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The Digital Sealing Solution

VFFS Pouch Making Application

cera2seal

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We face the VFFS challenges

for mono material processing with conventional sealing systems

Deformed and shrinked seals and packaging due to excessive thermal treatment in the machine

Start-up losses due to slow heating and/or overheated sealing tools

Higher costs: Monomaterials can only be processed at lower machine speeds or when using more expensive films.

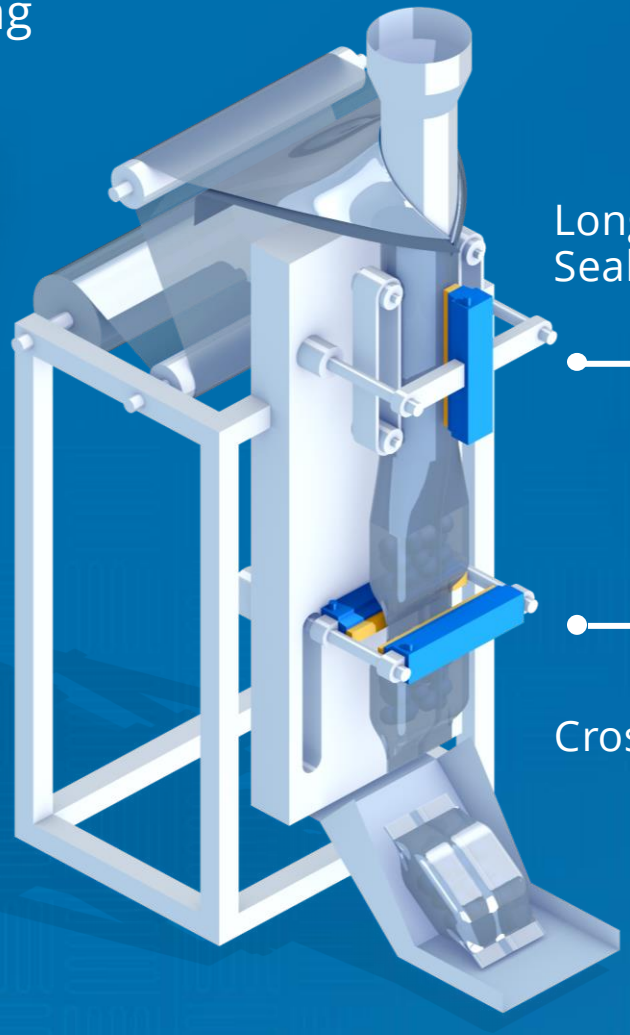
Leakers in the triple point due to the layer step

Our Solution

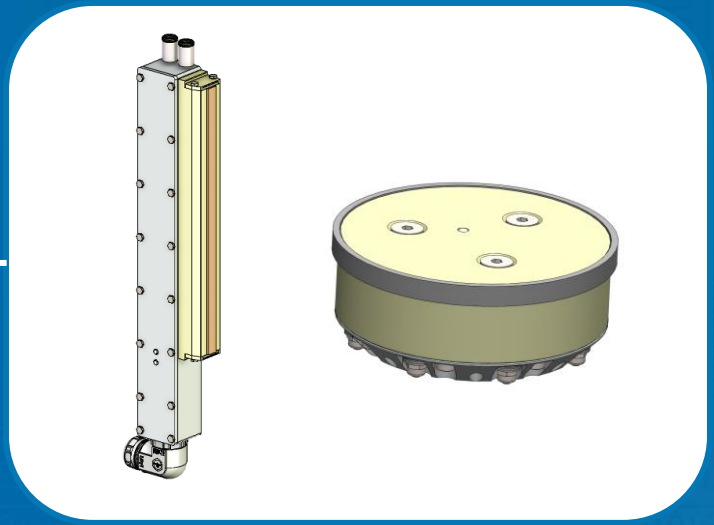
The vertical high-speed VFFS solution

for mono material processing

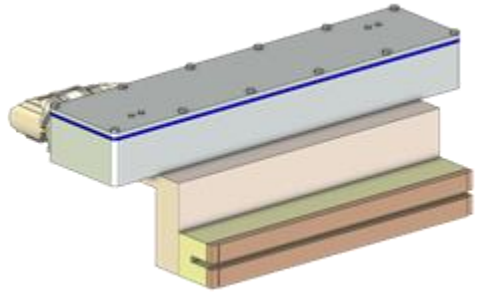
with conventional sealing systems



Longitudinal Sealing



Cross Sealing



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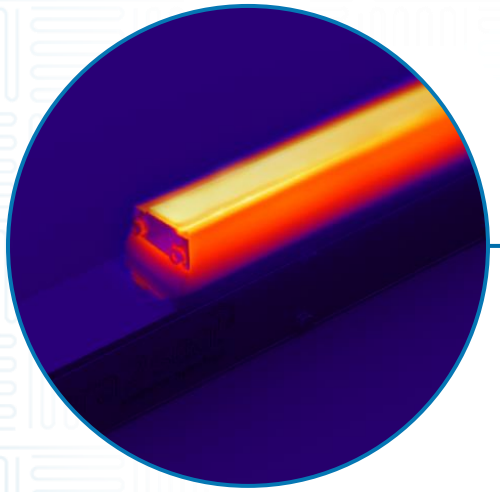
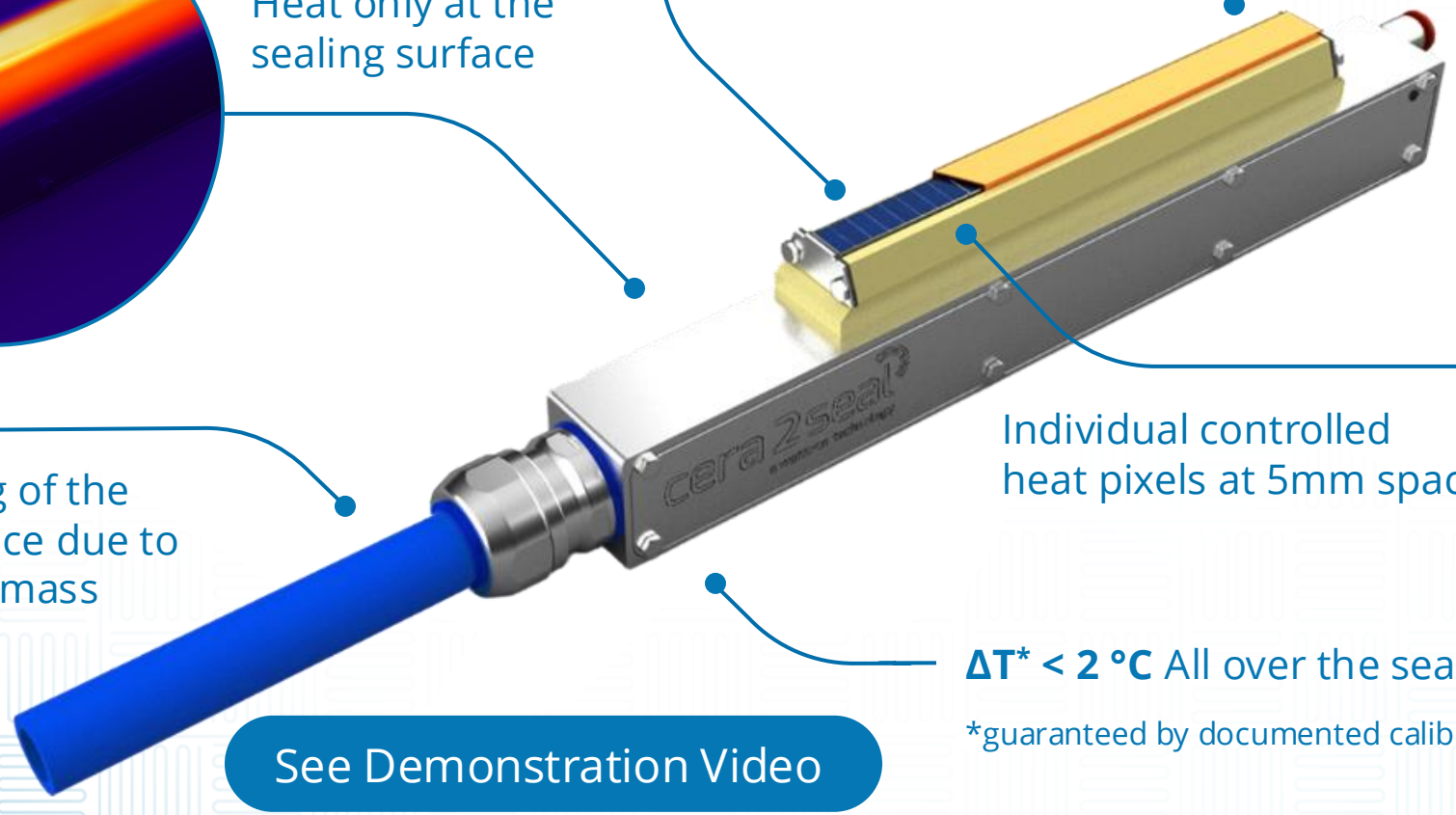
How it works

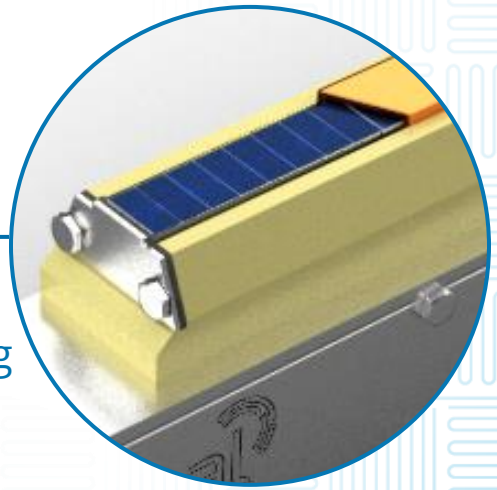


Heat only at the sealing surface

Pixel-wise heating with fully temperature control

Fully reproducible sealing results – no temperature deviation from stroke to stroke





Individual controlled heat pixels at 5mm spacing

rapid cooling of the sealing surface due to low thermal mass

ΔT* < 2 °C All over the sealing surface

*guaranteed by documented calibration for every product!

See Demonstration Video

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General USPs

Mono-material processing

The accurate sealing temperatures enables processing of mono-materials with small processing windows (small sealing temperature window)

Maintained productivity and output even with mono-materials

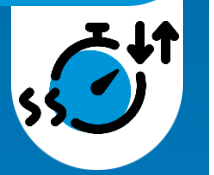
Energy Saving

Up to -50 %

watttron technology saves up to 50% energy during continious operation and up to 90% during ramp-up. Additional energy can be saved by powering off during stopps and maintainance.

Fast ramp-up and cool-down

Typ. 10 to 20 °C/s



Due to the low thermal mass and the high power densitiy watttron sealing tools can quickly heat up and cool down. The system is ready for operation within seconds and can be turned-off in production stops for energy saving or safety reasons.

Easy machine integration

The fully-integrated design and the small components makes it possible to design sealing tools for every kind of machine and application to perfectly fit into the existing space.

Increase of productivity

The reduction of incorrectly sealed parts increases the total quantity of good parts.

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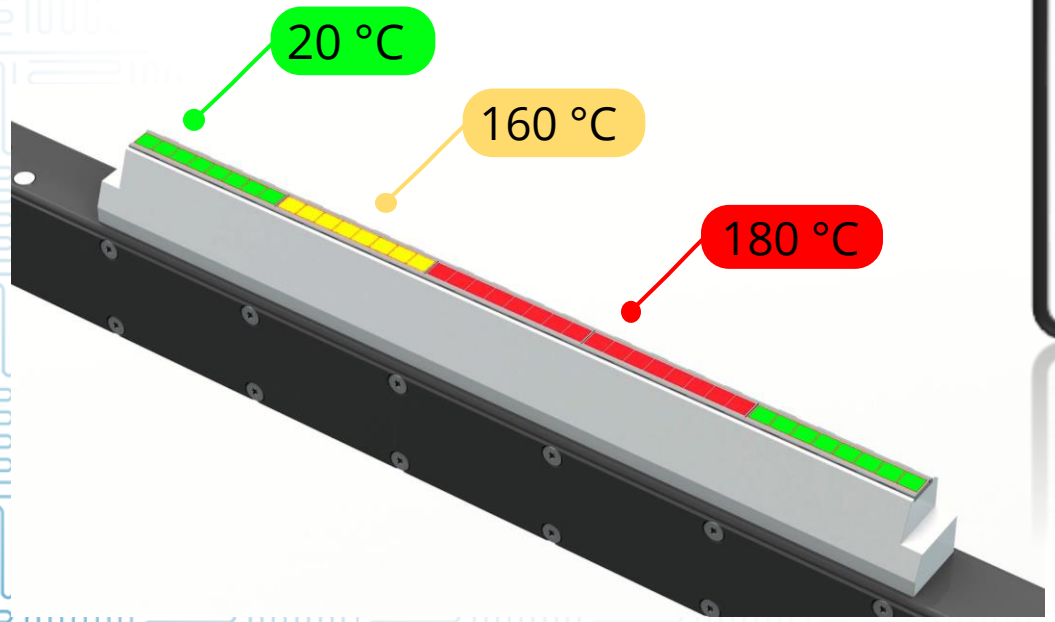
Temperature control

- Adapted temperature profiling: setting of temperature zones
- Gain sealing quality on critical areas such as tripple-points and layer jumps
- Differentiated heat supply between 2- and 4-layer



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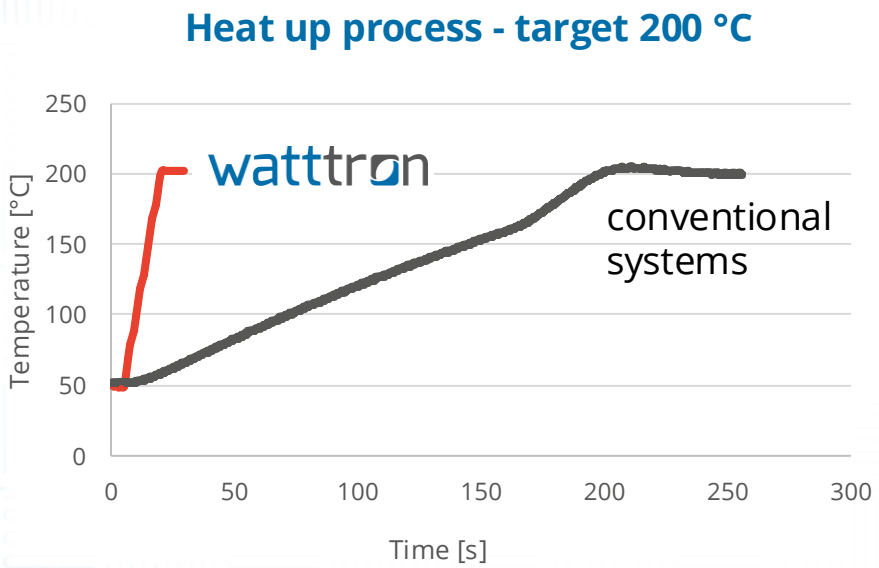
Fast temperature change

- Fast ramp-up: Heat-up-rate 10 °C/s (higher on request)
- 20 °C to target 200 °C within 18 s “ready to seal” (instead of >3 minutes)
- no waiting-time while temperature-change because of the fast reacting system



Robustness

- Surface pressure up to 5 Mpa
- the tools withstand accidentally incorrectly positioned products, such as bones, nuts or frozen goods

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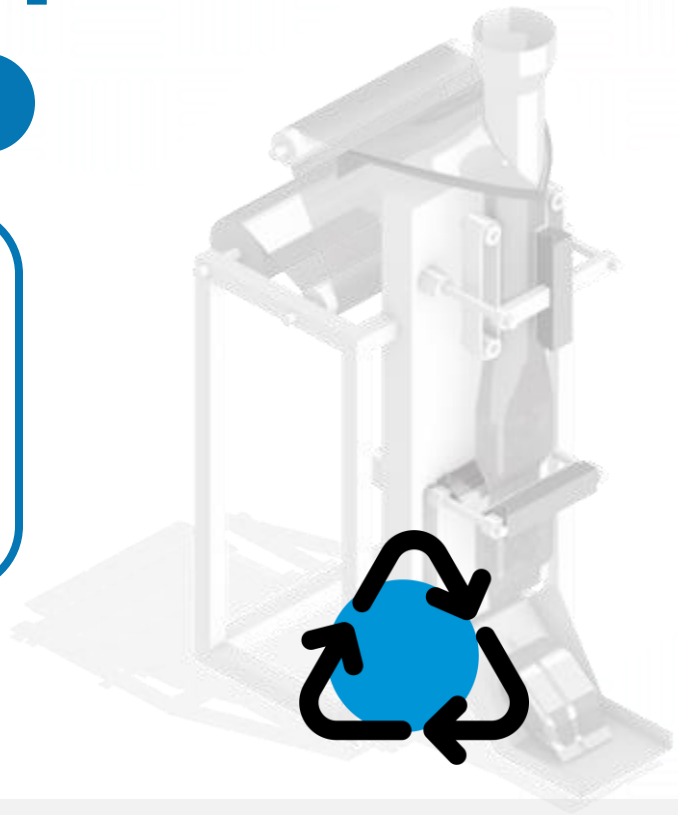
Explore your saving potential

For mono material processing

with conventional sealing systems

Machine output: 85 ppm
Machine output: 24 hours/day
6 days/week
OEE: 85 %
Margine: € 0.50/pouch



assuming **5 % productivity loss**
due to harder processable mono-films,
less machine speed, start-stop etc.

Saving potential of:

~ € 800,000 / year

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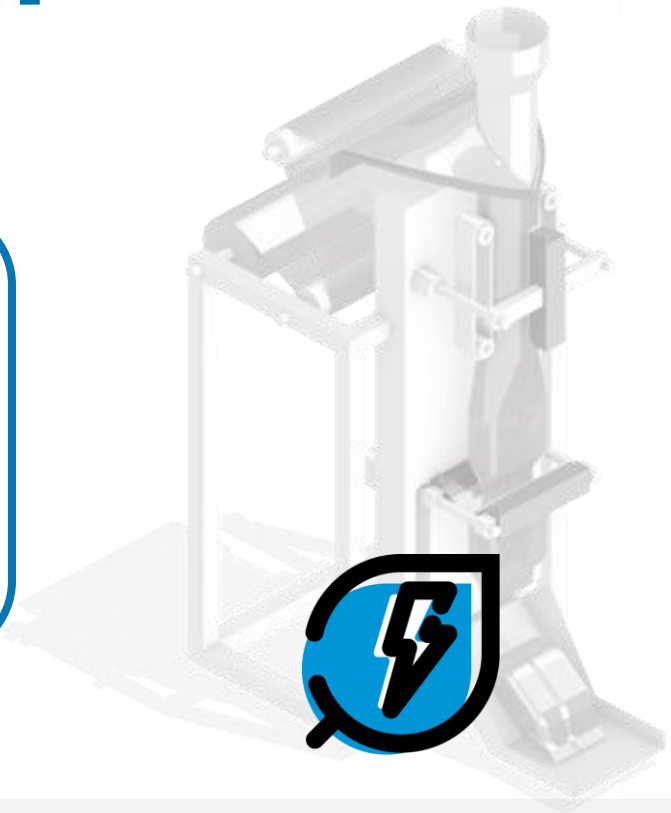
Explore your saving potential

In Energy Saving

with conventional sealing systems

Machine output:	85 ppm
Machine output:	6 days/week
OEE:	85 %
Price/kWh:	€ 0.15/kWh
Curr. Power usage:	10 kW
Energy usage:	62,400 kWh



50 % Energy saving

Saving potential of:

~ € 4,600 / year

Contact

See you soon!

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