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The Digital Sealing Solution

for FS Cup Applikation

cera2seal

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We face the FS Cups challenges

for mono material processing with conventional sealing systems

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

Only high-cost films can be processed with state-of-the-art technology

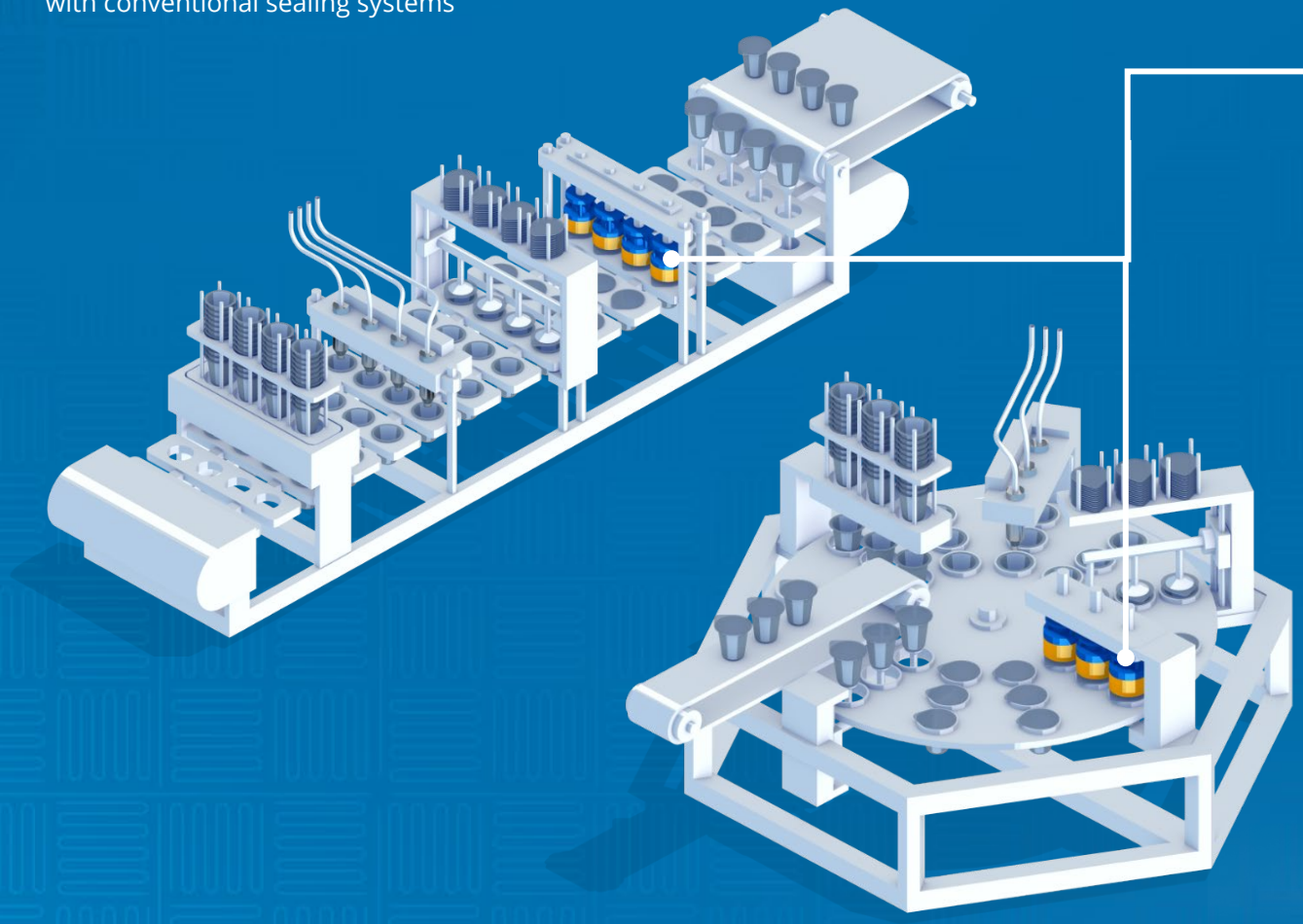
Deformed and shrunk seals and lids, due to excessive thermal treatment in the machine

Our Solution

The complete FS Cup solution

for mono material processing

with conventional sealing systems



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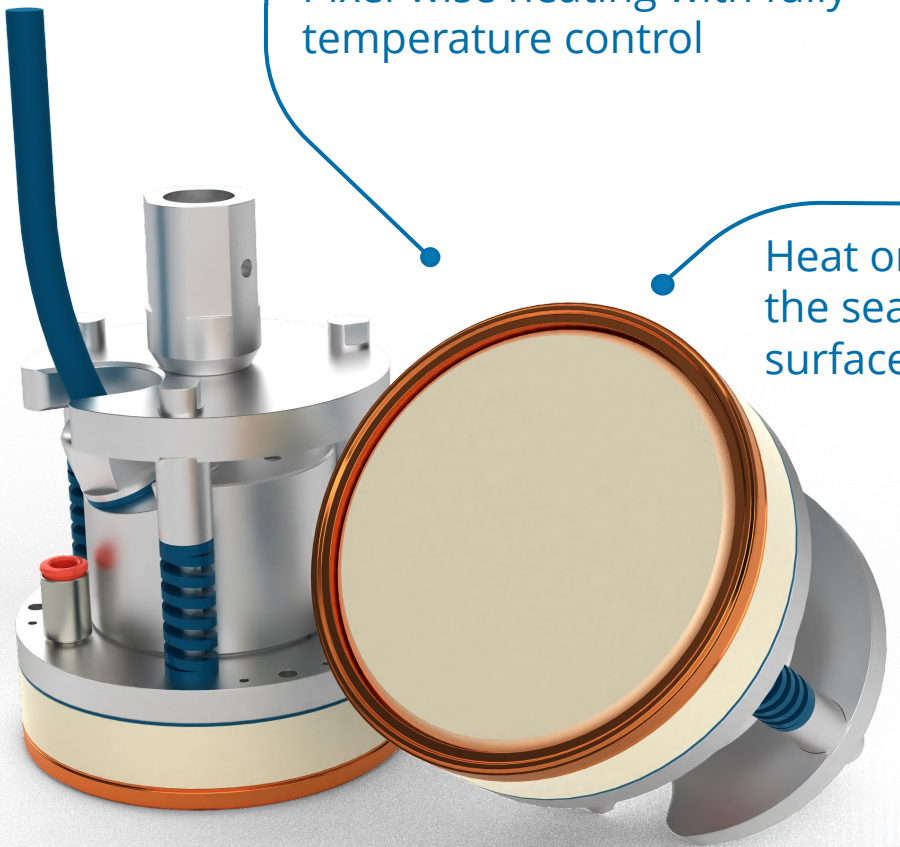
How it works

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

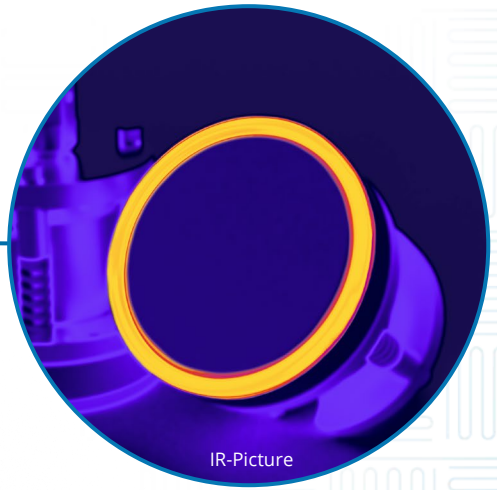
Integrated fast and precise temperature control electronics

Fast readiness for operation and fast cooling of the sealing surface in case of maintenance

Pixel-wise heating with fully temperature control



Heat only at the sealing surface



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)

Inline-Quality-Control & Monitoring

Recording and analysis of power usage of each heat pixel enables identification of seal anomalies that may lead to quality issues, such as:

- Product residues
- Wrong positioned lids
- Doubled lids

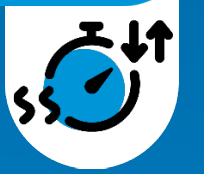
Energy Saving

Up to -50 %

watttron technology reduces energy consumption by up to 50% during continuous operation and by up to 90% during ramp-up. This also minimizes the thermal impact on the machine, ensuring more efficient and gentle operation.

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 fast 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.

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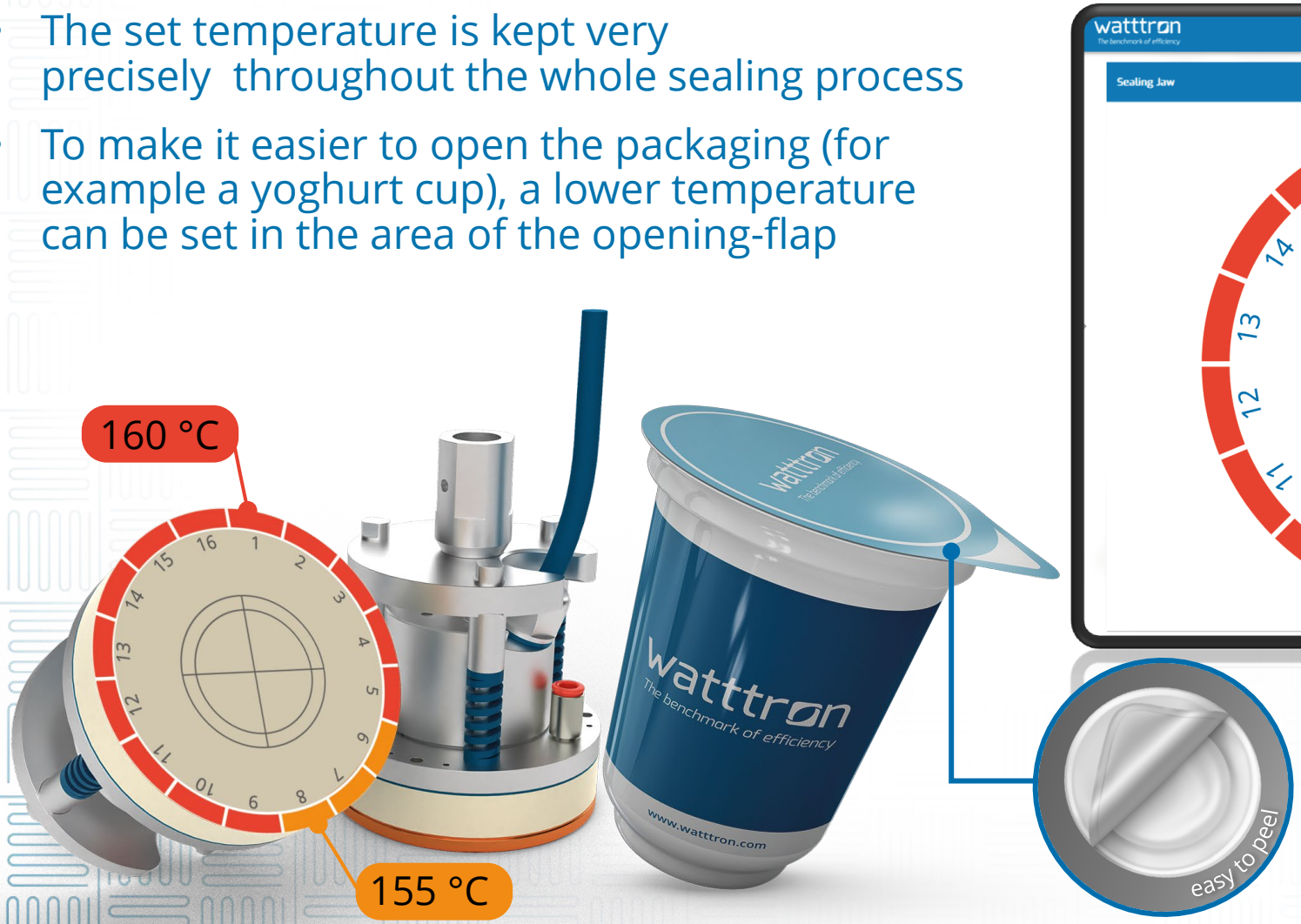
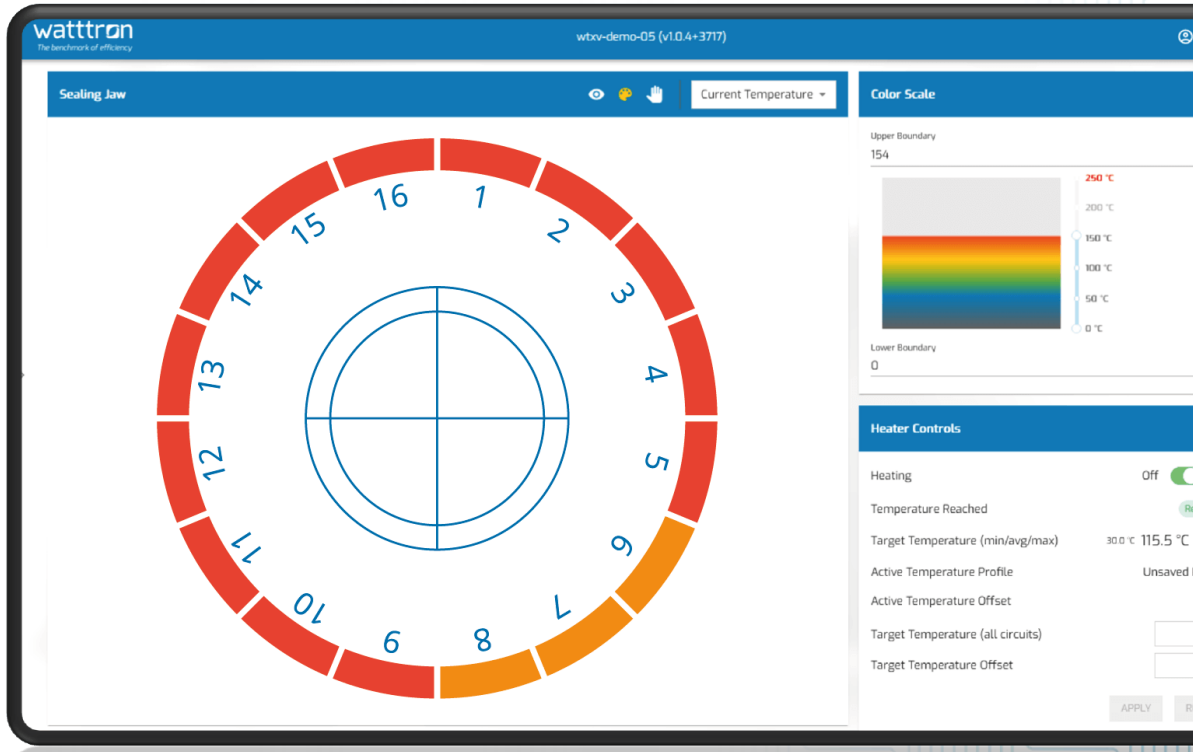
Temperature control

- The set temperature is kept very precisely throughout the whole sealing process
- To make it easier to open the packaging (for example a yoghurt cup), a lower temperature can be set in the area of the opening-flap





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Fast temperature change

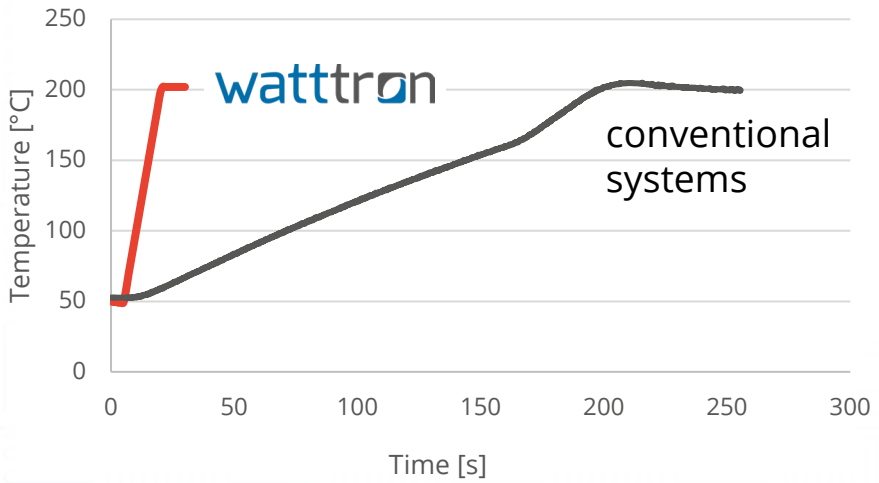
Fast ramp-up:

- Heat-up-rate 10 °C/s (higher on request)
- Ready to Seal: Less Than 20 sec.

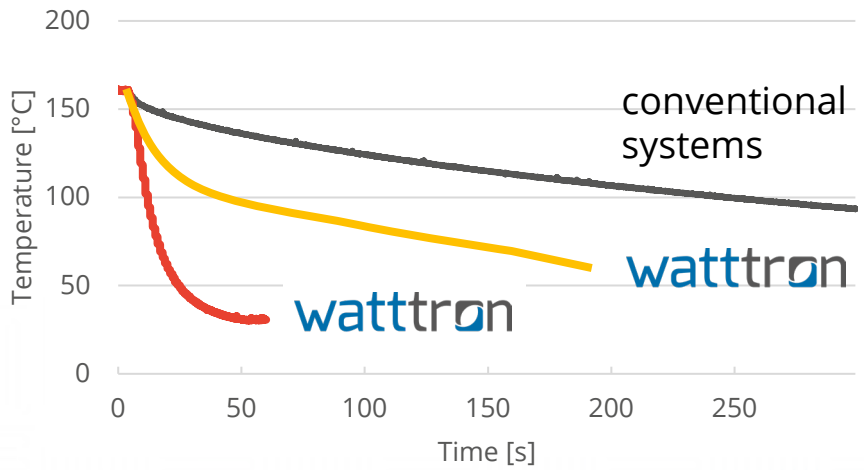
Rapid cooling: internal active cooling system

- cool-down-rate up to 8 °C/s
- 160 °C down to 100 °C within 7s (instead of >15 minutes)

Heat up process - target 200°C



cool down process from 160°C



with additional active cooling

Standard system

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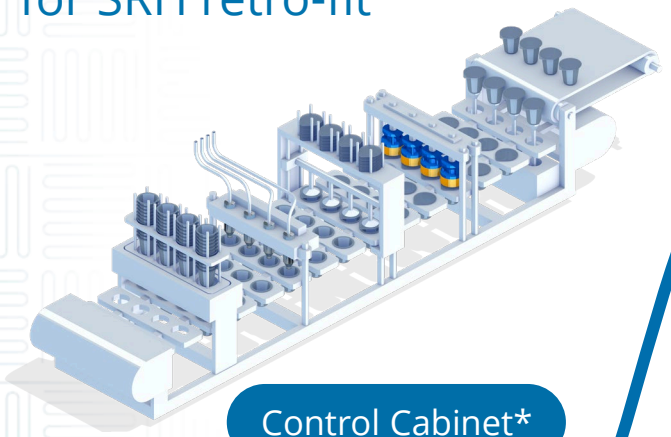
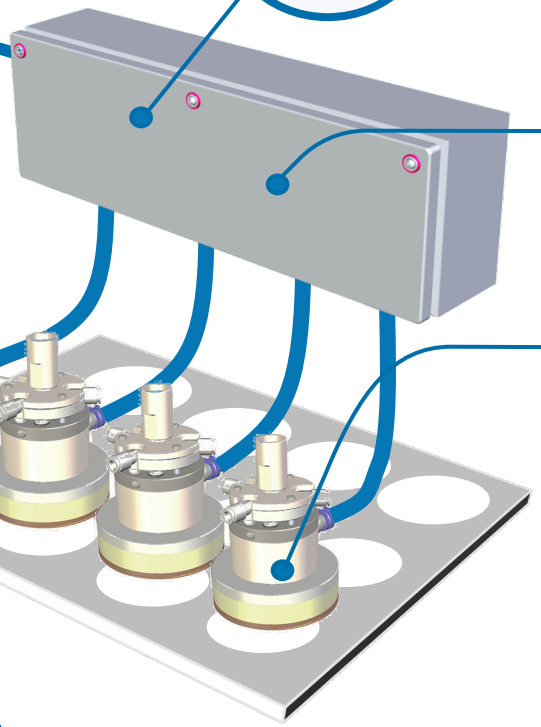
Easy Retrofit

Integration Example - recommendation for SRH retro-fit



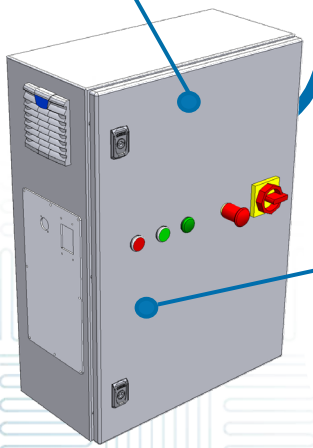
watttrixHub



Junction Box*

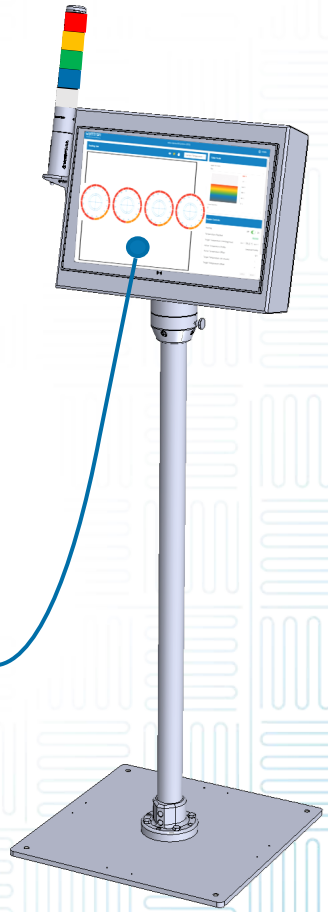
Sealing Head(s)

Control Cabinet*



watttrixServer Performance

All components available in stainless steel!



Stand-Alone-HMI*

* can be delivered as an option

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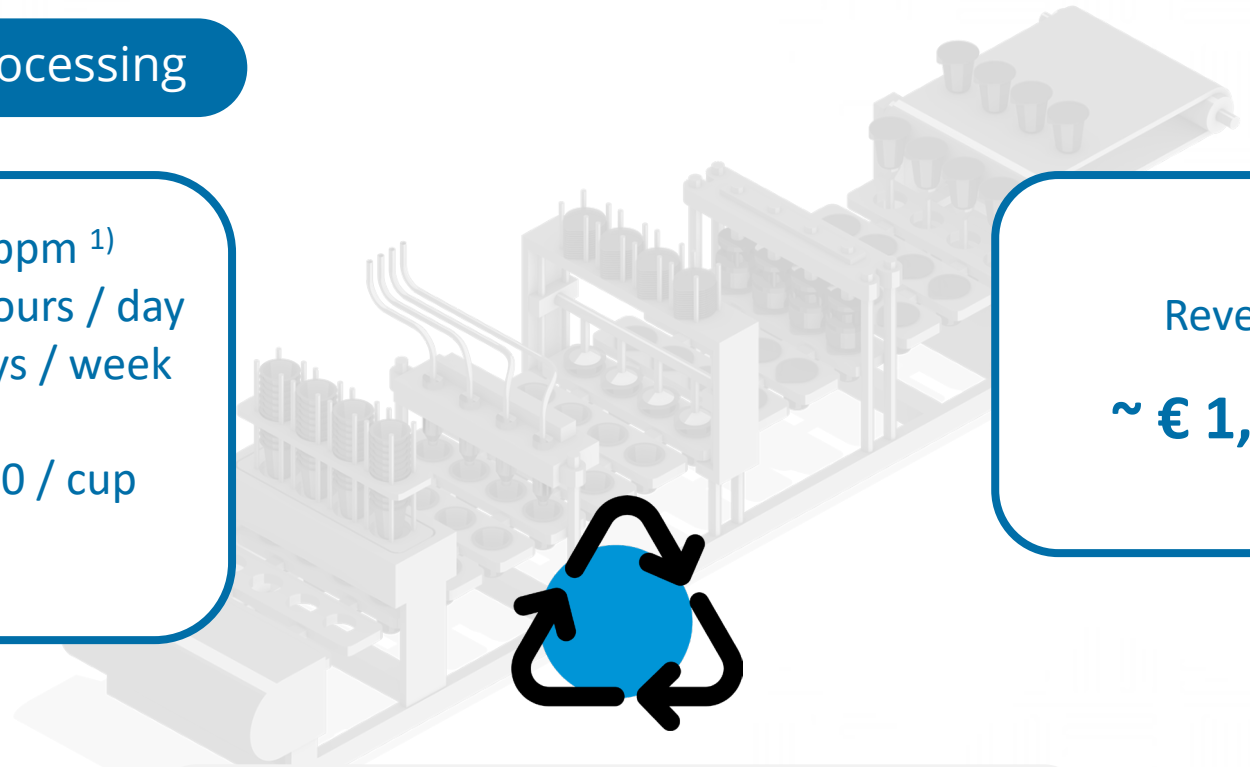
Explore your saving potential

For mono material processing

with conventional sealing systems

Machine output:	640 ppm [1)]
Working hours:	16 hours / day 5 days / week
OEE:	80 %
Revenue:	€ 0.20 / cup

1) 40 cycles per minute at 16 lanes



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

Revenue potential of:

~ € 1,250,000 / year

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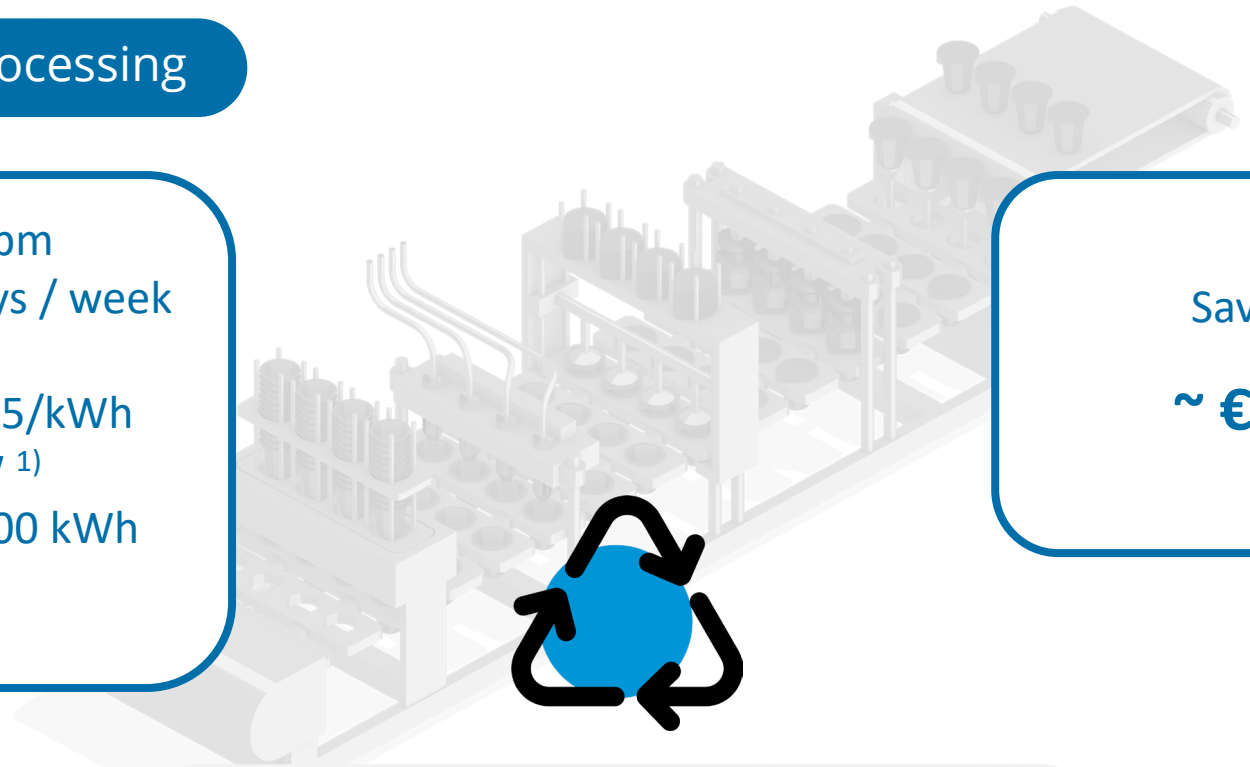
Explore your saving potential

For mono material processing

with conventional sealing systems

Machine output:	50 ppm
	5 days / week
OEE:	80 %
Price/kWh:	€ 0.15/kWh
Curr. Power usage:	5 kW [1)]
Energy usage:	35,000 kWh

1) 16 sealing heads



50 % Energy saving

Saving potential of:

~ € 1,800 / year

Contact

See you soon!

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