

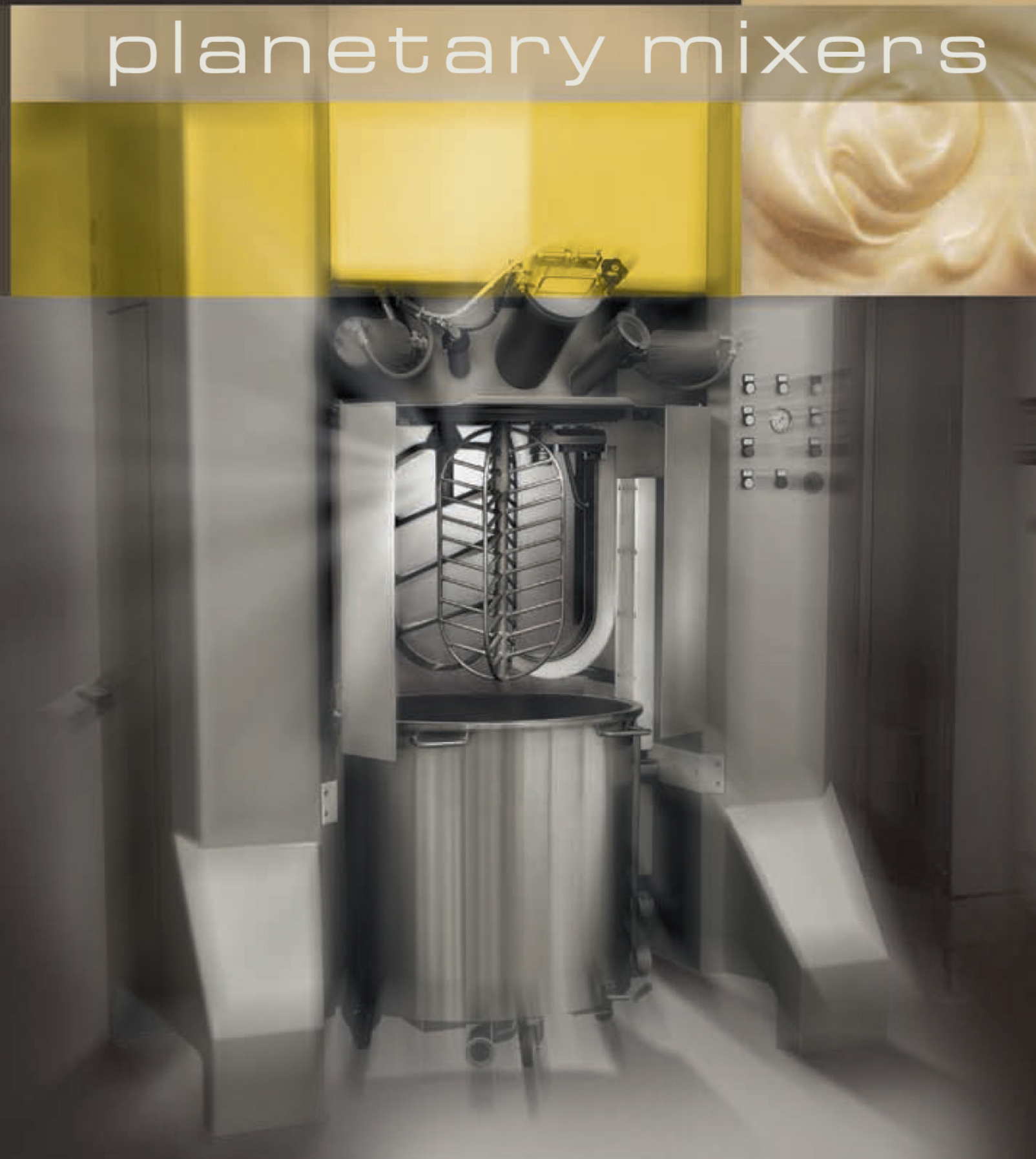
# planetary mixers

**TONELLIGROUP**

Strada Nazionale, 7  
I-43044 Collecchio (Parma)  
Tel. +39 0521 339011  
Fax +39 0521 339099

**Web**

[www.tonelligroup.it](http://www.tonelligroup.it)    [www.tonelli.it](http://www.tonelli.it)  
[info@tonelligroup.it](mailto:info@tonelligroup.it)    [info@tonelli.it](mailto:info@tonelli.it)



# 120 litre 800 litre range



800  
lt.

# TONELLI innovative classics

TONELLIGROUP



120  
lt.

TONELLI Planetary Mixers, which have always been a top choice for confectionery and bakery manufacturers around the world, continue to deliver innovative design combined with Italian creativity.

The range of equipment, designed to tradition with robust and long-lasting qualities, also provides integrated and complex systems, offering custom-made solutions to clients.

With products ranging from large, automated and computerised systems to mixers for smaller-scale businesses with a home-made touch, the TONELLI GROUP is the ideal partner for both large and small companies working in the confectionery and bakery industry.

# standard features

## Tonelli's Planetary Mixing System

The exclusive Tonelli Planetary Mixing System combines the use of one or two tools with the scraper, depending on a pre-set rotating ratio, to guarantee quality mixing in a class of its own.

To meet different production needs related to specific product technologies, Tonelli also provides a Dual MOTORISATION option. This means the revolution of tools is independent of their rotation, so the number of parameters that can be programmed for recipes can be increased.

### bowl scraping

A stainless steel scraper, with scraping part in Teflon or Polyethylene ensures that the inside of the bowl (exclusive Tonelli mould) is perfectly scraped at all times and that the mixture is continually directed towards the tools. This in turn speeds up and optimises ingredient mixing.

This function is important during heating and/or cooling processes, as it facilitates heat exchange, reducing process times, and in particular prevents the product from solidifying or burning on the inside of the bowl.

### hermetic seal for the mixing environment

In its operating position, the bowl with the hood creates a perfect hermetic seal for the mixing environment.

- Work in a Pressurized atmosphere (max 0.5 bar) or in vacuumed conditions (25 µbar remaining);
- Carry out high pressure WASHING
- Automatically FEED solid and liquid ingredients
- Inject inert gases (CO<sub>2</sub> and Liquid Nitrogen)

with the following benefits: product cooling and/or heating times are considerably reduced; the mixing environment cannot be contaminated from external agents; no spills of liquids and/or powders.

### work tools

A wide range of tools that are interchangeable depending on product technologies, quick and easy to change, make Tonelli Planetary mixers even more versatile.

### computerised management system

All recipe stages are managed by TONELLI-designed software, combined with sophisticated Allen Bradley, Siemens, Telemecanique and Omron PLC systems with Panel View and Touch Panel for complete automation of the mixing process.

More than 50 recipes, with relative process parameters (time, speed, air pressure, stages for adding ingredients, etc.) can easily be stored from the control panel.

A complete graphic interface with icons makes the machine's operating functions extremely user-friendly, even for non-experts.

### hygiene

All parts in contact with the product have been designed and developed to prevent the formation of bacteria:

- The planetary spheroidal reducer has no sharp edges
- Attention to detail in tool surface construction (e.g. welding, roller levelling, etc.); surfaces micro-peened.
- New "integral" polyethylene or Teflon scraper, with AISI 304 stainless steel core.

The mixing environment is fully washable, even at high pressures and can be integrated with C.I.P. washing circuits.

The AISI 304 stainless steel machine makes for easy, overall cleaning.

### safety

The mixers are designed and developed to fully comply with European EEC and American UL safety standards.

A sophisticated control mechanism via the PLC checks the correct position of the bowl during the rising stage.

Tonelli software lets you carry out the widest possible range of operations and at the same time prevents any attempt to modify safety parameters.

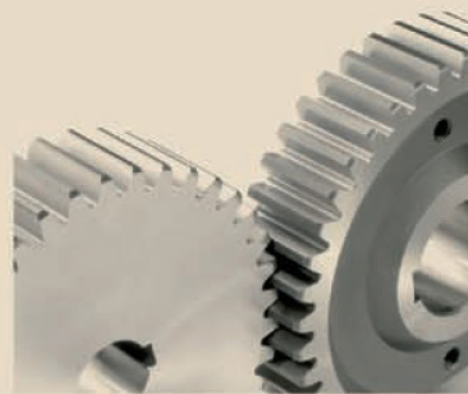
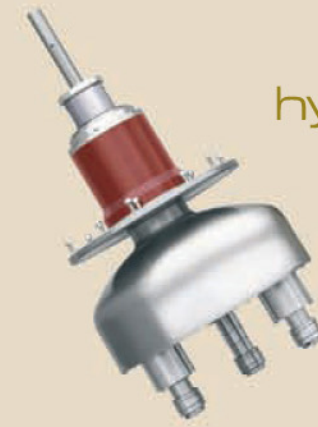
Accident prevention devices, with safety micro-switch, are provided to protect workers.

### reliability

Tonelli Planetary mixers are well-known for their long-lasting qualities and this is because the company's philosophy is based on detailed design, quality materials and oversizing of parts subject to wear.

In particular, the gears of the mixing apparatus (reducer) are made in special alloys which can withstand extreme stress.

A Tonelli machine has an average life of approximately 25 years.



pâte à chou

cakes

biscuits

sponge cakes

icings

creams

plum-cakes

meringues

# options

## feeding ingredients



- Manual or automatic FEEDING of a wide range of ingredients;
- DOSING of liquids using magnetic or mass flow meters, and powders using gravitation weighing feeders. Accuracy: 3‰.

## washing

- Washing system with hydrodynamic (max. pressure 30 bar) or motorized (max. pressure 110 bar) heads;
- Possible to include in C.I.P. systems, using centrifugal pumps and relative equipment.



## drip-proof unit

A stainless steel disk automatically slots in between the tools and lowered bowl to prevent product drips and spills and keep the working environment hygienic.



## temperature management and control

The steam and water and oil circulation versions of Planetary mixers have been designed for product technologies that require heating and/or cooling.

A control probe, placed inside the product, constantly records the temperature. The PLC, with Tonelli software, manages data to operate the system, according to the process parameters set for the recipe.

Tonelli can provide the following HEATING options:

- Forced circulation of heated water (from the mains or from a heating unit) and/or oil
- Steam

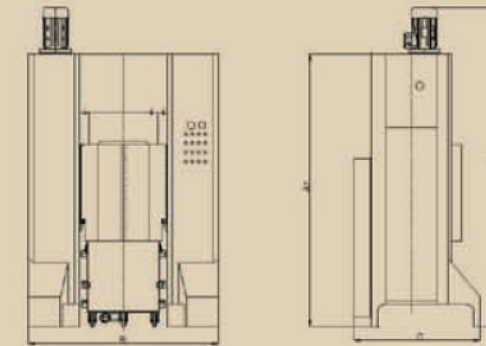
COOLING options:

- Circulation of water;
- Circulation of glycol for the food industry;
- Liquid nitrogen injection (-196°C) - TONELLI PATENT;
- CO2 injection;
- Hard vacuum.

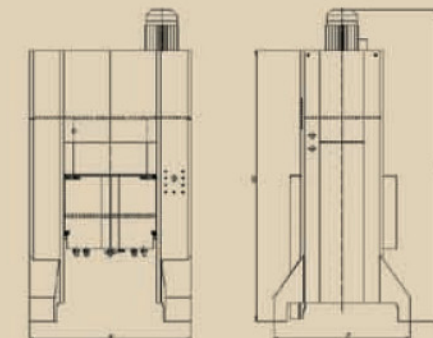


## product transfert

- Specific positive-displacement pump to suit the particular characteristics of the product;
- Pneumatic system;
- Product lifters and tilters for high viscosity products, or products with particulates;
- Ejectors for particular technological needs.



MODELLO	DIMENSIONI (mm)				PESI (Kg.)		POTENZA (Kw)
	A	A1*	B	C	Netto	Lo do**	
120 lt.	2489	2130	1481	1058	778	866	7
200 lt.	2857	2310	1580	1154	1262	1383	9
300 lt.	3259	2660	1800	1160	2100	2295	19



MODELLO	DIMENSIONI (mm)				PESI (Kg.)		POTENZA (Kw)
	A	A1*	B	C	Netto	Lo do**	
400 lt.	3643	3169	1900	1600	3150	3390	26
600 lt.	3938	3506	2320	2000	4580	4880	41
800 lt.	4625	3900	2320	2000	5515	5875	59

\* La macchina può prevedere la motorizzazione laterale.

\*\* Peso per macchina completa di bacinella ed attrezzi (n. 2 +