



# EquiTherm Coldfill

Energy recovery for cold filling



# Multiple use of energy



Condensation water has an impact on the labelling result. This is why the soft drinks are often guided through the warmer after cold filling. This is an enormous work relief for the labeller – however, the change in temperature requires quite a bit of energy. In order to provide it inexpensively, we developed the EquiTherm Coldfill: a system, which repeatedly sends the thermal energy back and forth between the two process steps.

## At a glance

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- Function: Creating an energy cycle between the mixer and the warmer
- Application: Lines, which ...
  - fill CSD into non-returnable PET containers
  - with filling temperatures from 6 to 16 °C and
  - which include a heater.



# Method of operation



## Starting position

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- In the mixer, the product is first cooled down to a filling temperature.
- In order to avoid condensation on the filled containers, they are heated again in the tunnel heater before labelling.

## Energy cycle with the EquiTherm Coldfill

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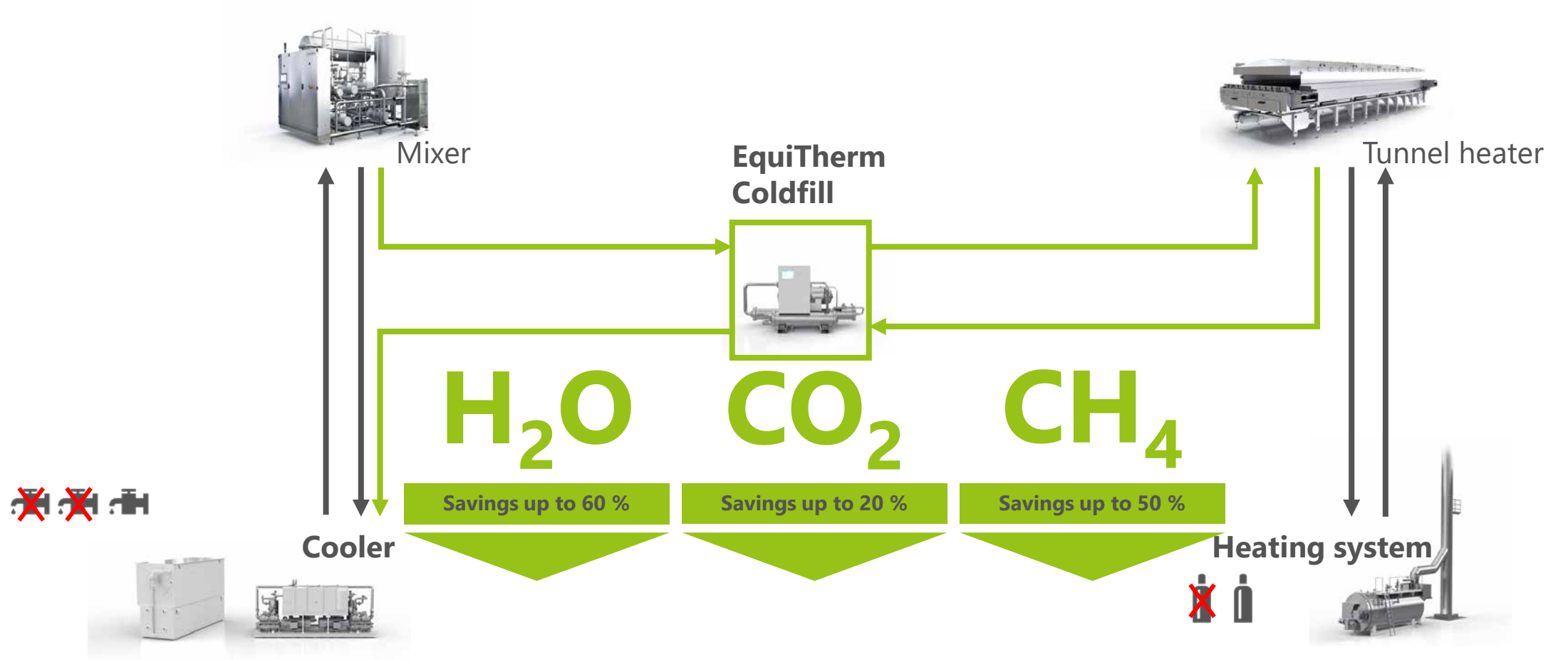
A heat pump provides the mixer and the tunnel heater with thermal energy by ...

- taking on the cooling energy of the mixer,
- bringing it to a higher energy level via electrical energy and
- providing it to the tunnel heater afterwards.

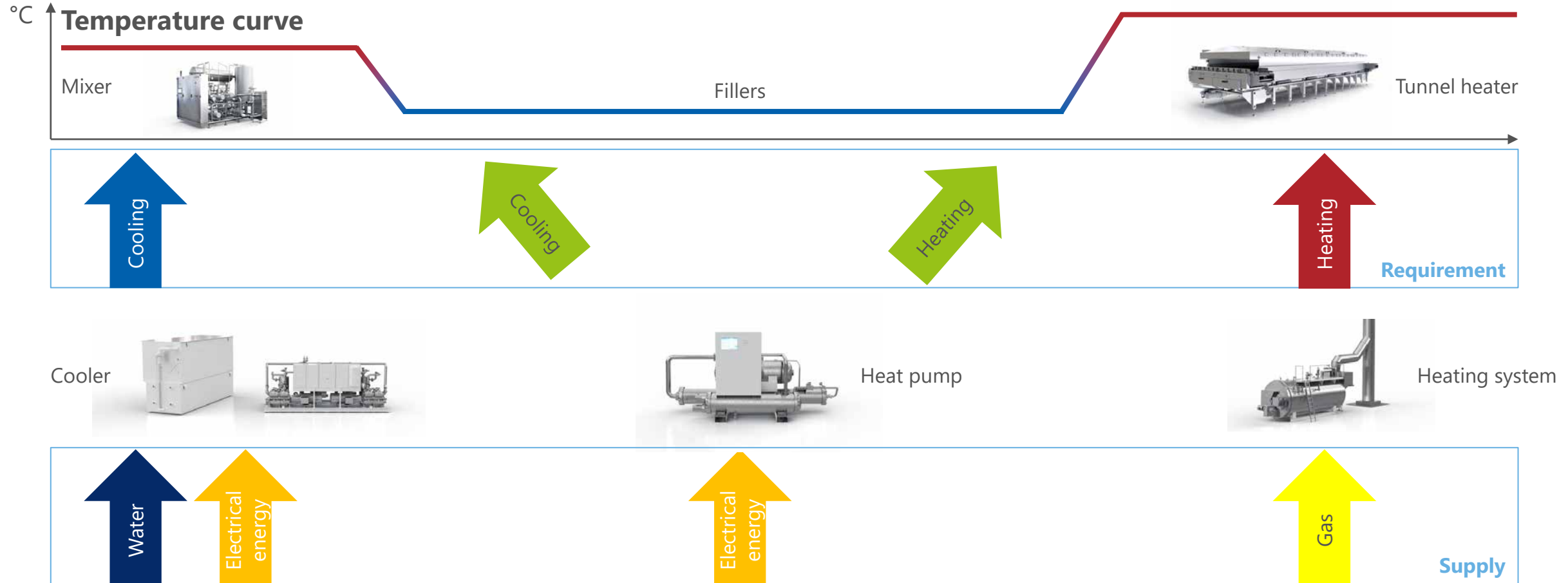


# Savings

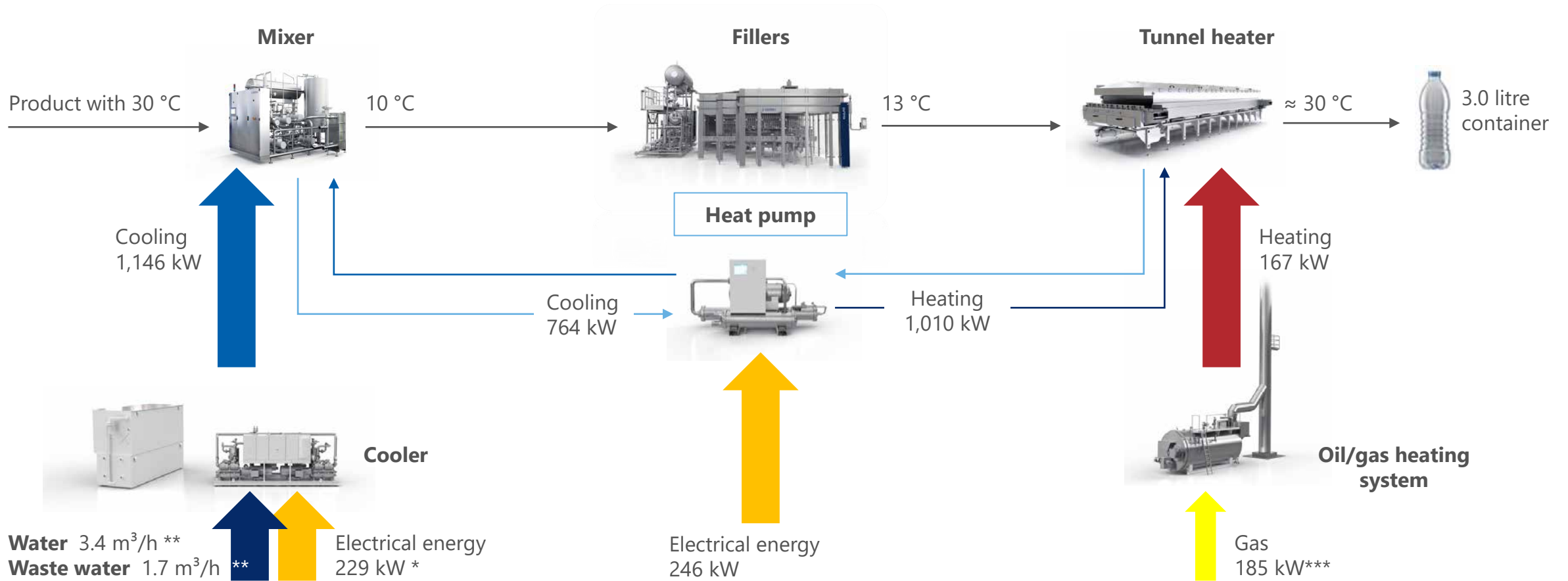
## Conventional cold filling versus EquiTherm Coldfill



# The system structure



# Figures, data, facts about the EquiTherm Coldfill



\* Based on: COP of the chiller 5 | \*\* Value determined from assumptions | \*\*\* At an efficiency degree of 90 % and H<sub>u</sub> of 10 kWh/m<sup>3</sup>



# Benefits to you



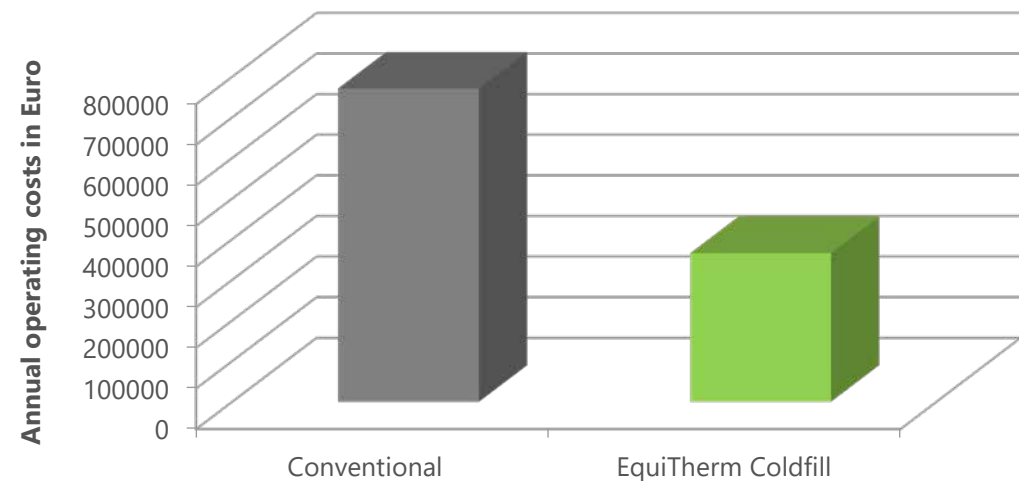
## Easy integration

EquiTherm Coldfill can also be retrofitted in existing lines without having to change the filling process.

## Multiple benefits

This system makes cuts on several points of the line. It reduces the gas consumption of the heating system and it reduces the water consumption as well as the required energy of the cooler. For you, this means: You will consume significantly less natural resources and save costs at the same time!

## Exemplary OPEX



Savings up to 60 %



Savings up to 20 %



Savings up to 50 %

**SOLUTIONS  
BEYOND  
TOMORROW**

