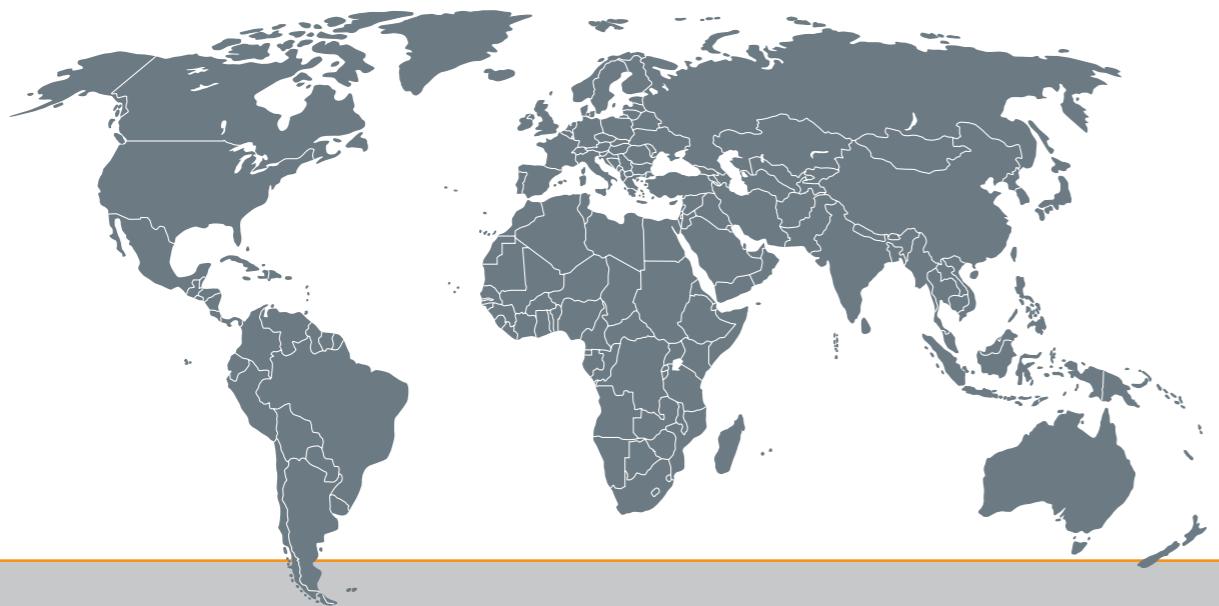


MACHINES FOR THE BAKING INDUSTRY

GHD HARTMANN international

Represented in more than 35 countries – see www.ghd.net



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The brochure presents some classic machine types and machine combinations by way of example. Variations in models are however possible and necessary. Every machine manufactured by GHD Georg Hartmann is equipped individually to the specific requirements of the customer and is therefore a reliable partner in daily foodstuff production for many years.

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GS 60



GS 60

Capacity: up to 3 600 products / h

KM 600



KM 600

Capacity: up to 600 slices / min



VS 320

KM 600 slicer and VS 320 packing machine:
slicing **and** packing by GHD Hartmann.



KM 600 P

➤ The KM 600 P is a logical enhancement of our proven high-performance KM 600 slicer. To enable weight-optimised portioning this device contains additional, high-precision control as well as process-related components. As they are fed, the bread bars are first analysed and weighed in a density scanner. The specific density profile of each bread bar is transmitted to the controller. Servo-controlled actuating drives adjust the individual slice thickness precisely in a continuous process. This controller ensures that even free-baked loaf shapes can be apportioned in a weight-optimised and economical manner. Over 20 characteristic parameters are stored permanently and can be called up for each individual bread bar. The system makes the manufacturing process more transparent. Documentation of the parameters creates and additional control options for upstream processes (e.g. dough production, recipe changes, ambient temperature). The data can be saved for subsequent archiving in either Excel®format or a BDE database.



VS 320

The KM 600 P is optimally suitable for concatenation with the VS 320 packing machine.

◀ **KM 600 P**
Capacity: up to 600 slices / min



SELECTRA SLICER

SL 20
SL 25



▲ **Selectra SL 20**
Capacity: up to 2 500 loaves / h*

➤ Fully automatic band slicer for toast and mixed rye bread. The slicing process is performed by band blades with a length of 150 inches (approx. 3,8 m). These are tensioned collectively between two hard-chrome plated drums. The self-supporting, warp resistant steel tube frame ensures the smooth running of the machine. Generously-dimensioned doors and hoods allow easy access for cleaning and maintenance as well as quick blade replacement.



▲ **Selectra SL 25**
Capacity: up to 3 000 loaves / h*

- In order to achieve optimum slicing results, each slicer is specially configured to your requirements.
- An optionally available, controllable oiling system supports the slicing process of multi-grain bread containing rye. The machine can be equipped with UV lamps to sterilise the band blades during the slicing process.
- Various clean room configurations and components are available as an option.
- The sliced bread can be prepared by optional heel (end-crust) deflectors, product-halving separators, turntables or cassette divisions prior to packaging.

SELECTRA SLICER SL 30 SL 50



► **Selectra SL 30**

Capacity: up to 3 800 loaves / h*



- Fully automatic band slicer for toast and mixed rye bread. The slicing process is performed by band blades tensioned pneumatically between two hard chrome plated drums. The self-supporting, warp resistant steel tube frame ensures the smooth running of the machine. Generously-dimensioned doors and hoods allow easy access for cleaning and maintenance as well as quick blade replacement. The machines are designed in left- or right-handed versions.



➤ **Selectra SL 50**

Capacity: up to 4 500 loaves / h*

*Individual capacity depends on the product.



- In order to achieve optimum slicing results, each slicer is specially configured to your types of bread.
- An optionally available, precisely controllable oiling system supports the slicing process of multi-grain bread containing rye.
- The machine can be equipped with UV lamps to sterilise the band blades during the slicing process.
- Various clean room configurations and components are available as an option.
- Sliced products can be apportioned and turned in position at the outlet of the machine.
- The sliced loaf can be prepared by optional heel (end-crust) deflectors, product-halving separators, turntables or cassette divisions prior to packaging.

DISC SLICER HS BS 20



Disc Slicer HS

Capacity per channel:
max. 300 products / min with a diameter up to 100 mm*
max. 100 baguettes / min up to a length of 320 mm*

BS 20

Capacity: 55 loaves / min*

The BS 20 decrusting machine has been developed to remove crusts from rectangular white bread loaves. Separation of the crusts takes place in individual steps. In the first step, the crusts of the loaves are sliced off parallel to each other on both sides by a pair of band blades; the loaf is then swivelled through 90°. A second pair of band blades then decrusts the remaining longitudinal sides parallel to each other. The BS 20 decruster is optimally suited for use in combination with Hartmann slicers that remove the heels in the slicing process.



► The HS disc slicer is a fully-automatic slicer for baguettes, hot dog and hamburger buns. Products are fed between upper and lower belts into the machine and are sliced by a separately driven circular blades. Hinge cut, butterfly cut, wedge cut and double butterfly cut can be applied to the products by means of various configurations and slicer arrangements.

SL 30 + GBK 220



► Our best seller – one of many combinations consisting of slicers and packing machines: Optimised by Hartmann for specific requirements.



► SL 30 + GBK 220 combination



*Individual capacity depends on the product.

GBK 220
GBK 420
VBA 40

- The GBK packaging machine is ideal for whole loaves and sliced loaves (up-right slices, toast bread, etc.). The vacuum pusher developed by HARTMANN has proved itself to be the optimum practical solution. The mature technology of these machines guarantees optimised packaging in plastic as well as paper bags with clip closure or other options. Thanks to the complete separation of product processing and mechanical drive areas, this generation of machines is also suitable for clean-room requirements.



- **GBK 220**
Capacity: 30-45 cycles / min, continuously variable
Individual capacity depends on the product.

- The **GBK 220 / 420** packaging machines can be upgraded with the following options:
 - Turning compartment device
 - Portion top-up by automatic cartridge system
 - Clean-room versions and components
- Special, interchangeable tools that are adapted to the product and bag, enable loaves of almost any shape to be processed. Products that are added at a later stage can be processed by supplementary tools.



- **VBA 40**
Capacity:
Plastic bags: up to 50 cycles / min.
Paper bags: up to 40 cycles / min
(product-dependent, also depending on type and duration of filling)



- **GBK 420**
Capacity: 30-70 cycles / min, continuously variable
Individual capacity depends on the product.



- The VBA 40 automated machine by HARTMANN is ideally suited to packing and sealing of bulk products such as buns and pastries in ready-made bags. Optimal and almost continuous packing is achieved by the combination of a robust bag spreader system with a bag magazine for handling up to six stacks of ready-made bag stacks, as well as the proven HARTMANN clipping unit.
Optionally, this automated packing machine can be combined with an automatic counting machine or scale, or be fed manually.

VS 320
VS 320 S
VS 320 SV



► VS 320

The VS 320 packing machine is available in the following versions:

- Type VS 320:** Base model, capacity: 30-55 cycles / min
- Type VS 320 S:** For short products (up to 200 mm in length), capacity: up to 65 cycles / min
- Type VS 320 SV:** Servo-controlled version with a capacity of up to 70 cycles / min

► Fully automated bag packing machine for sliced breads. Due to its universal suitability for packing and closing plastic and paper bags, the VS 320 and VS 320 S packing machines fulfil the complex packaging requirements on an international level. The dimensioning of the drive concept ensures consistent switch-point accuracy for all functions and reduces maintenance to the minimum. The complete separation of product processing area and mechanical drive allows this machine design to satisfy all clean-room requirements, as well.

PP 30



► PP 30

Capacity: 30 packs / min, product dependent



AUTOLOAD AL 50



With its modular design, the Autoload AL 50 system platform is the optimum upgrade for the GBK 220 and GBK 420 packing machines if hamburger, hot dog or similar shaped products are to be packed. Unsorted products are fed by a conveyor system to be transferred, counted and grouped in multiple parallel channels. Depending on the packing scheme, the groups are drawn from multiple channels and are brought together either next to each and above each other. The AL 50 can also be combined with a flow wrapper. The modular design enables integration of additional components such as the DS multi-head disc slicer, the HB horizontal band slicer and further systems.

GBK 420 fed by Autoload AL 50
Capacity: max. 3000 packs / h



STV 40



Fully automatic machine for creating product stacks, which can be individually equipped according to the output requirement, type of product and product format. The individual products are continuously stacked in the direction of flow and after stacking, can be fed into a VS 320 packing machine. The clearly arranged and easily accessible design enable easy setting up, cleaning and checking.

STV 40

Capacity: per stacking channel up to 80 products / min



EC 101 H
EC 101 H + SL 25

➤ This packing machine consists of two bag inflating tables and a horizontal clipping unit arranged perpendicular. Castors and its compact design make this clipping unit flexible and usable at any location. The bags are opened by means of the bag inflating tables. Various products such as whole or sliced loaves can easily be inserted manually and placed on the transversely running product conveyor. Brushes align the filled bags to ensure optimal packing results. The filled bag is transported automatically to the clipping station. An integrated vacuum system sucks excess air out of the bag before it is closed, in order to ensure tight packaging.



➤ EC 101 H + SL 25

The EC 101 H or EC 101 HS packing machines combined with the Selectra SL 25 slicer or GS 60 reciprocating slicer presents a balance between flexibility and capacity.



EC 101 HS

➤ This packing machine consists of a bag inflating table and a horizontal clipping unit arranged perpendicular. The machine frame and all cladding are made of stainless steel – important for easy and hygienic cleaning. Castors combined with the compact design make this clipping unit flexible in application for many products, quick to set up and usable at almost any location. Whole loaves, sliced loaves or other products can be easily apportioned, inserted in bags on the bag inflating table and placed on the diagonally-arranged product conveyor. Brushes align the filled bags to ensure optimal packing results. The filled bag is transported automatically to the clipping station. An integrated vacuum system sucks excess air out of the bag before it is closed



➤ EC 101 HS

Capacity: approx. 40 packs / min
Capacity is product-dependent.



EC 101 IS
EC 101 KS
EC 104

EC 101 IS

This machine is equipped with its own impulse-controlled drive and can easily be combined with vertical or horizontal packing machines. Thanks to its intermittent mode of operation, no synchronisation with the upstream packing machine is required. The bags are discharged at an angle of either 20°, 30° or optionally 45° and 60° via a diagonally positioned product carrier belt. It is therefore also suitable for manual feeding. An integrated vacuum system in the clipping station sucks excess air out of the bag to be closed, in order to ensure tight packaging.

EC 101 KS

Clipper to be combined with vertical or horizontal flow wrapper. The continuous mode of operation requires that both lines operate in synchrony. Synchronisation can be implemented mechanically or electronically. An integrated vacuum system in the clipping station sucks excess air out of the bag to be closed. Various drive specifications are available for different capacities.

EC 101 IS + KS

Capacity EC 101 IS: approx. 60 packs / min
Capacity EC 101 KS: approx. 60-100 packs / min
Capacity depends on the product and the main drive.

**EC 104**

Capacity: approx. 40 packs / min
Capacity is product-dependent.

**EC 104**

The distinguishing feature of this machine's design is that packed products (tray packs, baguettes, sausages, etc.) are picked up from a horizontal packing machine in the line, clipped and taken to the collection station at table height. Castors and its compact design make this clipping unit flexible and usable at any location. All drive elements are accessible simply by opening the doors of the machine. The clipper is impulse-controlled, equipped with its own drive and requires no synchronisation with the packing machine. The products are transported via conveyor belts and the speed is stepless adjustable. If combined with a bag inflating table, the machine is also ideal for manual operation.

EC 130
EC 130 + SL 20
EC 135
EC 140



► EC 130 + SL 20

Modular systems can be combined and upgraded at any time.
An SL 20 or SL 25 slicer arranged in line with an EC 130 clipper with a bag-inflating table as well as an inclined conveyor form a popular semi-automatic solution for slicing and packing bread.



▼ EC 130

Capacity: approx. 40 packs / min
Capacity is product-dependent.

▼ EC 135

Capacity: max. 40 packs / min
Capacity is product-dependent.



► Suitable for clipping vertically-filled bulk bagging. The machine is mounted on castors and equipped with its own impulse-controlled drive. Feeding can be implemented manually or by means of a vertical packing machine. Synchronisation with the packaging machine is not required.



► EC 140

Capacity: approx. 45 packs / min
Capacity is product-dependent.



► The EC 140 clipper is an extremely versatile machine for manual filling of ready made plastic or paper bags. Castors and its compact design make this clipping unit flexible and usable at almost any location. The bag is pre-opened by the inflating device in order to simplify the packing of products. The filled bag is precisely and securely clipped in the downstream clipper.

²⁴Clipping

EC 140 S
EC 150 V



► EC 150 V

Capacity: approx. 50 / 65 or 85 bag / min
Capacity depends on the product and the main drive.

► A machine designed especially for packing bread rolls, croissants, pretzels, etc. in ready-made plastic or paper bags. The machine frame and all cladding are made of stainless steel – important for value retention and for easy and hygienic cleaning. Castors and its compact design make this clipping unit flexible and usable at any location. The bag is opened slightly by the bag inflating unit, so that the product can be manually inserted in a quick and easy manner. The product is precisely and securely clipped in the downstream clipper.



▼ EC 140 S

Capacity: approx. 45 packs / min
Capacity is product-dependent



► This machine is especially suited to the clipping of vertically-filled bulk flow wrap packaging. Thanks to the impulse-controlled on-board drive, no synchronisation with the packing machine is required. The machine can be used with either a vertical packing machine or for manual feeding and can be equipped with 4 or 8 format cups. The format cups for various product dimensions are very easily swapped. Removal of the clipped products takes place via a self-powered discharge conveyor.

Accessories



◀ HPD transfer printer

Accessory equipment for printing of plastic clip tapes with 6 to 13-place characters. Indelible printing takes place via hot stamping from a carrier film onto the clip tape (dry printing process).



◀ Inclined belt conveyor FZ

Moves clipped products to working height and is ideal for use in combination with clipping machines.



◀ Accumulator belt PF "Power Free"

Conveyor belt for the gentle collection of products upstream of packing stations. Thanks to the integrated free-running rollers, no stagnation point pressure results, even if the belt is full.



◀ Revolving table DT1

Stainless steel version with safety spacer ring and adjustable swivelling rollers as buffers for the manual removal of clipped product packages.
Working height adjustable between 700-800 mm, diameter 1200 mm, capacity 8 rev / min.



◀ Revolving table with separation device VDD

Products are heaped onto a rotating separating turn-table. The machine separates unsorted small baked goods, especially bread rolls, ciabatta or small baguettes and takes them to the downstream slicer automatically.