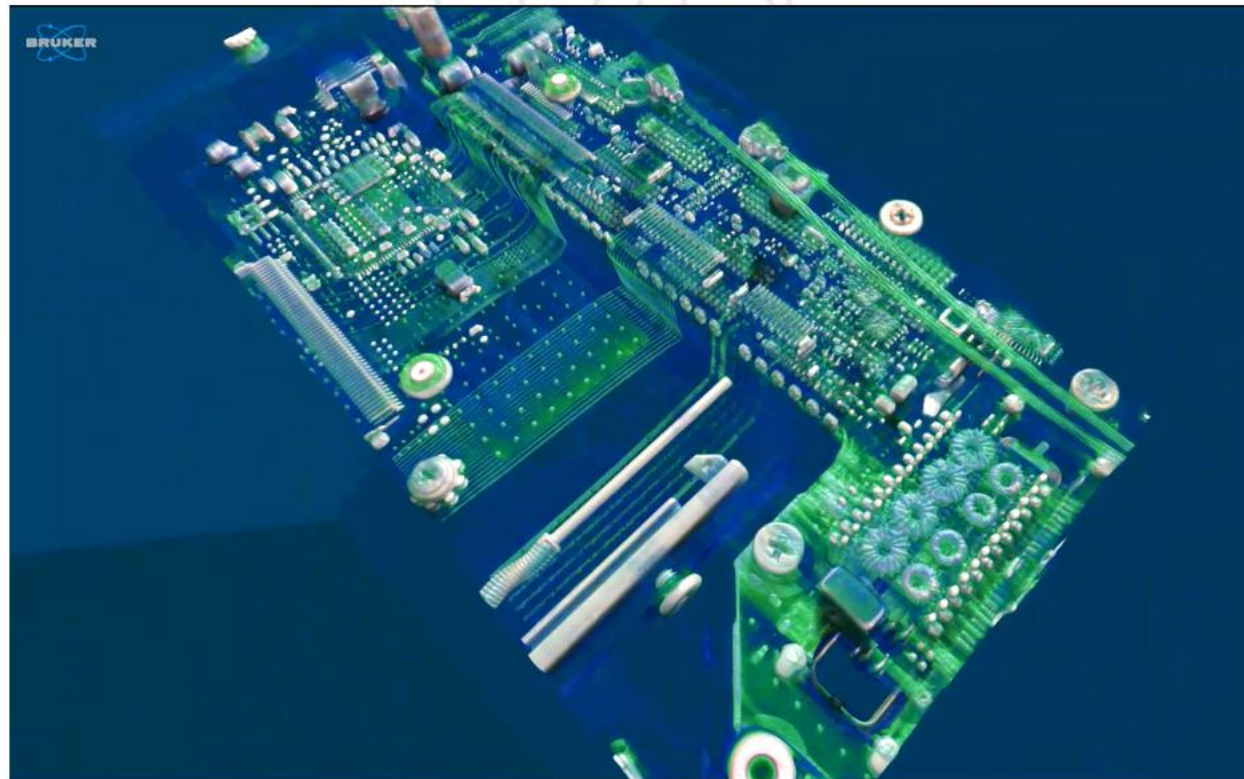


COMEF

COMEF for electronics

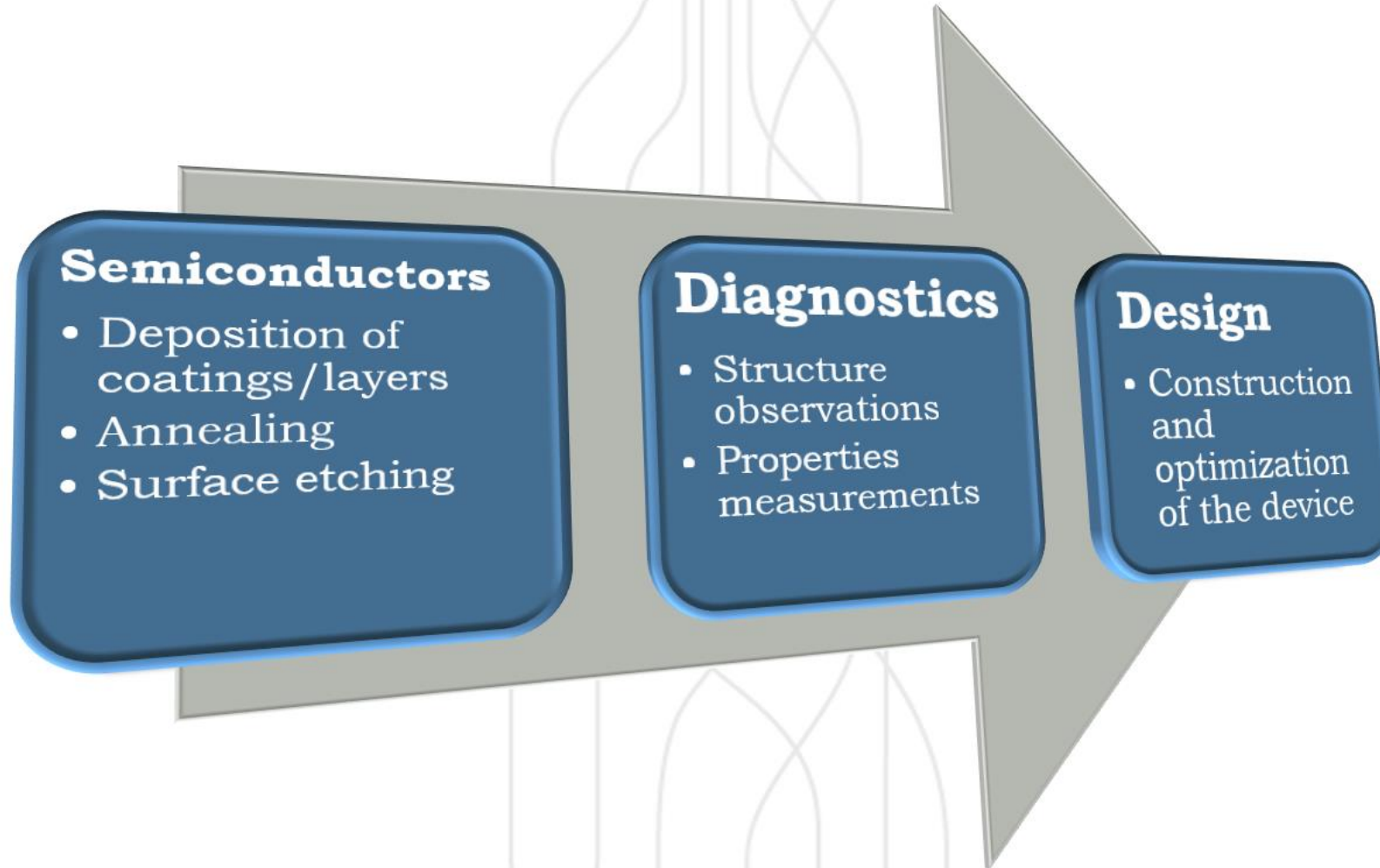


The logo for COMEF, featuring the word "COMEF" in white, bold, uppercase letters inside a blue rounded rectangle. The background of the slide has a faint, light blue pattern of vertical, wavy lines.

COMEF

The **COMEF** company represents in Poland the leading manufacturers of scientific and research as well as control and measurement equipment for various fields of science and industry, in particular for nanotechnology. From 01/01/2013, the company's profile was extended to include medical equipment.

The **COMEF** company offers a full range of maintenance services for the offered devices and professional training in their use.



A scalable platform for vacuum reflow soldering - from R&D to mass production



Dr. Venzi Rangelov
Ryn, Poland, April 18-21, 2023

We are REK Innovation GmbH,
united in creativity, knowledge and vision

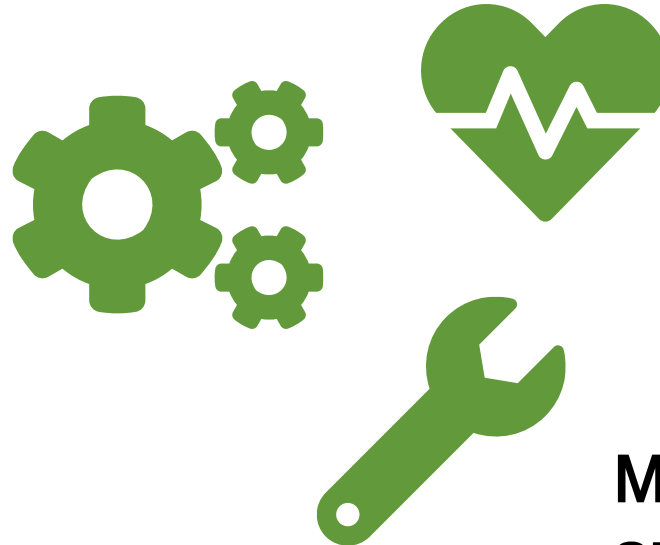


REK Innovation GmbH
Rupert-Mayer-Strasse 44
81379 Munich
Germany

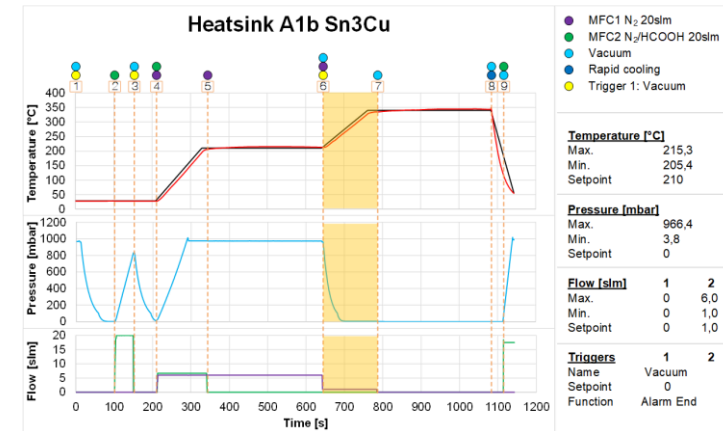
✉ info@rek-innovation.de
☎ +49 (0)89 437 187 3-0
🌐 www.rek-innovation.com

Products & Services

Equipment for the electronic packaging



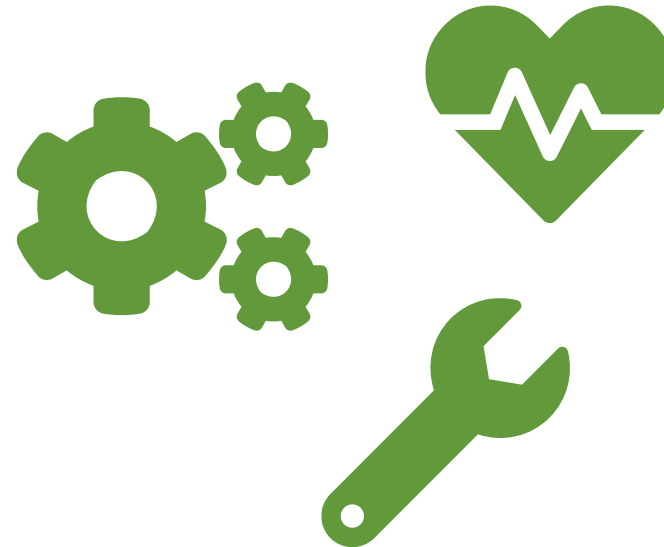
Maintenance and Service



Technology and process consulting

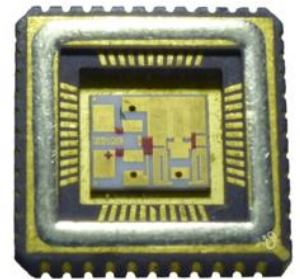
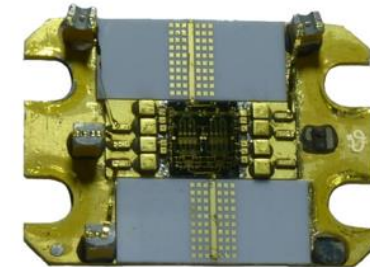
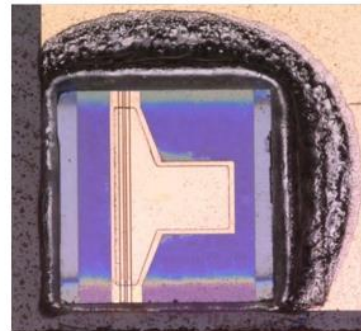
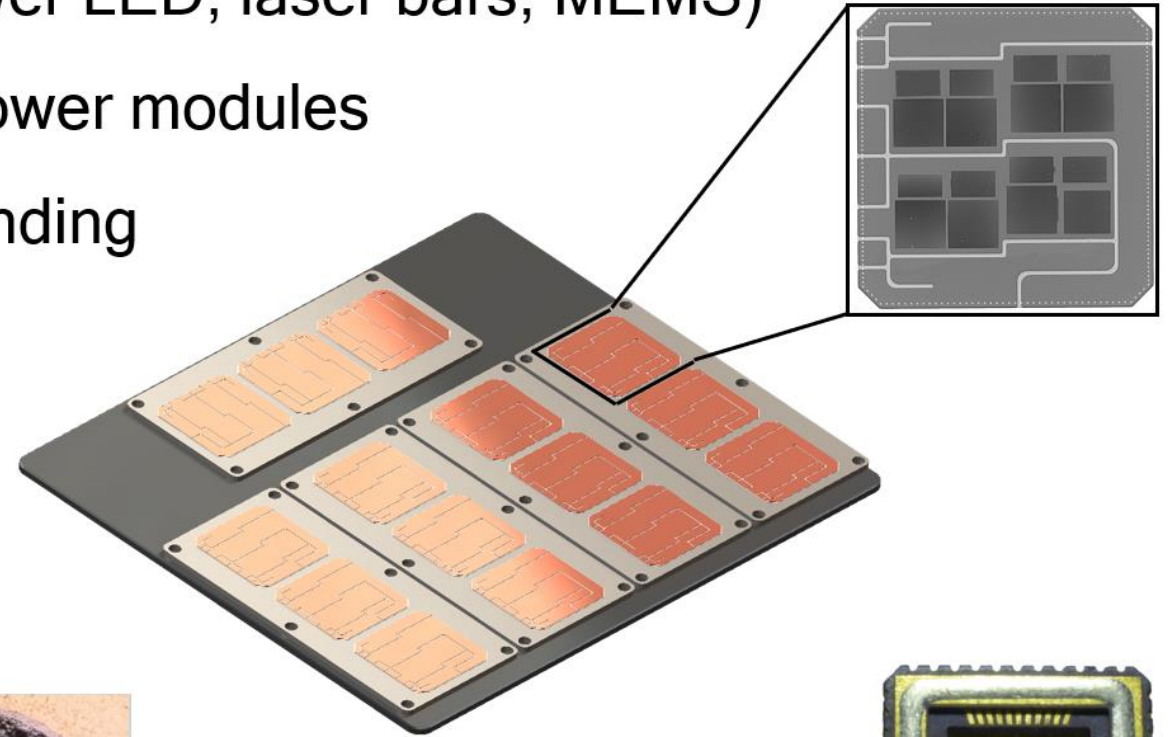


Customers



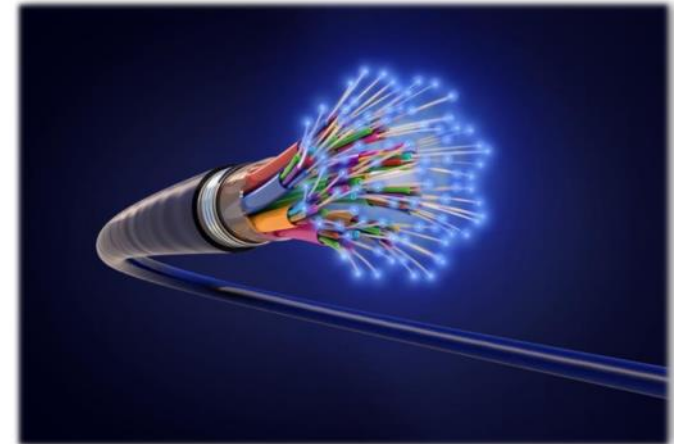
Applications

- die attach (i.e. IGBT, power LED, laser bars, MEMS)
- substrate soldering for power modules
- transient liquid phase bonding
- wafer level packaging
- wafer bump reflow
- package sealing
- T/R modules
- sintering



Markets

- Aerospace and defense
- Research and development
- Power modules (automotive, energy, etc.)
- MEMS/Sensors
- Optoelectronics/Photonics/RF



Single chamber system SC-350

vacuum reflow soldering, sintering, annealing



- Proved heating and cooling concept based on infrared radiation and forced convection
- Contact less heating and cooling
- Excellent temperature control and uniformity
- Energy saving
- Future-proof automation concept with IIoT integration
- Wide variety of optional functionalities as operation with Hydrogen, high vacuum, up to 1000°C, top heating etc.

Single chamber system SC-350

vacuum reflow soldering, sintering, annealing

- Size of product plate: 350 x 400 mm
- Compatible with common die bond machines for inline integration
- Clearance height: 70-150 mm
- Up to 6 monitor thermocouples
- Additional vacuum ports
- Actuated chamber lid

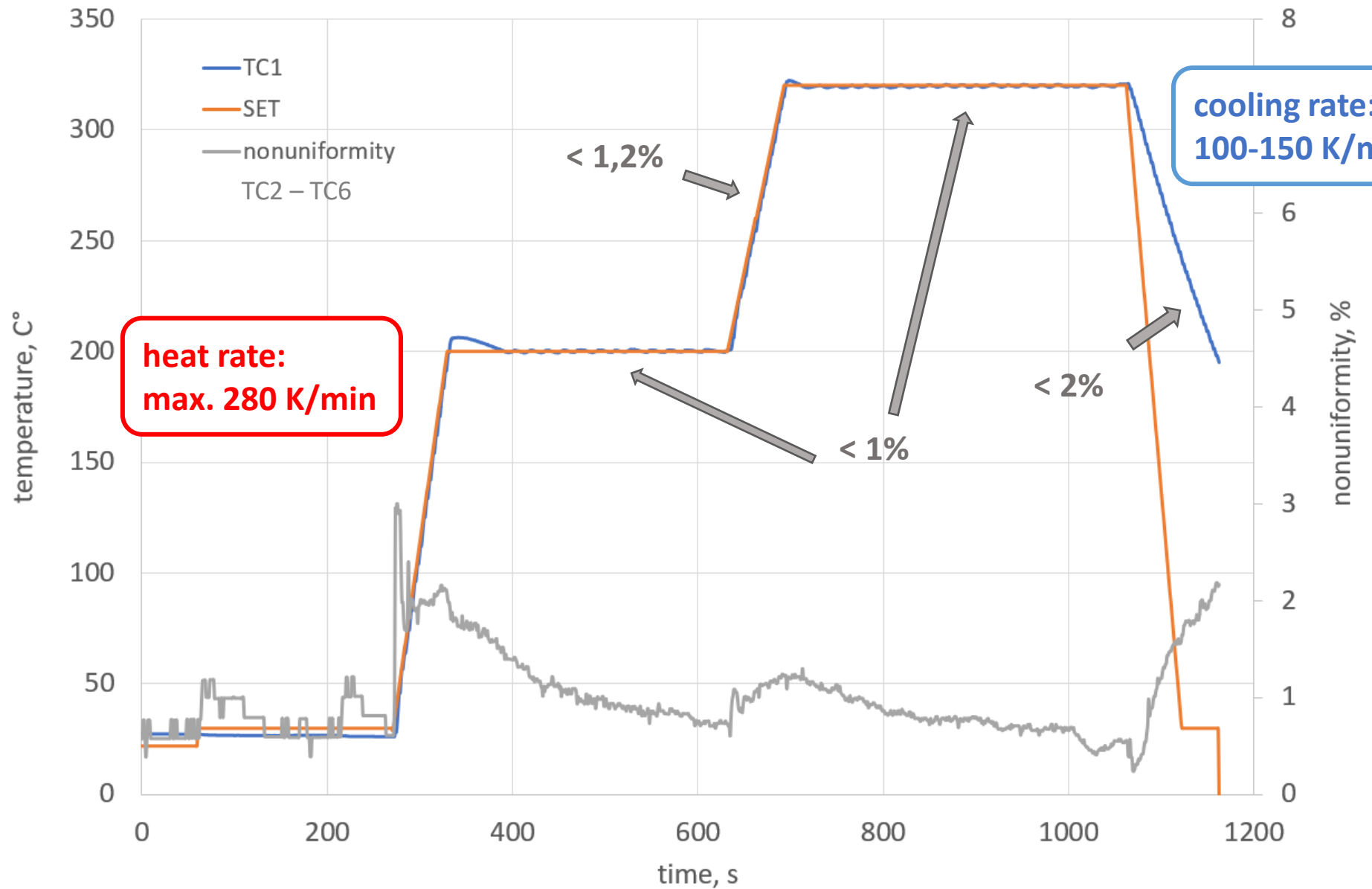


SC-350 System overview

Easy Access for Maintenance and Service

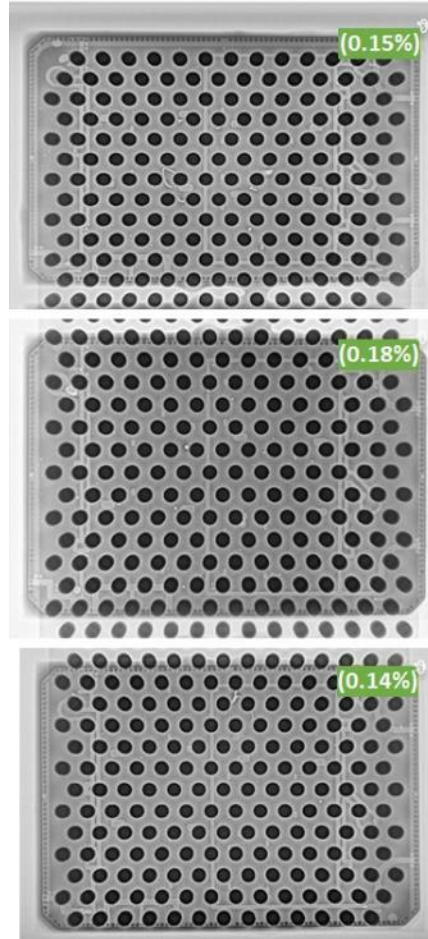


Outstanding temperature uniformity

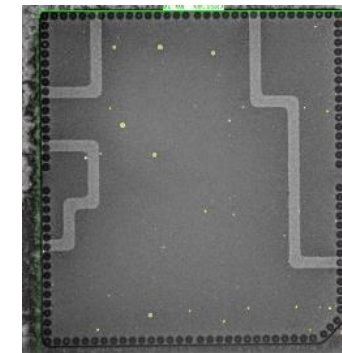


Power modules

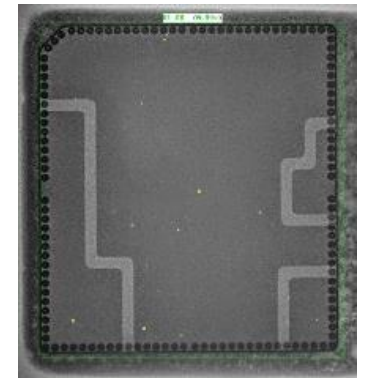
Void free IGBT and substrate soldering



(0.15%)



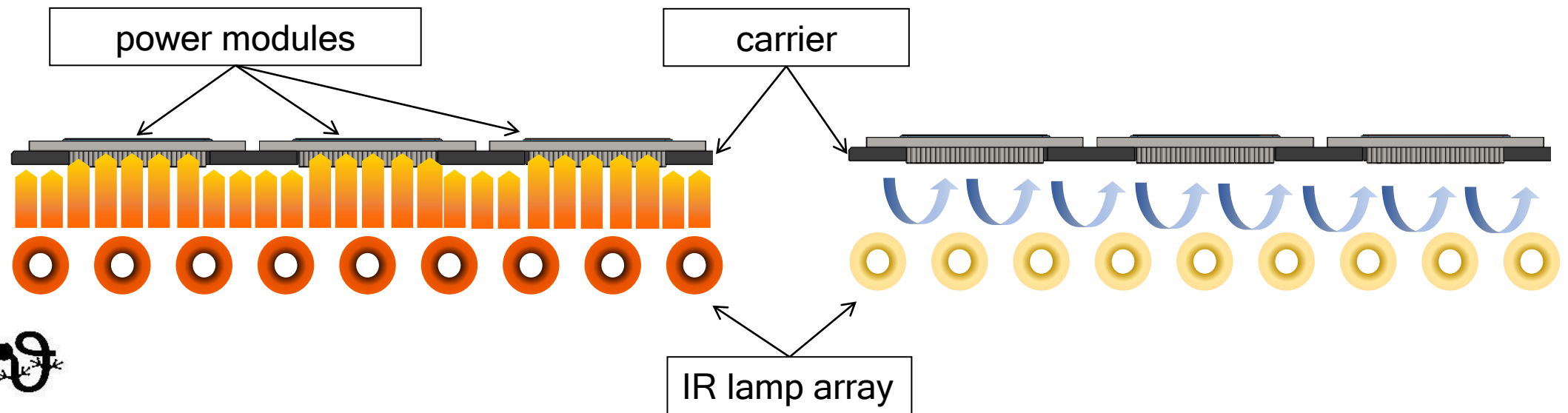
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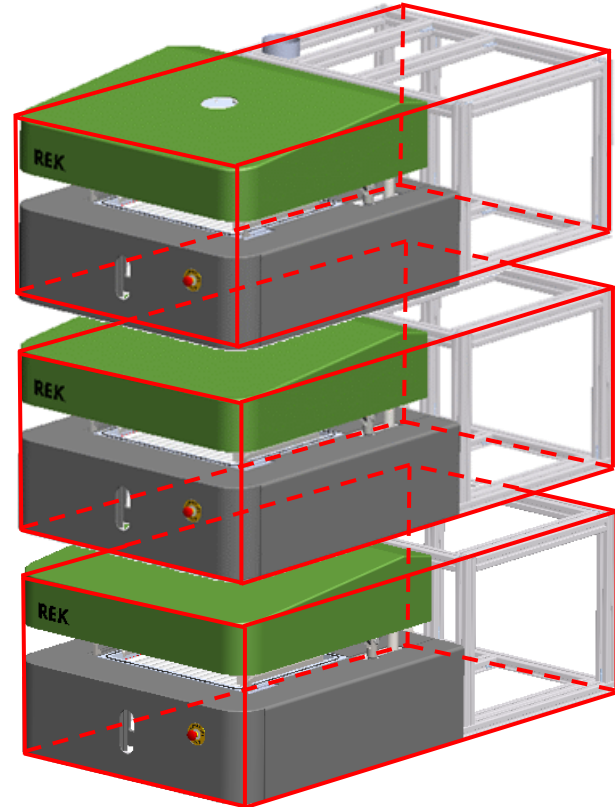
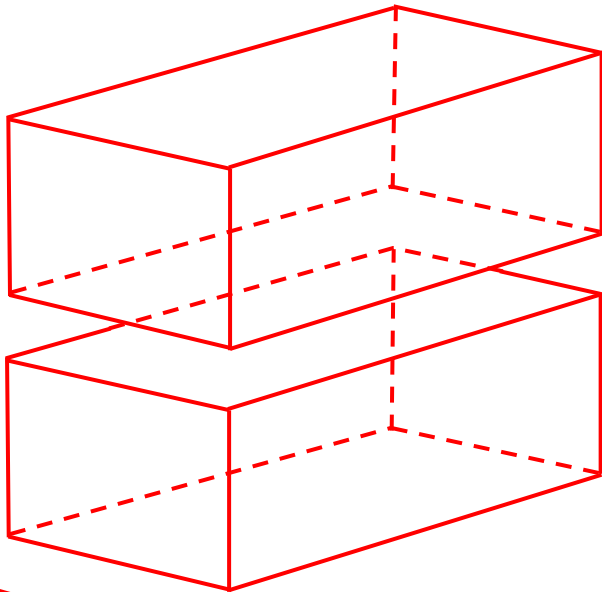
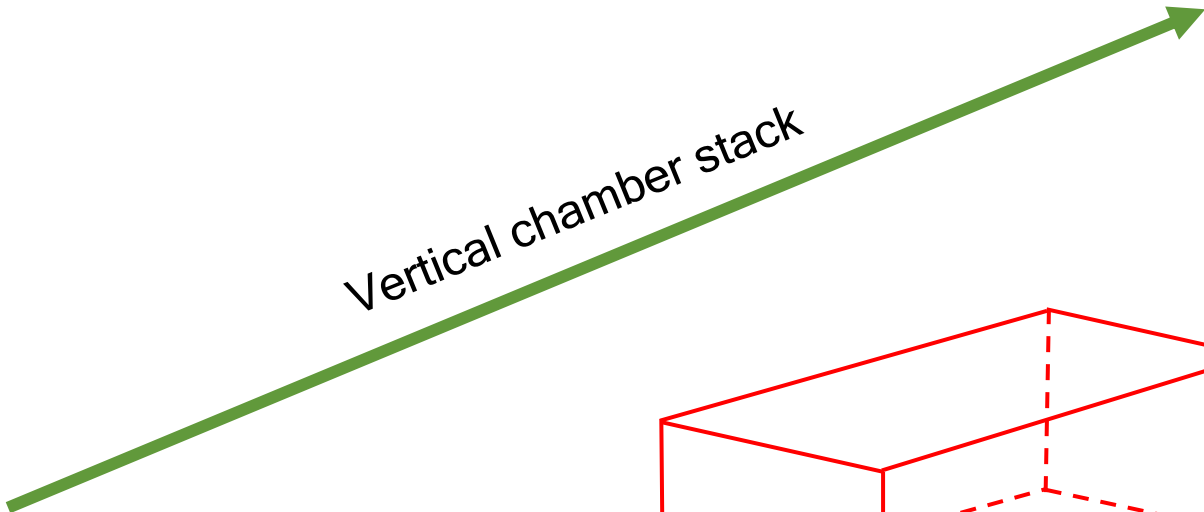
Thermal concepts for substrate soldering

- Contact or contactless heating
- Contact or contactless cooling

Contactless setup for warped and pin fin base plates

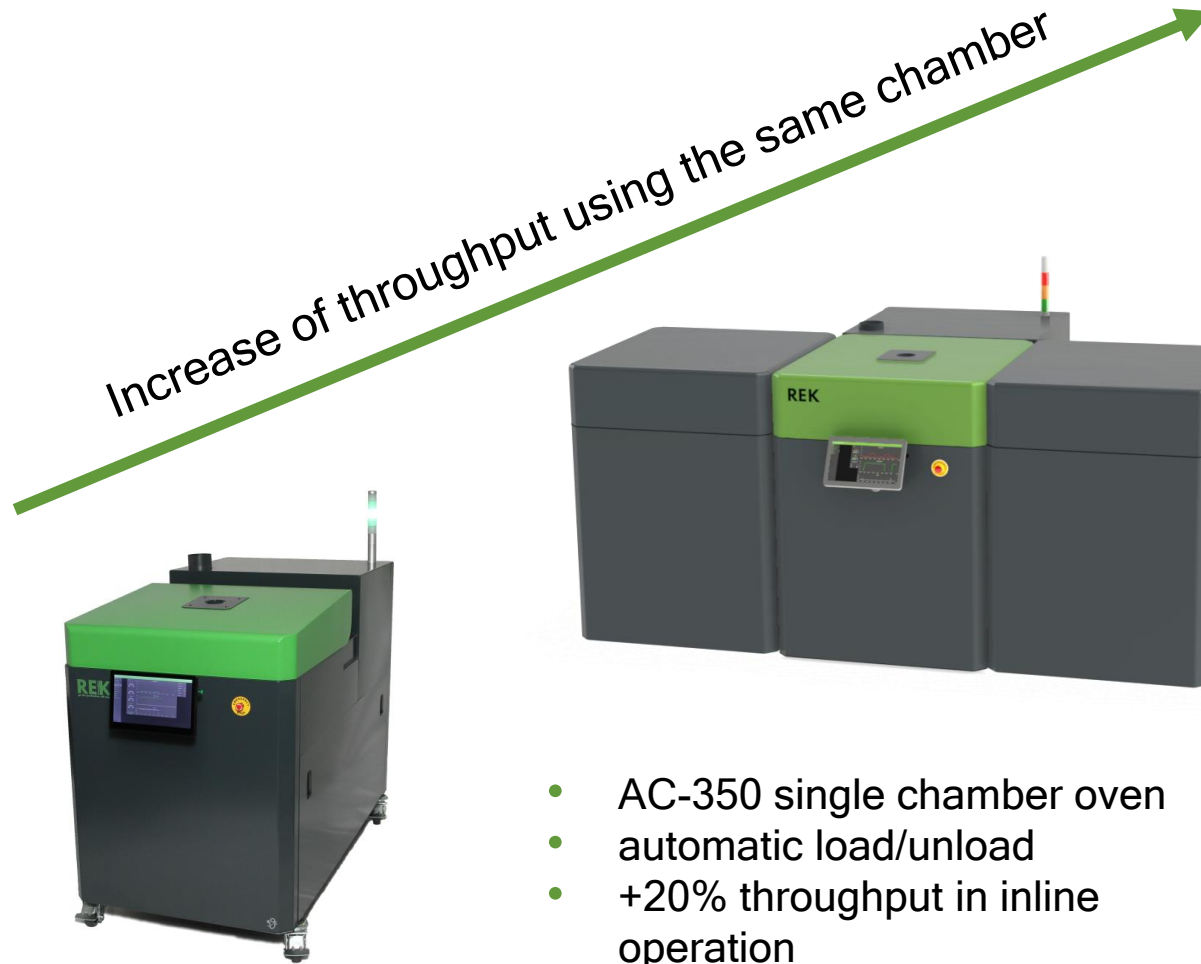


Scalable concept



Process chamber unit including media supply and control

Scalable concept



- MC-350 multi-chamber system
- Stack of up to 3 chambers
- +250% throughput in inline operation
- Space and energy saving

- SC-350 single chamber oven
- Manual load/unload

Thank You

Maake Asante Shukria Dhanyavadagalu
Vinaka kōszönöm Kiitos Maake Asante Shukria Dhanyavadagalu
감사합니다 Dank Je Dankscheen Спасибо kōszönöm Kiitos Maake Asante Shukria Dhanyavadagalu
Blagodaram Ngiyabonga Dziekuje Mauruuru Biyan Manana Dankon Arakish Manana Dankon
Juspaxar Dank Je Dankscheen Спасибо kōszönöm Kiitos Maake Asante Shukria Dhanyavadagalu
நன்றி Bedankt Dhanyavadad Grazas You cam on ban Khap Mochchakkeram
Ua Tsaug Rau Koj Bedankt Dhanyavadad Grazas You cam on ban Khap Mochchakkeram
Suksama Dėkuji Nirringrazzjak Hvala Welalin Di Ou Mèsi You cam on ban Khap Mochchakkeram
Misaotra Rahmat Matur Nuwun 谢谢 xBapa Danke Merci Go Raibh Maith Agat Eskerrik Asko
Matur Nuwun 谢谢 xBapa Danke Merci Go Raibh Maith Agat Eskerrik Asko