Invert sugar

Systems for the preparation, storage
and dosing of invert sugar

Sweeter and fresher products with less consumptions

Fully or partially automatic system

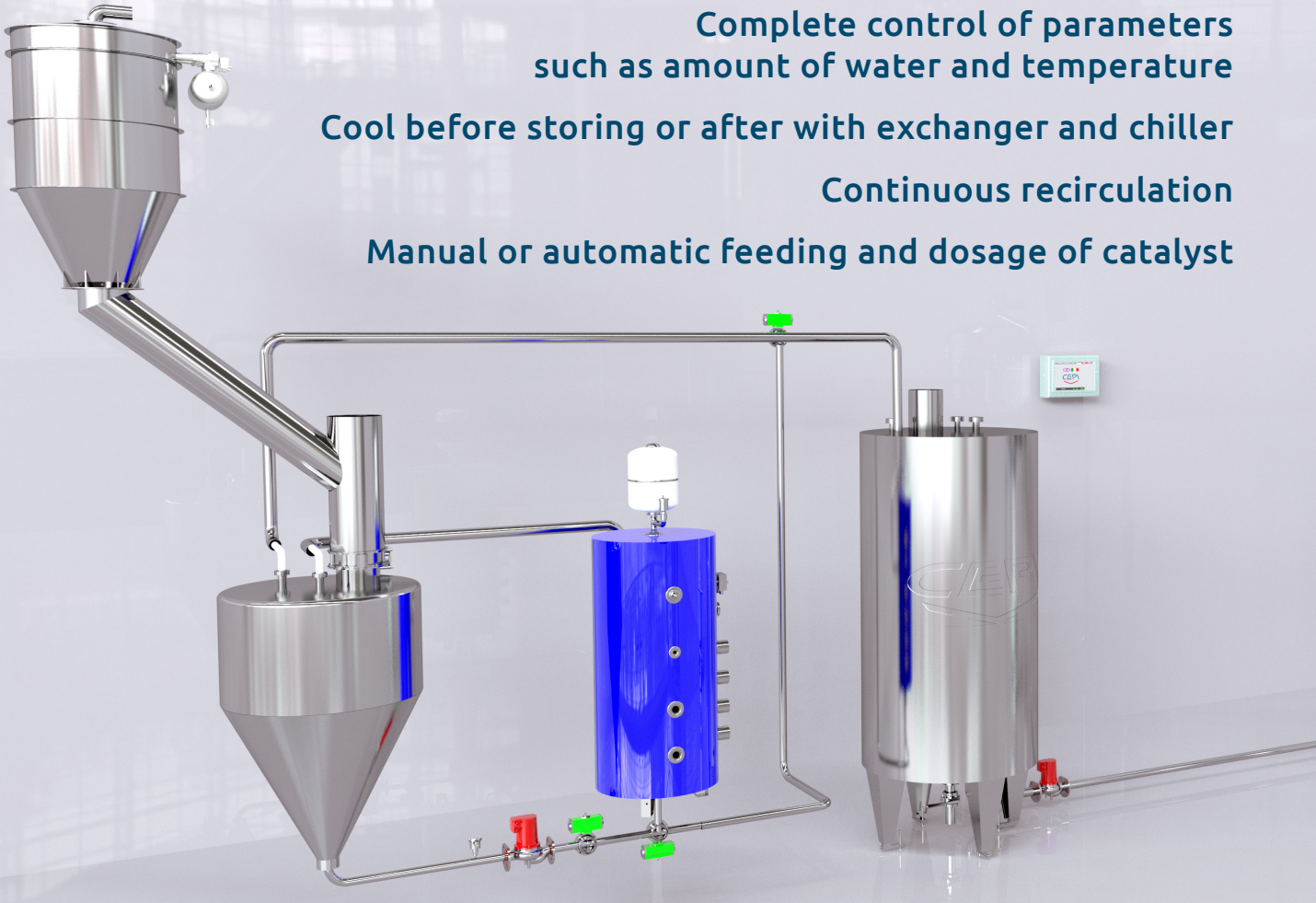
Allows for both acid and enzymatic hydrolysis

**Complete control of parameters
such as amount of water and temperature**

Cool before storing or after with exchanger and chiller

Continuous recirculation

Manual or automatic feeding and dosage of catalyst



Special applications
Invert sugar

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Bakery & Biscuits | Confectionery | Baby food & functional food | Beverages

The CEPI system handles the preparation, storage and metering of invert sugar. It can be fully or partially automatic depending on customer's needs. Like all CEPI technologies, it is highly versatile and allows for both acid and enzymatic hydrolysis and complete control of parameters such as amount of water and temperature.

The system comes with a hopper for crystal sugar, heating device, production tank and exchanger with continuous recirculation, and storing tank. Invert sugar can be cooled before storing or after through an exchanger and chiller. The system includes temperature check with sensors and weighing cells, and allows for both manual or automatic feeding from the line and dosage of catalyst.

CEPI's solution ensures shortened heating times and highly efficient mixing, delivering a homogenous blend in a very short time. The system optimizes steam, reducing waste and costs as well as production times. It standardizes and rationalizes production as well as improving the quality of the final product. With vast food technology expertise, CEPI is also able to provide support during the creation of a recipe, to find the perfect combination of process and ingredients to match the final product.

ATEX

Special applications
Invert sugar

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Features & Technologies

1. Production tank
2. Storage tank
3. Exchanger
4. Heating device
5. Feeding hopper

Shortened heating times and highly efficient mixing

Delivers a homogenous blend in a very short time

Optimizes steam, reducing waste, consumptions and production times

Double jacket, or heated, or insulated production and storage tanks

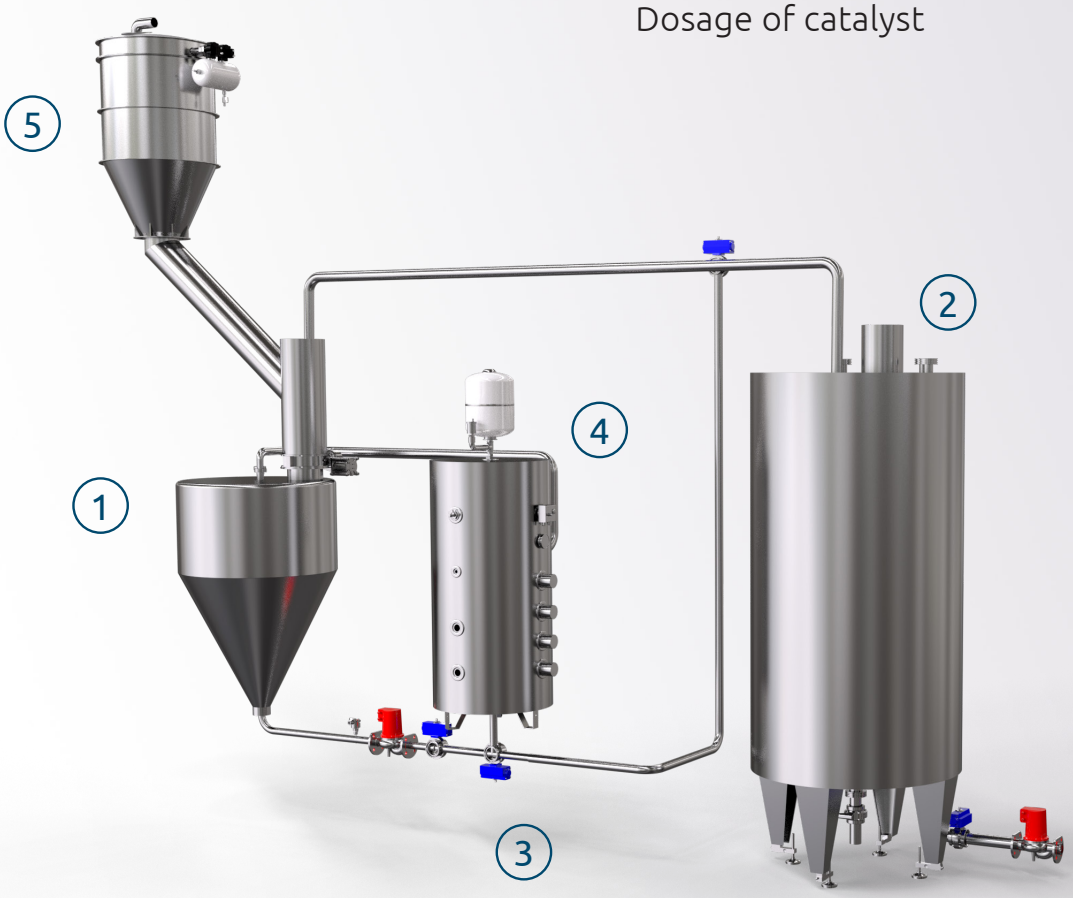
Exchanger with continuous recirculation

Heating device for both acid and enzymatic hydrolysis

Temperature check with sensors and weighing cells

Manual or automatic feeding from the line

Dosage of catalyst



Special applications
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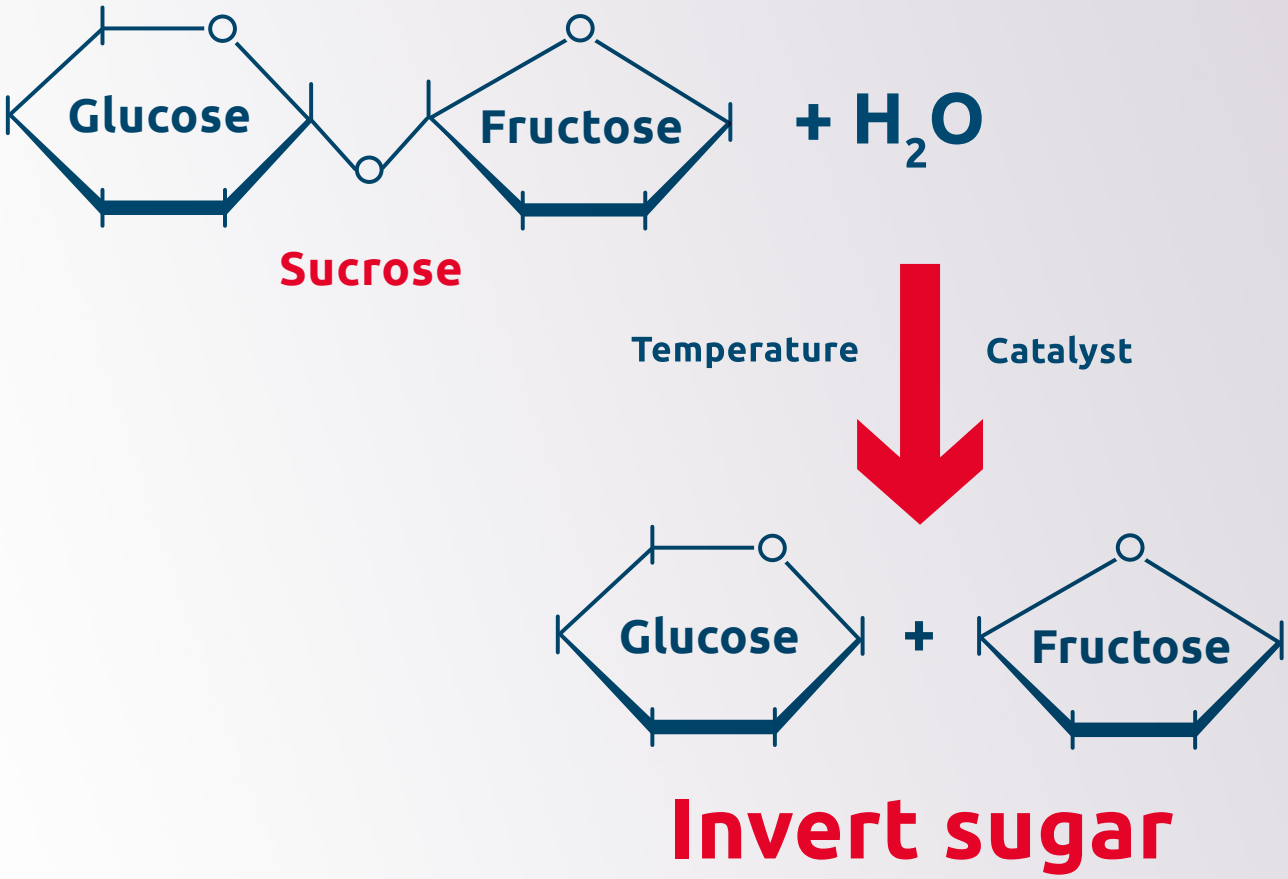

Invert sugar is made from splitting sucrose into glucose and fructose by a process called hydrolysis, in which it is mixed with water and heated with a catalyst until the bonds between glucose and fructose break. The catalyst can be enzymes such as invertase or an acid ingredient like citric acid. The acidity can be then reduced or neutralised with alkaline substances such as baking soda.

As well as the type of catalyst, the amount of water and sugar and the temperature of the heating process can be adjusted: more water will lead to longer conversion times and more inversion, and higher temperatures generally lead to a thicker product.

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The benefits

- Invert sugar has a sweetening power about 20-25% higher than sucrose, highly reducing consumptions
- Invert sugar lowers the freezing point and delays crystallisation and as such, it improves the upright power of creams and makes ice cream and fillings creamier. It is very useful for icings and glazes and provides a consistent, soft centre to candies and chocolates
- With its higher affinity for water, invert sygar can be used as humectant in cakes and similar products, and it enhances colour and flavour as well as freshness
- Invert sugar makes baking faster as well as adding softness to baked goods
- With less crystallisation, invert sugar creates a smoother texture and improved mouth feel
- Due to the presence of free fructose and its natural affinity for fruit flavours, invert sugar is used for soft drinks as well as confectionery or bakery goods that contain fruit or are fruit flavoured
- Invert sugar gives a richer crust colour to bread and pastries as it boosts the Maillard reaction, the chemical reaction between amino acids and sugars that adds distinctive colouring and flavour to browned food
- Invert sugar is ideal for use in energy drinks and sports drinks, because fructose is more satiating and because of the added taste from glucose and fructose

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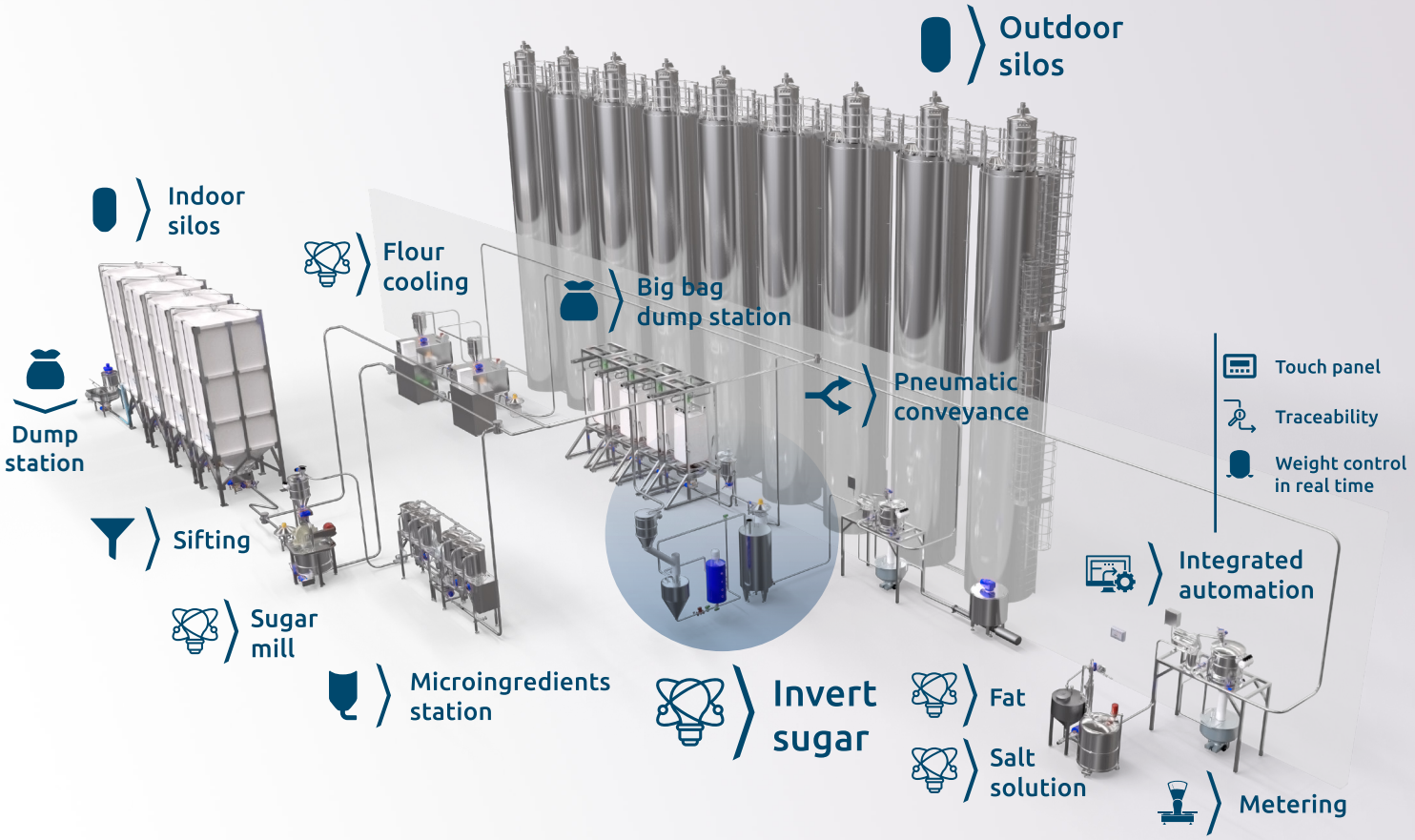
heart of technology

CEPI

CEPI Spa
Via G Ansaldo 15
47122 Forlì FC Italy
T +390543940514
F +390543940534
cepi@cepisilos.com
www.cepisilos.com
cepisilos



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