

A close-up photograph showing several rectangular dough rolls moving along a blue, ribbed conveyor belt. The rolls are light-colored and have a slightly irregular, hand-rolled appearance. A red rectangular box is overlaid on the top right of this image, containing the text "THE BAKER'S CROWN".

THE BAKER'S
CROWN



MENES / MENES-H DOUGH SHEETING LINE

MOST GENTLE DOUGH PROCESSING
WITH TWIN SAT PRINCIPLE
ALSO AVAILABLE IN HYGIENIC DESIGN „H“



MAIN FEATURES

When developing the Menes, our chief goal was to satisfy customer needs as exactly as possible with an elaborate modular conceptual design. That's why the Menes line can be tailored to the individual needs of each customer; it can be upgraded at any time later.

- dough throughput from 500 of up to 5,000 kg per hour
- available in working widths 800/1,000/1,200 and 1,600 mm
- extreme range of dough yields processable: from 140 (e.g. lye rolls) to 190 (e.g. Ciabatta)
- dough sheet thickness of 1 mm - 50 mm
- fully developed modular design with a wide range of tools; further modules can be added at any time
- 3-roll dough sheet former for a homogeneous dough sheet right from the start
- „Twin Sat“ twin satellite head for the most gentle dough processing
- picture-oriented and simple control of the system, optionally with portable panel or mobile device
- for various different doughs, such as puff pastry, Danish pastry, pizza, ciabatte, baguettes, etc.
- stainless steel design

FOR LARGEST PRODUCT VARIETY: COMBINED DOUGH SHEETING LINE

Menes-H “all-in-one” with pre-proofer line KGV:

- for angular and rounded-stamped bread rolls from the dough sheet
- huge product variety only with one line
- hourly capacity of up to 90,000 pieces per hour
- very high performance on small footprint
- fully automatic operation system (one-man operation)
- mirrored & completely synchronized lines



FOR HIGHEST DEMANDS: DOUGH SHEETING LINE MENES IN HYGIENIC DESIGN “H”

The hygienic design of the Menes-H is characterized by following features:

- thanks to sealed bearings the line is entirely wash-down
- redesigned frame constructions to minimize surface contaminations and cleaning effort
- therefore a quick product change is possible
- longer cleaning intervals and shorter system downtimes



Possible variants of hygienic design „H“:

With protective cover and continuous conveyor belts

- use of protective covers for quick and convenient accessibility and optimum protection against injury
- continuous transport belts can be released without tools



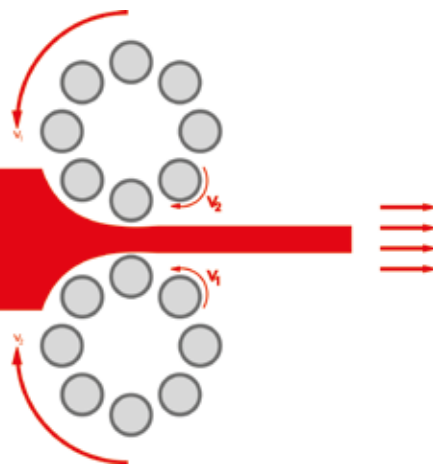
With wirefence doors and exchangeable belts

- compact design with large wirefence doors to protect against injury
- belts can be released and exchanged without tools
- easy cleaning due to mobile frames



THE TWIN SAT PRINCIPLE

The major difference to ordinary satellite systems with standard cylindrical rollers lies in the twin satellite head which reduces high mechanical loads on the dough to a minimum and largely restricts dough tension. We call this the Twin Sat principle.



The Twin Sat's function is based on a sophisticated system. By positioning two satellite roller heads one above the other, it is possible to produce virtually tension-free dough. After rolling the machine, it can be cut, formed and processed without any proving. And while being transported through the machine, the dough is not rolled but formed into size by a patting movement at high speed.



ACCURATE WEIGHT SYSTEM (AWS)

In order to increase the weight accuracy of the products made on the Menes, the **Koenig Accurate Weight System** can be integrated.

The newly developed Accurate Weight system is an independent machine component with its own electronic equipment and drive unit which allows segmented weighing of the dough sheet across the entire working width of the line. The AWS operates in rows. The individual dough strings are recognized, evaluated and differences in dough weight are detected by the individual weighing sections. Since the modules can then be adjusted accordingly, correction cuts are not required which reduces dough scraps and enables weight-accurate production of dough pieces and dough strings.



THE MENES PRODUCT VARIETY



ROUNDED PRODUCTS



RECTANGULAR PRODUCTS (eg. CIABATTA)



TRIANGULAR PRODUCTS



CONVOLUTED PRODUCTS



BAGUETTE



THIN DOUGH (eg. PIZZA, FLAT BREAD)



**PASTRIES
e.g. PUFF PASTRY AND
DANISH PASTRY)**





BREAD

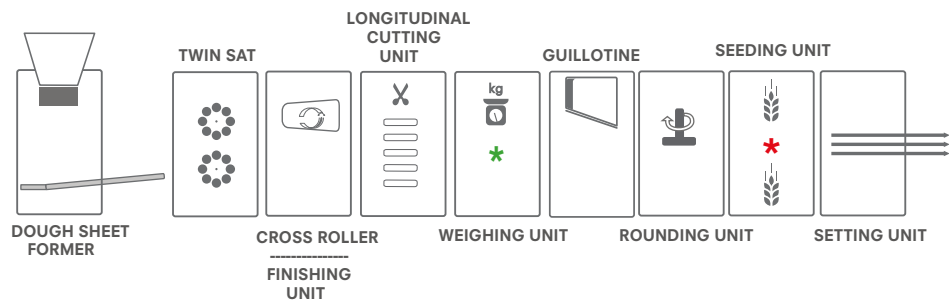


SEEDED PRODUCTS





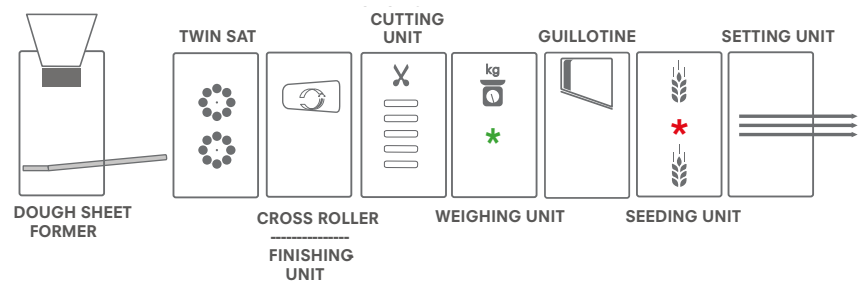
ROUNDED PRODUCTS

  * optionally with seeding unit * optional





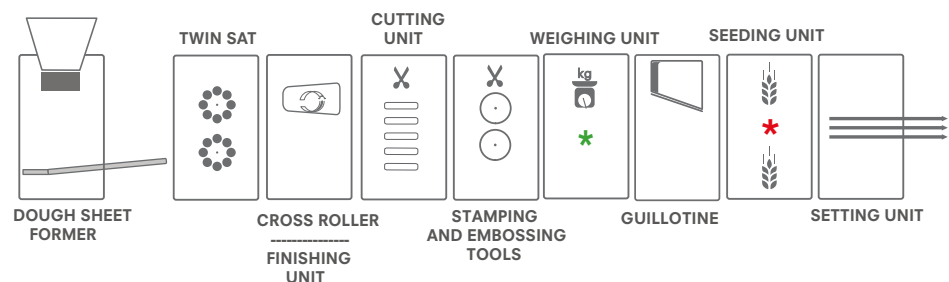
RECTANGULAR PRODUCTS (eg. ciabatta)

  * optionally with seeding unit * optional





TRIANGULAR PRODUCTS

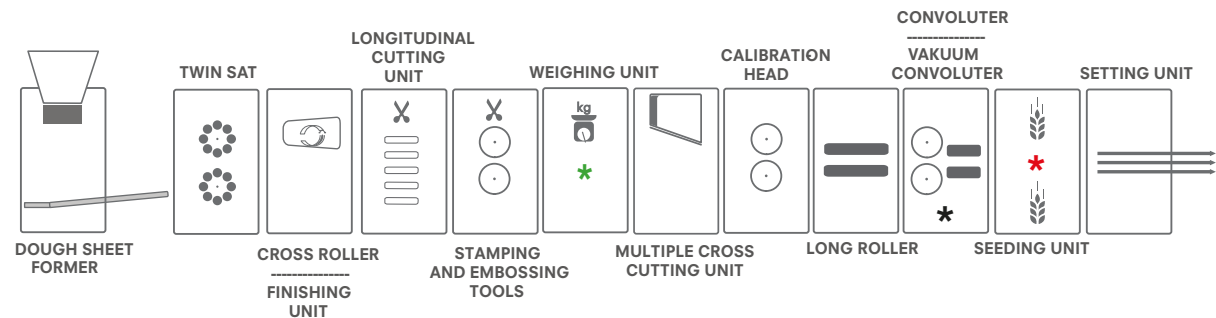
  * optionally with seeding unit * optional





CONVOLUTED PRODUCTS (eg. Salzstangerl, Kornspitz)

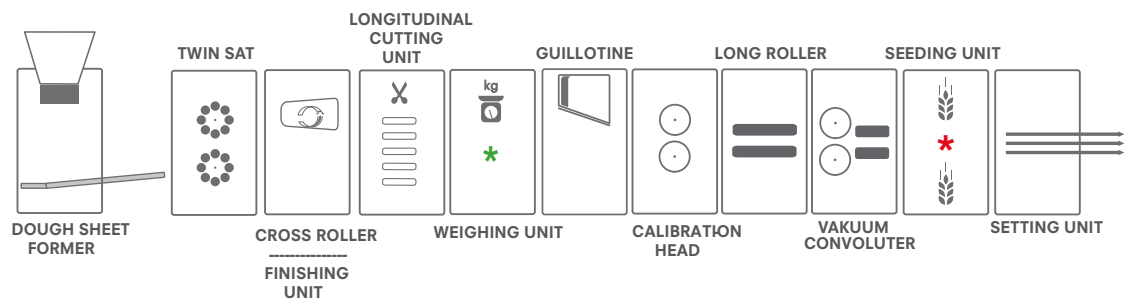
  * optionally with seeding unit * optional

* optional vacuum convoluter (for firm convoluting)



BAGUETTE

  * optionally with seeding unit * optional



MENES - THE VARIABLE MODULAR CONCEPT



DOUGH SHEET FORMER

Koenig developed a 3-roll dough sheet former for the Menes, which can be used for different doughs. By means of plug-in rollers in different surface finishes, both solid and soft doughs can be processed. Due to this changing system in different widths, a variable dough width is achieved and the residual dough is reduced to a minimum.

Therefore the Menes offers a flexible range of products, ranging from loaf bread, tin bread, baguette, ciabatta, buns, pizza, hot dog, donuts, sheet cakes, croissants, strudel, pita and all kinds of other flat bread.



**TWIN SAT
DOUBLE SATELLITE HEAD**

The Twin Sat's function is based on a sophisticated system. By positioning two satellite roller heads one above the other, it is possible to produce virtually tension-free dough. While being transported through the machine, the dough is not rolled but formed into size at a ratio of 7:1 by a patting movement at high speed.

Shear forces are largely avoided by adjusting the peripheral speed to the dough consistency which allows the final products to benefit from a better gas retention, water binding as well as aroma retention ability.



VIBRO ROLLER UNIT

The vibro roller unit is the high-end solution for adjusting the dough sheet width. The dough sheet is enlarged by means of a combination consisting of an upper cylindrical roller and a spiral shaft installed underneath the transfer belt.

The pulsating movement thus created drives the dough gently from the centre outwards and reduces the dough thickness. The arrangement of the eccentrics also allows the dough to have a short rest during the entire processing process.

Use: products with regular pores



**CROSS ROLLER UNIT |
FINISHING UNIT**

The cross-roller unit for gentle cross rolling of the dough sheet reduces dough tension and dough thickness. The roller operates crossways in operation direction thus enlarging the dough sheet and at the same time reduces the dough thickness. The distance between the roller and the conveyor belt can be continuously adjusted.

Use: products with irregular pores, e.g. Ciabatta

The finishing unit consists of two rollers which reduce the dough continuously at a ratio of 2:1 to the desired thickness.



**GUILLOTINE | MULTIPLE
CROSS CUTTING UNIT**

The guillotine cuts dough strings to length or shape and prepares them for possible further embossing tools (e.g. for rustic products). The guillotine stands for great cutting forces. Owing to the cutting speed, the cut is exactly vertical even with products with substantial dough sheet thickness.

The multiple cross cutting unit with its cutting and the subsequent turning process enriches your product range with e.g. convoluted products.



SCRAP DOUGH REMOVER

Dough scraps coming from the cutting and stamping of the products are reliably and gently picked up with a specially designed transfer belt. A cross conveyor belt leads the scraps to the mixer or a return dough portioner.



ROUNDING UNIT

The rounding unit can operate with up to 33 strokes per minute. The round moulder can easily be adjusted to various rounding intensities and dough piece weights which allows the dough pieces to be moulded to the core at ideal tension. This ensures good product stability and perfect round shape.



CALIBRATION HEAD

The dough string passes a calibration roller in order to achieve the desired final dough thickness and to prepare the dough ideally for further processing (e.g. for the production of toast bread or convoluted products).

The calibration head adjusts the dough to the correct and especially uniform dough thickness. This enables an ideal surface composition of the dough string.



LONGITUDINAL CUTTING UNIT

The longitudinal cutting unit cuts the formed dough sheet into stripes. The knives are mounted individually on a continuous axle.

The knives can be exchanged and adjusted to meet the requirements of the final product, allowing a clear or a punched edge of the dough piece.



WORKING TABLE | FILLING AND FOLDING UNIT

Depending on the desired final product and level of automation various additional modules, such as working table, filling and folding units are available.

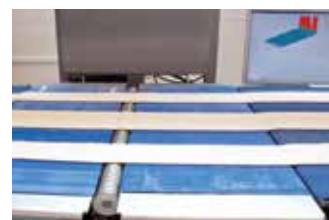
The filling unit can handle various filling types placing the filling precisely onto the dough sheet.



STAMPING AND EMBOSSING TOOLS

Choose from numerous stamping and embossing tools to stamp various shapes from the dough. The different tools are organized in categories in the storage trolley from where they can easily be inserted into the tool holder of the line.

The quick-change synthetic rollers allow you to offer a wide product variety.



WEIGHING UNIT

This evaluation enables an adjustment of the cross cutting unit/guillotine and the shapes of the single dough pieces are adjusted to an average weight.

In order to increase the weight accuracy of the products made on a dough sheeting line, the Koenig Accurate weight system (AWS) can be integrated. The check weigher system is an independent machine component with its own electronic equipment and drive unit which allows segmented weighing of the dough sheet across the entire working width of the line. This evaluation allows the adjustment of the individual regulable longitudinal cutting unit, roller units and Guillotine.



LONGROLLING UNIT

The longrolling unit serves for the production of longrolled products, such as baguettes. The dough pieces are folded with the help of a belt and then ready longrolled with two driven belts (top belt and bottom belt). To achieve higher rounding intensity and a longer rounding time, the top belt can work against operating direction. The longrolling unit is moveable on wheels and can be exchanged against other modules.

Use: longrolled bread rolls, flattened bread rolls and breads



CONVOLUTER | VACUUM CONVOLUTER

The Koenig convoluting unit is used for convoluting unfilled dough pieces such as Salzstangerl or Kornspitz. The dough pieces are reduced by means of a pair of rollers. The speed of the roller pairs and convoluting belts may be adjusted to meet the requirements of the final product.

The vacuum convoluter effortlessly gives croissants the desired shape. The vacuum technology helps to tightly convolute the dough pieces.



SEEDING UNIT

By seeding your products you can considerably enrich your product range. Koenig seeders convince with their uniform sprinkling and are available with two belts for strewing from top and with three belts for strewing from both sides. To fix the seeding material the dough surface can either be moistened by a water bath or by nozzles.

Excess seeding material is vacuumed off and returned to the strewing box.



SETTING DEVICE

The highly dynamic setting device sets your products onto subsequent belts or trays. The servo drive enables precise setting at high speed. The retracting length can be continuously adjusted up to 1000 mm on the control panel. Setting patterns can be stored with the recipe.

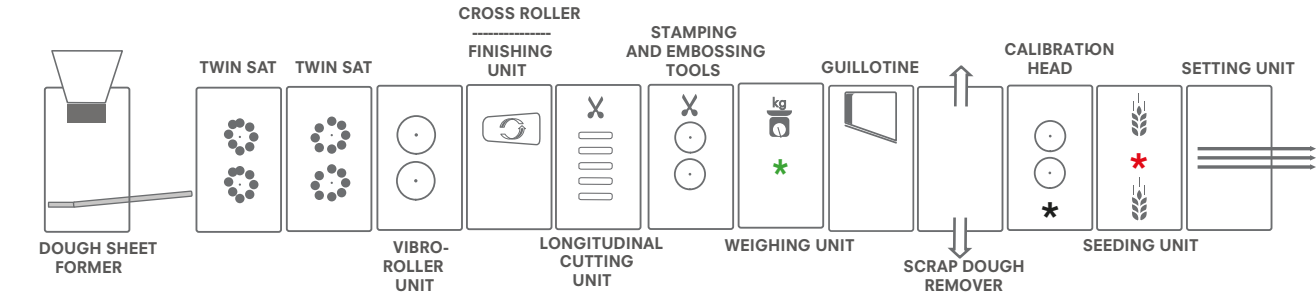
Precise positioning on product-specific trays, such as baguette trays, is also possible for baguettes and other rolled products.

THIN DOUGHS (eg. pizza, flat bread)



* optionally with seeding unit * optional

* optional according to final product requirement

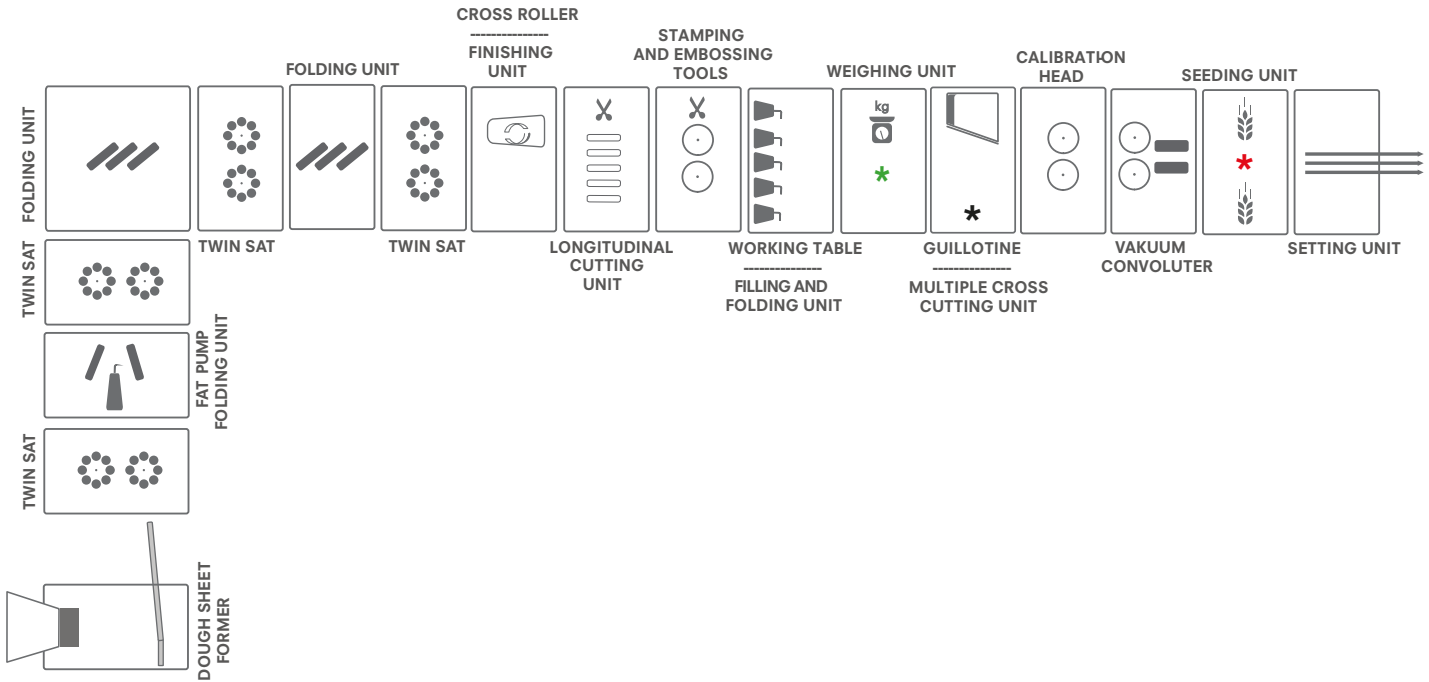


PASTRIES (eg. puff pastry and Danish pastry)



* optionally with seeding unit * optional

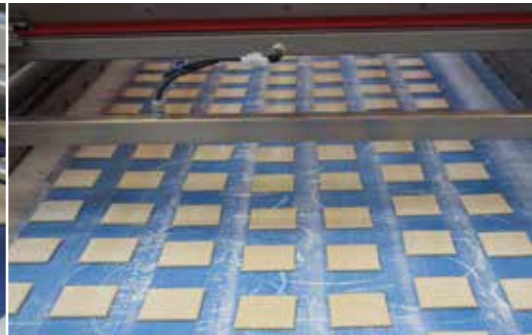
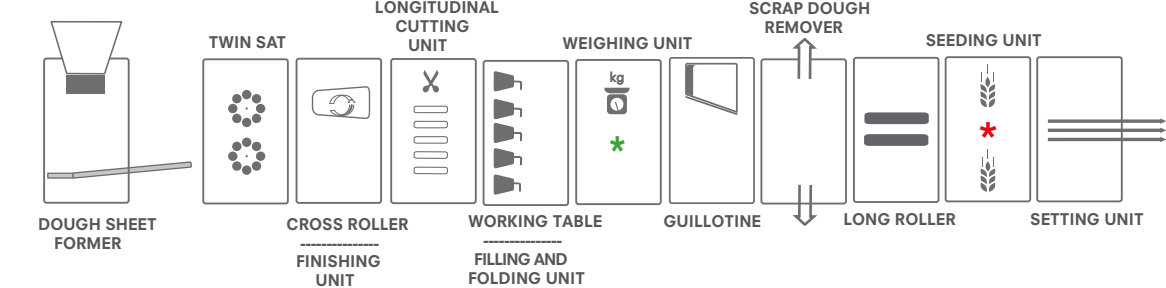
* for the production of Croissants multiple cutting unit (cutting and subsequent turning process)



BREAD



* optionally with seeding unit * optional



TRUST BASED ON EXPERIENCE AND SECURITY OF INVESTMENT

TEST OUR MACHINES AT THE DEMONSTRATION CENTER FOR CUSTOMERS!

Any investment that you make will improve your opportunities for success in the future. Profitability can only be guaranteed if the investment is made wisely. Whether this is the case can often only be assessed afterwards. Koenig however gives you the opportunity to check out its machines before spending any money.

To make sure that you don't buy the pig in a poke:
Thoroughly test the Koenig machines at our Demonstration Center.

Visit our centers in Graz and Dinkelsbühl. Based on your recipes and raw materials, we will work out the best solution for you until you are fully happy with our suggestion. If necessary, we adjust the units again and start the entire customisation process over again. This ensures that you can offer your customers what they expect from you.

SERVICES AND SPARE PARTS FROM THE MANUFACTURER!

Each machine and unit undergoes a number of test runs with and without dough. Most of our technicians are actually trained bakers. They assemble the machine at our premises and then commission them, using their indepth knowledge of the baking trade. If you should encounter any problems, simply contact our spare parts and service department. We are available day and night from anywhere in the world:

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KONIG

 THE BAKER'S
CROWN

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