



**CHOCOLATE FOR ICE-CREAM
NOT JUST ANOTHER INGREDIENT**



WHY MAKING YOUR OWN CHOCOLATE?



Unexpected savings

Real quality control

Control of Quantity

Customized recipes

Low season



UNEXPECTED SAVINGS

Starting from 25T/year of chocolate consumption, it is worth to integrate chocolate production

Buying a chocolate coating costs from 1,5 \$/kg (Cheap) to 5 \$/kg (Premium)

Integrated chocolate production generates savings from 0,5 \$/kg to 3 \$/kg, all costs included

Payback for a chocolate production line: from 6 to 12 months

Competition today is on cents: VERTICAL INTEGRATION



UNEXPECTED SAVINGS

An example: SPRAY CHOCOLATE FOR CONES (or coating for novelties)

Cocoa Powder	5%	(1.95 \$/kg)
Vegetable Fat	55%	(1,5 \$/kg)
Sugar	39.45%	(0,5 \$/kg)
Additives	0,55%	(negl.)
Energy	0,03 kwh/kg	(0,015 \$/kg)
Labour	1 operator	(0,02-0,10\$/kg)

TOTAL COST OF PRODUCTION: ~1,20 \$/kg

HOW MUCH DO YOU PAY FOR THAT?

If you save 0,5\$/kg on 200T/year, you pay back a 100kg/h chocolate production line in 1season



UNEXPECTED SAVINGS

Some examples of savings per year

TYPE OF CHOCOLATE	YEARLY CONSUMPTION	PURCHASING COST	PRODUCTION COST	POSSIBLE SAVINGS	SIZE OF THE LINE	PAYBACK
Cheap Spray chocolate	200MT	1,8 \$/kg	1,3 \$/kg	100.000\$	100 kg/h	12 months
Average Dark coat.	300MT	2,2 \$/kg	1,4 \$/kg	240.000\$	100 kg/h	6 months
Average Milk coat.	400MT	2,3 \$/kg	1,6 \$/kg	280.000\$	180 kg/h	8 months
Premium Dark Chocolate	150MT	3,8 \$/kg	2 \$/kg	270.000\$	100 kg/h	5 months
Premium Milk Chocolate	100MT	4 \$/kg	2,1 \$/kg	190.000\$	100 kg/h	9 months
Decorating spread ripple	50MT	2,5 \$/kg	1,4 \$/kg	55.000\$	50 kg/h	14 months
Colored coat.	150MT	2,5 \$/kg	1,1 \$/kg	210.000\$	100 kg/h	7 months

QUALITY CONTROL



Chocolate is the first ingredient, is it perfect?

- **Flavour**
- **Texture**
- **Melting**
- **Appearance (pin holes, breakages...)**
- **Productivity on the ice-cream lines (hardening time)**





CONTROL OF THE QUANTITY

Chocolate is like the packaging material: sold by weight, not by number of novelties coated or sprayed.

A higher viscosity might result in an excess of weight for the coating.

1g more than required on 9000 pz/h can correspond to a 50.000\$ loss at the end of the season

Controlling the recipe and the viscosity, allows further savings



SIGNATURE RECIPES

POSSIBLE PRODUCTS:



Classic coatings Dark, Milk, White; Cheap or Premium



Coloured/flavoured Coatings – Solero Style



Spray Chocolate



Fat based toppings



Fat bases for ice-cream mix: chocolate, coffee, dried fruits...

LOW SEASON



POSSIBLE PRODUCTS:

**Bulk Chocolate or Chocolate Compound
for foodservice**



Spread Creams



Confectionery



Chocolate is the ideal complement to ice-cream

SO EASY?

A FACT: Numbers make the Chocolate Integration a good business

ANOTHER HEADACHE?!

Chocolate making is much easier than ice-cream production (it is totally anhydrous, bacterial contamination is almost impossible)

OTHER PEOPLE?!

No one more: 1 operator for any line, the same as before

THE INGREDIENTS?!

Cocoa powder, milk powder, sugar, fat.... all in-house already

THE QUALITY OF MY CHOCOLATE?!

Maintained or improved : Reverse Engineering + See it live!

I DON'T HAVE SPACE!

The biggest line fits in 75m², the smallest in 6m²

A CASE STUDY: SARITA - GUATEMALA

2011: the first 100 kg/h chocolate line for ice-cream coatings

2013: a second line for 180 kg/h

2015: 300kg/h chocolate line added at the new factory

2017: 300 kg/h process and moulding line, and a chips depositor



THE PROCESS

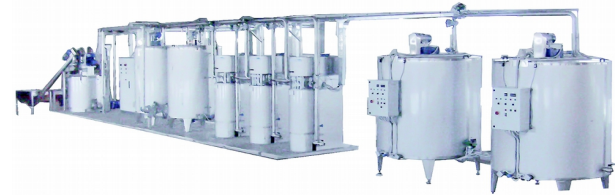
Ingredients preparation (melters, powder feeders)

Mixing

Refining (18-20 μ m)

Conching (flavour development)

Automatic delivery to final use point



Various Process Lines 10-1200 kg/h



100 kg/h

180 kg/h



Various Process Lines 10-1200 kg/h

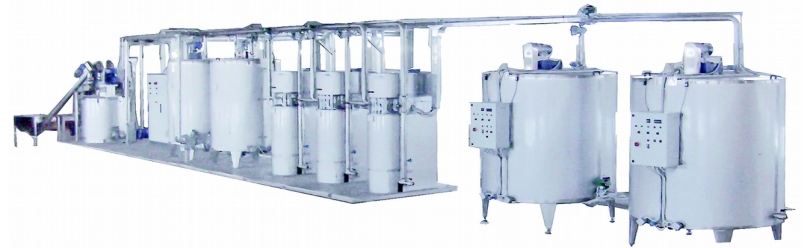


300 kg/h



600 kg/h

1000 kg/h



Various Process Lines 10-1200 kg/h



10 kg/h

50 kg/h



QUALITY FEATURES

Fineness under 18-20 microns

Conching and appropriate flavour development

**Flow properties: viscosity and yield stress (Casson)
for any application**

Low energy consumption: 0,06 KWH/KG

No overheating, No wear

TECHNOLOGICAL SERVICE

Reverse engineering

Full Technology assistance for recipes during and after installation

Tailor-made Recipe Design

Selection of ingredients

Pilot Plant (Italy & US)

COMPANY PROFILE

FAMILY COMPANY SINCE 1992, with 48 YEARS EXPERIENCE IN THE CHOCOLATE BUSINESS, TURNOVER 8 M€.

EMPLOYEES: OVER 40 , WITH BRANCHES IN 4 COUNTRIES

SUPPLIERS OF CHOCOLATE PROCESS LINES FROM 10 TO 1200 KG/H

PROVIDERS OF CHOCOLATE TECHNOLOGY: RECIPES, INGREDIENTS SELECTION, PRODUCTS DEVELOPMENT

OLD & NEW FEATURES

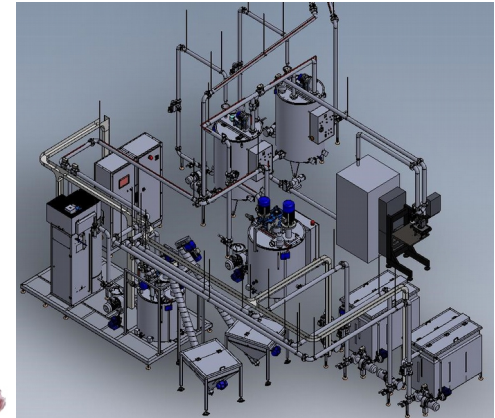
AUTOMATION AS A STANDARD, PLC-HMI, RECIPE CONTROL

REMOTE ASSISTANCE

3D ENGINEERING with SOLID WORKS

BEAN TO BAR

PURA DELIZIA



OLD & NEW FEATURES

PACKINT IS A PARTNER IN TECNOCHOC

TECNOCHOC
MADE IN ITALY
CHOCOLATE MACHINES



ROCKGATE GROUP : all about chocolate



OLD & NEW FEATURES

PILOT PLANT in ITALY (Milan):



US BRANCH & PILOT PLANT (New York):



GET IN TOUCH

PACKINT CHOCOLATE MACHINES

LORENZO DATEI: info@packint.com

SUPERIOR ICE-CREAM (USA + CANADA)

HERB FISH : herb@superioricecream.com

QUESTIONS

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