



cleaning
systems
for liquids



Atmospheric Evaporator

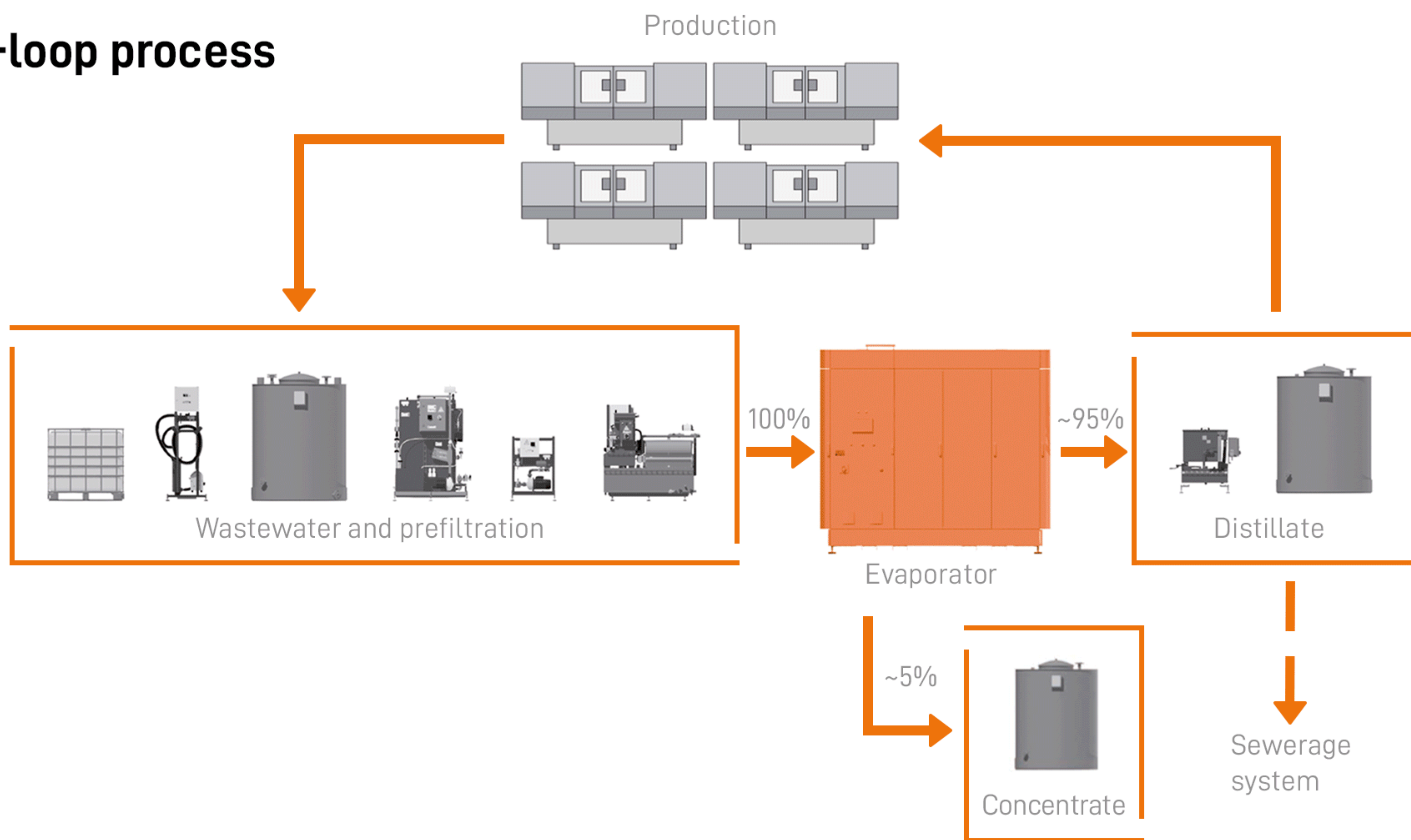
Wastewater treatment systems: Innovative distillation with MVR technology

Evaporation Process

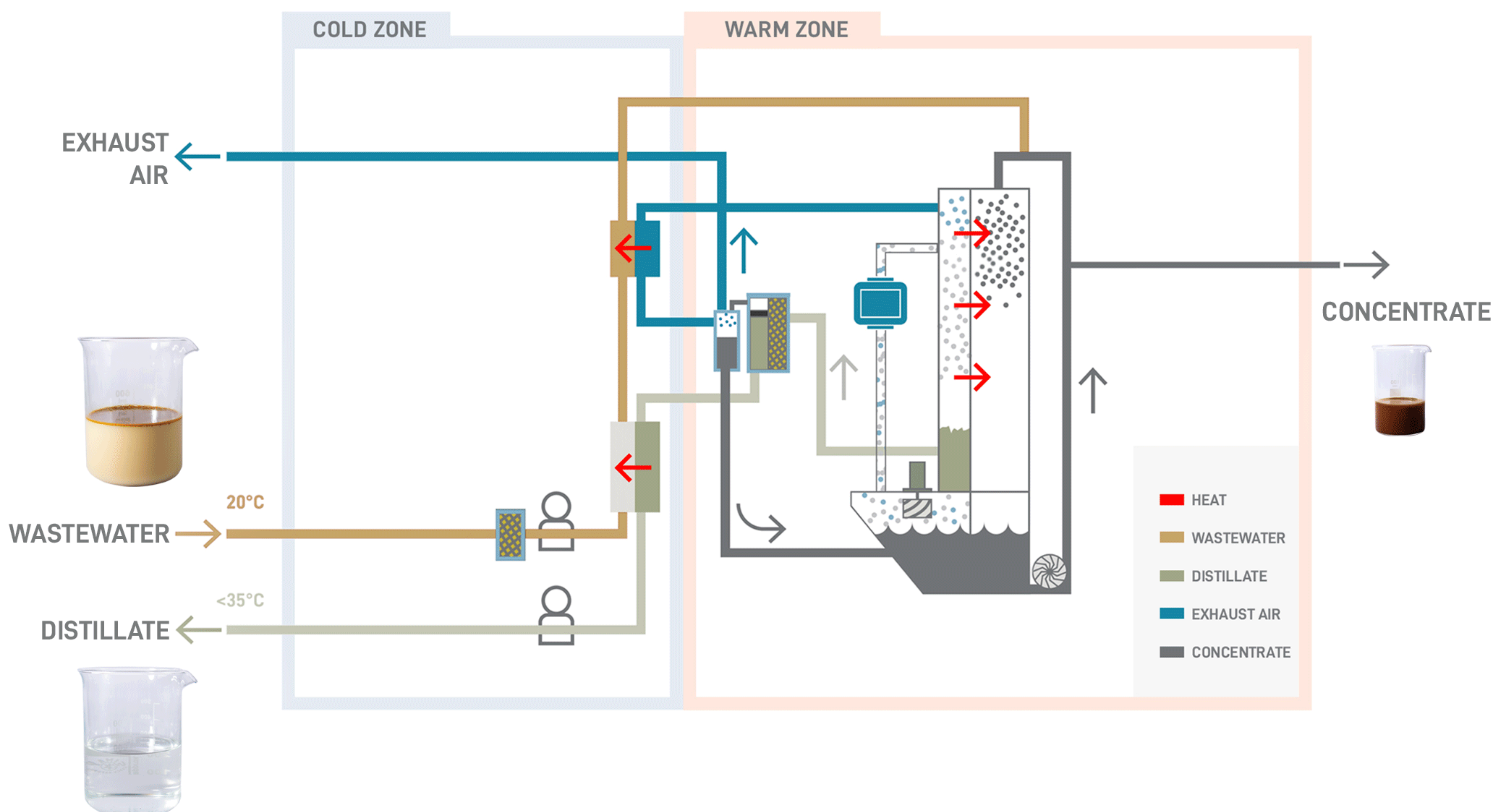
Dimensions and performance

| ET Series | | S | | | | M | | | | L | | | |
|--------------------|----------------------|------|-----|------|------|------|------|------|------|------|-------|-------|-------|
| Nominal output | l / h | 50 | 100 | 150 | 200 | 250 | 350 | 500 | 750 | 1000 | 1500 | 1750 | 2000 |
| Capacity per year | m ³ / a | 380 | 750 | 1150 | 1500 | 1900 | 2650 | 3800 | 5700 | 7500 | 11500 | 13300 | 15000 |
| Energy consumption | kWh / m ³ | 65 | 60 | 55 | 50 | 48 | 45 | 35 | 35 | 35 | 35 | 35 | 35 |
| Length | mm | 1950 | | 2500 | | 2900 | | 4450 | | 4450 | | 4850 | |
| Width | mm | 1260 | | 1580 | | 1750 | | 2350 | | 2800 | | 2800 | |
| Height | mm | 2100 | | 2600 | | 2600 | | 3100 | | 3100 | | 3100 | |
| Weight | kg | 2100 | | 2300 | | 2900 | | 4800 | | 8000 | | 8000 | |

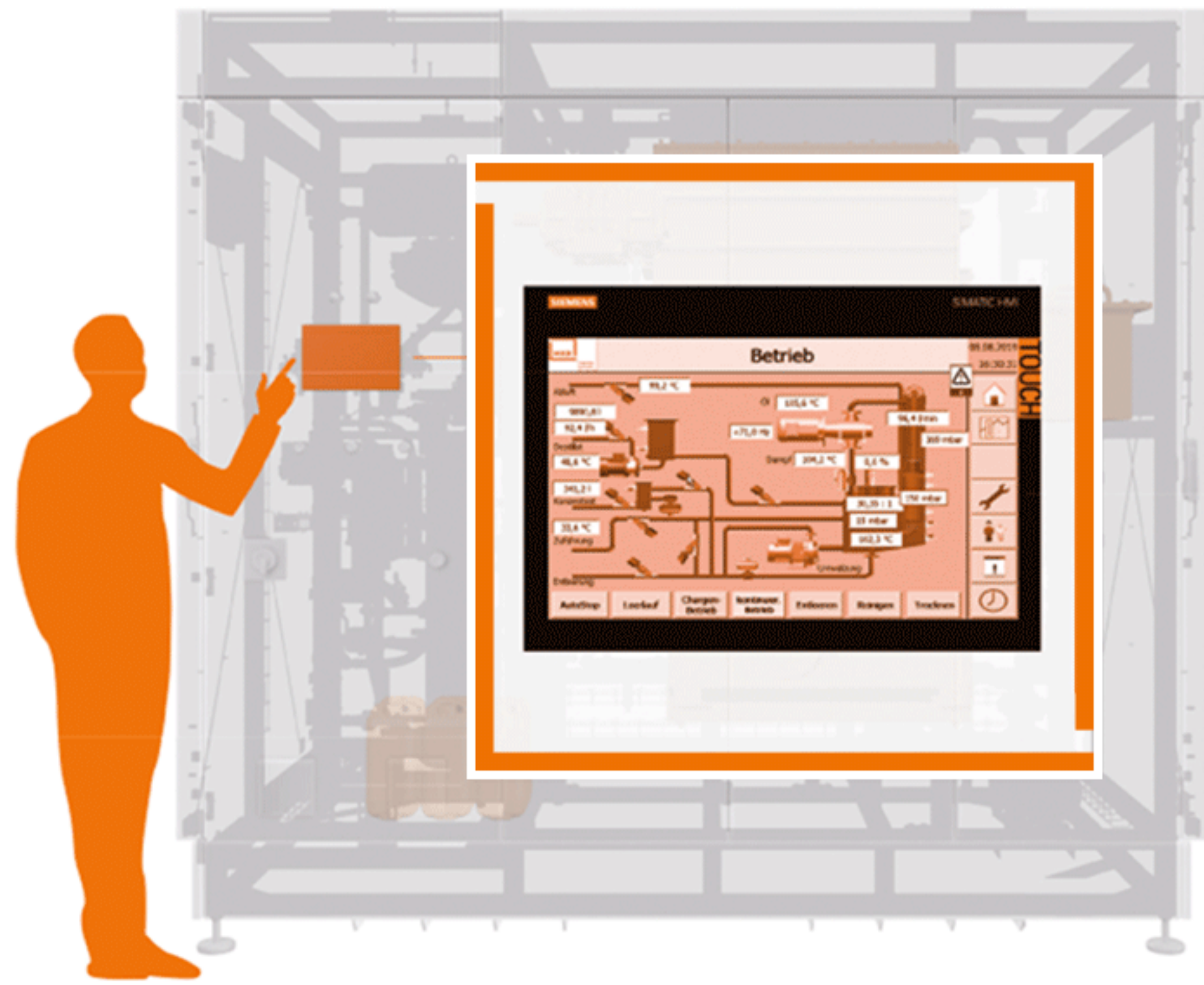
Closed-loop process



Evaporation in detail

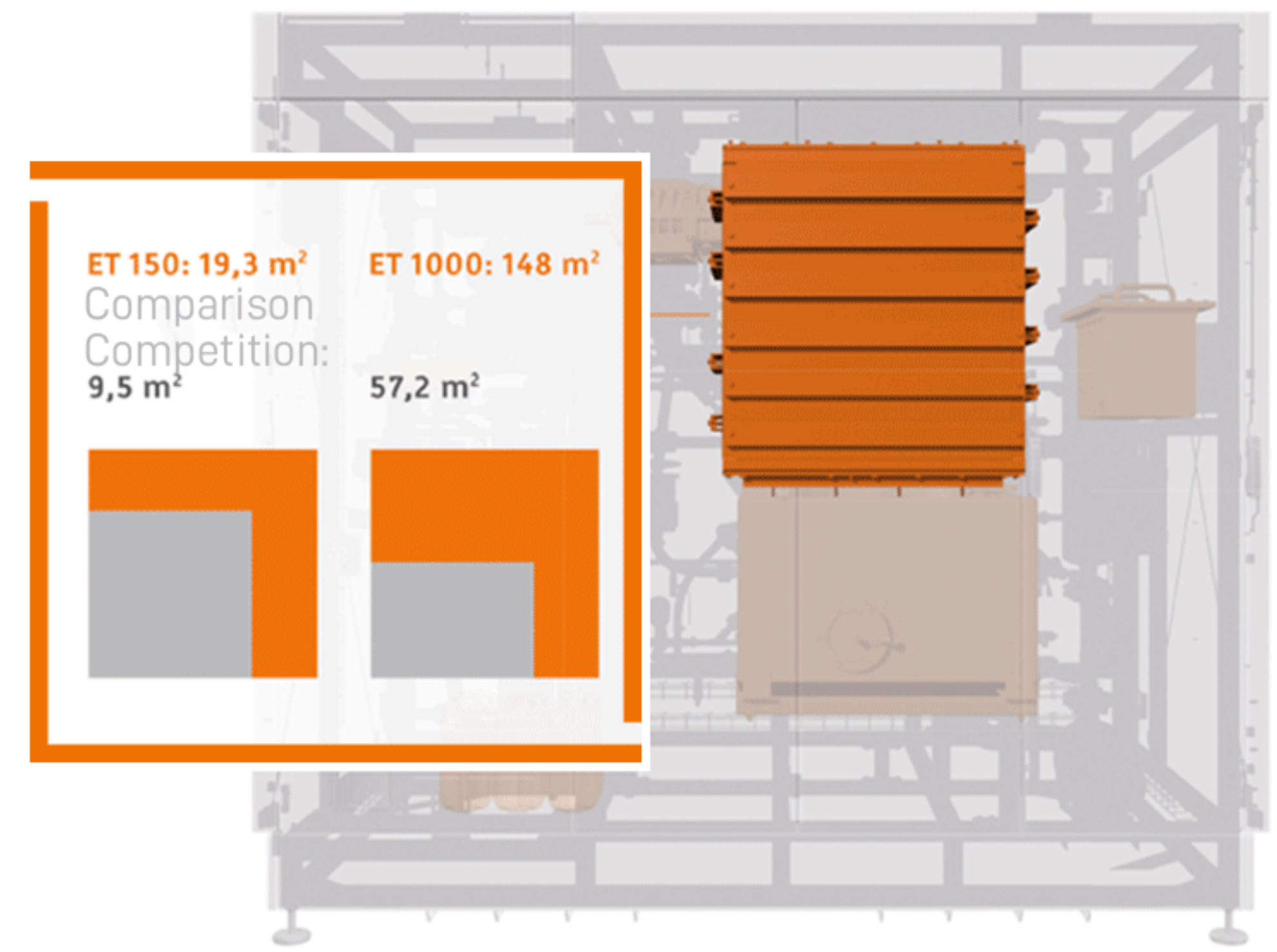


Evaporator Highlights



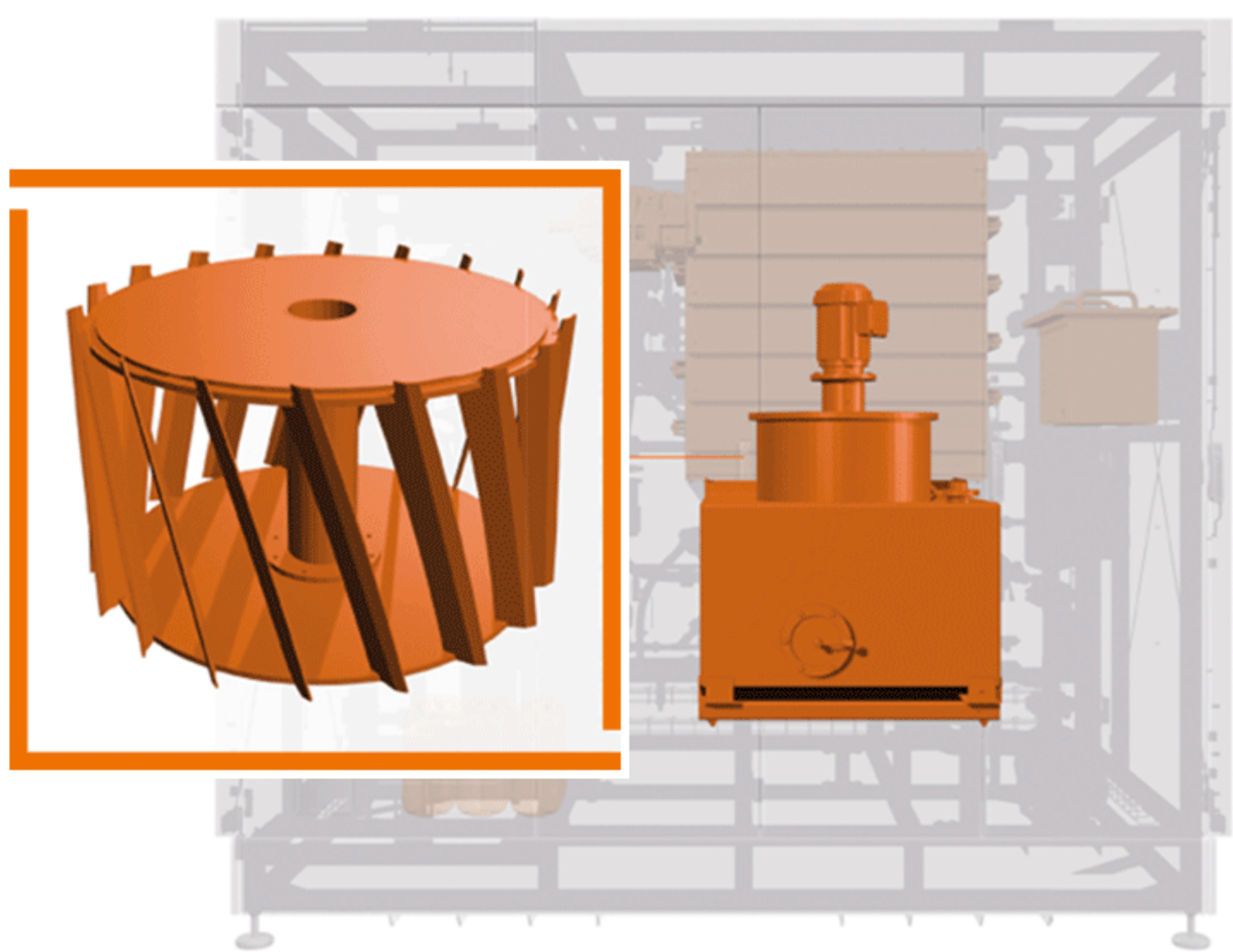
20 % MORE PERFORMANCE DUE TO INTELLIGENT CONTROL

An intelligent and simple system control enables the maximum utilization of the energy used.



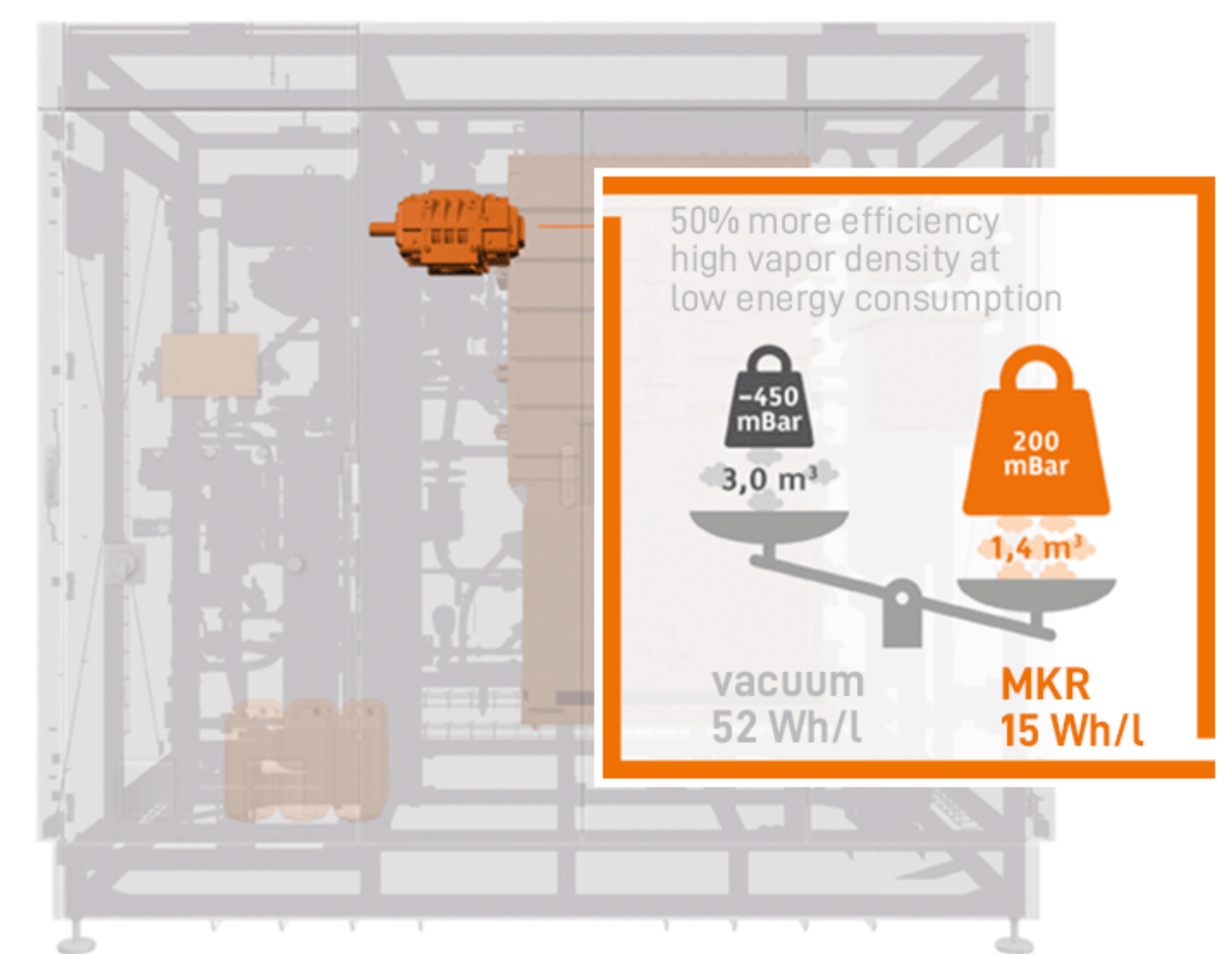
HIGH ENERGY RECOVERY

A 3-stage recuperation paired with the largest heat exchanger in its class enables a smooth and energy-saving evaporation.



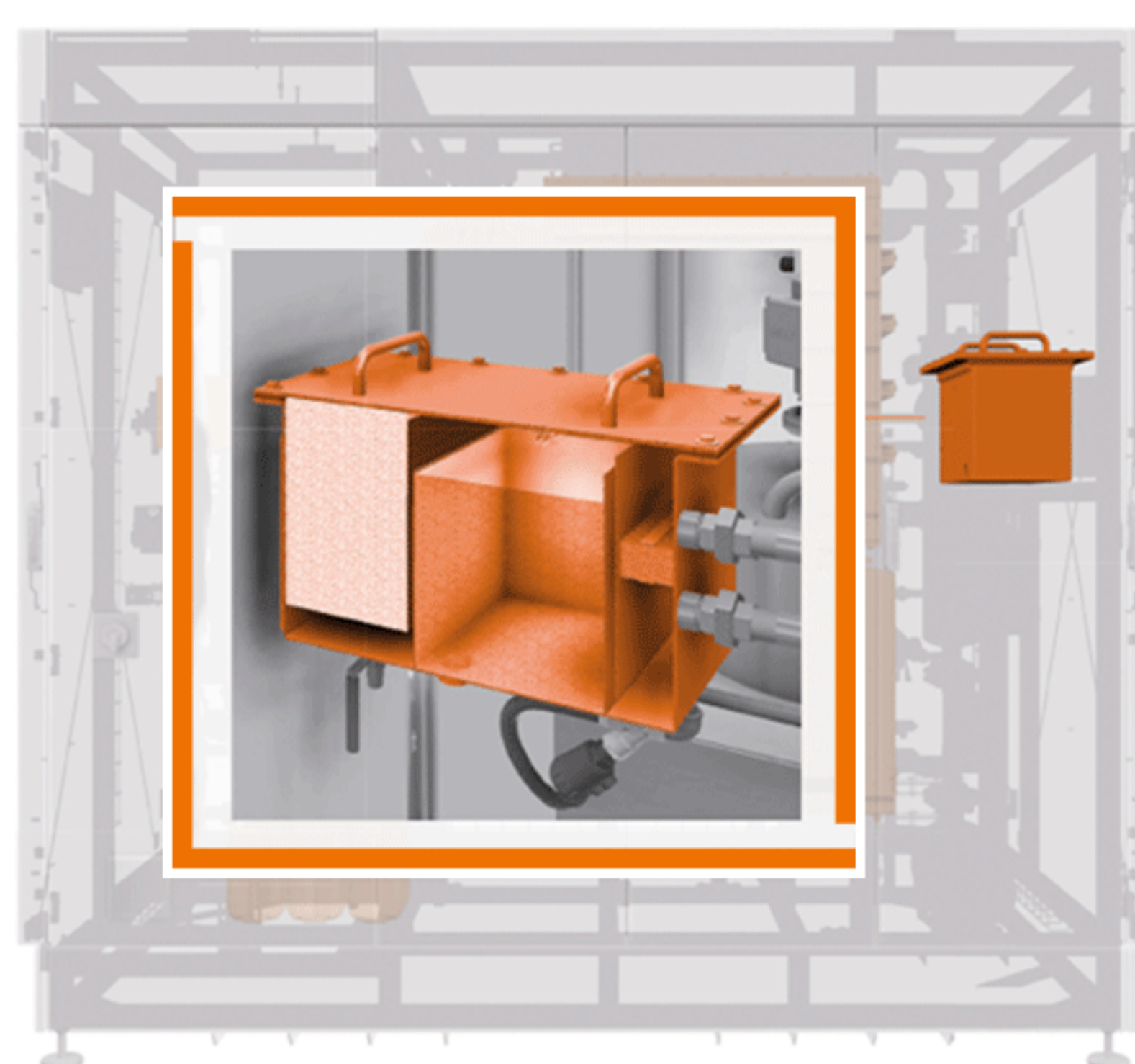
CENTRIFUGAL DEFOAMER - *cycloClean*

Mechanical centrifugal defoamer for chemical reduction and separation of ultra-fine particles for highest distillate quality.



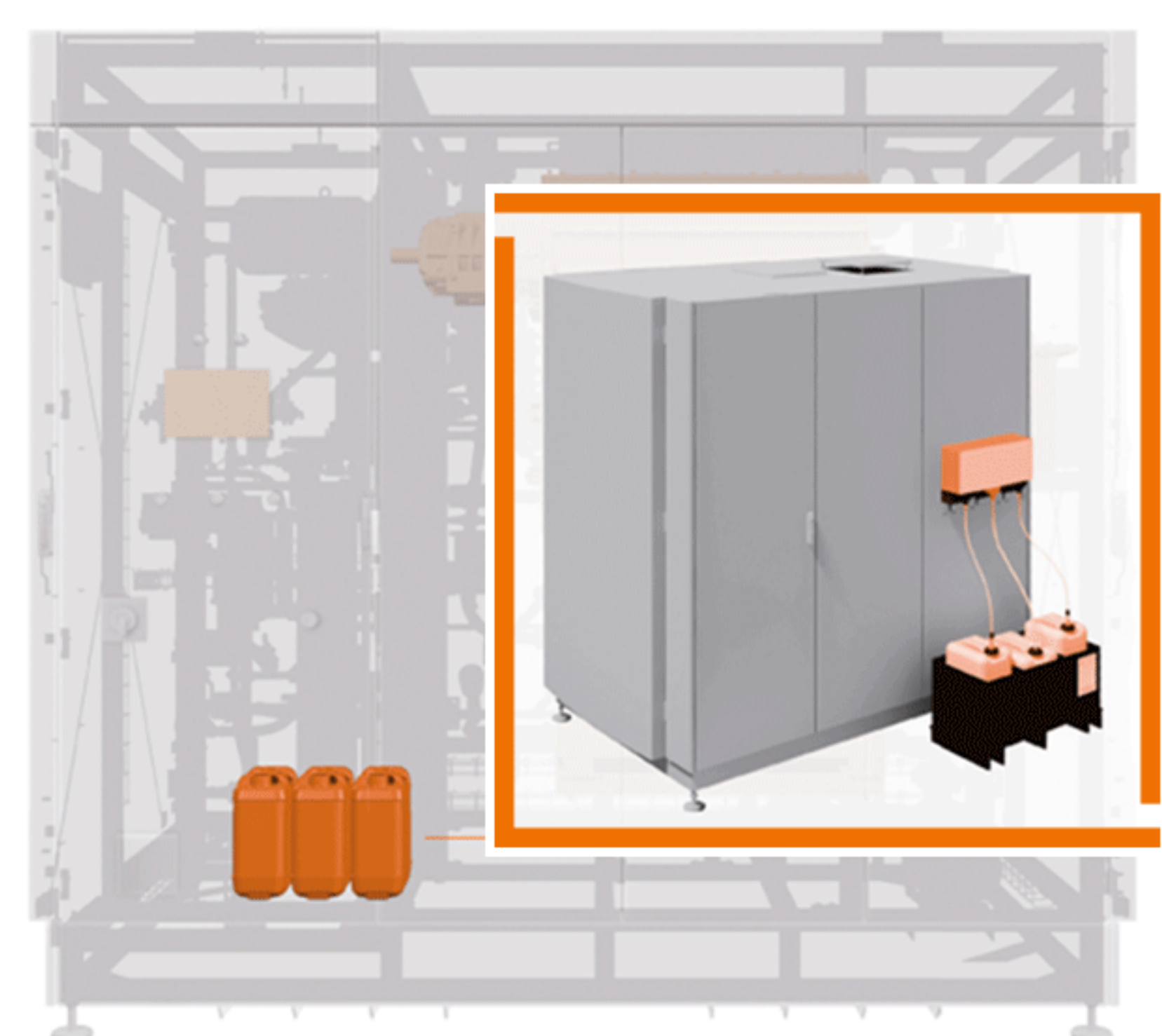
50% LESS ENERGY CONSUMPTION

The highest steam density requires less compressor capacity and thus a lower energy demand. (< 50%)



HIGHEST DISTILLATE QUALITY

The integrated Coa-Combi-Technology generates distillate with highest quality and a reduced COD value.



AUTOMATIC CLEANING & CHEMICAL DOSING

Integrated and forced-flow high-pressure cleaning plus an precise automatic dosing of chemicals.

ET MaXx ZLD

The ET MaXx ZLD enables evaporation beyond conventional standards.

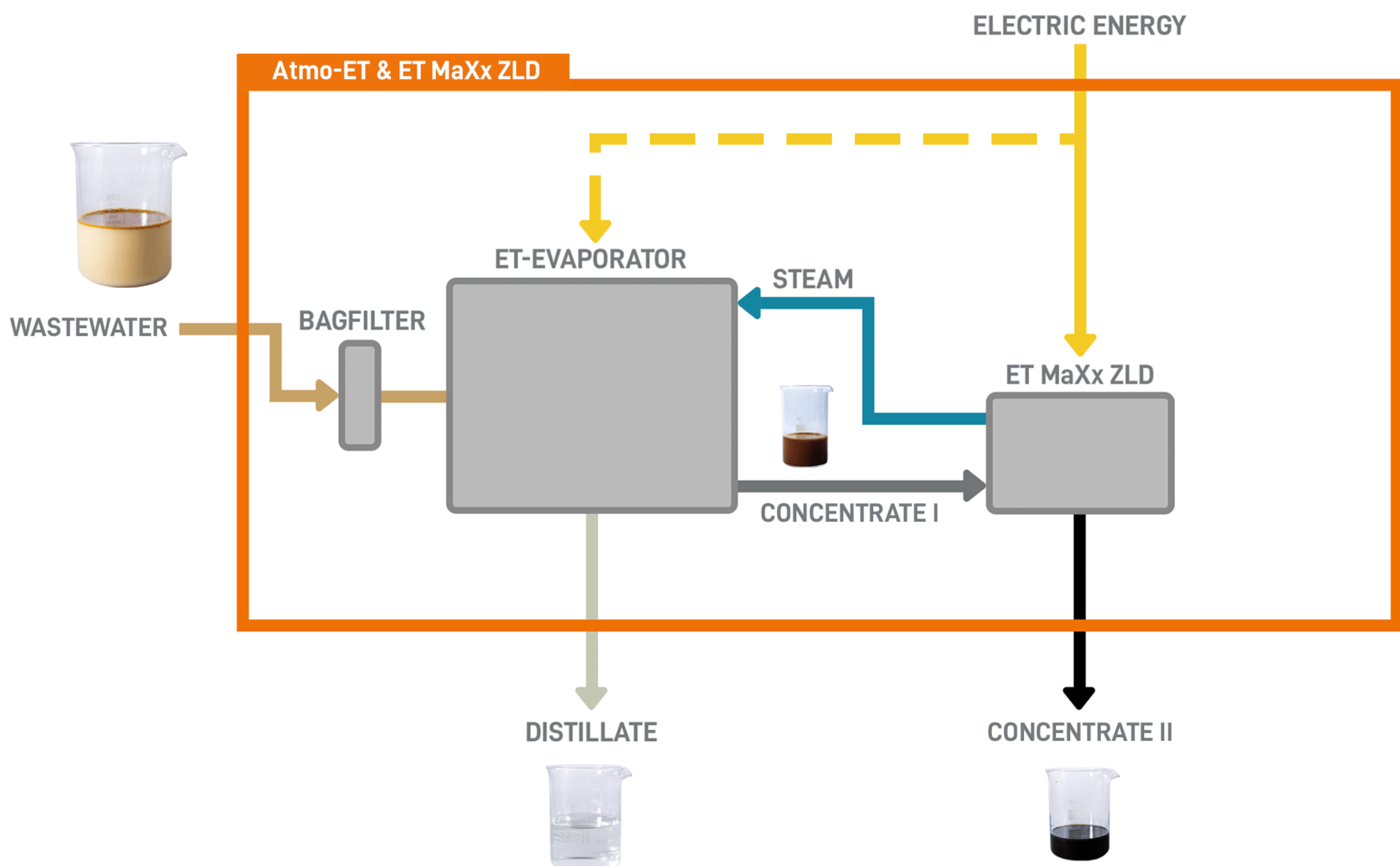
Thanks to intelligent energy recovery, the MKR ET MaXx Superconcentrator can recycle up to 99 % of your wastewater with almost no additional energy input. Wastewater containing oil, for example, can be reduced to a water content of less than 10%. Due to this maximum concentration the residues usually yield valuable raw materials in form of oils or dissolved salts.

This unique technology therefore delivers not only the most efficient but also a truly sustainable wastewater treatment.

ET MaXx ZLD Highlights

- max. concentration paired with intelligent energy recovery
- efficiency >50% compared to conventional ZLD systems
- valuable raw materials (oils or dissolved salts)
- concentration of oily liquids up to <10% (water content)

ET MaXx ZLD Process



Atmospheric Evaporator

The atmospheric MKR evaporation technology is the leading process for modern wastewater treatment.

ET-Series

S

50
100
150
200

ET-Series

M

250
350
500
750

ET-Series

L

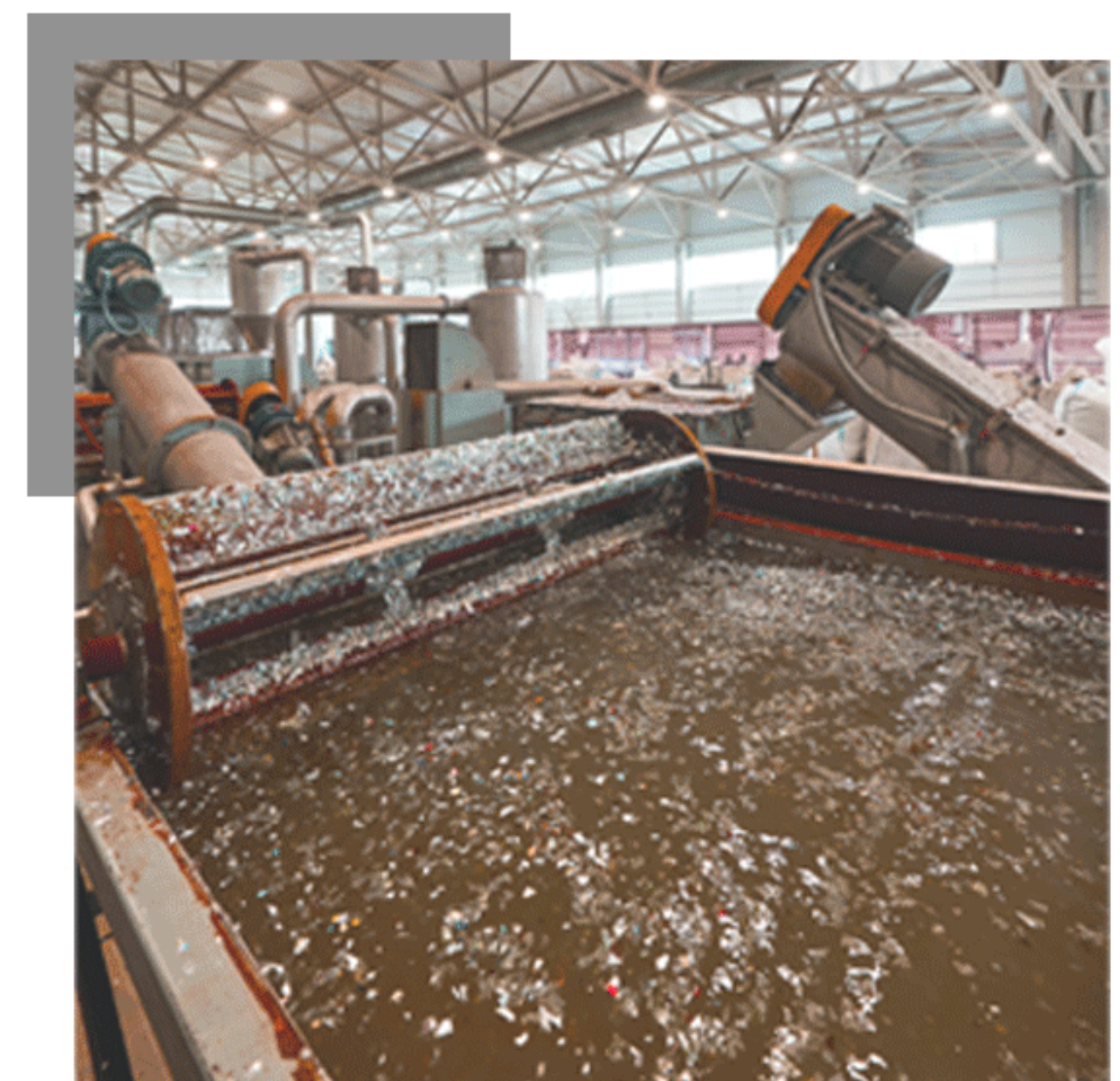
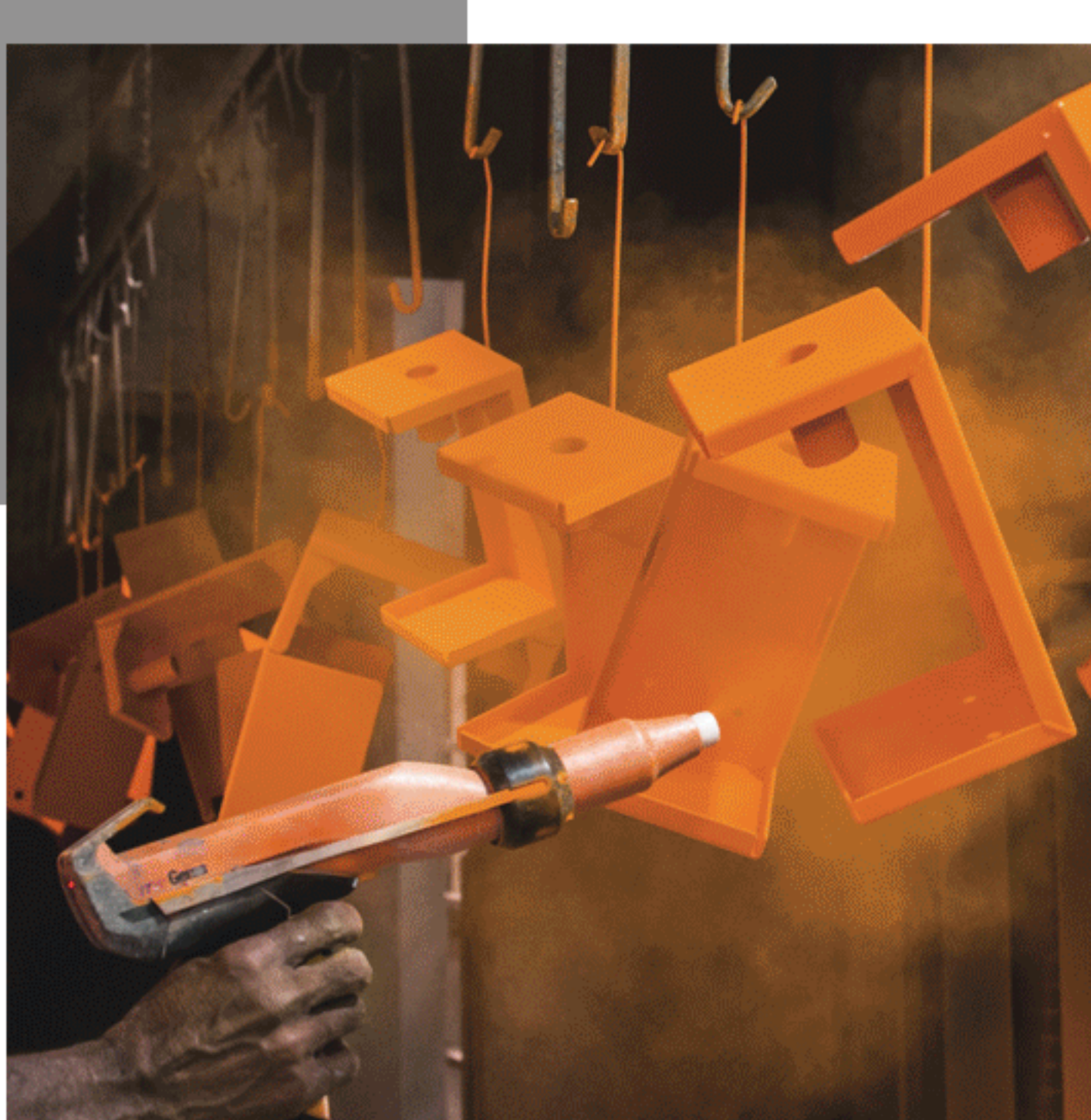
1000
1500
1750
2000

What characterizes a MKR evaporator?

- 50% less energy consumption vs. vacuum evaporator
- 20% more performance: > 200 - 400h continuous process
- Plate heat exchanger for optimized heat transfer
- Maximum concentration for maximum cost savings
- Highest distillate quality with min. temperature increase (< 15K)
- Fully automatic evaporation process and cleaning mode

Fields of application / industries:

- Metalworking / Mechanical Engineering
- Die Casting (Aluminium)
- Electronics / Electrical Devices / Optics
- Aerospace / Automotive
- Waste Disposal / Recycling
- Surface Technology
- Energy Production / Supply
- Chemicals / Pharma / Healthcare
- Textile / Paper
- (Pet) Food Industry



The Success Story

Tradition becomes Innovation



2023
ET MaXx ZLD
ET MaXx ZLD



2001
Fremdölabscheider
Tramp Oil Separator



1997
Verdampfer
Evaporator



1996
Ultrafiltration
Ultrafiltration



1992
Zentrifugen
Centrifuges



1990
Saug- und Filterwagen
Suction- and Filter Cart



cleaning
systems
for liquids

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