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Fast, economical and automatic:

Croissants and other curled pastries.



What really matters? A reliable production process.

First stamp, then fill, rotate and curl. This process requires great accuracy in every operation.

Whether with filling or without, large or small pastries, laminated or non-laminated dough – with solutions from RONDO, you manufacture croissants and other curled products such as soft salted sticks, soft pretzel sticks and whole grain rolls in outstanding quality quickly, easily and economically.

The solutions from RONDO convince from end to end:

- Flexible and expandable
- Simple operation
- Rapid product changes
- Stable and safe design
- Quick and easy cleaning



economical
rational and
reliable processes
flexible

How do you deal with compromises? By not making any.

RONDO offers the right solution for all croissants and curled pastries, whether filled or unfilled, loosely or firmly curled. Thanks to well conceived technology and many years of experience, your pastries are produced in a process safe, consistent and even manner. The

RONDO range of products covers all your needs from artisanal to industrial baking. This brochure presents machines with a capacity of 1,400 to 12,000 units per hour. You will find information on artisanal or high-performance solutions in other brochures.



Croissomat SCM

You use the Croissomat to produce your croissants automatically. Triangles are stamped from a dough sheet, turned, and then curled to perfection. You can use the SCM to produce croissants in addition to other curled products. This compact machine can be accommodated in any bakery.

- for unfilled croissants
- for laminated and non-laminated doughs
- up to 900 units per row per hour (maximum 5,400 units)
- between 2 and 6 production rows



Croissomat SCMG

For the production of filled croissants, this compact Croissomat model is additionally equipped with a filling device and a special curling unit.

- for filled and unfilled croissants
- for laminated and non-laminated doughs
- up to 900 unfilled croissants per row per hour (maximum 5,400 units)
- up to 700 filled croissants per row per hour (maximum 3,500 units)
- between 2 and 6 production rows



Curl & More

With the powerful Curl & More, you produce filled and unfilled croissants and many other curled pastries in a fully automatic process.

- for filled and unfilled croissants and many other curled pastries
- for laminated and non-laminated doughs
- 2,000 units per row per hour (maximum 12,000 units)
- between 2 and 6 production rows

How do you produce your croissants uniformly? With a machine that has the knack.

The Croissomat SCM is the ideal solution for the production of unfilled croissants. Thanks to many elaborate details, it produces your pastries reliably and consistently in a regular shape, size and weight. It curls all the pastries to a uniform firmness, thus ensuring constant quality. Combined cutting and stamping prevents the triangles from slipping. The rows are cleanly separated by an intermittent mechanism and turned 180° on the rotary table. This guarantees that the triangles are straight and uniform when they enter the curling unit. They are curled there as you want to have them, from loose to tight.

Compact

When combined with a calibrating unit, the Croissomat measures only around four metres, which means it can be accommodated in almost any bakery. As an option the machine is also available with the curling unit and controls on the right-hand side, which means it can be perfectly adapted to the space you have available and your company processes.

High capacity

With the Croissomat, you produce approximately 900 unfilled croissants per row and hour. Depending on the pastry size, you can produce your croissants in two to six rows, achieving a capacity of 1,800 to 5,400 units per hour. As an option, to increase the capacity, the Croissomat can be equipped with a second curling unit.



Time-saving cleaning

The Croissomat is mobile and can be shifted for cleaning. All machine parts are easily accessible without tools. Thanks to the open engineering design, neither flour nor dough scraps collect in the machine. The belts can be removed quickly and easily for cleaning.



Simple operation

You operate the Croissomat quickly and easily using the user friendly keyboard. The lengths of five base triangles can be stored, guaranteeing short and error-free product changes. When you set the curling unit, the machine produces two rows and then stops. Only the curling unit continues to run, the machine can then be adjusted without creating unnecessary waste.



The illustration shows the Croissomat SCM with the following options and accessories:

- Calibrating unit with dough sheet positioner and flour duster



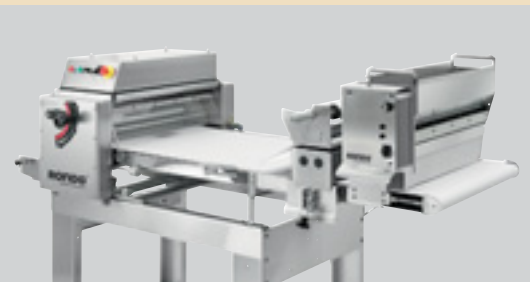
Savoury snack croissants

The large opening between the guillotine and rotary table enables you to place ham, salami or slices of cheese on the triangles of dough.



Extended range of use

The Croissomat can also be used to stamp other shapes. On the optional bypass table, you can then fill the round, oval, triangular or square pastries manually and process them further.



1. Calibrating
The optional calibrating unit joins the reeled dough sheets to form one continuous, low-tension dough sheet and then rolls it to the desired final thickness. Seams are barely visible, scrap is greatly reduced and your croissants have a uniform weight at all times.



2. Pre-cutting
Before stamping, the dough sheet is cut to the exact width and the dough scraps are conveyed out of the machine. This keeps the Croissomat clean and increases process stability.



3. Cutting and stamping
Firstly, the dough sheet is cut into strips with cutters. The electro-mechanical guillotine then reliably and quietly stamps out triangles. Stamping does not cause the triangles to slip, they move forward precisely aligned. Quick release fastening enables you to replace the stamping dies quickly and without tools.



4. Separating
The individual rows are separated by an intermittent mechanism and held precisely in position by hold-down rollers. Exactly positioned triangles of dough are required for uniform and perfect curling.



5. Turning
After separation, the triangles are transferred to the turning table. In order that they remain precisely in position, this is raised slightly. Every second row is turned by 180° on the turning table. This means the triangles are not turned over and the dusted flour always remains on the upper side. In this way the croissants do not stick to or slip through the curling unit.



6. Curling
Before curling, the triangles of dough are calibrated to the correct height and dough thickness. This enables you to use one stamping die to produce a number of pastry sizes. Your croissants can be curled to your exact requirements from loose to tight. Levers are used to regulate the firmness and fix the desired settings to prevent inadvertent adjustment.

Croissomat SCMG

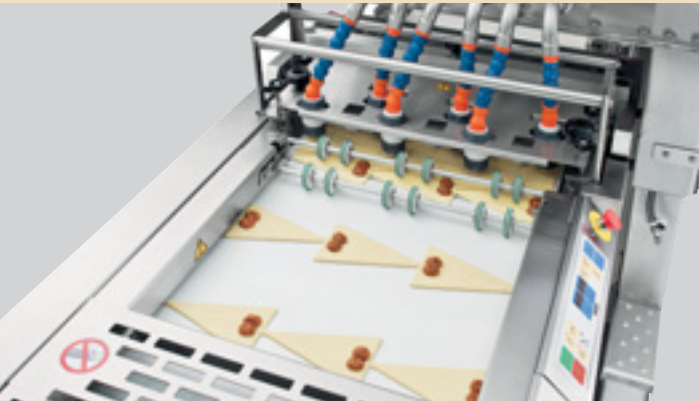
You can use the Croissomat SCMG to produce filled and unfilled croissants. This is why this model is equipped with a pneumatic filling device and special curling unit in addition to the SCM.

Depending on the croissant size and number of rows, you produce between 1,400 and 3,500 filled or 1,800 to 5,400 unfilled croissants very hour.



The illustration shows the Croissomat SCMG with the following options and accessories:

- Calibrating unit with dough sheet positioner and flour duster



Filling
The pneumatic filling device applies soft to firm fillings in one to five rows. It even processes fillings with small pieces of fruit or vegetables without difficulty.



Curling
Before curling, the triangles are sprayed with water to prevent them from opening. This enables you to curl filled and unfilled triangles of dough perfectly and reliably into firmly or loosely rolled croissants. Pastries filled with sticks of chocolate or other firm fillings are also processed without difficulty manually. The curling unit is equipped with round rubber belts, making it quick and easy to clean.

How do you master complex tasks? By performing them step by step.

The RONDO Curl & More is a machine that can be used very flexibly for the automatic production of curled pastries such as croissants or soft salted sticks and soft pretzel sticks. You can use it as a standalone machine with automatic feeding by means of a calibrating unit, a RONDO MLC feeding line or the Smartline dough sheet pre-former. In combination with a laminating line or a pastry line, this creates a fully automatic production line for curled pastries of all types. Depending on the pastry size, you can produce your filled and unfilled croissants in two to six rows, achieving a capacity

of 4,000 to 12,000 units per hour. Product changes can be performed quickly, it takes only a very short time to re-equip the machine from one product to the next.

The production process is divided into clearly separated individual steps. The curling speed is low and remains the same for all pastries. This enhances process stability: the process flow is easy to monitor and enough time remains to regulate and set the parameters.



Curling

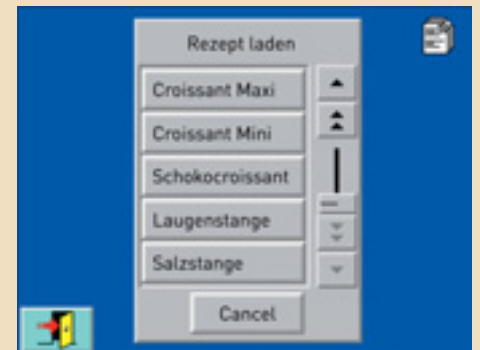
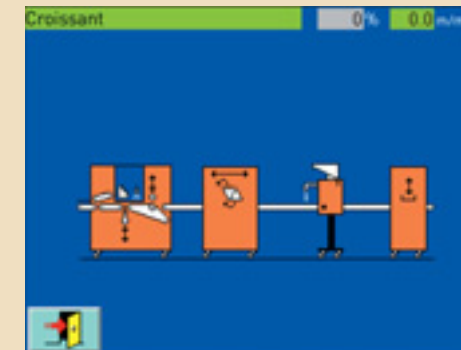
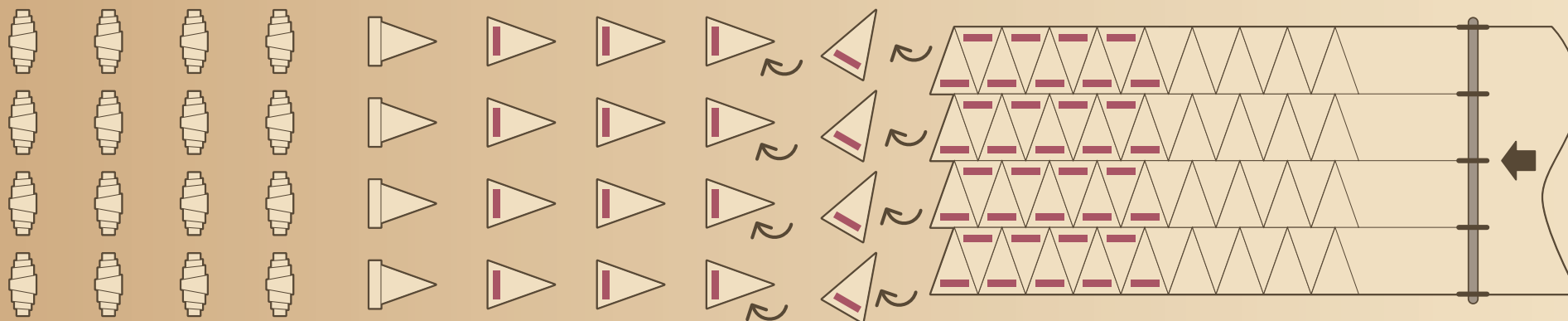
← Wrapping

← Spreading and Turning

← Filling

← Stamping

← Cutting



Simple operation

The modern control system concept means that you operate the Curl & More safely and easily. All the parameters and settings are displayed on the touchscreen.

- 6" colour touchscreen
- More than 100 programs can be stored by name
- All electrical settings of the line are stored in the programs
- No loss of data thanks to backup copies on a USB stick
- Fast and effortless product changes
- Simple linking of Curl & More and upstream or downstream machines

The illustration shows the Curl & More with the following options and accessories:

- Flour duster
- Pneumatic filling device with manifold distribution system
- Alignment and separation unit



1. Pre-cutting
First of all, your dough sheet is cut at the sides to the desired width. This can be adapted flexibly to the size of the triangles. The dough scraps are conveyed out of the machine.



2. Cutting and stamping
A width cutter cuts the dough sheet into strips and then a guillotine stamps these into triangles. The stamping means the triangles of dough retain their exact shape and maintain the correct position, which is required for further processing without difficulty. To ensure high process stability, the travelling guillotine works without the belt stopping. You can also use the stamping dies of the Croissomat models for the Curl & More.



3. Separating and turning
The turning unit then picks up the triangles, turns and spreads them, and positions them in a precise line on the belt. The turning unit is driven by a servomotor. This enables exact setting of the angle of rotation to the desired number of degrees. This means the triangles are always positioned precisely and evenly, which is required for a reliable production process. The height of the driving devices can be adjusted to perfectly adapt the dough thickness.

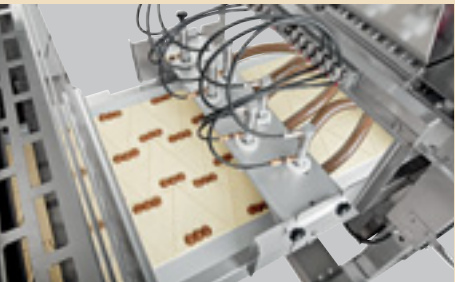


4. Tandem rotation for unfilled pastries
For soft salted sticks or soft pretzel sticks, triangles with a long base and low height are used. In order to be able to make optimal use of the belt width, the triangles are rotated in pairs.



5. Calibrating and spraying
First of all, the triangles of dough are calibrated to the desired dough thickness and the right triangle height. This enables you to use one stamping die to produce different pastry sizes. They are then sprayed with water to prevent the end from opening. The amount of water can be set precisely for each pastry.

6. Wrapping and curling
Whether loose or tight, filled or unfilled, you can set the parameters for each pastry and store them in the program. The two-stage curling and constant speed guarantee high reliability of the curling process. The curling cassettes do not have to be replaced, neither when the pastry size is changed nor when the number of rows is changed. This reduces cost and size change down time.



Filling
You can use RONDO filling devices to apply a wide variety of fillings to your pastries. The manifold distribution system applies the fillings precisely and uniformly and the nozzle closing device prevents the filling mixture from escaping. You can achieve a very high filling volume, as the filling can be applied on the entire base line. Fillings such as chocolate sticks, ham, cheese or slices of salami can be applied by hand.



Short re-equip times and long service life
You change the Curl & More quickly and easily from one pastry to the next. It takes only a few minutes to replace the cutting shaft, stamping die and rotary table. The Curl & More is configured for a long deployment and service life. For example, the rotary tables are exposed to virtually no vibrations, as stamping and rotating are two separate operations.



Fast cleaning
Thanks to elaborate details, you clean the Curl & More quickly and easily.
• Smooth surfaces made of stainless steel
• Concealed motors
• Touchscreen requires a minimum of care



Feeding
The Curl & More can be fed in many different ways and thus integrated into different production processes.

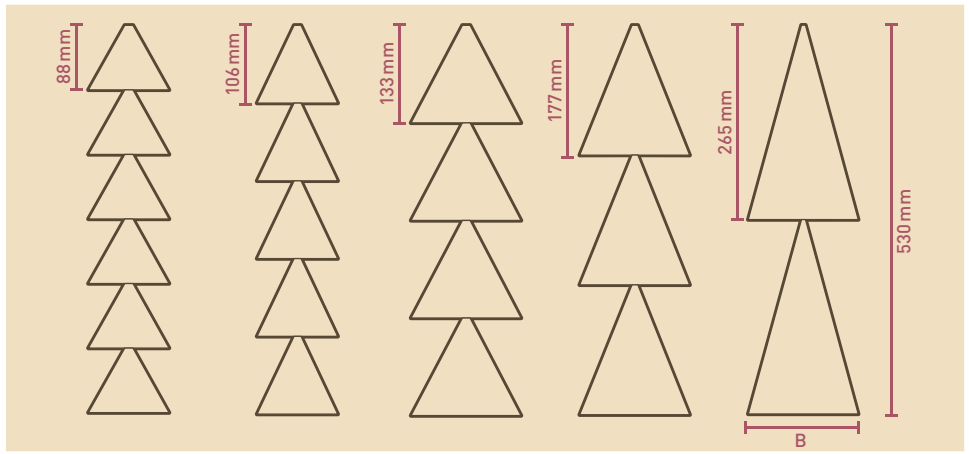
Sizes and shapes of standard curled pastries


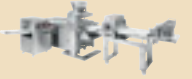

		Initial shape	Dough weight	Triangle sizes		Dough thickness	Croissomat		Curl & More
				Base	Height		SCM	SCMG	
Unfilled croissants Mini			20 – 30 g	63 – 74 mm	88 mm	4 – 9 mm	•	•	•
Unfilled croissants Midi			50 – 80 g	74 – 138 mm	106 – 177 mm	7 – 10 mm	•	•	•
Unfilled croissants Maxi			80 – 120 g	145 – 205 mm	133 – 177 mm	7 – 12 mm	•	•	•
Filled croissants			70 – 120 g	88 – 205 mm	106 – 265 mm	5 – 7 mm		•	•
Swiss-style croissants			60 – 90 g	188 mm	106 – 133 mm	5 – 9 mm	•	•	•
Whole grain rolls			50 – 70 g	108 mm	88 mm	8 – 12 mm	•	•	•
Soft pretzel sticks			80 – 120 g	155 – 188 mm	106 – 133 mm	3 – 5 mm	•	•	•
Soft salted sticks			60 – 80 g	220 mm	90 mm	4 – 6 mm			•
Baguette rolls			60 – 70 g	90 – 110 mm	90 – 120 mm	7 – 8 mm			•
Baguettes			600 g	450 mm	135 mm	10 – 12 mm			•

Triangle sizes

A dough sheet width of 530 mm results in the heights (H) that can be seen in the diagram. These are 88, 93, 108, 110, 118, 138, 145, 150, 155, 165, 188, 195 and 205 mm.

You can process different dough sheet widths from 400 to 540 mm on the Curl & More. This is why stamping dies with other triangle sizes are also available on request.



	Technical data		
			
	Croissomat SCM with calibrating unit	Croissomat SCMG with calibrating unit	Curl & More
Length	3855 mm	3855 mm	Version with filling device: 7100 mm Version without filling device: 6000 mm
Width <ul style="list-style-type: none">• in working position• in home position	2280 mm 1670 mm	2400 mm 2285 mm	1780 mm 1780 mm
Table height	900 mm	900 mm	915 mm
Belt width <ul style="list-style-type: none">• Infeed belt• Outfeed conveyor belt	560 mm –	560 mm –	640 mm 850 mm
Belt speed	9 m/min	9 m/min	0.5 – 10 m/min
Power output	4 kVA / 1.8 kW	5.3 kVA / 2.4 kW	18 kVA / 14 kW
Voltage	3 × 200 – 460 V, 50/60 Hz	3 × 200 – 460 V, 50/60 Hz	3 × 200 – 480 V, 50/60 Hz
Control voltage	24 V DC	24 V DC	24 V DC
Interfaces	Calibrating unit	Calibrating unit	RONDO MLC, Smartline, Calibrating unit, pastry line
Weight	765 kg	790 kg (without filling device)	1940 kg (without filling device)
Options	<ul style="list-style-type: none">• Bypass table• Second curling unit	<ul style="list-style-type: none">• Bypass table• Second curling unit	<ul style="list-style-type: none">• Belt flour dusting• Flour duster• Filling device with manifold distribution system• Tandem rotating unit• Spraying device• Curling cassettes• Special accessories

