

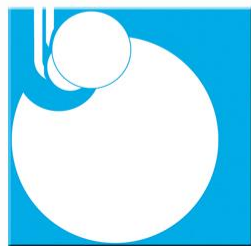
NEW!

it's mozzarella time



GENERAL PRESENTATION 2018

MEET OUR SOLUTIONS
FOR CHEESE PRODUCTION



MilkyLAB

MilkyLAB is a market leader in the design and manufacture of machines and automatic installations for cheese production since 1980



MilkyLAB international market

MilkyLAB works with more than **50** countries in worldwild.





Milky LAB[®] s.r.l.
Italian equipment for mozzarella cheese

**String / Spaghetti
cheese**

**Analogue
Mozzarella**



**Processed cheese
Cheese spread**

**Pizza Cheese
KASAR - Kassery**



PRODUCTS



Ricotta cheese

Mozzarella



**Shredded
mozzarella**



**Cheeses coating
line**



Raw material

MILK WAY



- Fresh **MOZZARELLA**
high moisture
- **PIZZA CHEESE**
low moisture



WHEY



- Ricotta cheese



POWDER WAY



- **IMITATION**
MOZZARELLA
- **SPREAD CHEESE** and
PROCESSED CHEESE

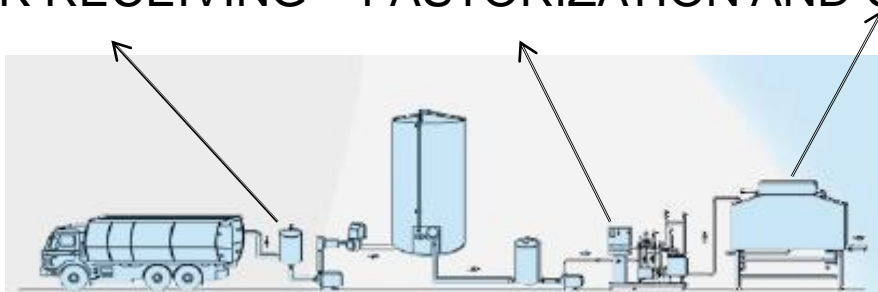




Milk way (1000 Lt)



MILK RECEIVING – PASTORIZATION AND COAGULATION

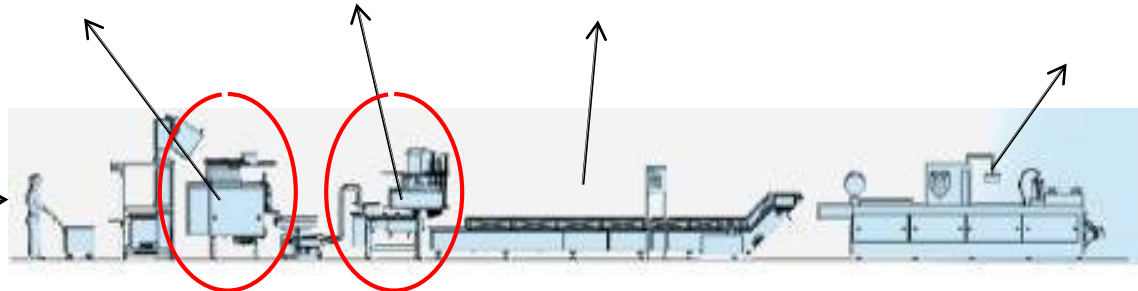


Ferment addition
Rennet addition
Curd cooking
Cut and rest
Partial whey removal
Curd unloading in
drainage vat



100 Kg of curd

STRETCHING – MOULDING – COOLING / BRINING AND PACKAGING



100 Kg of curd



Final product



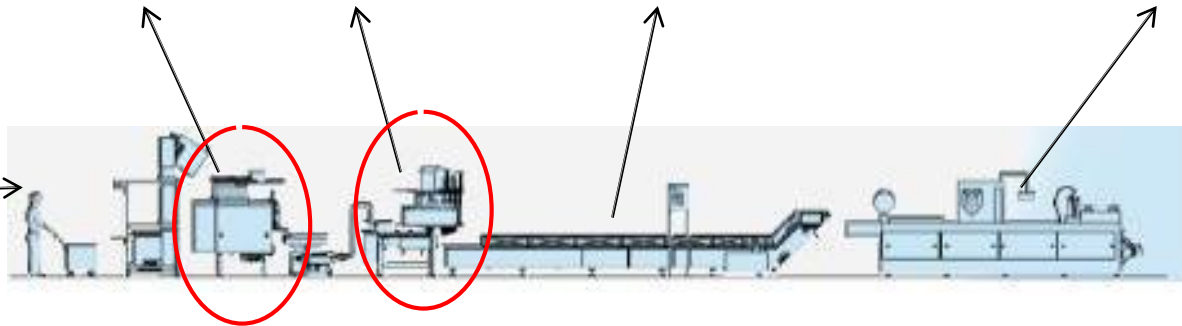
Powder way



STRETCHING – MOULDING – COOLING / BRINING AND PACKAGING

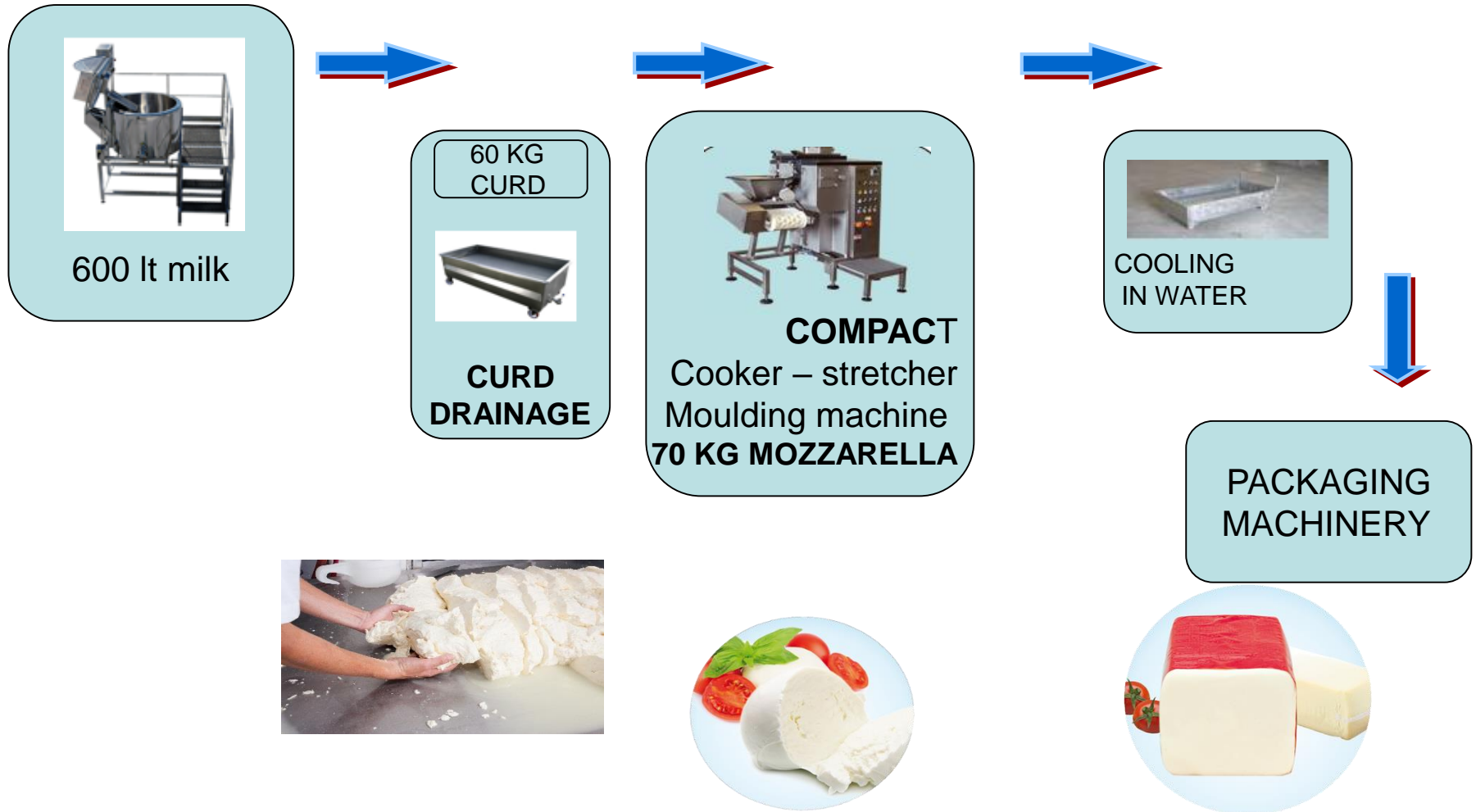


25 Kg of powder

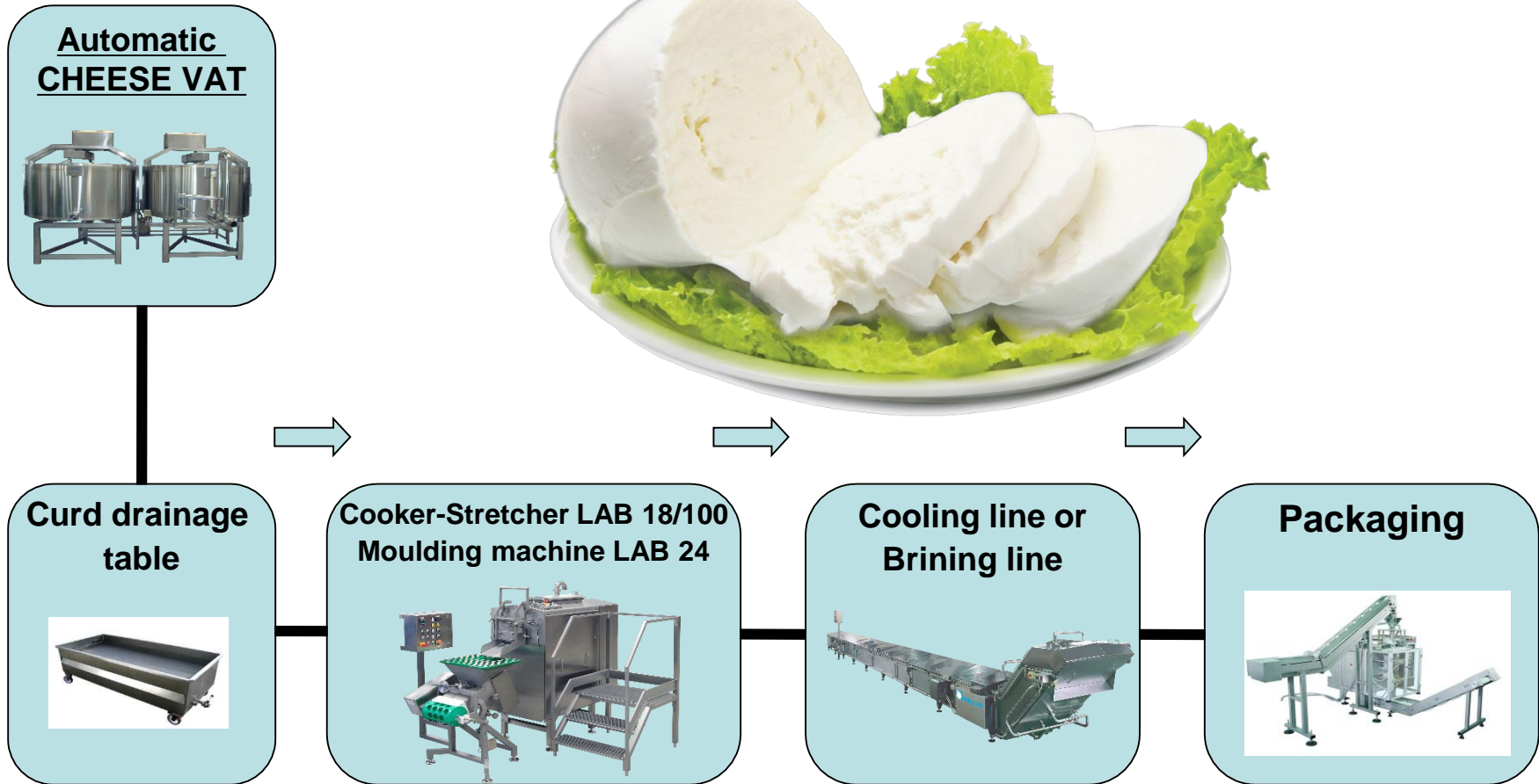


100 Kg of Final product

MOZZARELLA – PIZZA CHESE – CHEDDAR PRODUCTION FLOW CHART



Mozzarella production from fresh MILK



COMPACT: EXCLUSIVE MACHINE



- Stretching/moulding machine by steam
- From 5 to 20 kg / batch = 80 Kg/h
- Steam injection in the double jacket and direct steam in the product
- There will not be more fatty liquid to be purified
- Possibility to add dry salt during the process
- Electrical steam generator included
- Stretching vat and moulding with two augers
- PLC and TOUCH SCREEN
- For MOZZARELLA, PIZZA CHEESE ,, ANALOGUE PIZZA CHEESE , CHEEDAR PROCESS,



COOKER STRETCHER BY STEAM

LAB 18

- Double wall vat featuring **Aisi 316** stainless steel structure
- Steam injected in the double jacket **at 4 bar** certificate and direct steam in the product
- **MOTORIZED LOADING HOPPER**
- Load cells for weigh control
- Electrical panel with touch screen and PLC siemens
- Eletronic display for temperature **control**
- Stretching by 2 augers with adjustable speed by Inverter
- Parts that come into contact with the product are shot-peened with quartz microspheres and the augers feature teflon coating
- **AUTOMATIC EXPLUSION SYSTEM** with pneumatic piston
- in stainless steel AISI 304 with electrical and pneumatical function



ADVANTAGES

- ❖ Reduction of heating and stretching time thanks to the steam injection ;
- ❖ There will not be more fatty liquid to be purified;
- ❖ Double jacket steam injection for PROCESSED CHEESE.
- ❖ Significant energy savings by reducing steam consumption ;
- ❖ Possibility to add DRY SALT during the process (max 1%);

MODELS:

LAB 18/50 - Output 150 KG/H

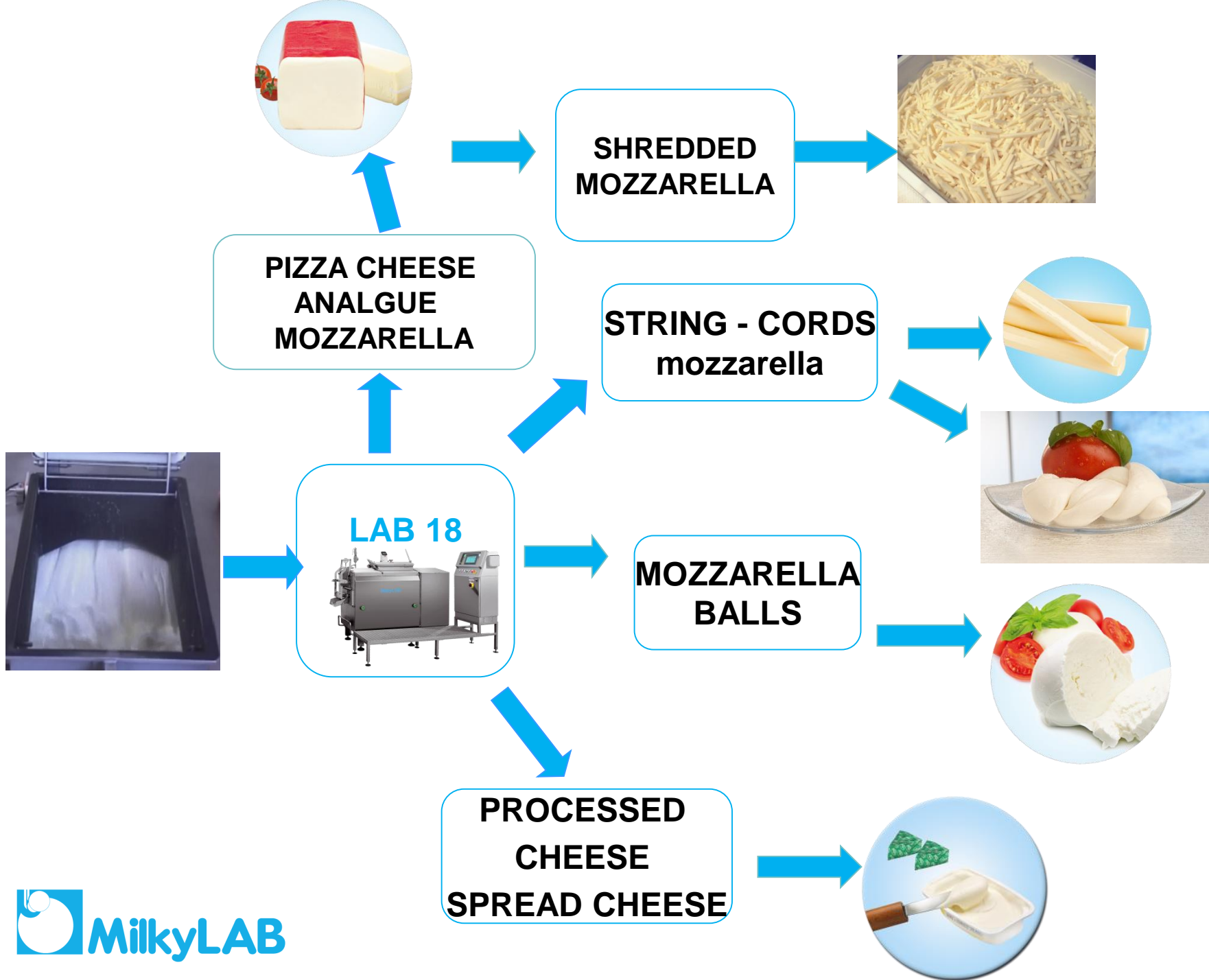
LAB 18/100 - Output 300 KG/H

LAB 18/250 - Output 750 KG/H

LAB 18/400 - Output 1.200 KG/H

LAB 18/600 - Output 1.600 KG/H

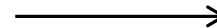
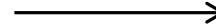




MOULDING LINE



LAB 24/25



SPECIAL
SHAPES



LAB 21



LAB 28-29



Forming in plastic box

1 KG

2 KG

3 KG

10 KG



COOLING

Refrigeration:

- at 4° in cold room for 1 night

or

Refrigeration in cold water for 2-3 hours



SHREDDING



Vacuum



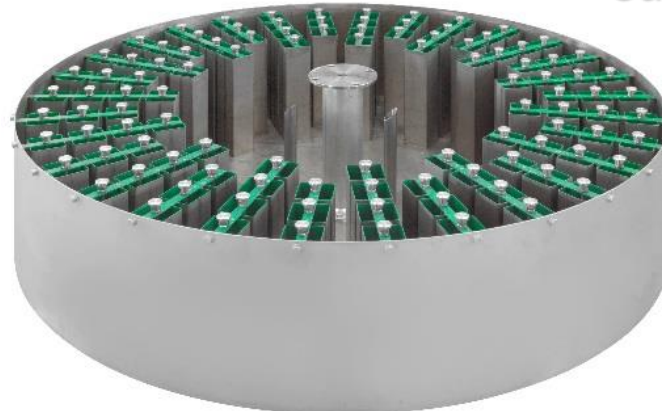
MIXER – DOSING for SHREDDED CHEESE

- The mixer – dosing machine is suitable for adding starch to the shredded cheese to avoid that the cheese will be sticky.
- Entirely constructed in Aisi 304 stainless steel, it consists of a
 - - Hopper that contains the starch potatoes SALATORE
 - - Dosing system
 - - Tank for mixing
 - - This system distributes potatoes starch into the cheese flow in a percentage set
 - - The system consists of:
 - - a volumetric salt feeder including hopper, feeding auger, electronic-control speed drive and minimum salt level sensor;
 - - a salt feeder tray for homogeneous distribution of salt onto the product;
 - - Heating salt pipe
 - - Auger Motor transport salt with inverter to regulate the flow rate
 - - Electrical panel with stainless steel
 - - A support frame.
- The cheese already cutted will be mixing with the starch in the mixing tank.
- In automatic the quantity of starch will be dosing in the cheese .





- Automatic moulding machine for mozzarella cheese block up to 3 kg;
- Moulding head with pre-cooling by water bath ;
- Moulding head diam. 2000 mm
- Pneumatic lifting system for moulding head CIP cleaning
- PLC and TOUCH SCREEN in Turkey language
- Parts that come into contact with the product are shot-peened with quartz microspheres or Teflon coated
- Capacity up to 2,500 kg/h



TROLLEY - GRU FOR MOULDING HEAD

- Simple and safety system to remove the moulding head by a trolley with 4 wheels.





- **BRINING LINE**

To assure the correct movement of the product and that all cheeses will be completely submerged, the brining line is equipped with **3 mechanized**

rollers

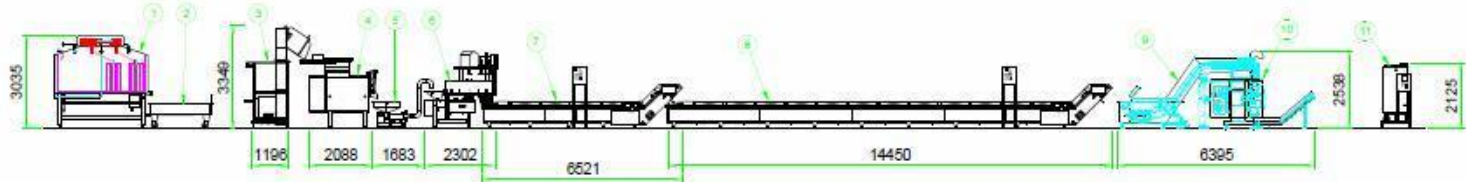
The product is transported through the vat by the flow of saline solution.

The flow is regulated by 10 level by manual valves (optional automatical valves by PLC)

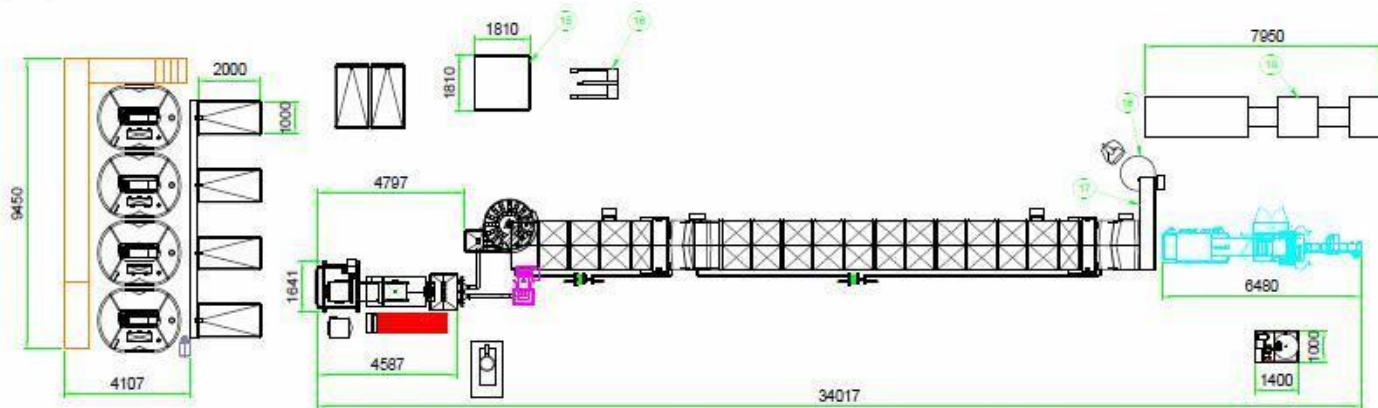
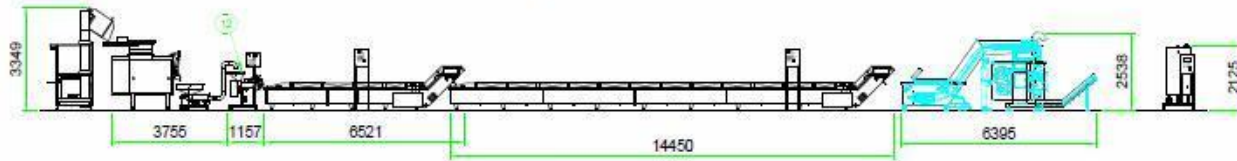
Circulation is ensured by a pump which also feeds a series of pipes located above the vat.

LAYOUT 1: PIZZA CHEESE and KASAR CHEESE

LINE FOR THE PRODUCTION OF PIZZA CHEESE



LINE FOR THE PRODUCTION OF MOZZARELLA



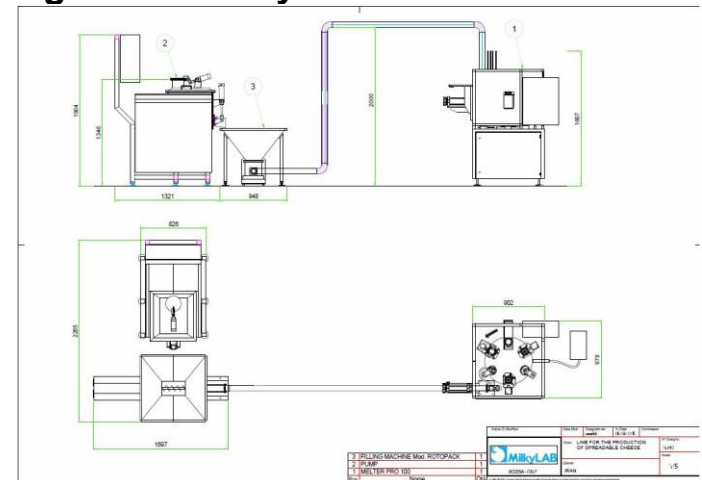
				16	ELEVATOR FOR HEAD MOULDING	1	8	COOLING LINE RF 1.5X14	1
				15	TANK FOR WASHING HEAD MOULDING	1	7	PRE-COOLING LINE PRE-RF 1.5X6	1
				14	WORKING TABLE	1	6	MOULDING MACHINE LAB 29	1
				13	BURRATA DOSING SYSTEM	1	5	EXTRUDER LAB 24/40	1
				12	MOULDING MACHINE LAB 24/25	1	4	COOKER-STRETCHER LAB 18/400	1
19	PACKAGING MACHINE	1		11	BRINING WATER TANK	1	3	ELEVATOR AF/300	1
18	ROTATING TABLE	1		10	VERTICAL PACKAGING MACHINE	1	2	DRAINAGE CURD	6
17	TRANSPORTATION BELT	1		9	AUTOMATIC LOADER FOR MOZZARELLA	1	1	CHEESE VAT 3000L	4
Pos.	Name	Qta	Pos.	Name	Qta	Pos.	Name	Qta	

(Autore del Modulo): _____		Data Mod.: _____		Designato da: _____		In Data: _____		Committente: _____	
		Titolo: LINE FOR THE PRODUCTION OF MOZZARELLA AND PIZZA CHEESE - 700 kg/h				N° Disegno: _____ 1/302 / F Scala: _____			
MODENA - ITALY		Cliente: _____						1:100	

Processed cheese and cheese spreads

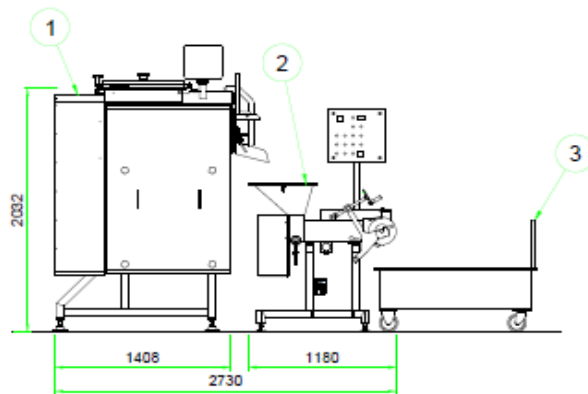


- Capacity: 40 – 80 – 100 KG batch
- From powder ingredients or cheese
- Possibility to add spices
- Cooking melting by steam in the double jacket or direct in the product
- PLC for control of recipes
- Possibility to add pieces
- Vacuum
- High speed mixing and cooking
- Automatic filling machine
- Complete arranged for CIP System

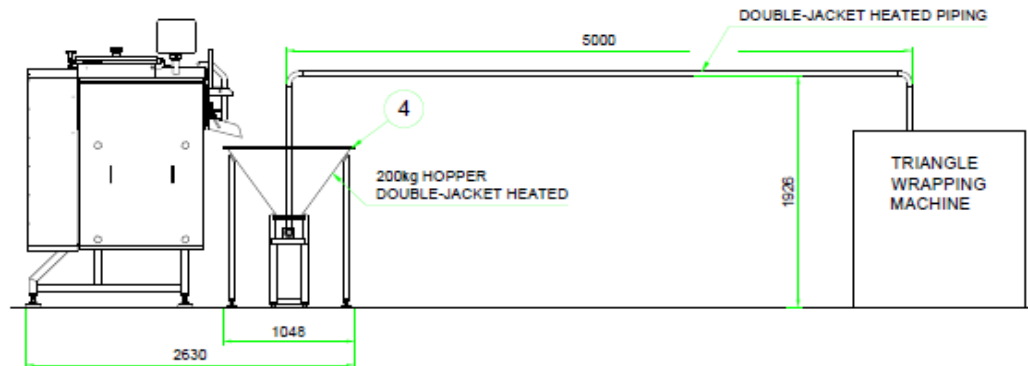


LAY OUT 100 KG BATCH – 300 KG/H

LINE FOR THE PRODUCTION OF MOZZARELLA CHEESE




LINE FOR THE PRODUCTION OF SPREADABLE CHEESE



TOTAL CONSUMPTION

Steam consumption	Electrical consumption	Air pressure consumption
100 kg/h	13 kW	50 NI/min

Pos.	Nome	Qta
4	PUMP FOR SPREADABLE CHEESE - 200kg	1
3	TRUCK FOR COOLING PRODUCT	1
2	MOULDING MACHINE LAB 24/25	1
1	COOCKER-STRETCHER LAB 18/100	1

Indice di modifica:	Data Mod. 20/05/2015	Modificato da: yanki	Controllato da:
			N° Disegno: 1x85-0 Scale: 1:25
MODENA - ITALY			Cliente: SUDAN

STRING CHEESE MOULDING LAB 28/S



Mod. LAB 28S

- Automatic moulding machine for string cheese;
- Moulding head complete with moulding pipes:
- Fixed diameter from 10 mm up to 16 mm max. (upon customer request)
- Adjustable product length max 160 mm
- automatic cutting system by pneumatic cylinder ;
- Pre-determinate weigh of each string cheese;
- This system guarantee to obtain each string cheese with :
 - Same diameter
 - Same length
 - Same weight (with tolerance ± 0.2 ± 0.5 gr
 - CIP cleaning





STRING CHEESE PRODUCTION LINE

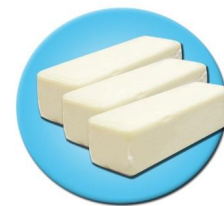
NEW!

«»String cheese, one of the new fashion snack around the world, has been chosen as *10 Healthy Snacks To Eat At Your Desk* by Forbes Magazine because it is high in protein and it offers a bit of fat and has only 80 calories. »

- ❑ Automatic line for string cheese production
- ❑ Capacity up to **250 kg/h**;
- ❑ The machine is equipped by a extrusion system with **10 separate exits**
- ❑ Possibility to get **different sizes** of product by changing the extrusion system
- ❑ Pre-cooling by cold water by a transportation belt equipped with 10 individual channels
- ❑ Automatic cutting by an independent cutting device that guarantee the required lenght of each cheese
- ❑ PLC to manage the moulding , cooling and cutting
- ❑ Completely arranged for **CIP cleaning**



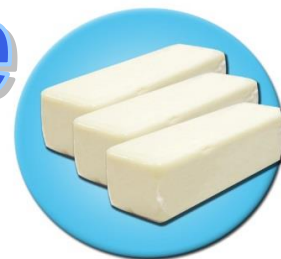
Processed-Analogue Cheese



- ❑ Production capacity **from 375 up to 2000kg/h**
- ❑ Possible to produce big cheese blocks up to **30kg**
- ❑ The same line can be used for pasta filata cheese production without further investment



Processed-Analogue Cheese



This line is designed for the production of processed-analogue cheese by using various raw materials such as:

- ❖ Old cheese (Gouda, Cheddar, Edam)
- ❖ Curd (fresh or frozen)
- ❖ Butter or vegetable oil
- ❖ Powder – Rennet Casein, starch etc.



It's possible to obtain **processed/analogue Gouda, Cheddar, Edam, mozzarella, processed cheese for shredding and slicing.**



PROCESSED CHEESE MIXER COOKER



- ❑ Capacity: 40 – 80 – 100 KG batch
- ❑ From powder ingredients or cheese
- ❑ Possibility to add spices
- ❑ Cooking melting by steam in the double jacket or direct in the product
- ❑ PLC for control of recipes
- ❑ Possibility to add spices
- ❑ Vacuum
- ❑ High speed mixing and cooking
- ❑ Automatic filling machine
- ❑ Complete arranged for CIP System





Trial & Training center® **NEW!**

MilkyLAB offers you its Trial & Training Center®, a center of trials, tests and training, where you can experience and learn to produce string cheese as well as other dairy products, such us:

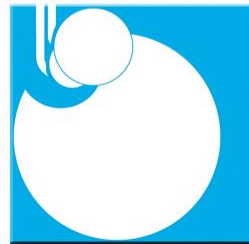
- ❖ Fresh mozzarella and pizza cheese
- ❖ Analogue mozzarella for pizza topping
- ❖ Processed cheese and cream spreads

This Trial & Training Center® is created and managed by our technicians with proven experience, who can help to our clients to develop their new recipes by using different machines from the vast MilkyLAB range.



THANK YOU VERY
MUCH FOR YOUR
ATTENTION!

it's mozzarella time



MilkyLAB