

heart of technology



ENGLISH



Our headquarters are a low-impact high building producing energy from renewable sources, and equipped with a 430 kw/h solar system.



# BULK-HANDLING SINCE 1985

CEPI designs, manufactures and commissions bulk-handling systems for the storage, transport and dosing of raw materials, as well as fully integrated automation and technologies to complete all production processes.

A family-run company with an international outlook, CEPI is based in Italy and operates globally, with offices in Malaysia to coordinate operations in the Asian market and a network of local partners spanning the five continents. Since 1985, we have worked with the most important companies from all sectors of food manufacturing.

1985

## FOUNDATION

By engineer Pierdomenico Ceccarelli and manufacturer Giuseppe Milanesi, who are joined by technical salesman Marino Montalti in 1987 and food technologist Giancarlo Riccardi in 1989

1988

## INTEGRATED AUTOMATION DEPARTMENT

Begins operations and development of our first weighing processor

1992

## DIRECT MANUFACTURE

Direct manufacture of stainless steel and fabric silos begins

2005

## MOVE TO SECOND HEADQUARTERS

In Villa Selva Forlì: 3100 m<sup>2</sup> of productive area and solar system. Direct manufacture of piping and components begins

2007

## OUTDOOR SILO TOWER

A dedicated tower is built for the manufacture of outdoor silos

2014

## MALAYSIA OFFICES

Malaysia offices open to coordinate operations in the Asian market

2015

## PARTNERSHIP WITH THE UNIVERSITY OF BOLOGNA

Structural certifications of our equipment, research and development of projects

2019

## OUR NEW HOME

Move into our new home: productive area 15.000 m<sup>2</sup>, testing and prototyping room 240 m<sup>2</sup>, analysis of goods flow with the University of Bologna, designed to be green and safe

2023

## MATERIAL CIRCULARITY INDICATOR

Warrant Garden and Studio Fieschi measured our material circularity indicator for the average system. It was found to be 0,7 on a scale between 0 and 1, which is considered high

2023

## WELFARE CHAMPIONS

CEPI is awarded as Welfare Champion by Welfare Index PMI among more than 6.500 small and medium-sized Italian enterprises

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# OUR VISION

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Our vision has centered research, customization and flexibility since our beginnings. CEPI has been founded around the very idea of being turn-key provider.

Being turn-key means making the users of our installations independent, enabling their growth in a modular way without ever overturning their process. We possess all the expertise needed to design, build and commission the system, and to provide the data related to its operations.

Bulk-handling is not just about silos, and the bulk-handling system is strategic. Our working model ensures a sustainable and optimized process and provides food manufacturers with a durable installation that fits with the circular economy model.



## TURN-KEY

We develop installations that take care of all processes from storage to dosing, supporting any material and process the user wishes to include

## CUSTOMIZATION

We consider the installation our product and customization our service

## RESEARCH

Our technologies evolve to match each individual demand from the manufacturer side, leading to unparalleled technological range

## DURABILITY

Our focus on turn-key customization and our flexibility creates durable installations that fit with the circular economy

Our mission is:

**to build** highly customized installations managing the entire production line from storing to dosage

**to develop** specialized technologies that meet diverse and ever evolving needs around the planet

**to minimize** energy and material consumptions and preserve the proprieties and taste of the materials managed in our systems

**to valorize** people, ideas, community and territory

**to grow** in a sustainable way innovating the technologies in our sector





**31M**

**TURNOVER 2022**



**150**

**WORKFORCE**



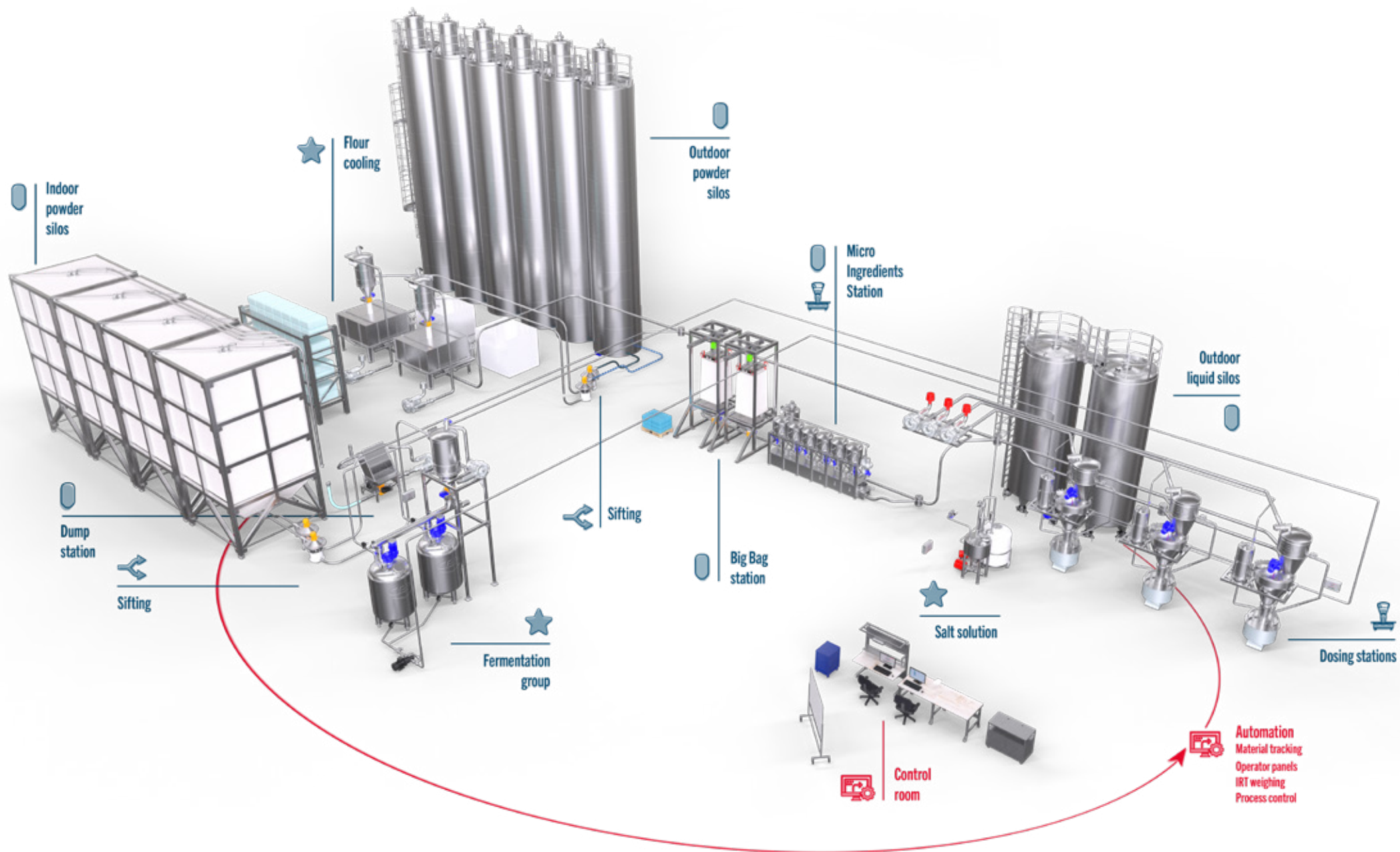
**15K**

**PRODUCTIVE AREA**

We have experienced continued growth through our history, with an exceptional 87% result in the past decade.

We are direct manufacturers of all equipment and components in our installations.







# TURN-KEY SYSTEMS



CIRCULAR  
PRODUCT

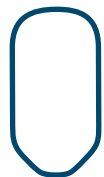
Powders, granular products, liquids, fats.  
Macro, micro, medium volumes. Fermentation, cooling,  
fluidization, milling, blending, rework. Our motto is: if your  
process needs it, we can do it. If we can't do it yet,  
we will develop it, just for you.

Indoor and outdoor  
Macro, medium  
and micro ingredients

Stainless steel  
or Trevira HT fabric

Vibrating cone  
or fluidized bed

Powders, granular,  
liquids

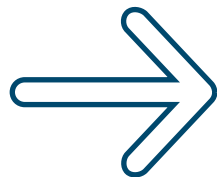


STORAGE

Pneumatic  
and mechanical  
Stainless steel  
Modified atmosphere  
management and  
temperature management

Inhouse manufactured  
ATEX components

Powders, granular,  
liquids



TRANSPORT

Hopper and tanks  
Stainless steel  
Continuous or batch

Macro, medium  
and micro

Blending  
and premix

Powders, granular  
and liquids



DOSAGE

Fermentation  
Flour cooling  
Sugar milling  
Cold fat dosing  
Invert sugar  
Salt solution  
Scrap rework  
Heat treatment



SPECIAL

Integrated automation  
of all operations  
Operator panels  
Process control  
Traceability  
Warehouse management  
Remote control  
Total information  
exchange



AUTOMATION

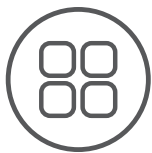
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# LONG-TERM ORGANIC THINKING

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Our method sees storage, dosing, transport operations and their automation in their totality, and in the way they interact with each other. Similarly, we consider all the user's processes and their future plans, creating flexible solutions that will easily accomodate new developments and expansions.

This approach makes our systems very durable, with an exceptional revamping ability on our part: systems that we built 30 years ago are still functioning efficiently.



**MODULARITY**



**FLEXIBILITY**



**REVAMPING**







In the past four decades, we have created a rich network of trusted partners in the five continents: we are able to provide locally-based sales and technical assistance as well as commissioning and service.

We are very rooted in our territory, but we value the local and the global equally. To us, their interaction is fundamental to a sustainable growth.

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# LOCAL 2

# GLOBAL

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### PROCESS & PRODUCT ANALYSIS

With hygiene and safety management and food technology support



### ENGINEERING R&D

22 engineers and a team dedicated to prototyping and innovation



### INTEGRATED AUTOMATION

24 developers on hardware and software design, electrical system, 24/7 support



### DIRECT MANUFACTURE

Of all equipment and components by highly trained and qualified personnel



### QUALITY & SUSTAINABILITY

Quality control of all products and ESG sustainability strategy



### PROJECT MANAGEMENT

Planning, workflow, problem solving and interface with all partners



### LOGISTICS & COMMISSIONING

Delivery, assembling on location, testing and optimization



### CUSTOMER SERVICE

Remote and local support, spares, repairs, maintenance, training

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# OUR METHOD

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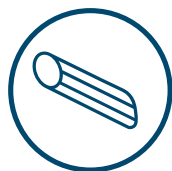




BAKERY



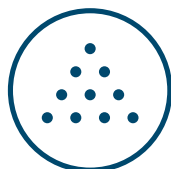
CONFECTIONERY



PASTA &  
CEREALS



DAIRY



PREMIX



FUNCTIONAL  
FOOD



BABY FOOD



PET FOOD



BEVERAGES



CHEMICAL



PLASTIC




PAPER

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# OUR MARKETS

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We bring to the table a global knowledge of materials, environments and markets as well as the continued research that goes into developing around 300 unique systems every year. With vast food technology expertise, all our technologies are developed factoring the preservation of flavor and ingredient properties.



Multi-line distributor

Extraction by vibrating cone or fluidized bed (5)

Anti-condensation and dehumidification

Insulation and drying technologies

Anti-contamination welding technique

Bursting disk and anti-explosion hatch (3)

Slide valve

Safety system against overpressure and depression (4)  
and CEPATIC safety system against loading overpressure (6)

EU standard powder recovery system and air exhaust system (1)

EU standard ladder to access the upper part and protection rail on  
the roof (2)

Control unit, integrated automation and full traceability

Minimum and maximum level sensors





MACRO  
INGREDIENTS  
STORAGE

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# GLOBOSILO

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Outdoor silos in stainless steel  
with vibrating cone or fluidized bed  
for the complete extraction of product  
by the first in first out principal.







Earthed

Equipotentiality and filtering roof (1)

Structural flexibility and balance  
between product and environment

Weighing system with cells (2)

Overpressure valve (3)

Safety system CEPATIC against overpressure  
and depression during loading

Dosing with butterfly unit,  
rotary valve or screw conveyor

Multi-line distributor

Fluidized bed: fluidization, flour oxygenation  
and FIFO management (4)

# SILSYSTEM & TREVIBOX

Modular indoor silos in anti-static HT  
Trevira fabric with vibrating cone or fluidized  
bed for a complete emptying of product  
by the first in first out principal.



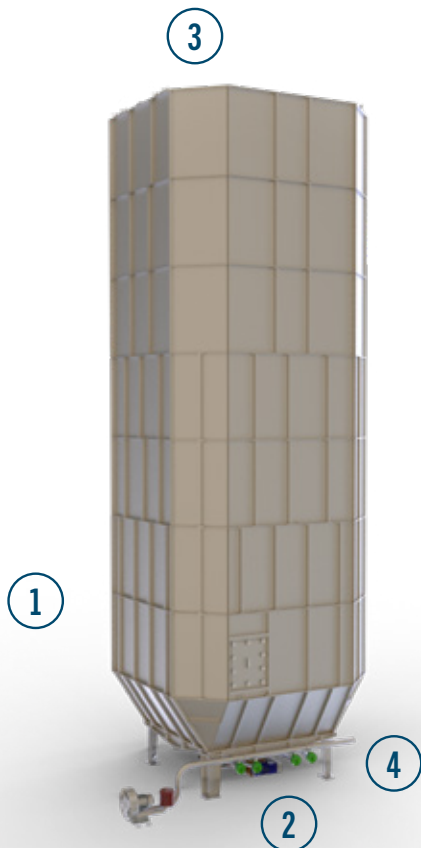


MACRO  
INGREDIENTS  
STORAGE

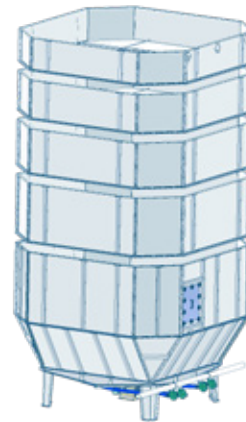
# SILBOX



Modular indoor silos in stainless or aluminum steel, with vibrating cone or fluidized bed for a complete emptying of product by the first in first out principal.



MODULARITY



Emptying on the FIFO principle (1)

Emptying by fluidized bed (2)

Special emptying method for sugar, starch, bran...

Silos for cous-cous and short pasta

Filtering roof (3)

Level sensor and pressure switch

Weighing system with cells (4)







Bag dumping stations of variable capacity, suitable both to load silos and to feed the lines directly. Use it in battery for big production volumes.

## BAG DISCHARGER



- Chain hoist to load Big Bags
- Antidust filter
- Easy Big Bag change over device
- Lump-breaker for sugar (1)
- Ergonomic and suitable for any bag size
- Emptying by vibrating cone (2)
- Multiple extraction



MEDIUM  
INGREDIENTS  
STORAGE



- Stainless steel
- Modular and hermetic
- Antidust filter
- Multiple extraction with total emptying

Stainless steel cylinders suitable to all spaces

## MINISILO





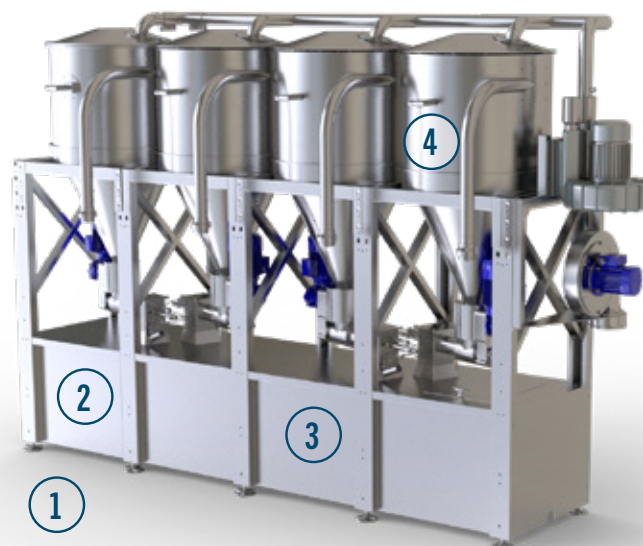
MICRO  
INGREDIENTS  
STORAGE

Broad-spectrum stations consisting of modular hermetic units, for the storing and the automatic dosing of micro ingredients. Handles a wide range of challenging materials such as milk powder, cocoa powder, salt and others.

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# TRIMIX

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Completely hygienic

No leakage and no leftovers

Dust exhauster (1)

Fixed or mobile scale (2)

Integrated homogenizer


Manual or by suction loading

Weighed trolley (3) and level sensor (4)

Bar code reading system

Table scale for manual dosing



A photograph of an industrial facility, likely a pharmaceutical or food processing plant. The scene is filled with complex stainless steel piping, valves, and large cylindrical tanks. In the foreground, there are several large, horizontal, stainless steel vessels with conical bottoms, mounted on metal stands. These are connected by a network of pipes that run across the floor and up the walls. The walls are covered in light-colored square tiles. In the background, there are large windows letting in natural light. The overall impression is one of a clean, modern, and highly automated industrial environment.

High energy efficiency automated systems for the conveyance of powders, granular and liquid products. Piping in stainless steel, insulated or heated. Designed to optimise energy consumption with an individual analysis of energetic impact.



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# CONVEYING SYSTEM

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Pneumatic conveyance of powders  
Suction or low pressure compression or dense  
phase  
Mechanical conveyance with feeding screws,  
belts and chains  
Centrifugal and volumetric pumps for liquids  
Modified atmosphere management and  
temperature management



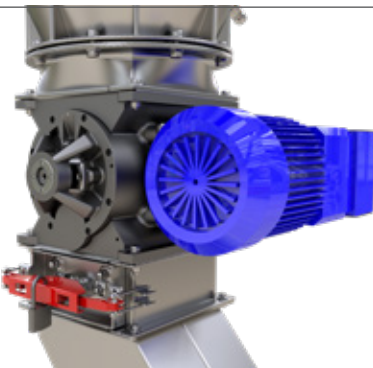
SUSTAINABLE



OPTIMIZED



TRANSPORT



Rotary valve



Slide valve



Lump breaker



Lift diverter

Sifting  
Rotary valve  
Butterfly valve  
Lift diverter  
Slide valve  
Magnet  
Lump breaker  
Multiline distributor  
Cepatic

In-house manufacture of ATEX conform  
components to aid transport operations  
and to protect against anti-explosion  
and contaminations.

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## COMPONENTS

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The **design of the dosing system** is based on a close analysis of the user's process, based on information that goes well beyond the purely technical. Our method involves all departments of the user from warehouse, to production, technical, purchasing and marketing, to include projection of future productions.



CUSTOMIZED



SYSTEMATIC



FLEXIBLE



DURABLE







Continuous or batch, positive, by loss of weight,  
by volume or by weight

Hoppers with dust exhaust unit with lid (1)  
and self-cleaning filter (2)

Discharging valve (3), weighing cells (4)  
and ball valve (5)

Integrated automation (6)

Liquid tank: suitable for the viscosity of the stored  
liquid and come with temperature and modified  
atmosphere management



CLEAN IN PLACE

Dosing station for powders  
and liquids with sifter and lift  
deviator. Below: powder  
and liquid tanks.



DOSAGE

Automated systems for the weighing  
and dosing of powders and liquids  
at the end of the line. Modular hoppers  
for powders with hygienic design including  
self-cleaning filter and dust exhaust unit  
with lid. Tanks for liquids of variable  
capacity in appropriate steel material.

## DOSING STATION





Homogeneous mix of powders even for quantities lower than 1% of the total weight in the span of 3-5 minutes

Optimizes mixing and production times

Mix ingredients before dosing or use in place of the dosing hopper

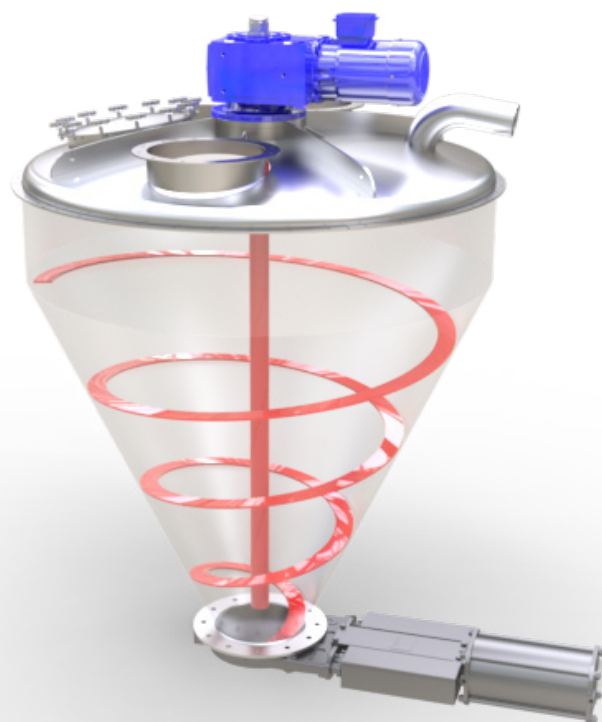
Hygienic design with total discharge, fully inspectable and easy to clean

Variable capacity

Load pneumatically or by gravity

Slide valve and extraction by with rotary valve or feed screw

Stainless steel



Receiving, weighing and blending in a single unit. With vertical blender for the production of premix for a wide range of food sectors.

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# BLENDER

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DOSAGE



AUTOMATION

# AUTOMATION

Fully integrated automation of all operations including production management on PLC with HMI, full traceability and warehouse management on native software, total information exchange with SQL database and weight control in real time.

Production management, process control,  
traceability, information exchange,  
weight control in real time



**FULLY INTEGRATED  
& CUSTOMIZED**

24 developers  
Hardware and software design  
Electrical system

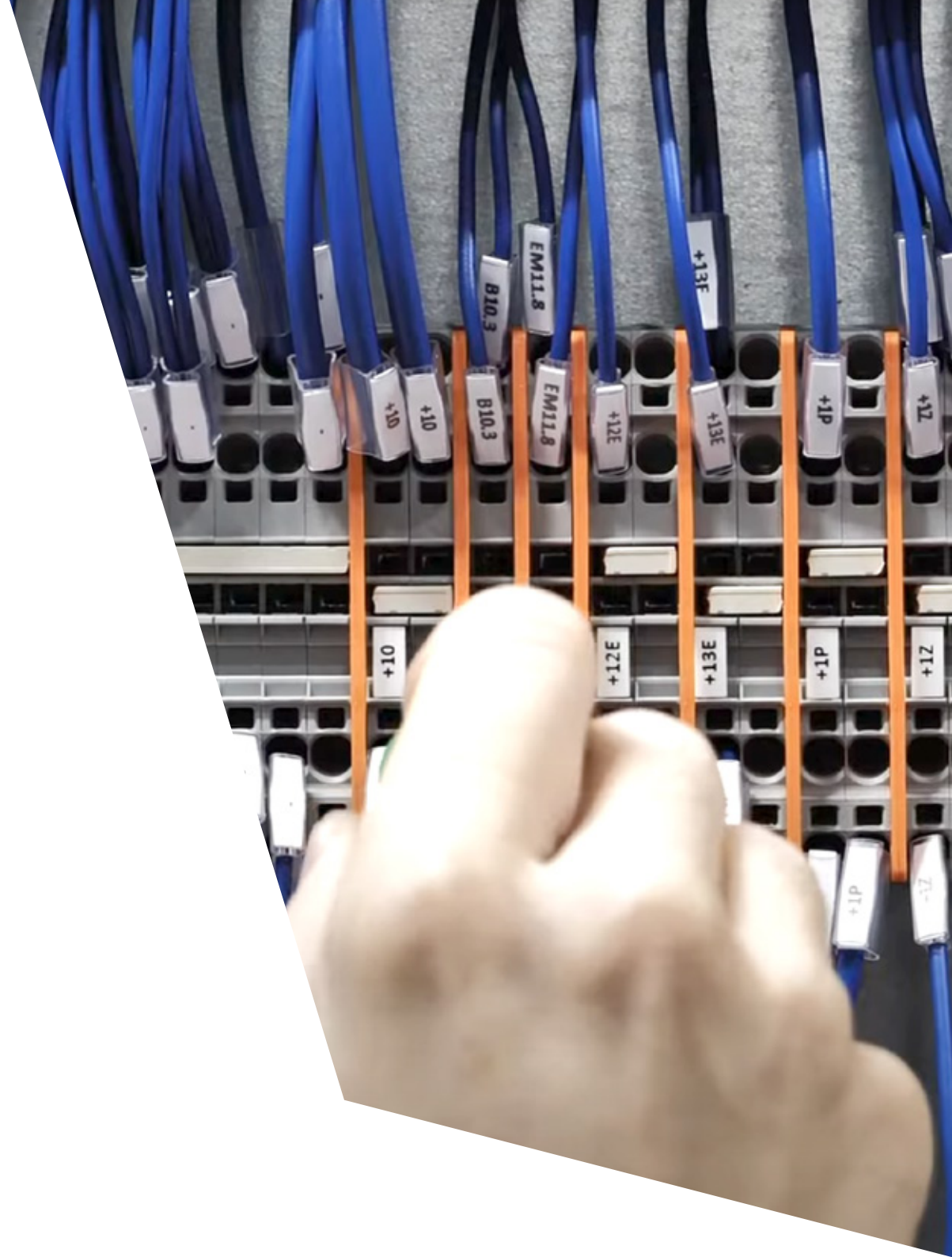


**DEVELOPED  
IN-HOUSE**

Testing, optimization, start-up & training  
Remote support, commissioning  
& management



**COMMISSIONING  
& SUPPORT**

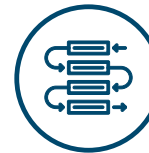




Touch panels providing  
production management on single  
or multiple lines.



PRODUCTION



RECIPE



PARAMETERS



OVERVIEW



COMMUNICATION



SUPPORT

# TOUCH PANEL

PLC with HMI

cvTouch panel 4 - 15" Siemens

Touch panel 4 - 15" Allen Bradley

WP140 LCD Display (Electromechanical automation)

Weight control in real time

Local control box with HMI

Control cabinet

Communication

Statistic report

Remote support



OPERATOR  
PANEL



PERSONAL  
COMPUTER



MOBILE  
DEVICE



# PROCESS CONTROL

Process control

Traceability

Warehouse management

Storing and recipe data history

Batch report

Material consumption report

Dynamic visualizations

Digitalization with barcode system

Data exchange

SQL database

Available for queries from a third party

Communication with ERP / MES

Remote support

Native software providing process control, traceability, warehouse management, and total information exchange.



DATA HISTORY



BATCH CONTROL



BARCODE SYSTEM



BATCH REPORT



DYNAMIC VISUALIZATION



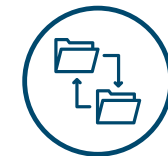
PROCESS CONTROL



TRACEABILITY



WAREHOUSE MANAGEMENT



DATA EXCHANGE



AUTOMATION







SPECIAL



Flexible, rational and highly  
accurate solutions

Full control of all processes,  
standardization and repeatability  
of procedures

For rye, wheat and multigrain  
breads, pizza, focacce, brioches  
and crackers



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# FERMENTATION

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Fermentation tanks, yeast melters and bread re-work dissolvers for sourdough, pre-dough and poolish. For healthy, natural and aromatic products with long shelf life.

Highly versatile and diversified technology

Can stand-alone or be easily integrated in the production process

Bread making through both direct method and indirect two steps method

Modular and suitable for small, medium and big production lines

Preserves the characteristics of the materials

Stainless steel, hygienic design and easy to clean

CIP or PIG cleaning system



HEALTHY



TASTY



NATURAL



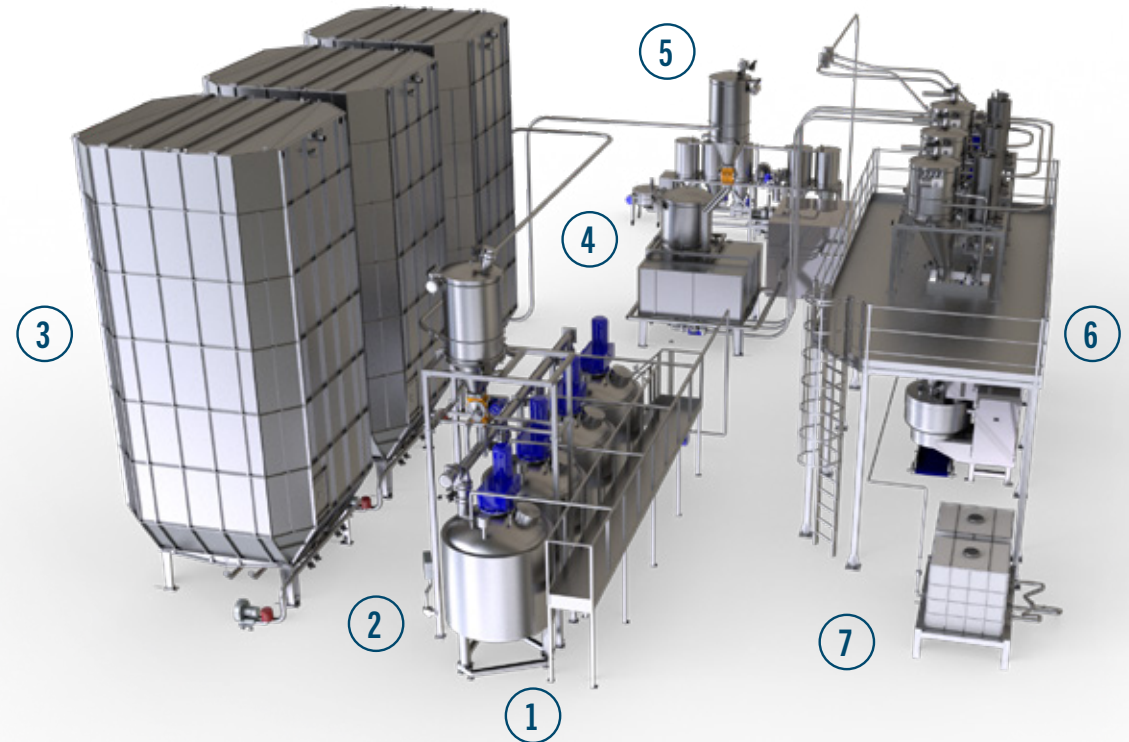
PARAMETER  
CONTROL



FLEXIBILITY



CLEAN IN PLACE



Fermentation system (1)

Integrated automation (2)

Storing of flour in stainless steel silo (3)

Flour cooling system (4)

Microingredients station (5)

Dosing station (6)

Oil tanks (7)

Automated bulk-handling systems for sourdough bread, with customizable technology for the preparation, storing and dosing of sourdough. Suitable for all production volumes.

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# SOURDOUGH

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Correct and linear management of the dough temperature

Direct exchange of pre-cooled air through fluidized bed

Constant temperature of flour and the final product with no cooling agents

Centralized system for the gradual,  
automatic and independent reaching  
of set temperature.

## FLOUR COOLING



No build-up of product

Always fresh and controlled product in complete independence

Tailored to particle size and quantity requirements

System for the grinding of crystal sugar  
with automatic feeding and storage tank  
with stirrer.

## SUGAR MILL



SPECIAL







SPECIAL



Extensive health and quality benefits

Shortened heating times and efficient mixing with fast homogenous blend

Acid and enzymatic hydrolysis

Systems for the preparation, storage and dosage of invert sugar. Fully or partially automatic with total control of parameters.



## INVERT SUGAR



Preserves the characteristics of the materials

Easier to amalgamate with the dough

Time saving, higher hygiene and accurate dosing with no air in the pipe

Technology for the cold dosing in paste form of fat, margarine and butter, with total temperature control.

## COLD DOSING



Stainless steel

Heating system with boiler and coil

Fat cutting knife with three-level agitator

Dosing of fat products in liquid form with optimized circulation and total temperature management.

## FAT TANK



Sandwich biscuit  
rework system



SPECIAL

Fully automated

No loss of food properties

Feed back into production or rework to use elsewhere

Rework systems for bread and similar products, as well as biscuit including liquid recovery of sandwich biscuit scraps.

## SCRAP REWORK







SPECIAL



Ideal for cold dough that will be later heated such as during fermentation

Tank for the manual loading of water and salt

Double jacketed and insulated storing tanks with agitator and cooling

Centralized systems for the production, storing and dosing of salt solution. For an easier amalgamation of salt in the dough.



## SALT SOLUTION



ATEX certified air heater

No chemical products or toxic gases

User-friendly and safe for workers

Completely eco-sustainable sanitization and total disinfestation of silos by heat, against pests of flour, bacteria and fungi.

## HEAT TREATMENT



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# OUR PEOPLE

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Like an ecosystem: we chose to look at nature to understand systems and the solutions they need. In this vein, we look at our business and the people working with us like an ecosystem. Each is an irreplaceable element whose talent, work and welfare we value and nurture for their own sake and that of our whole.



VALORIZATION  
& GROWTH



PROFESSIONALISM  
& RESPONSIBILITY



COLLABORATION  
& COHESION



GIVING BACK  
& WELFARE



INTERNATIONALISM  
& FLEXIBILITY



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## RESEARCH & DEVELOPMENT

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Born as an idea factory, CEPI is driven by innovation not just in the development of our technologies, but concerning all aspects of our work, from our methods to our production processes to our health and safety management.



From our inception, we prioritized internalizing the processes and resources involved in the delivery of a turn-key system. All stages of the project from from analysis to commissioning are managed internally. We invest in the growth of our people and in the supply of constant training, new perspectives and information.

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## INTERNALIZING & TRAINING

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Factory: 13.000 m<sup>2</sup>

Offices: 2.000 m<sup>2</sup>

Powered and heated by renewable  
energy

Designed to completely safeguard  
worker safety

Automatic vertical warehouse

240 m<sup>2</sup> testing and prototyping room

Dedicated loading area

Customs approved place

Silo washing department

Tall areas up to 16 mt for the construction  
of outdoor stainless-steel silos

We started from the bottom.  
We have built technologies, connections and value.  
Today, our new home is here.

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# OUR HOME

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Our home



Our sustainability  
strategy



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# SUSTAINABLE TECHNOLOGIES

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## **Doing good by People and by the Planet with Partnership, Prosperity and Peace**

CEPI's sustainability strategy is built around 5Ps of Sustainable Development that group the 17 goals of the UN's 2030 Agenda.

The values at the root of the 5Ps have always been part of our ethos: through our history, we have always sought to create the best working conditions for our employees, to reduce the footprint of our operations and to have a positive impact on our community.



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## THE 5Ps OF CEPI

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Doing good by People and by the Planet with Partnership, Prosperity and Peace: at the heart of our Ethics Code are principles that align perfectly with the the goals of the 2030 agenda, which we retold in the context of the CEPI story and and everyday work.

We support training targeted at vulnerable groups and we have a close relationship with local educational institutes, offering apprenticeship, internship and dissertation opportunities and providing equipment to aid workshop activities. The ATENA program triples legal obligations in providing training to our employees in many areas spanning from specialized to health prevention.

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## QUALITY EDUCATION

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Suitable for reuse 83%  
Suitable for recycling 15%  
Disposal 2%  
Recycling efficiency 84%  
Durability 30 years



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## CIRCULAR PRODUCT

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Our products operate within the circular economy model, a model of production and consumption which aims to reduce waste to a minimum and promote the recycling and reuse of materials and products. The Material Circularity Indicator of our average installation is 0,7 on a scale between 0 and 1, which is considered high.

We deeply believe in the value of giving back: our community should benefit from what we do. We have launched multiple projects spanning training, scrap recovery workshops, reintegration and medical research, as well as directly supporting vulnerable groups and providing work placement opportunities.

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## TERRITORY & GIVING BACK

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## WELFARE CHAMPIONS

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On top of contractual welfare, we provide a wide array of benefits with the assistance of a no profit platform and welfare managers, to guarantee fruition, and transparency. Our program involves mostly local suppliers and includes services such as psychological support and weekly fitness activities.

CEPI goes not discriminate on the basis of any aspect related to gender, and offers equal pay for equal work. A parallel benefit program is offered to our female employees to facilitate conciliation of work and personal life. We are certifying to UNI 125 and further expanding our program with dialogue opportunities and seminars.

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## GENDER PARITY

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Awarded among more  
than 6,500 candidates



Partner of the protocols for the Forlì's prison workshops



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## HEALTH & SAFETY

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All our processes have been certified to Occupational Health and Safety standard UNI ISO 45001. Our Health, Safety and Environment team counts 23 people and works daily to perform deep controls and develop innovations.

All our waste is traced on register and disposed in compliance to EU regulations and many of our production scraps are reused through collaborations with local no-profit projects. We have also launched a global review of all our waste to identify further recovery opportunities.

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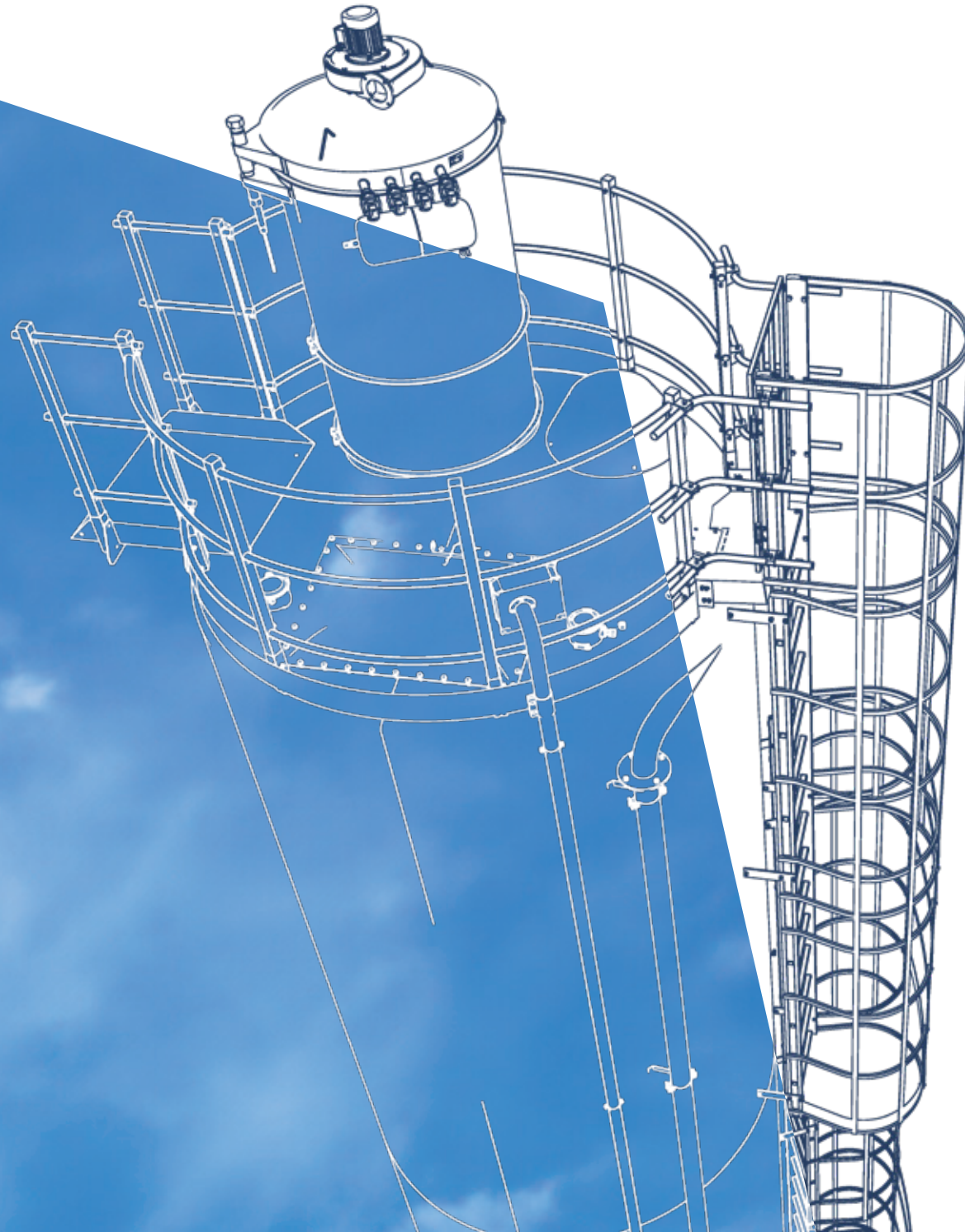
## REUSE REDUCE RECYCLE

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heart of  
technology



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