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mixing technologies

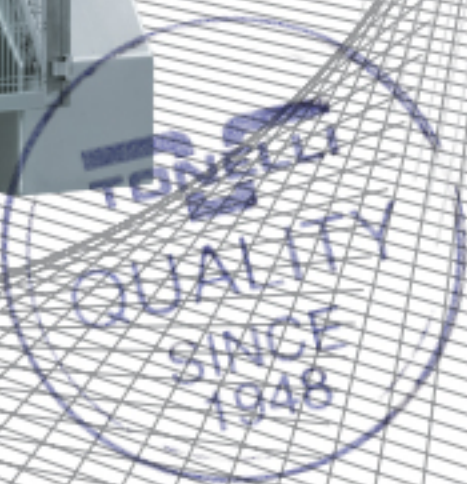


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120 lt
200 lt
300 lt
400 lt
600 lt
800 lt
1300 lt

INNOVATIVE CLASSICS

TONELLI PLANETARY MIXERS, WHICH HAVE ALWAYS BEEN A TOP CHOICE FOR CONFECTIONERY AND BAKERY MANUFACTURERS AROUND THE WORLD, CONTINUE TO PRESENT INNOVATIVE DESIGN COMBINED WITH ITALIAN CREATIVITY. THE RANGE OF EQUIPMENT, DESIGNED ACCORDING TO TRADITION WITH ROBUST AND LONG-LASTING QUALITIES, ALSO PROVIDES INTEGRATED AND COMPLEX SYSTEMS, OFFERING CUSTOM-MADE SOLUTIONS. 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.



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 AN UNMATCHED MIXING QUALITY.

TO MEET DIFFERENT PRODUCTION NEEDS RELATED TO SPECIFIC PRODUCT TECHNOLOGIES, TONELLI ALSO PROVIDES A DUAL MOTORISATION OPTION. THIS MEANS THAT THE REVOLUTION OF TOOLS IS INDEPENDENT OF THEIR ROTATION, SO THE NUMBER OF PARAMETERS THAT CAN BE PROGRAMMED FOR RECIPES CAN BE INCREASED.



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-PENEDED.
- NEW "STEEL CORE" POLYETHYLENE OR TEFLON MELTED 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 EXECUTION, MAKES EASY THE OVERALL CLEANING.



AUTOMATIC FEEDING & DOSING OF INGREDIENTS

HANDUAL 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%.

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 INGREDIENTS' 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.



PRODUCT TRANSFER

- 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 PARTICLES;
- EJECTORS FOR PARTICULAR TECHNOLOGICAL NEEDS.

ADDITIONAL TONELLI TRANSFER PRODUCT SYSTEM

PNEUMATIC PUMP, HYDRAULIC LIFTER, ROBOTIC LASER MOVEMENT [LGV]



MIXING ACCESSORIES

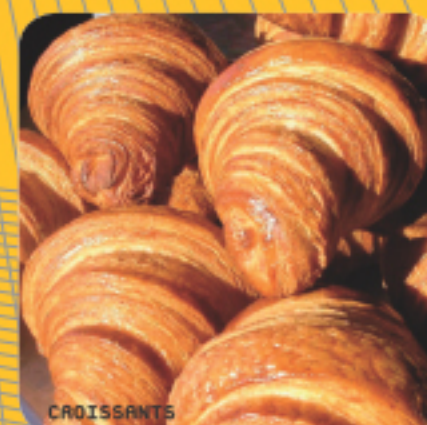
A WIDE RANGE OF TOOLS THAT ARE INTERCHANGEABLE DEPENDING ON PRODUCT TECHNOLOGIES, QUICK AND EASY TO CHANGE, MAKES TONELLI PLANETARY MIXERS EVEN MORE VERSATILE.

COMPUTERISED MANAGEMENT SYSTEM

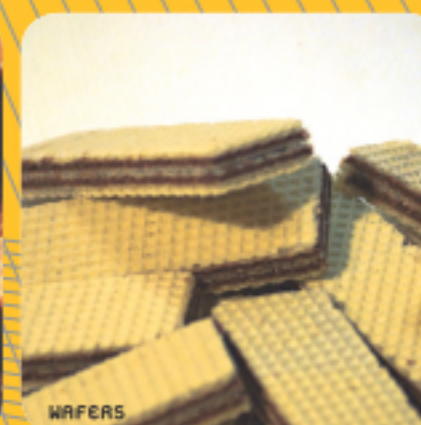
ALL RECIPE STAGES ARE MANAGED BY TONELLI-DESIGNED SOFTWARE, COMBINED WITH SOPHISTICATED ALLEN BRADLEY, SIEMENS, TELEMECANIQUE AND OMRON PLC SYSTEMS WITH PANEL VIEW AND TOUCH PANEL FOR COMPLETE AUTOMATION OF THE MIXING PROCESS. MORE THAN 50 RECIPES, WITH RELATIVE PROCESS PARAMETERS (TIME, SPEED, AIR PRESSURE, 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 UNSKILLED OPERATORS.



ONLY A FEW APPLICATIONS



CROISSANTS



WAFERS



BISCUITS & COOKIES



VIENNA CAKE



MACARONS



MUFFINS



FIG BAR

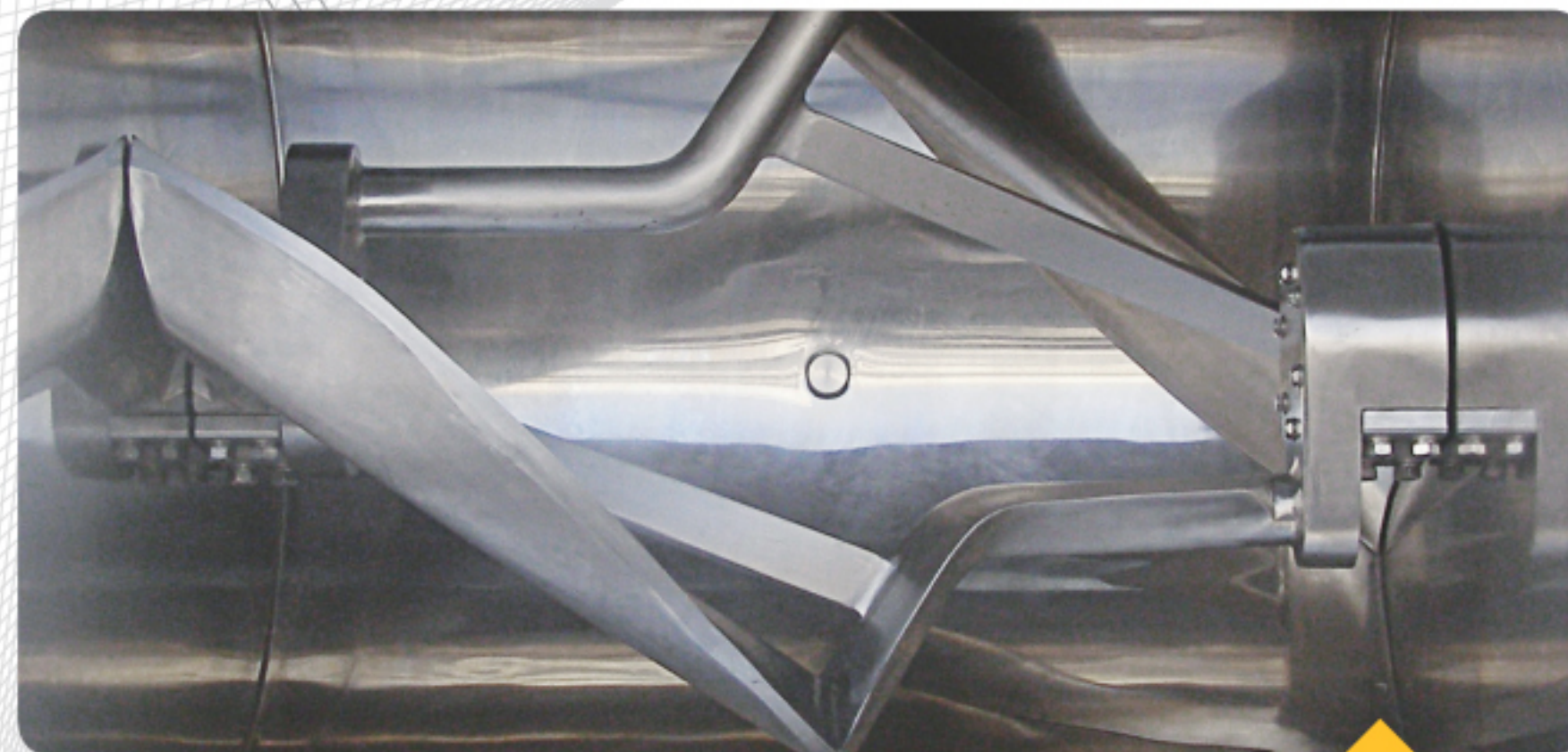


CAKES

350 kg
750 kg
900 kg

HORIZONTAL MIXERS TR 350 — TR 750 — TR 900

- HIGH STABILITY BEARING STRUCTURE
- MIXING ENVIRONMENT (BOWL, TOOL, COVER) IN STAINLESS STEEL AISI 304/316.
- HIGH THERMAL EXCHANGE.
- PRESETTING FOR INGREDIENTS' AUTOMATIC LOADING.
- BOWL'S ROTATION BY SELF-BRAKING MOTOR.
- BOWL'S SAFETY LOCK.
- DOUBLE MOTORIZATION, DIRECTLY COUPLED TO THE MIXING ARM.
- MIXING TOOL CREATED BY STAINLESS STEEL AISI 304/316 FUSION.
- HYDRODYNAMIC WASHING UNIT.
- ELECTRIC CONTROL PANEL IP54 ONBOARD.
- PLC SIEMENS S7-300
- MP277 10" COLOR TOUCH SIEMENS



HIGH STRENGTH MIXING ARM

MACHINED OUT OF A SINGLE STAINLESS STEEL CASTING

CHEWINGUM



ONLY A FEW APPLICATIONS



CRACKERS



BISCUITS & COOKIES



HARD DOUGHS



PASTRIES

CENTRIFUGAL MIXERS

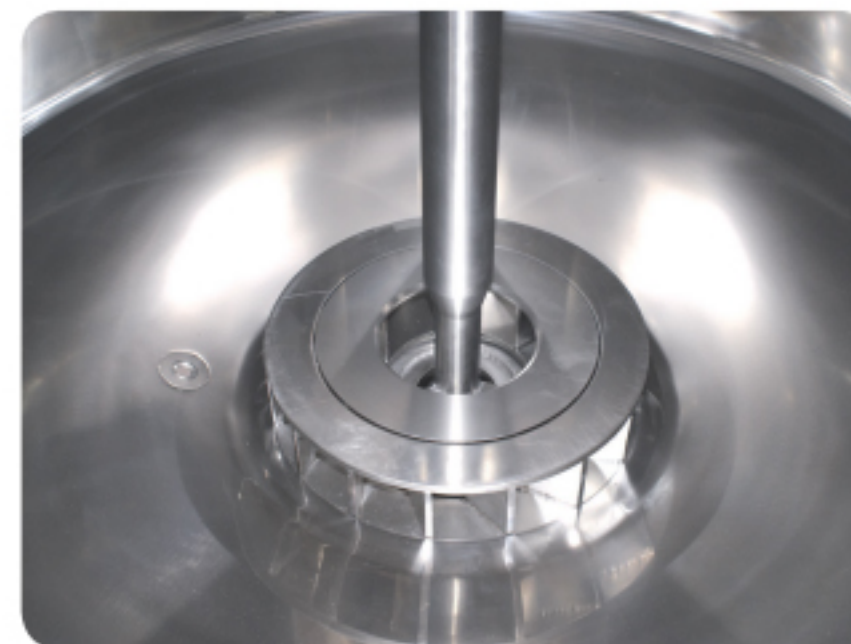
50 lt
100 lt
200 lt
300 lt
400 lt
600 lt

CENTRIFUGAL MIXER - MU

HIGH PRODUCTION EFFICIENCY MIXER, SUITABLE FOR FAST MIXING OF BATTERS FOR CAKES AND SPONGE CAKES, MERINGUE PREMIX, TO HOMOGENIZE AND EMULSIFY CREAMS AND WHIPPED CREAMS, SAUCES AND MAYONNAISE, AND ALSO FATS FOR MARGARINE PLASTICIZATION.

THE INGREDIENTS CAN BE INTRODUCED BOTH MANUALLY AND WITH VOLUMETRIC DOSERS OR BY USING A PUMP, OR THEY CAN BE WEIGHED WITH LOADING CELL SCALES.

THE MACHINE IS ALSO PROVIDED WITH A CAPACITY OF MIXTURE: MAX 400 KG / MIN 10 KG (MOD. MU/1), SUITABLE FOR SMALL PRODUCTIONS OR SMALL BAKERIES.



ADVANTAGES

PROCESS TIMES REDUCTION
VERSATILITY OF APPLICATION
COST SAVINGS, THANKS TO ITS CAPACITY
TO BE ALSO A SCRAPS MIXER.

ONLY A FEW APPLICATIONS

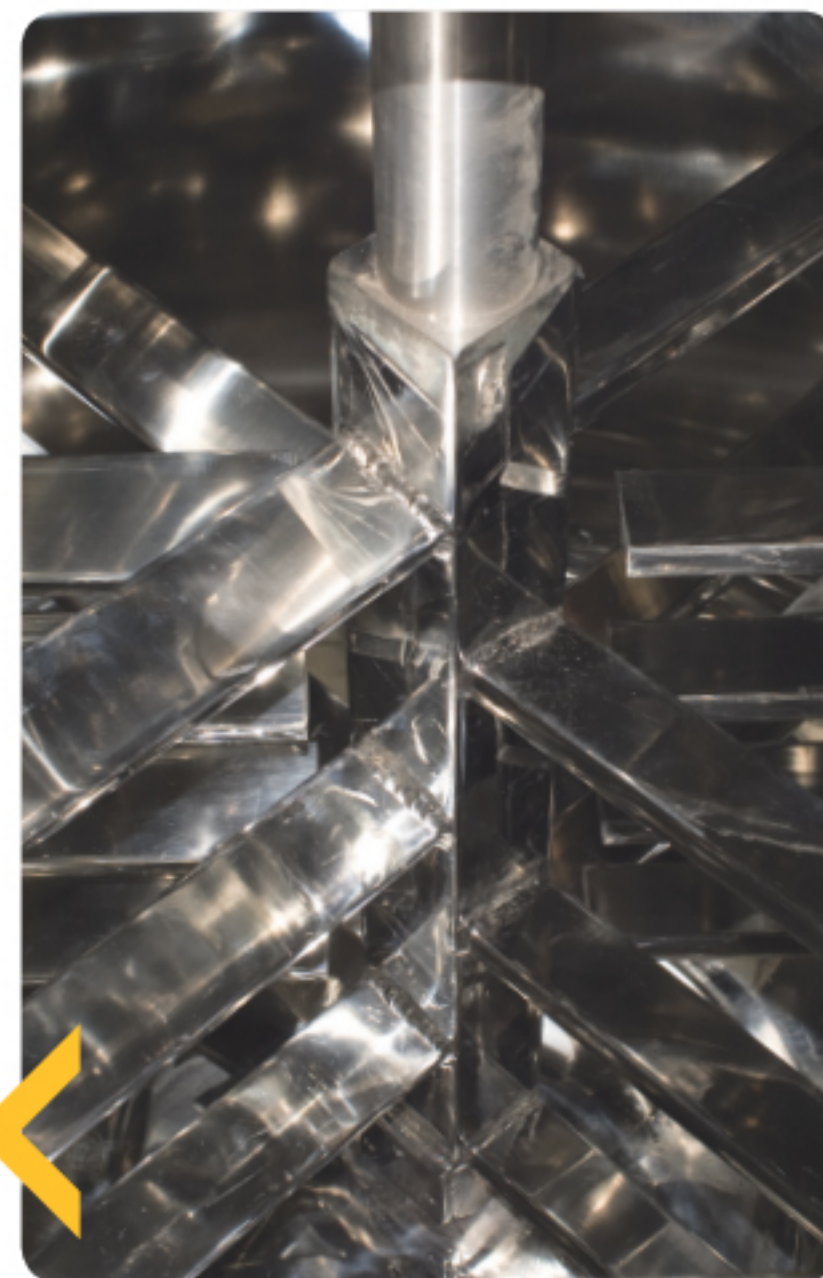


BATTER PREMIXERS

160 lt
200 lt
300 lt
400 lt

BATTER PREMIXER APX

THIS IS THE CLASSICAL SYSTEM FOR BATTER PREPARATION, IN WHICH MIXING TIMES ARE EXTREMELY FAST. MIXING IS OBTAINED WITH LITTLE AND FREQUENT BATCHES, IN ORDER TO AVOID TOO LONG RESTING TIMES AND SO THE QUALITY OF THE PRODUCT IS OPTIMAL.



BUFFER TANK RAT

THE PRE-MIXED PRODUCT IS TRANSFERRED TO A BUFFER TANK WHERE IT IS KEPT COLD, SO THAT THE FOLLOWING STEP OF AERATION CAN BE PERFORMED AT BEST. THE CONE SHAPE ALLOW THE PERFECT DRAINING AND THE INNER AGITATION WITH SCRAPING BLADES ASSURES AN HOMOGENEOUS COOLING OF THE BATTER BATCH.



ONLY A FEW APPLICATIONS



120 lt
200 lt
300 lt
400 lt

CREAM PREMIXER CRPX

THIS PREMIXER PRODUCES CREAM FOR FILLINGS EXTREMELY FAST, THANKS TO ITS "VANE MIXING SYSTEM". CREAM CAN BE CONDITIONED THROUGH THE CAVITY WALL, IN WHICH COLD WATER KEEPS THE TEMPERATURE UNIFORM FOR THE FOLLOWING STEP OF THE AERATION. CREAM TRANSFER IS EASED BY A SCREW FEEDER FOR PUMP.



CREAM PREMIXER CRPX

BOTH PREMIXER AND TANK ARE BUILT IN SUCH A WAY THAT ALL THE PARTS ON CONTACT WITH THE PRODUCT CAN BE PERFECTLY CLEANABLE.



BUFFER TANK AMMI

IT IS A CONTAINER FOR CREAM STORAGE AND FEEDING, JACKETED FOR HOT WATER FORCED CIRCULATION. ONE ARM AGITATES THE STORED CREAM, WHILE DEDICATED SCRAPERS PREVENT THE CREAM FROM STICKING TO THE INTERNAL WALL.

ONLY A FEW APPLICATIONS



CONTINUOUS AERATING MIXER CAM

THE CAM MACHINE IS A CONTINUOUS MIXER SUITABLE TO AERATE AND EMULSIFY ANY PRODUCT WHICH REQUIRES THE ACHIEVEMENT OF A UNIFORM STRUCTURE AND THE INCREASE OF THE VOLUME. THIS IS OBTAINED THROUGH THE COMBINED ACTION OF A STATOR PRECISION COUPLED TO A ROTOR, BOTH PROVIDED WITH WHIPPING TEETH. THE STATOR IS JACKETED TO ALLOW FORCED CIRCULATION OF COOLING WATER.



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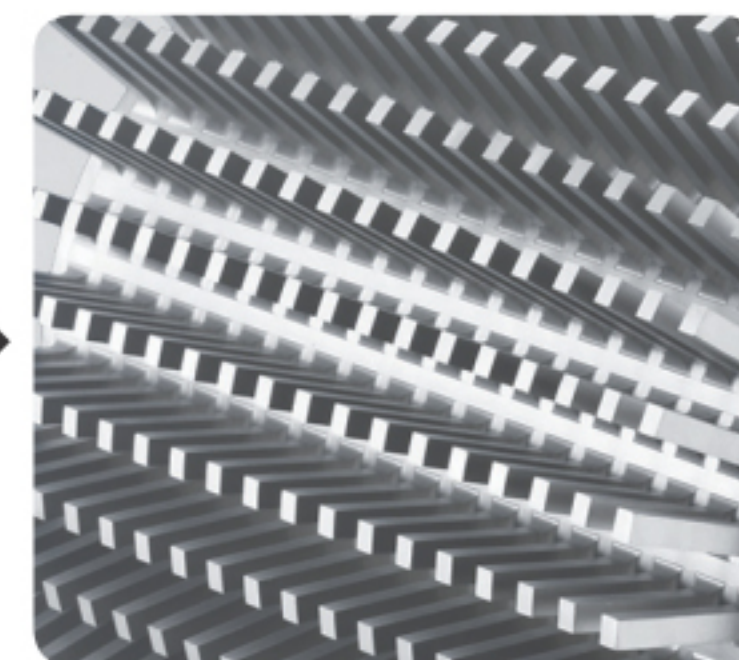
AERATION CONTINUOUS GROUP

PLATFORM HYGIENIC DESIGN



WHAT'S NEW

- OPTIMAL FEEDING OF THE HEAD, THANKS TO ITS VERTICAL STRUCTURE;
- CONTROL OF THE EMULSIFIED PRODUCT'S PROCESS AND SPECIFIC WEIGHT;
- TEMPERATURE CONTROL, THROUGH MORE THICK INTERSPACES FOR HEATING/COOLING;
- PRODUCTION CAPACITY IMPROVEMENT, THANKS TO THE INTERCHANGEABLE HEADS ACCORDING TO THE RECIPES;
- TECHNOLOGICAL FLEXIBILITY, FOR THE DIFFERENT LENGTH OF THE HEADS, THAT SUITS TO SEVERAL DIFFERENT PRODUCTS;
- HYGIENE AND EASY CLEANING, BECAUSE ROTOR AND STATOR ARE DIRECTLY MACHINED OUT OF A SINGLE SOLID STAINLESS STEEL BLOCK AND THERE IS NO WELDING, OR OTHER FIXING, SO UNHEARD LEVELS OF HYGIENE ARE ACHIEVABLE;
- INTRODUCTION OF FOOD COLOUR, SUSPENDED PARTICLES, JELLY, ETC....



ONLY A FEW APPLICATIONS



GANACHES



SPONGE CAKES



CREAMS



MOUSSES



MACARON



JELLY



WHIPPED CREAMS



MARSHMALLOWS