



Powerful, modular, efficient:

RONDO MLC 4.0

Laminating, feeding and making up

What produces a uniform, laminated dough band? The automatic, high-precision RONDO MLC 4.0

Powerful MLC 4.0 concept

What started in 2005 as the Modular Laminating Concept MLC has developed into the MLC 4.0, a comprehensive modular solution for laminating, feeding and making up many different doughs and products.

Made entirely of stainless steel, the MLC 4.0 is built for 24/7 operation. It incorporates high-quality components such as modern, reliable Siemens control systems or energy-efficient gear motors from Nord or SEW (optional). Like all RONDO machines, it complies with applicable international safety standards.

Different MLC 4.0 lines

With the MLC 4.0, you can do whatever your baker's heart desires. With **Block, Feeding and Laminating Line** versions (see example on right), you can produce very uniform laminated dough blocks and endless dough bands, sheet bread doughs and maintain continuous feed to make-up lines or croissant machines.

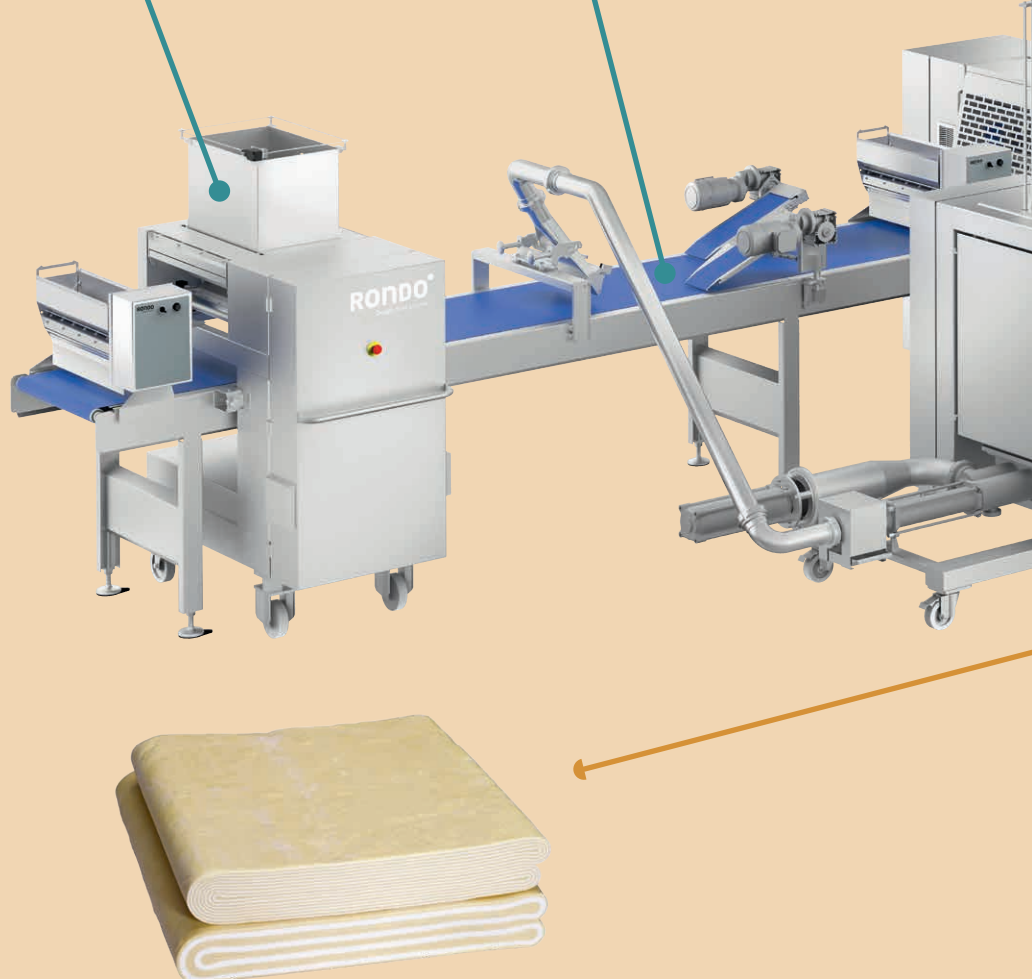
The **Make-up Line** version (see example on next page) is your doorway to the entire world of pastries, bread and pizzas.

Dough band former

The dough band former gently forms doughs of all kinds into homogeneous, stress-free dough bands without damaging the dough structure. The compact machine is mounted on castors and can be cleaned easily and quickly.

Fat pump

The fat pump automatically creates a continuous fat band of uniform width and thickness from blocks of margarine or butter, placing it on the dough band. The folding belts then fold the dough band, completely enclosing the fat in the dough.



Satellite head

The orbital rollers of the satellite head reduce the thickness of the dough band without damaging the layers of dough and fat.

Fan-folding station

The dough band is gently fan-folded, producing between 2 and 10 homogeneous fat layers. The fan-folded dough band is now very thick, so it passes to a second satellite head for repeat reduction.

End section

For block production, the dough band is automatically cut into pieces and then folded manually. At this point, the dough block has between 2 and 40 fat layers.

Alternatively, you can sheet your dough band down to the desired final thickness with a cross roller and one or more calibrators and feed directly to your make-up line or croissant machine.



Production of additional fat layers (after resting time)

After allowing resting time, you can run your dough blocks back through the MLC 4.0 to increase the number of fat layers. The satellite head reduces the dough blocks then joins them together to form an endless dough band.

How can "outstanding performance" be surpassed? With the MLC 4.0 Make-up Line!

Full modularity for huge diversity – and a safe future

With the MLC 4.0 Make-up Line you have an enormous choice of solutions for the production of pastries, yeast pastries, artisanal bread and rolls, pizzas, donuts and much more. All the accessories and tools you need for filling, folding, cutting, decorating and rolling up can be integrated directly into the line by plug & play. Going forward as well, of course. No matter which configuration you decide on today, you will be able to adapt your MLC 4.0 Make-up Line to all growth needs in future.

MLC 4.0 Make-up Line – your advantages:

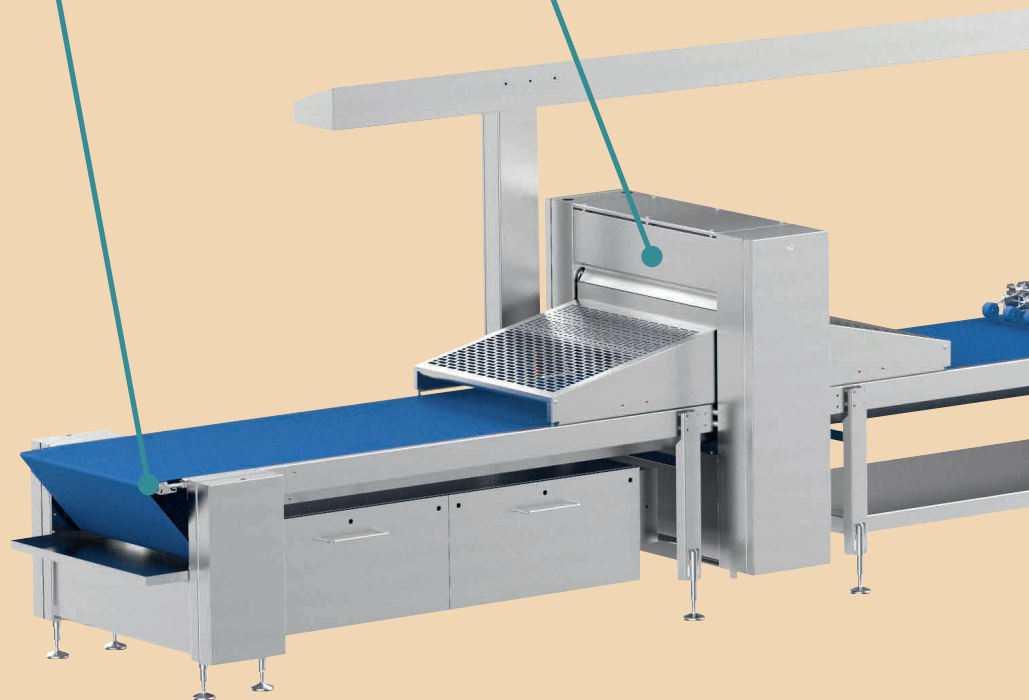
- Modern operation
- Highly configurable
- Expandable for future applications
- Wide range of products
- Fast machine set-up times
- Designed for 24/7 operation
- Quick and easy cleaning
- Numerous options (accessories, tools, add-ons)

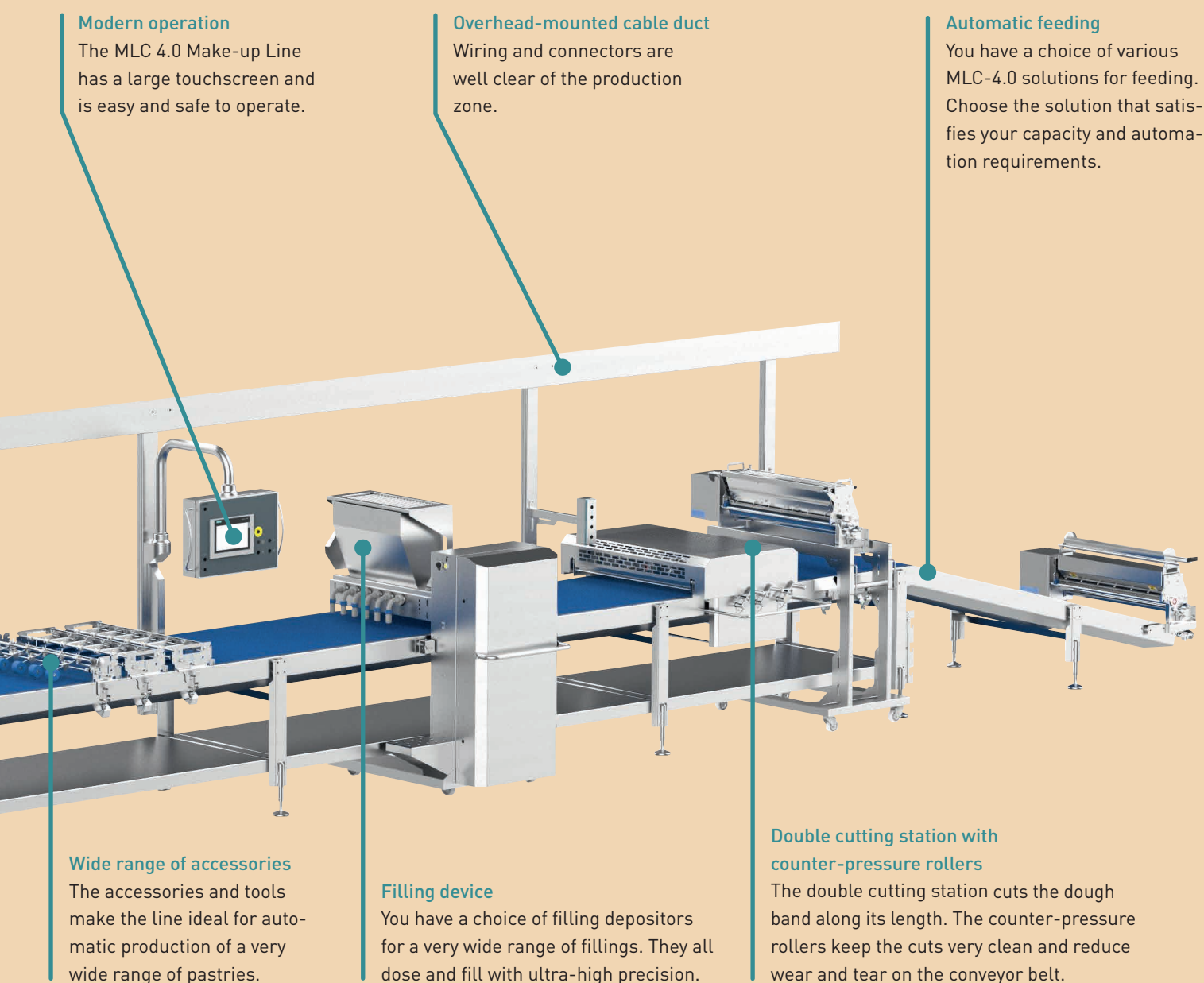
Sharp transition

The special nose roller enables the transfer of small pastries readily and smoothly to downstream machines. The built-in quick-release belt makes cleaning easy.

Powerful guillotine

Operating with superb precision the speedy electromechanical guillotine stamps and cuts the pastries out of the dough band.

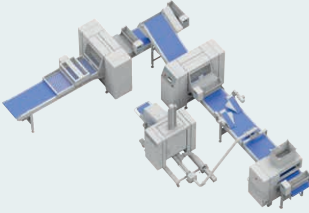
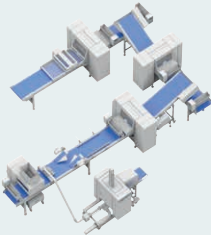




Technical data

Length	9000 / 12000 / 15000 mm
Table height	920 mm
Table width	1000 mm
Conveyor belt width	940 mm
Conveyor belt speed	0.5 – 12 m/min
Supply voltage	3 × 200 – 480 V, 50/60 Hz
Control voltage	24 V

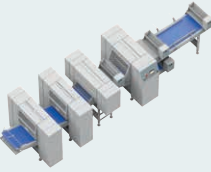
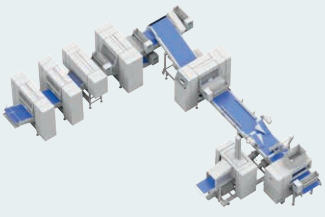
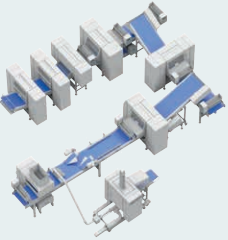
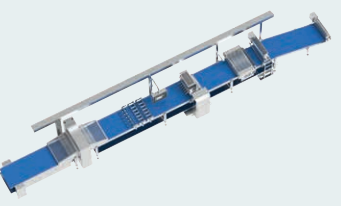
What solution convinces you? One that meets your needs.

MLC 4.0 Versions	I-Block Line Standardised version	L-Block Line Standardised version	U- or Z-Block Line Standardised version
Application	Production of dough blocks with up to 4 fat layers	Production of dough blocks with up to 40 fat layers	Production of dough blocks with up to 400 fat layers
Layout			
Components	• Dough band former • Fat pump (optional) • Folding belts • Satellite head • Rotary cutter	• Dough band former • Fat pump (optional) • Folding belts • Fan-folding station • Two satellite heads • Rotary cutter	• Dough band former • Fat pump (optional) • Folding belts • Two fan-folding stations • Three satellite heads • Rotary cutter
Space needed	8300 × 1850 mm	8000 × 6000 mm	8000 × 7200 mm

MLC 4.0	Version
Conveyor belt width	700 and 900 mm (MLC 4.0 Block, Feeding and Laminating Lines) 940 mm (MLC 4.0 Make-up Lines)
Conveyor belt speed	MLC 4.0 Block Line: up to 8 m/min MLC 4.0 Laminating Line: up to 12 m/min MLC 4.0 Make-up Line: up to 12 m/min MLC 4.0 Feeding Line: up to 12 m/min

Medium connections, control system and voltage	
Operation	PLC, 12" colour touchscreen, 100 programs
Supply voltage	3 × 200 – 480 V, 50/60 Hz
Water connection	For make-up lines
Air connection	For fat pump and make-up lines

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 manual.

I-Feeding Line Configurable version	L-Laminating Line Configurable version	U- or Z-Laminating Line Configurable version	Make-up Line Configurable version
Continuous feeding of make-up lines	Production of dough bands with up to 10 fat layers and continuous feeding of make-up lines	Production of dough bands with up to 100 fat layers and continuous feeding of make-up lines	Make-up of a very wide range of products (pastries, yeast pastries, artisanal bread, rolls, pizzas, donuts and many more)
			
• Satellite head • Cross roller • Calibrator	• Dough band former • Fat pump (optional) • Folding belts • Fan-folding station • Two satellite heads • Cross roller • Calibrator	• Dough band former • Fat pump (optional) • Folding belts • Two fan-folding stations • Three satellite heads • Cross roller • Calibrator	• Double cutting station • Filling depositor (optional) • Numerous accessories (optional) • Various tools (optional) • Guillotine
6000 × 1800 mm	8000 × 6900 mm	8000 × 7200 mm	9000 / 12000 / 15000 mm

Industrial laminating and feeding solutions

Need an industrial laminating and feeding solution for ultra-high performance? Check out our ASTec (Advanced Sanitary Technology) lines. Working width is up to 1500 mm, so they offer extra-high capacity and are custom-built to your requirements. The cutting-edge ASTec design meets the very latest hygiene regulations.



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