

DELTA PROJECTS

SWISS ENGINEERING

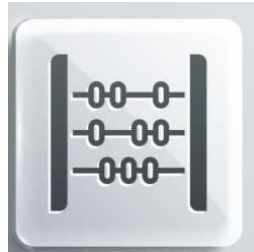
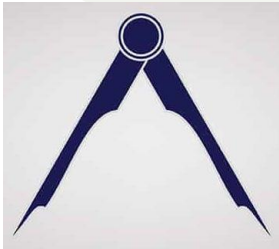


JANUARY 2024



DELTA PROJECTS SÀRL.

WHEN PASSION MEETS EXPERTISE IN ENGINEERING



OUR HISTORY

Founded in 2012
Delta Projects is based
in Chavannes
(Switzerland)

**In 2021 opened a
design office in
Barcelona (Spain) to
support the
international growth.**

**In 2023 we opened an
office in Grand Rapids
(MI, USA).**

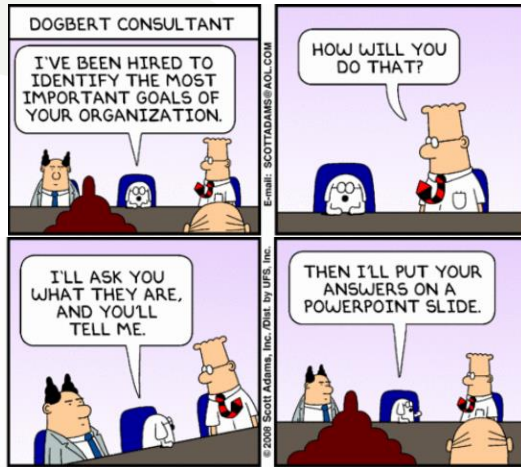
Delta Projects counts
currently **15**
collaborators.

OUR LOCATIONS

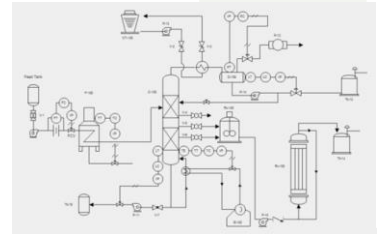
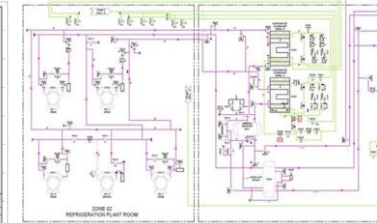
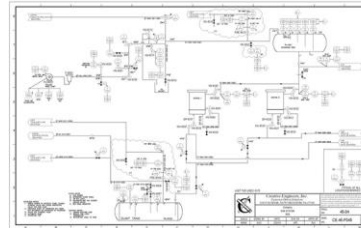


WE ARE A FOOD ENGINEERING CONSULTANT

Not this kind of Consultant....



... rather this kind:



WE FOCUS ON OUR CORE COMPETENCE:

FOOD & NUTRITION

From all foods FRESH, FROZEN or AMBIENT
STABLE, POWDER, SOLID or LIQUID.
Our sole focus is FOODS & NUTRITION
making us experts in the field.



WE COVER THE WHOLE PROCESS ACROSS THE VALUE CHAIN:

FROM INCOMING GOODS TO FINISHED PRODUCTS SHIPMENT

Logistic



Processing



Packaging



WE SUPPORT THE MAIN OPERATIONS' NEEDS



Sustainability



Management support



Execution



SUSTAINABILITY

Waste Reduction Water & Energy Savings Operations Optimization



Many reasons to aim for Operation Optimization through high performant lines: reduce lost time incidents, lower transformation costs and reduce material losses. This can be an important vector to contribute to higher, global targets in food waste reduction.

Opportunities to reduce Water and Energy consumption are often missed and underestimated; there are many technical solution per each problem.

Energy savings can be achieved both by reduced consumptions or via energy recuperation.

Project Experiences: LatAm, USA, India & Germany

MANAGEMENT SUPPORT

Investment Analysis Operations Strategies Technical Due Diligence

Investment Analysis and Operations Strategies are supporting tools for a company CAPEX decisions.

The different aspects are studied: Capacity, Quality, Innovation, Diversifications etc. according to the client needs and used to evaluate Operational scenarios leading to investments.



Due Diligences are usually limited to a financial evaluation of the business.

A technical due diligence is an external picture of the operations at the moment of the transaction and the implementation of the buyer's vision: Investments, value, actual and future performance, possible extensions.

A very useful technical validation of future plans.

**Operations Strategies and Due Diligence Experience:
Italy, Germany, UK, France, Spain & USA**

CAPEX PROJECTS EXECUTION

Design Procurement Execution

A proper Engineering Design has a direct impact to the project cost, timing and to the future performance of the plant, line or unit in question.

A good Design includes from the beginning Hygienic Engineering considerations, Quality requirements, Operational Safety and Line performance.



A proper planning should be integral part of the design as not always the most interesting technical solution can be integrated into a running plant or an existing building while minimizing CAPEX and downtime.

Project experiences:

(Main projects): China, Hong Kong, Dubai, Israel, Russia, Cuba, India, Tunisia, LatAm and USA

OUR EXPERTISE IS NOT ONLY AROUND FOOD PROCESSES...

INCLUDES ALL UTILITIES AND ANY ANCILLARY ACTIVITIES SURROUNDING IT

Electricity power distribution
automation instruments and
control



Utilities thermal energies
generation and distribution
water and energy savings



Design planning
Contracting
Implementation,
Start-up



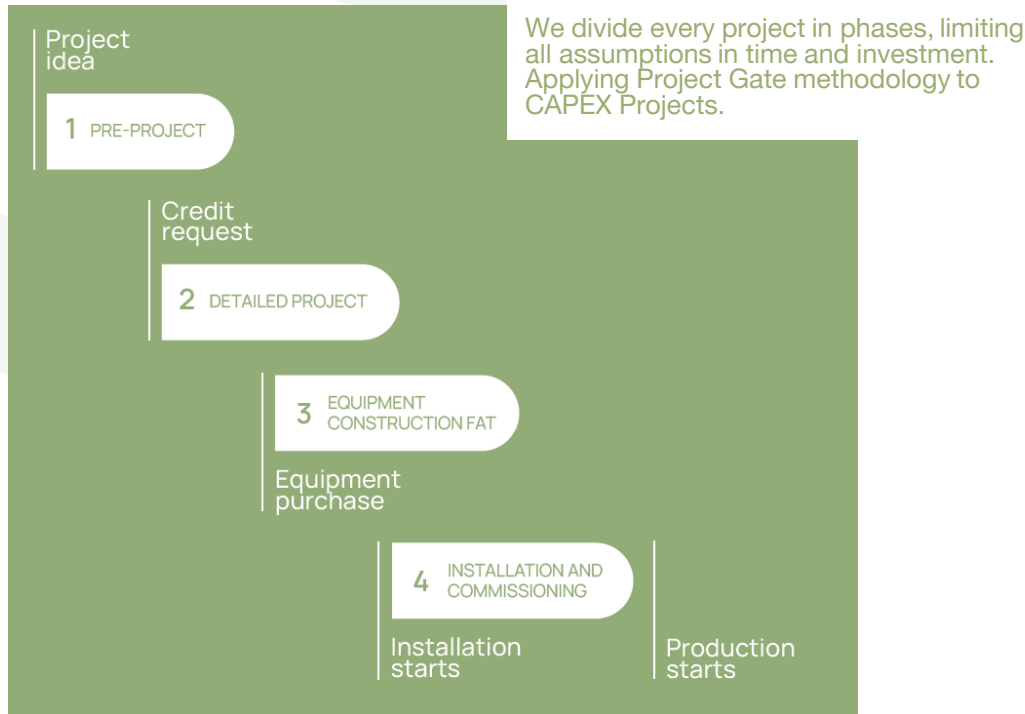
OUR STRENGTH: A MULTINATIONAL TEAM

ARGENTINA
AUSTRIA
HONG KONG
INDIA
ITALY
PORTUGAL
SPAIN
SWITZERLAND
USA



OUR WAY OF WORK...

Is the result of an organized Flexibility...



SUCCESS STORIES

#1 Spray Dryer Air Feed Redesign

Energy Savings and Capacity Increase

We design and engineered an HVAC system for an Infant Formula Spray Dryer feeding Primary and Secondary air.

High Hygiene plants require HEPA filtration, pressure and humidity control.

We combined energy savings with capacity increase.

Total of 8 AHU up to 57,000 m³/h were planned.

In partnership with: **sinteco** 



SUCCESS STORIES

#2 Line Performance Improvement

Installation Simplification and Operation Improvement

The customer installed a new coating and frying line. Due to design and installation weaknesses, the line could not reach 30% OEE.

We redesigned and re-engineered the installation, improved layout allowing better access to operator and maintenance technicians.

Combining heating circuits allowed improved reliability and energy savings.

The new line was in production at full speed in few weeks and we started working on equipment improvement to reach the nominal speed of its bottleneck.



SUCCESS STORIES

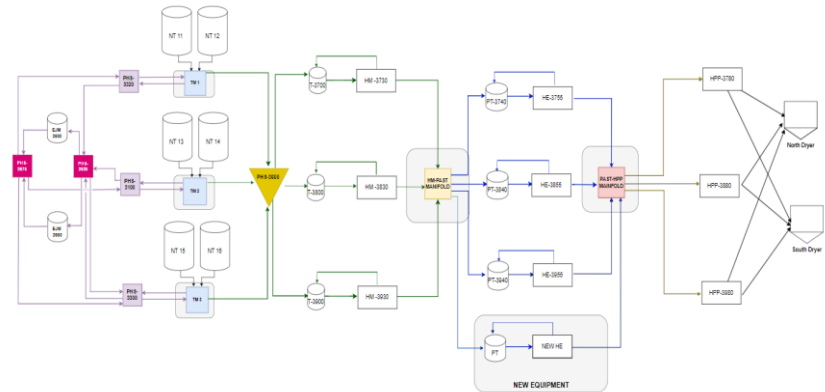
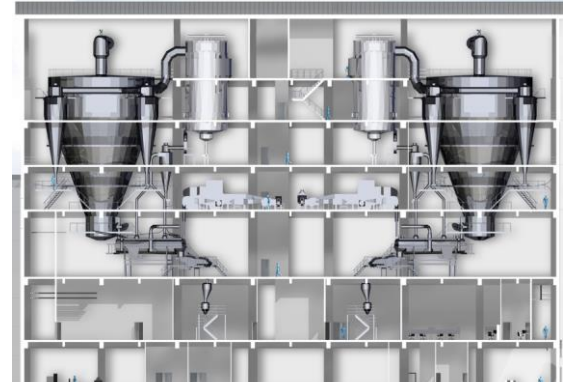
#3 Spray Dryer Cleaning Time Reduction

CIP Optimization

The CIP required a high number of manual actions by the operator, presented long circuits and the pasteurizer heat exchanger required a particular long cleaning time.

All those generated an important downtime for the cleaning operations.

We proposed to modify the circuits length, add automatic valve manifolds to eliminate manual intervention in the cleaning operations and add a heat exchanger to allow cleaning during the operations.



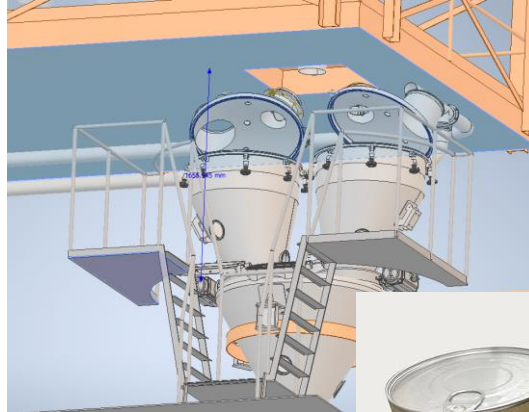
SUCCESS STORIES

#4 Rotary Filler for Powdered Dairy Product

Highest Hygiene Level Design in Food

We Design and Install a new Dairy Powder filling facility including an ingredient dosing, blending and gassing feed.

The challenge was to maintain the existing line in production during the whole installation and commissioning avoiding building expansion to limit timing and capital.



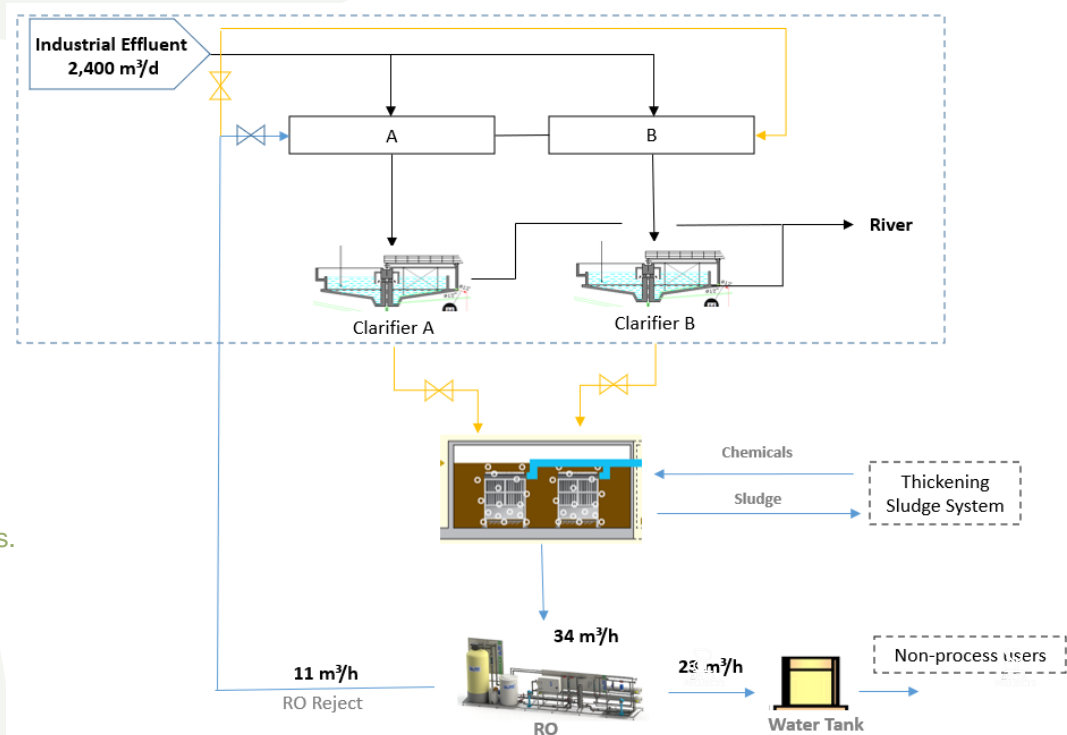
SUCCESS STORIES

#5 RO Wastewater Recuperation

Reverse Osmosis to reduce losses

The installation of an RO skid mounted unit, combined with a buffer tank allowed to reuse the water that was previously disposed.

This water is used for cleaning and cooling towers.



SUCCESS STORIES

#6 Refrigeration Plant Improvement

Redesign and Engineering

A client requested an opinion on a large investment to power up its refrigeration plant.

As not all his freezing lines could run simultaneously.

A detailed analysis showed that the installation was extended in multiple projects and the design was not adapted anymore to the new load.

A study of the design allowed to replace the planned refrigeration extension with a lower investment, mainly in pipework.

After correction, the client installed another line without any investment in refrigeration.



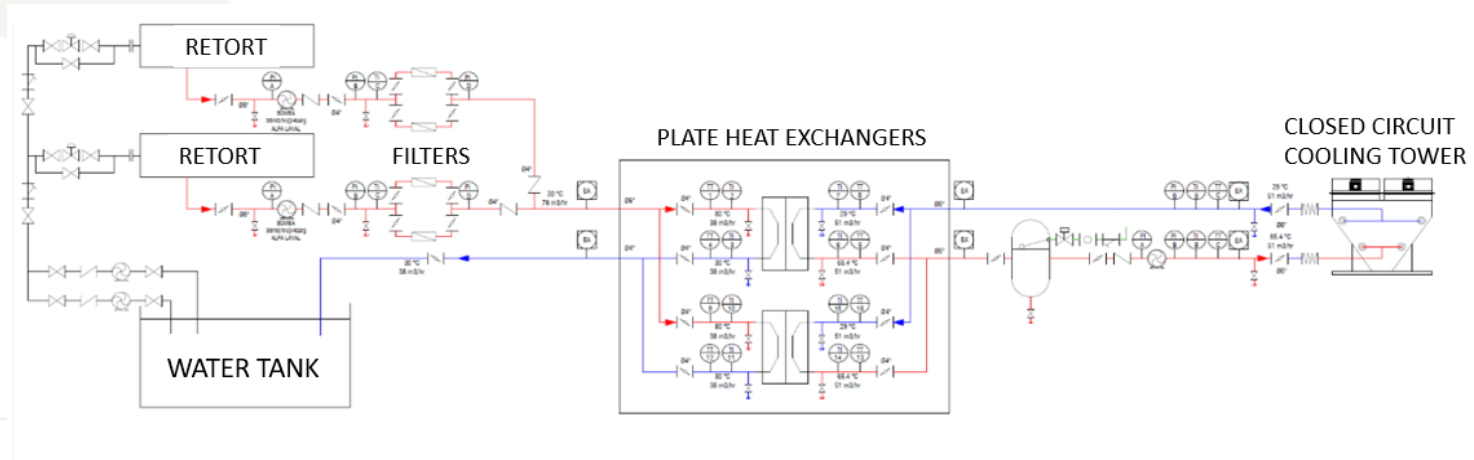
SUCCESS STORIES

#7 Water Usage Reduction

Cooling towers to reduce losses

The replacement of the single pass with a double cooling circuit connected to a close circuit cooling tower allowed an important reduction of the water consumption.

The system using a solution with 30% Glycol and could be safely installed outside avoiding winter freeze.



SUCCESS STORIES

#8 Energy Savings Projects

Replacement of a liquid N₂ freezing with CO₂

A customer was using N₂ freezing for his industrial process. An evaluation of the overall costs vs. the usage of CO₂ cascade cooling shows an important financial advantage using the latter technology.

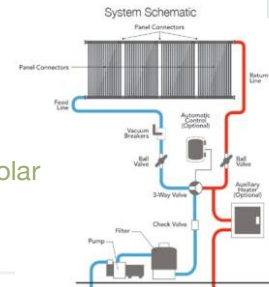
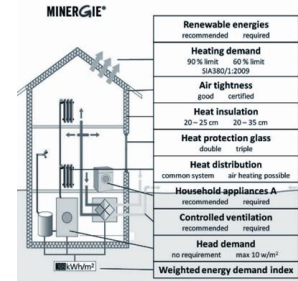


Warehouse heating

Design of warehouse heating system combining solar panels and heat rejection from refrigeration

Energy recuperation

Design of a complete building by Minergie© standards using solar panels for hot water generation and ventilation with heat recuperation.



SUCCESS STORIES

#9 Operations simplification

Bulk oil reception

A customer was supplying oil to its frying lines with plastic IBCs. With a consumption of over 2,000 l/h, an important area of the plant was used for storage and transport of the IBCs.

We proposed and designed a central bulk reception system. This allows reception in tankers and automatic supply to the lines.

Digital Factory

In a plant we helped identifying the best available technologies to improve cost, reporting and reliability avoiding increasing the number of personnel.



TECHNOLOGIES

SIEMENS
Ingenuity for life

COGNEX



sinteco 

PARTNER



Endress+Hauser
People for Process Automation

WE ARE ACTIVE EHEDG MEMBERS



THEY TRUST US:



WE HELP WHEN and WHERE WE CAN

PUM is a Dutch network of 1,700 volunteers experts aiming to enable the growth of small and medium-sized enterprises in developing countries and emerging markets

We regularly cooperate and advise PUM's enterprises in Food related Engineering and Management matters.

In this role we share practical advices with the clients and support them in applying it.

Our help can make a big difference for a small enterprise, who otherwise would not be able to afford any help and would not start a venture or would not run it safely and performantly.



OUR CONTRIBUTION TO FOOD WASTE REDUCTION

Delta Projects runs CHOMP, a Food Waste reduction initiative in Hong Kong.

The purpose is to help the town reducing the important amount of food disposed every day by food retailers and restaurants.



SPORT SPONSORSHIP



Delta Projects sponsors
a young motorcycle racer.

Our colours runs
at over 200 km/h
on European race tracks.

THE CORE TEAM

Vivian Chan – Founder & Managing Director

Education

1994 Information Systems Engineer, *City University of Hong Kong*

2017 Master degree, *EHL Swiss School of Tourism and Hospitality*

Experience

Delta Projects

2012 - present: Founder

Languages

English, Cantonese, French



THE CORE TEAM

Luigi Martinesi – Director of Engineering

Education

1987 Mechanical Engineer, *EPFL*
1988 Postgrade in Computer Science, *EPFL*
1996 MBA, *South Eastern University*

Experience

1987-1990 Design Engineer, *EPFL*
1990-1992 Commissioning Engineer,
Nokia-Maillefer

1992-2020 Nestlé

1992-2004 Project Manager
(Hong Kong, Dubai, Israel, Moscow)
2004-2006 Factory Manager

2006-2010 Operation Performance and Contract
Manufacturing Manager, Nestlé Nutrition
2010-2013 Head of LEAN
2013-2016 VP Operations LATAM
2016-2020 VP Engineering, Nutrition, Nestlé Headquarters

Delta Projects

2020 -present Engineering Director

Languages

English, Français, Italiano, Espanol



Interested in working with us? Reach out!

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