



ITALIAN SWEET TECHNOLOGY





LINE FOR SPONGE CAKES

TECHNOLOGY IS OUR PASSION

A team that highly combines competences and specialized technology at your service, from the conceptual creation of your project to the simulation of the final line, up to the executive development.

Our clients are our best partners, we offer them a lot more than innovative systems. Our clients needs are the basis of each machinery, equipment or service. We always start from our client's requests to give them the best solution.

"The hyper specialization in process lines allows us to offer our customers the most advanced production technology."



TURNKEY SOLUTIONS

We engineer and manufacture turnkey industrial Sponge Cake Lines.

Our equipment is designed and built following our client's needs and requests for a tailored made solution.
With a TT Italy sponge cake line you will produce tastier, softer and lighter products.

All new technologies and developments of our R&D + I department are transferred directly to our clients,
offering a state of the art production line. Better and more efficient equipment will result in a tastier and
modern final product.

Our team will offer complete support throughout the entire process, from design to start up.

Our food tehnologist will help you improve your products or develop new ones.

SPONGE CAKE LINE





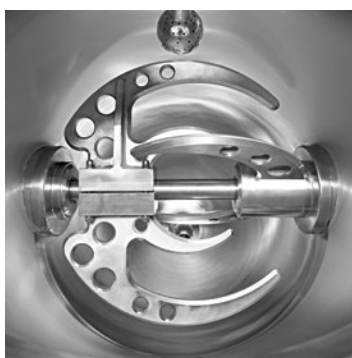
PREMIXER

BATTER & CREAM PREPARATIONS

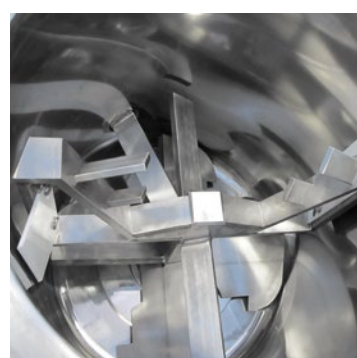
The pre-mixing equipment can be made in various sizes according to the productivity required. We offer two dedicated mixing system, one for batter and one for cream. Batter pre-mixers have blades rotating on the vertical axis and a flat bottom, while cream pre-mixers have blades rotating on the horizontal axis with a round bottom.

Pre-mixers can be completely double-jacket for a complete temperature control.

FOR CREAM

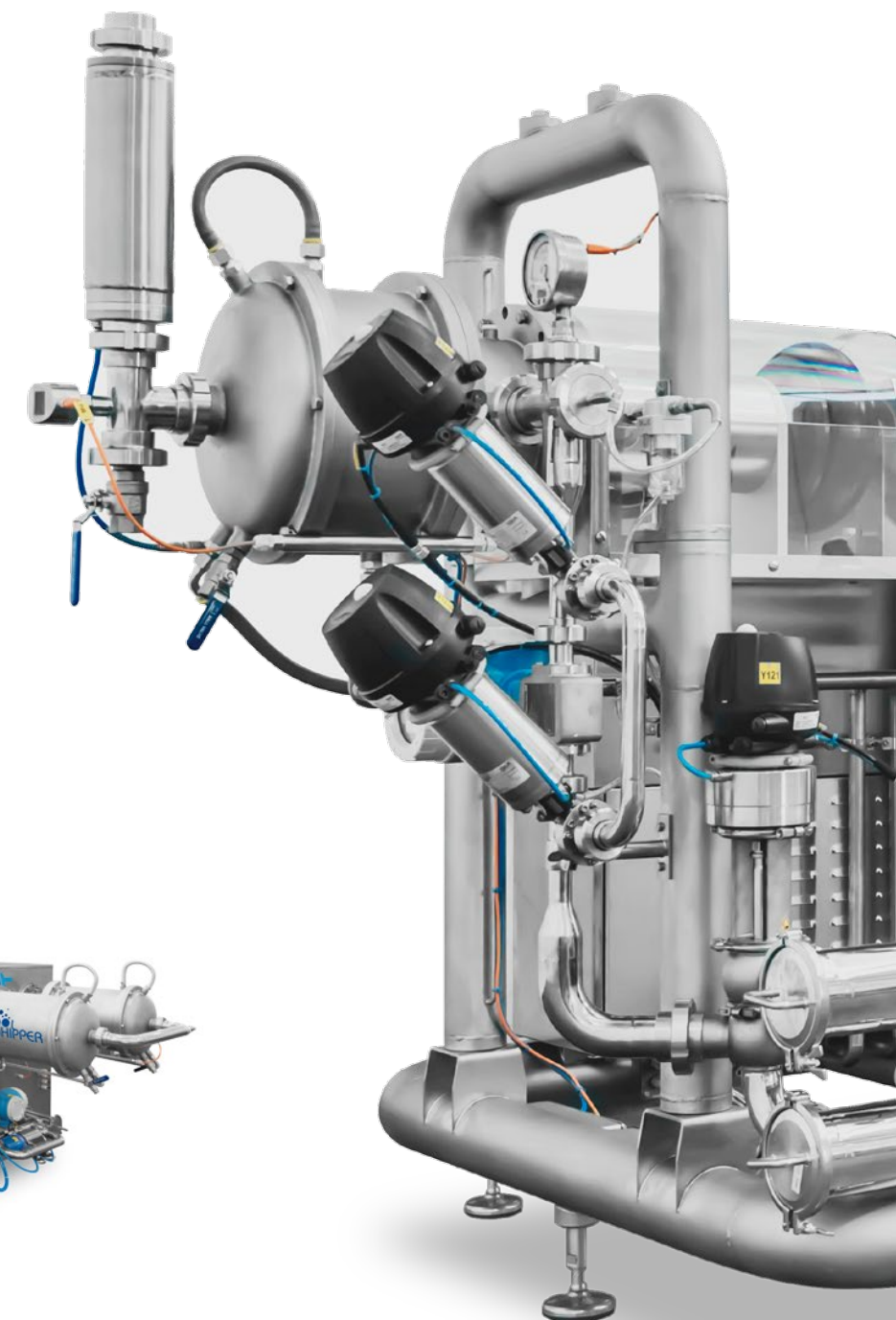


FOR SPONGE



COOL WHIPPER, the Turbo Mixer of TT Italy is designed to emulsify and aerate batter and cream, using air, in order to achieve the desired final specific gravity. It can be used for cream and for liquid mixtures.

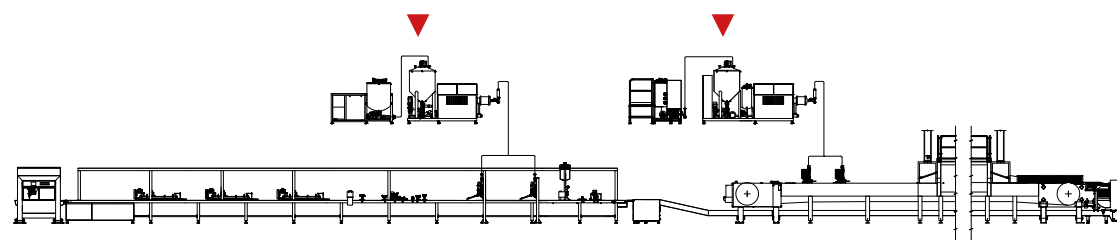
Emulsification is achieved thanks to the design and building technology of the rotor and the stator. At the same time, aeration is achieved through air/gas injection directly in the turbo head. It can be produced in different sizes according to the use and productivity required.



TURBO

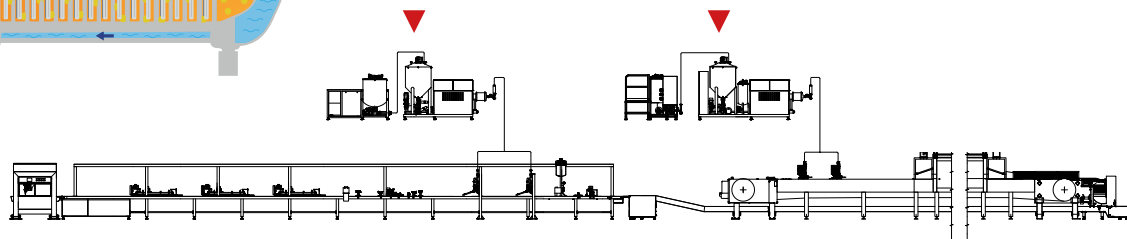
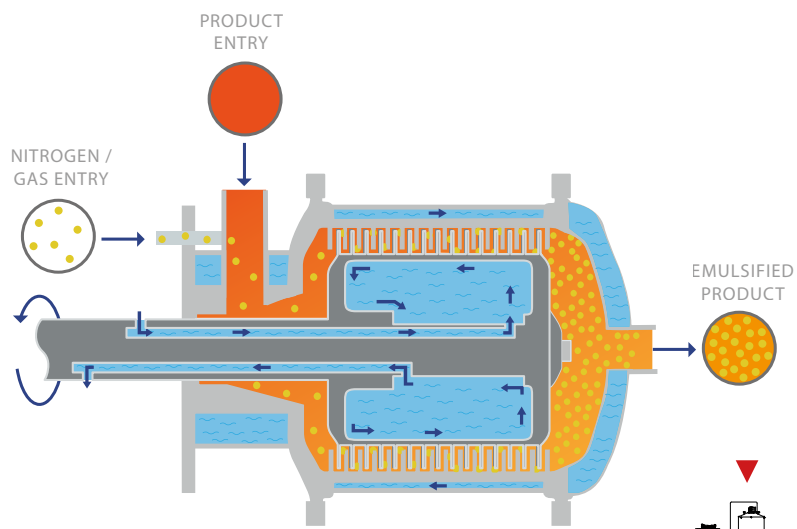
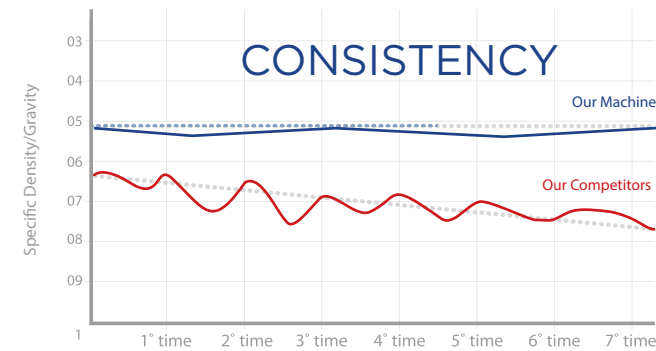
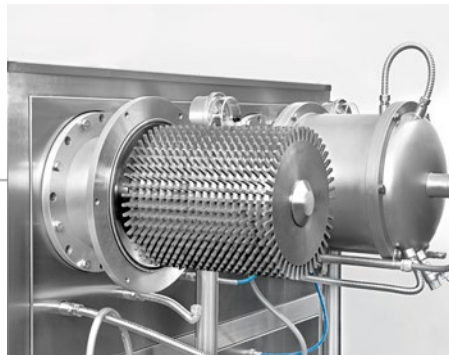


TURBO MIXER SECTION



BATTER & CREAM PREPARATIONS

WHIPPER is fully automatic to guarantee consistent results and to be easily operated.



C.I.P. UNIT

The C.I.P. (Cleaning-In-Place) unit is engineered to wash and sanitize production plants (turbo mixers) without the need of disassembling them. The unit can be equipped with different numbers of tanks, and the tank capacity is sized in accordance with the equipment to clean.

The C.I.P. unit prepares and manages, automatically, the washing and sanitizing solutions, and the cleaning cycles. The C.I.P. unit is the answer to some of the most important needs of our clients: a deep and totally safe cleaning of the equipment in an easy and automatic way.



TURBO MIXER SECTION



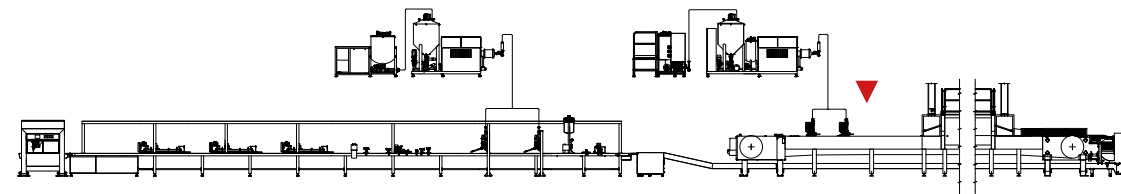
SPONGE ROLLER DEPOSITOR



Roller depositor for sponge cake batter is made of a hopper, containing the batter, and of a roller depositor moved by an inverter. The roller depositor creates a layer of batter deposited directly on the oven belt. The batter deposit can be regulated both in width and in thickness. The depositor can be applied to lines with a width going from 600 to 1500 mm. The control of a depositor sheet of batter allows a perfect baking and enables a total quality control of the final product.



PRE OVEN SECTION



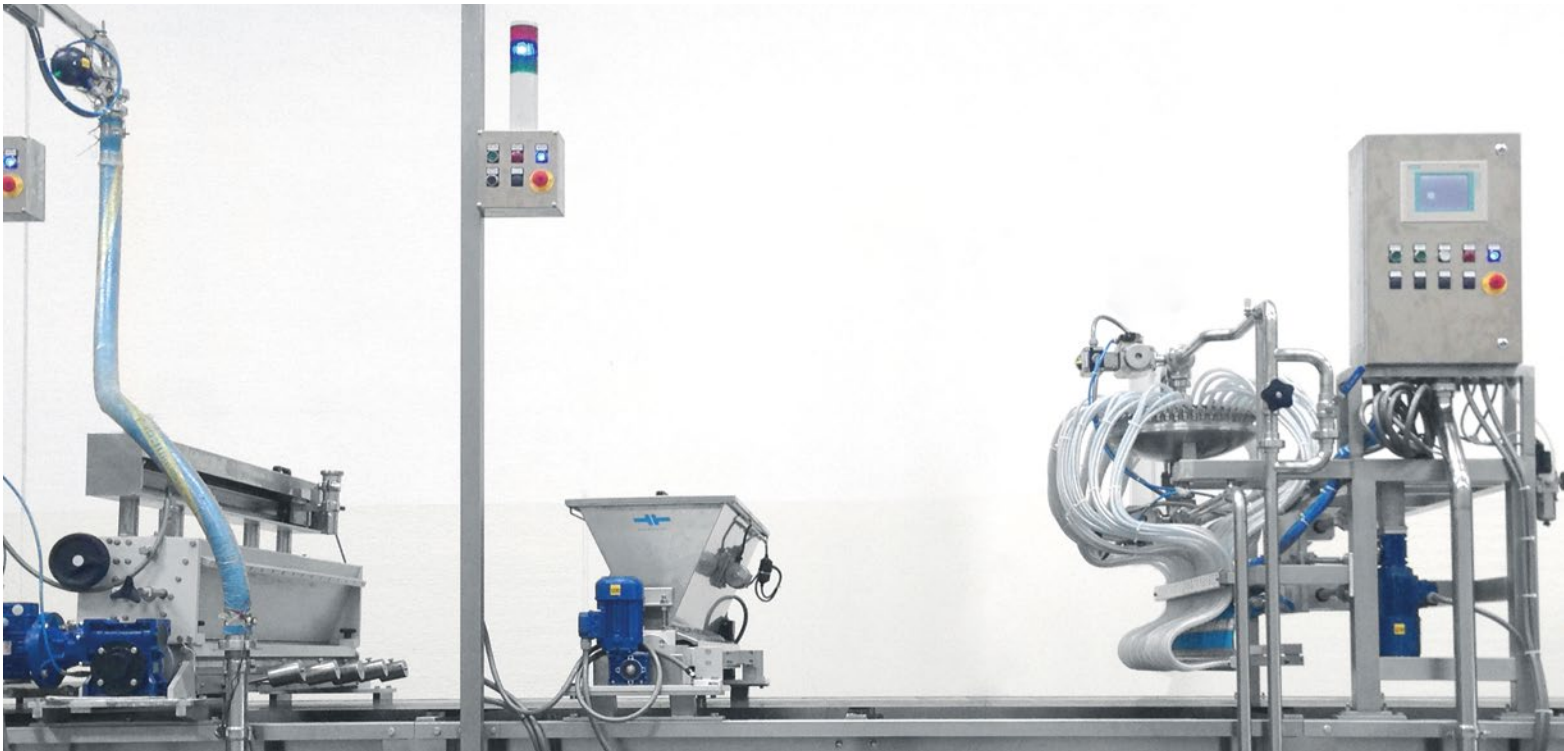
DECORATION BEFORE OVEN

With our before-oven decoration technology you can personalize your products. Choose decoration color and pattern.

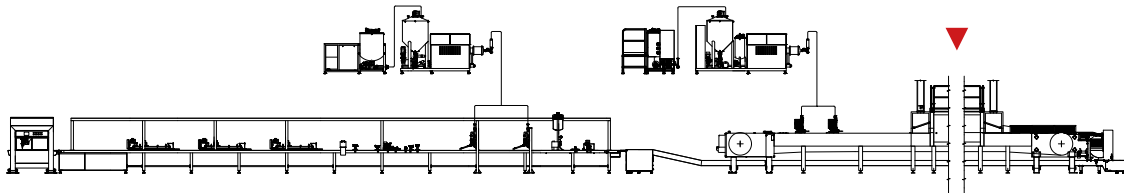


BAKING SECTION

Cyclothermic ovens are the best solution for sponge cake. This kind of ovens combine the power and control to perfectly bake the sponge cake while controlling the internal moisture of the product. Ovens divided in different baking zones give complete control over the baking process of the final product. Our lines will communicate with the oven via PLC in order to balance and adjust production continuously. This is designed to give our clients complete control and a fully automated production line.



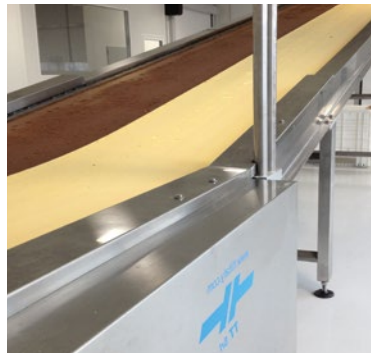
BAKING SECTION



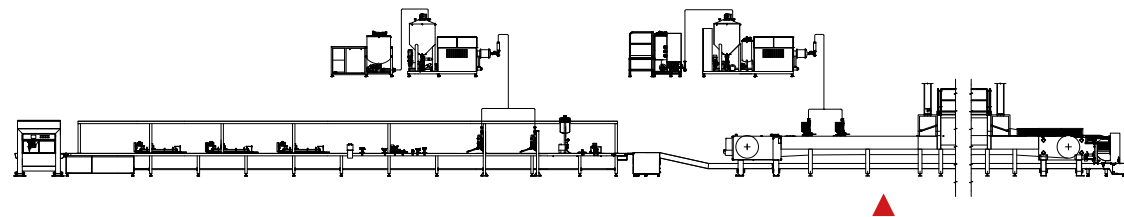
COOLING CONVEYOR

The Cooling Conveyor is placed at the oven exit and it can be either overhead or under the oven. The structure is made of stainless steel just like the mesh belt. Conveyor allows you to cool down the sponge cake while keeping under control the moisture of the product, thanks to the stainless steel conveyor.

An overturning drum is placed at the end of the cooling conveyor. The drum is equipped with a contrast belt conveyor to hold the sponge cake sheet and deposit it on the work bench conveyor. This delicate part of the process is easily managed by the technology developed by our engineering department.



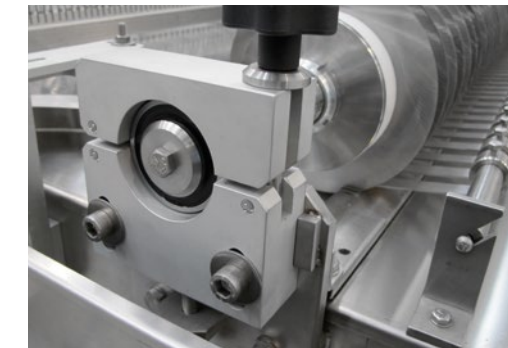
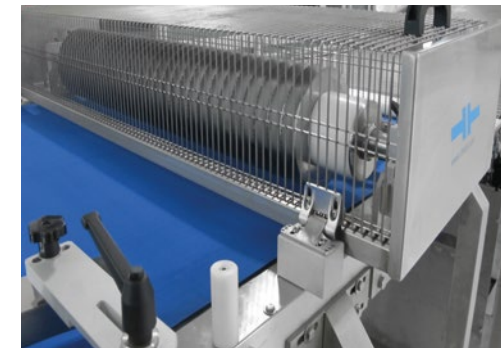
COOLING SECTION



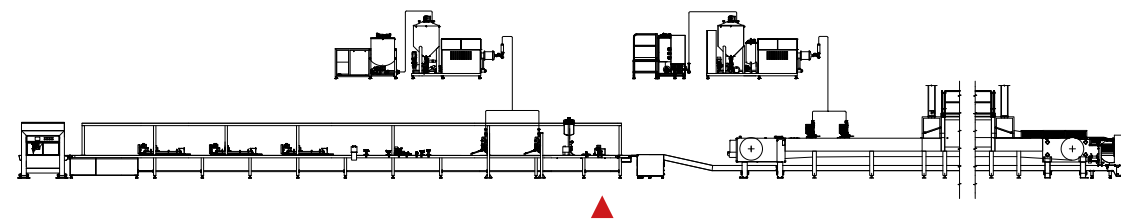
LONGITUDINAL CUTTER

A brush is placed at the beginning of the work bench and it is used to clean the sponge cake sheet from any crumbs/pieces produced during the baking and cooling process.

The longitudinal cutter is made of a stainless steel shaft holding the cutting blades. The rotating blades cut the sponge cake longitudinally. The width of the cuts changes according to the final product to be made. Each product has a dedicated set of blades.



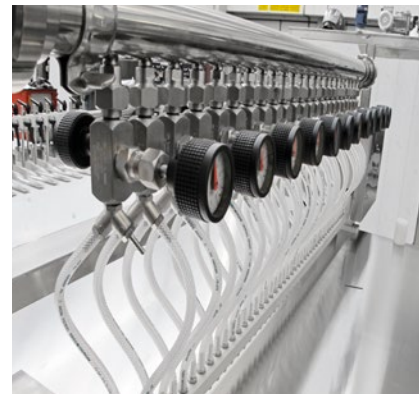
WORKBENCH SECTION



SYRUP DOSING UNIT

This machine is designed to dose syrup - either alcohol or non-alcohol based - on the sponge cake sheet after the longitudinal cutter. Syrup will give flavour and moisture to the final product.

The syrup dosing system is designed according to the specific needs of the client and it has three configurations: standard, with peristaltic pumps and with electronical pumps. Each configuration will guarantee the perfect syrup dosing on the sponge cake sheet.



FILLING DISPENSER

The cream and jam dispenser are custom made according to the final product and to the final cake. The measures of the dosing nozzles can be adjusted according to the width of the products and the amount of filling.

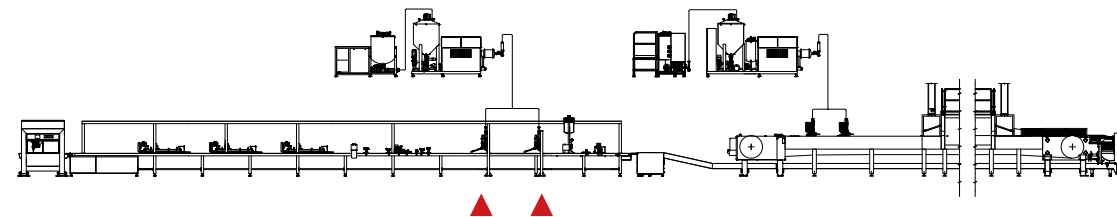
Every nozzle is placed on supports that can be adjusted in height thanks to rapid hooks that allow easy removal for format change or cleaning.

The dispenser is designed to regulate homogenously the dosage on the sponge cake.

Nozzles are made of plastic resin for an easy and quick format change and cleaning.



WORKBENCH SECTION



ROLLER TOOLS

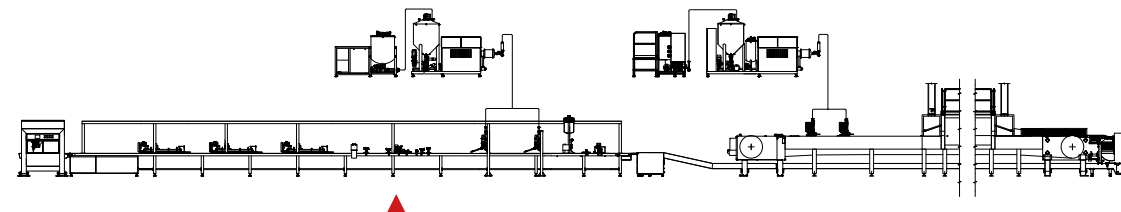
The sponge cake rollers are made in two versions: one for big rolls and one for mini rolls.

The number of tools for the rolls production varies according to the number of rows that will be produced according to the width of the workbench.

Each rolling group has a dedicated servo motor to perfectly control the rolling speed and constantly control the production.



WORKBENCH SECTION



TWO LAYER FOLDING TOOLS

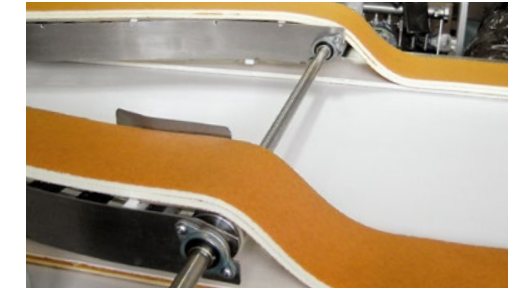
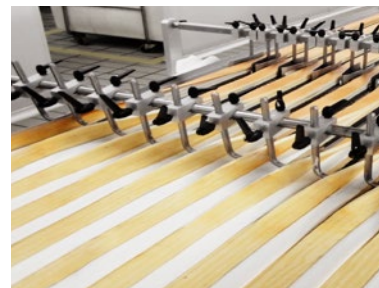
The tools to produce two layer cakes are made of:

- ▶ a work station with plows to overturn the cake
- ▶ a work station with lateral guides to align the two layer cakes
- ▶ a final work station to adjust the finished cake thickness



FAMILY SIZE CAKE TOOLS

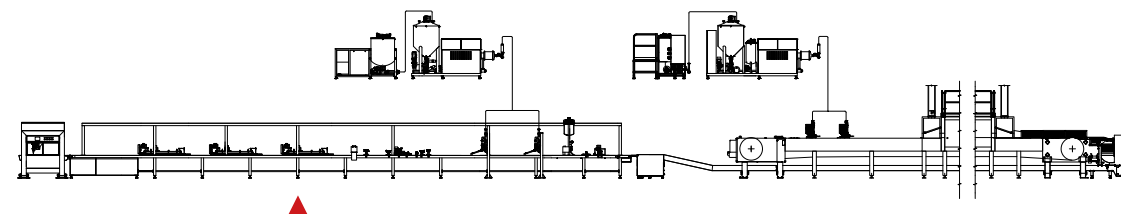
Family-size layer cakes are formed with a special configuration of overlaying conveyors. Each conveyor will guide the sponge cake sheet on its final position. The final size of the cake is fully customizable.



The number of rows is related to the width of final product and to the overall width of the line.



WORKBENCH SECTION



GIRELLA WORKBENCH

The Girella forming tool is a dedicated working area to produce the girella cake. A specific roller device rolls the sheet of sponge cake transversally to the line, creating a roll as wide as the deposited cake. After the rolling, a specially designed tool separates the cut cakes and deposits the finished product on the conveyor. Girella cake tools are equipped with a specific cream spreading device and a shaft for the longitudinal cutter.

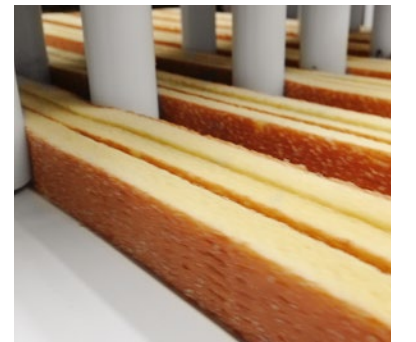
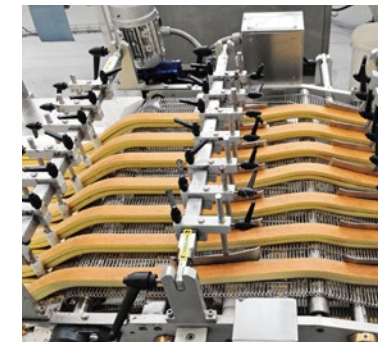


TRI-LAYER CAKES TOOLS

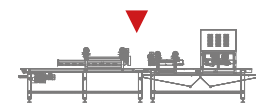
The triple layer cakes is made with special shares and overlay conveyors. The work phases are:

- ▶ creation of the first double layer cake with cream filling
- ▶ overlaying the first double layer on another layer of cake with cream on it
- ▶ sizing the final product

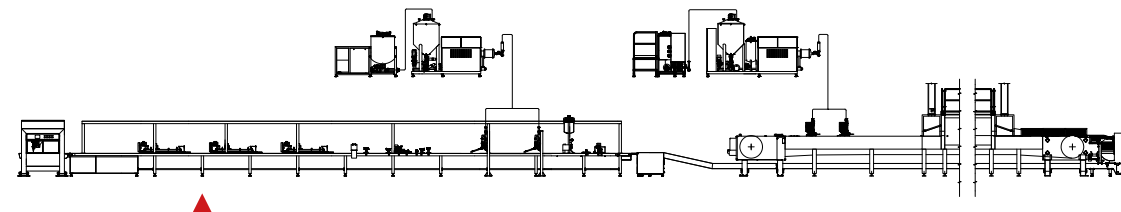
The number of rows is related to the width of final product and to the overall width of the line. To produce the "tegolino" cake a specific tool is required to position the cake vertically.



Girella workbench to be placed after transversal cutter.

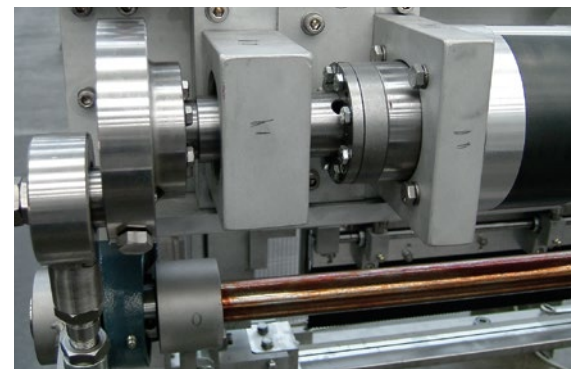
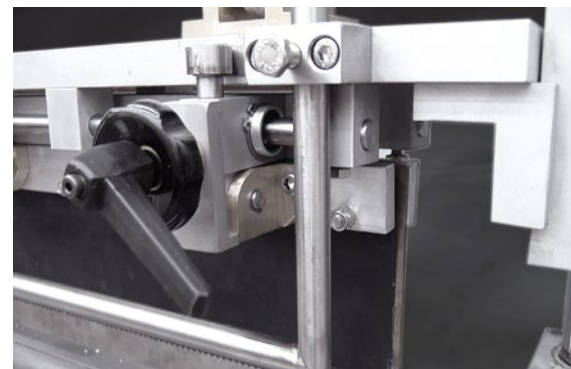
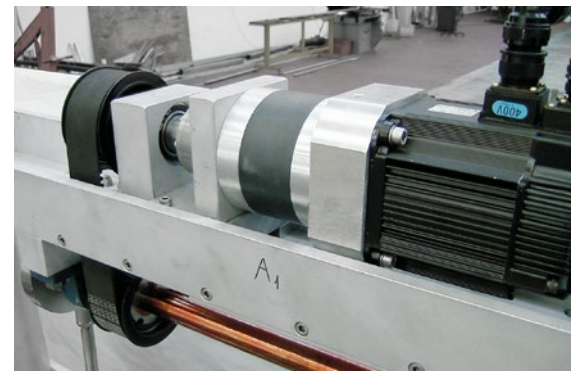


WORKBENCH SECTION



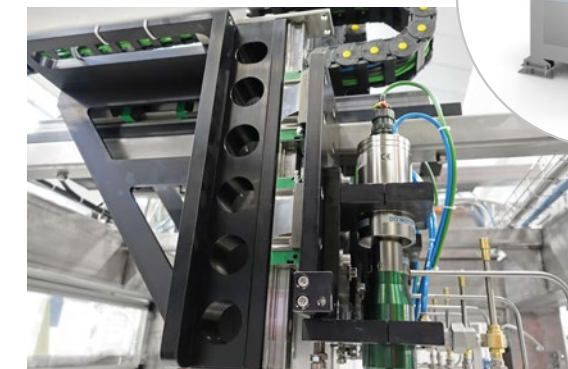
TRANSVERSAL CUTTER

The transversal cutter is available in different sizes and the dimensioning is strictly linked to the line width. Lowering of knives and product tracking is driven by brushless motors. The double vibrating blades are driven by inverter controlled motors.

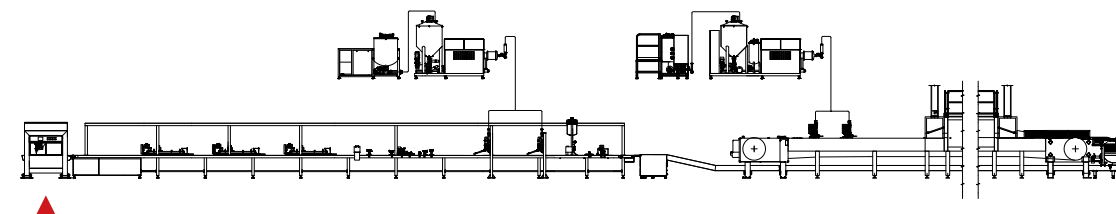


TRANSVERSAL ULTRASONIC CUTTER

The ultrasonic cutting system is conceived to be positioned in the process line as a stand-alone equipment. The feature that distinguishes the ultrasonic cutting system is the way it cuts the products with great amounts of cream. The system, in fact, avoids damaging the product, squeezing the filling during the cutting phase by using ultrasonic vibrations. The cutter can make both transversal and linear cuts according to the type of blades applied.



CUTTING SECTION



COATING / DECORATION SECTION

The VA MODEL coating machine for surrogate has a modular design and can vary from 600 up to 1200 mm in width.

The TE MODEL decorators for chocolate/surrogate has a modular design and can be of various lengths from 600 to 1200 mm.



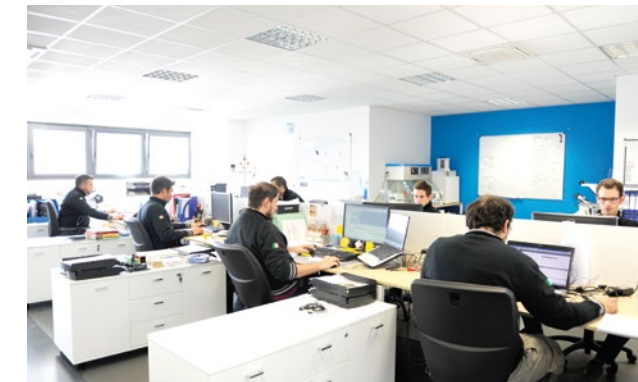
COATING / DECORATION SECTION

Meeting your needs

FOOD TECHNOLOGIST SUPPORT

The food technologist service begins together with the design and engineering of the line, and the constructive follow-up never ends. A full support that starts from your ideas to give you the best cake in the market.

Our food technologist helps you develop the best product according to your needs and to the market request. The experience and specialization of our food technologist gives you complete support: from designing a tailor made recipe, to sourcing the right raw materials, from training your employees to getting the final product you desire.

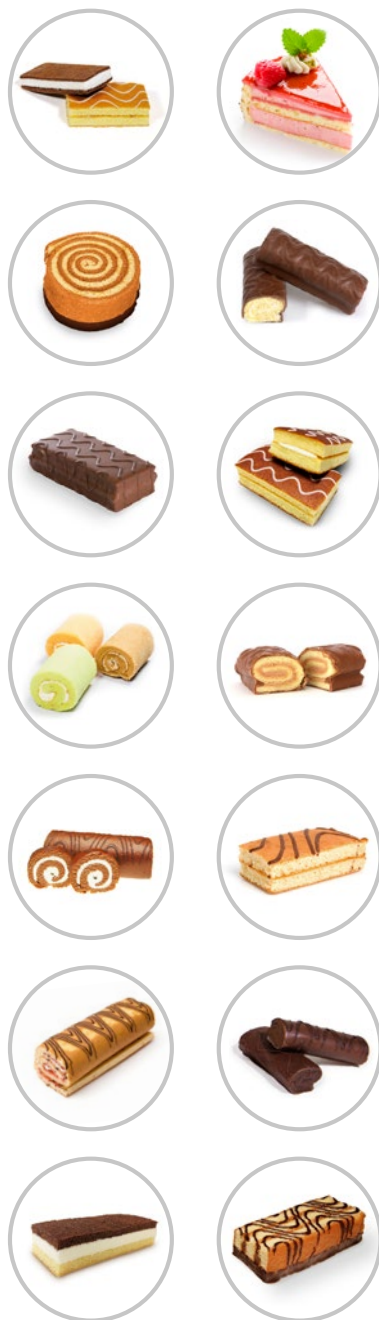


The table below gives you an idea of the production cycle for different types of cakes.
Average baking times were taken into account to calculate productivity of different products.

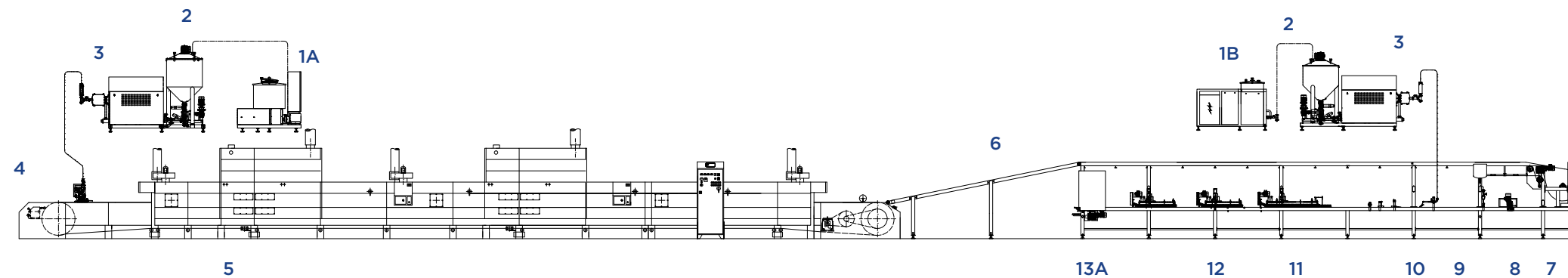
PRODUCTIVITY ON A 20 MT. LONG OVEN

PRODUCT		BAKING TIME		LINE WIDTH 600	LINE WIDTH 800	LINE WIDTH 1000	LINE WIDTH 1200	LINE WIDTH 1500
	DOUBLE LAYER CAKE		7min	n. 7 rows pc/h 20.000	n. 10 rows pc/h 28.500	n. 12 rows pc/h 34.300	n. 15 rows pc/h 42.800	n. 19 rows pc/h 54.000
	TRIPLE LAYER CAKE		7min	n. 4 rows pc/h 11.400	n. 5 rows pc/h 14.300	n. 7 rows pc/h 20.000	n. 8 rows pc/h 22.900	n. 10 rows pc/h 28.500
	MINI ROLL		5min	n. 4 rows pc/h 13.700	n. 5 rows pc/h 17.100	n. 7 rows pc/h 24.000	n. 9 rows pc/h 30.800	n. 10 rows pc/h 34.200
	BIG ROLL		6min	n. 2 rows pc/h 2.300	n. 3 rows pc/h 3.400	n. 4 rows pc/h 4.600	n. 5 rows pc/h 5.700	n. 6 rows pc/h 6.900
	TEGOLINO		7min	n. 7 rows pc/h 15,000	n. 10 rows pc/h 21,400	n. 12 rows pc/h 25,700	n. 15 rows pc/h 32,100	n. 19 rows pc/h 40,700
	GIRELLA		6min	n. 18 rows pc/h 10,300	n. 24 rows pc/h 13,700	n. 30 rows pc/h 17,000	n. 36 rows pc/h 20,500	
	FAMILY SIZE CAKE		7min	n. 2 rows pc/h 1,700	n. 3 rows pc/h 2,550	n. 4 rows pc/h 3,400	n. 4 rows pc/h 3,400	n. 6 rows pc/h 5,100
			7min	n. 1 row pc/h 850	n. 2 rows pc/h 1,700	n. 3 rows pc/h 2,550	n. 3 rows pc/h 2,550	n. 4 rows pc/h 3,400
			7min	n. 1 row pc/h 850	n. 1 row pc/h 850	n. 2 rows pc/h 1,700	n. 2 rows pc/h 1,700	n. 3 rows pc/h 2,550

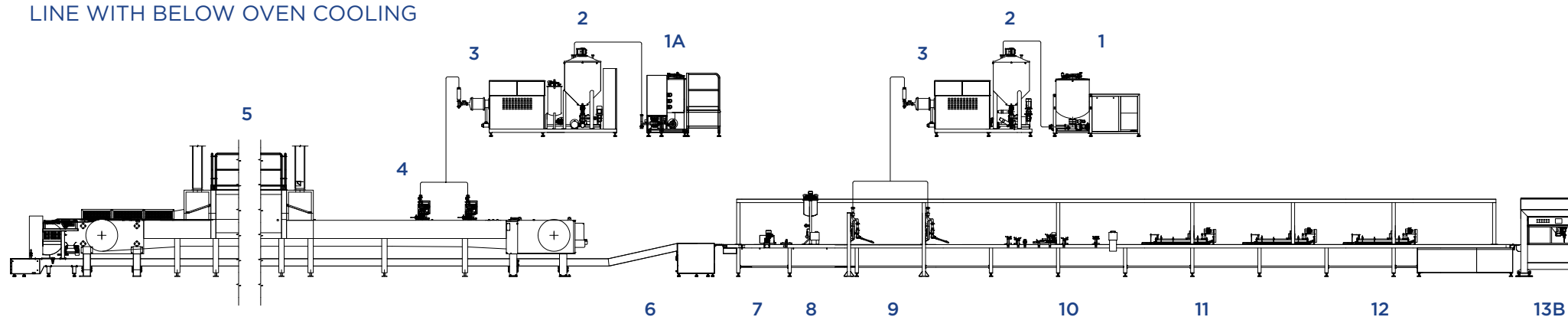




LINE WITH OVERHEAD COOLING



LINE WITH BELOW OVEN COOLING



SPONGE CAKE LINE

- 1A** BATTER PRE-MIXER /
- 1B** CREAM PRE-MIXER
- 2** BUFFER TANK
- 3** TURBO MIXER
- 4** ROLLER DEPOSITOR
- 5** OVEN
- 6** COOLING
- 7** LONGITUDINAL CUTTER
- 8** SYRUP DISPENSER
- 9** FILLING DISPENSER
- 10** LAYER
- 11** BIG ROLL
- 12** MINI ROLL
- 13A** TRANSVERSAL CUTTER
- 13B** ULTRASONIC CUTTER

Product images are for
illustrative purposes only.



CUSTOM CARE SERVICE

TT Italy guarantees the availability of every spare part of all of its machinery, with timely and fast delivery.

TT Italy Care takes after sales service to a new level. TT Italy guarantees the continuous support of all our installations, to keep the best productivity while maximizing efficiency. With TT Italy Care you can plan the maintenance of our equipment and you will have dedicated support 24/7.

Some of the advantages of TT Italy Care:



REMOTE ASSISTANCE
via internet



AFTER-SALES SERVICE
with dedicated staff



SPARE PARTS
always in stock



FAST SPARE PART DELIVERY
via express courier



MAINTENANCE
service planning

A GLOBAL MARKETPLACE

The best solution is achieved by examining problems through multiple perspectives. We do not use hierarchical systems to improve our decision-making and planning processes. Innovation comes from the high skills of each individual, playing their role in a highly collaborative context.

From our headquarters in Friuli and our foreign offices we approach our clients with competence and courtesy, providing lines and machinery to valued customers in over 48 countries around the world.



• ENGINEERING •



• SALES AREA •

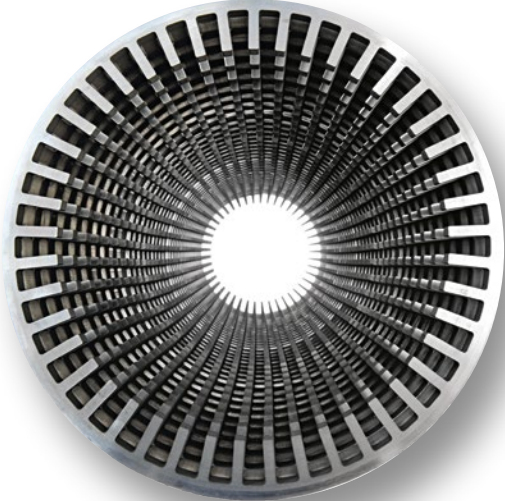


• PRODUCTION LINE •



TT Italy was founded in 2003 by two hard working and innovation-inspired Italian entrepreneurs . This thriving enterprise deals with solutions for the high tech bakery. It is specialized in the production of avant-garde equipment for sponge cake snacks, batter, and since September 2015, TT Italy also provides new technologies in the savory area.

ITALIAN SWEET TECHNOLOGY



Thanks to the experience of our specialized staff, continuous research, the quality of Made in Italy, and an infused passion, today, the company is a world leader in the sector - with presence in 51 countries - with 87% of sponge cake lines installed around the world between 2014-2015 with the TT Italy brand.





Viale Giuseppe Mangiarotti 15, 33033, Codroipo (UD) - Italy
Tel. +39 0432820141 - Fax: +39 0432 1840182- info@ttitaly.com

© TT ITALY S.p.A. reserves all rights in this document and in the information contained therein.
Reproduction, use or disclosure to third parties without express authority is strictly forbidden.

WWW.TTITALY.COM