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Uniform, modular, efficient:

Laminating and Feeding with RONDO MLC.



What ensures sustained success? Higher quality at lower costs.

Dough sheeting and shaping are RONDO's great passion. For 65 years and more we have been developing and building machines for dough processing. Our experience and our wealth of specialist knowledge in shaping and sheeting dough, our innovative solutions and the high-end quality of our machines constitute the rock-solid basis of our success. Dough-how & more.

Day in, day out for years now, the RONDO MLC (Modular Laminating Concept) has been used to produce innumerable precision-laminated dough blocks and dough bands. Characteristic of all these products are the perfectly regular fat layers – an essential for croissants, puff and Danish pastries in superb quality. Our customers are delighted about the high-quality pastries and the low costs.

The powerful RONDO MLC is compact and modular, permitting step-by-step automation and investment. The system scores with high-grade components such as modern, dependable industrial-grade controllers and energy-efficient gear motors. It is built of stainless steel and designed for 24/7 operation.

Come and see the many advantages of the RONDO MLC for yourself – our Dough-how Center is at your disposal and our Dough-how specialists will be happy to run whichever tests are necessary.

Benefit from:

- Better-than-ever quality
- Lower costs
- Greater flexibility
- Step-by-step investment



Laminating
Feeding
Automation
Rationalisation



How to improve quality and reduce costs? With a gentle and efficient solution.

“If you are using two, three or more dough sheeters for booking and sheeting, then a RONDO MLC is the better solution.”

“The RONDO MLC will improve the quality of your pastries whilst reducing your materials and labour costs.”

Enhance the quality of your pastries.

A RONDO MLC will instantly enable you to improve the quality of your pastries in two ways:

- You eliminate irregularities and human error, because the line always operates uniformly and therefore much more regularly than a number of operators working with dough sheeters.
- Dough band former, satellite head, fan-folding station and calibrator ensure superbly uniform and gentle processing of the dough and produce consistently regular layers of fat and dough.

This is how you ensure uniformly high quality from the outset.

Reduce your costs for labour and materials.

Investment in a RONDO MLC soon pays off:

- Weigh the dough, press dough blocks and fat plates, sheet, fold in butter or margarine, book... The RONDO MLC handles the complicated sheeting and booking process either partially or completely. And one or two operators can process up to 1300 kg of dough per hour
- Continuous production means considerably fewer dough offcuts, so there are no large quantities of dough to be re-introduced into the process.

You benefit from lower costs for labour and raw materials.



MLC dough band former

+ Quality enhancement

The MLC dough band former processes your dough continuously, forming homogeneous dough bands of uniform thickness and width.

+ Cost reduction

The dough band former dispenses with the labour-intensive step of weighing the dough. And it also helps cut down on the costs of raw materials. Because dough sheeters inevitably produce dough bands with irregular ends, which have to be cut off and discarded. This doesn't happen in continuous production, because the machine produces an endless dough band.



Fat pump and folding belts

+ Quality enhancement

The RONDO fat pump provides the basis for regular dough/fat layers, because it dispenses a dough band regularly and continuously and "plasticises" the butter or margarine in the process. The folding belts then fold in the dough band precisely so that the fat is completely enclosed by dough.

+ Cost reduction

The fat delivery rate is a precision setting – so you never use more fat than actually needed. And instead of pricey butter or margarine plates you can process the less costly blocks instead. Go ahead and add up the figures for yourself!



Satellite head

+ Quality enhancement

The satellite head sheets the dough band gently. So the layers of dough and fat are not destroyed in the process.

+ Cost reduction

The RONDO satellite head sheets in a single process step, so it eliminates sheeting with dough sheeters.



Fan-folding station

+ Quality enhancement

Fan-folding has no negative effect on the layers of fat. The process is gentle, producing homogeneous layers.

+ Cost reduction

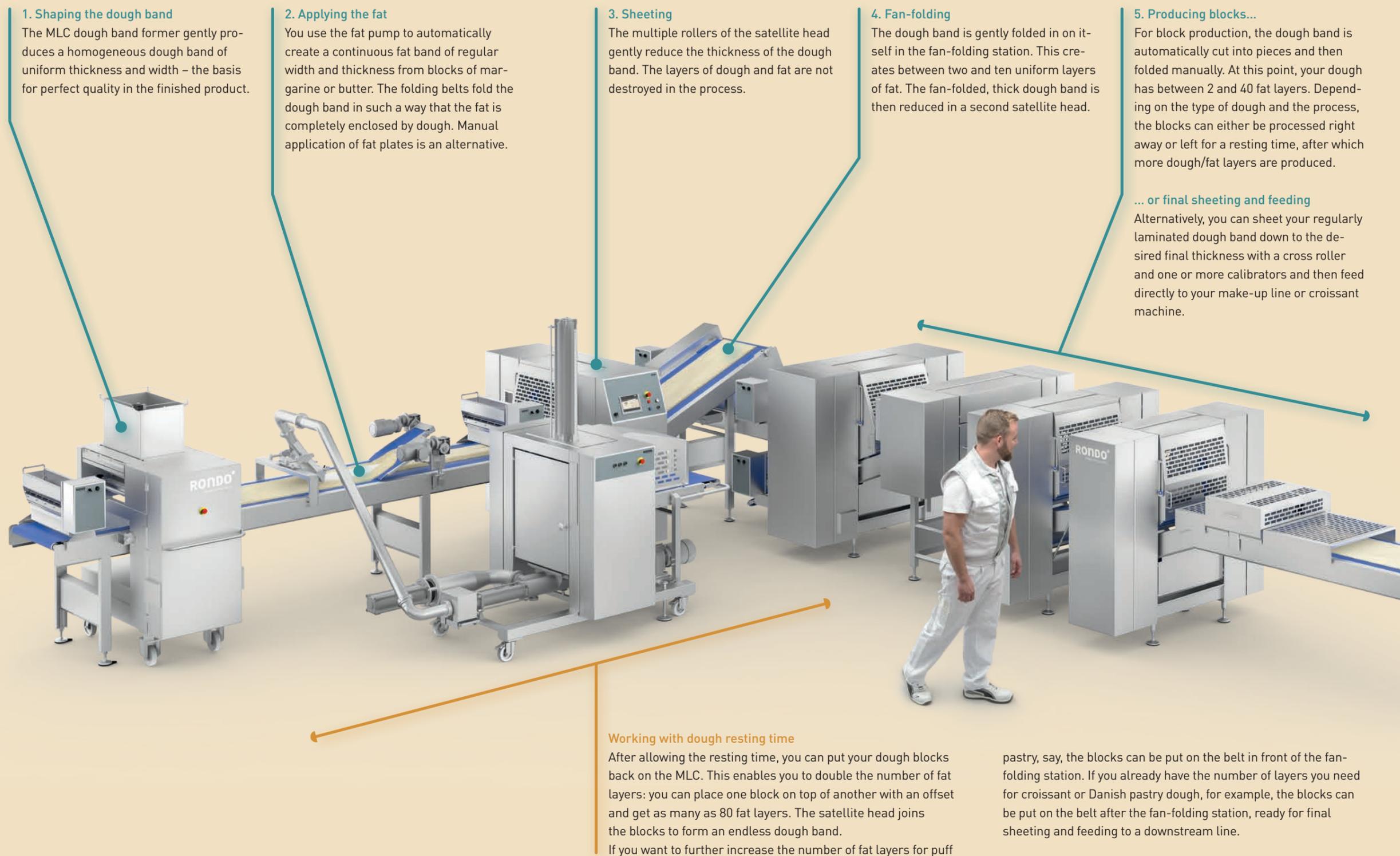
Efficient: The fan-folding station produces 2-10 layers of fat in a single pass. Dough quality is better, so by comparison with dough sheeters fewer layers are needed to achieve the same quality of pastry. And you have less edge wastage, because a fan-folding station enables you to set exactly the dough-band width you want.

What produces a uniform, laminated dough band? The automatic, high-precision RONDO MLC.

RONDO MLC is a very flexible line. Depending on the configuration, you can produce dough blocks and endless dough bands. Use these dough bands to feed make-up lines and croissant machines continuously.

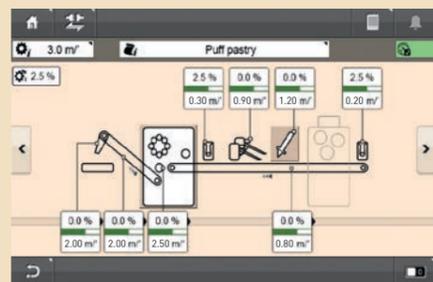
The control cabinets are integrated, so the whole line is very compact and modular. It can be built to meet your requirements, so it fits into any bakery.

Made entirely of stainless steel, the RONDO MLC is extremely sturdy and is built for 24/7 operation. RONDO uses high-quality components such as modern, dependable Siemens control systems and energy-efficient gear motors made by the Nord company. Like all RONDO machines, the MLC complies with the applicable international safety standards.



MLC dough band former = regular dough bands

The dough band former can be used for many different types of dough. Compact, it is mounted on castors so it is easily movable, and it takes very little time to clean. You can automate feeding with an upfeed conveyor belt or a portioning hopper. You increase your productivity and reduce labour.



State-of-the-art controller = totally easy operation

The modern RCC control concept facilitates operation and day-to-day work. Because all the important data about the line and the process are always available on your screen.

- 7" colour touchscreen with high resolution
- Clear presentation with readily understandable symbols
- Settings can be saved in programs
- Integration of the upstream and downstream machines
- Data protection by user management
- Data backup via USB
- Cross-machine program management with master function (optional)
- RONDOnet – the step forward into Industry 4.0 (optional)



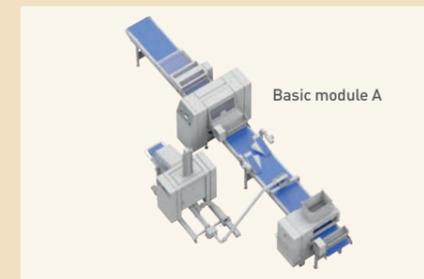
End-to-end hygiene concept = speedy cleaning

Thanks to the well-designed details, cleaning a RONDO MLC is quick and easy.

- Surfaces are smooth and the material is stainless steel, so without corners and edges there are no accumulations of dough scraps
- Easily accessible components
- Quick-release belt for good accessibility
- Concealed motors and plug connectors
- Removable flour dusters for easy emptying and cleaning

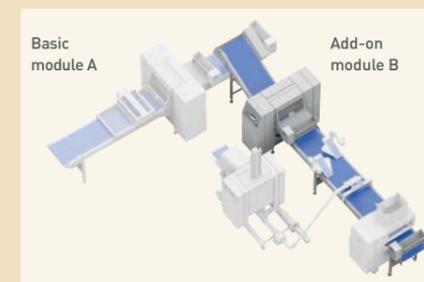
How do you grow and invest step by step? With a well-designed, modular solution.

RONDO MLC is modular so it can grow in sync with your business. The MLC has integrated control cabinets, so additional modules are easily added. You can get started with your first module and already you'll be benefitting from reduced costs and enhanced quality. Later on you can go ahead and add one or two more modules and automate more steps in the production process. Proceeding step by step, you expand your MLC into a fully automatic laminating line or a multi-functional feeding solution.



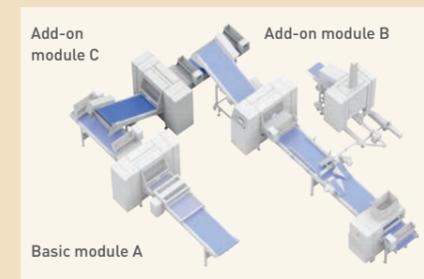
Basic module A

The basic module has everything you need to automate your block production (Block Line) or feeding (Feeding Line) of your make-up line or croissant line and benefit from the quality enhancements and cost savings. The optional RONDO fat pump takes rationalisation of your block production yet another step further.



Basic module A with add-on module B

If you couple your basic module A to an automatic fan-folding station (add-on module B), you have an L-shaped laminating line. Now you can fan-fold your dough band automatically, increasing the number of fat layers by a factor of 10. This solution is ideal if you want to allow your dough blocks a resting time in the process.



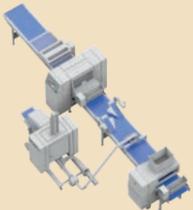
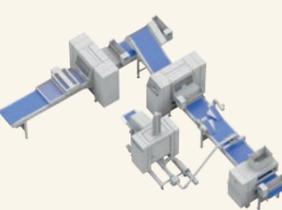
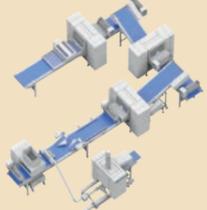
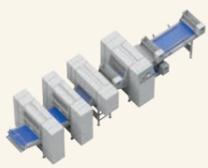
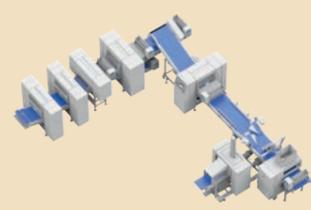
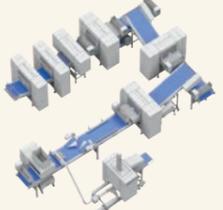
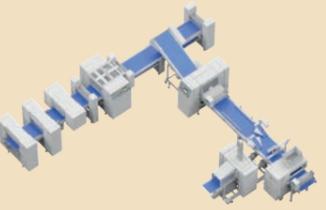
Basic module A with add-on modules B and C

A second fan-folding station (add-on module C) upgrades your MLC to a fully automatic line that enables you to produce a dough band with up to 100 fat layers. You can give this line a U- or Z-shaped configuration, to suit the space at your disposal. This fully automatic solution is ideal if you want to make laminated doughs immediately, in other words, with no resting time.

RONDO MLC and Smartline

If you intend processing laminated doughs along with other, non-laminated doughs or even highly hydrogenated ciabatta dough, we recommend combining the MLC with the RONDO Smartline. In a configuration like this the Smartline takes the place of the last section of the MLC. This gives you a multi-functional laminating and feeding line, capable of gently processing virtually all types of dough from laminated doughs through sweet yeast doughs, pizza and donut doughs to soft, highly hydrogenated bread dough. It can also feed automatically to your downstream make-up line.

What solution convinces you? One that meets your needs.

Technical data							
MLC concept	Block Line	L-Block Line	U- or Z-Block Line	Feeding Line	L-Laminating Line	U- or Z-Laminating Line	MLC / Smartline
Area of application	Laminating line for production of dough blocks with 1 to 4 fat layers	Laminating line with one fan-folding station for production of dough blocks with 2 to 40 fat layers	Laminating line with two fan-folding stations for production of dough blocks with 4 to 400 fat layers	Line for final sheeting of dough blocks and for continuous feeding of make-up lines	Laminating line with one fan-folding station for continuous feeding of make-up lines and for production of dough blocks	Laminating line with two fan-folding stations for continuous feeding of make-up lines and for production of dough blocks	Multi-functional line for final sheeting of all types of dough and for continuous feeding of make-up lines and for production of laminated dough blocks
Standard layout							
Components	<ul style="list-style-type: none"> • Dough band former • Fat pump (optional) • Folding belts • Satellite head • Rotary cutter 	<ul style="list-style-type: none"> • Dough band former • Fat pump (optional) • Folding belts • 1 automatic fan-folding station • Satellite heads • Rotary cutter 	<ul style="list-style-type: none"> • Dough band former • Fat pump (optional) • Folding belts • 2 automatic fan-folding stations • Satellite heads • Rotary cutter 	<ul style="list-style-type: none"> • Satellite head • Cross roller • Calibrator 	<ul style="list-style-type: none"> • Dough band former • Fat pump (optional) • Folding belts • 1 automatic fan-folding station • Satellite heads • Cross roller • Calibrator 	<ul style="list-style-type: none"> • Dough band former • Fat pump (optional) • Folding belts • 2 automatic fan-folding stations • Satellite heads • Cross roller • Calibrator 	<ul style="list-style-type: none"> • Dough band former • Fat pump (optional) • Folding belts • 1 – 2 automatic fan-folding station • Satellite heads • Cross roller • Calibrator
Capacity	from 200 kg and up to 1300 kg of laminated dough blocks per hour	from 200 kg and up to 1300 kg of laminated dough blocks per hour	from 200 kg and up to 1300 kg of laminated dough blocks per hour	from 200 kg and up to 600 kg of final-sheeted dough bands per hour	from 200 and up to 1300 kg of laminated dough blocks or up to 600 kg of final-sheeted dough bands per hour	from 200 and up to 1300 kg of laminated dough blocks or up to 600 kg of final-sheeted dough bands per hour	from 200 kg and up to 1300 kg of laminated dough blocks or final-sheeted dough bands per hour
Required floor space (L x W)	Approx. 8300 x 1850 mm (without fat pump) Approx. 8300 x 3400 mm (with fat pump)	Approx. 8000 x 6000 mm	U-shaped: approx. 8000 x 7200 mm Z-shaped: approx. 12200 x 5500 mm	Approx. 6000 x 1800 mm (with 1 calibrator)	Approx. 8000 x 6900 mm (with 1 calibrator)	U-shaped: approx. 8000 x 7200 mm Z-shaped: approx. 14000 x 5500 mm (with 1 calibrator each)	L-shaped: approx. 8000 x 8000 mm U-shaped: approx. 8000 x 7200 mm Z-shaped: approx. 14000 x 5500 mm
Control system	<ul style="list-style-type: none"> • Microprocessor control • 7" colour touchscreen • 100 program memory slots 	<ul style="list-style-type: none"> • Microprocessor control • 7" colour touchscreen • 100 program memory slots 	<ul style="list-style-type: none"> • Microprocessor control • 7" colour touchscreen • 100 program memory slots 	<ul style="list-style-type: none"> • Microprocessor control • 7" colour touchscreen • 100 program memory slots 	<ul style="list-style-type: none"> • Microprocessor control • 7" colour touchscreen • 100 program memory slots 	<ul style="list-style-type: none"> • Microprocessor control • 7" colour touchscreen • 100 program memory slots 	<ul style="list-style-type: none"> • Microprocessor control • 7" colour touchscreen • 100 program memory slots
Width of conveyor belt	640 mm	640 mm	640 mm	640 mm	640 mm	640 mm	640 mm
Belt speed at line end	3 – 8 m/min	3 – 8 m/min	3 – 8 m/min	0.8 – 7 m/min	0.8 – 7 m/min	0.8 – 7 m/min	0.5 – 10 m/min
Rated power	<ul style="list-style-type: none"> • Without fat pump • With fat pump 	<ul style="list-style-type: none"> • Without fat pump • With fat pump 	<ul style="list-style-type: none"> • Without fat pump • With fat pump 	<ul style="list-style-type: none"> • Without fat pump • With fat pump 	<ul style="list-style-type: none"> • Without fat pump • With fat pump 	<ul style="list-style-type: none"> • Without fat pump • With fat pump 	<ul style="list-style-type: none"> • Without fat pump • With fat pump
Supply voltage	3 x 200 – 480 V, 50/60 Hz	3 x 200 – 480 V, 50/60 Hz	3 x 200 – 480 V, 50/60 Hz	3 x 200 – 480 V, 50/60 Hz	3 x 200 – 480 V, 50/60 Hz	3 x 200 – 480 V, 50/60 Hz	3 x 200 – 480 V, 50/60 Hz
Air (only necessary with fat pump)	600 NI/min	600 NI/min	600 NI/min	-	600 NI/min	600 NI/min	600 NI/min
Weight	<ul style="list-style-type: none"> • Without fat pump • With fat pump 	<ul style="list-style-type: none"> • Without fat pump • With fat pump 	<ul style="list-style-type: none"> • Without fat pump • With fat pump 	<ul style="list-style-type: none"> • Without fat pump • With fat pump 	<ul style="list-style-type: none"> • Without fat pump • With fat pump 	<ul style="list-style-type: none"> • Without fat pump • With fat pump 	<ul style="list-style-type: none"> • Without fat pump • With fat pump

The right to make changes of a technical nature is reserved. The technical safety and type-specific instructions in the operating manual must be complied with. Prohibition, information and warning signs on the machines are to be complied with in accordance with the operating instructions.



Looking for an industrial-grade laminating and feeding solution? Ask your RONDO specialist consultant.

Need a laminating and feeding line with more capacity? The RONDO range includes the high-end EVO Line and the ASTec lines for extra-high-capacity solutions. The EVO Line is an industrial-grade production line with a working width of 700 or 900 mm for processing dough at a rate of between

1000 and 2000 kg per hour. It is characterised by its high process reliability and gentle dough processing. The industrial-grade RONDO ASTec Lines with a working width of up to 1500 mm offer even higher capacity and are custom-designed specifically to your requirements. Built in ground-breaking ASTec design (Advanced Sanitary Technology), they are compliant with the latest hygiene directives.