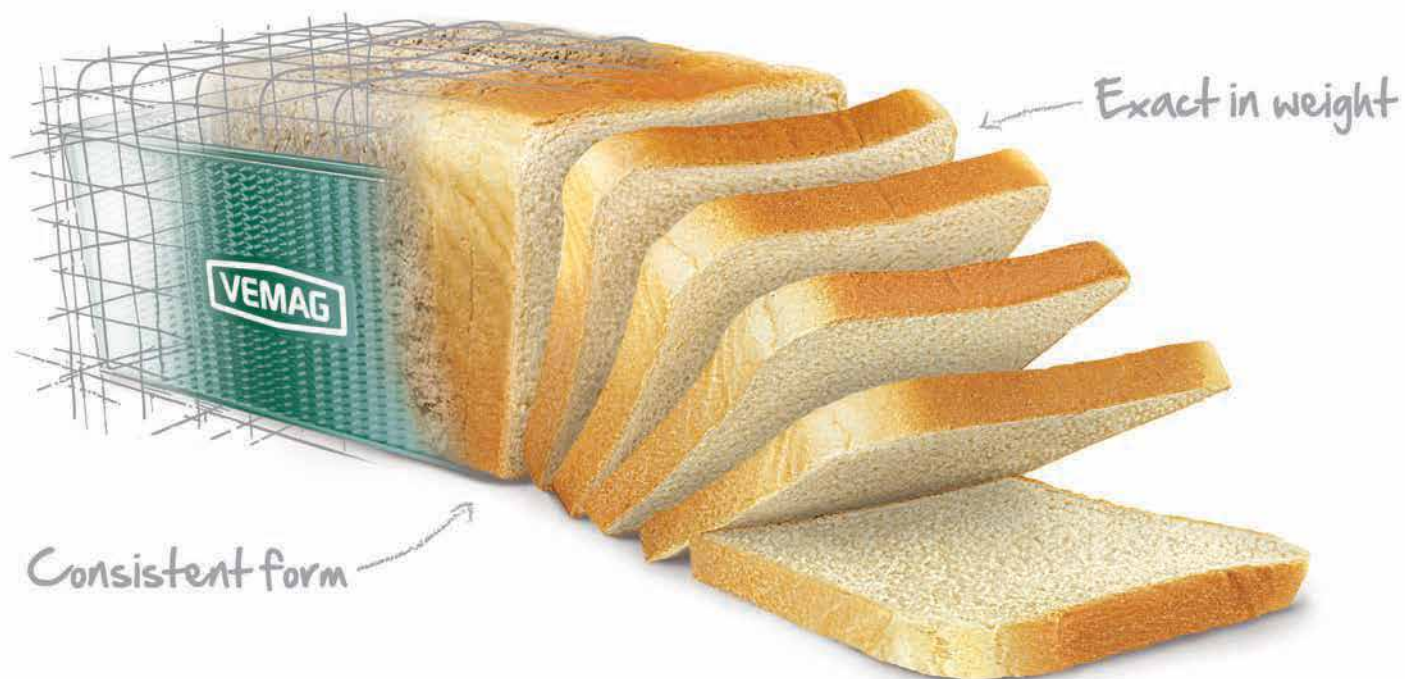
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VEMAG Maschinenbau GmbH:

# Flexible solutions for the production of bakery products





# Are you looking for the ideal solution for your bakery products process?

We are the right partner for you:

- > **The best advice** in line with your needs
- > **Efficient machines** that portion with accurate weights and cost-effectively, without any cutting oil
- > **Perfect products** at a quality level that can always be reproduced



## The options: Production that is automated, flexible, efficient and oil-free

To react flexibly to customer demands, you need the right equipment.

At VEMAG Maschinenbau GmbH, we work together with you to find a suitable solution that is tailored to your individual needs. Whether it's the individual dough dividers and attachments, or the assembling of several components to form production lines — all of our solutions meet the highest standards in efficiency and flexibility while taking your requirements into consideration. The result is a production process that meets all of your requirements for the end product and scheduling.

By the way, VEMAG materials handling technology is especially gentle on the dough, as VEMAG works exclusively with special double screws.

For a **wide range of products** with no long lead times:

- > White and sandwich breads
- > Whole grain and multigrain breads
- > Rye and rye-mix breads
- > Pizza dough
- > Buns, hot dogs and English muffins
- > Cookies, muffins and brownies
- > And many more

## Your advantages:

- > **Profit advantages:** Including maximum speed and ultimate flexibility
- > **Efficiency advantages:** Including the quickest set-up and lowest downtimes
- > **Service advantages:** Including machines requiring the least maintenance and experiencing the lowest levels of wear
- > **Cost advantages:** Including no cutting oil and maximum weight accuracy
- > **Quality advantages:** Including maximum gentleness in dough handling and reproducible quality
- > **Hygiene advantages:** Including large stainless steel surfaces and extra encapsulated electronics (can be cleaned using low-pressure equipment)



## VDD807



This dough divider with an integrated cutting device and conveyor belt was developed to divide doughs with a high wheat content. VEMAG systems score maximum points for their high outputs — up to 9600 portions per hour with doughs for sandwich bread, for example. As the dough divider works without oil, it is extremely economical.

- > Portion sizes from 100 to 1400 g
- > Portioning rate of up to 320 portions per minute
- > Outlet nozzles that are quick to change
- > Highly cost-effective — no cutting oil required
- > Precise weight accuracy
- > Exact placement of the dough portions on the belt
- > Rotating cutting device with servo drive
- > Gentle dough dividing without oil getting into the product
- > Hygienic design thanks to simple wet cleaning using low-pressure equipment
- > No penetration of flour dust thanks to the integrated flour filter and encapsulated machine housing

## Robot500 with ASV811



Perfect for precise weight portioning of doughs and production of small bakery products such as cookies, cereal bars, biscuits or muffins. Versatile application, including functions for flouring or oiling the belt for soft and stickier doughs. The dough dividers can be converted in minutes, for example with a sheeting horn for tray bakes or filling heads for batter. The Robot500 is the smallest member of the VEMAG family of dough dividers.

- > Ideal for small businesses and small industrial plants
- > Space-saving
- > The integrated flour filter prevents flour dust from getting inside the machine
- > Processing doughs with dough yields of 140–220
- > No oil inclusion as cutting oils are not used
- > No product residues in the round hopper thanks to the driven scraper
- > Hygienic design
- > Various product shapes and sizes are possible thanks to the outlet nozzles that are quick to change

## KFE245



For oil-free portioning of doughs directly into baking trays or transversely onto a moulding conveyor belt; e.g. whole grain breads, pumpernickel, gluten-free breads or rye and light rye breads. The tray filling devices process all dough types and mixtures, regardless of the viscosity, and the dough does not come into contact with floured or wet conveyor belts. A wide range of product shapes and sizes can be produced thanks to outlet nozzles that are quick to change.

- > Highly cost-effective — no cutting oil required
- > Portion weights can be set from 5 g to 60,000 g
- > Also suitable for high dough yields
- > Optimum hygiene for your bakery
- > Simple to operate
- > High portioning rate of up to 40 portions per minute
- > High degree of weight accuracy
- > Can be adjusted to customer-specific requirements
- > Simple cleaning



## ASV808



The servo cutter ASV808 can be combined with all dough dividers in the HPE series and guarantees high cutting rates, with up to 200 portions a minute. As with all VEMAG dough dividers, it is capable of extremely precise weighing, for example for whole grain breads, rye breads, wheat doughs or pizza dough.

- > Can also be used for doughs with a high dough yield
- > Prevents oil getting into the product as it portions without oil
- > Huge range of unit weights from 5 g up to 60,000 g
- > Accurate weights
- > A wide range of product shapes and sizes thanks to nozzles that are quick to change
- > Highly cost-effective — no cutting oils required
- > Hygienic design thanks to simple cleaning using low-pressure equipment
- > Can be adjusted to customer-specific requirements

## Sheeting horn



The sheeting horn is used wherever soft doughs and mixtures need portioning with a high degree of accuracy and positioning directly on sheets or flat products, such as tray bakes, toppings or fillings. The sheeting horn is fitted with a pneumatically operated roller closure and can be adjusted to specific requirements, such as different sheet sizes.

- > Roller width up to 430 mm
- > Portion weights from 5 g up to 30,000 g
- > High degree of weight accuracy
- > Conveyor belt available as an option
- > Can be adjusted to existing conveyor belts
- > Can be combined with all dough dividers in the HPE series and the Robot500
- > Portioning rate of up to 10 portions per minute
- > Can also be used for doughs and mixtures with a high dough yield (DY 155–220)

## We handle your raw material as gently as possible

At the heart of our dough dividers are VEMAG double screws which operate on the double spindle principle. The double screws transport even doughs and mixtures that contain large pieces such as nuts, raisins or chocolate very gently and without compressing — all the way from the hopper to the outlet of the machine. Weight limits become a thing of the past; you can divide all your required weights precisely with the VEMAG double screws. They operate almost without wearing, reducing maintenance costs. Quick dismantling and easy cleaning ensure minimum down-times during product changes, with machine and staff costs falling per quantity unit and safe and efficient production guaranteed.

The double screws are characterised by an extremely high degree of efficiency. Unlike traditional solutions, they transport the dough straight to the outlet without any kind of recirculation.





# Take advantage of the following benefits:

- > Production without cutting oil
- > Precise portioning with accurate weights
- > Versatile options for use



## Filling flow divider FST803

A device for flexibly dividing filling flows, e.g. for multi-strand production of cookies



## Filling head 981

A filling device for fluid doughs, such as cake mixes or batter



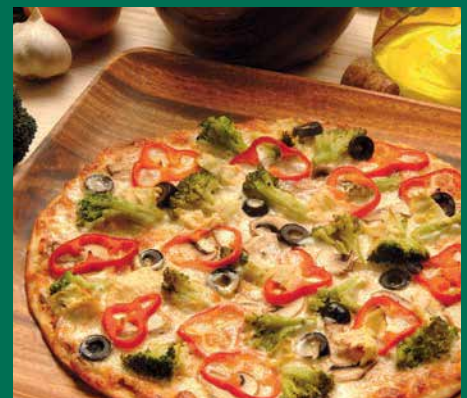
## Servo cutter

A device for multi-strand portioning of soft doughs, such as English muffins



## Manual filling head 806

A manual filling head for portioning and applying delicate and fluid products, such as fruit mixtures





# ROBOT 500 dough divider

## with pneumatic cutter 811



VEMAG dough dividers help you to portion exact weights without the need for oil.

Are you dissatisfied with the weight accuracy offered by other dough dividers? Are you looking for a solution that can guarantee exact weights every time? Then look no further than the ROBOT 500 dough divider from VEMAG and take advantage of extremely accurate weighing.

Do you want to process different products on your production line? Unable to find a sufficiently flexible solution? Then look no further than the ROBOT 500 dough divider from VEMAG and take advantage of the various application options it offers.

Do you want to improve the quality of your products? Then look no further than the ROBOT 500 dough divider from VEMAG and take advantage of higher dough yields for rye and wholegrain breads.



ROBOT 500 dough divider with pneumatic cutter 811

The ROBOT 500 can work with any viscosity and processes rye doughs, wheat doughs, stiff shortcrust pastry and soft doughs. It can process a wide range of products in combination with pneumatic cutter 811:

- Wholegrain bread
- Rye bread / rye-mix bread
- Wheat bread / wheat-mix bread
- Cookies / shortbread
- Rum truffles / almond biscuits
- Fruit loaf
- Stollen

### Pneumatic cutter

The pneumatic cutter is used wherever doughs need portioning with a high degree of accuracy and also for producing small baked goods such as cookies. The cutter can be fitted with a knife or a wire cutter, depending on the product. Conveyor lubrication or flouring devices can be integrated for processing soft

doughs.

The rapid-replacement outlet nozzles allow you to create a wide variety of product shapes and sizes as required. The single-strand cutter can achieve a portioning rate of up to 150 portions/min. depending on the product. A conveyor transports the products for further processing.

### Additional applications

The ROBOT 500 stands out from the crowd thanks to its versatility. For example, you can fit a flat strand shaper for making tray bakes or filling heads for doughs, and it takes just minutes to fit the extra equipment.

### Perfect hygiene

The dough portioning machine is designed to be as hygienic as possible and can be cleaned with water using low-pressure cleaning equipment. The entire pumping system can also be cleaned with water. The encapsulated machine housing and integrated flour filter prevent flour dust penetrating the inside of the machine, with the result that it takes only a few minutes to clean the entire machine.

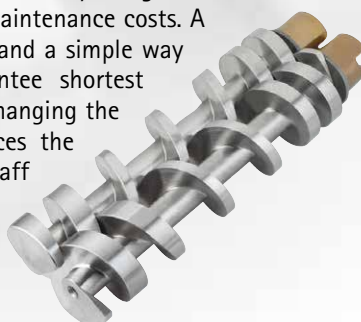
### All the benefits at a glance

- Highly accurate weights
- Wide range of applications
- Suitable for high dough yields
- Highly cost-effective — no cutting oil required
- Optimum hygiene for your bakery
- Simple to operate

### The heart of the machine — the VEMAG double screws

The heart of the VEMAG dough divider is the „VEMAG double screw“, which works using the double spindle principle. The double screw transports gently and without any compression dough and masses even with large chunks like nuts, raisins, bits of chocolate and so on from the hopper to the machine outlet. Weight limits belong to the past as the VEMAG double screw separates easily an exactly defined amount.

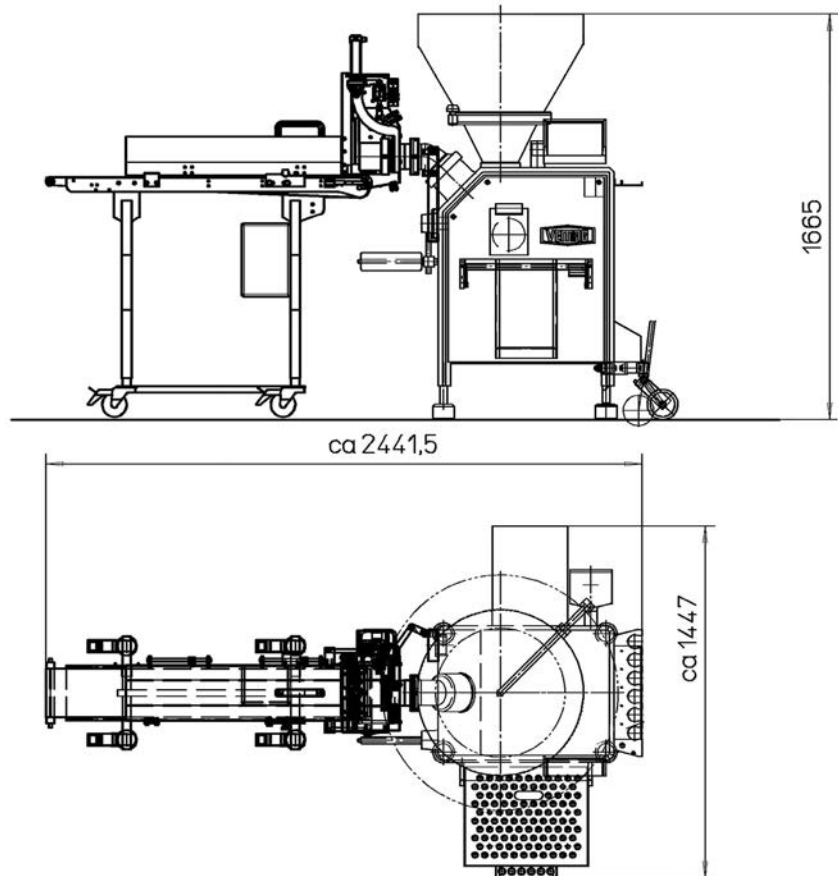
The double screw is working almost free of wear and tear and by doing so it reduces even the maintenance costs. A quick dismantling and a simple way of cleaning guarantee shortest downtimes while changing the product. This reduces the machine- and staff costs per quantity unit - for a safe and efficient production.



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## Technical data

Dough yield:	DY 155 – 220	
Portioning rate:	Portion	with double screw 48N
	100 g Cookies	140 port./min.
	580 g Rye bread	35 port./min.
	1,200 g Wholemeal bread	23 port./min.
Portion weight:	5 – 30,000 g, adjustable in increments of 1 g	
Nozzle diameter:	20 – 100 mm in increments of 5 mm	
Vacuum system:	16 m <sup>3</sup> /h	
Hopper capacity:	90 l / 230 l (optional)	
Weight:	approx. 440 kg	
Nominal output:	5.3 kW at 50/60 Hz	
Air consumption:	approx. 8 m <sup>3</sup> /h at 6 bar	



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# ROBOT 500 dough divider

## with sheeting horn



VEMAG dough dividers help you to portion exact weights without the need for oil.

Do you want to improve the quality of your products? Then look no further than the ROBOT 500 dough divider from VEMAG and take advantage of higher dough yields for rye and wholemeal breads.

Are you dissatisfied with the weight accuracy offered by other dough dividers? Are you looking for a solution that can guarantee exact weights every time? Then look no further than the ROBOT 500 dough divider from VEMAG and take advantage of extremely accurate weighing.

Do you want to process different products on your production line? Unable to find a sufficiently flexible solution? Then look no further than the ROBOT 500 dough divider from VEMAG and take advantage of the various application options it offers.



ROBOT 500 dough divider with sheeting horn

The ROBOT 500 can work with any viscosity and processes rye doughs, wheat doughs, stiff shortcrust pastry and soft doughs. Combined with the sheeting horn, the ROBOT 500 is the perfect solution for portioning doughs and mixtures for a wide range of products:

- Tray bakes
- Brownies
- Toppings
- Fillings

### Sheeting horn

The sheeting horn is used wherever soft doughs and mixtures need portioning with a high degree of accuracy and positioning directly on sheets or flat products.

The sheeting horn features a pneumatic roller closure that is controlled via sensors and ensures that the portions are positioned accurately on the sheet.

The roller closure can be adapted to

meet specific requirements (e.g. sheet size). Depending on the product, the sheeting horn achieves outputs of up to ten portions/min.

### Large range of applications

The ROBOT 500 stands out from the crowd thanks to its versatility. For example, you can fit a filling device for bread boxes or filling heads for doughs, and it takes just minutes to fit the extra equipment.

### Perfect hygiene

The dough divider is designed to be as hygienic as possible and can be cleaned with water using low-pressure cleaning equipment. The entire pumping system can also be cleaned with water. The encapsulated machine housing and integrated flour filter prevent flour dust

penetrating the inside of the machine, with the result that it takes only a few minutes to clean the entire machine.

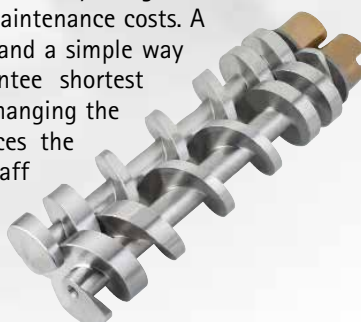
### All the benefits at a glance

- Design tailored to customer requirements
- High degree of weight accuracy
- Large range of applications
- Highly cost-effective — no cutting oil required
- Conveyor belt available as an option
- Adaptation to existing conveyor belts possible

### The heart of the machine — the VEMAG double screws

The heart of the VEMAG dough divider is the „VEMAG double screw“, which works using the double spindle principle. The double screw transports gently and without any compression dough and masses even with large chunks like nuts, raisins, bits of chocolate and so on from the hopper to the machine outlet. Weight limits belong to the past as the VEMAG double screw separates easily an exactly defined amount.

The double screw is working almost free of wear and tear and by doing so it reduces even the maintenance costs. A quick dismantling and a simple way of cleaning guarantee shortest downtimes while changing the product. This reduces the machine- and staff costs per quantity unit - for a safe and efficient production.



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## Technical data

Dough yield:	DY 155–220
Portioning rate (e.g. for brownies):	Up to 10 port./min. (depending on portion size and sheet size)
Portion weight:	5–30,000 g, adjustable in increments of 1 g
Roller width:	430 mm (other roller widths on request)
Vacuum system:	16 m <sup>3</sup> /h
Hopper capacity:	90 l/230 l (optional)
Weight:	Approx. 440 kg
Nominal output:	5.3 kW at 50/60 Hz
Compressed air connection:	Approx. 6 bar



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# HPE series dough dividers

## with servo cutter 808



VEMAG dough dividers help you to portion exact weights without the need for oil.

Are you fed up with the high price of cutting oil? Do you need an economical solution to significantly reduce your production costs? Then look no further than the HPE series dough dividers from VEMAG and make expensive cutting oil a thing of the past.

Are you dissatisfied with the weight accuracy offered by other dough dividers? Are you looking for a solution that can guarantee exact weights every time? Then look no further than the HPE series dough dividers from VEMAG and take advantage of extremely accurate weighing.

Do you want to improve the quality of your products? Then look no further than the HPE series dough dividers from VEMAG and take advantage of higher dough yields for rye and wholegrain breads.



HP25E dough divider with servo cutter 808

The HPE series dough divider can work with any viscosity and processes rye doughs, wheat doughs, stiff shortcrust pastry and soft doughs. It can process a wide range of products in combination with servo cutter 808:

- Wholegrain bread
- Rye bread / rye-mix bread
- Wheat bread / wheat-mix bread
- Long loaves
- Mini baguettes
- Toasting bread / rusks
- Pizza dough

### Servo cutter

The servo cutter proves its superiority where high portioning rates and exact weights are required. Whether you want wholegrain bread, pizza dough or toasting bread, the dough divider with servo cutter is the ideal addition for highly productive lines. The servo cutter

is fitted with an alternating blade.

The rapid-replacement outlet nozzles allow you to create a wide variety of product shapes and sizes as required. The single-strand cutter can achieve a portioning rate of up to 200 portions/min. depending on the type and size of the product. A conveyor transports the products for further processing.

### Highly economical

The HPE series dough divider is characterised by a high degree of efficiency. Expensive cutting oil is no longer a problem. What's more, the portioning rates that the machine can achieve ensure that your line operates at maximum efficiency, leaving you free to concentrate fully on your product.

### Perfect hygiene

The dough divider is designed to be as hygienic as possible and can be cleaned with water using low-pressure cleaning equipment. The entire pumping system can also be cleaned with water. The encapsulated machine housing and integrated flour filter prevent flour dust penetrating the inside of the machine, with the result that it takes only a few minutes to clean the entire machine.

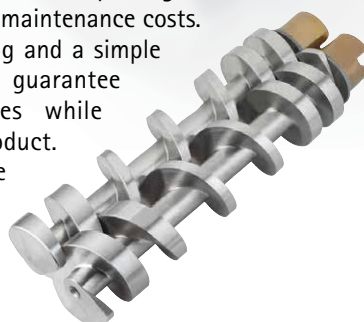
### All the benefits at a glance

- Highly cost-effective – no cutting oil required
- Highly accurate weights
- High portioning rate
- Also suitable for high dough yields
- Optimum hygiene for your bakery
- Simple to operate

### The heart of the machine – the VEMAG double screws

The heart of the VEMAG dough divider is the „VEMAG double screw“, which works using the double spindle principle. The double screw transports gently and without any compression dough and masses even with large chunks like nuts, raisins, bits of chocolate and so on from the hopper to the machine outlet. Weight limits belong to the past as the VEMAG double screw separates easily an exactly defined amount.

The double screw is working almost free of wear and tear and by doing so it reduces even the maintenance costs. A quick dismantling and a simple way of cleaning guarantee shortest downtimes while changing the product. This reduces the machine- and staff costs per quantity unit – for a safe and efficient production.



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# Technical data

Dough yield:  
Portioning rate (e.g. for wheat bread  
for toasting):

DY 155 – 220

Portion

with double screw 48N\_90

HP12E

HP20E

100 g

180 port./min

200 port./min

580 g

70 port./min

110 port./min

1,200 g

40 port./min

65 port./min

Portion weight:

5 – 60,000 g, adjustable in increments of 1 g

Nozzle diameter:

20 – 100 mm in increments of 5 mm

Vacuum system:

16 m<sup>3</sup>/h

Hopper capacity:

250 l / 100 l (optional) / 350 l (optional)

Weight:

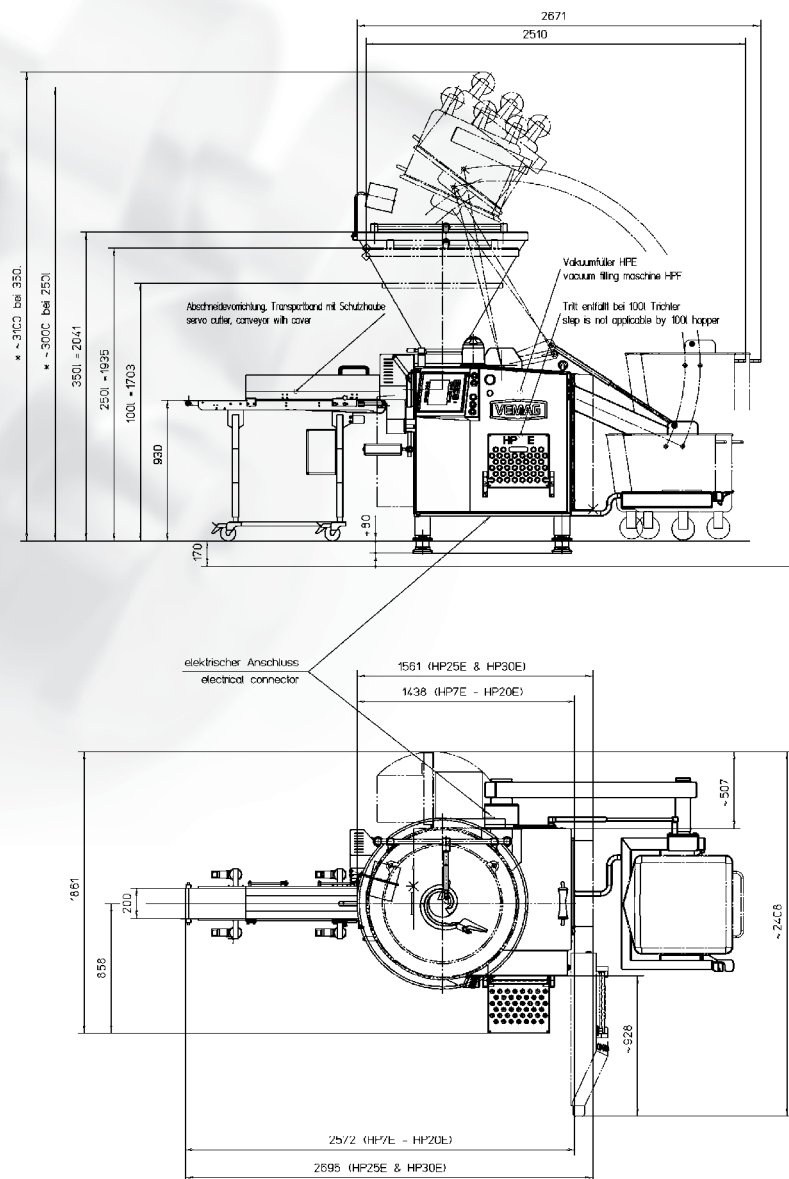
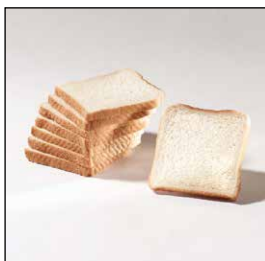
approx. 1,250 kg

Nominal output:

16 kW (HP12E) / 22 kW (HP20E) at 50/60 Hz

Lifting and tipping device:

optional



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BUREAU VERITAS  
Certification



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# HPE series dough divider

## with multiple strand servo cutter

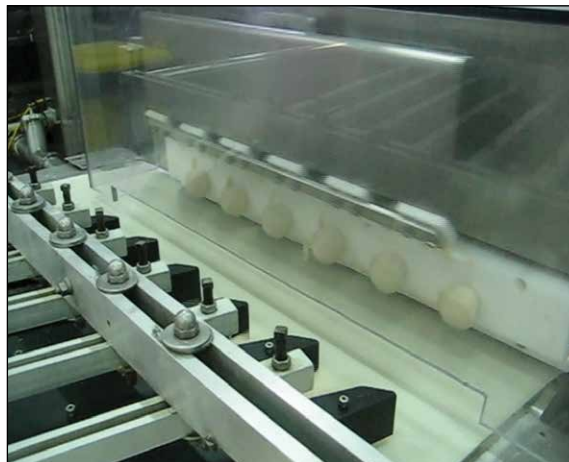


VEMAG dough dividers help you to portion exact weights without the need for oil.

Is production efficiency at the top of your list of requirements? Do you require extremely high outputs? Then make sure you opt for a VEMAG dough divider and multiple strand servo cutter combination to ensure you optimise your production efficiency.

Are you dissatisfied with the weight accuracy offered by other dough dividers? Are you looking for a solution that can guarantee exact weights every time? Then look no further than the HPE series dough dividers from VEMAG and take advantage of extremely accurate weighing.

Are you fed up with the high price of cutting oil? Do you need an economical solution to significantly reduce your production costs? Then look no further than the HPE series dough dividers from VEMAG and make expensive cutting oil a thing of the past.



Multiple strand servo cutter for hamburger buns

HPE series dough dividers can work with any viscosity and process rye doughs, wheat doughs, stiff shortcrust pastry and soft doughs. They can be equipped with varying special attachments (e.g. cutters, filling devices or filling heads). Combined with the servo cutter, they are the perfect solution for portioning doughs for a wide range of products:

- Hamburger buns
- Mini baguettes
- English muffins
- Hotdog buns

### Servo cutter

The servo cutter really comes into its own wherever doughs need portioning and working on with a high degree of accuracy. The flow of dough is divided onto four, six or more lines with the help of an automatic filling flow divider, and the servo cutter then prepares individual portions with a high degree of

accuracy. The line can be extended with a belt rounder (optional) as required. The portions are placed on the belt rounder and then fed in for subsequent processing.

Depending on the product, the servo cutter achieves outputs of up to 200 cycles/min.

### Highly economical

HPE series dough dividers are characterised by a high degree of efficiency. Expensive cutting oil is no longer a problem. What's more, the portioning rates that the machines can achieve ensure that your line operates at maximum efficiency, leaving you free to concentrate fully on your product.

### Perfect hygiene

The dough divider is designed to be as hygienic as possible and can be cleaned with water using low-pressure cleaning equipment. The entire pumping system can also be cleaned with water. The encapsulated machine housing and integrated flour filter prevent flour dust penetrating the inside of the machine, with the result that it takes only a few minutes to clean the entire machine.

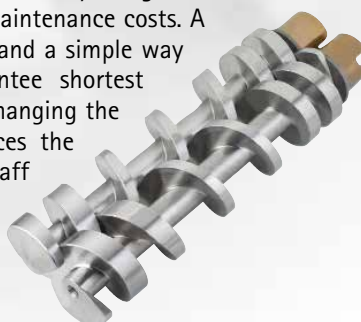
### All the benefits at a glance

- Design tailored to customer requirements
- Belt rounder (optional)
- High degree of weight accuracy
- High portioning rate
- Also suitable for high dough yields
- Optimum hygiene for your bakery
- Simple to operate
- Highly cost-effective – no cutting oil required

### The heart of the machine – the VEMAG double screws

The heart of the VEMAG dough divider is the „VEMAG double screw“, which works using the double spindle principle. The double screw transports gently and without any compression dough and masses even with large chunks like nuts, raisins, bits of chocolate and so on from the hopper to the machine outlet. Weight limits belong to the past as the VEMAG double screw separates easily an exactly defined amount.

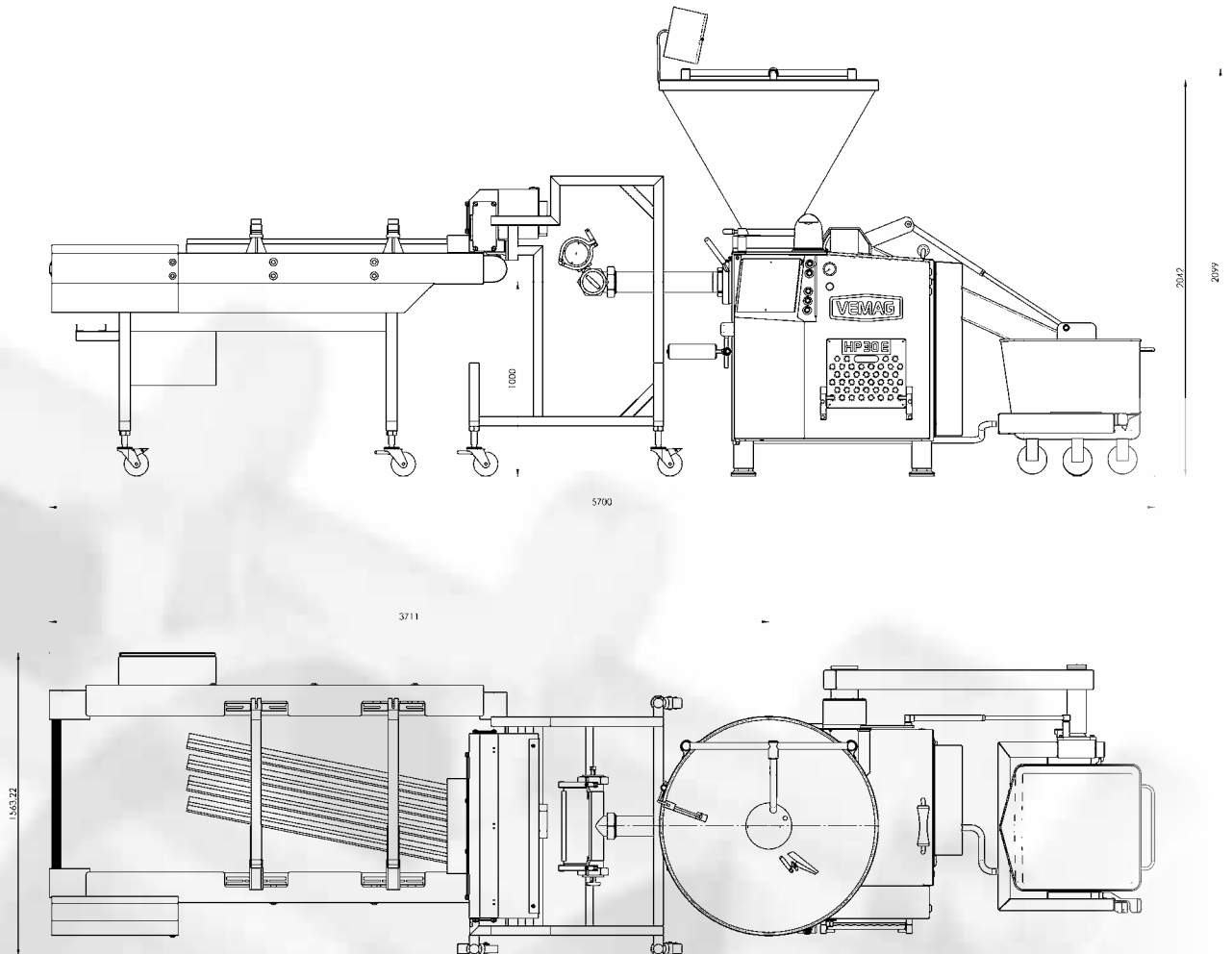
The double screw is working almost free of wear and tear and by doing so it reduces even the maintenance costs. A quick dismantling and a simple way of cleaning guarantee shortest downtimes while changing the product. This reduces the machine- and staff costs per quantity unit – for a safe and efficient production.



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## Technical data

Dough yield:	DY 155–220
Portioning rate:	max. 200 cycles/min.
Portion weight:	5–60,000 g, adjustable in increments of 1 g
Portioning:	4-line / 6-line / others upon request
Vacuum system:	16 m <sup>3</sup> /h
Hopper capacity:	250 l / 100 l (optional) / 350 l (optional)
Weight:	approx. 1,250 kg
Nominal output:	16 kW (HP12E)/22 kW (HP20E)/38 kW (HP25E) at 50/60 Hz
Lifting and tipping device:	optional



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# HPE series dough divider

## with filling device for bread boxes



VEMAG dough dividers help you to portion exact weights without the need for oil.

Do you want to improve the quality of your products? Then look no further than the HPE series dough dividers from VEMAG and take advantage of higher dough yields for rye and wholemeal breads.

Are you dissatisfied with the weight accuracy offered by other dough dividers? Are you looking for a solution that can guarantee exact weights every time? Then look no further than the HPE series dough dividers from VEMAG and take advantage of extremely accurate weighing.

Are you fed up with the high price of cutting oil? Do you need an economical solution to significantly reduce your production costs? Then look no further than the HPE series dough dividers from VEMAG and make expensive cutting oil a thing of the past.



Filling device for bread boxes

HPE series dough dividers can work with any viscosity and process rye doughs, wheat doughs, stiff shortcrust pastry and soft doughs. They can be equipped with varying special attachments (e.g. cutters, sheeting horns or filling heads). Combined with the filling device, they are the perfect solution for portioning soft bread doughs for a wide range of products:

- Wholemeal bread
- Pumpernickel bread
- Rye bread/rye-mix bread
- Special breads
- Gluten-free breads

### Filling device

The filling device is used wherever soft bread doughs need portioning with a high degree of weight accuracy and depositing directly in bread boxes. As the dough is placed directly into moulds, there is no contact with floury

or wet conveyor belts. The filling device is fitted with a pneumatic blade.

The rapid-replacement outlet nozzles allow you to create a wide variety of product shapes and sizes as required. Depending on the product, the filling device achieves outputs of up to 40 portions/min. The slicing pattern can be enhanced by aligning seeds, and a final moulder can be integrated for breads that are seeded or floured all over.

### Highly economical

HPE series dough dividers are characterised by a high degree of efficiency. Expensive cutting oil is no longer a problem. What's more, the portioning rates that the machines can achieve ensure that your line operates at maximum efficiency, leaving you free to concentrate fully on your product.

### Perfect hygiene

The dough divider is designed to be as hygienic as possible and can be cleaned with water using low-pressure cleaning equipment. The entire pumping system can also be cleaned with water. The encapsulated machine housing and integrated flour filter prevent flour dust penetrating the inside of the machine, with the result that it takes only a few minutes to clean the entire machine.

### All the benefits at a glance

- Design tailored to customer requirements
- High degree of weight accuracy
- High portioning rate
- Also suitable for high dough yields
- Optimum hygiene for your bakery
- Simple to operate
- Highly cost-effective – no cutting oil required

### The heart of the machine – the VEMAG double screws

The heart of the VEMAG dough divider is the „VEMAG double screw“, which works using the double spindle principle. The double screw transports gently and without any compression dough and masses even with large chunks like nuts, raisins, bits of chocolate and so on from the hopper to the machine outlet. Weight limits belong to the past as the VEMAG double screw separates easily an exactly defined amount.

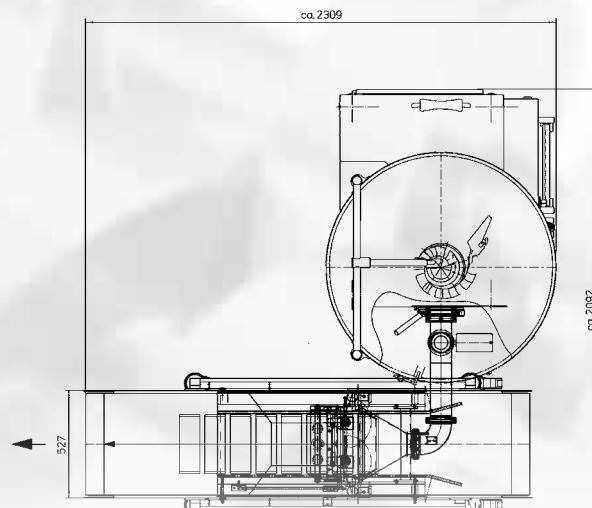
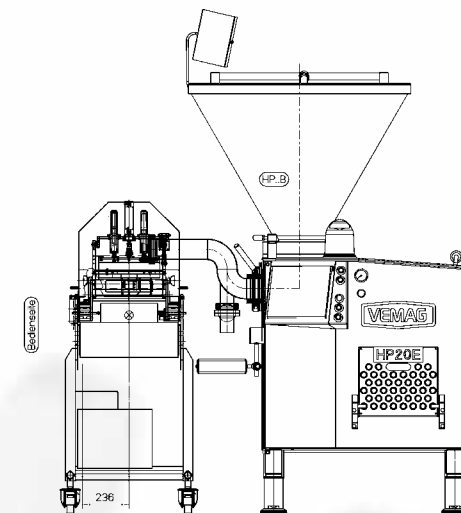
The double screw is working almost free of wear and tear and by doing so it reduces even the maintenance costs. A quick dismantling and a simple way of cleaning guarantee shortest downtimes while changing the product. This reduces the machine- and staff costs per quantity unit – for a safe and efficient production.



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## Technical data

Dough yield:	DY 155–220	
Portioning rate (e.g. with HP20E):	Portion	with double screw 48N-90
	580 g	40 port./min.
	1.200 g	35 port./min.
	3.000 g	25 port./min.
Portion weight:	5–60,000 g, adjustable in increments of 1 g	
Nozzle width:	max. 280 mm	
Nozzle height:	max. 80 mm	
Vacuum system:	16 m <sup>3</sup> /h	
Hopper capacity:	250 l/100 l (optional) / 350 l (optional)	
Weight:	approx. 1250 kg	
Nominal output:	16 kW (HP12E) / 22 kW (HP15E / HP20E) / 38 kW (HP25E) at 50/60 Hz	
Lifting and tipping device:	optional	



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# Process Check 706

## Checkweigher for dough pieces



### Optimal weight control for all working environments

Quality can be reproduced. Alongside the raw materials and the careful processing, the weight accuracy of the dough pieces in industrial baking is particularly important for an efficient and economic production process. And it is precisely this accuracy of weight that VEMAG guarantees by the integration of the Process Check in its production line.



Process Check 706

### Application

The VEMAG Process Check weighs the balls of dough, once they leave the dough divider. It then sends feedback on the average weight of the last 50 portions calculated to the dough divider, which, as required, will automatically readjust within tenths of a second – your dough pieces therefore always have the 100 % correct weight. This way, the prevention of excess weight will enable you to save on resources and produce even more portions from the same amount of raw material.

And if despite this, once in a while a dough piece should not actually weigh the correct amount, it will be automatically rejected by a drop-down belt attached to the checkweigher.

### Handling

The robust construction is designed for the tough working environment in industrial baking concerns. You can clean the Process Check with conventional trade cleaning agents and low pressure. Large flat areas make the cleaning easy – thus saving time and money. It's a simple matter to remove the transport belt for cleaning and maintenance purposes.

### Software

The easy-to-read screen on the Process Check will help you to analyse your production. The user-friendly reporting provides a wide range of standard report layouts. It is a simple matter to output the reports in Microsoft Excel and other programs – so that even the evaluation of the data is as easy as pie!

You can rely on the Process Check, since it possesses online production monitoring with alarm function and statistical evaluation for:

- Number of portions per minute
- Total weight of the accepted dough pieces
- Average weight of the accepted dough pieces
- Amount of accepted dough pieces (quantitative and relative)
- Amount of rejected dough pieces (quantitative and relative)
- Amount of giveaways (quantitative and relative) Standard deviation

### All the benefits at a glance

- Easy to connect to VEMAG dough divider
- Prevention of incorrect weight (under- or overweight)
- Reduction of giveaways
- Automatic rejection in case of incorrect weight
- Increases profit by exact portioning
- Keep the average value constant during one charge

Highly automated production:  
VEMAG lines with Process Check



Dough divider VDD 807, Process Check 706 and Drop-Down Conveyor



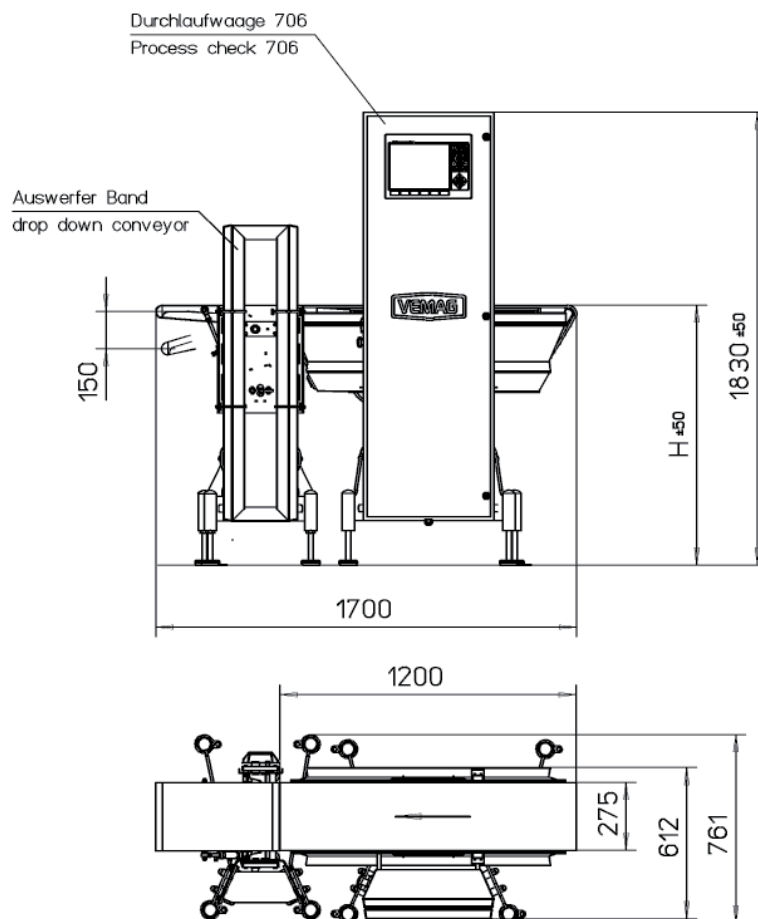
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## Technical data

Weight of Process Check:	150 kg
Weight of Drop-down Conveyor:	50 kg
Weight of portion:	max. 3 kg

Weighings:	Product length	Weighings/min.
	330 mm	50
	275 mm	100
	165 mm	200
	110 mm	250



Belt height	Process Check 706
1050+/-50	Standard
1150+/-50	High
800+/-50	Low

# Dough Divider VDD807

## Separate exact weights without oil



### VEMAG dough divider

You have been angered by the high costs for cutting oil for a while? You require an economic solution which lowers your production costs considerably? Then invest in the dough divider VDD807 and cutting oil costs will be a part of history. The weight accuracy of other dough dividers is not enough for you? You require a solution which guarantees you always get exact weights? Then choose the dough divider VDD807 by VEMAG and you will benefit from the utmost accurate weight measuring. You want to increase product quality? Then choose the dough divider VDD807 by VEMAG and you will benefit from oil free working and hence no longer have to cope with oil enclosures in the product.



Dough divider VDD807

The dough divider VDD807 was specifically developed for gentle dough separation for wheat based dough and high output. This new type of system allows you to portion dough, e.g. for sandwich breads, with up to 9,600 portions per hour.

### Cutting device

The cutting device works in a rotating fashion with an AC-servo drive. An integrated conveyor transports the products for further processing. This allows a very clean and even handover onto a check weighing scales, a subsequent transport band or straight into the moulder. And best of all: due to the regular distances between the pieces of dough productivity is increased. Simply achieve more faster.

You can produce different product sizes depending on your requirements thanks to the outlet nozzles which

can be exchanged quickly. Depending on portion sizes, the dough divider can achieve outputs of up to 320 portions per minute. The weight range is between 100 and 1,400 gr.

### Highly efficient

The dough divider VDD807 is highly efficient. There are no more costs for cutting oil. Furthermore, the achievable portioning output enables an extremely economical production line operation. This means you can concentrate alone on your product - and earn double.

### Perfect hygiene

The dough divider is designed for ideal hygiene and can be cleaned wet using a low pressure cleaning device. Also the entire conveyor system can be cleaned with water. The enclosed machine housing and integrated flour filter prevent flour dust from entering

into the inside of the machine. Hence, only a few minutes are enough to clean the entire machine.

### All advantages at a glance:

- Highly efficient due to abandoning cutting oil
- High weight accuracy
- High portioning output
- Also suitable for high dough yield (dy)
- Ideal hygiene for the bakery
- Simple operation

### The heart of the machine – the VEMAG double screw

The heart of the VEMAG dough divider is the „VEMAG double screw“, which works using the double spindle principle. The double screw transports gently and without any compression dough and masses even with large chunks like nuts, raisins, bits of chocolate and so on from the hopper to the machine outlet. Weight limits belong to the past as the VEMAG double screw separates easily an exactly defined amount.

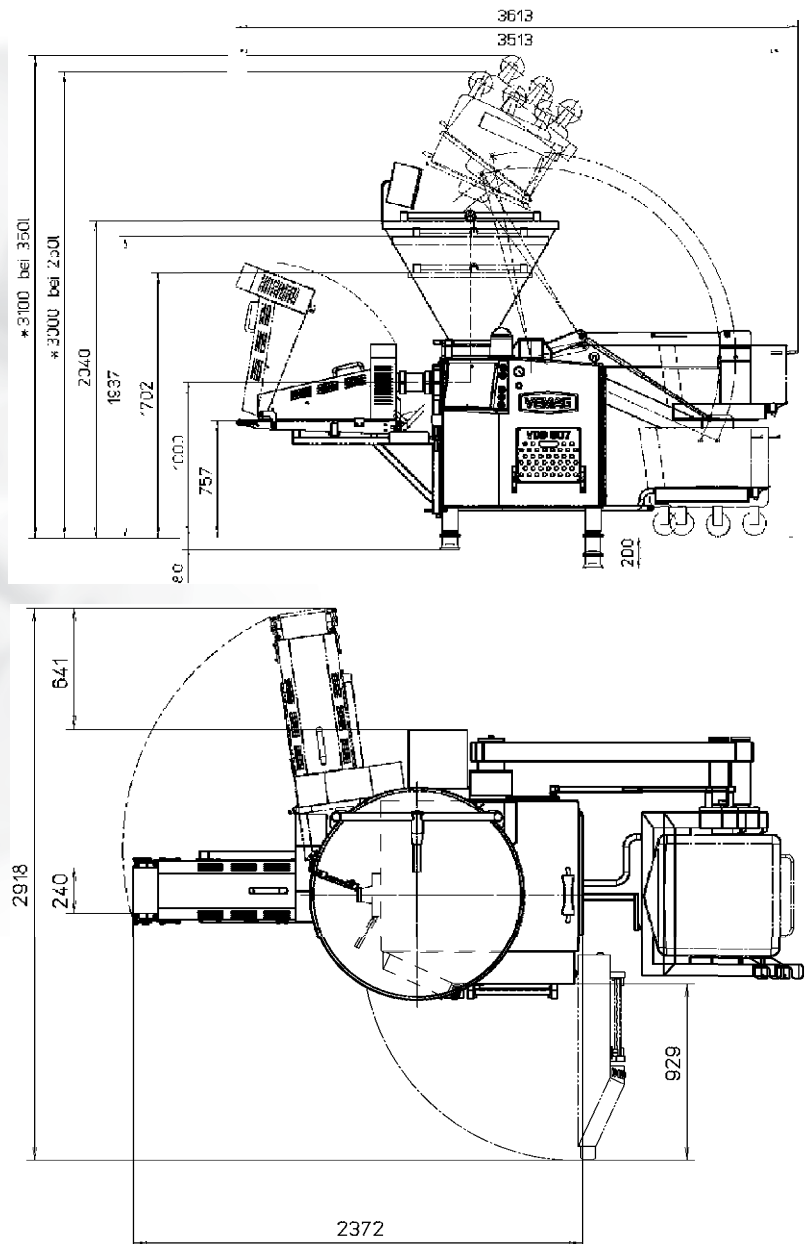
The double screw is working almost free of wear and tear and by doing so it reduces even the maintenance costs. A quick dismantling and a simple way of cleaning guarantee shortest downtimes while changing the product. This reduces the machine- and staff costs per quantity unit - for a safe and efficient production.



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## Technical data

Dough yield (dy):	dy 150 – 175	
Portioning output, e.g. for Wheat toast bread:	Portion	output/min
	100g	320
	600g	170
	900g	125
	1.200 g	100
	1.400 g	85
	2.000 g	60
Portion weight:	adjustable in steps of 1g	
Nozzle diameter:	40 – 95mm in 5mm-steps	
Hopper content:	250L / 100L (optional) / 350L	
Weight:	approx. 1.250Kg	
Nominal output:	22kW	
Lifting and tipping device:	optional	



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## Vemag Videos



2.98 BC236 –  
MEATBALL



2.99 BC237 –  
FLEISCHBAELLCHEN – (HPE + BC)



2.90 R500 & ASV 811



FSL210



FSL211 & AH212



HP12E & FSL210



LPG209 NATURAL &  
COLLAGEN CASINGS



LPG209 FOR FRESH SAUSAGE  
IN COLLAGEN AND NATURAL  
CASINGS



LPG213



LPG & AVG



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# NATURAL SAUSAGE CASINGS

Crown National is a supplier of natural hog and sheep casings of superior and consistent quality to customers situated across Sub Saharan Africa.



## Natural Sausage Casings

### Introduction

Sausage is the oldest form of processed meat. It may even be considered the world's first "convenience food". During the last thousand years sausage-making became a venerable and highly developed craft. In many cases families handed their particular art down through generations and many European nations each had their "wurstmacher" who contributed his own taste and inherited skill to this art, which was influenced by the demand of the marketplace and available ingredients.

The 20th century population explosion led to the mass production of what was historically a family art but, even with the introduction of modern technology, manufacturers still produce a wide variety of speciality sausages with traditional taste and quality being their aim. One element of paramount importance in sausage making is the choice of the casing used. In selecting Crown National's Gold Crown® quality casings, you are guaranteed of using the finest and best selected natural sausage casings available.

Our very modern, fully equipped and state of the art casings quality control and distribution plant situated in Longmeadow-West, Johannesburg conforms to international standards as set by the most modern distribution and casings selection plants around the world.

By having this ultra modern casings plant we are able to exercise strict quality assurance and quality control under stringent hygienic conditions. We are able to guarantee our product specification and are able to recommend, select and supply a particular Gold Crown® casing to meet any customer's specific needs and requirements.

Crown National is justifiably proud to be recognised as a leader in the supply of natural hog and sheep casings of good and consistent quality to customers situated across Sub Saharan Africa and are committed to maintain this status quo into the future.

Crown National is a proud member of the  
International Natural Sausage Casing Association



### GOLD CROWN® NATURAL HOG CASINGS







## Characteristics Of A Gold Crown® Natural Casing:

- Only the highest quality and most tender casings qualify to be branded "Gold Crown®".
- Gold Crown® casings are:
  - Hygienically clean and dry-salted
  - Clear and transparent for maximum end product visibility
  - Calibrated strictly as per specification resulting in consistency with minimum variation
  - Free of tears, slits and holes
  - Free of deep-seated veins
  - Selected to have a minimum occurrence of whiskers
  - Stored under controlled atmosphere
  - Correctly refrigerated at our Plant in a controlled atmosphere
  - Guaranteed as per our Seal of Excellence

## Why Use A Natural Casing?

Natural casings are the sausage makers' BEST CHOICE because:

- Natural casings readily permit deep smoke penetration.
- Natural casings have excellent characteristics of elasticity and tensile strength, to allow for high efficiency production and expansion during filling.
- Natural casings protect the fine flavour of sausage, without contributing any conflicting flavourings of their own.
- A sausage in a natural casing has that special "snap" and tender bite that man-made products cannot equal and stays tender and juicy.
- A natural casing permits transferral of heat which results in superb cooking even over an open flame.
- Superior tensile strength enables maximum yields.
- Sausage in natural casings has a well-filled appearance.

## Seal Of Excellence

### The Gold Crown® Seal Of Excellence

Every barrel of Gold Crown® natural casings prominently displays our GOLD CROWN SEAL OF EXCELLENCE® label which is your guarantee that the contents of that barrel have been checked to ensure that they qualify as a superior GOLD CROWN® casing.





**EXCELLENT QUALITY**



[www.crownnational.co.za](http://www.crownnational.co.za)

### Why Use A Natural Casing?

*Natural casings are the sausage makers' BEST CHOICE:*

- Readily permit deep smoke penetration.
- Excellent characteristics of elasticity and tensile strength.
- Protects the fine flavour of sausage.
- Has the special "snap" and tender bite.
- Stays tender and juicy.
- Osmatic quality permits superb cooking.
- Well-filled appearance.
- Superior tensile strength.

### Characteristics of A Gold Crown Casing:

- Strategic Partnerships to ensure quality and continuity of supply.
- Consistency and stability:
  - Consistent size yields, clean and dry-salted.
  - Transparency allows customers to clearly see the quality of the pack.
  - Free of tears, slits and holes.
  - Free of deep-seated veins.
- Track and trace ability of lots.
- Large range available.
- Customisation available.
- New technology in EEZILoad.
- Guaranteed as per our Seal of Excellence.

### The Product Range:

*3 Types:*

1. Sheep Casings
2. Hog Casings
3. Beef Casings

### Gold Crown Casings supply as follows:

#### DRY SALTED:

- Guaranteed length of 91.4m
- Available in all calibrations & lengths
- Sold according to international standards
- For small butchery to large producers

#### TUBED:

Pre-loaded onto a **EEZILoad** tube resulting in:

- Better yields
- Saves time - easy loading
- Better efficiencies
- Less labour
- Improved filling capacities (no waste)
- Increased productivity
- Custom made calibration and to shortest piece i.e. 3m+, 6m+ etc.

### Ensure Quality Sausage/Casing:

- Use a quality natural casing: i.e. Gold Crown Casing.
- Having flushed casings, they must always be stored in cold water in a cold environment.
- Hot water favours bacterial growth.
- At no stage during the flushing and preparation stages should hot water be used.
- Insufficient flushing (spooling) will result in salt remaining in the casing tissue.



Visit us on YouTube



#### Contact Details:

Tel: +27(0)11 201 9100 Fax: +27(0)11 201 9175  
31 Nguni Drive, Longmeadow West, Modderfontein, 2065  
P.O.Box 3864, Edenvale, 1610



## Gold Crown® Hog Casings



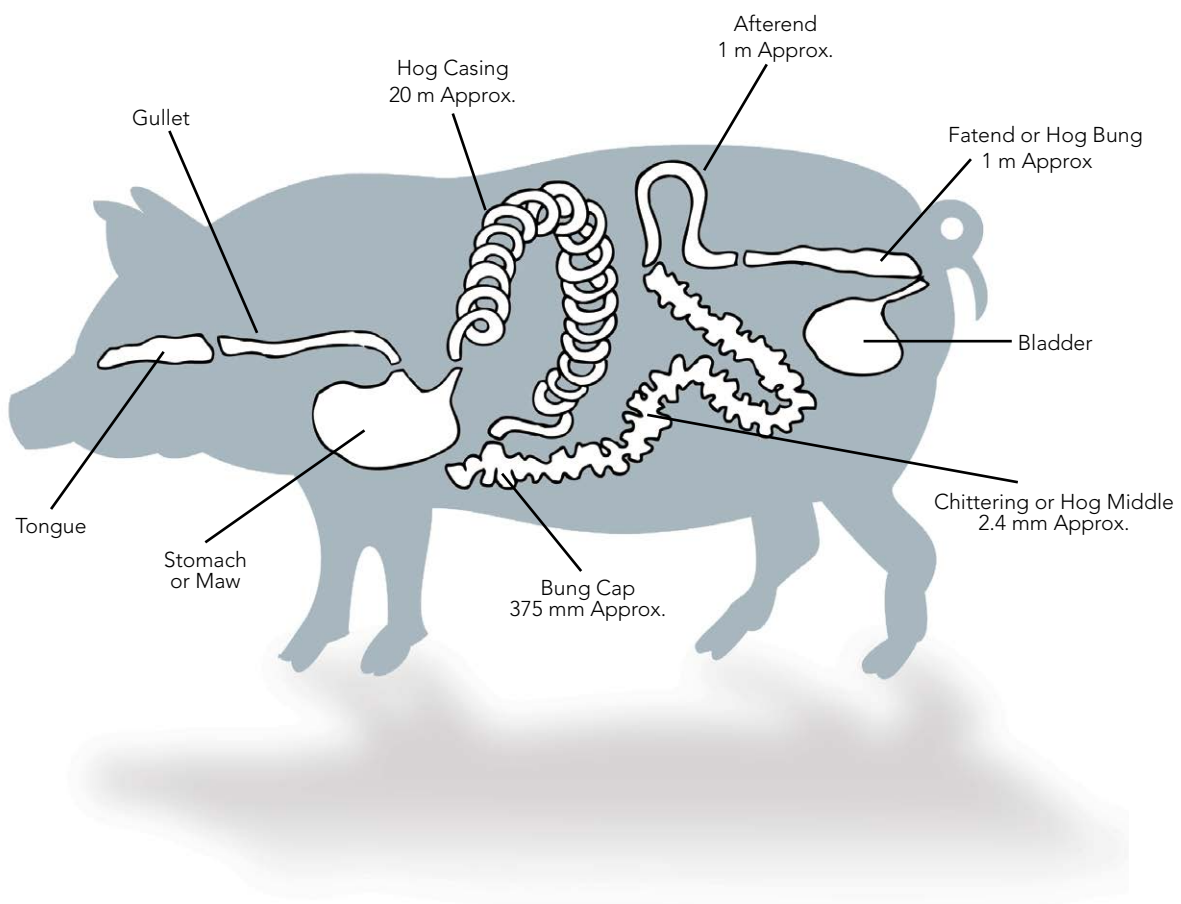
### Introduction

The hog casing most used comes from the small intestine which is what we call the "runner". The runner section is coiled like a spring for most of its length which is why sausage and boerewors in a natural casing are always curled. A typical runner could measure 20 metres to 21 metres and varies in diameter between 26 mm to approximately 46 mm.

It is important that casings are cleaned in the correct manner prior to being sold. The casings are first crushed and then passed between a series of rollers and strippers which remove all unwanted layers and material.

There is a general misconception that hair-like projections on a casing, which we refer to as "whiskers" represent inferior casings. All casings have "whiskers" – some of which are more prominent than others, depending on the manner in which the runner was stripped from the carcass. They are of no cause for concern and most of them disappear during the cooking process.

**Note:** Gold Crown® Hog Casings are also available in a convenient, labour and time-saving pre-tubed Eezi Load, during which process the casings are first flushed, sorted and spooled onto a Eezi Load tube. These casings then only have to be rinsed and applied to the nozzle.





## Gold Crown® Hog Casings



## Gold Crown® Specifications For Hog Casings

- Hog Casings are generally used for Fresh Sausage, Cooked Sausage, Pepperoni, Italian Sausage, Large Frankfurters, Russian Sausages – to name just some of the more common items.
- Hog Casings are sold in “bundles” or “hanks”.
- This unit of measure equals approximately 91 metres (soaked in water).
- Gold Crown® Hog Casings are offered in bundles which we classify as follows:
  - Hog Longs – Maximum of 16-18 strands (pieces) per bundle of 91 metres with a range of calibrations from 26 mm to 40 mm
  - Hog Longs Eezi Load Tube – Maximum of 10 tubes (shirred casing strands on a Eezi Load tube) per bundle of 91 metres available in all calibrations
  - Hog Value Longs – Maximum of 38 strands (pieces) per bundle of 91 metres and calibrated into 28/32 mm, 32/35 mm and 35/38 mm calibrations
  - Hog Medium Longs – Maximum of 52 strands (pieces) per bundle of 91 metres and calibrated into 28/32 mm and 32/35 mm calibrations
  - Hog Original Casings – No guarantee in terms of calibration and/or number of strands – approximately 100 – 120 metres per bundle

### Uses For Hog Casings:

Hog casings are used for coarse emulsion products such as:

- Fresh pork sausage
- Fresh beef sausage
- Boerewors
- Braaiwors
- All types of other species fresh sausage
- Breakfast sausage
- Country style sausage
- Russians
- Frankfurters
- Chorizos
- Ring liver sausage
- Ring French and garlic polony
- Brattwurst



## Gold Crown® Hog Casings



### Product Reference and Reorder Code List

RECOMMENDED APPLICATION	PRODUCT REORDER CODE	PRODUCT DESCRIPTION	CAL IN MM	AVERAGE STRANDS P/BUNDLE	AVERAGE STUFFING CAPACITY P/BUNDLE
Beef & Pork Sausages, Boerewors, Brattwurst, Kasegriller, Russians, Smoked & Cooked products etc.	3010660	Gold Crown® Franchise Select Hog X-Long	26/28	18 - 20	42 kg
	3010625	Gold Crown® Franchise Select Hog Long	26/28	22 - 24	40 kg
	3010775	Gold Crown® Super Select Hog X-Long	28/30	14 - 16	48 kg
	3010770	Gold Crown® Super Select Hog Casing	28/30	22 - 24	45 kg
	3010610	Gold Crown® Russian Hog X-Long	30/33	14 - 16	50 kg
	3010783	Gold Crown® Russian Hog Long	30/33	22 - 24	48 kg
	3010608	Gold Crown® Russian Eezi Load	30/33	10 (Tubes)	50 kg
Smoked & Cooked products, Boerewors, Braaiwors. More suitable for factory type applications.	3010260	Gold Crown® Imported Hog X-Long	32/35	14 - 16	55 kg
	3010835	Gold Crown® Imported Hog Long	32/35	22 - 24	52 kg
	3010201	Gold Crown® Imported Eezi Load Long	32/35	10 (Tubes)	55 kg
Bulk manufacturing of Fresh & Processed products with effective time & labour saving benefits.	3010864	Gold Crown® Factory Eezi Load Long	35/38	10 (Tubes)	60 kg
	3010800	Gold Crown® Factory Hog X-Long	35/38	14 - 16	62 kg
	3010813	Gold Crown® Factory Hog Long	35/38	22 - 24	62 kg
Mainly for all types of Fresh Products. Shorter strands on average. Ideal for supermarkets.	3010918	Gold Crown® Value Hog Long (2 - 4 m)	28/32	36 - 38	46 kg
	3010970	Gold Crown® Value Hog Long (2 - 4 m)	32/35	36 - 38	48 kg
Suitable for all types of Hand Fillers. Usage: Boerewors, Braaiwors, Beef & Pork sausage.	3010902	Gold Crown® Hog Medium-long (1 - 3 m)	28/32	50 - 52	44 kg
	3010899	Gold Crown® Hog Medium-long (1 - 3 m)	32/35	50 - 52	46 kg
Economic type Casing for Braaiwors, Chorizo etc. Longer Strand-Lengths on average.	3010940	Gold Crown® Braaiwors Hog Long	40+	14 - 16	70+ kg
Suitable for all types of Hand Fillers. Usage: Mainly Boerewors & Braaiwors	3010856	Gold Crown® Original Hog	Un-Select	Cup Measure	45 kg

## Gold Crown® Hog Casings



### Hog Casing Selection Chart

#### CALIBRATION



## Gold Crown® Hog Casings



### Portion Concept Chart

- When meat was still relatively inexpensive and affordable to all, the concept of portion per packet or weight was of less significance.
- Boerewors, Wors, Beef Sausage, Pork Sausage and any other species of fresh or processed and cooked sausage in our modern age are still in very high demand and a traditionally preferred meal to most South Africans.
- The most important aspect to remember in retail is to always ensure that the portion one offers versus the price per packet one charges, is perceived to be real good value for money. It is a fact that nowadays the shopper assesses two things. Firstly, the number of portions that can be obtained from the pack and whether the customer has the required amount of money in their pocket to pay for the pack. In other words the price per kg is of less importance to the average shopper than we think!
- The narrower the calibration of the casing:
  - The longer the portion per kg.
  - The more favourable the pickup value. Consumers buy price per portion more than price per kilogram.
- Protect your price (Value for Money) and portion (Length per Weight) concept by selecting the ideal calibration of natural casing for your specific market.

**NOTE:** It is not necessarily economically wise to buy the cheapest casing available.  
Price per bundle is not always the determining factor.

GOLD CROWN® NATURAL HOG CASINGS





## Gold Crown® Sheep Casings

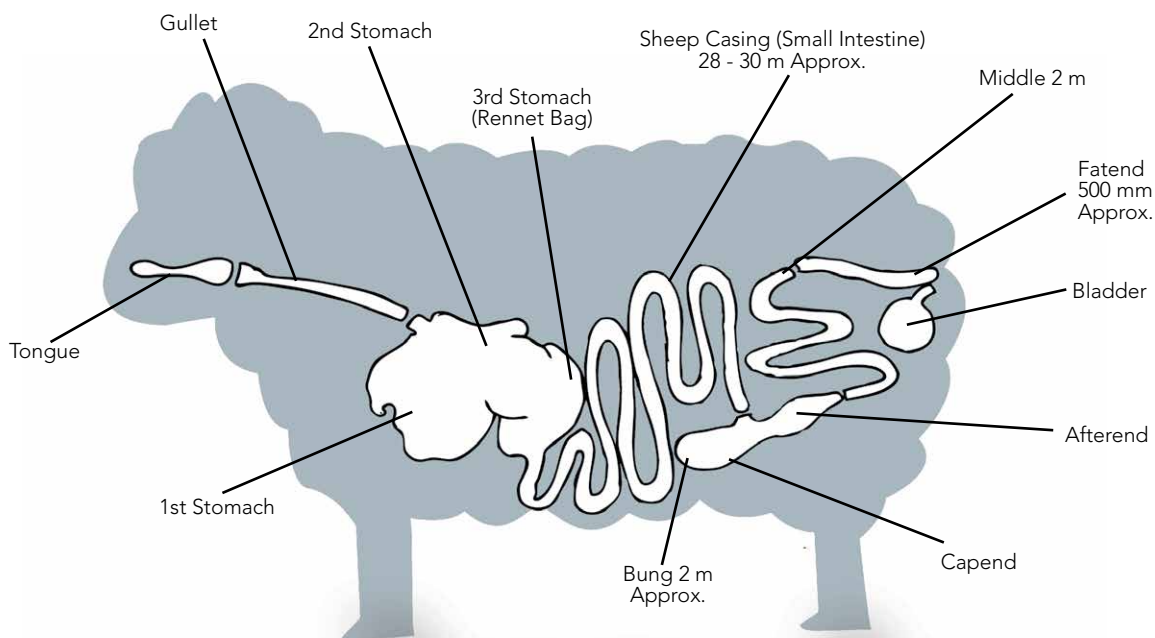


### Introduction

Great care is required in handling sheep intestines and their conversion into sausage casings as they are susceptible to damage and are derived only from the small intestines of animals. Sheep casings combine tenderness with sufficient strength to withstand the filling, cooking and smoking operations.

Colour varies according to country of origin; colour ranges from white to gray, but this variation does not indicate quality, strength or capability of smoke penetration, etc. Sheep casings must be clean, free from holes and accurately calibrated. Sheep casing sizes range from 16 mm to 30 mm.

**Note:** Gold Crown® Sheep Casings are also available in a convenient, labour and time-saving Eezi Load tube, during which process the casings are first flushed, sorted and spooled onto a tube. These casings then only have to be rinsed and applied to the nozzle.



## Gold Crown® Sheep Casings



## Gold Crown® Specifications For Sheep Casings

- Gold Crown® Sheep Casings of the highest quality are obtained from the small intestine of the sheep and are used in the production of Dry Wors, Cocktail Sausages, a variety of Meat Sticks, Frankfurters, Cheese-Grillers, Knackwurst, Bockwurst etc.
- The narrower calibrations i.e. 18 mm to 22 mm are mostly used for the smaller thinner products such as dry wors, cocktail sausages and thin meat sticks whereas the wider calibrations are used for the other products mentioned above.
- Sheep Casings are sold in "bundles" or "hanks".
- Bundles of Gold Crown® Natural Sheep Casings measure approximately 91 metres in length (soaked in water).
- Gold Crown® Natural Sheep Casings are offered in bundles classified as follows for ease of reference and reorder:
  - Sheep Longs – Maximum of 21 strands (pieces) per bundle of 91 metres
  - Sheep Longs Eezi Load Tube – Maximum of 15 tubes (shirred casing strands on a special type of tube) per bundle of 91 metres
  - Sheep Medium Longs – Maximum of 50 strands (pieces) per bundle of 91 metres.

### Uses For Sheep Casings:

Sheep casings are generally used for products such as:

- Cocktail sausages
- Breakfast sausages
- Thin boerewors
- Viennas
- Frankfurters
- Dry wors
- Cabanossi
- Bier knacker
- Various types of meat sticks
- Kasegriller
- Bockwurst



## Gold Crown® Sheep Casings



### Product Reference and Reorder Code List

RECOMMENDED APPLICATION	PRODUCT REORDER CODE	PRODUCT DESCRIPTION	CAL IN MM	AVERAGE STRANDS P/BUNDLE	AVERAGE STUFFING CAPACITY P/BUNDLE
Suitable for all types of Coarse Emulsion Products such as Thin Wors, Dry Wors, Meat Sticks etc.	3015795	Gold Crown® Selected Sheep Long	18	21	16 kg
	3015696	Gold Crown® Selected Sheep Long	20	21	18 kg
	3015699	Gold Crown® Eezi Load Sheep Long	20	12 (Tubes)	20 kg
Suitable for all types of Coarse Emulsion Products such as Cocktail Sausage, Meat Sticks, Cabanossi etc.	3015545	Gold Crown® Selected "Parys 22" Sheep Long	20/22	21	20 kg
Suitable for bulk type Coarse Emulsion Products such as Thin Wors, Beef Sausage, Dry Wors, Kasegriller etc.	3015714	Gold Crown® Eezi Load Sheep Long	22	12 (Tubes)	22 kg
Suitable for Fresh & Processed Coarse Emulsions e.g. Beef Linked Sausage, Cabanossi, Cheese Griller etc.	3015718	Gold Crown® Selected Sheep Long	22	21	21 kg
	3015720	Gold Crown® Eezi Load Sheep Long	24	12 (Tubes)	24 kg
	3015726	Gold Crown® Selected Sheep Long	24	21	23 kg
Mainly Fresh Coarse Emulsion Products e.g. Medium Boerewors, Beef Sausage, Pork Sausage, Country Sausage.	3015734	Gold Crown® Selected Sheep Long	26	21	25 kg
Suitable for Fresh & Processed Coarse Emulsions e.g. Foot-Long Russians, Boerewors, Cheese Griller etc.	3015742	Gold Crown® Selected Sheep Long	28	21	27 kg
All types of Cocktail Sausages, Dry Wors & Meat Sticks.	3015000	Gold Crown® Sheep Med-long (1 - 3 m)	18/20	47 - 50	18 kg
	3015750	Gold Crown® Sheep Med-long (1 - 3 m)	20/22	47 - 50	20 kg
Beef Sausage, Dry Wors, Mutton Sausage, Meat Sticks etc.	3015769	Gold Crown® Sheep Med-long (1-3 m)	22/24	47 - 50	22 kg
Medium Boerewors, Breakfast Sausage, Pork & Beef Sausage, Kasegriller, Cabanossi etc.	3015777	Gold Crown® Sheep Med-long (1 - 3 m)	24/26	47 - 50	24 kg
	3015785	Gold Crown® Sheep Med-long (1-3 m)	26/28	47 - 50	26 kg



## Natural Sausage Casings

### Product Information

#### Reasons Why Flushing Of A Natural Casing Is So Important:

It is essential that Crown National customers carefully follow the steps detailed below when preparing the Gold Crown® natural casing prior to filling. Failure to do so invariably ends up in unsatisfactory results which are then blamed on the casing when in fact the cause is ill preparation.

By adhering to the four basic procedures as set out below you will achieve ultimate satisfaction and best results from your Gold Crown® Natural Casing.

#### SALTED BUNDLES:

1. Rinse the casing thoroughly with fresh water to remove superficial salt.
2. Soften by soaking in fresh water at room temperature (approximately 21° C) for 45 minutes to one hour. Whilst the bundles are soaking in the water, gently hand-massage them periodically in order to separate the strands and prevent dry spots which may adversely affect the stuffing process. After the 45 minutes to one hour, remove them from the room temperature water and soak them in 30° to 32° C (lukewarm) water for thirty minutes prior to use.
3. Pre-flush by introducing water into the casing and allow the water to "run" through. This will ensure that the last remaining bits of salt are flushed out of the casing and will also facilitate getting the casing onto the filling horn (filler-nozzle) and moving the casing smoothly during the filling process.
4. To further ensure that all salt is removed from the casings, remove and place into a bucket or mega-tray with lukewarm water which can now be transported to the filling table.

#### IMPORTANT:

- Insufficient flushing (spooling) will result in salt remaining in the casing tissues. The salt crystals in the casings of raw sausage impede water evaporation which in turn makes stuffing (filling) less successful. It can also result in discolouration, as well as resulting in the end product tasting too salty.
- At no stage during the flushing and preparation stages should hot water be used.
- Hot water favours bacterial growth.
- Flushed casings must always be stored in cold water in a cold environment.

#### Drying Of Filled Sausages Before Smoking:

##### SMOKING OF FILLED SAUSAGES:

**NOTE:** It is vitally important to dry sausages to the point where the casing is tacky.

- If the casing is not sufficiently dried, the smoke will penetrate the casing and will be deposited on the meat surface, thereby permitting the casing to separate from the product inside and causing a pale, dull appearance of the end product.
- If the sausage casing is over-dried, the smoke will be deposited only on the outside surface with very little flavour penetration.



## Natural Sausage Casings



### National Distribution Plant

With one of the largest, most sophisticated and ultra modern natural casings plants operated by a distributor anywhere in the world and certainly a first in South Africa, Crown National is able to provide unrivalled benefits to their customers in the form of Gold Crown® natural casings which are quality checked and distributed nationally from these premises.

Crown National regards food safety and hygiene as their major priority and these aspects are no less a priority within the casings plant where our modern state of the art facilities enable us to apply strict quality control and quality assurance procedures utilizing highly trained and qualified staff.

Within the casings plant is a gigantic cold-room, the temperature of which is maintained at a cool enough level so as to prevent any form of bacterial growth on the casings being stored. Maintaining the cold-chain as far as possible is very important and it is thus imperative that clients store their Gold Crown® natural casings on their premises under cold room conditions to ensure maximum shelf-life.

Crown National insists that their overseas casings suppliers carefully select, calibrate and measure according to their specifications. Upon arrival at the Crown National natural casings plant, all natural casings are then checked in the quality assurance department in order to confirm that they comply with the standards specified on their order and only then are the casings classified as Gold Crown® natural casings and awarded the Gold Crown® Seal of Excellence.

The Gold Crown® Seal of Excellence is Crown National's guarantee to their customers that the product is of superior quality and that the contents of the barrel in fact agree with the product description on the barrel. Furthermore the Seal of Excellence gives customers peace of mind in the knowledge that they are dealing with a company of honesty and integrity.



Take a 'VIRTUAL TOUR' through our state-of-the-art casings plant by scanning this QR code on your smart phone or by going to:  
<http://www.youtube.com/watch?v=P3Hj0SmfNns>

#### EXPERIENCED STAFF CONFIRM QUALITY ASSURANCE



#### OUR SEAL OF EXCELLENCE GUARANTEE











## Frequently Asked Questions...

### 1. **How are sheep casings obtained?**

Sheep and goat casings come from the intestine-set of the animal.

Only the small intestines, also called "runners", are used to convert into sausage casings.

A single runner is approximately 28 - 30 meters in length.

### 2. **What does calibration mean?**

Calibration is the terminological expression used to refer to the actual water diameter (thickness) of a cleaned strand of a sausage casing. Equal diameters of specific strand-lengths are tied together to make up a pre-specified overall length of a bundle or a hank of sausage casings.

### 3. **What is a 'bundle' or 'hank' of sausage casings?**

A bundle or a hank of sausage casings is the industry's collective name for a pre-specified calibration (in diameter), pre-specified minimum strand length and pre-specified overall minimum length per bundle or hank expressed in meters. A Gold Crown® bundle of sheep casings is fully compliant with international standards i.e. the overall length per bundle is a minimum of 91.4 meters or 100 yards.

### 4. **How will I know the correct specification (specific type) of casing to purchase?**

- Determine the batch size (volume) of prepared sausage required. Keep in mind that 40 kg wet sausage will yield approximately 25 kg of dry sausage.
- Also determine how often this same volume of dry product must be provided. For example, every third day.
- Calculate the length of time (in days) the 40 kg of wet product will need to reach maturity.
- Since the delivery span is only three days, the diameter (thickness) of the calibration of the ideal casing to be used will be very important.
  - a. Request the narrowest calibration of a sheep casing to ensure the freshly filled dry sausage will reach maturity in the shortest possible time-span – 18 mm in this case;
  - b. Determine the approximate stuffing

capacity (weight) of filled sausage per bundle to calculate the number of bundles required for each batch of 40 kg fresh product. Using an 18 mm diameter sheep casing, one would require approximately three bundles per 40 kg batch.

- An 18 mm sheep casing with an approximate stuffing capacity of 16 kg per bundle would in this case be the recommended sheep casing to use.

### 5. **In what way are natural casings preserved?**

All natural casings are cleaned, selected and put into bundles. Then they are preserved in dry salt and packed into a barrel. Casing walls are porous so the salt will naturally penetrate the casing to ensure a better preserved bundle.

### 6. **Will the dry salt on the casing influence the flavour profile of the end product?**

- The rinsing/soaking/flushing process is extremely important since insufficient attention to these stages of the process will result in salt remaining in the casing tissue. It can result in discolouration, as well as resulting in the end product tasting too salty.
- Always wash the casing thoroughly in fresh water to remove superficial salt.
- After rinsing, it is important to also soak the casing in fresh water at room temperature (21° C) for between 45 minutes to an hour. After the rinsing process soak the bundle/s in lukewarm water (about 30° C - 32° C) for approximately 30 minutes.
- After soaking, pre-flush each strand of the bundle by introducing water into the casing-strand and allow the water to "run" through the strand to ensure all bits of salt particles on the inside of the casing are flushed out.

### 7. **Why does a sheep casing break more easily than a hog casing?**

- The elasticity in the wall of a sheep casing is much less than a hog casing. Once it has been filled to capacity it cannot stretch or expand much further the way a hog casing can. The tissue of the outer layer of a sheep casing is very soft and the texture is much thinner than that of a hog casing.





## Frequently Asked Questions...

- Check the pressure and speed of the filling machine. It might be too high or too fast leading to over-stuffing. A good hint for controlling the speed and filling pressure is by using a finger-grip at the open end of the stuffing-nozzle (between the forefinger and the thumb).
  - The outside surface of the nozzle (also referred to as the stuffing horn) is not smooth. Should there be any cracks, scrapes or knock marks visible on the outside of the nozzle, these would certainly lead to unnecessary breakages of the casing.
  - Sausage that bursts on the barbecue is not necessarily due to the type of casing used. This is often because the fire is too hot.
- 8. What is the correct method to calculate the cost of the natural casing being used as part of the total cost of the end-product manufactured?**
- Filling or stuffing capacities are measured in kilograms per bundle or hank of 91 meters.
  - The value (price) of the bundle including VAT divided by the weight in kg = the net cost per kg of the natural casing. For example;  
 $R\ 150.00 \div 18\ kg = R\ 8.33/kg = \text{cost of casing.}$
  - The actual cost of the natural casing per kg as above, (the casing-cost-factor) should always be included as part of the total cost calculation of the Meat-Block of the relevant product-batch. (See 'How to cost a Meat Block' in the catalogue.)
- 9. Why do some of the individual casing strands present with light veins or "whiskers" on the surface?**
- A whisker on a natural casing is often referred to as "hair" or "longish beard" on the surface.
  - The whiskers visible are actually the "veins" on the surface of the intestine-runner that attach the intestine to the animal-carcass – they are actually "blood-veins" and part of an animal's biology.
  - Veins are not harmful in any way; however, their inclusion in the final presentation of the cleaned casing is perhaps not always acceptable.
- 10. Why do different bundles of casings have different colours?**
- It is quite common to find dry-salted bundles of natural casings in different colours, from snow-white and fluffy to bundles that are more compressed with either a greyish or beige colour while still in dry-bundle format.
  - Different countries of origin and the grade of preservation will affect the colour of the casings.
  - South Africa's slaughter produces approximately 5% to 8% of the total sheep casings and 3% of the country's hog casings requirements per annum. This is not enough to sustain the high demand, and a massive 95% of South Africa's natural casings' requirements have to be imported from various parts of the world.
  - Imported casings are often a slightly different colour because:
    - a. Different slaughterhouses or abattoirs follow different methods in rolling and cleaning the intestine-runners.
    - b. Depending on the origin of the natural casings in relation to the distance from South Africa, the preserving method will need to withstand any weather condition and refrigeration over any period of time.
    - c. The heavier the preservative is, the darker or greyer the colour of the bundle in its dry format will be. For example, medium or coarse salt only will not be a sufficient preservative for importing purposes – certain other preserving chemicals will be added to the salt to ensure a shelf-life without refrigeration of up to 6 months as the casings will have to endure varying climatic conditions for long periods on our open oceans and over very long distances in some cases.
  - Remember, the colour has nothing to do with the quality, grade, condition and/or the type of the bundle. Once the bundle has been emersed in water for the rinsing, soaking and pre-flushing stages, it will revert to its original, natural colour.

# CELLULOSE AND COLLAGEN CASINGS

High quality cellulose and collagen casings that are attractive and easy to use.





## Viscofan Cellulose Casings



### Introduction

The Viscofan group is the world leader in artificial casings for meat products which it distributes in over 120 countries worldwide. It is the only manufacturer in the world using technology for all categories of casing products: cellulose, collagen, fibrous and plastic.

To produce a top quality cellulose casing, it is extremely important to use first class raw materials. Cellulose casings are made from natural cellulose. Viscofan uses high quality linters to produce the viscose that will be extruded into casings. They are used primarily in the manufacture of industrially cooked sausages (frankfurters, vienna sausages, hot dogs etc.). Using a complex manufacturing process, the cellulose molecules are chemically and mechanically depolymerised and subsequently repolymerised in cylindrical or tubular form according to the customer's requirements.

The Viscofan Cellulose casings are usually removed during the sausages manufacturing process. Once stripped of their skin, the sausages are canned or vacuum sealed in plastic films to protect them from the influence of oxygen and water vapour.



#### VISCOFAN CELLULOSE CASINGS





## Viscofan Cellulose Casings



Viscofan small calibre cellulose casings combine high elasticity with an extremely consistent calibre. They are permeable to flavours and colours as intended during the smoking process, but are impermeable to other unwanted aromas. With their excellent peelability, trouble-free industrial processing is guaranteed.

### Product Range

#### FAST PEEL QUALITY:

For smoked and unsmoked processed sausages and also dry-cured sausages, for use on high speed peelers.

### Calibres

#### FAST PEEL:

12EUR / 13USA - 42EUR / 44USA.

### Colours

#### TRANSFERABLE:

Red and orange.

#### NON-TRANSFERABLE:

Light smoke, blue, red, orange and salmon red.

### Stripes

#### FAST PEEL:

Black, blue, white and red.

Casings are available with 3 or 4 stripes according to diameter.

### Processing

- Fill directly in the direction indicated without prior soaking.
- Keep to the recommended stuffing diameter.
- The cooking temperature should not exceed 80° C.
- All standard smoking, maturing and cooking systems can be used.

## Viscofan Cellulose Casings



ADVANTAGE	DESCRIPTION
Appearance	Sausages in our cellulose casings are perfectly uniform and give your products an appetisingly natural look.
Calibre Consistency	Outstanding calibre consistency creates identical sausages.
Colours	Cellulose casings from Viscofan are available in a wide range of colour tones. You can choose between colours which are transferred onto the product and those which are not.
Product Range	Cellulose casings from Viscofan are available in standard and fast peel quality. These are also available in numerous colours and standard prints.
Productivity	Cellulose casings guarantee efficient processing and a trouble-free production process.
Profitability	The excellent peelability of our cellulose casings guarantees a trouble-free production process and ensures the highest level of productivity.
Ready to Stuff	Our cellulose casings are ready to stuff and can therefore be filled straight out of the packaging without prior soaking.
Retail Packaging	Since individual sausages made with our cellulose casings will be uniform in size they are perfect for pre-packed retail units.
Smoking	Your product will show excellent results when smoked. A perfectly balanced transfer of smoke will give your product the perfect look.
Striped Casings	A solution for distinguishing between products on the production floor.

### VISCOFAN CELLULOSE CASINGS



## Viscofan Cellulose Casings



In the following table you will find all the details concerning the packaging of cartons and caddies according to the different sizes and lengths.

FEET (M) PER STICK	EUR CALIBRA- TIONS	USA CALIBRA- TIONS	CADDIES PER CARTON	STICKS PER CARTON	METRES PER CARTON	STICKS PER CADDY	METRES PER CADDY
55' (16,80)	12 - 24	13 - 26	8	400	6720	50	840.00
55' (16,80)	25 - 34	27 - 36	6	300	5040	50	840.00
55' (16,80)	36 - 40	38 - 42	6	192	3220	32	536.67
70' (21,35)	12 - 24	13 - 26	8	400	8540	50	1067.5
70' (21,35)	25 - 34	27 - 36	6	300	6400	50	1066.66
70' (21,35)	36 - 40	38 - 42	6	192	4100	32	683.33
84' (25,60)	12 - 24	13 - 26	6	300	7680	50	1280.00
84' (25,60)	25 - 34	27 - 36	4	200	5120	50	1280.00
84' (25,60)	36 - 40	38 - 42	4	128	3280	32	820.00
95' (29,00)	12 - 24	13 - 26	6	300	8700	50	1450.00
95' (29,00)	25 - 34	27 - 36	4	200	5800	50	1450.00
95' (29,00)	36 - 40	38 - 42	4	128	3700	32	925.00
110' (33,60)	12 - 34	13 - 36	4	200	6720	50	1680.00
110' (33,60)	36 - 40	38 - 42	4	128	4300	32	1075.00
125' (38,20)	12 - 34	13 - 36	4	200	7620	50	1905.00
125' (38,20)	36 - 40	38 - 42	4	128	4880	32	1220.00
140' (42,70)	12 - 34	13 - 36	4	200	8540	50	2132.50
140' (42,70)	36 - 40	38 - 42	4	128	5460	32	1365.00
160' (48,70)	12 - 25	13 - 27	4	200	9750	50	2437.50
160' (48,70)	26 - 40	28 - 42	4	128	6240	32	1560.00
190' (57,90)	12 - 18	13 - 20	4	200	11580	50	2895.00
190' (57,90)	19 - 40	21 - 42	4	128	7410	32	1852.50
210' (64,00)	12 - 18	13 - 20	4	200	12800	50	3200.00
210' (64,00)	19 - 40	21 - 42	4	128	8190	32	2047.50



## Viscofan Cellulose Casings



### Recommended Stuffing Conditions

Please bear in mind that the correct nozzle diameter must be used for the applicable calibre Viscofan casings. Cellulose casings can be used without any preconditioning. Always fill only to recommended filling diameter.

REFERENCE			FRANK-A-MATIC		SEMI-AUTOMATIC MACHINES	
EUR CALI-BRATIONS	USA CALI-BRATIONS	REC. STUFFING DIAMETERS Ø ± 0,4 MM.	Ø MM.	STUFFING TUBE NO.	CHUCK NO.	STUFFING TUBE AND BREAK NO.
12	13	13,7	7,8	10	13-14	8
13	14	14,3	7,8	10	14-15	8
14	15	15,0	7,8-8,7	10-11	15-16	8-9
15	16	15,7	7,8-8,7	10-11	15-16	8-9
15,5	17	16,3	8,7	11	16-17	9
16	18	17,0	9,5	12	16-17-18	9-10
17	19	17,8	9,5	12	17-18-19	10
18	20	18,5	10,3	13	18-19	11
19	21	19,3	10,3	13	19-20	11-12
20	22	20,0	11,1	14	20-21	12
21	23	20,5	11,1-11,9	14-15	20-21-22	12-13
22	24	21,5	11,9	15	21-22-23	12
23	25	22,5	11,9-12,7	15-16	22-23	12-13
24	26	23,5	11,9-12,7	15-16	22-23-24	12-13
25	27	24,5	12,7-13,5	16-17	23-24-25	13-14
26	28	25,5	13,5-14,3	17-18	25-26	15
27	29	26,5	13,5-14,3	17-18	25-26-27	14-15
28	30	27,5	15,1	19	26-27-28	14-15
29	31	28,5	15,8	20	29	15-16
30	32	29,5	15,8	20	29	15-16
32	34	31,5	15,8	20	29	18
34	36	33,5				20
36	38	35,5				20
38	40	37,5				22
40	42	39,5				22

## Naturin Collagen Casings



### Introduction

Naturin offers you the same quality, calibre, consistency, hygiene and quality control encountered in Viscofan cellulose casings. Naturin casings offer you a high degree of working durability with guaranteed tenderness. Your production efficiency will improve using Naturin, which are made from high quality collagen. Collagen is a natural protein with high mechanical resistance and excellent digestibility. Naturin casings are edible and provide your products with the right bite and the proper texture.

# Naturin

NATURIN CELLULOSE CASINGS





## Naturin Collagen Casings

Our wide variety of edible collagen casings have enjoyed world-wide popularity for decades. Whether it be for processed sausages, fresh sausages, pre-cooked fried sausages or dry-cured snacks – every edible collagen casing from Viscofan is a classic.

### Product Range

#### NATURIN NDX:

For smoked and unsmoked processed sausages (e.g. Frankfurter), for pre-cooked fried sausages, dry sausages or dry wors.

#### NATURIN TWLK:

For Kosher sausages.

#### NATURIN NDC-M-FR:

For fresh sausages.

### Calibres

Naturin ND-Types:	13 mm – 33 mm
Naturin TWL:	17 mm – 32 mm
Naturin NDC-M-FR:	17 mm – 33 mm

### Colours

#### NATURIN NDX-TYPES:

Clear, yellow, salmon red, red-11, red-22, non-smoker, deep red, caramel and fresh bloom.

#### NATURIN TWLK:

Clear.

#### NATURIN NDC-M-FR:

Clear.

### Processing

- Fill directly in the direction indicated without prior soaking.
- Calibre = filling calibre.
- The cooking temperature should not exceed 76° C.
- All standard smoking and cooking systems can be used.



## Naturin Collagen Casings



ADVANTAGE	DESCRIPTION
Appearance	Edible collagen casings give a perfect natural matt look to your sausages.
Calibre Consistency	Outstanding calibre consistency creates identical sausages.
Crisp and Tender Bite	The smoking process can be adapted to make sausages processed in our edible collagen casings extra tender or to give them a particularly crisp bite. This gives you the flexibility to create your very own extra-tender or crisp-bite sausage.
Freezing	Fresh sausages made in Naturin NDC-M-FR lose no quality when frozen, and are therefore ideal for freezing.
Frying Performance	Casings for this application can boast of excellent frying properties, which ensure appetising products.
Less Weight Loss	In general, much less weight is lost during cooking than when using natural casings.
Machineability	Edible collagen casings offer high-level stability, making them perfectly suited to all modern filling systems.
Processing Performance	Edible collagen casings excel in processing.
Product Range	You will always find the perfect casing for your product from our wide variety of edible collagen casings.
Productivity	The efficiency in production gained by using our edible collagen casings means cost savings, since the yield per hour can be greatly increased. It also opens your door to cost- and time-saving measures such as lower labour utilisation and continuous production.
Ready to Stuff	Edible collagen casings are ready to stuff, and can therefore be filled straight out of the packaging without prior soaking.
Retail Packaging	Since your individual sausages made in our edible collagen casings will be uniform in size they are perfect for pre-packed retail units.
Smoking	Your product in our edible collagen casings will show excellent results when smoked. A perfectly balanced uptake of smoke will give your product the perfect look. Your smoking cycle will be considerably shorter than when using natural casings.

## Naturin Collagen Casings



In the following table you will find all the details concerning the packaging of cartons and caddies according to the different sizes and lengths, filling capacities, recommended stuffing calibres and stuffing tubes.

FEET PER STICK	EUR CALIBRATIONS	CADDIES PER CARTON	STICKS PER CARTON	METRES PER CARTON	STICKS PER CADDY	STICKS PER CADDY	METRES PER CADDY	RECOMMENDED STUFFING CALIBRE MM	MAXIMUM STUFFING NOZZLE MM	APPROXIMATE FILLING CAPACITY KG PER METRE
50	18	6	432	6583.68	72	50	1097.28	18+/-0.5	10	0.2
70	18	6	432	9217.00	72	50	1536.16	18+/-0.5	10	0.2
50	20	6	300	4572.00	50	32	762.00	20+/-0.5	11	0.22
70	20	6	300	6400.00	50	50	1066.66	20+/-0.5	11	0.22
50	21	6	300	4572.00	50	50	762.00	21+/-0.5	12	0.25
70	21	6	300	6400.00	50	32	1066.66	21+/-0.5	12	0.25
50	22	6	300	4572.00	50	50	762.00	22+/-0.5	12	0.31
70	22	6	300	6400.00	50	50	1066.66	22+/-0.5	12	0.31
50	23	6	300	4572.00	50	32	762.00	23+/-0.5	13	0.33
70	23	6	300	6400.00	50	50	1066.66	23+/-0.5	13	0.33
50	26	6	258	3931.92	43	50	655.32	26+/-0.5	16	0.39
70	26	6	258	5504.00	43	32	917.33	26+/-0.5	16	0.39
50	28	6	192	2926.08	32	50	487.68	28+/-0.5	16	0.45
70	28	6	192	4069.00	32	32	682.67	28+/-0.5	16	0.45
50	30	6	192	2926.08	32	50	487.68	30+/-0.5	18	0.5
70	30	6	192	4096.00	32	32	682.67	30+/-0.5	18	0.5
50	32	6	168	2560.32	28	50	426.72	32+/-0.5	19	0.55
70	32	6	168	3584.00	28	32	597.33	32+/-0.5	19	0.55

## Naturin Collagen Casings



### Naturin NDC-M-FR

#### USES

Naturin NDC-M-FR is designed for use in the manufacture of all types of fresh, refrigerated or individually quick frozen (IQF) sausages, which require excellent frying performance and a tender bite.

#### PROPERTIES

- Edible, with a very tender bite.
- Suitable for high speed automatic stuffing machines.
- Very hygienic. Can extend the sausage shelf-life.
- Ready to use.
- Excellent sausage appearance: clarity of casing enhances bloom, ends closed tightly in the final link.
- Quick "wet out".
- Size uniformity, excellent portion control in the packaging operations.
- Excellent frying performance (grill, deep-fat and shallow fry).
- Constant diameter.
- Clear

### Naturin NDX

#### USES

This type of casing is designed for the production of cooked processed sausages, whether smoked or not, such as viennas. Naturin NDX can also be used for the production of snack-type dried-cured sausages and dry wors. Naturin NDX casings are available in different colours for cooked sausages, for example Naturin NDX non smoker will have a smoked colour look after cooking. No need to smoke.

#### PROPERTIES

- Ready to use.
- Unique, tender bite.
- Very hygienic. Increases product shelf-life.
- Consistency of calibre and smoking quality.
- Excellent for use on automatic machines.
- Excellent sausage appearance.
- Consistent drying.
- Highly permeable to smoke.
- Capable of being cooked at up to 80° C without gelatination.
- Good adherence.



## Cellulose and Collagen Casings



### How To Read A Label

#### Traceability

**Viscofan** Colfan-B

TYPE/ARTIKEL/TIPO: [ ] CAL./KAL.: 28 LEN./LANGE/LONG: 125 ft

CONVERTING/AUSFUHRUNG/MANUFACTURA/CONFECTION: FAM closure - FAM Verschluss  
cierre FAM - bout FAM CONT./INHALT: 1066,8 m  
28 sticks

COLOUR/FARBE/COULEUR: [ ] PRINT/DRUCK/IMPRESION/IMPRESSION: [ ]

SAP: 500041582

Charge: 1005631

MTS: 1005631 500041582 1005631 1151000404001 0106680

Flat Casing  
115: extrusion day  
10: extrusion year  
00404: extrusion machine  
001: reel number

**Viscofan** Naturin KD

TYPE/ARTIKEL/TIPO: [ ] CAL./KAL.: 39 LEN./LANGE/LONG: 10 m  
32.81 ft

CONVERTING/AUSFUHRUNG/MANUFACTURA/CONFECTION: rts - füllfertig  
pre-remojado - préhumidifié CONT./INHALT: 720 m  
72 sticks

COLOUR/FARBE/COULEUR: salmon red lachsrot  
rojo salmon - rouge saumon

GTIN Number: 500034721

SAP: 500034721

Batches Inside the Carton: 0812587 0812520

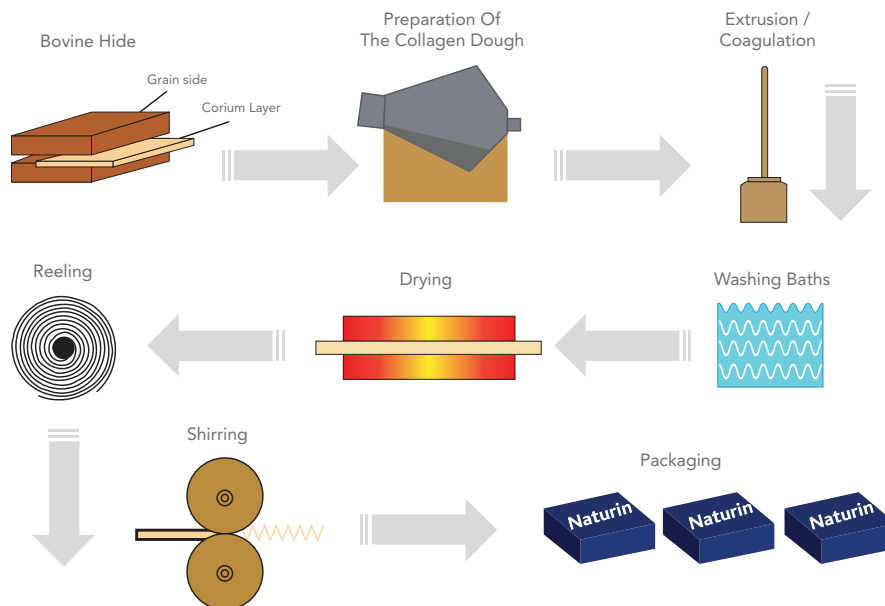
16 Digit Traceability Code: 0812587 0812520



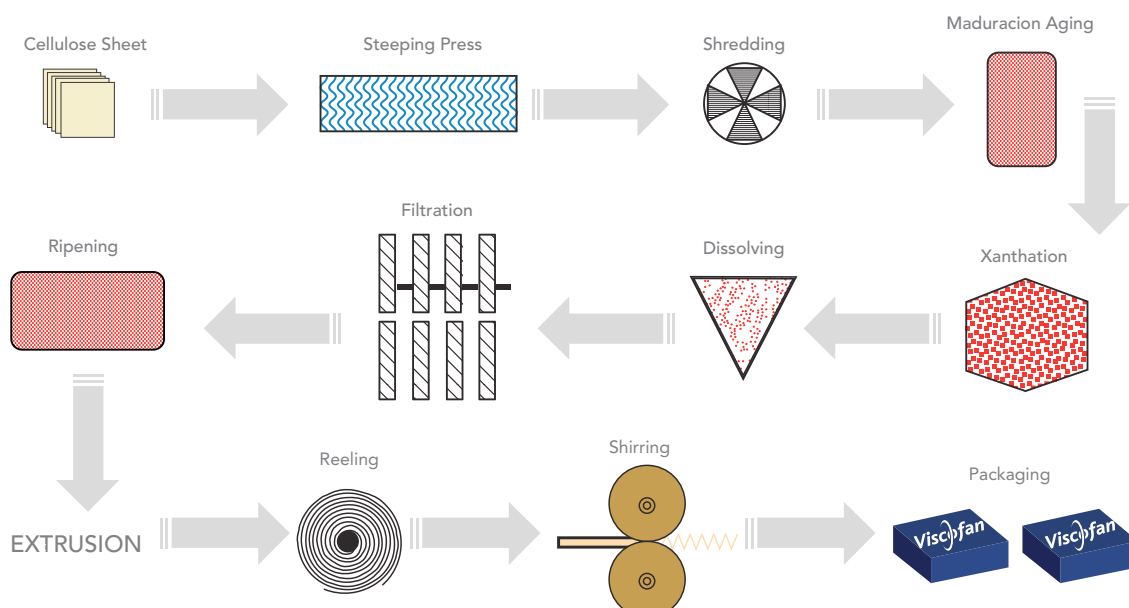
## Cellulose and Collagen Casings

### The Manufacturing Process

#### Collagen Casings



#### Cellulose Casings





## Frequently Asked Questions...

### Viscofan Cellulose Casings

- 1. What are cellulose casings made from?**  
Viscofan cellulose casings are made from regenerated cellulose.
- 2. Are cellulose casings ready to use?**  
Viscofan cellulose casings are delivered in shirred sticks that do not require soaking. In order to ensure the best possible stuffing performance, the casings are packed in caddies that seal in the moisture and preserve the product in storage.
- 3. What are the advantages of using Viscofan Cellulose casings?**  
Viscofan cellulose casings are consistent in diameter, smokable, impermeable to unwanted compounds in the smoke, easy to peel and guarantee a trouble free process. In manufacturing the advantages save time and labour costs through increased yields.
- 4. What is Easy Peel Quality?**  
Easy peel quality facilitates the peeling of the casing from the meat emulsion when using high speed peelers.
- 5. Why do cellulose casing come in stripes or in non transferable coloured casings?**  
Striped casings provide a simple solution for distinguishing between different types of end products on the factory floor. Non transferable coloured casings are ideal for preventing non peeled casings from being packed.

### Naturin Collagen Casings

- 1. What is the best way to store Naturin Collagen casings?**  
Store in a cool and dry place. Recommended storage temperatures are between 5° C and 20° C. Do not open caddy until ready to use. To store unused casings, place them back in caddy and wrap in plastic to prevent casing from drying out or picking up moisture. Under proper storage conditions, the collagen casings have a shelf life of 24 months.
- 2. What are Naturin Collagen casings made from?**  
Naturin Collagen casings are prepared from collagen, which is derived from the corium layer of cattle hides.
- 3. What are the benefits of using Naturin Collagen Casings?**  
In manufacturing, the benefits are reduced labour costs and time saving through higher productivity. Other benefits are casing consistency, traceability and pricing stability.
- 4. How tightly should Naturin Collagen casings be filled?**  
Collagen casings are not as elastic as natural casings; they should therefore be filled to the recommended diameter.
- 5. Do you need to soak collagen casings?**  
Edible collagen casings are ready to use and can be filled directly out of the caddy without prior soaking.
- 6. Is collagen edible?**  
Yes, it is a natural protein synthesised into a casing. Some wider diameters of collagen casings may be too tough to chew but they are technically edible.
- 7. What causes the product to wrinkle after cooking?**  
The product may be under filled or the product is too dry prior to going into the cooker or has not been cooled down properly after cooking.
- 8. What causes casing to have streaks after cooking?**  
If the product is not dried properly before smoking or cooking commences, drops of water will run down the casing, resulting in streaking.
- 9. Are there different Collagens casings for different products?**  
Yes, Naturin has two types. NDX for processed meats and dry worts and NDCMFR for fresh sausages.



# Holac

Holac is a leading, globally recognised company in the cutting-technology industry. For over 40 years, Holac has been providing solutions to cut meat, meat products, cheese, fish and vegetables.



## Cutting-Edge Technology For The Food Industry

Developing solutions for over 50 years



Holac Maschinenbau GmbH is a leading and globally recognized company in the food cutting technology industry with its headquarters in Heidenheim Germany. For over 50 years, holac has been providing solutions to cut meat, cheese, fish and vegetables.

The holac brand stand for unsurpassed precision, reliability and quality. Experience and creativity that are applied when developing machines guarantee our leading position on the global market. The company's strategy is to focus on our core competences which evolve around cutting technology for food products.

Holac's production location is based in Heidenheim Germany. The company values are given by the key success factors that are found in our products, such as robustness, durability, individuality, effectiveness, value retention and leadership in technology. These are the qualities found in every holac product – Made in Germany. What this means in the day to day business is that we constantly are on the lookout for future-oriented technologies which are in line with our core business. Driven by our customer's demands, we aim to strengthen the company and expand the business, thereby ensuring that we are always amongst the best in the industry, and so to be able to offer our customer first-class products and services at all times.



















































































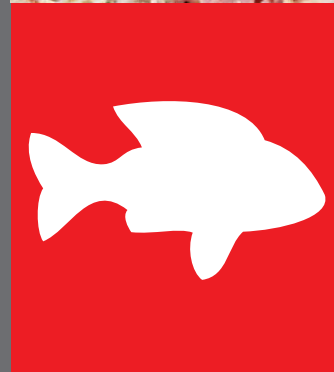
# holac<sup>®</sup>

[www.holac.de](http://www.holac.de)



## Machines and application overview

Program	Machine models	Applications	Recommended product temperature range	Page
Multipurpose dicers	Cubixx 100	   	+4°C – -2°C	Page 4
	Cubixx 100 L	   	+4°C – -2°C	Page 5
	Cubixx 100 XL	   	+4°C – -2°C	Page 6
	Cubixx 100 CXC	   	+4°C – -2°C	Page 7
	Cubixx 120	   	+4°C – -3°C	Page 8
	Cubixx 120 U	   	+4°C – -3°C	Page 9
	Cubixx 120 LP	   	+4°C – -3°C	Page 10
	Cubixx 150 LP <b>NEW</b>	   	+4°C – -3°C	Page 11
	Maxx 116 U <b>NEW</b>	   	+4°C – -6°C	Page 12
	Maxx 116 LP <b>NEW</b>	   	+4°C – -6°C	Page 13
Slicers	Maxx 150 LP <b>NEW</b>	   	+4°C – -9°C	Page 14
	Sect 200 <b>NEW</b>	   	+4°C – -4°C	Page 15
	Sect 230	   	+4°C – -4°C	Page 16
	Sect 230 TC	   	+4°C – -4°C	Page 17
	Sect 360 <b>NEW</b>	   	+4°C – -4°C	Page 18
	Sect 28 CT	   	+4°C – -4°C	Page 19
Precutter Strip cutter	Scansect <b>NEW</b>	   	+4°C – -4°C	Page 20
	WS 150	   	+10°C – 0°C	Page 21
	BS 28	   	-5°C – -12°C	Page 22
	CS 28-2D <b>NEW</b>	   	+4°C – -2°C	Page 23
Tool overview				Page 24
Special shapes				Page 26



## »Cubixx 100«

The small, strong multipurpose dicer



The Cubixx 100 is the smallest multipurpose dicer in the holac range. Its ease of use, combined with the optimal technology of the big multipurpose dicers, make it a popular choice.



### Product features:

- » Fully sealed product loading chamber with open drainages
- » Loading chamber closure with press block
- » 3-Step longitudinal prepressing
- » THC system\*
- » Compact design on wheels
- » Two-part grid
- » Hardened shear edges and product stabilizers
- » Simple and safe grid fixation

\*Accessories



Technical specifications	Cubixx 100
Output (Depending on product)	Max. 1.300 kg/h
Loading dimension W x H x L	100 x 100 x 290 mm
Feed motion	1-35 mm
Power supply	2,6 kW
Weight	220 kg
L x W x H	1.160 x 620 x 1.140 mm
Cutting grid sizes	4 x 4 mm - 50 x 50 mm

## »Cubixx 100 L«

The all-rounder



Its flexibility is what attracts customers to the Cubixx 100 L. Whether it is diced meat for stews, meat strips for stirfry, ham strips or grated cheese, the Cubixx 100 L effectively carries out any job you need doing.



### Product features:

- » Fully sealed product loading chamber with open drainages
- » Loading chamber closure with press block
- » Touch screen\*
- » Computer controlled
- » THC system\*
- » Compact design on wheels
- » Two-part grid
- » Hardened shear edges and product stabilisers
- » Simple and safe grid fixation

\*Accessories



Technical specifications	Cubixx 100 L
Output (Depending on product)	Max. 1.600 kg/h
Loading dimension W x H x L	100 x 100 x 400 mm
Feed motion	1-35 mm
Power supply	2,6 kW
Weight	250 kg
L x W x H	1.360 x 620 x 1.140 mm
Cutting grid sizes	4 x 4 mm - 50 x 50 mm



## »Cubixx 100 XL«

The specialist for pre-formed /cased product



Its loading chamber length of over 500 mm makes the Cubixx 100 XL the specialist for pre-formed / cased products, and enables it to process them without the need for cumbersome pre-cutting.



### Product features:

- » Fully sealed product loading chamber with open drainages
- » Loading chamber closed by slide
- » Product pre-loading position
- » Touch screen\*
- » Computer controlled
- » THC system\*
- » Two-part grid
- » Hardened shear edges and product stabilisers
- » Simple and safe grid fixation

\*Accessories



Technical specifications	Cubixx 100 XL
Output (Depending on product)	Max. 1.800 kg/h
Loading dimension W x H x L	100 x 100 x 510 mm
Feed motion	1-35 mm
Power supply	2,6 kW
Weight	280 kg
L x W x H	1.610 x 620 x 1.140 mm
Cutting grid sizes	4 x 4 mm - 50 x 50 mm

## »Cubixx 100 CXC«

The small semi-automatic dicer with innovative product loading



The Cubixx 100 CXC is the smallest multipurpose dicer with integrated discharge conveyor. Its flexibility and innovative loading action make it the perfect tool for cutting fresh meat. With that, it can easily handle even large pieces of product.



### Product features:

- » Fully sealed product loading chamber with open drainages
- » Lateral pre-pressing by sidewall
- » Integrated discharge conveyor
- » Computer controlled
- » Pre-filling chamber
- » THC system\*
- » Two-part grid
- » Hardened shear edges and product stabilisers
- » Simple and safe grid fixation

\*Accessories



Technical specifications	Cubixx 100 CXC
Output (Depending on product)	Max. 2.000 kg/h
Loading dimension W x H x L	100 x 100 x 510 mm
Feed motion	1-35 mm
Power supply	3,5 kW
Weight	340 kg
L x W x H	1.650 x 1.250 x 1.160 mm
Cutting grid sizes	4 x 4 mm - 50 x 50 mm

## »Cubixx 120«

The allrounder with the perfect cut for fine products



The Cubixx 120 represents the all-rounder with the highest output amongst our semi automatic multipurpose dicers. With its high flexibility, it handles loose as well as pre-formed products, such as meat, bacon, sausage and cheese. If perfect cut quality and highest output is desired then this is a defined task for the Cubixx 120.



### Product features:

- » Fully sealed product loading chamber with open hygiene drainages
- » Lateral pre-pressing by sidewall
- » Product pre-loading chamber
- » Integrated discharge conveyor
- » THC-system\*
- » Adjustable blade speed
- » Computer controlled with touch screen
- » Two-part cutting grid
- » Hardened shear edges and product stabilizers
- » Simple and safe grid-set fixation
- » Intelligent automatic slice speed control

\*Accessories



Technical specifications	Cubixx 120
Output (Depending on product)	Max. 2.800 kg/h
Loading dimension W x H x L	120 x 120 x 550 mm
Feed motion	1-40 mm
Power supply	5,5 kW
Weight	700 kg
L x W x H	1.850 x 1.620 x 1.230 mm
Cutting grid sizes	4 x 4 mm - 60 x 60 mm

## »Cubixx 120 U«

Perfect cut for fine and pre-formed products



Within the Cubixx 120 series, the Cubixx 120 U is the ideal machine when it comes to the cutting of pre-formed logs. Depending how the machine is equipped, it can be loaded manually or integrated into a fully automatic production line. With its special developed U-shaped magazine and hydraulically powered cut-off blade, the Cubixx 120 U delivers fully automatic perfect quality on cooked ham, sausage or other fine products.



### Product features:

- » Fully sealed product loading chamber with hygiene drainages
- » U-shaped magazine with hydraulically powered guillotine cut-off blade
- » Integrated discharge conveyor
- » THC-system\*
- » Adjustable blade speed
- » Touch screen
- » Computer controlled
- » Fully automatic loading with feeding conveyor\*
- » Two-part heavy duty cutting grid
- » Hardened shear edges and product stabilizers
- » Simple and safe grid-set fixing
- » Intelligent automatic slice speed control

\*Accessories



Technical specifications	Cubixx 120 U
Output (Depending on product)	Max. 2.800 kg/h
Loading dimension W x H x L	120 x 120 x 550 mm
Feed motion	1-40 mm
Power supply	8,5 kW
Weight	850 kg
L x W x H	1.850 x 1.730 x 1.990 mm

## »Cubixx 120 LP«

Fully automatic high performance for fine products



The Cubixx 120 LP is the flexible, high performing specialist in the Cubixx 120 series. It's product magazine with hydraulically powered sidewall opening and guillotine cut-off blade allows the machine to process a large variety of products. It handles loose as well as pre-formed products, such as meat, bacon, sausage and cheese. Depending how the machine is equipped, it can be loaded manually, by feeding conveyor or with 200l trolleys via a hoist lifter.

### Product features:

- » Fully sealed product loading chamber with open hygiene drainages
- » Fully automatic magazine loading by hydraulically driven sidewall and guillotine cut-off blade
- » Integrated discharge conveyor
- » THC-system\*
- » Adjustable blade speed
- » Touch screen
- » Computer controlled
- » Fully automatic loading with feeding conveyor or 200l trolleys via hoist lifter\*
- » Two-part heavy duty cutting grid
- » Hardened shear edges and product stabilizers
- » Simple and safe grid-set fixing
- » Intelligent automatic slice speed control

\*Accessories



Technical specifications	Cubixx 120 LP
Output (Depending on product)	Max. 2.800 kg/h
Loading dimension W x H x L	120 x 120 x 550 mm
Feed motion	1-40 mm
Power supply	8,5 kW
Weight	900 kg
L x W x H	1.850 x 1.730 x 1.970 mm

## »Cubixx 150 LP« **NEW**

Fully automatic high performance for fine products



The Cubixx 150 is the largest, high performing specialist in the Cubixx series. It is product magazine with hydraulically powered sidewall opening and guillotine cut-off blade allows the machine to process a large variety of products. It handles loose as well as pre-formed products, such as meat, bacon, sausage and cheese. Depending how the machine is equipped, it can be loaded manually, by feeding conveyor or with 200l trolleys via a hoist lifter.

### Product features:

- » Fully sealed product loading chamber with open hygiene drainages
- » Fully automatic magazine loading by hydraulically driven sidewall and guillotine cut-off blade
- » Integrated discharge conveyor
- » THC-system\*
- » Adjustable blade speed
- » Touch screen
- » Computer controlled
- » Fully automatic loading with feeding conveyor or 200l trolleys via hoist lifter\*
- » Two-part heavy duty cutting grid
- » Hardened shear edges and product stabilizers
- » Simple and safe grid-set fixing
- » Intelligent automatic slice speed control

\*Accessories



Technical specifications	Cubixx 150 LP	Cubixx 150 LPHE
Output (Depending on product)	4.800 kg/h	4.800 kg/h
Loading dimension W x H x L	150 x 150 x 610 mm	150 x 150 x 610 mm
Feed motion	1-40 mm	1-40 mm
Power supply	12,0 kW	13,0 kW
Weight	1.100 kg	1.300 kg
L x W x H	2150 x 1930 x 1920 mm	2150 x 1930 x 1920 mm
Cutting grid sizes	5 x 5 mm – 75 x 75 mm	5 x 5 mm – 75 x 75 mm



## »Maxx 116 U« **NEW**

### Superior cutting hygiene



The Maxx 116 U is the ideal machine in the holac range of products for pre-formed / cased material. It can be used in either semi-automatic or in automatic production lines, depending on the set up used. The Maxx 116 U impresses by its hygienic design.

#### Product features:

- » Fully sealed VAC product loading chamber with open drainages
- » U-shaped magazine with hydraulically powered guillotine cut-off blade
- » THC system\*
- » Maxx-pack for products with high cutting resistance\*
- » Tool control feature\*
- » Fully automatic lubrication system
- » Computer controlled and touch screen
- » Product window in blade chamber
- » Two-part grid
- » Hardened shear edges and product stabilisers
- » Simple and safe grid fixation
- » Special cheese-cutting attachments
- » Intelligent automatic slice speed control

\*Accessories



Technical specifications	Maxx 116 U
Output (Depending on product)	Max. 2.300 kg/h
Loading dimension W x H x L	116 x 116 x 520 mm
Feed motion	1-40 mm
Power supply	10,5 kW
Weight	1.050 kg
L x W x H	2.150 x 1.700 x 1.900 mm
Cutting grid sizes	4 x 4 mm - 58 x 58 mm

## »Maxx 116 LP« **NEW**

### Fully automatic dicer with outstanding cutting characteristics



The Maxx 116 LP is the fully automatic multipurpose dicer that offers reliability and flexibility combined with outstanding cutting characteristics. With either the lift-tilt mechanism or the automatic infeed conveyor belts, it always delivers maximum output.

#### Product features:

- » Fully sealed VAC loading chamber with open drainages
- » Sidewall opening, can be adjusted to product size for loading
- » THC system\*
- » Maxx-pack for products with high cutting resistance\*
- » Double pressure-plate cylinder
- » Tool control feature\*
- » Fully automatic lubrication system
- » Computer controlled with touch screen
- » Product window in blade chamber
- » Hopper tilt-support\*
- » Integrated lift-tilt mechanism (optional)
- » Two-part grid
- » Hardened shear edges and product stabilisers
- » Simple and safe grid fixation
- » Intelligent automatic slice speed control

\*Accessories



Technical specifications	Maxx 116 LP
Output (Depending on product)	Max. 2.800 kg/h
Loading dimension W x H x L	116 x 116 x 535 mm
Feed motion	1-40 mm
Power supply	11,0 kW
Weight	1.150 kg
L x W x H	2.150 x 2.050 x 1.900 mm
Cutting grid sizes	4 x 4 mm - 58 x 58 mm



## »Maxx 150 LP« **NEW**

Large fully automatic dicer for frozen products

Compared to the Maxx 116 LP, the Maxx 150 LP is optimized to work with frozen products in loose or block form. The Maxx 150 LP dicer is ideal for its reliability at low temperatures, but it also handles fresh products without compromising on quality. Either a hoist/ tilting device or product in feed conveyor belts can be used.

### Product features:

- » Fully sealed VAC product loading chamber with open drainages
- » Sidewall opening, can be adjusted to product size for loading
- » THC system
- » Maxx-pack for products with high cutting resistance
- » Double pressure-plate cylinder
- » 3 motors independent from grid drive and cutting blades
- » Fully automatic lubrication system
- » Computer controlled and touch screen
- » Product window in blade chamber
- » Hopper tilt-support
- » Two-part heavy-duty grid-system
- » Hardened shear edges and coarse serrated blades
- » Simple and safe grid fixation
- » Intelligent automatic slice speed control



Technical specifications	Maxx 150 LP
Output (Depending on product)	Max. 3.200 kg/h
Loading dimension W x H x L	150 x 150 x 610 mm
Feed motion	1-40 mm
Power supply	14,4 kW
Weight	1.650 kg
L x W x H	2.340 x 2.000 x 1.950 mm
Cutting grid sizes	6 x 6 mm - 75 x 75 mm

## »Sect 200« **NEW**

The portion cutter with powerful product in-feed

The Sect 200 is the smallest portion cutting machine, with its electronically controllable product feed for optimal cut results. The optional integrated discharge conveyor enables simple and swift product handling after slicing.

### Product features:

- » Powerful blade drive
- » Fully automatic lubrication system
- » Adjustable gripper end position
- » Easily accessible gripper guide-shaft for effective sanitation
- » Stable cut-off blade and support frame for an accurate and clean cut
- » Two-wing blade for higher capacity\*
- » Movable\*

\*Accessories



Technical specifications	Sect 200
Cuts/minute	200/400 min <sup>-1</sup>
Loading dimension W x H x L	200x180x740 mm
Feed motion	1-33 mm
Power supply	3,8 KW
Weight	290 kg
L x W x H	2.150 x 950 x 1.245 mm

## »Sect 230«

The portion cutter with powerful product in-feed



The Sect 230 is a highly flexible portion cutting machine, with its electronically controlable product feed for optimal cut results. The optional integrated discharge conveyor enables simple and swift product handling after slicing.



### Product features:

- » Powerful blade drive
- » Integrated discharge conveyor\*
- » Fully automatic lubrication system
- » Adjustable gripper end position
- » Easily accessible gripper guide-shaft for effective sanitation
- » Stable cut-off blade and support frame for an accurate and clean cut
- » Two-wing blade for higher capacity\*
- » Movable\*

\*Accessories

Technical specifications	Sect 230	Sect 230 C	Sect 230 L	Sect 230 LC
Cuts/minute	200/400 min <sup>-1</sup>	200/400 min <sup>-1</sup>	200/400 min <sup>-1</sup>	200/400 min <sup>-1</sup>
Loading dimension W x H x L	230 x 180 x 740 mm	230 x 180 x 740 mm	230 x 180 x 1.100 mm	230 x 180 x 1.100 mm
Cutting thickness (with spiral blade)	1-30 mm	1-30 mm	1-30 mm	1-30 mm
Power supply	3,8 kW	4,2 kW	3,8 kW	4,2 kW
Weight	340 kg	400 kg	380 kg	440 kg
L x W x H	2.105 x 970 x 1.320 mm	2.905 x 970 x 1.320 mm	2.505 x 970 x 1.320 mm	3.305 x 970 x 1.320 mm
Discharge conveyor	No	Yes	No	Yes

## »Sect 230 TC«

The intelligent portion cutter with powerful product in-feed



The Sect 230 TC is a highly flexible portion cutting machine. With its servo-controlled product feed and smart control system, it is possible to portion the product into groups with the consistently identical or at choice varying slice thickness. First-cut control and batching options are other functions that guarantee and optimize yield. The integrated discharge conveyor enables simple and swift product handling after slicing.



### Product features:

- » Powerful blade drive
- » Integrated discharge conveyor
- » Fully automatic lubrication system
- » Indexed or continuous product forward feed motion
- » Adjustable gripper end position
- » Fully automatic start through photocell control
- » Computer controlled, with program storage and portioning functions, including variable portioning, separation and batching through touch screen
- » Easily accessible gripper guide-shaft for effective sanitation
- » Stable cut-off blade and support frame for an accurate and clean cut
- » Two-wing blade for higher capacity\*
- » Movable\*

\*Accessories



Technical specifications	Sect 230 TC	Sect 230 LTC
Cuts/minute	200/400 min <sup>-1</sup>	200/400 min <sup>-1</sup>
Loading dimension W x H x L	230 x 180 x 740 mm	230 x 180 x 1.100 mm
Cutting thickness (with spiral blade)	1-30/300 mm	1-30/300 mm
Power supply	4,2 kW	4,2 kW
Weight	400 kg	440 kg
L x W x H	2.905 x 970 x 1.320 mm	3.305 x 970 x 1.320 mm
Discharge conveyor	Yes	Yes

## »Sect 360« **NEW**

### Slicing larger products

The Sect 360 is the largest portion cutting machine. With its servo-controlled product feed and smart control system, it is possible to portion the product into groups with the consistently identical or at choice varying slice thickness. First-cut control and batching options are other functions that guarantee and optimize yield. The integrated discharge conveyor enables simple and swift product handling after slicing.

#### Product features:

- » Powerful blade drive
- » Integrated discharge conveyor\*
- » Fully automatic lubrication system
- » Indexed or continuous product forward feed motion\*
- » Adjustable gripper end position
- » Fully automatic start through photocell control
- » Computer controlled, with program storage and portioning functions, including variable portioning, separation and batching through touch screen\*
- » Easily accessible gripper guide-shaft for effective sanitation
- » Stable cut-off blade and support frame for an accurate and clean cut
- » Two-wing blade for higher capacity\*
- » Movable\*

\*Accessories



Technical specifications	Sect 360	Sect 360 TC
Cuts/minute	200/400 min <sup>-1</sup>	200/400 min <sup>-1</sup>
Loading dimension W x H x L	360 x 180 x 740 mm	360 x 180 x 740 mm
Cutting thickness (with spiral blade)	1-33 mm	1-33 mm
Cutting thickness (with special blade)	1-250	1-250
Power supply	3,8 kW	4,2 kW
Weight	400 kg	460 kg
L x W x H	2.900 x 1.200 x 1.490 mm	2.900 x 1.200 x 1.490 mm
Discharge Conveyor/Touchscreen	No	Yes

## »Sect 28 CT«

### Continuous high-volume portion cutter

The Sect 28 CT is the high performance product in the holac portion cutter range of products. With its high output and perfect cutting quality, it guarantees outstanding performance. Thanks to the integrated computer controls, the cutting speed and cutting thickness are infinitely adjustable. When it comes to sanitation, the Sect 28 CT is quick to disassemble and reassemble in just a few steps. The Sect 28 CT is developed for high performance portion cutting.

#### Product features:

- » Continuous product feed by infeed belt and down-holder belt
- » Variable belt speed and slice thickness
- » Optional separation of cut slices
- » Smart-slice program (batching)
- » Quick, effective sanitation
- » Stable cut-off blade and blade scraper for a clean cut
- » Two-wing blade for higher capacity

\*Accessories



Technical specifications	Sect 28 CT
Cuts/minute	350/400 min <sup>-1</sup>
Magazine W x H	264 x 160 mm
Cutting thickness	1-30 mm
Power supply	6,0 kW
Weight	950 kg
L x W x H	3.380 x 1.100 x 1.500 mm



## »Scansect« **NEW**

High performance slicer with maximum yield



### Product features:

- » Dynamic servo blade drive for 1 up to 900 cuts per minute
- » Stable cut-off blade and blade scraper for a clean cut
- » Angled product cut for optional grouping
- » Scanner option for exact weights
- » Computer controlled with Touchscreen
- » Continuous product feed by infeed belt and downholder belt
- » Variable belt speed and slice thickness
- » Optional separation of cut slices
- » Quick, effective sanitation
- » Fully automatic piece release system

Scansect combines the advantages of a continual feed slicer with a conventional gripper system. The fixed product enables minimized end piece results and perfectly controlled product stability during slicing. Fully automated release of first and last piece in combination with grouping gives an effective reworking of the sliced pieces.

The Unit can be used as stand alone or in combination with various scanning systems in order to achieve exact portion weights



Technical specifications	Scansect
Cuts/minute	450/900 min <sup>-1</sup>
Loading dimension W x H x L	280 x 180 mm
Feed motion	1-250 mm
Power supply	24 KW
Weight	1.800 kg
L x W x H	5.650 x 1.650 x 1.680 mm

## »WS 150«

The pre-cutter or size reduction machine for continuous processing

The WS 150 is the multipurpose dicer or size reduction machine for extra-high output levels. Its continuous product flow and cutting operation make it the perfect partner for pre-cutting meat and fat. Its gentle product handling, which avoids build-up of pressure or heat, guarantees the highest possible quality of the endproduct.

### Product features:

- » Single-part, all-plastic feed-auger, independent from cutting grid
- » Adjustable speed of cutting blade and auger
- » Computer controlled
- » Product window in blade chamber
- » Simple and effective sanitation
- » Integrated lift-tilt mechanism (optional)
- » Easy to integrate into continuous product lines
- » Two-part grid
- » Hardened shear edges and product stabilisers
- » Simple and safe grid fixation

\*Accessories



Technical specifications	WS 150 E	WS 150	WS 150 L
Output (Depending on product)	Max. 5.000 kg/h	Max. 10.000 kg/h	Max. 10.000 kg/h
Loading dimension W x H x L	150 x 150 x 900 mm	150 x 150 x 900 mm	150 x 150 x 1.200 mm
Feed motion	1-75 mm	1-75 mm	1-75 mm
Power supply	13,0 kW	17,0 kW	17,0 kW
Weight	1.350 kg	1.350 kg	1.500 kg
L x W x H	2.200 x 1.550 x 2.200 mm	2.200 x 1.550 x 2.200 mm	2.200 x 1.550 x 2.200 mm
Cutting grid sizes	6 x 6 mm - 75 x 75 mm	6 x 6 mm - 75 x 75 mm	6 x 6 mm - 75 x 75 mm



## »BS 28«

### The continuous strip cutter and slicing machine

The compact BS 28 changes in less than 1 minute from a strip cutter to a slicing machine.

#### Product features:

- » Continuous product feed
- » Variable belt speed and slice speed
- » Strip blade for strips and flakes
- » Disc blade for slicing
- » Computer controlled



Technical specifications	BS 28
Cuts/minute	350/700 min <sup>-1</sup>
Loading dimension W x H x L	280 x 100 mm
Slice thickness	1-40 mm
Power supply	5.5 kW
Weight	950 kg
L x W x H	2.320 x 1.040 x 1.640 mm

## »CS 28-2D«

**NEW**

### In line cutting for fresh products

The perfect solution for 2D cutting of sensitive products. Equipped with rotating knives and cutter wheel, the CS 28-2D is easily integrated.

Typically used for cooked or fresh poultry or even as a pivotal part of a processing line as a pre cutter in meat and even cheese applications.

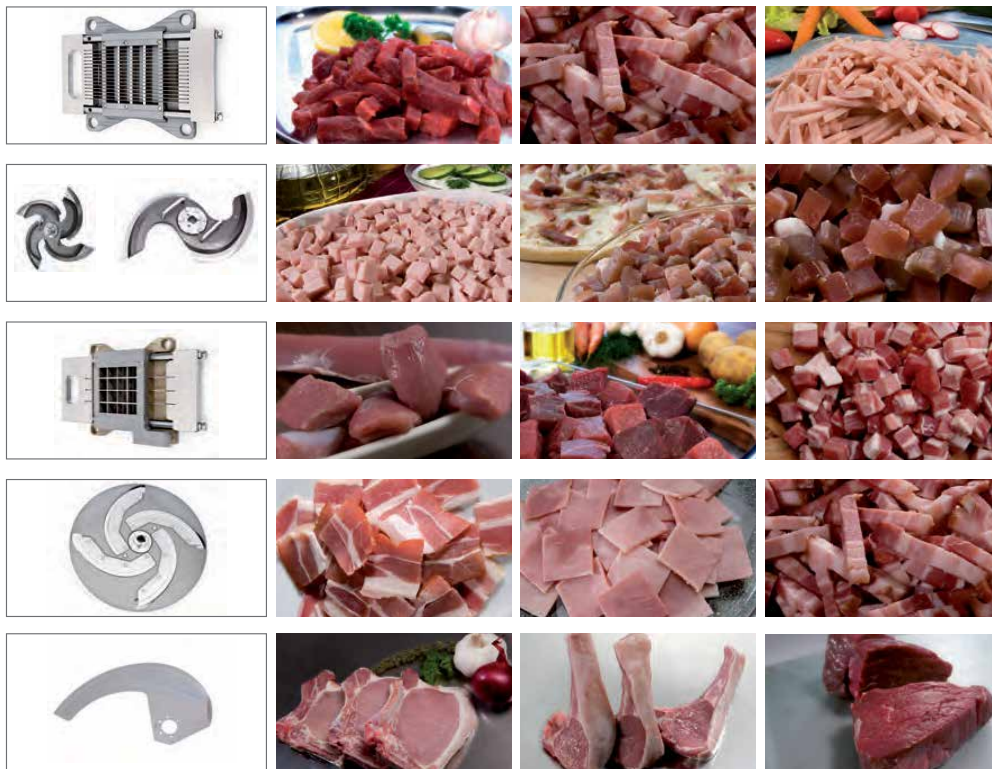
#### Product features:

- » Continuous product feed
- » Variable belt speed and slice thickness
- » Computer controlled
- » Pressure free 2D cutting system
- » Tool cart available

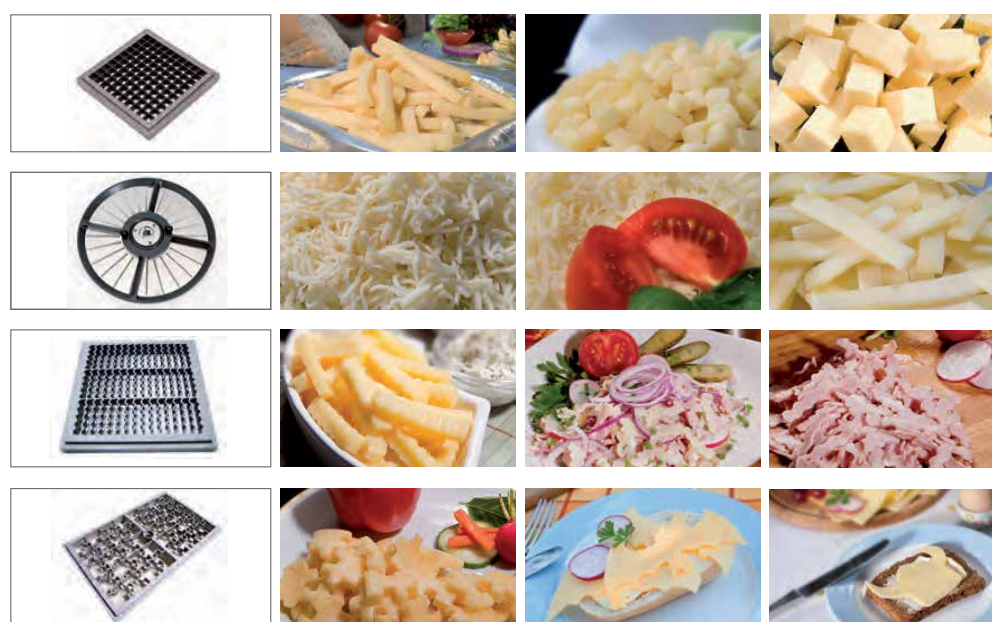


Technical specifications	CS 28-2D
Cuts/minute	350/700 min <sup>-1</sup>
Loading dimension W x H x L	280 x 100 mm
Slice thickness	1-40 mm
Power supply	7.7 kW
Weight	1.050 kg
L x W x H	2.700 x 1.040 x 1.640 mm

## »TOOL OVERVIEW«



## »TOOL OVERVIEW«





## Special shapes

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# Machines and application overview



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## »Cheesixx«

### The multifunctional cheese-cutting machine

The Cheesixx is the smallest model amongst the machines in the cheese processing product range. Whether you require small, medium-sized, or large dice, sticks or „flakes“, or special shapes such as triangles or shreds, with its patented cutting technology, the Cheesixx handles all applications reliably and effectively.

#### Product features:

- » Magazine equipped with pneumatically powered chamber closing plate
- » Fully-sealed product loading chamber with open drainages
- » THC system for perfect shredding\*
- » Product pre loading position
- » Computer controlled with touch screen
- » Cutting sets for dices and sticks and other shapes
- » Cutting sets for shredding
- » Optional cheese block hopper

\*Accessories



Technical specifications	Cheesixx
Output (Depending on product)	Max. 1.300 kg/h
Loading dimension W x H x L	105 x 100 x 350 mm
Feed motion	1-40 mm
Power supply	3,5 kW
Weight	350 kg
L x W x H	1.610 x 700 x 1.140 mm
Cutting grid sizes	5 x 5 mm - 50 x 50 mm

## »HA 30«

### Superior cutting hygiene

The HA 30 is the ideal machine in the holac range of products for pre-formed / cased material. It can be used in either semi-automatic or in automatic production lines, depending on the set up used. The HA 30 impresses by its hygienic design.

#### Product features:

- » Fully sealed VAC product loading chamber with open drainages
- » U-shaped magazine with hydraulically powered guillotine cut-off blade
- » THC system\*
- » High-speed hydraulics guarantee minimum loading times
- » Power-pack for products with high cutting resistance\*
- » Speed-pack (adjustable blade speed)\*
- » Tool control feature\*
- » Fully automatic lubrication system
- » Computer controlled and touch screen
- » Product window in blade chamber
- » Two-part grid
- » Hardened shear edges and product stabilisers
- » Simple and safe grid fixation
- » Special cheese-cutting attachments
- » Intelligent automatic slice speed control

\*Accessories



Technical specifications	HA 30
Output (Depending on product)	Max. 2.300 kg/h
Loading dimension W x H x L	116 x 116 x 520 mm
Feed motion	1-40 mm
Power supply	10,0 kW
Weight	1.100 kg
L x W x H	2.220 x 1.540 x 1.650 mm
Cutting grid sizes	5 x 5 mm - 58 x 58 mm

## »AUT 30«

### The flexible machine with multifunctional infeed

The AUT 30 is the most flexible of the multipurpose dicers. Whether product is loaded by hand, with the integrated lift-tilt mechanism, or by means of conveyor belts, the AUT 30 adapts itself easily to any task with the appropriate infeed configuration. It can process loose or pre-formed products and blocks. Depending on application the machine can be configured to process meats as well.

#### Product features:

- » Fully sealed VAC product loading chamber with open drainages
- » Sidewall opening, can be adjusted to product size for loading
- » THC system\*
- » High-speed hydraulics guarantee minimum loading times
- » Power-pack for products with high cutting resistance\*
- » Speed-pack (adjustable blade speed)\*
- » Fully automatic lubrication system
- » Computer controlled and touch screen
- » Product window in blade chamber
- » Integrated lift-tilt mechanism (optional)
- » Two-part grid
- » Hardened shear edges and product stabilisers
- » Simple and safe grid fixation
- » Intelligent automatic slice speed control

\*Accessories



Technical specifications	AUT 30
Output (Depending on product)	Max. 2.800 kg/h
Loading dimension W x H x L	116 x 116 x 535 mm
Feed motion	1-40 mm
Power supply	10,0 kW
Weight	1.300 kg
L x W x H	2.150 x 1.680 x 1.650 mm
Cutting grid sizes	5 x 5 mm - 58 x 58 mm

## »AUT 200«

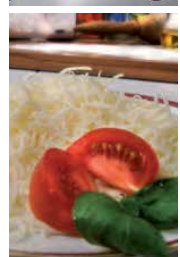
### The largest cheese-cutting machine for flexible high performance

The AUT 200 is the largest cheese-cutting machine in the holac range of products. It combines high performance and flexible use, and can be quickly adapted to new products. The innovative product in feed enables this machine to process blocks, loose products and off-cuts. Its sophisticated control system is worthy of particular mention, as this enables it to be optimally integrated into processing lines.

#### Product features:

- » Fully sealed product vac loading chamber with open drainages
- » Sidewall opening, can be adjusted to product size for loading
- » THC system for higher sanitation standard
- » Speed-pack (adjustable blade speed)
- » Tool control feature\*
- » Fully automatic lubrication system
- » Computer controlled and touch screen
- » Product window in blade chamber
- » Top-press system\*
- » Cutting sets for dices and sticks and other shapes
- » Cutting sets for shredding
- » Intelligent automatic slice speed control

\*Accessories



Technical specifications	AUT 200	AUT 200 L
Output (Depending on product)	Max. 3.200 kg/h	Max. 3.800 kg/h
Loading dimension W x H x L	200 x 116 x 450 mm	200 x 116 x 535 mm
Feed motion	1-40 mm	1-40 mm
Power supply	13,0 kW	13,0 kW
Weight	1.300 kg	1.500 kg
L x W x H	2.600 x 1.870 x 2.900 mm	2.730 x 1.870 x 2.900 mm
Cutting grid sizes	6 x 6 mm - 58 x 100 mm	6 x 6 mm - 58 x 100 mm



## »IS 350« **NEW**

### In line high speed cheese shredder

Maximum output with compact machine are the benefits of the IS. Its innovative loading of whole blocks in combination with continual feed allows the IS to achieve an output of 10.000 kg/h whatever the desired shred length.



#### Product features:

- » Inline shredding system for whole blocks
- » Computer controlled with touch screen
- » Block infeed conveyor
- » Precise shred length via Pre cutting grid
- » Adjustable blade speed\*

\*Accessories

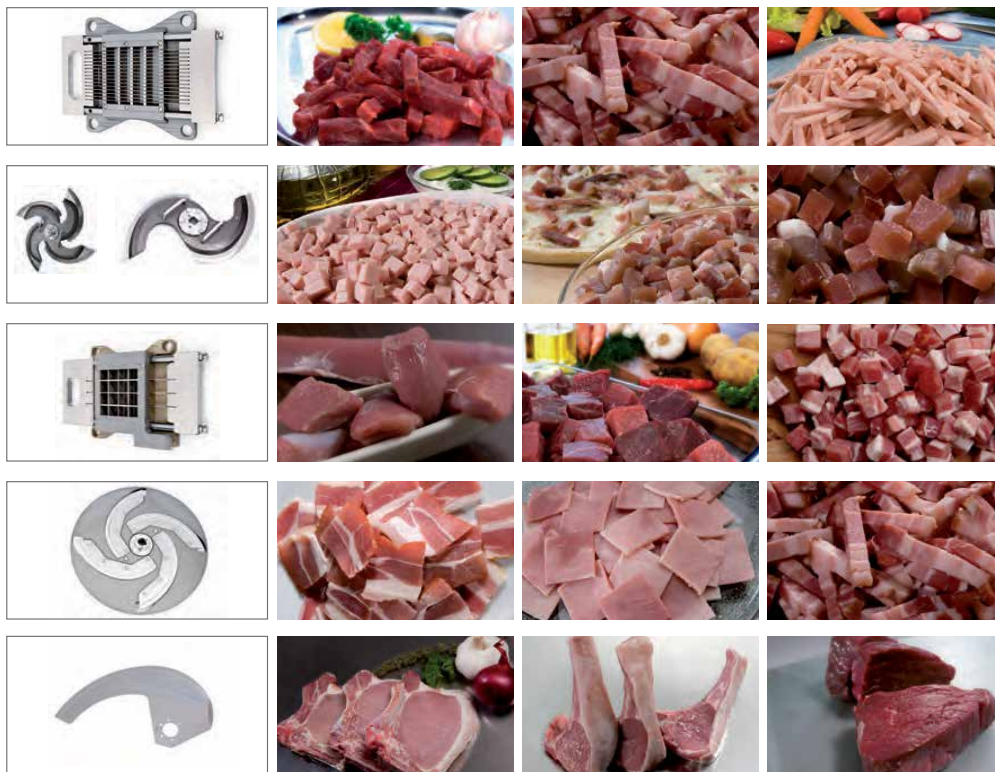


Technical specifications	IS 350
Output (Depending on product)	10.000 kg/h
Loading dimension W x H x L	350 x 200 x 500mm
Power supply	24 kW
Weight	850 kg
L x W x H	2.530 x 1.245 x 1.720 mm
Cutting grid sizes	25/50/75/100

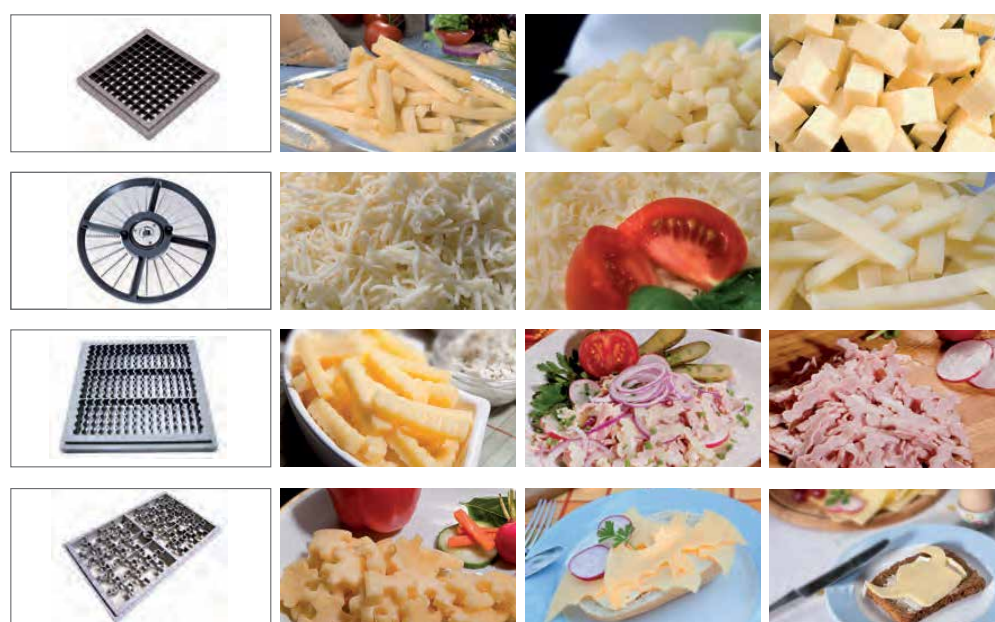




## »TOOL OVERVIEW«

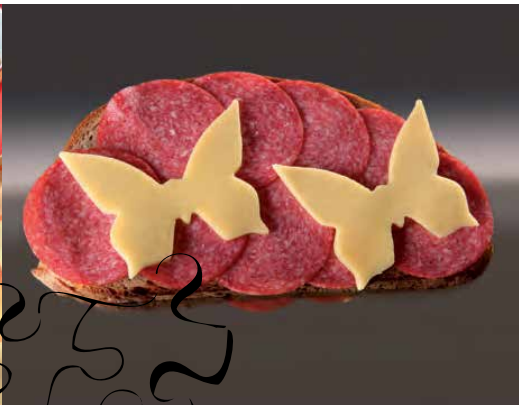


## »TOOL OVERVIEW«



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# Grasselli

Grasselli produces some of the most innovative and successful products in the form of skinning and de-rinding machinery, as well as slicing and portioning systems. Their success lies in the firm belief that the greatest value and highest benefit they can give their users is the knowledge that only a specialist can instil in its own products.



 **GRASSELLI**<sub>SPA</sub>  
EXCELLENCE THROUGH TECHNOLOGY



## Grasselli



### Company Profile



In 1975, customer demand motivated Giorgio Grasselli, our founder and current president, to design and produce skinning and derinding machines.

Due to the phenomenal success of these units, in 1993 the company progressed into the development and production of innovative slicing machines and portioning systems. To date we continue to improve both our products and service

In accordance with the company's mission, Grasselli believes that the key to the development of innovative and successful products lies in extreme specialization.

For the last 30 years we have been focusing on two lines of products, with the firm belief that the greatest value and highest benefit we can give our users is the knowledge that only a specialist can instill in its own products. Today, Grasselli's mission is to continue to strengthen our worldwide leadership in slicing and packaging fresh meats. We continue to expand our global network of hundreds of associates whose help and support assist us in the development of products.

Our products are designed in Italy; however, improvements and specifications are derived from our network of worldwide distributors and customers. Our goal at Grasselli is to be the ultimate point of reference and the most professional partner for any company with slicing needs.



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**RST** *series*

Manually operated open top  
skinners and derinders



**GRASSELLI**<sup>SPA</sup>  
EXCELLENCE THROUGH TECHNOLOGY



# RST 520 P



## RST 520 P Scotennatrice manuale

- Larghezza di lavoro utile di 520 mm.
- Zona e piano di lavoro libero da impedimenti per la migliore manipolazione.
- Albero dentato in acciaio ad alta resistenza e cuscinetti speciali garantiscono una maggior durata e un rendimento costante nel tempo.
- Sistema di cambio rapido della lama senza l'uso di utensili permette di ridurre i tempi morti.
- Leva esterna per la regolazione dello spessore cotenna
- Pedale solidale con la macchina.
- Vari tipi di piani prodotto per applicazioni specifiche
- Design di avanguardia con saldature continue e spigoli arrotondati per la migliore igienizzazione.
- Basamento macchina costruito completamente in acciaio inox di 6 mm di spessore controllato e certificato non radioattivo.
- Motore, impianto elettrico e parti meccaniche accessibili da un unico pannello frontale.
- Certificate CE, USDA e TÜV-GS.
- Sistema di sicurezza "CLO" disponibile come opzione.
- DOPPIA LAMA accessoria per scotennare e sgrassare in una unica operazione cosce e spalle di maiale.

## RST 520 P Manual derinder

- Useable width: 520 mm.
- Ergonomic operating height and infeed area to improve product handling and safety.
- Tempered toothroller and heavy duty bearings to ensure durability and longevity.
- Quick blade change system enables blade changes without the use of tools, consequently minimising "down time".
- External skin thickness control lever.
- Integral foot pedal.
- Multiple infeed tray profiles options to suit specific applications.
- Modern design with seamless welding and radius edges to aid efficient sanitation.
- Machine chassis made entirely of 6-mm plate stainless steel, tested and certificated as being non-radioactive.
- All major mechanical and electrical components are accessible through a single access panel.
- CE, USDA and TÜV-GS acceptances.
- Optional "CLO" safety system available on request.
- Optional DOUBLE BLADE system to derind and defat pork legs and shoulders.



### RST 520 P Descortezadora

- Ancho de trabajo útil de 520 mm.
- Zona y plano de trabajo libre de impedimentos para una mejor manipulación del producto durante la elaboración.
- Un eje dentado de acero de alta resistencia y cojinetes especiales garantizan una mayor duración y un rendimiento constante en el tiempo.
- Un sistema de cambio rápido de la cuchilla sin utilización de herramientas permite reducir los tiempos muertos.
- Palanca externa para la regulación del espesor de la piel.
- Pedal de arranque integrado a la máquina.
- Distintos tipos de planos de producto para aplicaciones específicas.
- Diseño de vanguardia con soldaduras continuas y cantos redondeados para una mejor limpieza.
- Bancada de la máquina construida totalmente de acero inoxidable de 6 mm de espesor controlado y certificado no radiactivo.
- Motor, instalación eléctrica y piezas mecánicas accesibles desde un único panel frontal.
- Con certificaciones CE, USDA y TÜV-GS.
- Sistema de seguridad "CLO" disponible como opcional.
- DOBLE CUCHILLA accesorio para descortezar y desgrasar en una única operación el jamón y la paleta del cerdo.

### RST 520 P Découenneuse

- Largeur de travail utile de 520 mm.
- Zone et plan de travail libres de tout obstacle pour une manipulation optimale du produit pendant le travail.
- Arbre denté en acier haute résistance et roulements spécifiques garantissant une durée de vie plus longue et un rendement constant dans le temps.
- Système de changement rapide de la lame, sans besoin d'outils, permettant de réduire les temps morts.
- Levier externe pour le réglage de l'épaisseur de la couenne.
- Pédale de démarrage solidaire avec la machine.
- Différents types de plans produit pour des applications spécifiques.
- Design avant-gardiste avec soudures continues et coins arrondis pour une hygiène parfaite.
- Embase de la machine en inox de 6 mm d'épaisseur contrôlée et certifiée non radioactif.
- Moteur, système électrique et parties mécaniques accessibles par un unique panneau frontal.
- Certifiées CE, USDA, et TÜV-GS.
- Système de sécurité « CLO » disponible en option.
- DOUBLE LAME : accessoire pour découenner et dégraisser cuisses et épaules de porc en une seule opération.

# RST 520 P



## RST 520 P Abschwarter

- Arbeitsbreite 520 mm.
- Freier Arbeitsbereich um eine ausgezeichnete Handhabung des Produkts bei der Verarbeitung zu ermöglichen.
- Hochbelastbare Zugwalze und Speziallager garantieren eine längere Lebensdauer und eine dauerhafte Leistungsfähigkeit.
- Ein Messerschnellwechselsystem, ohne Werkzeugeinsatz, verringert die Betriebsstillstandszeiten der Maschine.
- Hebel für die Einstellung der Schwartenstärke.
- Integriertes Fußpedal.
- Verschiedene Produktauflagen für Spezialwendungen.
- Innovatives Design mit durchgehenden Schweißnähten und abgerundeten Kanten für eine ideale Reinigung.

- Rahmen der Maschine ganz aus Edelstahl (6 mm Stärke), kontrollierte Strahlungsfreiheit.
- Zugriff auf den Motor, die elektrische Anlage und die mechanischen Teile erfolgt über ein einziges Frontpaneel.
- CE-, USDA und TÜV-GS Zertifikat.
- CLO-Sicherheitssystem als Zusatzausstattung verfügbar.
- Zusätzliches DOPPELMESSER, um in einem einzigen Arbeitsgang die Teilstücke zu entscharten und zu entfetten.

## RST 520 P Шкуросъемная машина

- Полезная рабочая ширина 520 мм.
  - Свободная рабочая зона и поверхность для лучшей манипуляции продуктом в процессе обработки.
  - Зубчатый вал из высокопрочной стали и специальные подшипники обеспечивают большую долговечность и постоянство производительности на протяжении всего срока эксплуатации.
  - Система быстрой смены ножа без использования инструментов позволяет сократить простой машины.
  - Внешний рычаг для регулировки толщины среза.
  - Жесткое крепление пусковой педали к машине
- Различные типы расположения продукта для специфических видов применения.
- Авангардный дизайн с непрерывными сварными швами

и закругленными кромками для лучшей санитарной обработки.

- Станина машины полностью выполнена из нержавеющей стали толщиной 6 мм, прошедшей проверку и сертификацию, подтверждающую отсутствие радиоактивности.
- Доступ к двигателю, электроустановке и механическим частям через единую фронтальную панель.
- Сертификаты CE, USDA и TÜV-GS.
- Предохранительная система «CLO» в качестве опции.
- Дополнительный ДВОЙНОЙ НОЖ для снятия шкуры и слоя жира с задней и спинной части свиной туши в один прием.

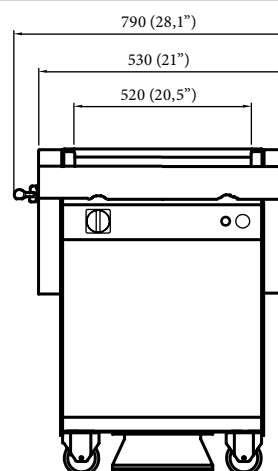
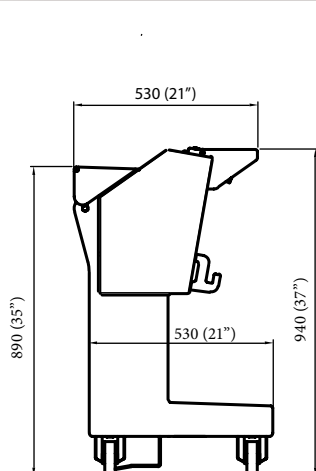




### Dati tecnici / Technical Data RST 520 P

Height	940 mm	37,01"
Width	790 mm	31,1"
Depth	530 mm	21"
Weight	166 Kg	166 Kg
Motor Power (KW)	0,9 Kw	0,9 Kw
Noise Level	68 db	68 db
Maximum working width	520 mm	20,47"
Operator control circuit	24 V	24 V

### Layout



# RST 800 P



## RST 800 P Scotennatrice

- Larghezza di lavoro utile di 800 mm.
- Ideale per scotennare e sgrassare lombi con osso e collo attaccato.
- Zona e piano di lavoro libero da impedimenti per la migliore manipolazione.
- Albero dentato in acciaio ad alta resistenza e cuscinetti speciali garantiscono una maggior durata e un rendimento costante nel tempo.
- Leva esterna per la regolazione dello spessore cotenna.
- Pedale solidale con la macchina.
- Vari tipi di piani prodotto per applicazioni specifiche.
- Design di avanguardia con saldature continue e spigoli arrotondati per la migliore igienizzazione.
- Basamento macchina costruito completamente in acciaio inox di 6 mm di spessore controllato e certificato non radioattivo.
- Motore, impianto elettrico e parti meccaniche accessibili da un unico pannello frontale.
- Certificate CE, USDA e TÜV-GS.
- Sistema di sicurezza "CLO" disponibile come opzione.

## RST 800 P Pork derinder

- Useable width 800 mm.
- Ideal for derinding and defatting bone-in pork loins with neck.
- Ergonomic operating height and infeed area to improve product handling and safety.
- Tempered toothroller and heavy duty bearings to ensure durability and longevity.
- External cut/skin thickness control lever.
- Integral foot pedal.
- Multiple infeed tray profiles options to suit specific products/applications.
- Modern design with seamless welding and radius edges to aid efficient sanitation.
- Machine chassis made entirely of 6-mm plate stainless steel, tested and certificated as being non-radioactive.
- All major mechanical and electrical components are accessible through a single access panel.
- CE, USDA and TÜV-GS acceptances.
- Optional "CLO" safety system available on request.



### RST 800 P Descortezadora

- Ancho de trabajo útil de 800 mm.
- Para descortezar y desgrasar lomos con hueso y cuello.
- Zona y plano de trabajo libre de impedimentos para una mejor manipulación del producto durante la elaboración.
- Un eje dentado de acero de alta resistencia y cojinetes especiales garantizan una mayor duración y un rendimiento constante en el tiempo.
- Palanca externa para la regulación del espesor de la piel.
- Pedal de arranque integrado a la máquina.
- Distintos tipos de planos de producto para aplicaciones específicas.
- Diseño de vanguardia con soldaduras continuas y cantos redondeados para una mejor limpieza.
- Bancada de la máquina construida totalmente de acero inoxidable de 6 mm de espesor controlado y certificado no radiactivo.
- Motor, instalación eléctrica y piezas mecánicas accesibles desde un único panel frontal.
- Con certificaciones CE, USDA y TÜV-GS.
- Sistema de seguridad "CLO" disponible como opcional.

### RST 800 P Découenneuse

- Largeur de travail utile de 800 mm.
- Idéal pour découenner et dégraisser carrés avec os et échine.
- Zone et plan de travail libres de tout obstacle pour une manipulation optimale du produit pendant le travail.
- Arbre denté en acier haute résistance et roulements spécifiques garantissant une durée de vie plus longue et un rendement constant dans le temps.
- Levier externe pour le réglage de l'épaisseur de la couenne.
- Pédale de démarrage solidaire avec la machine.
- Différents types de plans produit pour des applications spécifiques.
- Design avant-gardiste avec soudures continues et coins arrondis pour une hygiène parfaite.
- Embase de la machine en inox de 6 mm d'épaisseur contrôlée et certifiée non radioactif.
- Moteur, système électrique et parties mécaniques accessibles par un unique panneau frontal.
- Certifiées CE, USDA, et TÜV-GS.
- Système de sécurité « CLO » disponible en option.



# RST 800 P



## RST 800 P Abschwarter

- Arbeitsbreite 800 mm.
- Dient zum Abschwarten und Entfetten von Lenden mit Knochen und anhängendem Schulterstück.
- Freier Arbeitsbereich um eine ausgezeichnete Handhabung des Produkts bei der Verarbeitung zu ermöglichen.
- Hochbelastbare Zugwalze und Speziallager garantieren eine längere Lebensdauer und eine dauerhafte Leistungsfähigkeit.
- Hebel für die Einstellung der Schwartenstärke.
- Integriertes Fußpedal.
- Verschiedene Produktauflagen für Spezialwendungen.
- Innovatives Design mit durchgehenden Schweißnähten und abgerundeten Kanten für eine ideale Reinigung.
- Rahmen der Maschine ganz aus Edelstahl (6 mm Stärke),

kontrollierte Strahlungsfreiheit.

- Zugriff auf den Motor, die elektrische Anlage und die mechanischen Teile erfolgt über ein einziges Frontpaneel.
- CE-, USDA und TÜV-GS Zertifikat.
- CLO-Sicherheitssystem als Zusatzausstattung verfügbar.

## RST 800 P Шкуроеъемная машина

- Полезная рабочая ширина 800 мм.
- Машина для обесшкуривания и снятия пленки с костного мяса.
- Свободная рабочая зона и поверхность для лучшей манипуляции продуктом в процессе обработки
- Зубчатый вал из высокопрочной стали и специальные подшипники обеспечивают большую долговечность и постоянство производительности на протяжении всего срока эксплуатации.
- Внешний рычаг для регулировки толщины среза
- Жесткое крепление пусковой педали к машине.
- Различные типы расположения продукта для специфических видов применения.

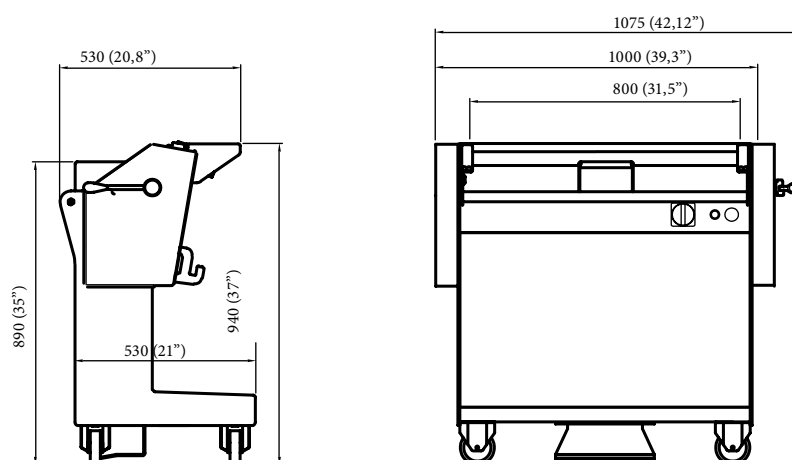
- Авангардный дизайн с непрерывными сварными швами и закругленными кромками для лучшей санитарной обработки.
- Станина машины полностью выполнена из нержавеющей стали толщиной 6 мм, прошедшей проверку и сертификацию, подтверждающую отсутствие радиоактивности.
- Доступ к двигателю, электроустановке и механическим частям через единую фронтальную панель.
- Сертификаты CE, USDA и TÜV-GS.
- Предохранительная система «CLO» в качестве опции.



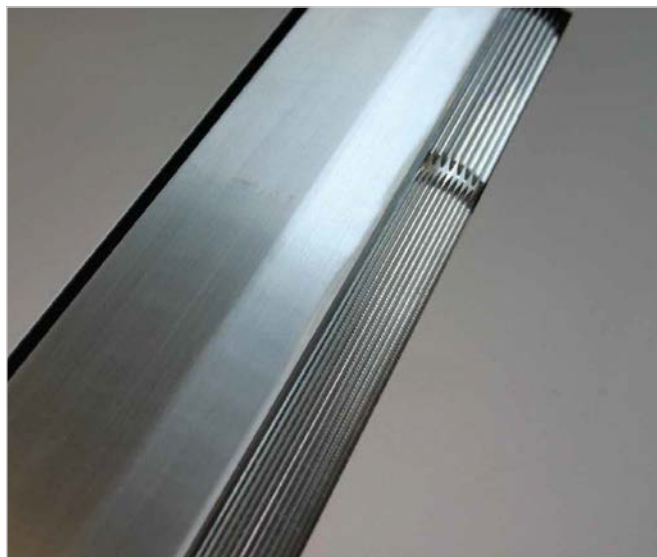
### Dati tecnici / Technical Data RST 800 P

Height	940 mm	37,00"
Width	1075 mm	42,12"
Depth	530 mm	20,80"
Weight	210 Kg	210 Kg
Motor Power (KW)	0,9 Kw	0,9 Kw
Noise Level	68 db	68 db
Maximum working width	800 mm	31,5"
Operator control circuit	24 V	24 V

### Layout



# RST 520 M



## RST 520 M Asportatrice di membrane

- Larghezza di lavoro utile di 520 mm.
- Zona e piano di lavoro libero da impedimenti per la migliore manipolazione del prodotto durante la lavorazione.
- Albero dentato in acciaio ad alta resistenza e cuscinetti speciali garantiscono una maggior durata e un rendimento costante nel tempo.
- Elevata velocità di rotazione dell'albero dentato per una maggiore produttività.
- Vari tipi di albero dentato anche con doppia dentatura personalizzata per applicazioni specifiche o per aumentare la produttività.
- Sistema di cambio rapido della lama senza l'utilizzo di utensili che permette di ridurre i tempi morti.
- Pedale di avviamento solidale con la macchina.
- Sistema pneumatico di pulizia della zona di lavoro a basso consumo d'aria.
- Nessuna parte da smontare per il lavaggio e la sanificazione.
- Design di avanguardia con saldature continue e spigoli arrotondati per la migliore igienizzazione.
- Basamento macchina costruito completamente in acciaio inox di 6 mm di spessore controllato e certificato non radioattivo.
- Motore, impianto elettrico e parti meccaniche accessibili da un unico pannello frontale.
- Certificate CE, USDA e TÜV-GS.
- Sistema di sicurezza "CLO" disponibile come opzione.

## RST 520 M Membrane skinner

- Useable width: 520 mm.
- Ergonomic operating height and infeed area to improve product handling and safety.
- Tempered toothroll and heavy duty bearings to ensure durability and longevity.
- High toothroll speed to improve production rates.
- Multiple toothroll pitch options (including dual pitch) therefore customisable to specific applications and to increase production rate.
- Quick blade change system enables blade changes without the use of tools, consequently minimising "down time".
- Integral foot pedal.
- Dynamic pneumatic toothroll cleaning system designed for maximum cleaning efficiency and minimal air consumption.
- Tool less preparation for sanitation.
- Machine base made entirely of 6-mm plate stainless steel, tested and certificated as being non-radioactive.
- Modern design with seamless welding and radius edges to aid efficient sanitation.
- All major mechanical and electrical components are accessible through a single access panel.
- CE, USDA and TÜV-GS certificates.
- Optional "CLO" safety system available on request.





### RST 520 M Desveladora

- Ancho de trabajo útil de 520 mm.
- Zona y plano de trabajo libre de impedimentos para una mejor manipulación del producto durante la elaboración.
- Un eje dentado de acero de alta resistencia y cojinetes especiales garantizan una mayor duración y un rendimiento constante en el tiempo.
- Elevada velocidad de rotación del eje dentado para una mayor productividad.
- Distintos tipos de eje dentado, incluso con doble dentado personalizado para aplicaciones específicas o para aumentar la productividad.
- Pedal de arranque integrado a la máquina.
- Sistema neumático de limpieza de la zona de trabajo con bajo consumo de aire.

- No es necesario desmontar piezas para la limpieza y esterilización.
- Diseño de vanguardia con soldaduras continuas y cantos redondeados para una mejor limpieza.
- Bancada de la máquina construida totalmente de acero inoxidable de 6 mm de espesor controlado y certificado no radiactivo.
- Motor, instalación eléctrica y piezas mecánicas accesibles desde un único panel frontal.
- Con certificaciones CE, USDA y TÜV-GS.
- Sistema de seguridad "CLO" disponible como opcional.

### RST 520 M Eplucheuse de membranes

- Largeur de travail utile de 520 mm.
- Zone et plan de travail libres de tout obstacle pour une manipulation optimale du produit pendant le travail.
- Arbre denté en acier haute résistance et roulements spécifiques garantissant une durée de vie plus longue et un rendement constant dans le temps.
- Rotation rapide de l'arbre denté pour une productivité plus importante.
- Différents types d'arbres dentés, pouvant avoir une double denture personnalisée pour des applications spécifiques ou pour une plus grande productivité.
- Système de changement rapide de la lame, sans besoin d'outils, permettant de réduire les temps morts.

- Pédale de démarrage solidaire avec la machine.
- Système pneumatique de nettoyage de la zone de travail avec faible consommation d'air.
- Aucune partie à démonter pour le nettoyage et l'assainissement.
- Design avant-gardiste avec soudures continues et coins arrondis pour une hygiène parfaite.
- Embase de la machine en inox de 6 mm d'épaisseur contrôlée et certifiée non radioactif.
- Moteur, système électrique et parties mécaniques accessibles par un unique panneau frontal.
- Certifiées CE, USDA, et TÜV-GS.
- Système de sécurité "CLO" disponible en option.

# RST 520 M

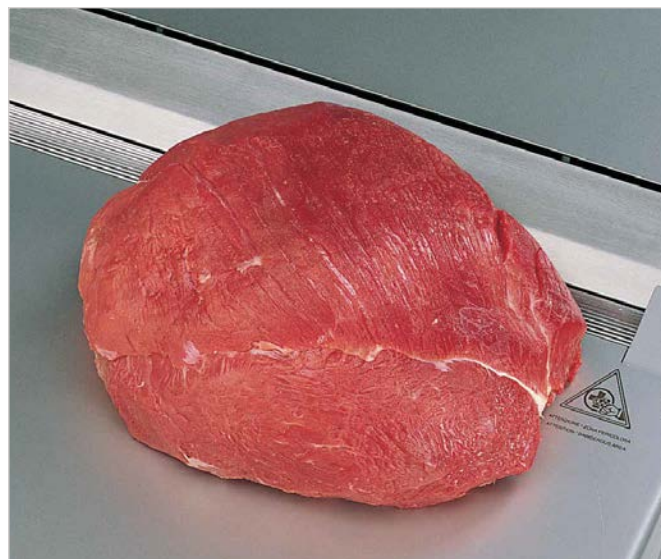


## RST 520 M Entvlierer

- Arbeitsbreite 520 mm.
- Freier Arbeitsbereich um eine ausgezeichnete Handhabung des Produkts bei der Verarbeitung zu ermöglichen.
- Hochbelastbare Zugwalze und Speziallager garantieren eine längere Lebensdauer und eine dauerhafte Leistungsfähigkeit.
- Die erhöhte Drehgeschwindigkeit der Zugwalze ergibt eine höhere Produktivität und optimale Ausbeute.
- Verschiedenste Arten von Zugwalzen mit doppelter Verzahnung können für spezielle Anwendungen oder für die Erhöhung der Produktivität verwendet werden.
- Ein Messerschnellwechselsystem, ohne Werkzeugeinsatz, verringert die Betriebsstillstandszeiten der Maschine.
- Integriertes Fußpedal.
- Pneumatische, kontinuierliche Reinigung der Zugwalze mit geringem Luftverbrauch.
- Für die Reinigung muss kein Teil demontiert werden.
- Innovatives Design mit durchgehenden Schweißnähten und abgerundeten Kanten für eine ideale Reinigung.
- Rahmen der Maschine komplett aus Edelstahl (6 mm Stärke), kontrollierte Strahlungsfreiheit.
- Zugriff auf den Motor, die elektrische Anlage und die mechanischen Teile erfolgt über ein einziges Frontpaneel.
- CE-, USDA und TÜV-GS Zertifikat.
- "CLO"-Sicherheitssystem als Zusatzausstattung verfügbar.

## RST 520 M Машина для снятия пленки

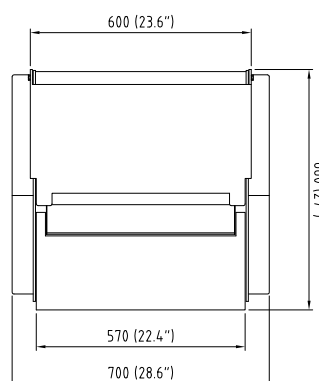
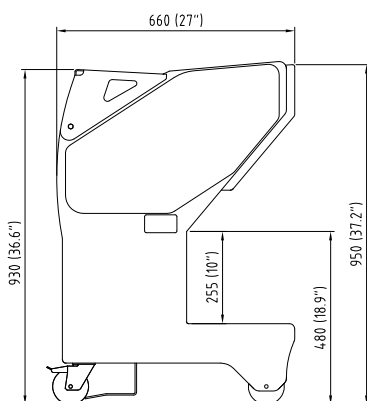
- Полезная рабочая ширина 520 мм.
- Свободная рабочая зона и поверхность для лучшей манипуляции продуктом в процессе обработки.
- Зубчатый вал из высокопрочной стали и специальные подшипники обеспечивают большую долговечность и постоянство производительности на протяжении всего срока эксплуатации.
- Высокая скорость вращения зубчатого вала для обеспечения большей производительности.
- Различные типы зубчатого вала, также с двойным зубчатым колесом под заказ для специальных видов применения или для повышения производительности.
- Система быстрой смены ножа без использования инструментов позволяет сократить простой машины.
- Жесткое крепление пусковой педали к машине.
- Пневматическая система очистки рабочей зоны с низким расходом воздуха.
- Мойка и санитарная обработка производится без демонтажа деталей.
- Авангардный дизайн с непрерывными сварными швами и закругленными кромками для лучшей санитарной обработки.
- Станина машины полностью выполнена из нержавеющей стали толщиной 6 мм, прошедшей проверку и сертификацию, подтверждающую отсутствие радиоактивности.
- Доступ к двигателю, электроустановке и механическим частям через единую фронтальную панель.
- Сертификаты CE, USDA и TÜV-GS.
- Предохранительная система "CLO" в качестве опции.



### Dati tecnici / Technical Data RST 520 M

Height	950 mm	37,20"
Width	700 mm	28,60"
Depth	660 mm	27"
Weight	210 Kg	210 Kg
Motor Power (KW)	0,9 Kw	0,9 Kw
Noise Level	75,5 db	75,5 db
Maximum working width	520 mm	20,47"
Operator control circuit	24 V	24 V
Air consumption	145 l/min	145 l/min

### Layout







## Wireless CLO Safety System

- Totale protezione per l'operatore per i modelli RST.
- Total operator protection for all RST series.
- Protection totale de l'opérateur pour toutes les RST.
- Protección total de operadores para todas las RST.
- Bediener-Vollschutz für alle Maschinen der Serien RST.
- Полная безопасность для оператора в моделях RST.



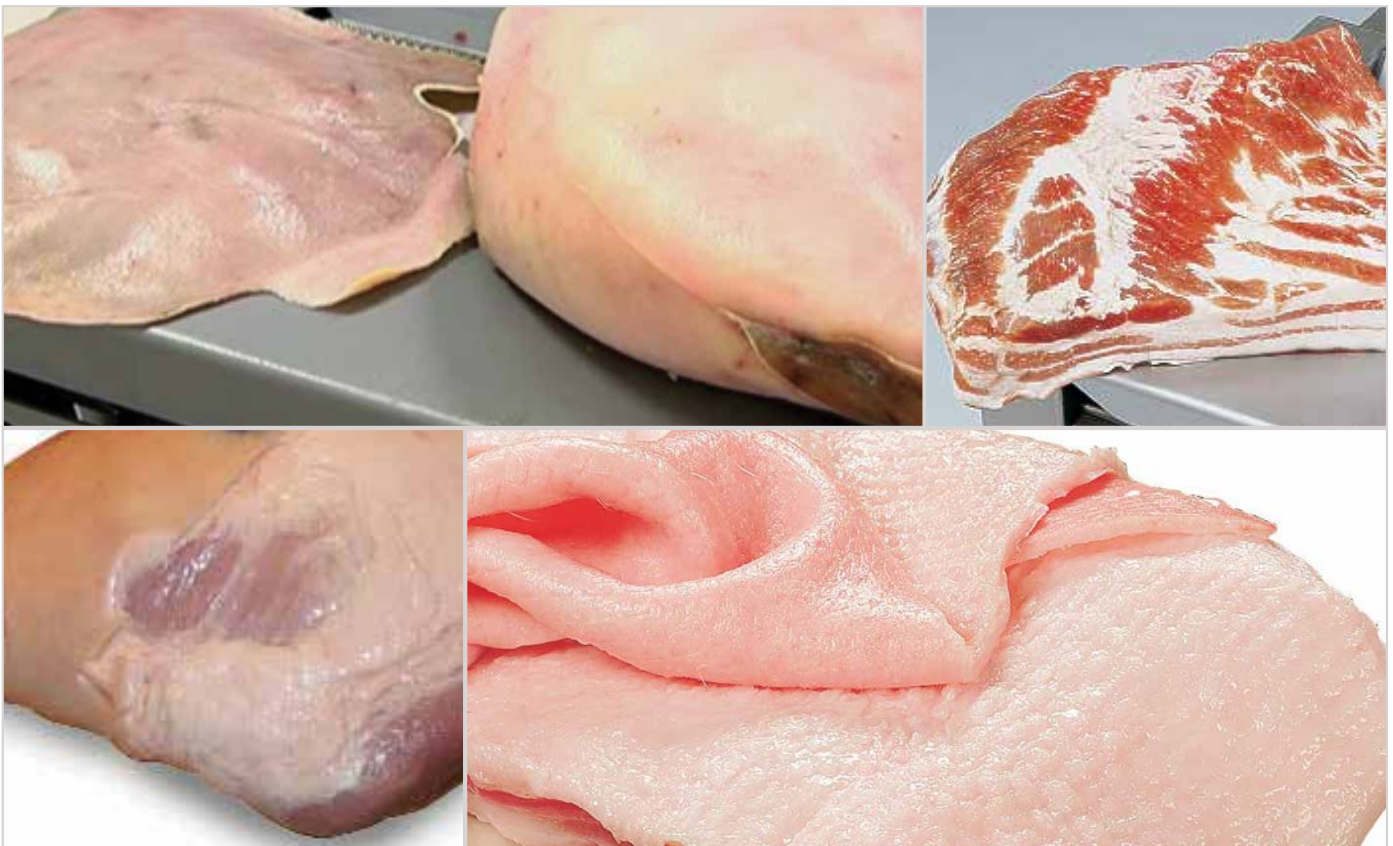
# NST600P

Manually operated  
open top derinders



 **GRASSELLI**<sub>SPA</sub>  
EXCELLENCE THROUGH TECHNOLOGY

# NST600P







## NST600P Scotennatrice manuale

- Larghezza di lavoro utile di 600 mm.
- Zona e piano di lavoro libero da impedimenti per la migliore manipolazione.
- Albero dentato in acciaio ad alta resistenza e cuscinetti speciali garantiscono una maggior durata e un rendimento costante nel tempo.
- Sistema di cambio rapido della lama senza l'uso di utensili permette di ridurre i tempi morti.
- Leva esterna per la regolazione dello spessore cotenna
- Pedale solidale con la macchina.
- Vari tipi di piani prodotto per applicazioni specifiche
- Design di avanguardia con saldature continue e spigoli arrotondati per la migliore igienizzazione.
- Basamento macchina costruito completamente in acciaio inox di grande spessore controllato e certificato non radioattivo.
- Motore, impianto elettrico e parti meccaniche accessibili da due pannelli laterali.
- Sistema di sicurezza "CLO".



## NST600P Manual derinder

- Useable width: 600 mm.
- Ergonomic operating height and infeed area to improve product handling and safety.
- Tempered toothroller and heavy duty bearings to ensure durability and longevity.
- Quick blade change system enables blade changes without the use of tools, consequently minimising "down time".
- External skin thickness control lever.
- Integral foot pedal.
- Multiple infeed tray profiles options to suit specific applications.
- Modern design with seamless welding and radius edges to aid efficient sanitation.
- Machine chassis made entirely of thick plate stainless steel, tested and certificated as being non-radioactive.
- All major mechanical and electrical components are accessible through two access panel.
- Optional "CLO" safety system available



## NST600P Descortezadora

- Ancho de trabajo útil de 600 mm.
- Zona y plano de trabajo libre de impedimentos para una mejor manipulación del producto durante la elaboración.
- Un eje dentado de acero de alta resistencia y cojinetes especiales garantizan una mayor duración y un rendimiento constante en el tiempo.
- Un sistema de cambio rápido de la cuchilla sin utilización de herramientas permite reducir los tiempos muertos.
- Palanca externa para la regulación del espesor de la piel.
- Pedal de arranque integrado a la máquina.
- Distintos tipos de planos de producto para aplicaciones específicas.
- Diseño de vanguardia con soldaduras continuas y cantos redondeados para una mejor limpieza.
- Bancada de la máquina construida totalmente de acero inoxidable de gran espesor controlado y certificado no radiactivo.
- Motor, instalación eléctrica y piezas mecánicas accesibles desde dos panel frontal.
- Sistema de seguridad "CLO" disponible.

## NST600P Abschwarzer

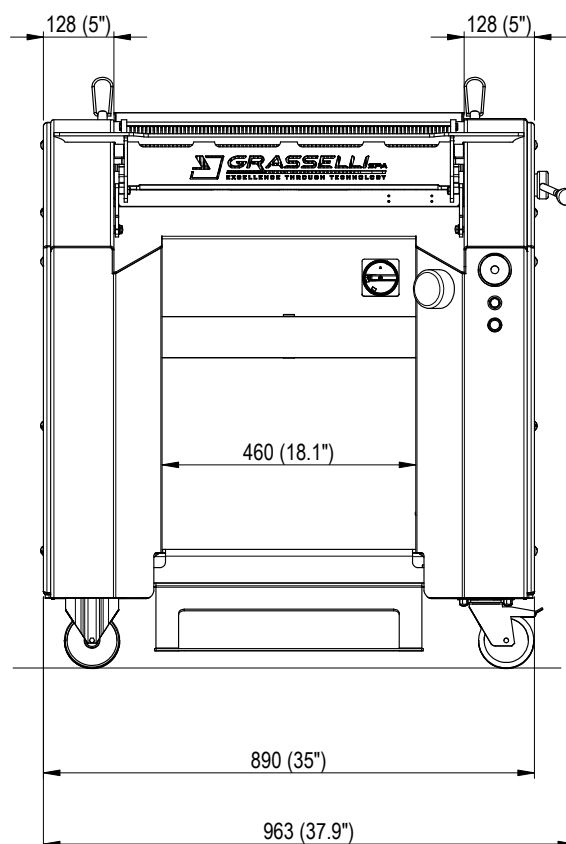
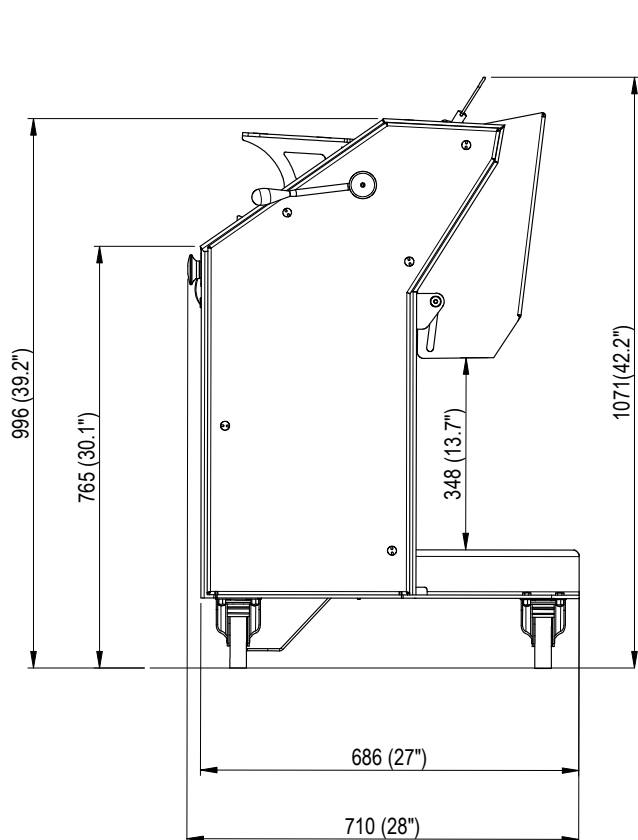
- Arbeitsbreite 600 mm.
- Freier Arbeitsbereich um eine ausgezeichnete Handhabung des Produkts bei der Verarbeitung zu ermöglichen.
- Hochbelastbare Zugwalze und Speziallager garantieren eine längere Lebensdauer und eine dauerhafte Leistungsfähigkeit.
- Ein Messerschnellwechselsystem, ohne Werkzeugeinsatz, verringert die Betriebsstillstandszeiten der Maschine.
- Hebel für die Einstellung der Schwartenstärke.
- Integriertes Fußpedal.
- Verschiedene Produktauflagen für Spezialwendungen.
- Innovatives Design mit durchgehenden Schweißnähten und abgerundeten Kanten für eine ideale Reinigung.
- Rahmen der Maschine ganz aus Edelstahl, kontrollierte Strahlungsfreiheit.
- Zugriff auf den Motor, die elektrische Anlage und die mechanischen Teile erfolgt über ein Frontpaneel.
- CLO-Sicherheitssystem als Zusatzausstattung verfügbar.

## NST600P Découenneuse

- Largeur de travail utile de 600 mm.
- Zone et plan de travail libres de tout obstacle pour une manipulation optimale du produit pendant le travail.
- Arbre denté en acier haute résistance et roulements spécifiques garantissant une durée de vie plus longue et un rendement constant dans le temps.
- Système de changement rapide de la lame, sans besoin d'outils, permettant de réduire les temps morts.
- Levier externe pour le réglage de l'épaisseur de la couenne.
- Pédale de démarrage solidaire avec la machine.
- Différents types de plans produit pour des applications spécifiques.
- Design avant-gardiste avec soudures continues et coins arrondis pour une hygiène parfaite.
- Embase de la machine en inox de grand d'épaisseur contrôlée et certifiée non radioactif.
- Moteur, système électrique et parties mécaniques accessibles par deux panneaux frontal.
- Système de sécurité « CLO » disponible.

## NST600P Шкуроемная машина

- Полезная рабочая ширина 600 мм.
- Свободная рабочая зона и поверхность для лучшей манипуляции продуктом в процессе обработки.
- Зубчатый вал из высокопрочной стали и специальные подшипники обеспечивают большую долговечность и постоянство производительности на протяжении всего срока эксплуатации.
- Система быстрой смены ножа без использования инструментов позволяет сократить простой машины.
- Внешний рычаг для регулировки толщины среза.
- Жесткое крепление пусковой педали к машине
- Различные типы расположения продукта для специфических видов применения.
- Авангардный дизайн с непрерывными сварными швами и закругленными кромками для лучшей санитарной обработки.
- Станина машины полностью выполнена из нержавеющей стали толщиной, прошедшей проверку и сертификацию, подтверждающую отсутствие радиоактивности.
- Доступ к двигателю, электроустановке и механическим частям через единую фронтальную панель.
- Предохранительная система «CLO» в качестве опции.



### Dati tecnici / Technical Data NST600P

Height	1071 mm
Width	600 mm
Depth	710 mm
Weight	166 Kg
Motor Power (KW)	0.92 Kw
Noise Level	68 db
Working speed	15 mt/min
Operator control circuit	24 V



## Slicing systems







## GRASSELLI SLICING SYSTEMS



La storia della Grasselli ha avuto inizio con la produzione di macchine scotennatrici ed asportatrici di membrane; ben presto l'azienda si è sviluppata e ha dato vita alla produzione di macchine tagliafettine e sistemi di porzionatura.

Le nostre tagliafettine Grasselli sono soluzioni tecnologicamente avanzate per la lavorazione delle carni fresche. Progettiamo e produciamo macchine di elevata qualità in grado di offrire ai propri clienti estrema precisione di taglio, prestazioni elevate, sicurezza dell'operatore ed igiene.

Consapevoli che i nostri prodotti vengono acquistati per i grandi vantaggi che essi offrono, siamo fieri di continuare nelle ricerche per essere sempre all'avanguardia.



The Grasselli history began with the production of de-rinding and skinning machines. With the industry wide acceptance of these units the company progressed into the development and production of innovative slicing machines and portioning systems. Our slicers are technologically advanced solutions for fresh meat processing.

We design and manufacture high quality machines enabling extreme precision in cutting, high performance, operator safety and hygiene. Understanding that our products are purchased because of the benefits they offer, we are proud to continue our research to remain at the leading edge of technology and innovation.



La historia de Grasselli inicia con la producción de máquinas descueradoras y desmembradoras, muy pronto la compañía desarrolló la producción de máquinas rebanadoras y sistemas de porcionado. Nuestras rebanadoras son soluciones de tecnología avanzada para el procesamiento de carnes frescas. Nuestras máquinas son diseñadas y fabricadas con la más alta calidad y somos capaces de ofrecerle a nuestros clientes precisión extrema en el corte, alto rendimiento, seguridad del operador e higiene. Confiando que nuestra maquinaria Grasselli es adquirida por las grandes ventajas que ofrece, estamos orgullosos de continuar en investigaciones que nos permiten seguir con nuestro liderazgo y a la vanguardia del desarrollo de nuevas ideas.





L'histoire de la société Grasselli commence par la production de systèmes de découpage manuels ou automatiques et de systèmes d'épluchage; avec l'introduction à l'échelle industrielle de ces systèmes la compagnie a progressé dans le développement et la production de systèmes de portionnement. Les systèmes de portionnement Grasselli sont des solutions technologiquement avancées notamment pour les préparations des viandes fraîches. Nous projetons et produisons des systèmes de très haute qualité en mesure d'offrir une extrême précision de coupe, des performances élevées, d'assurer la sécurité de l'opérateur et de bonnes conditions d'hygiène. Conscients que nos produits sont achetés pour les grands avantages qu'ils offrent, nous sommes fiers de continuer la recherche pour être toujours à la pointe de l'avant-garde.



Am Anfang der Grasselli Firmengeschichte stand die Produktion von Abschalt- und Entvliesmaschinen. Schon kurze Zeit später begann man mit der Entwicklung und Konstruktion von Schneid- und Portionieranlagen. Grasselli Slicer sind heute technisch hochentwickelte Lösungen für alle Schneid- und Portionieraufgaben für Frischfleisch: Schneidtechnik mit höchstmöglicher Genauigkeit, maximale Leistung und Ausbeute sowie Arbeitssicherheit und Hygiene sind Merkmale des Grasselli Slicing Systems. Der weltweite Erfolg der Grasselli Slicer ist auch gleichzeitig Ansporn die Entwicklung weiter voranzutreiben um auch künftig mit neuen Ideen und Technologien ihre Spitzenposition weiter auszubauen.



История компании Grasselli началась с производства шкуроемных машин, вскоре компания начала изготовление слайсеров, а также порционных машин. Наши слайсеры предназначены для нарезки свежего мяса. Мы разрабатываем высокотехнологичное оборудование, которое обеспечивает точную нарезку, высокую производительность и безопасность оператора. Наше оборудование отличается рядом преимуществ и мы продолжаем его совершенствование и всегда открыты к новым идеям.



CSL



CSL

- Macchina tagliafettine industriale compatta
- Compact industrial slicer
- Trancheur industriel compact
- Rebanadora compacta industrial
- Kompakte industrielle Schneidemaschine
- Компактная машина для резки мяса на кусочки



## NSL series



### NSL 400

- Affetta carni fresche e cotte senza osso
- Slices fresh and cooked boneless meats
- Tranche des viandes fraiches et cuites sans os
- Cortadora de carne fresca y pre cocinada sin hueso
- Schneidemaschine für frische u. gekochte, knochenlose Produkte, Arbeitsbreite
- Машина для резки ломтиками свежего и приготовленного мяса без костей

### NSL 600

- Come sopra, con 200 mm. di larghezza in più
- As above but, 200 mm. wider
- Comme ci-dessus 200 mm. de largeur
- Lo mismo que la sl 400, pero 200 mm. de ancho
- Schneidemaschine für frische u. gekochte, knochenlose Produkte, Arbeitsbreite 600 mm.
- Как предыдущая но на 200 мм шире

### NSL 600 BI

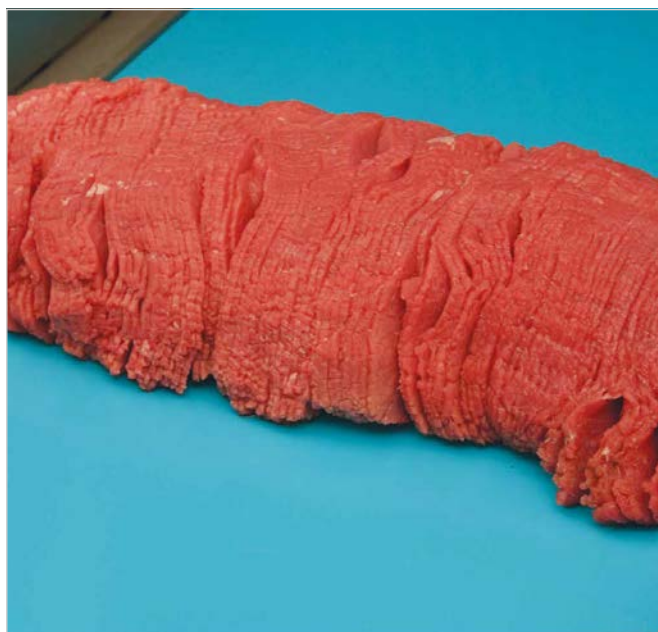
- Affetta carni fresche e con osso
- Slices fresh bone-in meats
- Tranche des viandes fraiches avec os
- Cortadora de carne fresca con hueso
- Schneidemaschine für frische Produkte mit knochen
- Машина для резки ломтиками свежего и приготовленного мяса с костью

## NSA series



### NSA

- Tagliafettine alimentata automaticamente
- Automatic Slicing Machine
- Trancheuse automatique
- Fileteadora automática
- Automatische Fleischschneidemaschine
- Автоматическая машина для нарезки мяса кусочками



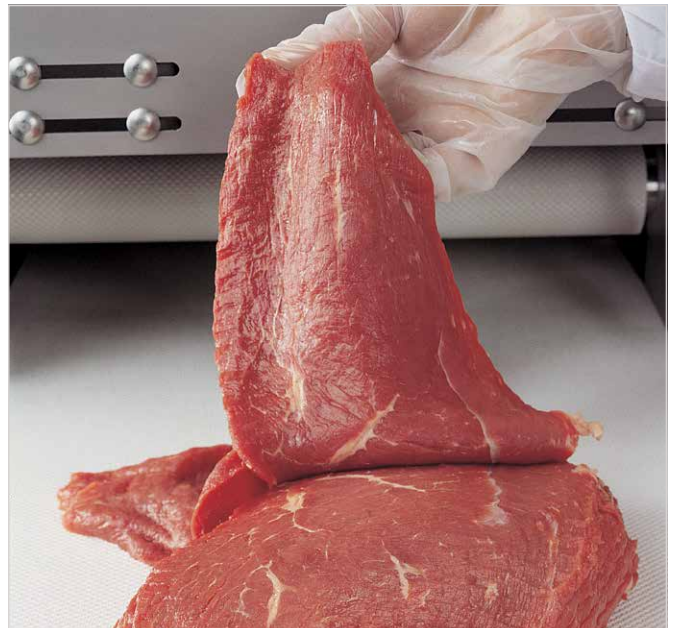


## KSL



## KSL

- Tagliafettine orizzontale
- Horizontal slicer
- Trancheuse horizontale
- Cortadora horizontal
- Scheibenschneide Horizontalschnitte
- Машина для горизонтальной резки мяса ломтиками



## BS 4



### BS 4

- Tagliafettine longitudinale per petti di pollo e tacchino
- Longitudinal slicer for chicken and turkey breasts
- Trancheur longitudinal pour poitrines de poulet et dinde
- Cortadora longitudinal para pollo y pavo
- Automatische Schneidemaschine für Geflügel u. Putenbrüste
- Машина для продольной резки ломтиками мяса птиц



## CWS



## CWS

- Tagliafettine a peso controllato per carni fresche senz'osso
- Constant weight slicer for boneless fresh meat
- Trancheure à poids et épaisseur constants pour les viandes fraîches sans os
- Fileteadora de peso controlado de carne fresca
- Schneidmaschine mit kontrolliertem Gewicht für frisches Fleisch
- Машина для нарезки мяса на ломтики заданного веса





## MTS



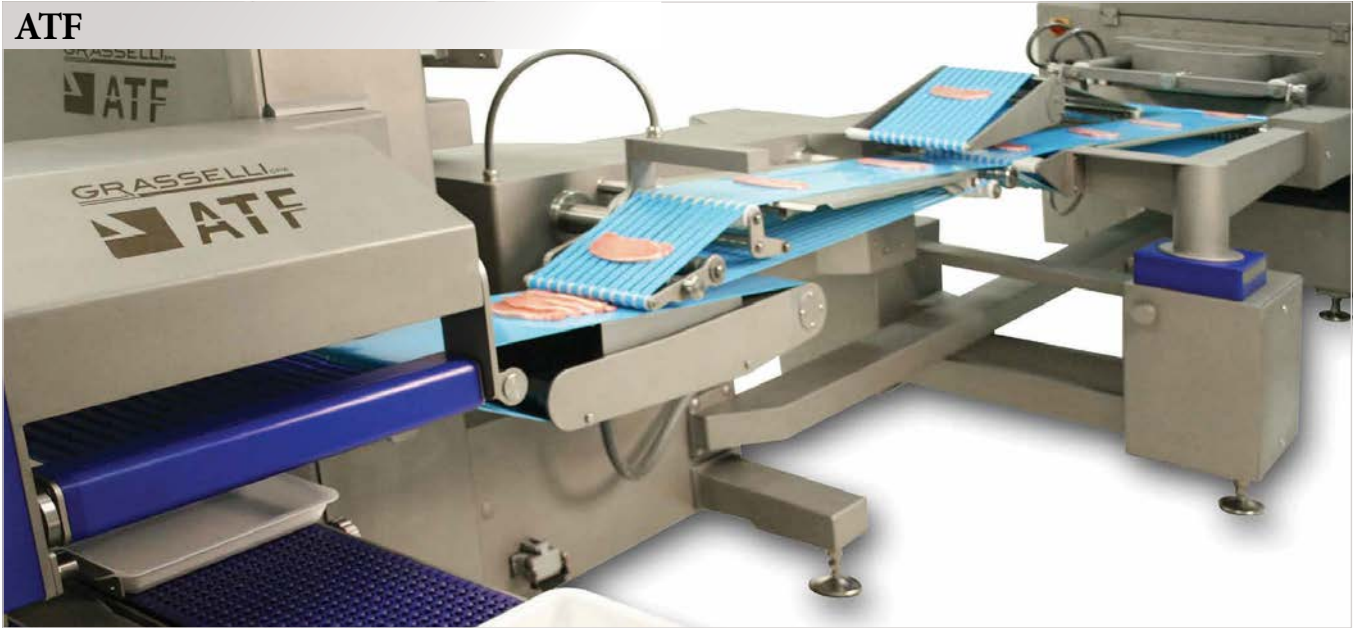
## MTS

- Tagliafettine porzionatrice per carni fresche senz'osso
- Fresh meat slicing and portioning system
- Système de portionnement pour les viandes fraîches sans os
- Fileteadora de carne fresca y sistema de porcionado
- Schneide- und Portioniersystem für frisches Fleisch
- нарезка свежего мяса с системой порционирования





## ATF



## ATF

- Linea automatica di confezionamento
- Automatic tray filling line
- Ligne automatique de préparation de barquettes
- Línea automática de embarquetado
- automatisches Portionier- und Schaleneinlegesystem
- автоматическая линия укладки на лотки



## Skinning systems







## GRASSELLI SKINNING SYSTEMS



La storia della Grasselli inizia da qui, dalla produzione di macchine scotennatrici e asportatrici di membrane. Con oltre 30 anni di ricerca ed investimenti, siamo in grado di offrire macchine di elevata qualità. Le nostre scotennatrici e asportatrici di membrane, progettate e realizzate per rispondere alle esigenze di facilità d'uso, alto rendimento ed accuratezza nelle lavorazioni di tutti i prodotti, anche i più delicati, garantiscono affidabilità e prestazioni elevatissime.

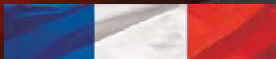
Consapevoli che i nostri prodotti vengono acquistati per i grandi vantaggi che essi offrono, siamo fieri di continuare nelle ricerche per essere sempre all'avanguardia.



The Grasselli history began with the production of derinding and skinning machines. Since its foundation, over 30 years ago, the Grasselli company has invested in research and development enabling it to deliver machines of the highest possible quality. Produced according to the most stringent industry criteria Grasselli machines are always intuitive and simple use. They give high yields and extreme accuracy in processing even with the most delicate products, our derinders and skimmers also give both reliability and high performance. Understanding that our products are purchased because of the benefits they offer, we are proud to continue our research to remain at the leading edge of technology and innovation.



La historia de Grasselli inicia con la producción de máquinas descueradoras y desmembradoras. Desde su fundación hace ya 30 años la empresa Grasselli ha invertido recursos en investigación y desarrollo, con lo cual estamos en posición de ofrecerles maquinaria de la más alta calidad. Nuestras máquinas son producidas bajo los criterios más estrictos de la industria y comerciales: sentido común e intuitivo, alta producción y la exactitud extrema en el proceso incluso de los productos más delicados; nuestras descueradoras y desmembradoras les otorgan confiabilidad y alto rendimiento. Confirmando que nuestra maquinaria Grasselli es adquirida por las grandes ventajas que ofrece, estamos orgullosos de continuar en investigaciones que nos permiten seguir con nuestro liderazgo y a la vanguardia del desarrollo de nuevas ideas.



L'histoire de la société Grasselli commence par la production de systèmes de découennage manuels ou automatiques et de systèmes d'épluchage.

Nos 30 ans de recherche et d'investissements nous permettent d'offrir des systèmes de très grande qualité. Nos éplucheuses et découenneuses, projetées et réalisées pour répondre aux exigences de facilité de emploi, haut rendement et soin dans les préparations de tous les produits, même les plus délicats, garantissent une fiabilité et des performances très élevées.

Conscients que nos produits sont achetés pour les grands avantages qu'ils offrent, nous sommes fiers de continuer les recherches pour être toujours à la pointe de l'avant-garde.



Am Anfang der Grasselli Firmengeschichte stand die Produktion von Abschwart- und Entvliesmaschinen. Seit der Gründung vor mehr als 30 Jahren genießt der Bereich Forschung und Entwicklung höchste Priorität bei Grasselli. Das Ergebnis ist Maschinenbau mit Präzision, intuitiver und einfacher Bedienung, maximaler Ausbeute und Genauigkeit selbst bei empfindlichsten und schwierigsten Produkten auf höchstem Qualitätsniveau. Beste Ergebnisse bei unübertroffener Leistung und maximaler Verfügbarkeit sind hierbei stets garantiert. Der weltweite Erfolg der Grasselli Abschwart- und Entvliesmaschinen ist auch gleichzeitig Ansporn die Entwicklung weiter voranzutreiben um auch künftig mit neuen Ideen und Technologien ihre Spitzenposition weiter auszubauen.



История компании Grasselli началась с производства шкуроемных машин.

С момента основания, более 30 лет назад, компания Grasselli начала исследования и разработки для создания высококачественного оборудования. Все оборудование производится в соответствии со следующими критериями: простота эксплуатации, высокая надежность и точность обработки даже наиболее деликатных продуктов.

Наше оборудование отличается рядом преимуществ и мы продолжаем его совершенствование и всегда открыты к новым идеям.



## NAB series



### NAB 520

- Scotennatrice universale automatica
- Pork derinder
- Découenneuse pour le porc
- Descortezadora de cerdo
- Abschwartmaschine für Schweinefleisch
- Универсальная автоматическая машина для сливания кожи

### NAB 520-DD

- Sistema elettronico per scotennare e sgrassare
- Pork derind or defat system
- Système électronique pour découenner et degraisser le porc
- Sistema electrónico para descortezar y desgrasr cerdo
- Elektronische Abschwart-u. Entfettungsmaschine für schweinefleisch
- Лектронная система для сливания кожи и жира

### NAB 520-M

- Asportatrice automatica di membrane
- Automatic membrane skinner
- Eplucheuse automatique pour aponévroses
- Desveladora automática de membranas
- Automatisch Entvliesmaschine
- Автоматическая машина для снятия пленки

### NAB 520-JS

- Ispezionatrice di gole
- Jowl slasher
- Trancheur pour les gorges
- Cortadora de papada
- Entschwartungs-u. Schneidemaschine für Kinnbacken
- Куттер подгрудков

### NAB 720

- Scotennatrice per pancettoni
- Derinder for American style pork bellies
- Découennese pour les poitrines de porc style américain
- Descortezadora de panceta de cerdo al estilo americano
- Abschwartmaschine für Schweinebauchspeck nach amerikanischer Art
- Машина для сливания свиной грудинки

### NAB 520-SS

- Asportatrice di pelli per filetti di pesce
- Fish filet skinner
- Eplucheuse pour filets de poisson
- Descortezadora de filete de pescado
- Enthäutungsmaschine für Fischfilets
- Машина для удаления оболочки рыбы

## RST 800-P



## RST 800-P

- Scotennatrice per lombi di maiale con osso
- Bone-in pork loin derinder and defatter
- Découenneuse et dégraisseuse pour les carrés de porc
- Descortezadora y desgrasadora de lomos de cerdo con hueso
- Abschwart-u. Entfettungsmaschine für Schweine-Carré
- Машина для обесшкуривания и снятия пленки с костного мяса

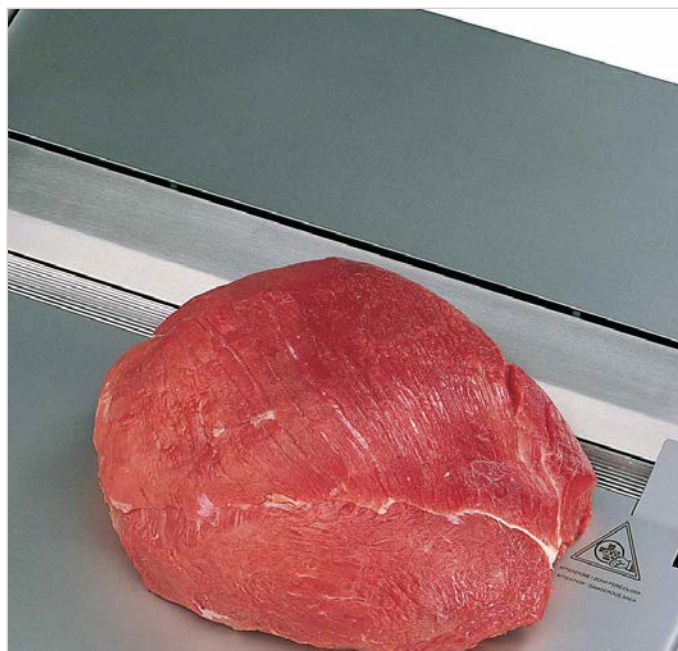
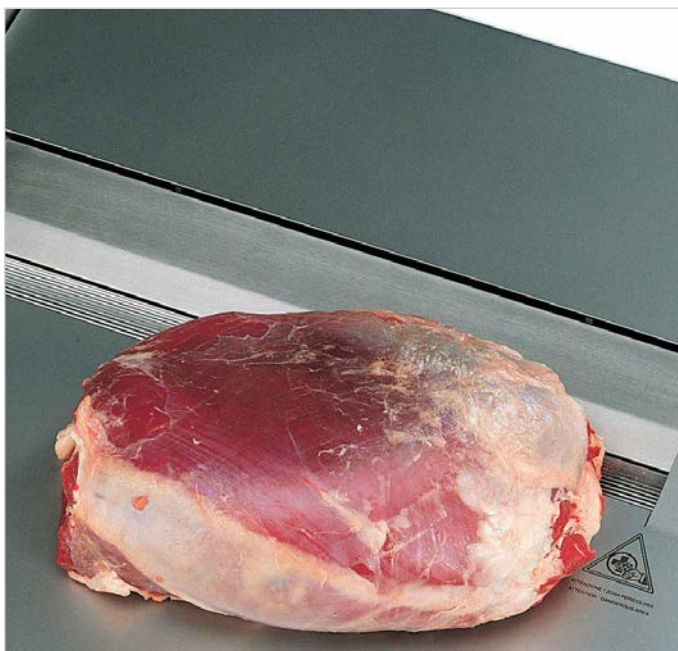


## RST 520-M



## RST 520-M

- Asportatrice di membrane universale
- Full size membrane skinner
- Eplucheuse pour aponévroses
- Desveladora de membrana completa
- Grosse Entvliesmaschine
- Машина для удаления оболочки универсального назначения





## RST 520-P



## RST 520-P

- Scotennatrice universale
- Utility pork derinder
- Découenneuse pour porc
- Descortezadora de cerdo
- Entvliesmaschine für Rinder-u. Schwejefleisch
- Универсальная машина для слипания кожи

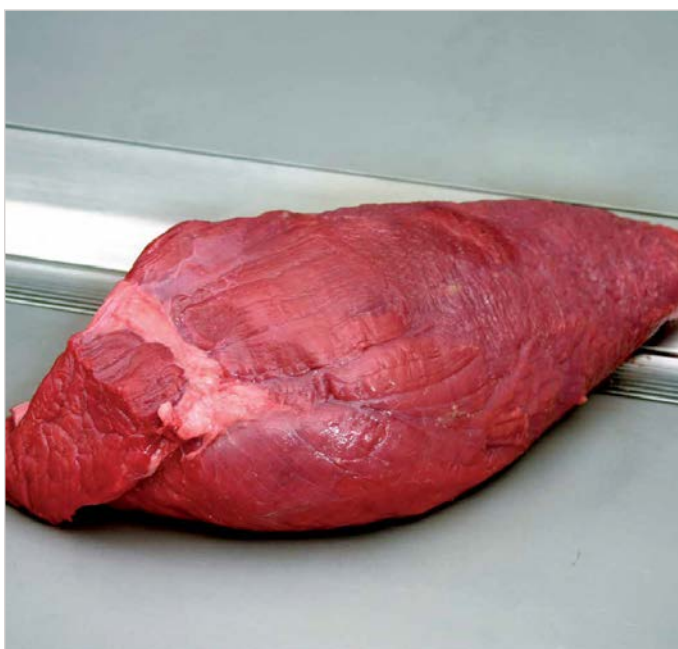


## C 35



## C 35-M

- Asportatrice di membrane compatta per maiale e manzo
- Skinner for pork and beef membranes
- Eplucheuse pour aponévroses de porc et de boeuf
- Desveladora de cerdo y vacuno
- Entvliesmaschine für Rinder-u. Schweinefleisch
- Компактная машина для удаления оболочки свиного и говяжьего мяса



## C 35-P

- Scotennatrice compatta
- Compact pork derinder
- Découenneuse pour le pork
- Descortezadora de cerdo
- Entschwartungsmaschine für Schweinefleisch
- Компактная машина для сдирания кожи





## T 300 M



## ALC52



## T 300 M

- Asportatrice di membrane
- Light membrane skinner
- Eplucheuse pour aponévroses
- Descortezadora de membrana
- Entvliesmaschine
- Машина для удаления оболочки универсального назначения

## ALC52

- Incisore pelle di cosce di tacchino (solo con NAB 520)
- Turkey legs and drumsticks skin carver (only with NAB 520)
- Système d'incision de peau de cuisses de dinde (seule avec NAB 520)
- Sistema di incisión de piel de piernas de pavo (sólo con NAB 520)
- Tranchiermesser für Truthahnschenkel Haut (mit NAB 520 gemeinsam)
- Турция ног и голеней Резчик кожи (только с NAB 520)





## CLO



## CLO Safety System

- Totale protezione per l'operatore per i modelli RST
- Total operator protection for all RST series
- Totale protection de l'opérateur pour toutes les RST
- Protección total de operadores para todas las RST
- Bediener-Vollschutz für alle Maschinen der Serien RST
- Полная безопасность для оператора в моделях RST



## Automatic slicing machines





## NSA 600 Tagliafettine automatica

- Taglio di fettine perfettamente parallele con il sistema di taglio multilama Grasselli.
- 610 mm di larghezza utile di taglio e spessore minimo di 3 mm per carni fresche e cotte senz'osso.
- Ingresso e uscita prodotto completamente automatica per una soluzione completamente IN LINEA.
- Velocità di taglio, altezza della camera di taglio e pressione di controllo prodotto regolabili.
- Macchine di elevatissima flessibilità con moltissime opzioni di taglio.
- Svariati profili di lame per il miglior rendimento.
- Sistema di tensione delle lame automatizzato con circuito idraulico.
- Sistema integrato di lubrificazione automatica.
- Sistema di CAMBIO RAPIDO LAME opzionale per sostituire l'intero set di taglio in pochi minuti.
- Tutti i particolare soggetti a stress meccanico sono trattati termicamente per la maggior durata possibile.
- Superfici dei nastri di introduzione con gradi di aderenza differenziati.
- Design di avanguardia con saldature continue e spigoli arrotondati per la migliore igienizzazione.
- Telaio costruito completamente in acciaio inox controllato e certificato.
- Non sono richiesti utensili per la preparazione al lavaggio, alla sanificazione, alla sostituzione delle lame e dei tappeti.
- Motore, quadro elettrico e parti meccaniche accessibili da un unico pannello frontale.
- Certificate CE e USDA.

## NSA 600 Automatic slicing machine

- Slicing machine that cuts uniform parallel, slices with the Grasselli multi-blade cutting system.
- 610 mm of useable width and minimum cutting thickness of 3 mm for fresh and cooked boneless meat.
- Totally automatic product infeed and outfeed for a TOTAL IN LINE solution.
- Slicing speed, height of slice chamber and product control pressure are all adjustable.
- Extremely versatile machines with a variety of slicing options.
- Variety of blade profiles to maximise performance.
- Unique automatic blade tension system.
- Automatic self lubrication system.
- Optional QUICK BLADE CHANGE system to change the complete cutting set in just minutes.
- All major dynamic components are heat-treated to extend durability.
- Multiple feed belt surface texture options enables the NSA to be customized to specific products
- Modern design with seamless welding and rounded edges to aid in efficient sanitation.
- Frame made entirely of tested and certificated stainless steel.
- No tools required to prepare for sanitation, or blade/slice set and belts change.
- Motor, electrical control panel and drive mechanism accessed from just one cover.
- CE and USDA approvals.





## NSA 600 Filetadora automatica

- Corte de filetes perfectamente paralelos con el sistema de corte multicuchilla Grasselli.
- Hasta 610 mm de ancho útil de corte y espesor mínimo de 3 mm para carnes frescas y cocidas sin hueso.
- Entrada y salida de producto totalmente automática para una solución completamente EN LÍNEA.
- Velocidad de corte, altura de la cámara de corte y presión de control de producto ajustables.
- Máquinas de gran flexibilidad con muchísimas opciones de corte.
- Diversos perfiles de cuchillas dentadas para un mejor rendimiento.
- Sistema automatizado de tensión de las cuchillas con circuito hidráulico.
- Sistema integrado de lubricación automática.
- Sistema de CAMBIO RÁPIDO DE CUCHILLAS opcional para sustituir todo el grupo de corte en pocos minutos.
- Todas las piezas expuestas a stress mecánico son tratadas térmicamente para lograr la mayor duración posible.
- Diseño de vanguardia con soldaduras continuas y aristas redondeadas para una mejor limpieza.
- Superficies de cintas de introducción con grados diferenciados de adherencia.
- Bastidor construido totalmente de acero inoxidable controlado y certificado.
- No se requieren herramientas para la preparación para la limpieza, la esterilización y la sustitución de las cuchillas y cintas.
- Motor, cuadro eléctrico y piezas mecánicas accesibles desde un único panel frontal.
- Con certificación CE y USDA.

## NSA 600 Système de tranchage automatique

- Trancheur à épaisseur constante grâce à un système multilames Grasselli.
- Jusqu'à 610 mm de largeur de tranchage utile et épaisseur minimum de 3 mm pour la viande fraîche et cuites sans os.
- Alimentation et évacuation des produits complètement automatiques pour une intégration EN LIGNE.
- Vitesse de coupe, hauteur de la chambre de coupe et pression de contrôle du produit réglables.
- Systèmes de tranchage extrêmement flexibles et pourvus de nombreuses épaisseurs de tranchage.
- Différents profils de lames pour une coupe parfaite
- Système de tension des lames automatique à circuit hydraulique.
- Lubrification automatique intégrée.
- Système de CHANGEMENT DE LAMES RAPIDE EN OPTION pour remplacer le jeu de lames en quelques minutes seulement.
- Toutes les pièces mécaniques ont été traitées avec un procédé thermique.
- Design avant-gardiste avec soudures continues et coins arrondis pour une hygiène optimale.
- Surfaces des tapis introduction à degrés d'adhérence différenciés.
- Châssis en inox contrôlé et certifié.
- Aucun outil est nécessaire pour le nettoyage ou le remplacement des lames et des tapis.
- Moteur, tableau électrique et parties mécaniques accessibles par un unique panneau frontal.
- Certifiées CE, USDA.



## NSA 600 автоматическая Гаттермессермашина für Fleisch

- Schnitte von perfekt parallelen Scheiben mit dem Grasselli Multimeschersystem.
- Bis zu 610 mm Schnittbreite und einer Mindestschnittstärke von 3 mm für frisches oder gekochtes Fleisch ohne Knochen.
- Produktzufuhr und -auslauf vollautomatisch für eine Lösung, die vollständig IN DIE FERTIGUNGSLINIE INTEGRIERT werden kann.
- Schnittgeschwindigkeit, Höhe der Schnittkammer und Druck für die Produktkontrolle sind einstellbar.
- Ausgesprochen flexible Maschine mit vielen Schnittoptionen.
- Unterschiedlich gezahnte Messer für eine optimale Leistung.
- Hydraulisches Klingenspannsystem.
- Integriertes System für automatische Schmierung.
- Optionales MESSERSCHNELLWECHSELSYSTEM um das gesamte Schneidset in wenigen Minuten zu wechseln.
- Alle Teile die einer mechanischen Belastung ausgesetzt sind, wurden thermisch behandelt um eine höhere Lebensdauer zu garantieren.
- Innovatives Design mit durchgehenden Schweißnähten und abgerundeten Kanten für eine bessere und optimale Reinigung.

- Oberflächen der Transportbänder mit unterschiedlichem Haftgrad.
- Der Rahmen besteht vollständig aus geprüftem und zertifiziertem Edelstahl.
- Es sind keine Werkzeuge für die Vorbereitung der Reinigung und für den Wechsel der Messer notwendig.
- Auf den Motor, die elektrische Anlage und die mechanischen Teile kann über ein einziges Frontpanel zugegriffen werden.
- CE- und USDA-Zertifizierung.

## NSA 1000 Автоматическая машина для нарезки мяса кусочками

- Многоножевая система нарезки Grasselli обеспечивает порционирование на идеально ровные ломтики
- Полезная ширина нарезки до 610 мм, минимальная толщина нарезки бескостного и свежего мяса - 3 мм
- Полностью автоматическая подача и выход продукта позволяет включить машину В СОСТАВ ЛИНИИ
- Регулируемая скорость нарезки, высота зоны нарезки и давление, воздействующее на продукт
- Машины отличаются высокой гибкостью и разнообразием видов нарезки
- Различные формы зубчатых ножей для обеспечения лучшей производительности
- Автоматизированная система натяжения ножей с гидравлической системой
- Встроенная система автоматической смазки
- Опционально поставляется система БЫСТРОЙ СМЕНЫ НОЖЕЙ для замены всего комплекта нарезки за несколько минут
- Все детали, подверженные механическому напряжению, проходят термическую обработку для продления срока эксплуатации

- Удобная конструкция с непрерывными сварными швами и закругленными кромками для лучшей санитарной обработки
- Рама полностью выполнена из проверенной и сертифицированной нержавеющей стали
- Подготовка к мойке, санитарной обработке и замене ножей производится без использования инструментов
- Доступ к двигателю, электропроводке и механическим деталям осуществляется через единую фронтальную панель
- Сертификаты CE и USDA



### Dati tecnici / Technical Data NSA600

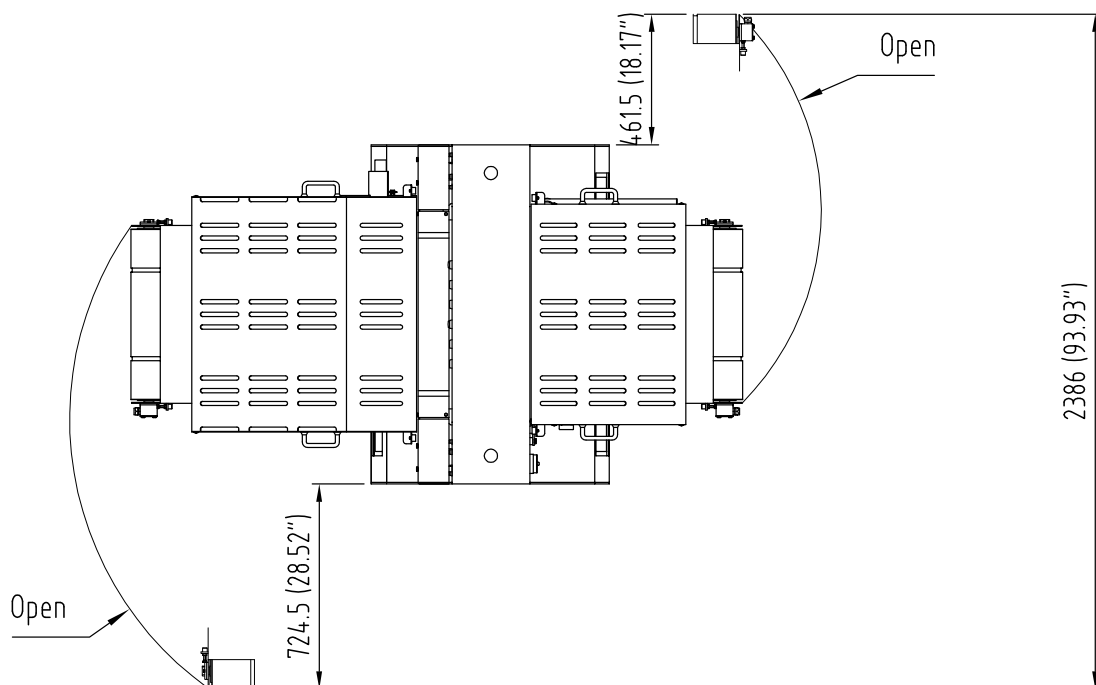
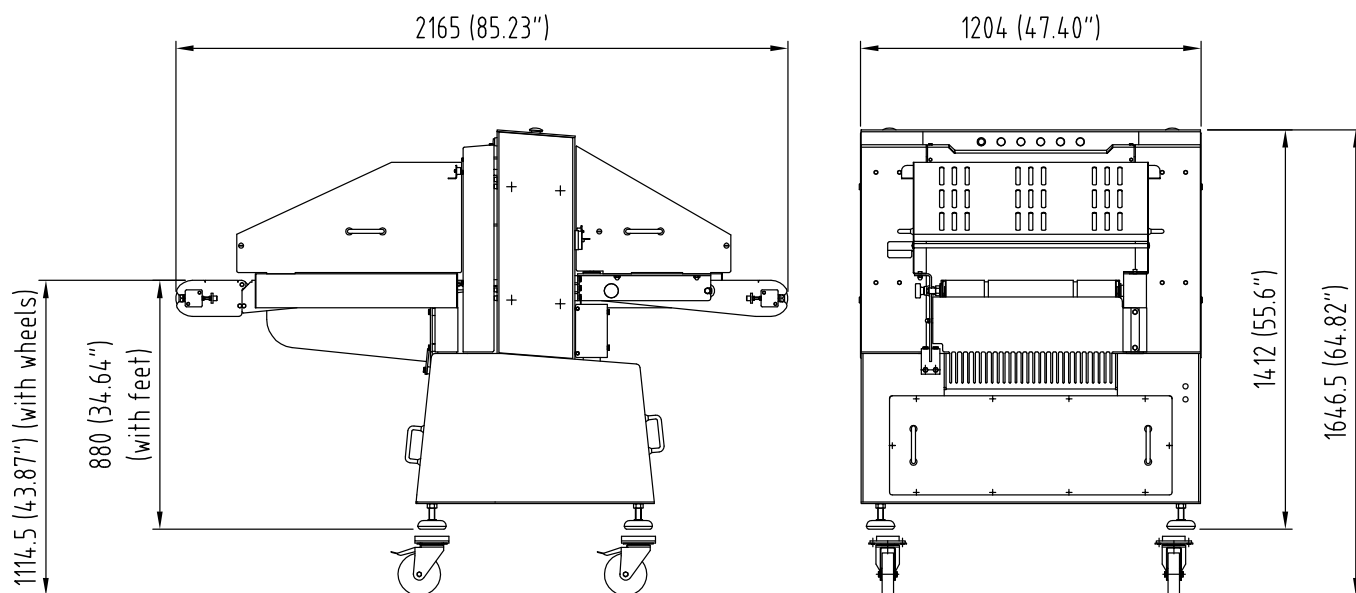
Height	1412 mm	55,60"
Width	1204 mm	47,44"
Depth	2165 mm	85,30"
Weight	780 Kg	780 Kg
Motor Power (KW)	4,6 Kw	4,6 Kw
Noise Level	71 db	71 db
Maximum working width	610 mm	24,02"
Operator control circuit	24 V	24 V
Minimum slicing pitch	3 mm	0,12"
Air consumption	20 l/min	20 l/min





### Dati tecnici / Technical Data NSA600

Height	1412 mm	55,60"
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Air consumption	20 l/min	20 l/min





## NSA1000 Tagliafettine automatica

- Taglio di fettine perfettamente parallele con il sistema di taglio multilama Grasselli.
- 1000 mm di larghezza utile di taglio e spessore minimo di 5 mm per carni fresche e cotte senz'osso.
- Ingresso e uscita prodotto completamente automatica per una soluzione completamente IN LINEA.
- Velocità di taglio, altezza della camera di taglio e pressione di controllo prodotto regolabili.
- Macchine di elevatissima flessibilità con moltissime opzioni di taglio.
- Svariati profili di lame per il miglior rendimento.
- Sistema di tensione delle lame automatizzato con circuito idraulico.
- Sistema integrato di lubrificazione automatica.
- Sistema di CAMBIO RAPIDO LAME opzionale per sostituire l'intero set di taglio in pochi minuti.
- Tutti i particolare soggetti a stress meccanico sono trattati termicamente

per la maggior durata possibile.

- Superfici dei nastri di introduzione con gradi di aderenza differenziati.
- Design di avanguardia con saldature continue e spigoli arrotondati per la migliore igienizzazione.
- Telaio costruito completamente in acciaio inox controllato e certificato.
- Non sono richiesti utensili per la preparazione al lavaggio, alla sanificazione, alla sostituzione delle lame e dei tappeti.
- Motore, quadro elettrico e parti meccaniche accessibili da un unico pannello frontale.
- Certificate CE e USDA.

## NSA 1000 Automatic slicing machine

- Slicing machine that cuts uniform parallel, slices with the Grasselli multi-blade cutting system.
- 1000 mm of useable width and minimum cutting thickness of 5 mm for fresh and cooked boneless meat.
- Totally automatic product infeed and outfeed for a TOTAL IN LINE solution.
- Slicing speed, height of slice chamber and product control pressure are all adjustable.
- Extremely versatile machines with a variety of slicing options.
- Variety of blade profiles to maximise performance.
- Unique automatic blade tension system.
- Automatic self lubrication system.
- Optional QUICK BLADE CHANGE system to change the complete cutting set in just minutes.
- All major dynamic components are heat-treated to extend durability.
- Multiple feed belt surface texture options enables the NSA to be customized to specific products
- Modern design with seamless welding and rounded edges to aid in

efficient sanitation.

- Frame made entirely of tested and certificated stainless steel.
- No tools required to prepare for sanitation, or blade/slice set and belts change.
- Motor, electrical control panel and drive mechanism accessed from just one cover.
- CE and USDA approvals.





## NSA 1000 Filetadora automatica

- Corte de filetes perfectamente paralelos con el sistema de corte multicuchilla Grasselli.
- Hasta 1000 mm de ancho útil de corte y espesor mínimo de 5 mm para carnes frescas y cocidas sin hueso.
- Entrada y salida de producto totalmente automática para una solución completamente EN LÍNEA.
- Velocidad de corte, altura de la cámara de corte y presión de control de producto ajustables.
- Máquinas de gran flexibilidad con muchísimas opciones de corte.
- Diversos perfiles de cuchillas dentadas para un mejor rendimiento.
- Sistema automatizado de tensión de las cuchillas con circuito hidráulico.
- Sistema integrado de lubricación automática.
- Sistema de CAMBIO RÁPIDO DE CUCHILLAS opcional para sustituir todo el grupo de corte en pocos minutos.
- Todas las piezas expuestas a stress mecánico son tratadas térmicamente para lograr la mayor duración posible.
- Diseño de vanguardia con soldaduras continuas y aristas redondeadas para una mejor limpieza.
- Superficies de cintas de introducción con grados diferenciados de adherencia.
- Bastidor construido totalmente de acero inoxidable controlado y certificado.
- No se requieren herramientas para la preparación para la limpieza, la esterilización y la sustitución de las cuchillas y cintas.
- Motor, cuadro eléctrico y piezas mecánicas accesibles desde un único panel frontal.
- Con certificación CE y USDA.

## NSA 1000 Système de tranchage automatique

- Trancheur à épaisseur constante grâce à un système multilames Grasselli.
- Jusqu'à 1000 mm de largeur de tranchage utile et épaisseur minimum de 5 mm pour la viande fraîche et cuites sans os.
- Alimentation et évacuation des produits complètement automatiques pour une intégration EN LIGNE.
- Vitesse de coupe, hauteur de la chambre de coupe et pression de contrôle du produit réglables.
- Systèmes de tranchage extrêmement flexibles et pourvus de nombreuses épaisseurs de tranchage.
- Différents profils de lames pour une coupe parfaite
- Système de tension des lames automatique à circuit hydraulique.
- Lubrification automatique intégrée.
- Système de CHANGEMENT DE LAMES RAPIDE EN OPTION pour remplacer le jeu de lames en quelques minutes seulement.
- Toutes les pièces mécaniques ont été traitées avec un procédé thermique.
- Design avant-gardiste avec soudures continues et coins arrondis pour une hygiène optimale.
- Surfaces des tapis introduction à degrés d'adhérence différenciés.
- Châssis en inox contrôlé et certifié.
- Aucun outil est nécessaire pour le nettoyage ou le remplacement des lames et des tapis.
- Moteur, tableau électrique et parties mécaniques accessibles par un unique panneau frontal.
- Certifiées CE, USDA.



## NSA 1000 automatische Gattermessermaschine für Fleisch

- Schnitte von perfekt parallelen Scheiben mit dem Grasselli Multimessersystem.
- Bis zu 1000 mm Schnittbreite und einer Mindestschnittstärke von 5 mm für frisches oder gekochtes Fleisch ohne Knochen.
- Produktzufuhr und -auslauf vollautomatisch für eine Lösung, die vollständig IN DIE FERTIGUNGSLINIE INTEGRIERT werden kann.
- Schnittgeschwindigkeit, Höhe der Schnittkammer und Druck für die Produktkontrolle sind einstellbar.
- Ausgesprochen flexible Maschine mit vielen Schnittoptionen.
- Unterschiedlich gezahnte Messer für eine optimale Leistung.
- Hydraulisches Klingenspannsystem.
- Integriertes System für automatische Schmierung.
- Optionales MESSERSCHNELLWECHSELSYSTEM um das gesamte Schneidset in wenigen Minuten zu wechseln.
- Alle Teile die einer mechanischen Belastung ausgesetzt sind, wurden thermisch behandelt um eine höhere Lebensdauer zu garantieren.
- Innovatives Design mit durchgehenden Schweißnähten und abgerundeten Kanten für eine bessere und optimale Reinigung.
- Oberflächen der Transportbänder mit unterschiedlichem Haftgrad.
- Der Rahmen besteht vollständig aus geprüftem und zertifiziertem Edelstahl.
- Es sind keine Werkzeuge für die Vorbereitung der Reinigung, für den Wechsel der Messer und der Bänder notwendig.
- Auf den Motor, die elektrische Anlage und die mechanischen Teile kann über ein einziges Frontpanel zugegriffen werden.
- CE- und USDA-Zertifizierung.

## NSA 1000 Автоматическая машина для нарезки мяса кусочками

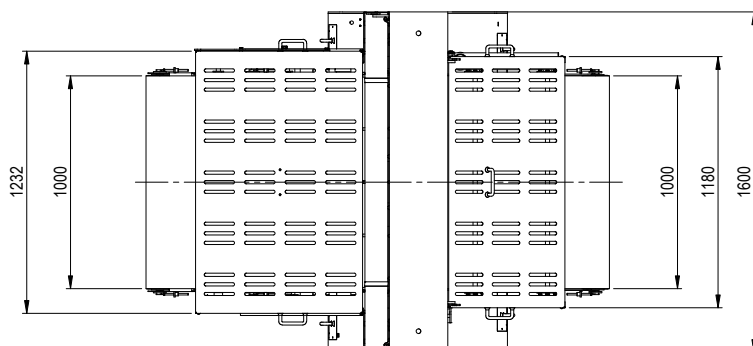
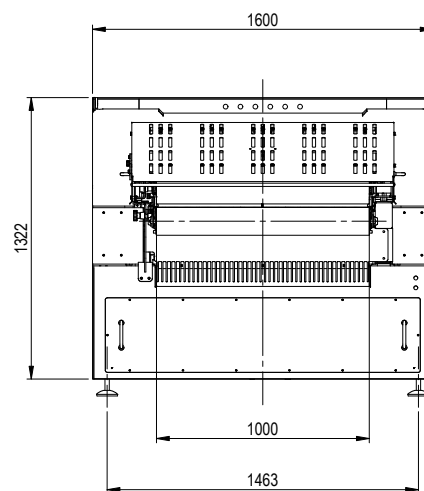
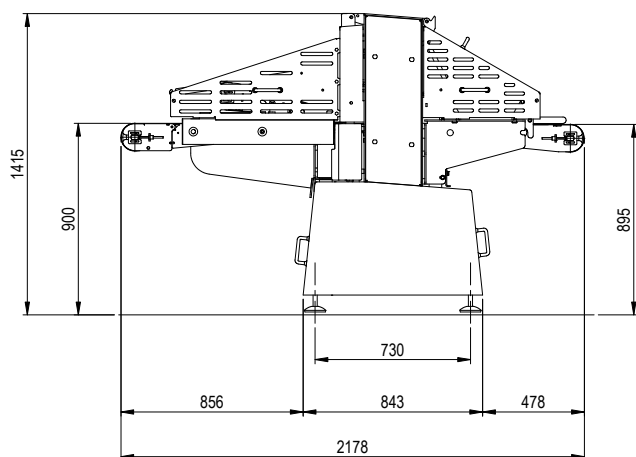
- Многоножевая система нарезки Grasselli обеспечивает порционирование на идеально ровные ломтики
- Полезная ширина нарезки до 1000 мм, минимальная толщина нарезки бескостного и свежего мяса - 5 мм
- Полностью автоматическая подача и выход продукта позволяет включить машину В СОСТАВ ЛИНИИ
- Регулируемая скорость нарезки, высота зоны нарезки и давление, воздействующее на продукт
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- Все детали, подверженные механическому напряжению, проходят термическую обработку для продления срока эксплуатации
- Удобная конструкция с непрерывными сварными швами и закругленными кромками для лучшей санитарной обработки
- Рама полностью выполнена из проверенной и сертифицированной нержавеющей стали
- Подготовка к мойке, санитарной обработке и замене ножей производится без использования инструментов
- Доступ к двигателю, электрощиту и механическим деталям осуществляется через единую фронтальную панель
- Сертификаты CE и USDA



### Dati tecnici / Technical Data NSA1000

Height	1415 mm	55,51"
Width	1600 mm	47,24"
Depth	2178 mm	85,24"
Weight	1190 Kg	1190 Kg
Motor Power (KW)	6 Kw	6 Kw
Noise Level	71 db	71 db
Maximum working width	1000 mm	24,02"
Operator control circuit	24 V	24 V
Minimum slicing pitch	5 mm	0,2"
Air consumption	20 l/min	20 l/min

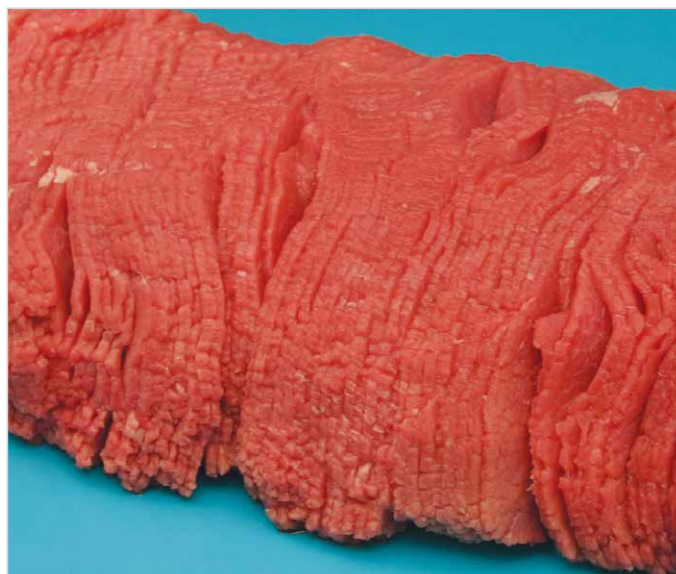




Slicers for fresh boneless  
and bone-in meats



# NSL Series



## NSL Tagliafettine

- Taglio di fettine perfettamente parallele con il sistema di taglio multilama Grasselli.
- Capacità di taglio fino a 2.000 kg./ora.
- Possibilità di tagliare sia carni fresche che carni con osso e congelate; in questo caso, lo spessore minimo è di 10 mm.
- Sistema di pressione prodotto sezionale per il taglio di prodotti con osso sulle versioni BI.
- Taglio di prodotti freschi con osso senza produzione di scaglie di osso, fastidiose per il consumo e deleterie per l'imballaggio.
- Velocità di taglio, altezza della camera di taglio e pressione di controllo prodotto regolabili.
- Macchine di elevatissima flessibilità con moltissime opzioni di taglio.
- Soluzioni speciali disponibili su richiesta del cliente (es. camere di taglio con spessori di taglio differenziati).
- Svariati profili di lame dentellate per i diversi prodotti.
- Nastro modulare di uscita prodotto opzionale disponibile in varie lunghezze, (anche con certificazione NSF).
- Sistema di tensione delle lame automatizzato con circuito idraulico (accessorio disponibile su richiesta su NSL400).
- Sistema integrato di lubrificazione automatica.
- Sistema di CAMBIO RAPIDO LAME opzionale per sostituire l'intero set di taglio in pochi minuti (il sistema di tensione lame automatizzato è indispensabile).
- Tutti i particolare soggetti a stress meccanico sono trattati termicamente per la maggior durata possibile.
- Design di avanguardia con saldature continue e spigoli arrotondati per la migliore igienizzazione.
- Telaio costruito completamente in acciaio inox controllato e certificato.
- Non sono richiesti utensili per la preparazione al lavaggio, alla sanificazione e alla sostituzione delle lame.

## NSL Slicing machine

- Slicing machine that cuts perfectly parallel slices with Grasselli multi-blade cutting system.
- Slicing capacity of up to 2,000 kg/hour.
- Slices bone-in or boneless fresh meat and frozen meat (minimum thickness 10 mm).
- Sectional product hold down system for cutting bone-in meat for BI version.
- Cuts fresh bone-in product without causing potentially dangerous bone chips or splinters.
- Slice speed, height of slice chamber and product control pressure are all adjustable.
- Extremely versatile machines with a variety of slicing options for different type of products.
- Customized solutions available upon customer request (i.e. slice chambers with varying cut thicknesses).
- Variety of blade profiles to maximise performance.
- Optional modular outfeed belt available in various lengths (also with NSF certification).
- Unique automatic blade tension system (available upon request for NSL400).
- Automatic self lubrication system.
- Optional QUICK BLADE CHANGE system to change the complete cutting set in just minutes. (the automatic blade tension system is indispensable)
- All major dynamic components are heat-treated to extend durability.
- Modern design with seamless welding and radiused edges to aid in efficient sanitation.
- Frame made entirely of tested and certificated stainless steel.
- No tools required to prepare for sanitation, or blade/slice set change.





## NSL Filetadora

- Corte de filetes perfectamente paralelos con el sistema de corte multicuchilla Grasselli.
- Capacidad de corte hasta 2.000 kg/h.
- Posibilidad de cortar tanto carnes frescas como carnes con hueso y congeladas; en este caso, el espesor mínimo es de 10 mm.
- Sistema de presión de producto seccional para el corte de productos con hueso para las versiones BI.
- Corte de productos frescos con hueso sin producción de astillas de hueso, desagradables para el consumo y peligrosas para el embalaje.
- Velocidad de corte, alto de la cámara de corte y presión de control de producto ajustables.
- Máquinas de gran flexibilidad con muchísimas opciones de corte.
- Soluciones especiales disponibles bajo pedido del cliente (por ej. cámaras de corte con espesores de corte diferenciados).
- Diversos perfiles de cuchillas dentadas para los diferentes productos.
- Cinta modular de salida de producto opcional disponible en varias longitudes (también con certificación NSF).
- Sistema automatizado de tensión de las cuchillas con circuito hidráulico (accesorio disponible bajo pedido para NSL400).
- Sistema integrado de lubricación automática.
- Sistema de CAMBIO RÁPIDO DE CUCHILLAS opcional para sustituir todo el grupo de corte en pocos minutos (el sistema automatizado de tensión de cuchillas es indispensable).
- Todas las piezas expuestas a stress mecánico son tratadas térmicamente para lograr la mayor duración posible.
- Diseño de vanguardia con soldaduras continuas y aristas redondeadas para una mejor limpieza.
- Bastidor construido totalmente de acero inoxidable controlado y certificado.
- No se requieren herramientas para la preparación para la limpieza, la esterilización y la sustitución de las cuchillas.

## NSL Trancheur

- Trancheur à épaisseur constante grâce au système multilames Grasselli.
- Jusqu'à 2 000 Kg/h de tranchage.
- Tranchage des viandes avec os ou congelées d'une épaisseur de coupe minimum de 10 mm.
- Système de maintien du produit avec os dans la chambre de tranchage par sections pour les versions BI.
- Coupe de produits frais avec os sans production de la poudre d'os, désagréables lors de la consommation du produit et pouvant endommager les emballages.
- Vitesse de coupe, hauteur de la chambre de coupe et pression de contrôle du produit réglables.
- Systèmes de tranchage extrêmement flexibles et pourvus de nombreuses épaisseurs de tranchage.
- Des solutions spécifiques disponibles à la demande du client (par ex. chambres de coupe avec épaisseurs de coupe différentes).
- Différents profils de lames pour les différents produits.
- Convoyeur de sortie produit modulaire en option disponibles en différentes longueurs (certification NSF).
- Système de tension des lames automatique à circuit hydraulique (accessoire disponible sur demande pour NSL400).
- Lubrification automatique intégrée.
- Système de CHANGEMENT DE LAMES RAPIDE EN OPTION pour remplacer le jeu de lames en quelques minutes seulement (le système de tension des lames automatique est indispensable).
- Toutes les pièces mécaniques ont été traitées avec un procédé thermique.
- Design avant-gardiste avec soudures continues et coins arrondis pour une hygiène optimale.
- Châssis en inox contrôlé et certifié.
- Aucun outil est nécessaire pour le nettoyage ou le remplacement des lames.



## NSL Gattermessermaschine für Fleisch

- Schnitte von perfekt parallelen Scheiben mit dem Grasselli Multimeschersystem.
- Schneidkapazität bis zu 2.000 kg/Stunde.
- Möglichkeit sowohl frisches Fleisch als auch Fleisch mit Knochen und oder gefrorenes Fleisch zu schneiden, - die Mindeststärke beträgt in diesem Fall 10 mm.
- Separates Andrucksystem für den Schnitt von Fleisch mit Knochen für BI Versionen.
- Splitterfreier Schnitt von Fleisch mit Knochen.
- Schnittgeschwindigkeit, Höhe der Schnittkammer und Druck für die Produktkontrolle sind einstellbar.
- Auf Kundenwunsch sind Sonderlösungen möglich (zum Beispiel Schneidkammern mit unterschiedlichen Schnittstärken).
- Unterschiedlich gezahnte Messer für die verschiedenen Produkte.
- Modulares Transportband für den Produktransport als Sonderzubehör, in verschiedenen Längen, (auch mit NSF-Zertifizierung).
- Hydraulisches Klingenspannsystem (auf Anfrage verfügbares Zubehör für NSL400).
- Integriertes System für automatische Schmierung
- Optionales MESSERSCHNELLWECHSELSYSTEM um das gesamte Schneidset in wenigen Minuten zu wechseln (das automatische Klingenspannsystem ist Voraussetzung ).
- Alle Teile die einer mechanischen Belastung ausgesetzt sind, wurden thermisch behandelt um eine höhere Lebensdauer zu garantieren.
- Innovatives Design mit durchgehenden Schweißnähten und abgerundeten Kanten für eine bessere und optimale Reinigung.
- Der Rahmen besteht vollständig aus geprüftem und zertifiziertem Edelstahl.
- Es sind keine Werkzeuge für die Vorbereitung der Reinigung und für den Wechsel der Messer notwendig.

## NSL Maschine для нарезки ломтиками

- Многоножевая система нарезки Grasselli обеспечивает порционирование на идеально параллельные ломтики.
- Производительность до 2.000 кг/час.
- Возможность нарезки свежего мяса, а также мяса с костью и замороженного мяса; в этом случае минимальная толщина нарезки – 10 мм.
- Секционная система прижима продукта для нарезки продуктов с костью для BI версий.
- Нарезка свежих продуктов с костью без осколков, которые делают продукт неприятным для потребления и могут повредить упаковку.
- Регулируемая скорость нарезки, высота камеры резки и давление, воздействующее на продукт.
- Машины отличаются высочайшей гибкостью и разнообразием видов нарезки.
- Специальные решения, разработанные по индивидуальному заказу клиента (например, камеры резки для нарезки на ломтики различной толщины)
- Различные формы зубчатых ножей для обеспечения пер диверсии продукты
- Опционально - модульная лента для отвода продукта, доступны в различных длинах, (также с сертификатом NSF).
- Автоматизированная система натяжения ножей с гидравлической системой (принадлежность поставляется по заявке - NSL400).
- Встроенная система автоматической смазки.
- Опционально поставляется система БЫСТРОЙ СМЕНЫ НОЖЕЙ для замены всего комплекта для нарезки за несколько минут (обязательна автоматизированная система натяжения ножей).
- Все детали, подверженные механическому напряжению, проходят термическую обработку для продления срока эксплуатации
- Авангардный дизайн с непрерывными сварными швами и закругленными кромками для лучшей санитарной обработки.
- Рама полностью выполнена из проверенной и сертифицированной нержавеющей стали.
- Подготовка к мойке, санитарной обработке и замене ножей производится без использования инструментов.

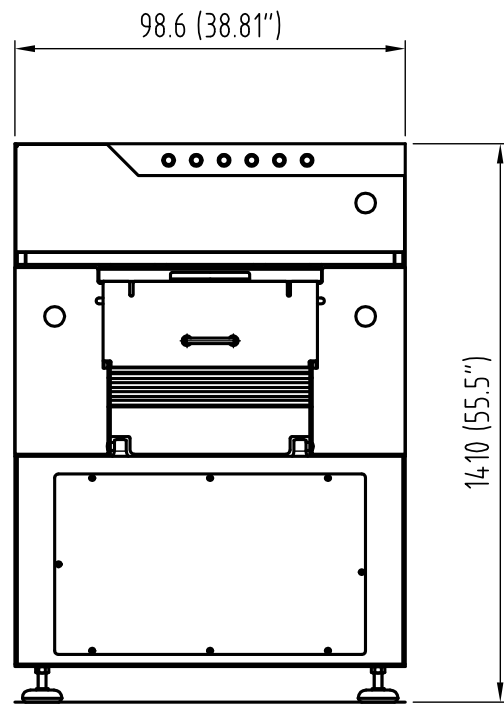
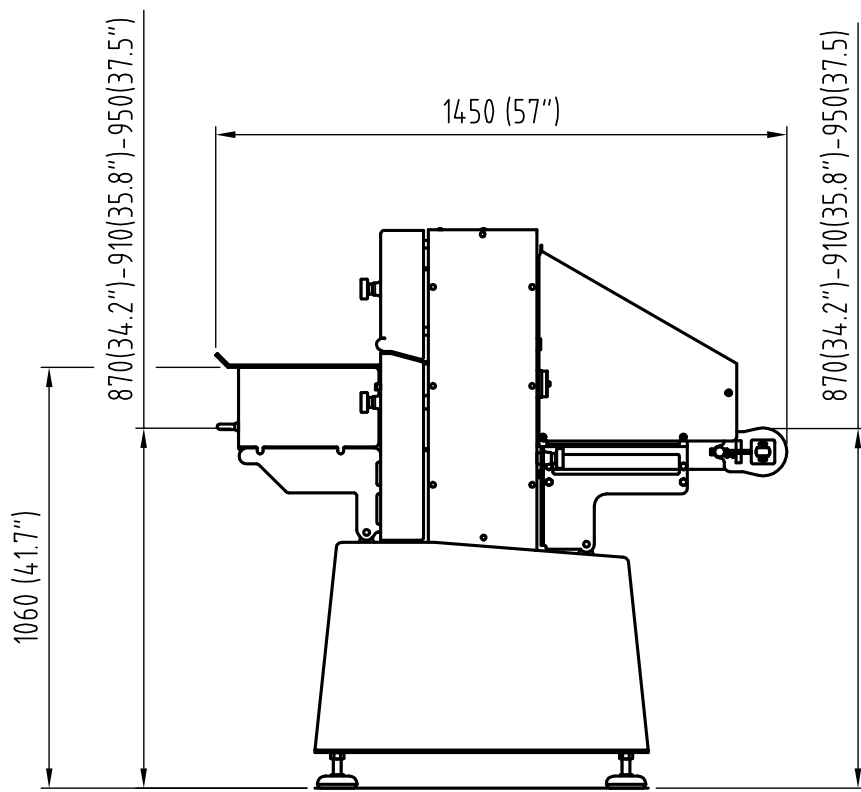


### Dati tecnici / Technical Data

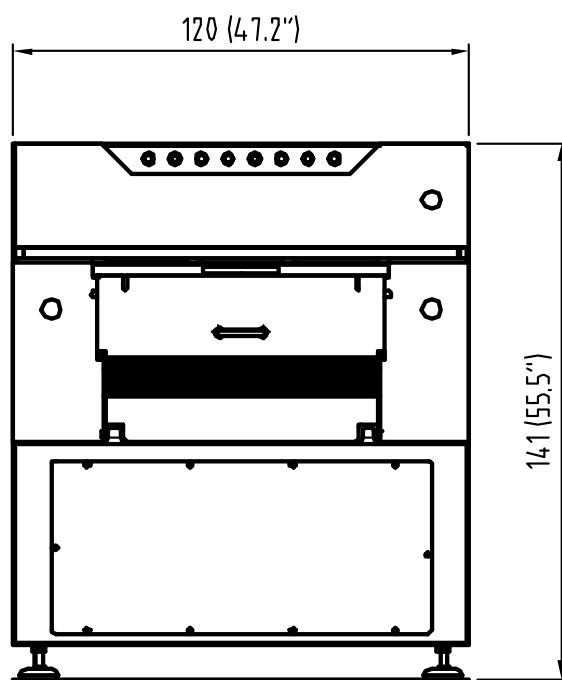
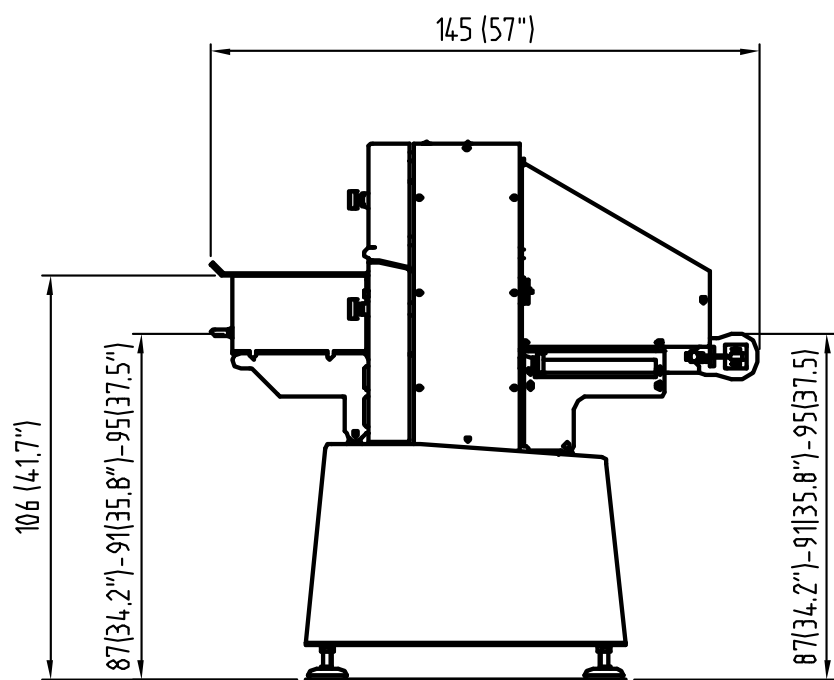
	NSL400		NSL600		NSL800		NSL1000	
Height	1410 mm	55,50"	1410 mm	55,50"	1410 mm	55,50"	1410 mm	55,50"
Width	986 mm	38,81"	1200 mm	47,20"	1382 mm	54,40"	1558 mm	61,34"
Depth	1450 mm	57,09"	1450 mm	57,09"	1450 mm	57,09"	1595 mm	68,8"
Weight	590 Kg		700 Kg		810 Kg		920 Kg	
Motor Power	4,2 Kw		4,2 Kw		4,2 Kw		4,2 Kw	
Noise Level	68 db		68 db		68 db		68 db	
Maximum working width	396 mm	15,59"	610 mm	24,03"	792 mm	31,20"	990 mm	38,98"
Operator control circuit	24 V		24 V		24 V		24 V	
Minimum slicing pitch bone-in	10 mm	0,39"	10 mm	0,39"	12 mm	0,47"		
Minimum slicing pitch boneless	2,5 mm	0,09"	3 mm	0,12"	5 mm	0,2"	7 mm	0,28"
Air consumption	30 l/min		30 l/min		30 l/min		30 l/min	



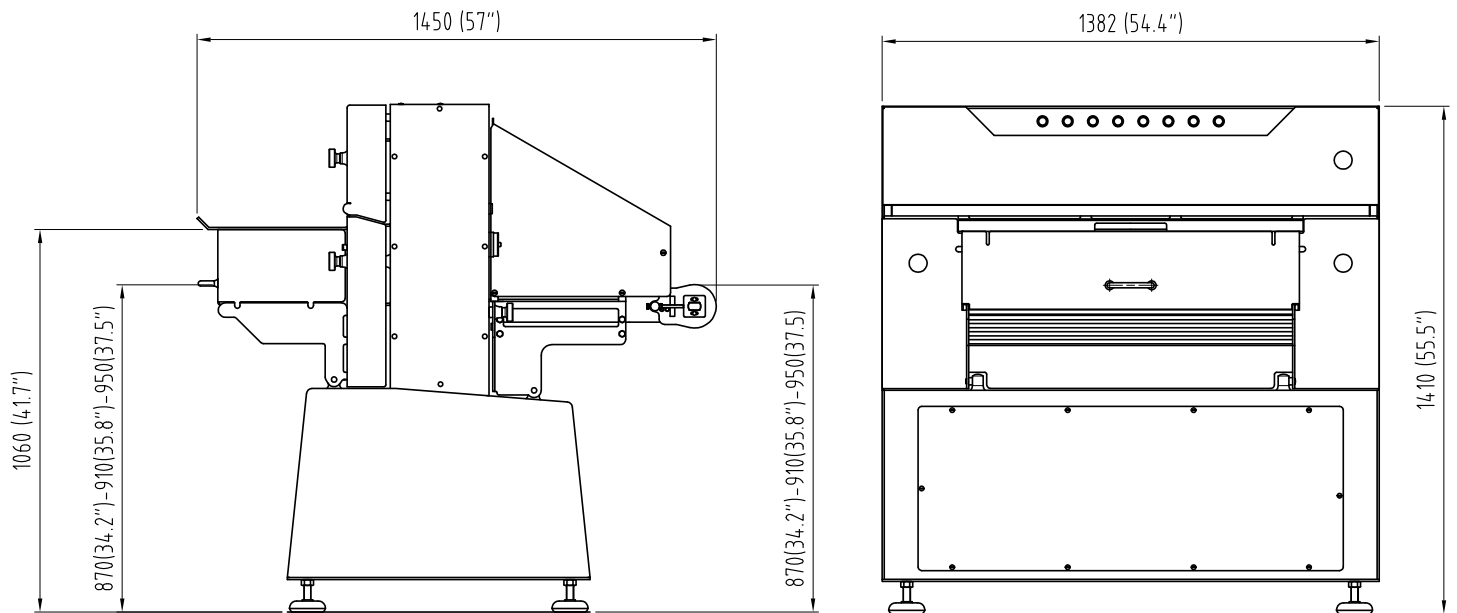
## NSL400



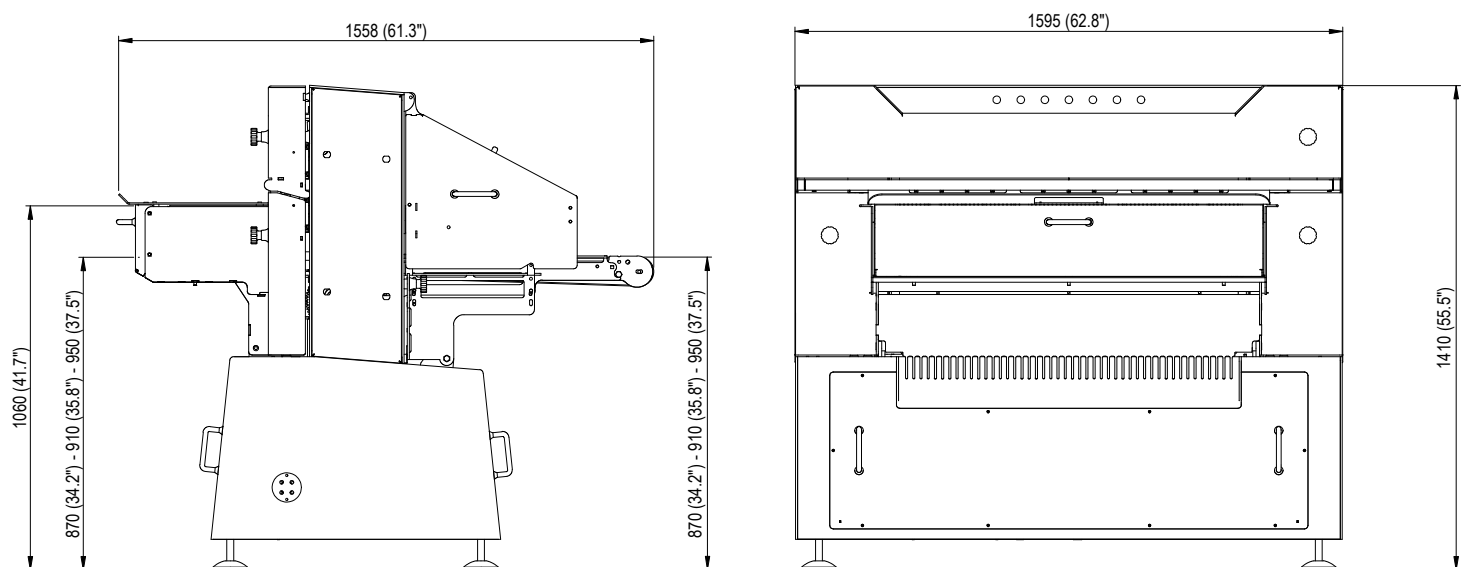
## NSL600



## NSL800



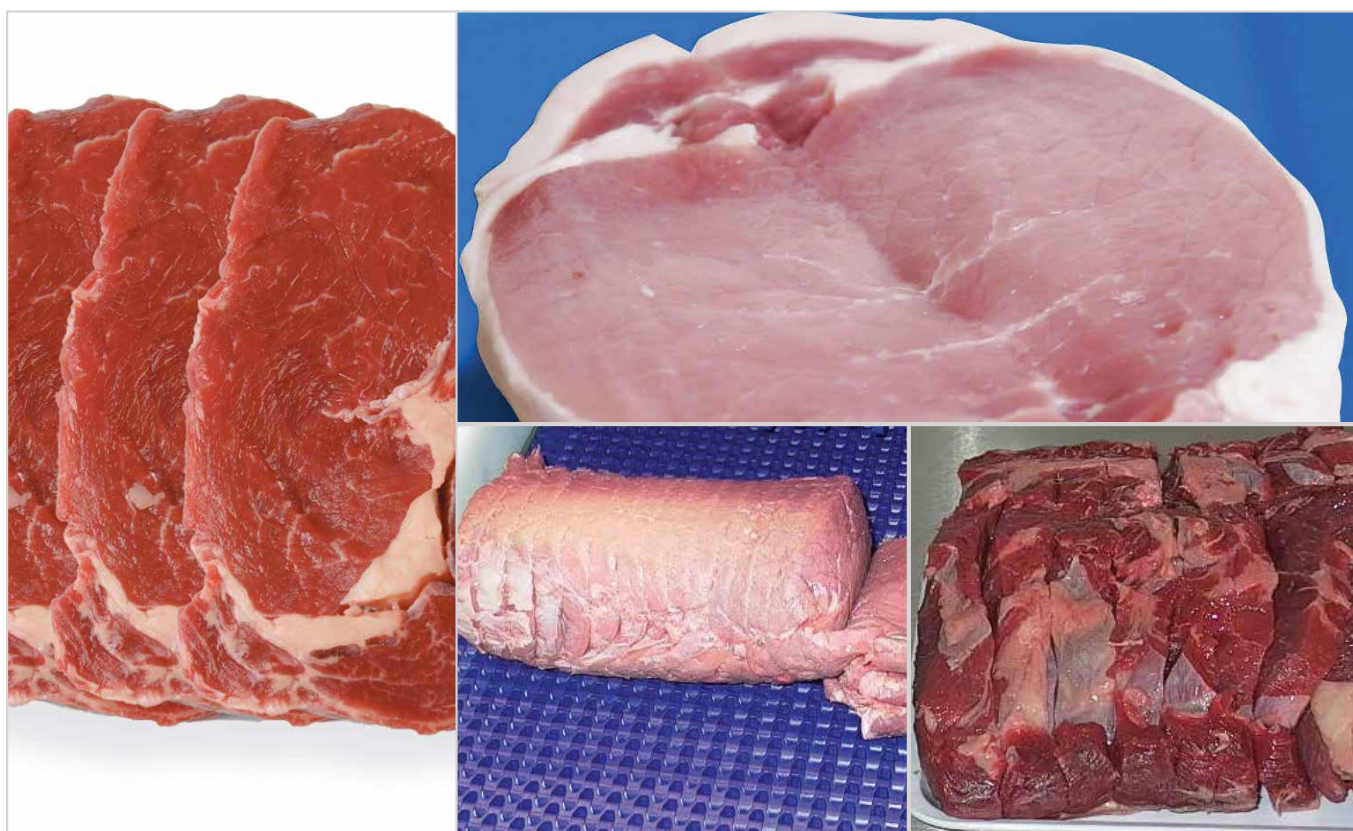
## NSL1000



## Portion control slicer for fresh boneless meat









### CWS Tagliafettine a peso controllato per carni fresche senz'osso

- Peso e spessore costante.
- Max capacità di taglio di 10500 fette/ora (fino a 6 cicli per minuto).
- Estrema accuratezza del peso / Tolleranza +/- 2 gr. tra le fette unita ad un'eccellente qualità di taglio.
- Nessuna rifilatura necessaria prima della lavorazione, nessuna selezione dopo il taglio.
- Alta produttività.
- Possibilità di programmare pesi variabili all'interno dello stesso pezzo.
- Facilità di impostazione comandi attraverso il video touchscreen; programmi dedicati per tutti i tipi di carne.
- Diagnosi macchina computerizzata e disponibile su schermo.
- Taglio calibrato a partire da 30 gr. / 1 oncia.
- Integre linee di processo automatizzate.
- Comodità di caricamento prodotto.
- Uscita compatta del prodotto.
- Facilità di installazione e messa in funzione.
- Completamente apribile e accessibile per il lavaggio e l'igienizzazione.



### CWS Constant weight slicer for boneless fresh meat

- Constant correlation means "One-weight=one-thickness".
- Up to 10.500 slices per hour (up to 6 cycles per minute).
- Extreme accuracy in portioning ( $\pm 2$  gr. regardless the targeted weight) plus excellent slice quality.
- No trimming needed prior to slicing, no need for weight grading systems afterwards.
- Yields in the high 90% range.
- Programmable slicing, variable slices throughout each piece.
- User friendly control and visual interface software for all species of meats plus customized "recipes" including NO-WASTE cutting option.
- Full diagnostics through onboard computer.
- Fresh products can be sliced from as small as 30 gr./1 oz. and upwards.
- «In line» product flow.
- Ergonomic horizontal, not vertical feed position.
- The whole product is discharged intact and sliced.
- Easy installation and start-up.
- Total access for sanitation & maintenance.



### CWS Fileteadora de peso controlado de carne fresca

- "Un peso = un espesor" correspondencia perfecta y constante.
- Hasta 10.500 lonchas por hora (hasta 6 ciclos / minuto).
- Precisión extrema en porcionar ( $\pm 2$  gr. no importa el peso requerido) junto con calidad excelente de las lonchas.
- No hay que arreglar los cortes antes de cortar, ni sirve seleccionar el peso después.
- Rendimiento mínimo 90%.
- Cortes programables: se logran lonchas de distintos calibres de la misma pieza.
- Mandos disponible en la sencilla pantalla táctil y programas específicos por todos los tipos de carnes; inclusive "recetas" a medida cliente y con opción "CORTE MERMA CERO".
- Diagnóstico máquina por medio del ordenador y visible en pantalla.
- Cortes de carnes fresca a partir de 30 gr. /1 oz. hacia arriba.
- Complementar a líneas de proceso automatizadas.
- Posición de carga horizontal ergonómica y fácil.
- El producto sale íntegro y cortado.
- Instalación y puesta en marcha sencilla y rápida.
- Acceso total para sanificación y mantenimiento.

## CWS Schneidmaschine mit kontrolliertem Gewicht für frisches Fleisch

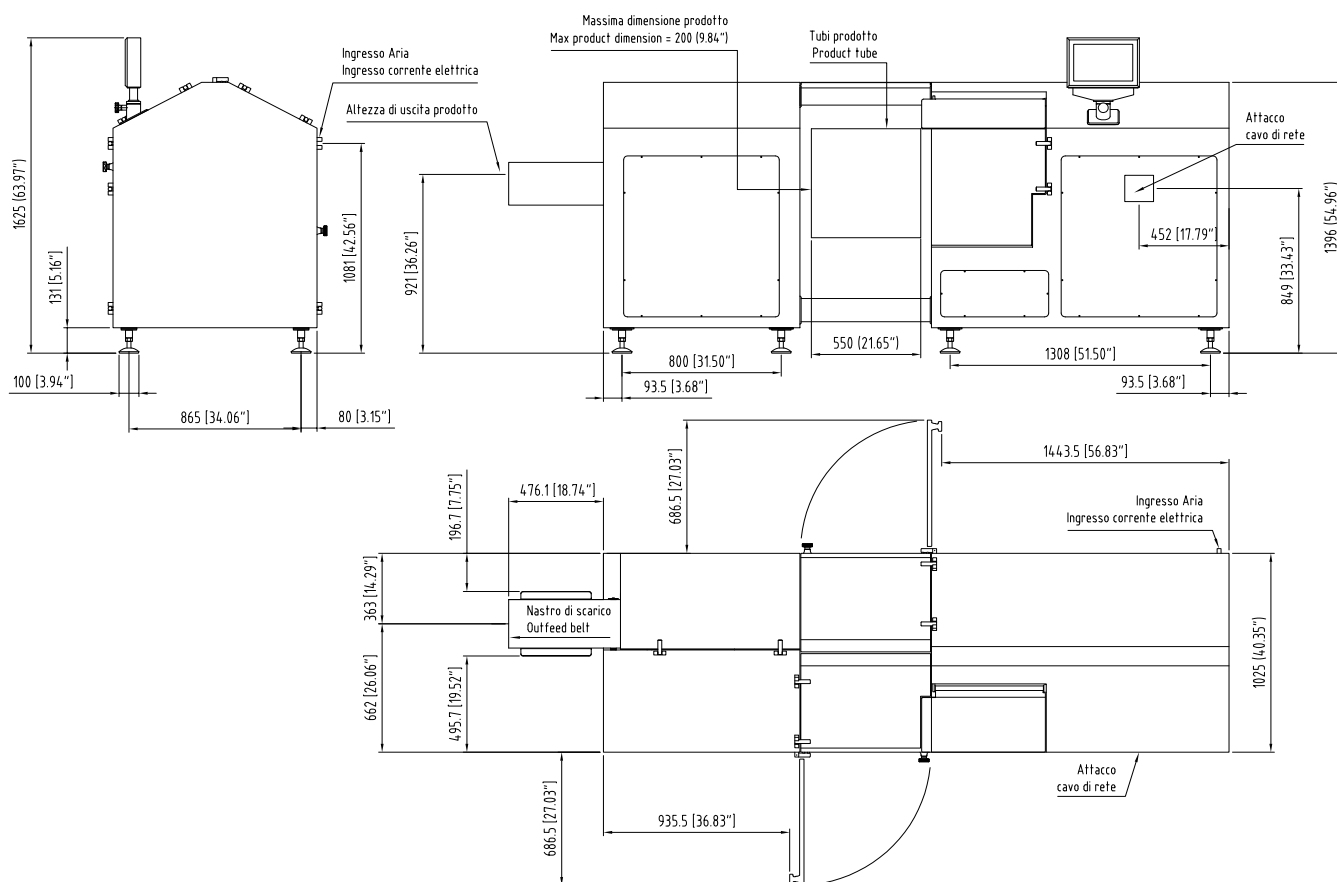
- Konstanter soll / ist Abgleich garantiert "ein Gewicht = eine Scheibenstärke".
- Bis zu 10.500 Schnitte pro Stunde bei bis zu 6 Kammerfüllungen pro Minute.
- Extrem genau in der Portionierung ( +/- 2 Gramm – unabhängig vom gewählten Gewicht ) sowie herausragende Scheibenqualität.
- Kein Zuschneiden und Anfrosten der Teilstücke notwendig, Kontrollwiegen der Portionen entfällt.
- Weit über 90 % Ausbeute.
- Unterschiedliche Gewichte / Scheibenstärken je Teilstück programmierbar.
- Benutzerfreundliche Bedienung und Optische-Interface-Software für alle Fleischsorten plus kundenspezifische Programme inklusive der "Null-Abschnitt" Option.
- Interne Diagnose über Maschinenstatus.
- Mindestscheibengewicht ab 30 Gramm aufwärts.
- "In line" Produktdurchlauf.
- Ergonomische, horizontale Beschickung.
- Produktausgabe als komplettes, geschnittenes Teilstück.
- Einfache Installation und Inbetriebnahme.
- Totaler Zugang für optimale Reinigung und Service.

## CWS Trancheure à poids et épaisseur constants pour les viandes fraîches sans os

- Poids et épaisseur constants.
- Capacité de coupe maximum de 10.500 tranches/heure (jusqu'à 6 cycles par minute).
- Précision extrême du poids / Tolérance +/- 2 gr. entre les tranches, unie à une excellente qualité de coupe.
- Aucune préparation n'est nécessaire avant le travail, aucune sélection après le tranchage.
- Productivité élevée.
- Possibilité de varier le poids des tranches à l'intérieur du même morceau.
- Facilité de réglage des commandes au moyen du vidéo touchscreen; programmes pour tous types de viande.
- Diagnostic du système, assisté par ordinateur, disponible sur écran.
- Tranchage calibré à partir de 30 gr.
- Peut intégrer des lignes automatisées de procédé.
- Facilité de chargement du produit.
- Sortie compacte du produit.
- Facilité d'installation et mise en marche.
- Complètement accessible pour le lavage.

## CWS 无骨鲜肉切片机

- 重量和固定厚度
- 最大切割能力10500片/小时 (每分钟可达到6周期)。
- 极端重量精度/公差在+/-2 gr.在组合切片中有很好的切效果。
- 操作之前不需要任何的修整,切片之后不需要任何筛选。
- 高生产率。
- 在同一块内部可改变不同重量。
- 通过视屏触屏设置命令容易; 程序针对各种肉。
- 在屏幕上可以诊断电脑型机器。
- 切的范围从30 gr.起。 / 1 盎司
- 集成自动化过程线。
- 加载货物方便。
- 输出紧凑的产品。
- 安装和使用方便。
- 可完全打开便于清洗, 卫生。



## Dati tecnici / Technical Data CWS

Height	1625 mm	63,78"
Width	3619,1 mm	142,48"
Depth	1025 mm	40,15"
Weight	1360 Kg	1360 Kg
Motor Power (KW)	21 Kw	21 Kw
Noise Level	71 db	71 db
Maximum diameter allowed	190 mm	7,48"
Maximum loading lenght	550 mm	21,63"
Operator control circuit	24 V	24 V
Air consumption	1000 l/min	1000 l/min

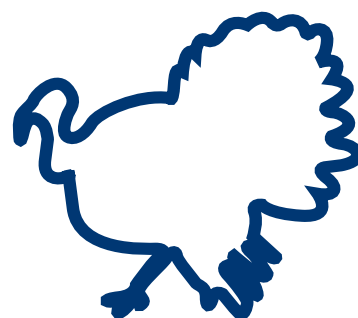
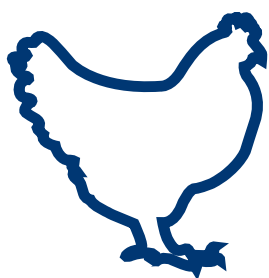




Poultry Processing  
Solutions



# POULTRY



Breast



Wing



Leg



Thigh



Drumstick



## SLICERS



Weight control turkey breast slicer

**CWS**



Chicken and turkey breast slicer-tenderizer

**ST200**



Automatic chicken breast slicer

**NSA Series**

## SKINNERS



Chicken and turkey breast vertical slicer

**CSL**



Chicken skinner

**NAB 520 M**



Chicken and turkey breast horizontal slicer

**KSL**



Turkey skinner

**NAB 520 CD**



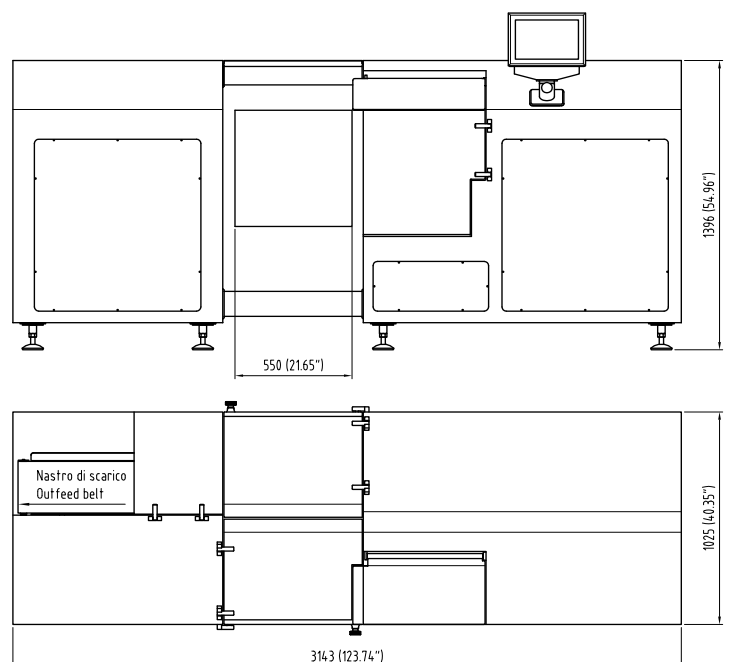
## CWS Portion Control slicer

- Constant correlation means “One-weight=one-thickness”.
- Up to 10.500 slices per hour (up to 6 cycles per minute).
- Extreme portioning accuracy ( $\pm 2$  gr. regardless the targeted weight) plus excellent slice quality.
- No trimming needed prior to slicing, no need for weight grading systems afterwards.
- Yields in the high 90% range.
- No deep chilling or crust freezing necessary
- Programmable slicing, variable slice possibilities throughout each piece.
- User friendly control and visual interface software for all species

- of meats plus customized “recipes” including NO-WASTE cutting option.
- Full diagnostics through onboard computer.
- Fresh products can be sliced from as small as 30 gr./1 oz. and upwards.
- In line product flow.
- Ergonomic horizontal, not vertical feed position.
- The whole product is discharged intact and sliced.
- Easy installation and start-up.
- Total access for sanitation & maintenance.

### Technical Data

Height	1625 mm
Length	3619,1 mm
Depth	1025 mm
Weight	1360 Kg
Motor power (KW)	21Kw
Air consumption	1000 lt/min
Max. diameter allowed	190 mm
Max. loading length	550 mm
Control circuit	24 V







## NSA Series Automatic Slicer for Fresh & Cooked Meat Available with 610 or 1000 mm of width

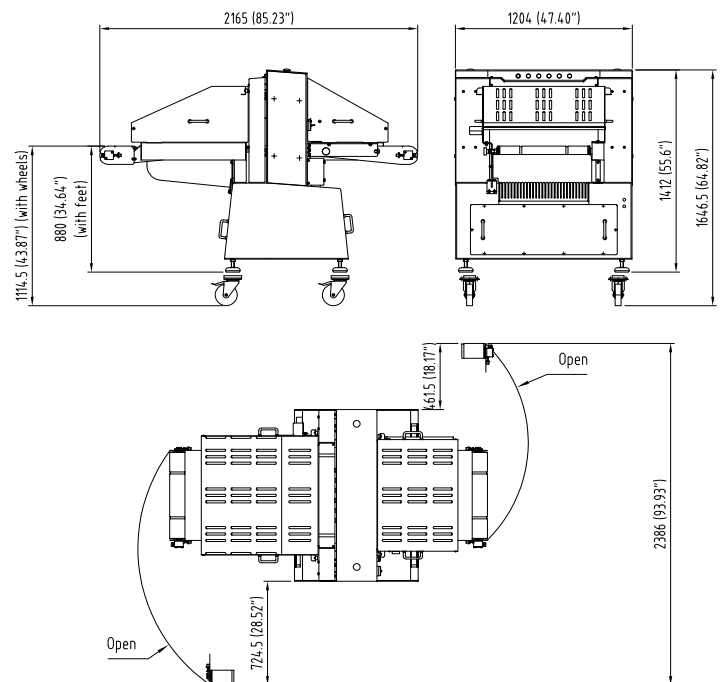
- Slicing machine that cuts uniform parallel, slices with the Grasselli multi-blade cutting system.
- Minimum cutting thickness of 3 mm (NSA600) or 5 mm (NSA1000) for fresh and cooked boneless meat.
- Totally automatic product infeed and outfeed for a TOTAL IN LINE solution.
- Slicing speed, height of slice chamber and product control pressure are all adjustable.
- Extremely versatile machines with a variety of slicing options.
- Variety of blade profiles to maximise performance.
- Unique automatic blade tension system.
- Automatic self lubrication system.
- Optional QUICK BLADE CHANGE system to change the

complete cutting set in just minutes.

- All major dynamic components are heat-treated to extend durability.
- Multiple feed belt texture options enables the NSA to be customized to specific products
- Hi technology design with seamless welding and rounded edges to aid in efficient sanitation.
- Frame made entirely of tested and certificated stainless steel.
- No tools required to prepare for sanitation, or blade/slice set and belts change.
- Motor, electrical control panel and drive mechanism accessed from just one cover.

### Technical Data

	600	1000
Height	1412 mm	1415 mm
Width	1204 mm	1600 mm
Depth	2165 mm	2178 mm
Weight	780 Kg	1190 Kg
Motor power (KW)	4,6 Kw	6 Kw
Air consumption	20 l/min	20 l/min
Noise level	71 db	71 db
Max. working width	600 mm	1000 mm
Minimum slicing pitch	3 mm	5 mm
Control circuit	24 V	24 V



# POULTRY

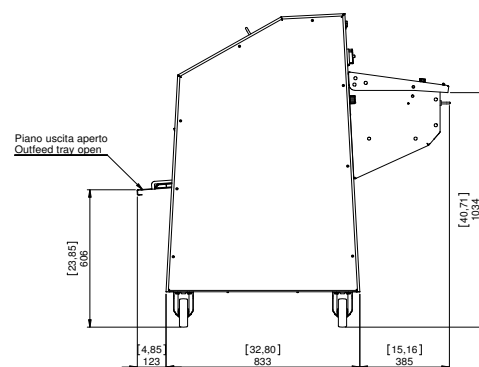
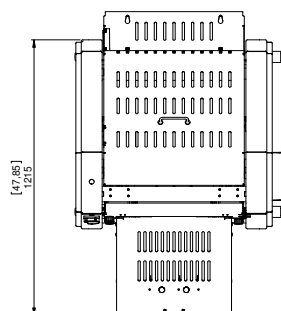
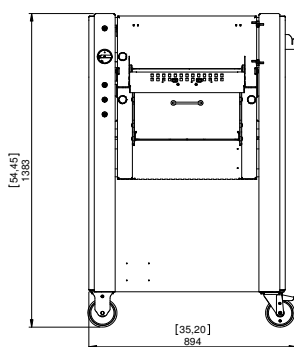


## CSL Compact slicer

- Utmost precision and cutting quality thanks to Grasselli's multi-blade system.
- Total flexibility thanks to the variety of slices sets for boneless meats starting from a minimum slice thickness of 3 mm.
- Speed of up to 4 cycles per minute.
- No requirement for compressed air.
- Minimal running costs due to both material and build quality.
- Compact design, easy to include in any working environment.
- Maximum access for maintenance.
- Tool less preparation for sanitations.
- Optional quick blade change device to replace the complete slicing set in minutes.
- Ergonomic operating position.
- Re sharpenable blades for greater efficiencies.
- Frame entirely made of high quality plate stainless steel.

### Technical Data

Height	1383 mm
Width	1341 mm
Depth	1215 mm
Weight	450 Kg
Feeder dimension	340x400x150 mm
Min. slicing pitch	3 mm
Noise level	71 db
Motor power	1,6 Kw
Operator control circuit	24 V



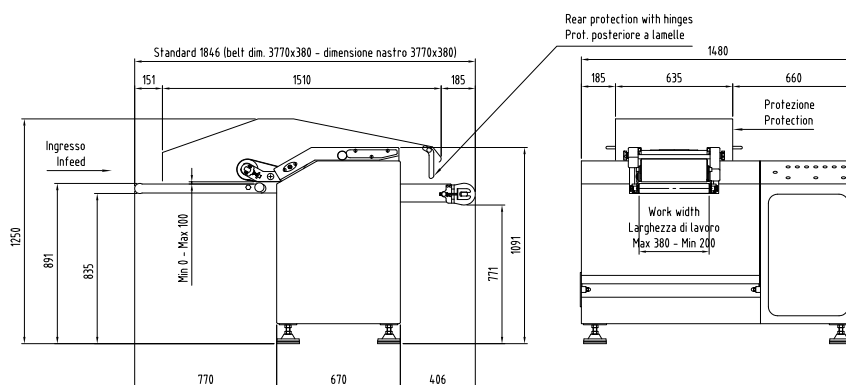


## KSL Chicken & Turkey Breast Slicer/Slitter

- Slicing machine that cuts perfectly parallel slices with Grasselli multi-blade cutting system.
- Up to 380 mm of useable cutting width with minimum slice thickness of 2.5 mm and maximum product height of 100 mm.
- Cutting capacity of over 2,000 kg./hour just for fresh or cooked boneless meat.
- Adjustable working speed  $\pm 40\%$
- Extremely versatile machine with multiple slicing options (a version with two independent cutting lines is available on request).
- Totally adjustable system that maintains control of the product from infeed, through the blades and onto the out feed. This makes it ideal for particularly delicate products (including the "THROUGH SLICING" option for 100% yield).
- Variety of blade profiles for a wide range of applications.
- Feed belts with various options of surface texture.
- Possibility of integration along TOTALLY AUTOMATED lines.
- Automated blade tensioning system.
- No tools needed to prepare for cleaning.
- Built-in automatic lubrication system for all dynamic parts.
- Total operator safety.
- Total access for sanitation, no components need to be detached from the unit.
- All high stress components manufactured from special heat-treated steel.
- Motor, electrical system and mechanical parts can all be accessed from handy panels.

### Technical data

Height	1250 mm
Width	1846 mm
Depth	1480 mm
Weight	630 Kg
Motor power	2,2 Kw
Noise level	71 db
Working width	380 mm
Max. working height	100 mm
Minimum slicing pitch	2,5 mm
Air consumption	20 l/min



## Special versions:

### KSL\4CBU



- Operates as a standard KSL horizontally slicing fresh boneless meat cuts, OR as an automatic chicken breast splitter PLUS the ability to automatically separate and divert onto separated outfeed belts the 2 slices if “splitting” or the trim if using multiple blades.
- Standard configuration of KSL-CBU includes extended infeed belt, and top “separator” belt.
- Infeed belt includes self adjusting splitting system for chicken breasts, a selector switch to rapidly between single blade splitting and multiblade slicing plus external controls to adjust hold down pressure.
- Tool-less preparation for sanitation with all components remaining attached.
- Total access for sanitation.

### KSL\8CBU



- The 8CBU of KSL offers a full working width of 760 mm on 2 independent lanes.
- KSL\8CBU designed for high volume demands to split or slice fresh boneless chicken breast either as double (butterfly) or individual lobes.
- Designed to feed 2 lane breast profile cutting units, such as water jet cutters. The units require to be fed by high quality slices/ breast portions
- In the 8CBU conjunction with NSA1000 gives a high quality, high performance strip cutter.

### KSL-0T



- This KSL variation is designed to split chicken breasts giving full yield regardless the size of the product being fed.
- For instance a 140 gram chicken breast or a 1.200 grams turkey lobe, either will be automatically sliced at the installed pitch with no waste!
- The electronic system controls the upper in feed belt to the perfect position automatically determining how many slices will be produced, with no trim being generated.
- Standard equipment includes a height detecting station and a servo controlled head positioning system.



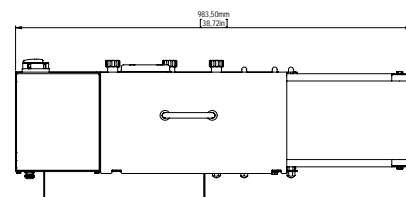
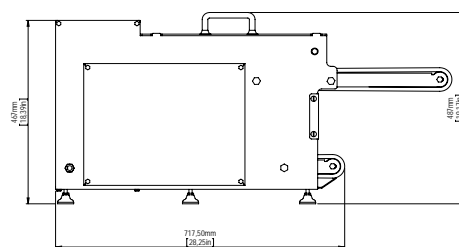
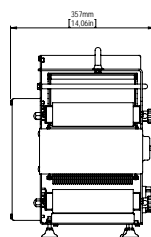


## ST200 Table top strip cutter/Tenderizer

- Automatic & compact, boneless meat strip cutter/dicer that can be converted safely & easily into a tenderizer without the need of tools.
- Minimum cutting thickness 5 mm on a full 200mm cutting width.
- High volumes for either slicing or tenderizing without the need to trim or chill the product before processing, including automatic, in-line operation with automatic infeed & outfeed belts.
- Total operator safety in compliance with the most stringent international regulations.
- Minimum footprint, as either a table top or free standing unit plus tool-free access for both sanitation and cutting or tenderizing set replacement.
- Ideal solution for industrial meat processors, restaurants, catering and butcher shops specializing in custom services.
- User Friendly, with efficient installation procedure.
- Several blade profiles available for special applications.
- With the addition of the optional stainless steel base the ST 200 becomes a full stand alone machine, giving ease of mobility between operating /sanitation areas.

### Technical data

Height	487 mm
Width	983,50 mm
Depth	357 mm
Overall dimension with basement	983,5x550x987h mm
Motor power	0,4 Kw
Weight	70 Kg
Min. strip thickness	5 mm
Max cutting width	200 mm
Working speed	0.245 m/sec



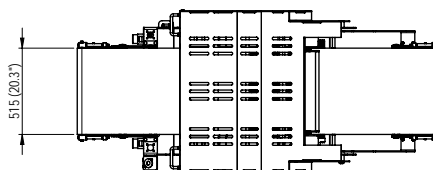
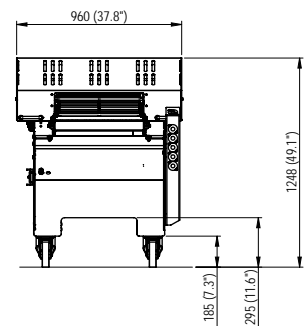
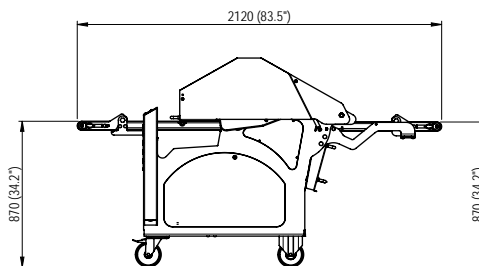


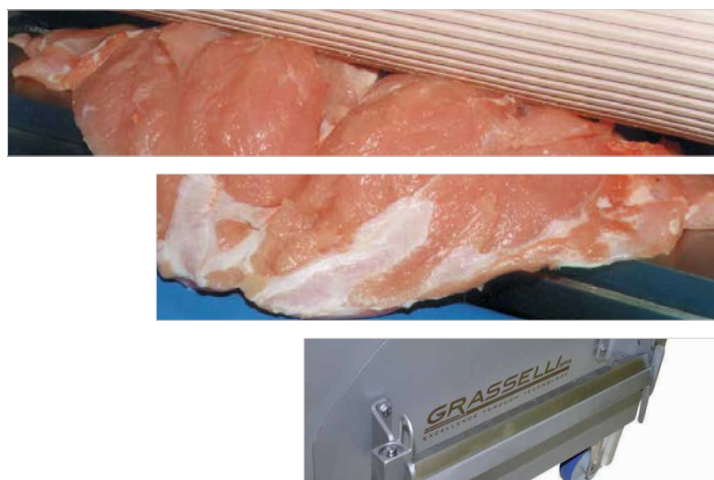
## NAB 520 M Chicken Skinner

- Full 520 mm useable skinning width.
- Drive components manufactured from specially hardened high quality stainless steel plus triple bearings to extend durability and to ensure great longevity.
- Skinning system with full roller and counter roller.
- Product pressure head with totally adjustable pneumatic control and different types of rollers in non-toxic rubber for various applications across a wide range of products.
- Hinged guard (cannot be removed), with stainless steel gas spring shock absorbing system.
- Modular blue plastic belts for improved sanitation (height-adjustable outfeed belts) – other belt options include belts with PVC lining.
- Optional all-in-one rind/product collection belt.
- Totally automatic machines for IN LINE solutions.
- Modern design with seamless welding and curved edges to improve sanitation.
- Machine base made entirely of 6-mm thick stainless steel, tested and certificated as being non-radioactive.
- Motor, electrical system and mechanical parts all accessible from two large removable side panels.
- Possibility of washing all parts without using tools.

### Technical data

Height	1248 mm
Lenght	960 mm
Depth	2120 mm
Weight	460 Kg
Motor power (KW)	2,2 Kw
Working speed	22 m/min
In feed dimension	520 mm
Control circuit	24 V



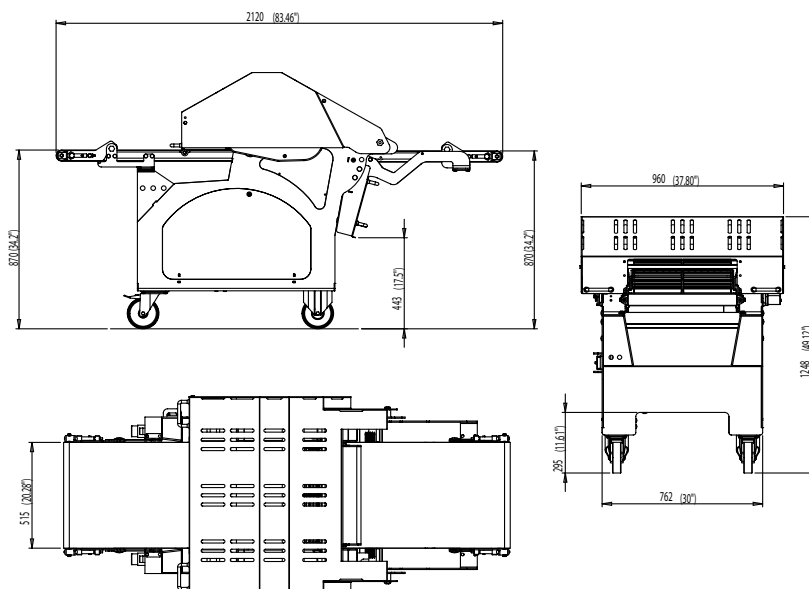


## NAB 520 CD Turkey Skinner

- Full 520 mm useable skinning width
- Drive components manufactured from specially hardened high quality stainless steel plus triple bearings to extend durability and to ensure great longevity.
- Product pressure head with totally adjustable pneumatic control and different types of rollers in non-toxic rubber for various applications across a wide range of products.
- Hinged guard (cannot be removed), with stainless steel gas spring shock absorbing system.
- Modular blue plastic belts for better cleaning (height-adjustable outfeed belts) – belt options with PVC lining.
- All-in-one rind/product collection belt (accessory available on request).
- Totally automatic machines for IN LINE solutions.
- Modern design with seamless welding and rounded edges to improve cleaning.
- Machine base made entirely of 6-mm thick stainless steel, tested and certificated as being non-radioactive.
- Motor, electrical system and mechanical parts all accessible from two large removable side panels.
- Possibility of washing all parts without using tools.

### Technical Data

Height	1248 mm
Length	960 mm
Depth	2120 mm
Weight	460 Kg
Motor power (KW)	2,2 Kw
Working speed	22 m/min
In feed dimension	520 mm
Control circuit	24 V



Fish processing  
solutions







Eel



Bass



Carp



Catfish



Cod



Cuttlefish



Flounder



Octopus



Salmon



Seabream



Shark



Skate



Sole



Squid



Tilapia



Trout

## SKINNERS



**NAB 520 SS:** Catfish  
Bass  
Trout  
Salmon  
Cod  
Flounder  
Seabream  
Tilapia



**C 35 PF:**  
Salmon  
Cod  
Flounder  
Eel  
Trout  
Catfish



**RST 520 F:**  
Sole Bass  
Cuttlefish  
Squid  
Skate  
Seabream  
Tilapia



**T 300 F:**  
Sole  
Cuttlefish  
Squid  
Tilapia



**RST 520 PF:** Catfish  
Shark  
Salmon  
Cod  
Flounder  
Eel  
Trout



**C 35 F:**  
Sole Bass  
Cuttlefish  
Squid  
Skate  
Seabream  
Tilapia

## SLICERS



### **KSL:**

Salmon  
Giant squid



### **NSL 400/600 BI:**

Frozen salmon rolls  
Frozen sole  
Fresh bone-in carp



### **ST200:**

Squid  
Octopus



## NAB 520 SS

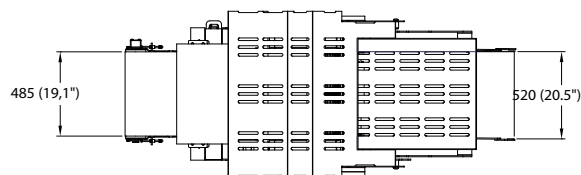
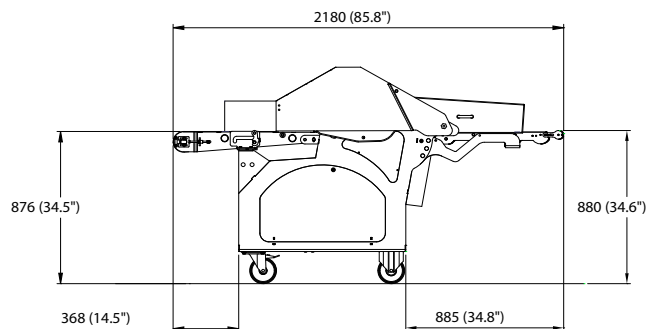
- Useful width: 520 mm.
- Gear shaft in special high-resistance steel and triple bearings to extend durability and to ensure constant performance in time.
- Skinning system with full roller and counter roller.
- Product pressure head with totally adjustable control .
- Hinged guard (cannot be removed), with stainless steel gas spring shock absorbing system.
- Modular blue plastic belts for better cleaning (height-adjustable outfeed belts) – belt options with PVC lining.
- Totally automatic machines for IN LINE solutions.
- Modern design with seamless welding and rounded edges to improve cleaning.
- Machine base made entirely of 6-mm thick stainless steel, tested

and certificated as being non-radioactive.

- Motor, electrical system and mechanical parts all accessible from two very handy side panels.
- Preparation for washing all parts without using tools.
- CE certificate.

### Technical Data

Height	1248 mm
Width	960 mm
Depth	2120 mm
Weight	460 Kg
Motor power	2,2 Kw
Noise level	78,5 db
Working width	520 mm
Operator control circuit	24 V





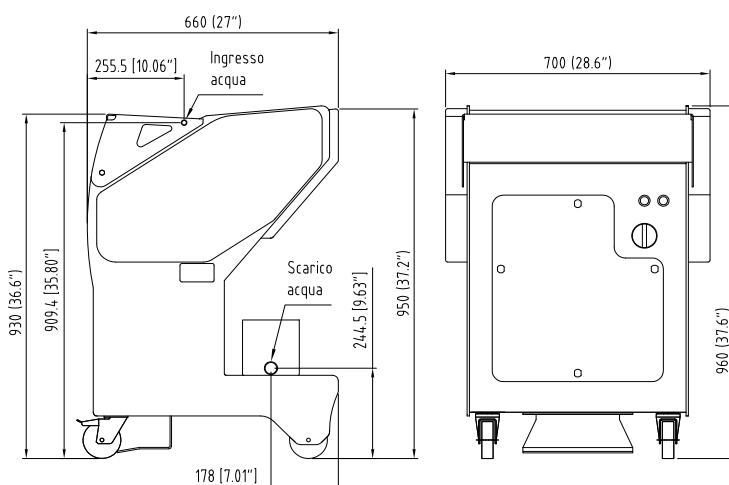


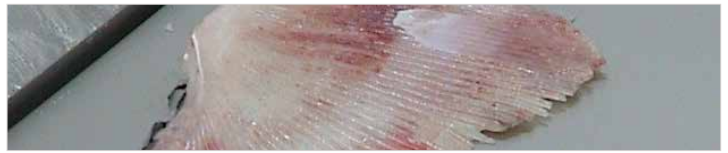
## RST 520 F

- Useable width: 520 mm.
- Ergonomic operating height and infeed area to improve product handling and safety.
- Tempered toothroller and heavy duty bearings to ensure durability and longevity.
- High toothroll speed to improve production rates.
- Multiple toothroll pitch options (including dual pitch) therefore customisable to specific applications and to increase production rate.
- Quick blade change system enables blade changes without the use of tools, consequently minimising "down time".
- Integral foot pedal.
- Dynamic pneumatic toothroll cleaning system designed for maximum cleaning efficiency and minimal air consumption.
- Tool less preparation for sanitation.
- Machine base made entirely of 6-mm plate stainless steel, tested and certificated as being non-radioactive.
- Modern design with seamless welding and radius edges to aid efficient sanitation.
- All major mechanical and electrical components are accessible through a single access panel.
- CE certificate.
- Optional "CLO" safety system to operator available on request.

### Technical Data

Height	950 mm
Width	700 mm
Depth	600 mm
Weight	210 Kg
Motor power	0,9 Kw
Water consumption	30 lt/min
Working width	520 m
Operator control circuit	24 V



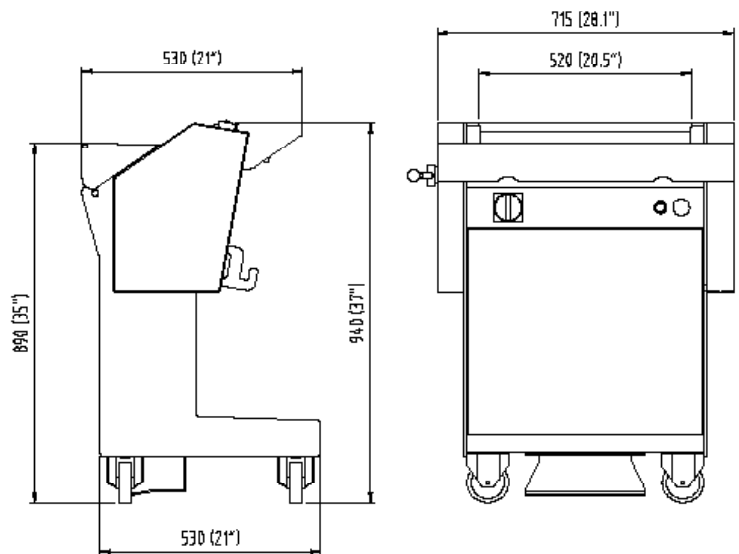


## RST 520 PF

- Larghezza di lavoro utile di 520 mm.
- Useful width: 520 mm
- Practical work area and table to improve product handling.
- Durable steel gear shaft and special bearings guarantee durability and constant performance in time.
- Quick blade change system without the use of tools, consequently minimising "down times".
- External lever for adjusting the rind thickness.
- Starting pedal built into the machine.
- Modern design with seamless welding and rounded edges to improve cleaning.
- Machine base made entirely of 6-mm thick stainless steel, tested and certificated as being non-radioactive.
- Motor, electrical system and mechanical parts can all be accessed from just one front panel.
- CE certificate.
- Optional "CLO" safety system available to operator on request.

### Technical Data

Height	940 mm
Width	790 mm
Depth	530 mm
Weight	166 Kg
Motor power	0,9 Kw
Water consumption	10 lt/min
Working width	520 m
Operator control circuit	24 V



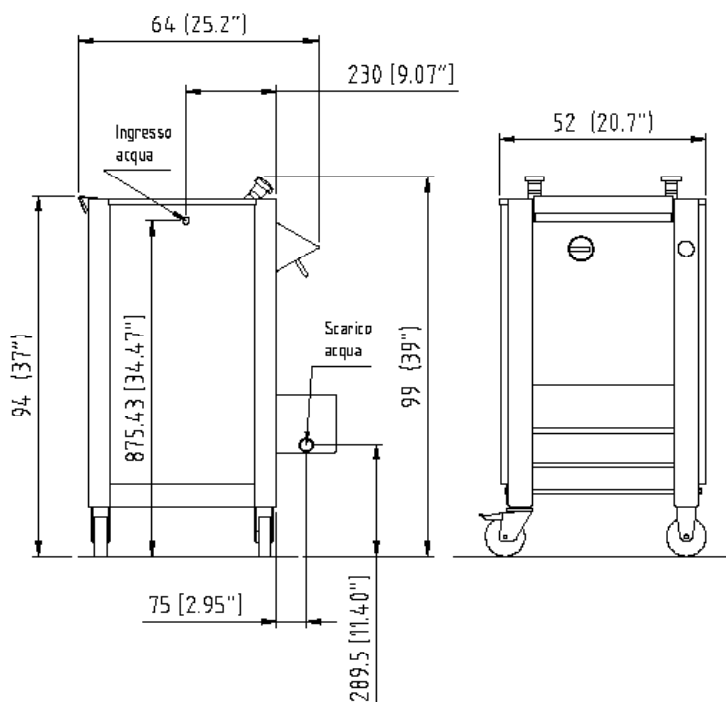


## C 35 F

- Useable skinning width: 350 mm.
- Dynamic pneumatic toothroll cleaning system designed for maximum cleaning efficiency and minimal air consumption.
- Compact, easy to move around, ideal for small to medium size production facilities.
- Sanitary design, with no flat surfaces, and radius edges to aid efficient sanitation.
- Tempered toothroller and double bearings to improve durability and to ensure longevity.
- High toothroll speed to improve production rates.
- All major mechanical and electrical components are accessible through a single access panel.
- Stainless steel structure, tested and certificated as being non-radioactive.
- CE certificate.
- C 35 F features a water spraying system to keep working area always clean.

### Technical Data

Height	990 mm
Width	525 mm
Depth	620 mm
Weight	93 Kg
Motor power	0,37 Kw
Water consumption	7 lt/min Ø12
Working width	350 m
Operator control circuit	24 V



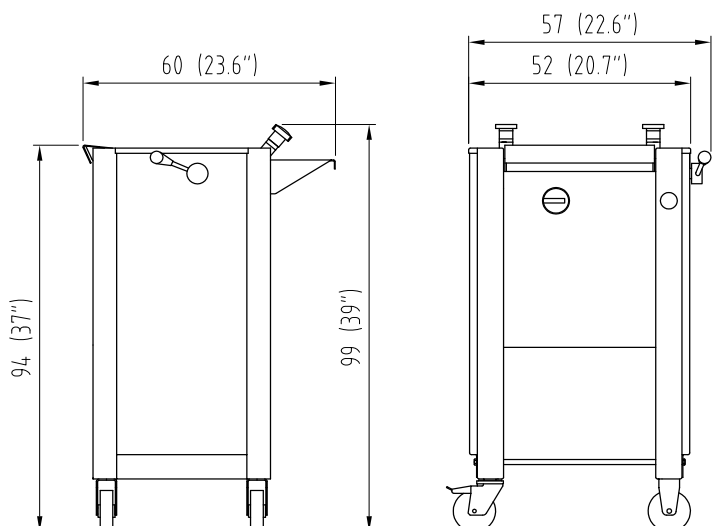


## C 35 PF

- Sistema di regolazione dello spessore di lavorazione incorporato.
- Useful width: 350 mm.
- Built-in derinding thickness adjustment system.
- Compact, easy to move around within medium and small-size laboratories.
- Design with rounded edges to improve cleaning.
- Heat-treated gear shaft and double bearings to improve durability and to ensure constant performance in time.
- High running speed of gear shaft to improve production rate.
- Motor, electrical control panel and mechanical parts can all be accessed from just one front panel.
- Stainless steel structure, tested and certificated as being non-radioactive.
- CE certificate.

### Technical Data

Height	990 mm
Width	570 mm
Depth	600 mm
Weight	93 Kg
Motor power	0,37 Kw
Water consumption	7 lt/min Ø12
Working width	350 mm
Operator control circuit	24 V





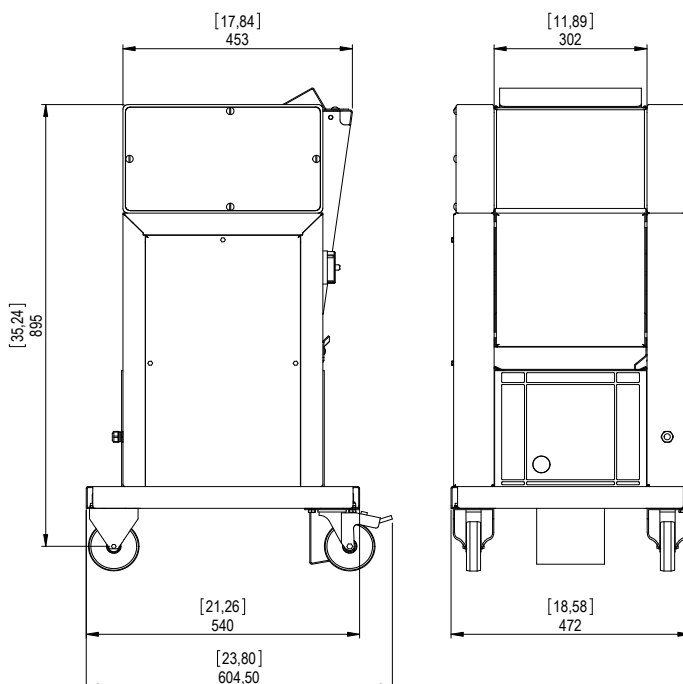


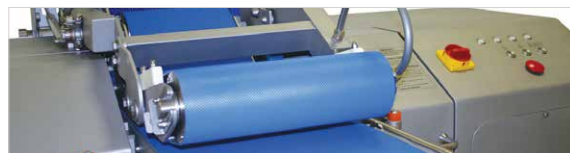
## T 300 F

- Useable working width of 300 mm
- Practical work area and table to improve product handling.
- Economic, ideal for shops or catering.
- Totally accessible for maintenance purposes.
- Tool less preparation for sanitation.
- All parts remain attached for sanitation preventing potential loss or damage.
- The skins collector prevents the removed skins to fall into drainings letting out just the waters.

### Technical Data

Height	990 mm
Width	472 mm
Depth	540 mm
Weight	85 Kg
Motor power	0,37 Kw
Water consumption	6/lt/min Ø 3
Working width	300 m
Operator control circuit	24 V



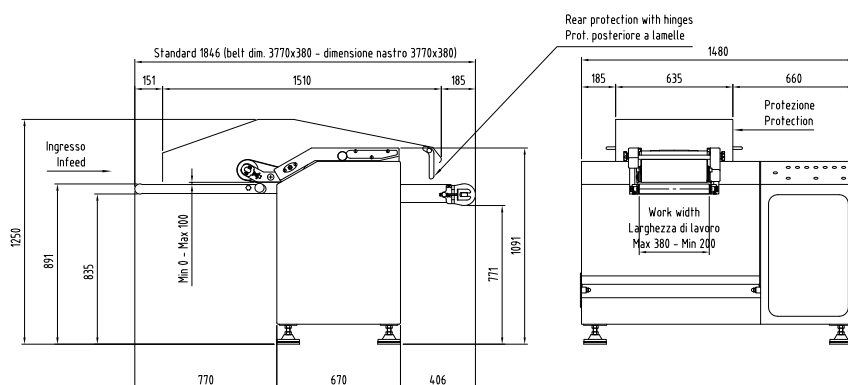


## KSL

- Slicing machine that cuts perfectly parallel slices with Grasselli multi-blade cutting system.
- Up to 380 mm of useful cutting width with minimum slices of 2.5 mm and maximum product height of 100 mm.
- Cutting capacity of over 2,000 kg./hour just for fresh meat or cooked boneless meat.
- Adjustable working speed  $\pm 40\%$
- Extremely versatile machine with many slicing options (a version with two independent cutting lines is available on request).
- Totally adjustable system that controls the product while slicing, even for particularly delicate products (including the "THROUGH SLICING" option for 100% yield).
- Variety of blade profiles for a wide range of applications.
- Infeed belt surfaces with differentiated adherence degrees.
- Possibility of integration along TOTALLY AUTOMATED lines.
- Automated blade tensioning system.
- No tools needed to prepare for cleaning.
- Built-in automatic lubrication system for moving parts.
- Total operator safety.
- Nothing to be dismantled for cleaning.
- All parts subject to mechanical stress are made with special heat-treated steel.
- Motor, electrical system and mechanical parts can all be accessed from handy panels.

## Technical Data

Height	1250 mm
Width	1846 mm
Depth	1480 mm
Weight	630 Kg
Motor power	2,2 Kw
Noise level	71 db
Working width	380 mm
Max. working height	100 mm
Minimum slicing pitch	2,5 mm
Air consumption	20 l/min



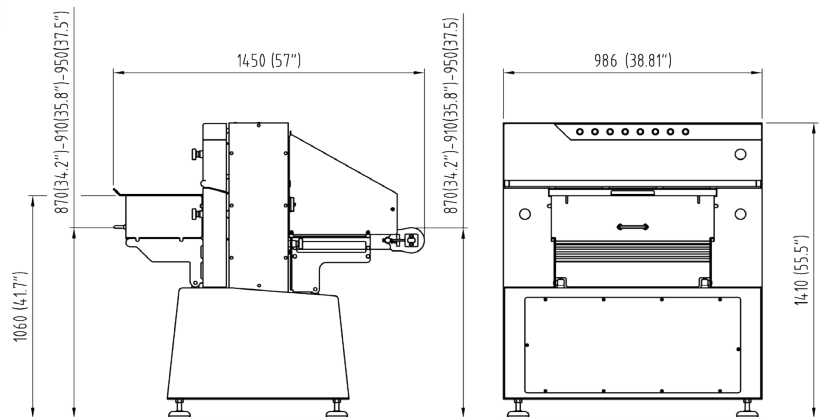


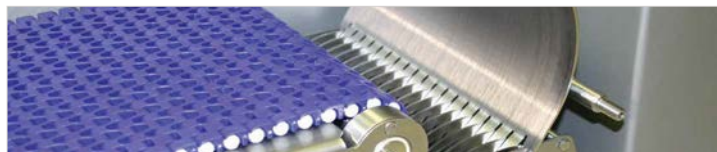
## NSL400/600 BI

- Slicing machine that cuts perfectly parallel slices with Grasselli multi-blade cutting system.
- Slicing machine that cuts uniform parallel slices, with Grasselli multi-blade cutting system.
- Slicing capacity of up to 2,000 kg/hour.
- Slices bone-in or boneless fresh and frozen products.
- Sectional product hold down system for cutting bone-in products.
- Cuts fresh bone-in product without causing potentially dangerous bone chips or splinters.
- Slice speed, height of slice chamber and product control pressure are all adjustable.
- Extremely versatile machines with a variety of slicing options.
- Customized solutions available upon customer request (i.e. slice chambers with varying cut thicknesses).
- Variety of blade profiles to maximise performance.
- Optional modular outfeed belt (also with NSF certification).
- Unique automatic blade tension system (available upon request).
- Automatic self lubrication system.
- Optional QUICK BLADE CHANGE system to change the complete cutting set in just minutes. (the automatic blade tension system is indispensable)
- All major dynamic components are heat-treated to extend durability.
- Modern design with seamless welding and radiused edges to aid in efficient sanitation.
- Frame made entirely of tested and certificated stainless steel.
- No tools required to prepare for sanitation, or blade/slice set change.
- Motor, electrical control panel and drive mechanism accessed from just one cover.
- Total operator safety.
- CE certificate.

## Technical Data

Overall dimension	986x1450x1410 mm
Min. slicing pitch bone-in	10 mm
Infeeder dimension	396x300x150 mm
Motor power (KW)	4,2 Kw
Air consumption	30 l/min
Noise level	68 db
Weight	590 Kg
Control circuit	24 V





## ST200

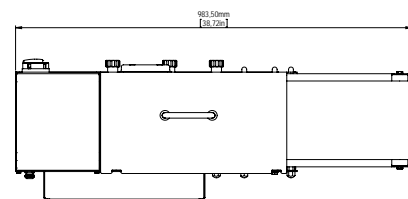
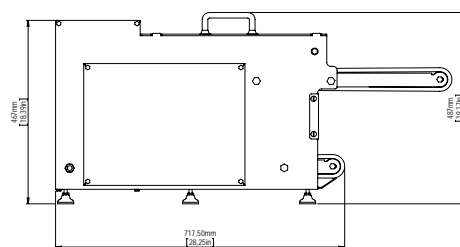
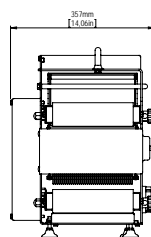
- Compact, steady, essential, convertible in a few seconds from a finger food machine (strips cutter and dicer out of fresh boneless products) into a tenderizer without the need of any tool.
- Minimum cutting thickness 5 mm on a fully available cutting width of 200 mm.
- High capacity in both slicing and tenderizing without the need to trim or chill the product before processing, including in-line option thanks to the in and out feeding conveyors.
- Total operators' safety in compliance with the severest international rules.
- Minimum footprint on table and full tool-free access for both sanitation and cutting or tenderizing set replacement.

- Ideal solution to industrial meat processors, restaurants, catering and butcher shops specialized in customized services.
- Friendly use, no need of any skill Grasselli technician for the start up.
- Several blade profiles available on demand for special applications.

Adding the dedicated optional stainless steel basement ST 200 becomes a real stand alone machine easier to move within the processing area.

## Technical data

Height	487 mm
Width	983,50 mm
Depth	357 mm
Overall dimension with basement	983,5x550x987h mm
Motor power	0,4 Kw
Weight	70 Kg
Min. strip thickness	5 mm
Max cutting width	200 mm
Working speed	0.245 m/sec





## Grasselli Videos



RST520M (BEEF)



CWS ON STRIPLOIN  
(BEEF)



NSL400



NSL400 (BEEF KNUCK-  
LE 4MM)



NSL400BI ON VEEL 7  
SHOULDER



NSL400BI ON T-BONE



T300F ON SOLE



C35PF ON SMOKED  
SALMON



KSL SMOKED SALMON



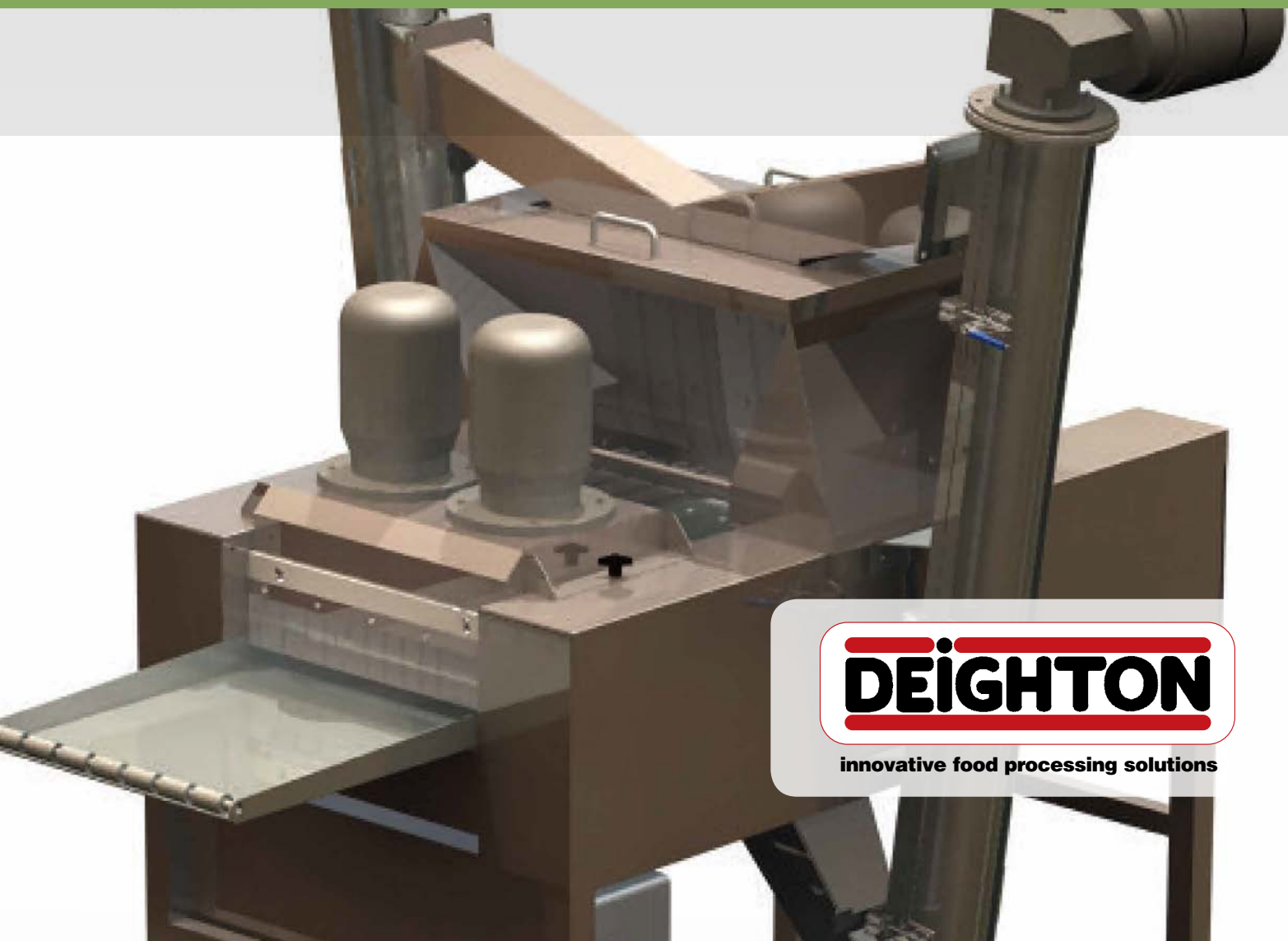
NSL/CSL FRUIT, VEG-  
ETABLES



[www.grasselli.com](http://www.grasselli.com)

# Deighton

Encompassing Meat, Seafood, Vegetable further processing, Bakery, Dairy and the Snack Industry, Deighton provides innovative equipment for the entire food processing industry. Customers world-wide using Deighton equipment now operate fully automatic and streamlined semi-automatic processing systems resulting in increased efficiencies and improved product quality.



**DEIGHTON**

innovative food processing solutions



## Deighton Manufacturing



### Introduction

Based in Bradford in the UK, Deighton Manufacturing Limited specialise in producing innovative equipment for the food processing industry. Our product portfolio has been designed and developed in direct response to customers' needs, with our overall focus aimed at offering an affordable solution to cost effective production.

As a result we offer the versatility and high performance of industrial counterparts at only a fraction of the expected investment and set up costs. Customers world-wide, who have installed the equipment, now operate fully automatic processing systems, resulting in increased efficiencies and improved product quality. But perhaps, most importantly these customers benefit from an investment in product development that is so fundamental to company growth.

All products are manufactured on site at Bradford, and our continuous commitment to design, ensures that new product ideas are continually being developed. Our engineering works are computer driven utilising the highest technical machines and computer aided design facilities providing us with the flexibility to accommodate customers' individual requirements.

We have exported our innovative range of equipment since 1990, and through an established network of quality distributors we successfully service markets world-wide.



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[www.deightonmanufacturing.co.uk](http://www.deightonmanufacturing.co.uk)







# EconoDust



**The EconoDust has been developed to make the automated process of pre dusting products accessible to small and large volume producers.**

Designed to apply a thin coating of dust or flour to enhance batter adhesion, the EconoDust enables the operator to enjoy maximum versatility with their product range at an affordable cost whilst maintaining its reliability and ease of operation & cleaning.

The **EconoDust** forms part of the Deighton Manufacturing (UK) Ltd further processing line and is available in widths of 200, 300, 400 & 600mm.



# DEIGHTON

innovative food processing solutions

## EconoDust

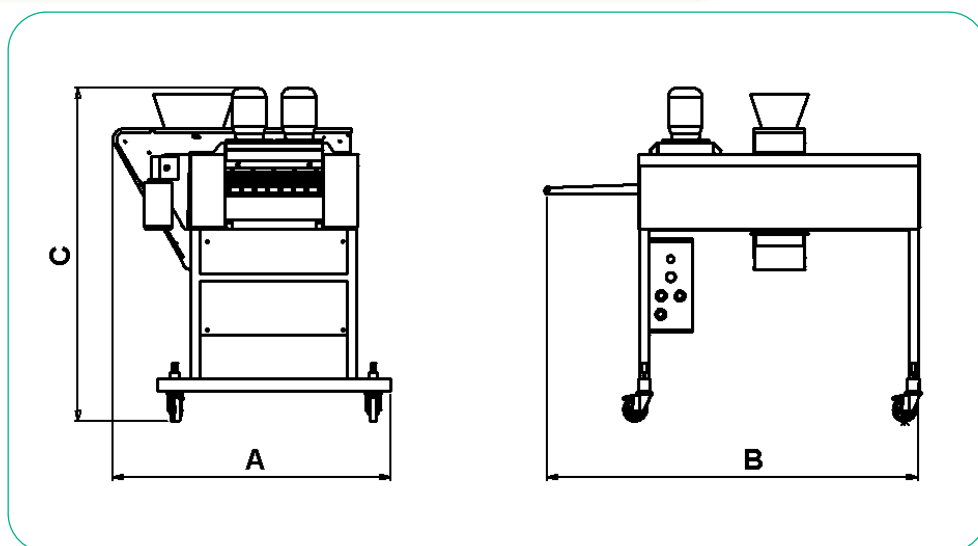
**Operating from a three phase supply, the EconoDust can be installed as a stand alone unit or as a part of the forming and processing line. A single control panel operates the variable speed conveyor that transfers the product through the unit.**

The conveyor is submerged in a bed of dust ensuring that, as the product passes along the conveyor, a full & even coating is applied to the underside of the product. The conveyor moves the product through the dust “curtain” showering a consistently accurate coating to the remaining areas by means of an adjustable speed trans-flow conveyor.

The fully dusted produce proceeds to pass underneath a variable pressure air knife which removes any excess dust before presenting it for the next processing or packaging stage.

The excess dust is recycled back into the tank and trans-flow conveyor, allowing the operator to minimize product wastage.

## Technical Specification



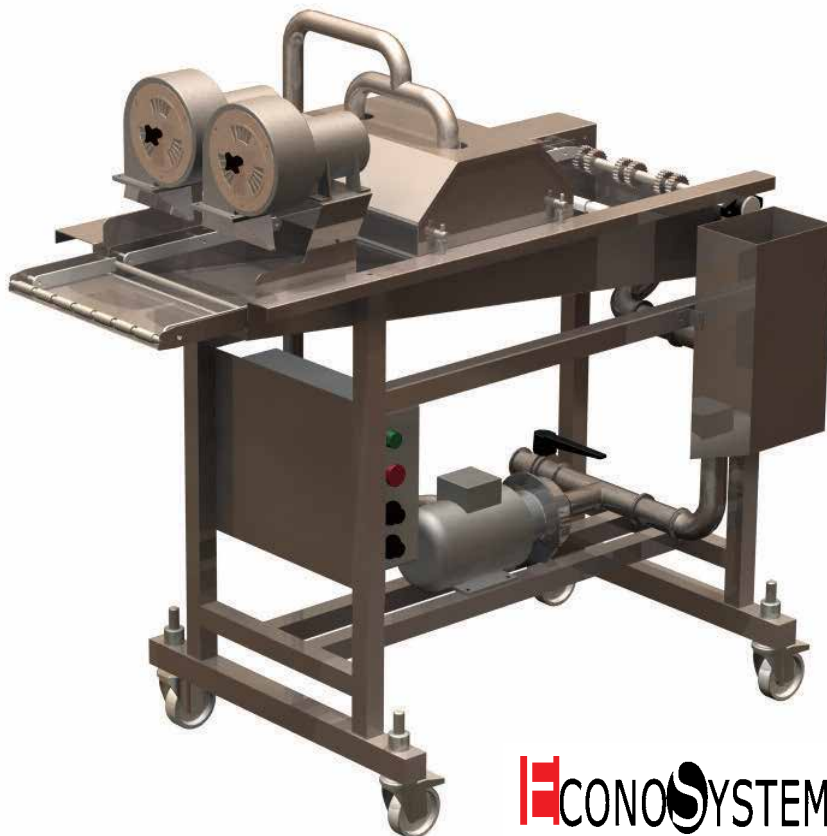
Machine (belt width)	Width (A)	Length (B)	Height (C)	Weight	Power	Electricity Supply	Tank Capacity	Output (Approx)
EconoDust 200	1000	1600	1430	140kg	1180w	380/415v	25 Ltr	350kg/hr
EconoDust 300	1100	1600	1430	170kg	1180w	380/415v	37 Ltr	450kg/hr
EconoDust 400	1200	1600	1430	200kg	2120w	380/415v	50 Ltr	600kg/hr
EconoDust 600	1400	1600	1430	250kg	2120w	380/415v	75 Ltr	900kg/hr

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# EconoRobe



**The EconoRobe applies high quality coverage of numerous batters and marinades and is successful with a host of meat, fish, ethnic and vegetable produce.**

Available in either "weir" or "dip" style the system can effectively handle adhesive or tempura mixes and the ease of switching batters between production runs allows the producer the freedom to maximize production efficiency.

The **EconoRobe** forms part of the Deighton Manufacturing (UK) Ltd further processing line and is available in widths of 200, 300, 400 & 600mm.



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## Weir Enrober

**The weir style Enrober can be used for all adhesive batters and marinades of varying viscosities.**

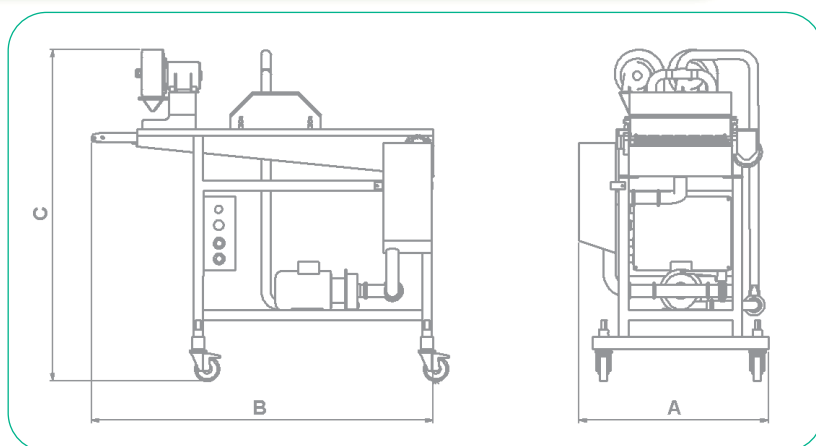
The system consists of a variable speed conveyor which passes through a “puddle plate” and “water fall” of the required batter to totally cover the product. This batter is recirculated from the batter tank, through a filter basket and back up to the waterfall by a centrifugal pump situated underneath the batter tank. Any excess batter on the product is removed by a variable pressure air knife before presenting for the next process or packaging stage.

## Dip Enrober

**The dip style Enrober is suitable for tempura and high viscosity batter where mixing through a pump is not preferable.**

The system consists of a variable speed conveyor which passes product through the system. As the product travels along the conveyor it is fully submerged into a tank of batter. A weighted top conveyor assists to channel the product through the tank, ensuring that the product remains completely immersed in the batter or chosen marinade at all times. As the product leaves the tank a variable pressure air knife removes any excess batter before presenting for the next process or packaging stage.

## Technical Specification (Weir Enrober)



Machine (belt width)	Width (A)	Length (B)	Height (C)	Weight	Power	Electricity Supply	Tank Capacity	Output (Approx)
EconoRobe 200	580	1400	1360	100kg	950w	380/415v	12 Ltr	350kg/hr
EconoRobe 300	680	1400	1360	115kg	950w	380/415v	18 Ltr	450kg/hr
EconoRobe 400	780	1400	1360	130kg	1220w	380/415v	24 Ltr	600kg/hr
EconoRobe 600	980	1400	1360	140kg	1220w	380/415v	36 Ltr	900kg/hr

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# EconoCrumb



**The EconoCrumb has been developed to make the automated process of crumbing formed or batter coated product accessible to small and large volume producers.**

Designed to handle numerous types of crumb, the EconoCrumb enables the operator to enjoy maximum versatility with their product range at an affordable cost whilst maintaining its reliability and ease of operation & cleaning.

The **EconoCrumb** forms part of the Deighton Manufacturing (UK) Ltd further processing line and is available in widths of 200, 300, 400 & 600mm.



# DEIGHTON

innovative food processing solutions

## EconoCrumb

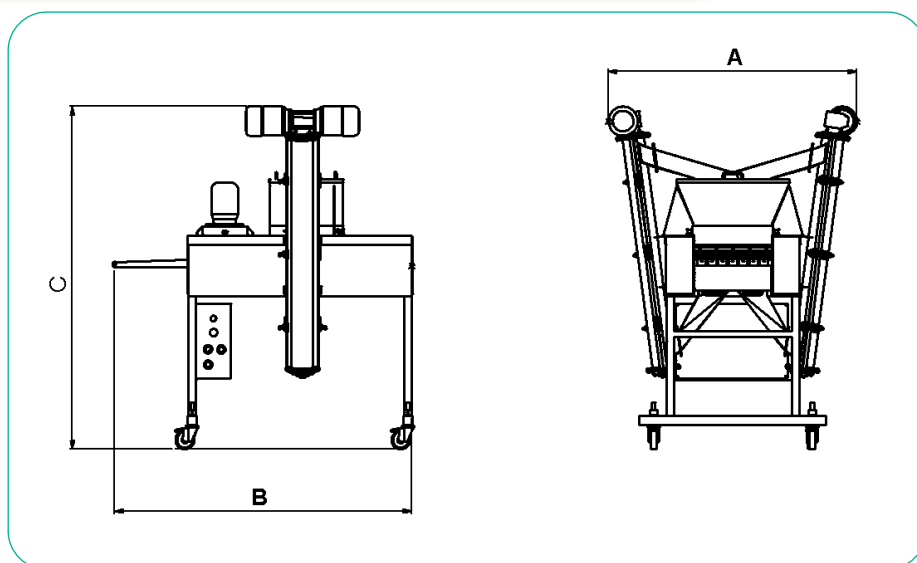
**Operating from a three phase supply, the EconoCrumb can be installed as a stand alone unit or as a part of the forming and processing line. A single control panel operates the variable speed conveyor that transfers the product through the unit.**

The conveyor is submerged in a bed of crumb ensuring that, as the product passes along the conveyor, a full & even coating is applied to the underside of the product. The conveyor moves the product through the crumb "curtain" showering a consistently accurate coating to the remaining areas. The thickness of crumb bed and curtain are fully adjustable to achieve the desired weight of coating.

The fully coated produce proceeds to pass underneath a compressing roller which gently compacts the crumb around the product, before any excess is removed by the variable pressure air knife.

The excess crumb is recycled through the auger and transferred back to the hopper, allowing the operator to minimize product wastage.

## Technical Specification



Machine (belt width)	Width (A)	Length (B)	Height (C)	Weight	Power	Electricity Supply	Tank Capacity	Output (approx)
EconoCrumb 200	980	1600	1850	170kg	1750w	380/415v	30 Ltr	350kg/hr
EconoCrumb 300	1250	1600	1850	240kg	2620w	380/415v	45 Ltr	450kg/hr
EconoCrumb 400	1350	1600	1850	260kg	3370w	380/415v	60 Ltr	600kg/hr
EconoCrumb 600	1550	1600	1850	290kg	3370w	380/415v	90 Ltr	900kg/hr

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# EconoFry



## **The EconoFry is the versatile, cost effective frying solution for small, medium and large producers.**

The digitally controlled heating and continuous conveyor system ensures a wide variety of products are fried to a consistently high standard.

Having the ability to flash fry or fully cook, the EconoFry is suitable for a vast array of produce from spring rolls, onion bhajis and falafel to fish fingers, burgers and chicken nuggets.

The EconoFry forms part of the Deighton Manufacturing (UK) Ltd further processing line and is available in widths of 200, 300, 400 & 600mm.



# DEIGHTON

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## EconoFry

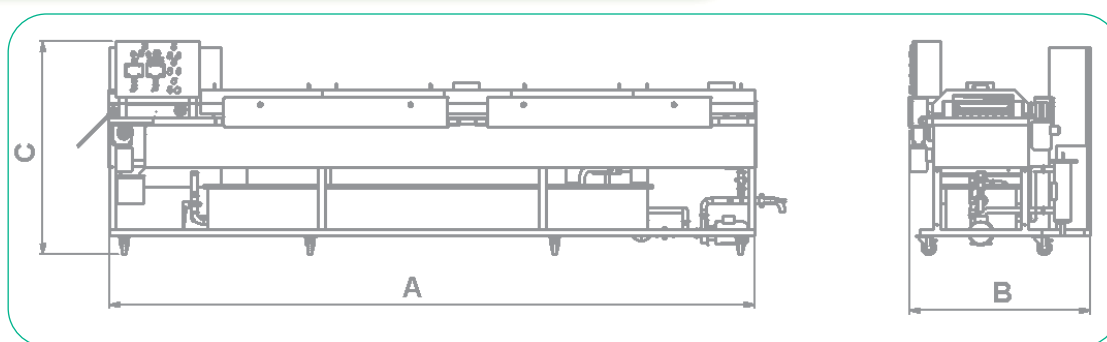
**The EconoFry is an electrically heated fryer with elements immersed directly into the insulated frying tank for the most efficient heat transfer.**

This method imparts 97 – 99% of the heat directly into the oil using low density elements so as not to degrade the quality of the cooking medium. The system runs on a three phase supply and is simply operated from a central control panel.

The product passes between the bottom conveyor and adjustable hold down conveyor (supplied as standard), ensuring continuous emersion in the cooking oil at all times, along the length of the fryer. Cooking time and temperature are completely adjustable, enabling the producer to finely adjust the appearance and level of readiness of each individual product.

Complete with oil level detection and automatic low level cut-out system, removable conveyor unit and hinged element enclosures, the EconoFry offers a safe and easy to maintain solution to your frying requirements.

## Technical Specification



Machine (belt width x length)	Width (A)	Length (B)	Height (C)	Power	Electricity Supply	Tank Capacity	Output (approx)
EconoFry 200 x 3m	2800	1100	1300	23Kw	380/415V	180L	200kg/hr
EconoFry 200 x 5m	4800	1100	1530	41Kw	380/415V	350L	400kg/hr
EconoFry 300 x 3m	2800	1200	1300	32Kw	380/415V	220L	300kg/hr
EconoFry 300 x 5m	4800	1200	1530	65Kw	380/415V	410L	600kg/hr
EconoFry 400 x 3m	2800	1300	1300	36Kw	380/415V	270L	400kg/hr
EconoFry 400 x 5m	4800	1300	1530	72Kw	380/415V	510L	800kg/hr
EconoFry 600 x 3m	2800	1500	1300	41Kw	380/415V	360L	600kg/hr
EconoFry 600 x 5m	4800	1500	1530	82Kw	380/415V	680L	1200kg/hr

## Optional Extras

**Teflon Infeed:** Adjustable angle for the frying of battered or delicate products.

**Sediment Removal System:** A scraper system which removes sediment from the tank bottom.

**Oil Filtration:** Continuous filtering system to enhance product finish and lengthen oil life.

**Hoists:** Manual or electric system for the removal of the conveyor unit.

**Storage Tank:** A tank situated underneath the fryer for the storage of oil either overnight or when cleaning. Supplied with a pump for refilling of the fryer.

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## Deighton Videos



CHICKEN NUGGET/  
BURGER



D12000



ECONOLINE NUGGETS



ECONOCRUMB



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# Henkovac

Henkovac prides itself on developing only the newest technologies to ensure their vacuum packaging machines are at the forefront of innovation and only the highest quality standards. Henkovac is one of the leading brands for vacuum packaging machines in the world. By thinking global and acting local, Henkovac machines are represented by a dedicated network of local dealers.



**HENKOVAC**  
QUALITY VACUUM SYSTEMS



## Henkovac



Based in Holland, Henkovac combines more than 50 years of experience with craftsmanship and new advanced technologies to ensure you that all our machines are innovative with a high quality standard.

Henkovac is one of the leading brands for vacuum packaging machines in the world. By thinking global and acting local, the Henkovac machines are represented by a dedicated network of local dealers. Together with you, we can find a solution for your packaging needs.

Innovation, with continuous development of unique innovative features in combination with advanced technologies, we guarantee that Henkovac machines will provide you with an optimal packaging result for food and non-food products according to the latest requirements of the market.

Value for money, our Henkovac mission is to provide you with a top-quality machine at a very attractive price. To achieve this, we have a production facility, which benefits from a well-balanced mix between modular construction design and efficient mass production.

Our Henkovac machines are designed for high reliability and low-cost maintenance.

The Henkovac team and our worldwide partners will be pleased to support you in the best possible way to optimise your packaging needs; it will be our pleasure to serve you.

**HENKOVAC**  
QUALITY VACUUM SYSTEMS

[www.henkovac.nl](http://www.henkovac.nl)



## PROFESSIONALS IN **70 COUNTRIES WORLDWIDE** CHOOSE **HENKOVAC** AS THEIR **NUMBER 1 SOURCE** FOR VACUUM PACKING MACHINES...

**Henkovac, based in Holland, is one of the founders of the vacuum packaging machine. Henkovac combines more than 60 years of experience with craftsmanship, state of the art design and manufacturing technology. This ensures that all Henkovac machines are innovative and reliable, while complying with the highest quality standards.**

Henkovac offers a complete product line that fulfils the vacuum packing needs of small to medium size food processing and food preparation companies in many industries. Each model provides an optimal packaging result according to the latest market requirements.

### **Leading brand**

Henkovac equipment is distributed in more than 70 countries and is one of the leading brands of vacuum packaging machines worldwide. Local presence by a network of Henkovac dealers guarantees fast service, spare parts availability and tailor-made advice.

### **Value for money**

Henkovac always strives to deliver best-in-class machines at a very attractive price. We only use quality materials to build durable, reliable and long lasting equipment. This is the result of a dedicated team of people ensuring a well-balanced mix of quality and delivering value for money for our customers ■



## VACUUM PACKAGING

**Vacuum packaging extends shelf-life, ensures quality, prevents products from drying out, protects it from outside influences and improves hygienic handling.**

Vacuum packing is a very cost effective procedure for preserving perishable food products. Very low packing material costs, short process times and a relatively low investment for long-lasting equipment makes vacuum packing by far the most economical and most efficient way of packaging perishable food products. But also for other applications, such as protecting goods and space saving logistics or storage, vacuum packing is an ideal solution.

**Henkovac redefines the benchmark for vacuum packing machines once again.**

Henkovac has redesigned its complete range of vacuum packing machines to make the machines easier to use and maintain. Its modular design makes it easy to select the best solution for your packing needs.

**Step 1 > Choose the size of the machine according to your products and required capacity**

**Step 2 > Select the options required for your specific packaging application**

Besides a timeless design with round shapes, all models have world-standard features such as a hygienic easy-to-clean vacuum chamber, wireless seal beams, removable silicon bars and intuitive digital control unit. With an ingenious redesign focused on serviceability, Henkovac sets the new benchmark for quality and design in the industry once again.

**Some of our latest innovations will most probably become new world standard features:**

- > Easily understandable, transparent product range for making the right choice
- > Easy and fast seal-wire replacement
- > Easily removable silicon bars for cleaning behind the bar
- > Intuitive digital control unit, which automatically detects the optimum vacuum for products with a high moisture content

## INNOVATION

Through continuous development of its products, advanced engineering and modern production facilities, Henkovac has a proven track record as one of the leaders in the field of vacuum packaging machines.

- > Aqua Protected pumps
- > Digital control systems
- > Snap on seal-beams without electrical wires
- > Height Adjustable lids
- > Soft-vacuum system for cheese

Henkovac made a major contribution to the development of "vacuum-cooking" or "sous vide", which improves the taste and tenderness of food and increases flexibility and efficiency in food preparation.

## DIGITAL CONTROL UNIT WITH LCD DISPLAY

**For our new line of machines, the control unit is completely redesigned. Simplicity was the starting point.**

Our smaller machines have a control unit with the basic settings. The plug- and-play design of the machines makes installation easy and does not require any adjustments in 90% of the situations. For special packaging requirements the machine offers the flexibility to adjust sealing time and vacuum time. The vacuum time can be set and the vacuum level reached can be monitored with the vacuum meter.



The professional machines are standard equipped with a digital LCD control unit with 10 programs. The more advanced machines are equipped with a 10 program sensor control system which actually measures the vacuum in the vacuum chamber. The time controlled machines can easily be converted into sensor controlled machines later on. The sensor measures evaporation when moist products or liquids, like sauces, are being packed. At this optimum point moisture is extracted from the product causing it to dry out, loose weight or start bubbling and spilling over. The sensor detects this point immediately as being the optimum level where all air and oxygen has been removed and continues the cycle by sealing the package.

The digital LCD control unit allows all settings to be easily changed. An unique indication gives the operator the option for letting the pump run for several cycles after finishing the operation. This will extend the periods between oil change and extending the life time of the pump by removing moisture from the oil in the system. The control panel has also a clear indication for upcoming service intervention ■

*"Together with you, we will find a solution for all your packaging needs"*

## HENKOVAC TABLETOPS:

"FIRST CHOICE" FOR RESTAURANTS, HOSPITALITY  
INDUSTRY, FOOD VENDORS AND CATERERS.

**Our plug and play table top machines have all the quality engineering and  
build of our industrial vacuum machines.**

"PLUG & PLAY"



TABLETOP RANGE

## SPECIFICATIONS TABLETOPS

Transparent cover & stainless steel chamber

	SEAL LENGTH	MAX. PRODUCT HEIGHT	USEFUL CHAMBER SIZE (wxdxh)	OUTSIDE DIMENSION (wxdxh)	STANDARD VOLTAGE*	POWER CONSUMPTION	WEIGHT
TABLETOP <b>T2</b>	280	110	280 x 310 x 110/140	360 x 500 x 340	230-1-50 Hz	0,4/0,5 kw	25 kg
TABLETOP <b>T3</b>	320	160	320 x 330 x 160	430 x 550 x 410	230-1-50 Hz	0,5/0,7 kw	50 kg
TABLETOP <b>T4</b>	420	180	max. 420 x 370 x 180	530 x 590 x 460	230-1-50 Hz	0,7/1,3 kw	60 kg
TABLETOP <b>T5</b>	320	100	900 x 330 x 100	990 x 530 x 430	230-1-50 Hz	1,3 kw	115 kg

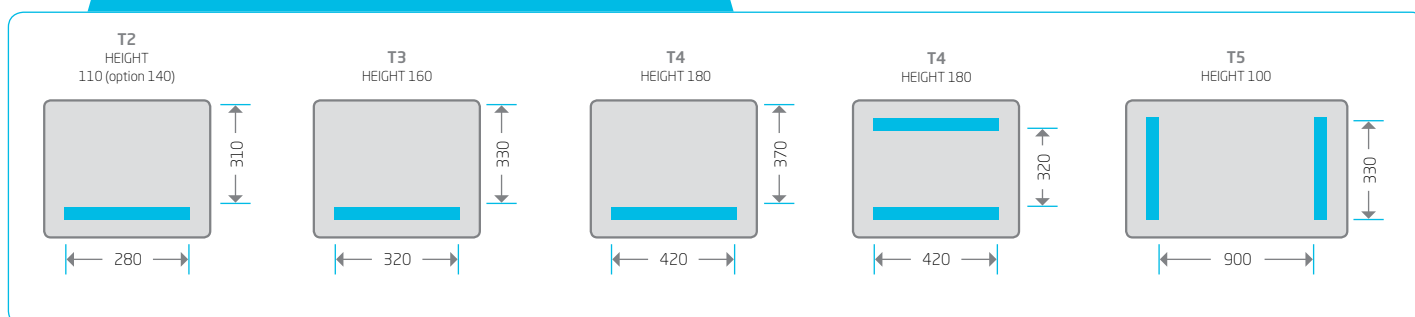
Dimensions in mm \*Machines can be supplied with all worldwide voltages applicable

## OPTIONS TABLETOPS

	DIGITAL TIME CONTROL	SENSOR CONTROL	SEAL	SEAL CONFIGURATION	GAS	PUMP CAPACITY M3	CYCLE TIME
TABLETOP <b>T2**</b>	1 program	x	single double trenn	L	x	4 or 8 m <sup>3</sup>	20-40 sec
TABLETOP <b>T3</b>	1 or 10 programs	sensor/H <sub>2</sub> O	single double trenn	L	gas	8 or 16 m <sup>3</sup>	20-30 sec
TABLETOP <b>T4</b>	1 or 10 programs	sensor/H <sub>2</sub> O	double trenn 1-2	L L&L	gas	16 or 21 m <sup>3</sup>	20-30 sec
TABLETOP <b>T5</b>	1 or 10 programs	sensor/H <sub>2</sub> O	double trenn 1-2	S&S	gas	21 m <sup>3</sup>	20-30 sec

\*\*Model T2 standard coverheight 110 mm, optional high cover 140 mm

## SEAL CONFIGURATIONS TABLETOPS



Dimensions in mm



Selected models available. For details please contact Crown National



## HENKOVAC MOBILES:

"FIRST CHOICE" FOR BUTCHER SHOPS, RESTAURANTS, HOTEL KITCHENS, HOSPITALS, CATERERS AND THE FOOD PROCESSING INDUSTRY.

### 3 Product ranges:

1. Transparent cover, visual control, for example packaging moist en liquid products.
2. All stainless steel heavy duty industrial range, easy to clean flat working surface.
3. Aluminium range, an excellent price/quality value.

"VERSATILE"



MOBILE M1, M2, M3

## SPECIFICATIONS M1, M2 & M3

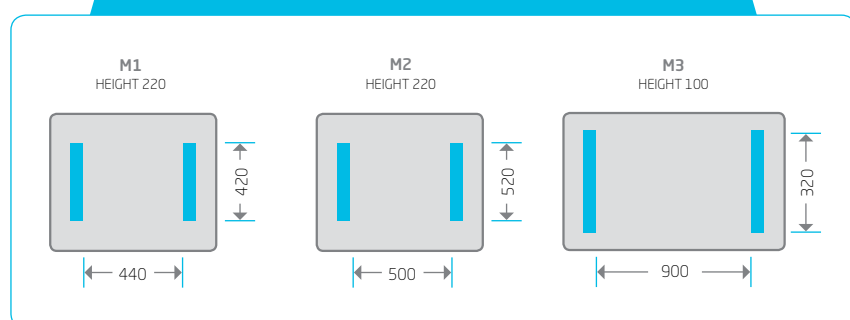
	SEAL LENGTH	MAX. PRODUCT HEIGHT	USEFUL CHAMBER SIZE (wxdxh)	OUTSIDE DIMENSION (wxdxh)	STANDARD VOLTAGE*	POWER CONSUMPTION	WEIGHT
<b>TRANSPARENT COVER &amp; STAINLESS STEEL CHAMBER</b>							
MOBILE <b>M1</b>	2 x 420	220	440 x 420 x 220	655 x 615 x 1020	230-1-50hz/400-3-50 Hz	1,3-3,3 kw	120 kg
MOBILE <b>M2</b>	2 x 520	220	500 x 520 x 220	715 x 715 x 1020	400-3-50 Hz	3,3 kw	180 kg
MOBILE <b>M3</b>	320	100	900 x 330 x 100	990 x 530 x 1020	230-1-50 Hz/400-3-50 Hz	1,3-3,3 kw	140 kg

Dimensions in mm \*Machines can be supplied with all worldwide voltages applicable

## OPTIONS M1, M2 & M3

	DIGITAL TIME CONTROL	SENSOR CONTROL	SEAL	SEAL CONFIGURATION	GAS	PUMP CAPACITY M3	CYCLE TIME
MOBILE <b>M1</b>	1 or 10 programs	sensor/H <sub>2</sub> O	double trenn 1-2	S&S	gas	21 or 40 m <sup>3</sup>	20-40 sec
MOBILE <b>M2</b>	1 or 10 programs	sensor/H <sub>2</sub> O	double trenn 1-2	S&S	gas	40 or 63 m <sup>3</sup>	25-35 sec
MOBILE <b>M3</b>	1 or 10 programs	sensor/H <sub>2</sub> O	double trenn 1-2	S&S	gas	40 or 63 m <sup>3</sup>	20-25 sec

## SEAL CONFIGURATIONS M1, M2 & M3



[MORE MOBILES >](#)

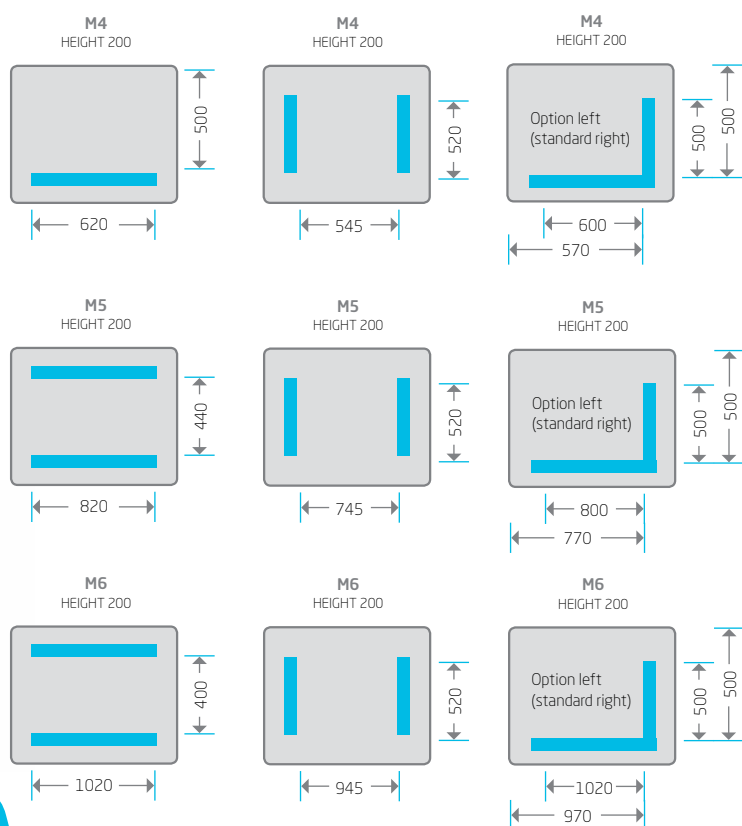


Selected models available. For details please contact Crown National



MOBILE M4

## SEAL CONFIGURATIONS M4, M5 & M6



## SPECIFICATIONS M4, M5 & M6

### STAINLESS STEEL COVER & FLAT WORKING SURFACE

	SEAL LENGTH	MAX. PRODUCT HEIGHT	USEFUL CHAMBER SIZE (wxdh)	OUTSIDE DIMENSION (wxdh)	STANDARD VOLTAGE*	POWER CONSUMPTION	WEIGHT
MOBILE <b>M4</b>	620 2 x 520 600 x 500	200	max. 600 x 500 x 200	720 x 805 x 1170	400-3-50 Hz	3,3 kw	180 kg
MOBILE <b>M5</b>	820 2 x 520 800 x 500	200	max. 800 x 500 x 200	920 x 810 x 1170	400-3-50 Hz	3,5 kw	240 kg
MOBILE <b>M6</b>	1020 2 x 520 1020 x 500	200	max. 1020 x 500 x 200	1140 x 875 x 1160	400-3-50 Hz	3,5 kw	280 kg

Dimensions in mm \*Machines can be supplied with all worldwide voltages applicable

## OPTIONS M4, M5 & M6

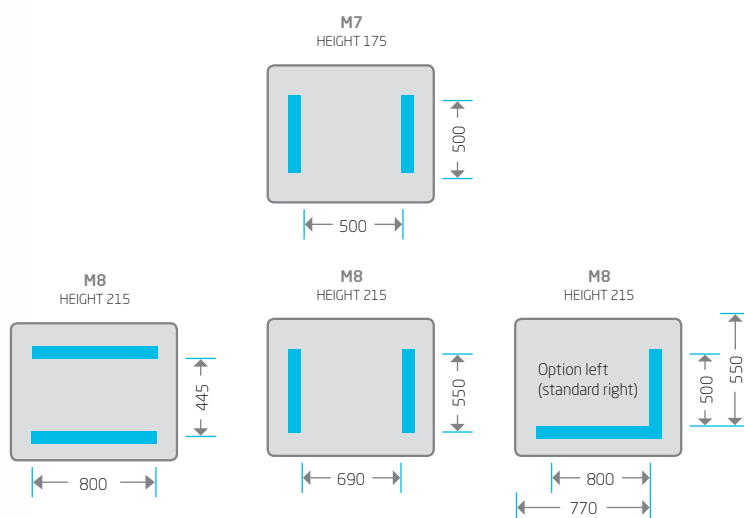
	DIGITAL TIME CONTROL	SENSOR CONTROL	SEAL	SEAL CONFIGURATION	GAS	PUMP CAPACITY M3	CYCLE TIME
MOBILE <b>M4</b>	10 programs	sensor/H <sub>2</sub> O	double trenn 1-2 bi active	L S&S L&S	gas	63 m <sup>3</sup>	20-40 sec
MOBILE <b>M5</b>	10 programs	sensor/H <sub>2</sub> O	double trenn 1-2 bi active	L&L S&S L&S	gas	63 or 100 m <sup>3</sup>	25-35 sec
MOBILE <b>M6**</b>	10 programs	sensor/H <sub>2</sub> O	double trenn 1-2 bi active	L&L S&S L&S	gas	63 or 100 m <sup>3</sup>	25-35 sec

\*\*Model M6 standard coverheight 210 mm, optional high cover 260 mm



MOBILE M8

## SEAL CONFIGURATIONS M7 & M8



## SPECIFICATIONS M7 & M8

### ALUMINUM COVER & CHAMBER

	SEAL LENGTH	MAX. PRODUCT HEIGHT	USEFUL CHAMBER SIZE (wxdxh)	OUTSIDE DIMENSION (wxdxh)	STANDARD VOLTAGE*	POWER CONSUMPTION	WEIGHT
MOBILE <b>M7</b>	500	175	500 x 500 x 175	695 x 680 x 1035	400-3-50 Hz	3,3 kw	150 kg
MOBILE <b>M8</b>	2 x 800 2 x 550	800 x 500 215	max 800 x 500 x 215	905 x 930 x 1060	400-3-50 Hz	3,5 kw	200 kg

Dimensions in mm \*Machines can be supplied with all worldwide voltages applicable

## OPTIONS M7 & M8

	DIGITAL TIME CONTROL	SENSOR CONTROL	SEAL	SEAL CONFIGURATION	GAS	PUMP CAPACITY M3	CYCLE TIME
MOBILE <b>M7</b>	1 or 10 programs	sensor/H <sub>2</sub> O	double trenn 1-2 bi active	S&S	gas	40 or 63 m <sup>3</sup>	25-35 sec
MOBILE <b>M8</b>	1 or 10 programs	sensor/H <sub>2</sub> O	double trenn 1-2 bi active	L&L S&S L&S	gas	63 or 100 m <sup>3</sup>	20-40 sec



Selected models available. For details please contact Crown National



## HENKOVAC DOUBLE CHAMBERS:

EFFICIENT, HIGH CAPACITY AND BUILD TO LAST.

Our new range of double chambers are reliable, durable and offer flexibility in volume production. Our machines can be equipped with semi-automatic or automatic cover movement for an even more efficient production. The double chambers can also be equipped with an external pump.

"HEAVY DUTY, INDUSTRIAL PERFORMANCE,  
INDUSTRIAL QUALITY"



DOUBLE CHAMBER D2

DOUBLE CHAMBER D6



## SPECIFICATIONS D1, D3, D4 & D6

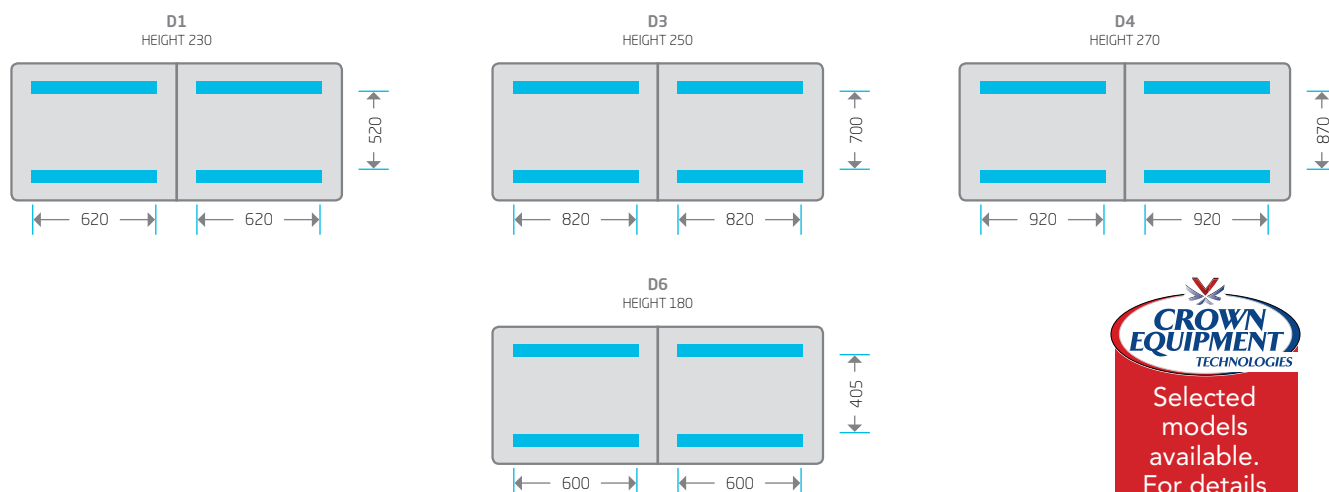
	SEAL LENGTH	MAX. PRODUCT HEIGHT	USEFUL CHAMBER SIZE (wxdxh)	OUTSIDE DIMENSION (wxdxh)	STANDARD VOLTAGE*	POWER CONSUMPTION	WEIGHT
<b>STAINLESS STEEL COVER &amp; FLAT WORKING SURFACE</b>							
<b>D1</b>	4 x 620	230	620 x 520 x 230	1440 x 915 x 1205	400-3-50 Hz	4,4 kw	350 kg
<b>D3</b>	4 x 820	250	820 x 700 x 250	1800 x 1100 x 1230	400-3-50 Hz	6,2-9,7 kw	600 kg
<b>D4</b>	4 x 920	270	920 x 870 x 270	2000 x 1260 x 1245	400-3-50 Hz	6,2-9,7 kw	720 kg
<b>ALUMINUM COVER &amp; FLAT WORKING SURFACE</b>							
<b>D6</b>	4 x 600	180	610X510X180	1345 x 720 x 1040	400-3-50 Hz	4,4 kw	240 kg

Dimensions in mm \*Machines can be supplied with all worldwide voltages applicable

## OPTIONS D1, D3, D4 & D6

	DIGITAL TIME CONTROL	SENSOR CONTROL	SEAL	SEAL CONFIGURATION	GAS	PUMP CAPACITY M3	CYCLE TIME
<b>D1</b>	10 programs	sensor/H <sub>2</sub> O	double trenn 1-2 bi active	2x L&L	gas	63-100 m <sup>3</sup>	20-40 sec
<b>D3</b>	10 programs	sensor/H <sub>2</sub> O	double trenn 1-2 bi active	2x L&L	gas	160-300 m <sup>3</sup>	20 -35 sec
<b>D4</b>	10 programs	sensor/H <sub>2</sub> O	double trenn 1-2 bi active	2x L&L	gas	160-300 m <sup>3</sup>	25-40 sec
<b>D6</b>	1 or 10 programs	sensor/H <sub>2</sub> O	double trenn 1-2 bi active	2x L&L	gas	40-63-100 m <sup>3</sup>	20-40 sec

## SEAL CONFIGURATIONS D1, D3, D4 & D6



Selected models available. For details please contact Crown National.

# HENKOVAC AUTOMATIC PACKAGING LINE

## FOR CONTINUOUS OPERATION

- After the machine is manually loaded the cover will close automatically and start the vacuum cycle.
- After the vacuum cycle the cover will automatically swing to the other working platform while the packaged products will automatically be discharged on the conveyor belt and be transported into the immersion tank which will automatically start the short immersion cycle.
- After the immersion the product will be discharged on the exit table.
- At the exit table the excess film can be removed from the shrink wrap package if 1-2 seal has been used.
- The 1-2 seal is highly recommended when shrink bags are being used.
- For regular vacuum bags the immersion tank is not necessary.



### Standard

- Rugged all stainless steel construction
- IP65 splash water proof controls
- Pneumatic automatic movement of the vacuum chamber
- Manual, semi-automatic or automatic operation
- Sensor controlled 1.0 program digital vacuum control unit
- Special cleaning position
- Conveyor belt automatic controlled by the movement of the vacuum chamber and the immersion tank
- Immersion tank has automatic water level and temperature control
- The immersion rack can be removed to clean the immersion tank

### Optional

- 1-2 Seal for shrink bags or bi-active seal
- Gas flush
- External pump connection
- Additional 300m3 external pump

### Automatic Packaging Line

- ➊ Automatic double chamber vacuum machine
- ➋ Conveyor
- ➌ Immersion tank
- ➍ Exit table

## SPECIFICATIONS A5000

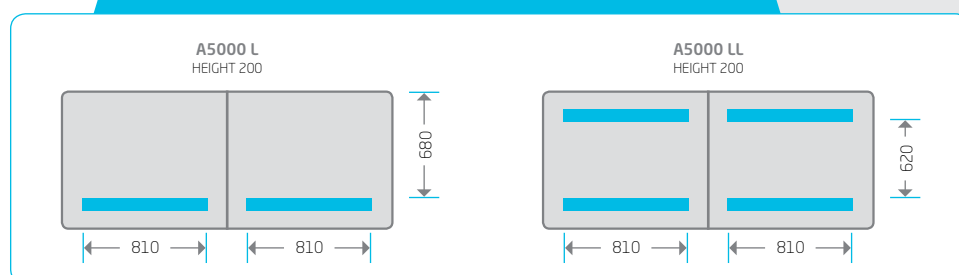
	SEAL LENGTH	WORK HEIGHT	USEFUL CHAMBER SIZE (wxdxh)	OUTSIDE DIMENSION (wxdxh)	WEIGHT	STANDARD VOLTAGE*	POWER CONSUMPTION	AIRPRESSURE
<b>AUTOMATIC DOUBLE CHAMBER VACUUM MACHINE</b>								
A5000 <b>L</b>	2 x 810	910	810 x 680 x 200	2020 x 923 x 1230	525 kg	400-3-50 Hz	5,5 kw	6 bar-100 Ltr p/m
A5000 <b>LL</b>	4 x 810	910	810 x 680 x 200	2020 x 923 x 1230	525 kg	400-3-50 Hz	5,5 kw	6 bar-100 Ltr p/m
<b>CONVEYOR BELT</b>								
	LENGTH	WIDTH	HEIGHT	DIMENSIONS (lxwxh)	WEIGHT	STANDARD VOLTAGE*	POWER CONSUMPTION	
CS-HV	2900	630	910	2900 x 630 x 910	160 kg	220-1-50 Hz	800 W	
<b>IMMERSION TANK</b>								
	WATER CONTENT	IMMERSION PLATFORM	IMMERSION DEPTH	DIMENSIONS (wxdxh)	WEIGHT	STANDARD VOLTAGE*	POWER CONSUMPTION	
ADT-HV 60/80	175 Ltr	800 x 560	250	954 x 920 x 1698	255 kg	400-3-50 Hz	18 Kw option 30 Kw	
<b>EXIT TABLE</b>								
	DIMENSIONS (lxwxh)							
EXIT TABLE	1265 x 630 x 850							

Dimensions in mm \*Machines can be supplied with all worldwide voltages applicable

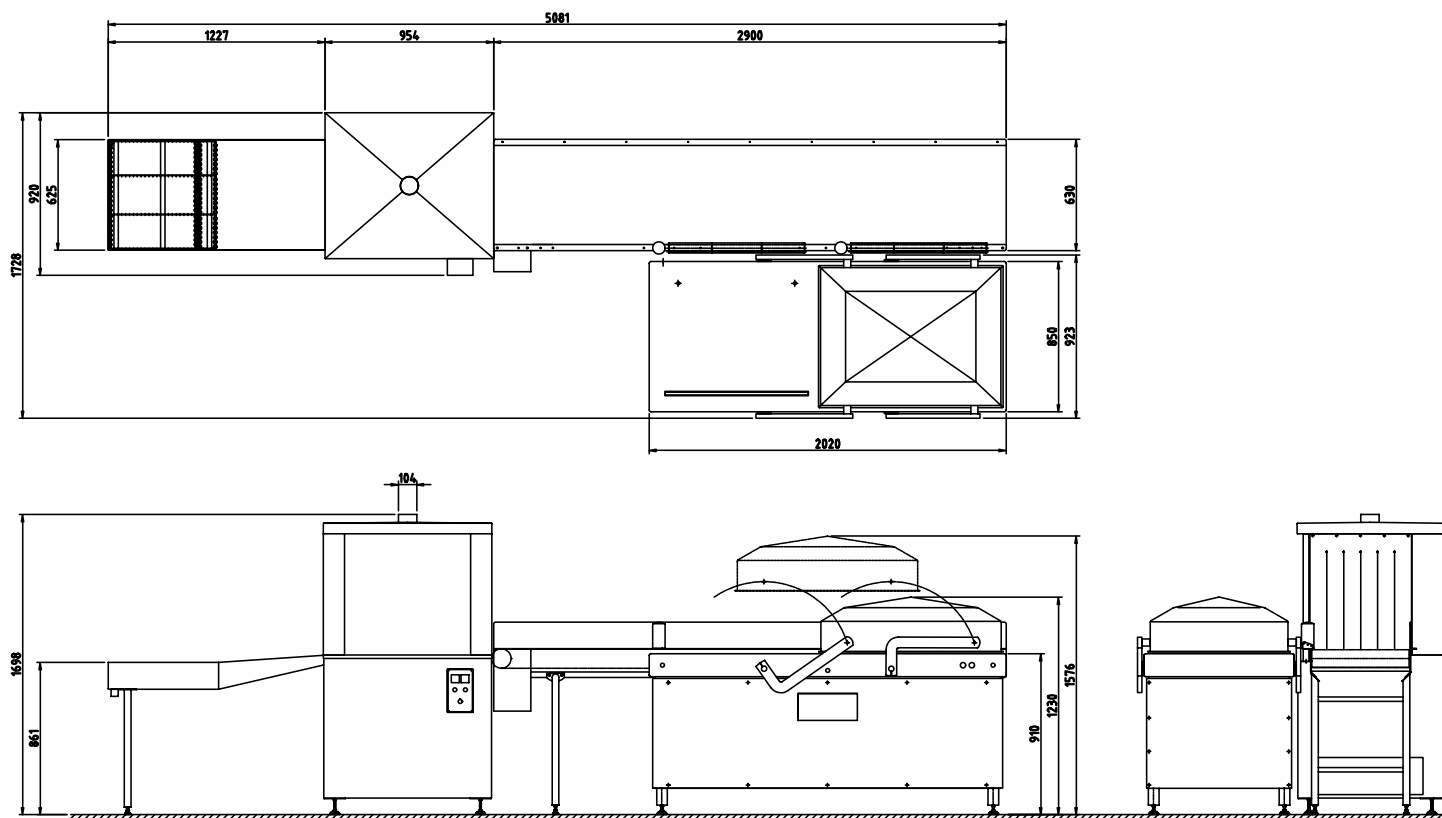
## OPTIONS A5000

	DIGITAL TIME CONTROL	SENSOR CONTROL	SEAL	SEAL CONFIGURATION	GAS	PUMP CAPACITY M3	CYCLE TIME
A5000 <b>L</b>	10 programs	sensor/H <sub>2</sub> O	double trenn 1-2 bi active	L&L	gas	1 or 2 x 300 m <sup>3</sup>	30 sec
A5000 <b>LL</b>	10 programs	sensor/H <sub>2</sub> O	double trenn 1-2 bi active	2x L&L	gas	1 or 2 x 300 m <sup>3</sup>	30 sec

## SEAL CONFIGURATIONS A5000







VACUUMPACKAGING MACHINES



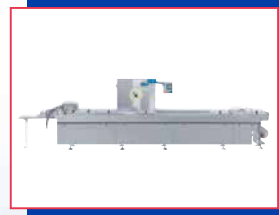
SHRINKPACKAGING MACHINES



TRAYSEALING MACHINES



THERMOFORMER MACHINES



**HENKOVAC**  
QUALITY VACUUM SYSTEMS





**1ST CHOICE**  
FOR PROFESSIONALS  
WORLDWIDE

**HENKOVAC**  
QUALITY VACUUM SYSTEMS

## HENKOVAC TRAY SEALERS:

### LOW INVESTMENTS, EASY PROGRAMMING AND VERY FLEXIBLE...

*Perfect for restaurants, hospitality branch, food stalls and caterers.*

The Henkovac TPS tray sealing machines are designed for packing food products under MAP-conditions. Low investment, easy programming and flexibility explain the popularity of these machines. The mould sets can be easily changed without the need of tools because of the unique "easy mould change system". The fully automatic sensor controls vacuum and gas injection to create the perfect atmosphere inside the package.

"FLEXIBLE & EASY TO USE"



TRAY SEALER TPS XL









TRAY SEALER TPS MINI

## SPECIFICATIONS TRAY SEALERS

	MACHINE DIMENSION	WORK HEIGHT	PUMP	CYCLE TIME	VOLTAGE*	POWER CONSUMPTION	AIR PRESSURE REQUIRED	WEIGHT
<b>TPS XL</b>	580 x 730 x 1300	850	21 m³	25-30 sec	400V-3-50 Hz	1,5 kw	6bar -20 ltr p. min	150 kg
<b>TPS MINI</b>	380 x 640 x 670	table top	8 m³	25-30 sec	400V-3-50 Hz	0,45 kw	6bar -20 ltr p. min	50 kg
	MAX DIMENSION TRAY	MAX HEIGHT TRAY	MAX WIDTH FILM	MAX DIAMETER FILM ROLL	CORE DIAMETER FILM ROLL			
<b>TPS XL</b>	395 x 290	100	400	250	75			
<b>TPS MINI</b>	366 x 180	50	265	250	75			

Dimensions in mm \*Machines can be supplied with all worldwide voltages applicable

## MAXIMUM TRAY DIMENSIONS

MOULD CONFIGURATION	TPS MINI (LXDxH)	TPS XL (LXDxH)	
1:1	265 x 180 x 50	395 x 290 x 120	
1:2	180 x 120 x 50	195 x 290 x 120	
2:1	265 x 80 x 50	395 x 140 x 120	
4:1	180 x 80 x 50	195 x 140 x 120	
1 x round	Ø 165	Ø 290	
2 x round	Ø 120	Ø 195	

Dimensions in mm



Selected models available. For details please contact Crown National



## HENKOVAC TRAY SEALERS:

EASY AND QUICK MOULD CHANGE, EASY ACCESS,  
EASY TO CLEAN

*"Packaging of meat, vegetables, fruit, ready made meals portioned in practical trays with a professional presentation"*

The TPS 1000 and TPS 2000 are especially designed for easy and fast mould changes which consists of relatively light components. The transparent cover allows quick and full access for the mould change, loading and guiding the film and thorough cleaning of the machine. The TPS 2000 has 2 moulds which doubles the production capacity compared to the TPS 1000 or adds flexibility with the installation of 2 different moulds. This only requires changing the settings at the control panel for switching to a different tray dimension. The TPS range can be equipped with a special oxygen Busch pump for gasflush > 21%, a photocell for centering printed film. The loading area can be extended, the exit belt can be motorized and the control unit has connections for auxiliary equipment.

TRAY SEALER TPS 2000










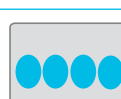
## SPECIFICATIONS TRAY SEALERS

	MACHINE DIMENSION	WORK HEIGHT	PUMP	CYCLE TIME	VOLTAGE*	POWER CONSUMPTION	AIR PRESSURE REQUIRED	WEIGHT
<b>TPS 1000</b>	3400 x 1100 x 1500	850	100 m³	10-15 sec	400V-3-50Hz	6 kw	6 bar	950 kg
<b>TPS 2000</b>	4600 x 1100 x 1500	850	160 m³	10-15 sec	400V-3-50 Hz	10 kw	6 bar	1100 kg
	MAX DIMENSION TRAY	MAX HEIGHT TRAY	MAX WIDTH FILM	MAX DIAMETER FILM ROLL	CORE DIAMETER FILM ROLL			
<b>TPS 1000</b>	424 x 266	130	480	440	76			
<b>TPS 2000</b>	2X 424 x 266	130	480	440	76			

Dimensions in mm \*Machines can be supplied with all worldwide voltages applicable

## MAXIMUM TRAY DIMENSIONS

MOULD CONFIGURATION **TPS 1000 & TPS 2000** (LXDxH)

1:1	424 x 266 x 130	
1:2	209,5 x 266 x 130	
1:3	127 x 266 x 130	
1:4	90 x 266 x 130	
1 x round	Ø 336	
2 x round	Ø 209,5	
3 x round	Ø 127	
4 x round	Ø 90,25	

Dimensions in mm



Selected models available. For details please contact Crown National.

## HENKOVAC THERMOFORMERS:

### WORLDCLASS THERMOFORMER FOR FLEXIBLE AND RIGID FILM

- **Film widths:** 285 - 320 - 355 - 420 mm
- **Strokes:** 240 - 270 - 300 mm

The range of thermoformers has been designed to satisfy the requirements of small to medium size processing operations that require the best value for their money in performance, hygiene, quality, reliability, serviceability and durability. The intuitive, user friendly control system make programming easy, provides relevant management information and safeguards proper operation. All parts are very accessible for easy service and cleaning. The uncompromising choice of quality materials and design makes us proud to be able to offer this range of thermoformers.



#### Standard

- Display prepared for remote connection and control through Ethernet; for example for software updates
- Synchronisation for peripheral devices such as a labeler, printer, filler or loading robot
- Control cabinet heating to prevent condensation on electrical circuits

Optional	1	2	3
➤ Length	3000		
➤ Pump	63 m <sup>3</sup>	100 m <sup>3</sup>	160 m <sup>3</sup>
➤ Gas	Inert	Oxygen	
➤ Exit Conveyor	Rollers	Powered chain belt	
➤ Film	Print sensor	Euro hole	

## SPECIFICATIONS THERMOFORMER

	MACHINE LENGHT	MACHINE WIDTH	MACHINE HEIGHT	VOLTAGE*	POWER CONSUMPTION	AIR	WATER
<b>TH 285/320/355</b>	3500	727	1708	400V-3-50Hz	7,5 kw	6 bar 200 Ltr/min	2,1Ltr/min 1,5 bar
<b>TH 420</b>	3500	792	1708	400V-3-50 Hz	7,5 kw	6 bar 200 Ltr/min	2,1Ltr/min 1,5 bar
	FILM THICKNESS	MAX DEPTH					
FLEXIBLE FILM	< 300 µ	95					
RIGID FILM	Ca. 300-400 µ	60					
SKIN PACK	x	20					

Dimensions in mm \*Machines can be supplied with all worlwide voltages applicable

## MODELS THERMOFORMERS

MODEL	WIDTH	STROKE	LOADING AREA
TH 285-240	285	240	1400
TH 285-270	285	270	1300
TH 285-300	285	300	1100
TH 320-240	320	240	1400
TH 320-270	320	270	1300
TH 320-300	320	300	1100
TH 355-240	355	240	1400
TH 355-270	355	270	1300
TH 355-300	355	300	1100
TH 420-240	420	240	1400
TH 420-270	420	270	1300
TH 420-300	420	300	1100



Selected models available. For details please contact Crown National



## IMMERSION TANKS FOR SHRINK PACKAGES

- Full stainless steel immersion tanks for shrink packages
- Immersion platform with rollers for easily loading and unloading
- Automatic water level and temperature control
- Wheels for added flexibility



HV 40/60

### SPECIFICATIONS IMMERSION TANKS

	WATER CONTENT	IMMERSION PLATFORM	IMMERSION DEPTH	DIMENSIONS (wxdxh)	WEIGHT	STANDARD VOLTAGE*	POWER CONSUMPTION
<b>HV 40/60</b>	70 Ltr	570 x 400	250	700 x 620 x 1550	400-3-50 Hz	9 kw	105 kg
<b>HV 55/75</b>	140 Ltr	730 x 535	250	1018 x 755 x 1550	400-3-50 Hz	14 kw	135 kg

Dimensions in mm \*Machines can be supplied with all worldwide voltages applicable

## CONVERSION TABLE OLD & NEW

	HENKOVAC NEW	HENKOVAC OLD
<b>TRANSPARENT COVER &amp; STAINLESS STEEL CHAMBER</b>		
TABLETOP	<b>T2</b>	MINI+MAXI
TABLETOP	<b>T3</b>	GASTRO+100i
TABLETOP	<b>T4</b>	GASTROPRO+150i+153
TABLETOP	<b>T5</b>	163
<b>TRANSPARENT COVER &amp; STAINLESS STEEL CHAMBER</b>		
MOBILE	<b>M1</b>	170i+193
MOBILE	<b>M2</b>	200i+253
MOBILE	<b>M3</b>	NEW: 163 MOBILE VERSION
<b>STAINLESS STEEL COVER &amp; FLAT WORKING SURFACE</b>		
MOBILE	<b>M4</b>	203
MOBILE	<b>M5</b>	303
MOBILE	<b>M6</b>	303 XL
<b>ALUMINUM COVER &amp; CHAMBER</b>		
MOBILE	<b>M7</b>	200
MOBILE	<b>M8</b>	300
DOUBLE CHAMBER	<b>D1</b>	403XL
DOUBLE CHAMBER	<b>D3</b>	453XL + 493XL
DOUBLE CHAMBER	<b>D4</b>	503XL
DOUBLE CHAMBER	<b>D6</b>	350
AUTOMATIC LINE	<i>No changes</i>	A5000
IMMERSION TANK	<i>No changes</i>	HV 50/75
IMMERSION TANK	<i>No changes</i>	HV 40/60
TRAY SEALER	<i>No changes</i>	TPS Mini
TRAY SEALER	<i>No changes</i>	TPS XL
TRAY SEALER	<i>No changes</i>	TPS 1000
TRAY SEALER	<i>No changes</i>	TPS 2000
THERMOFORMER	<i>No changes</i>	TH FLEX
THERMOFORMER	<i>No changes</i>	TH RIGID



Selected models available. For details please contact Crown National

## Henkovac Videos



AUTOMATIC

**AV HENKOVAC**

QUALITY VACUUM SYSTEMS

[www.henkovac.nl](http://www.henkovac.nl)

# RED ARROW

For over 50 years, Red Arrow has provided superior smoking solutions to the processed meat industry as well as flavour and processing solutions to the food industry. Their smoke flavours are widely used for Barbecue sauces, snack foods, and other flavouring needs. The concentrated smoke condensates are used to safely and efficiently replace the traditional smoking process.



**Red Arrow**<sup>®</sup>  
Smoke • Grill • Browning • Cooking Flavors





## Introduction



As a leader in smoking and browning technology, Red Arrow offers custom-made smoke condensate and browning application equipment such as Spraying Systems - for browning or smoking of meats and bakery products and Cascade Shower Systems - for browning or smoking of meats and cheeses.

These systems achieve a stable brown, roasted colour of nearly any shade with minimum heat. The product reacts in the microwave and gives frozen food texture, colour and roasted flavour.

Natural brown roasted colour and flavour can be achieved with Red Arrow GMO-free browning agents. These products produce a colour when applied to a food surface and react with heat during a normal cooking process (including in the microwave).

The Red Arrow Equipment Company is an arm of Red Arrow International, and is dedicated to providing the most efficient Condensed Natural Smoke™ atomization systems at an affordable price.

Red Arrow uses only the highest quality component parts that have been proven through years of operation. Precise detail is in the design of every POWRDRENCH®, sparing no expense to the critical requirements of drenching condensed natural smoke. As the leading manufacturer of Condensed Natural Smoke™ application equipment, we pride ourselves in maintaining 100% customer satisfaction.

The POWRDRENCH® Stick Drenching System is designed for batch operations in plants where product movement involves meat trucks or trolleys. This POWRDRENCH is installed in line after stuffing, providing Condensed Natural Smoke™ coverage to products prior to the cooking process. The POWRDRENCH Stick Drench can easily be sized to accommodate multiple line operations. As with all of the Red Arrow POWRDRENCH Systems, efficient smoke usage is a key consideration in design.

**Red Arrow®**  
Smoke • Grill • Browning • Cooking Flavors

[www.redarrowusa.com](http://www.redarrowusa.com)

# Red Arrow®

Smoke ▪ Grill ▪ Browning ▪ Cooking Flavors



A brief introduction  
to the benefits of  
using condensates  
versus use of smoke  
generators “on site”



1. Red Arrow smoke condensates are natural smokes offering all the advantages of “traditional” smoking with some added benefits including health issues. The main issue here being: the dirty work of burning has been done elsewhere.
2. The cost in use will, as a rule of thumb, drop from around R 0.50 to R 0.25 – 0.30 per Kg finished product.
3. One solution may be used for all products to be smoked, this will generally be a 1:4 in water, saving the complexity of having dozens of programs.
4. Time saving. We can generally recommend that the usual program be used simply changing the reddening cycle to the first drying cycle and adding a 5 minute drying cycle at the end to “set the colour”
5. Maintenance saving. Maintenance of smoke generators is costing thousands of rand Maintenance for a Red Arrow drencher is nearly zero.
6. Time saving. The usual smoke cycle lasts from 15 – 40 minutes. The smoking cycle using condensates is 1 (one) minute maximum, prior to going into the smokehouse.





7. Weight loss is reduced by several percentage points due to the reduced processing times. It is; however, advised to limit this reduction to about 5% to avoid textural and shelf life issues caused by excessive moisture retention.
8. Chemicals to clean smoke generators are expensive, add man hours to do the job and can be reduced drastically by using smoke condensates. Drenchers require only to be hosed down at the end of the day and a good soap to be circulated through the system once a week.
9. The add-back system ensures that the right amount of condensate is always present in the solution thus, automatically maintaining colour uniformity.
10. The solution should, under normal conditions, last a working week assuming that add back is done as required (300 gr per 100 Kg product on average) and that the solution is topped up as required.
11. There is no smoke emission into the surrounding area, Several customers have had issues with complaints recently. Using Red Arrow condensates totally overcomes this.
12. 12- The product is bio degradable and can therefore be disposed of through the normal drainage system.
13. Crown and Red Arrow offer excellent know how and expertise which will assist with a painless and easy transition as well as any issues that may arise in the future.
14. Due to the reduction in processing time, production will experience an increase in volume as well as an easier flow.





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