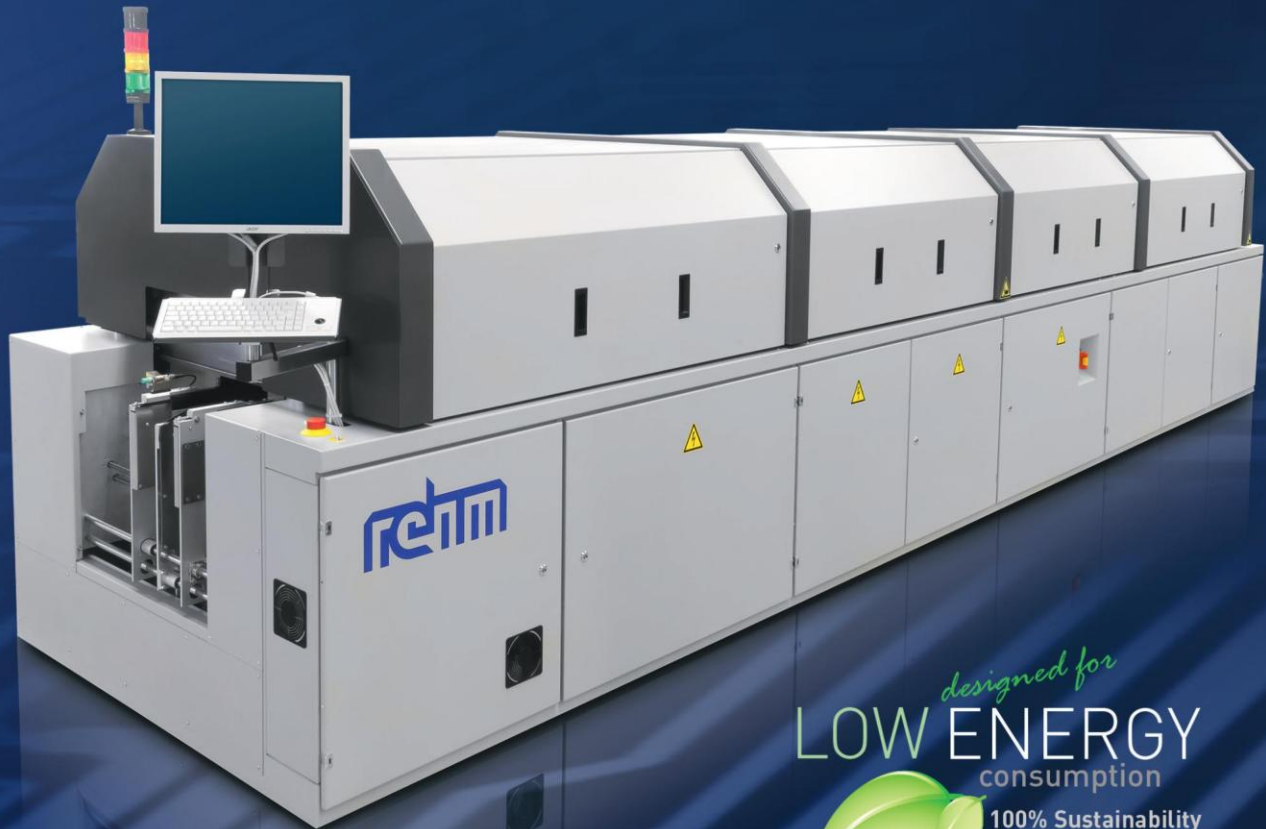


THERMAL SYSTEMS

VisionXP+

Reflow Convection Soldering



designed for
LOW ENERGY
consumption



100% Sustainability
100% Efficiency

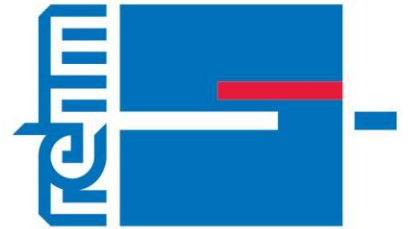
► Energy efficient reflow soldering

Today, energy efficient manufacturing has become a significant competitive factor.

By investing in energy efficient machines, and by restructuring the production facility, manufacturing companies can significantly reduce energy consumption. A study conducted by the VDMA verifies that in the year 2020, energy savings amounting to €12 billion will be possible in Germany solely through the use of machines which are more energy efficient. Nor will the machine manufacturing sector be able to circumvent this trend, for which reason the development and production of energy efficient systems, as well as environmental-friendly use of resources, enjoy high priority at Rehm Thermal Systems.



SAVE THE
FUTURE



THERMAL SYSTEMS

Energy efficient Reflow Soldering

VisionXP+

designed for
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100% Sustainability
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Up to 20 % energy savings!

UNIQUE TECHNOLOGY BENEFITS

- > Efficient Heat Transfer
- > Stable process for lead free soldering
- > Minimal down time
- > Residue Management with integrated pyrolysis
- > Many Software-Tools for process monitoring



ø 10 t/year less CO₂!

Flexibility
at highest
productivity

○ TRANSPORT-SYSTEM

Our flexible system saves you money. Maintenance and downtime are reduced by means of a continuous process based on an absolutely reliable conveyor, as well as an ingenious mechanical system. The conveyor system has been laid out in accordance with requirements specified for future placement machines, and optional for a maximum width of 508 mm.

The optionally available center support makes it possible to process large panel formats – an additional advantage for flexible manufacturing!

Available Transport Varieties:

- > Single-Lane conveyor
- > Dual-Lane conveyor (synchronous/asynchronous)
- > Quad-Lane conveyor
- > Multi-Track conveyor

Quad-Lane transport



Dual-Lane transport



High efficient Residue Management System

RESIDUE MANAGEMENT

The effective Residue Management of the VisionXP+ combines the pyrolysis action mechanisms in the preheating and peak range with cold condensation in the filter unit of the cooling zone.

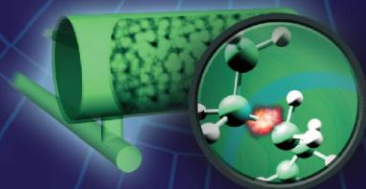
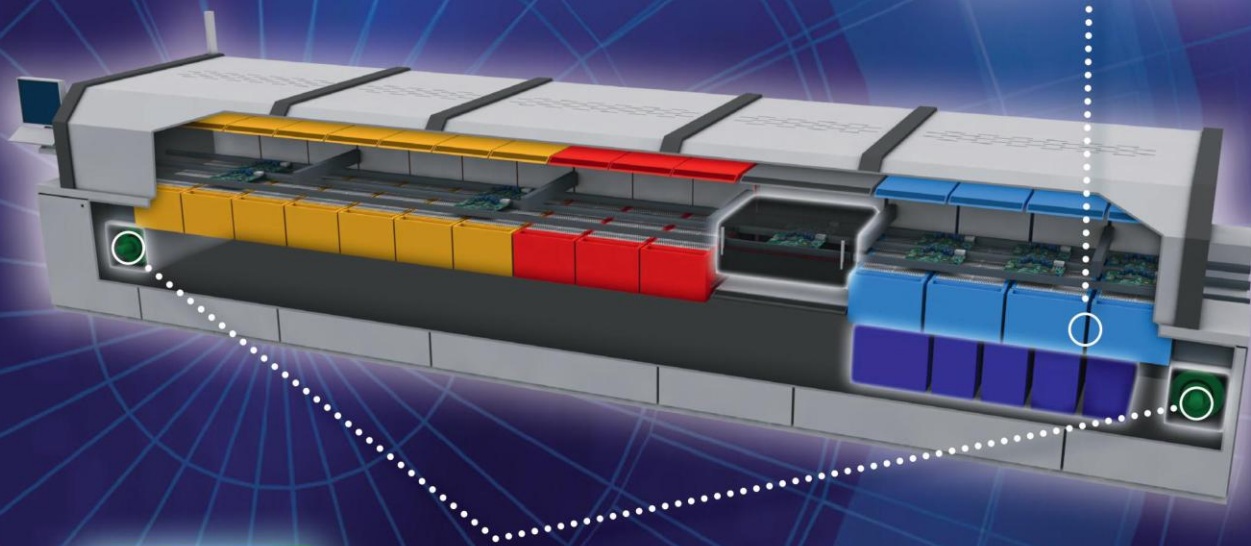
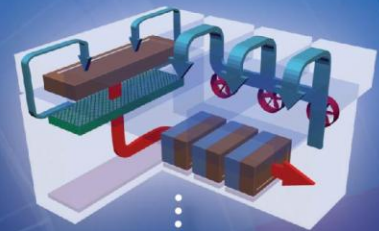
The VisionXP+ is now available with optional 2 pyrolysis units as a new feature. The pyrolysis units are located underneath the inlet and outlet areas. The first pyrolysis unit cleans the process gas from the preheating zones and the second pyrolysis unit cleans the process gas from the peak zones. The degree of process gas purity is significantly increased as a result, and the process chamber is kept clean and dry. Maintenance costs are hardly affected at all, because for the second pyrolysis unit as well, the granulate only needs to be replaced once a year.

The elimination system used for the cooling section is directly integrated into the cooling circulation. It consists of filters where the remaining residues in the process gas condense. The filter units are easily replaced even without opening the process chamber. An additional benefit of the VisionXP+.

The VisionXP+ thereby achieves a considerably higher level of efficiency than all other commercially available systems, which work with different operating principles.

Cooling zone

Easy maintenance due to quick exchange of the cooling and filter units!



Pyrolysis

Cracking of the molecules at 500°C!

Energy efficient reflow soldering at a highest level – for flexible production

High effectiveness due to efficient cooling

Stress-free below 50 °C

Depending upon the length of the system, the cooling tract in the VisionXP+ is laid out in two to four stages. The fans in the individual zones, which can be controlled separately as an option, allow for accurate control, and cooling gradients can be correspondingly influenced. This assures stress-free cooling for your PCBs to below 50° C, for lead-free soldering as well.

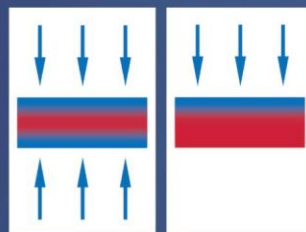
Low Outlet Temperature

Thanks to “bottom cooling”, the VisionXP+ is now also capable of cooling PCBs with large thermal masses homogeneously, and very effectively. Low outlet temperatures eliminate the need for additional cooling with the help of an external cooler or an outlet conveyor with fans, even for PCBs with large thermal masses.

As is also the case with all of the other fans throughout the entire system, the bottom cooling fans can be individually controlled. As a result, you can ideally adapt cooling parameters at the VisionXP+ to your PCB.



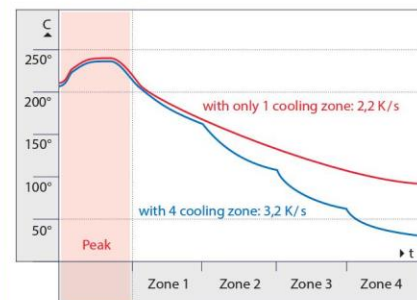
Cooling zone with integrated bottom cooling of the VisionXP+



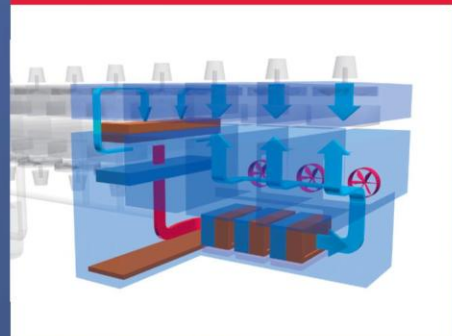
Cooling of the boards with (left) and without (right) bottom cooling

The Cooling Zone

The cooling gradient

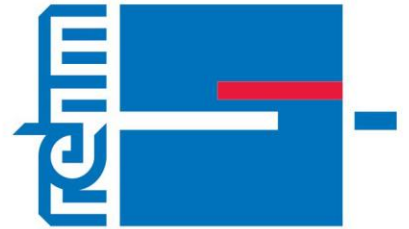


Bottom Side Cooling



Homogenous Cooling Performance

Twisting and warping of PCBs, in particular with highly inhomogeneously distributed copper layers, can thus be prevented.



THERMAL SYSTEMS

VisionXP+

Reflow Soldering with Vacuum

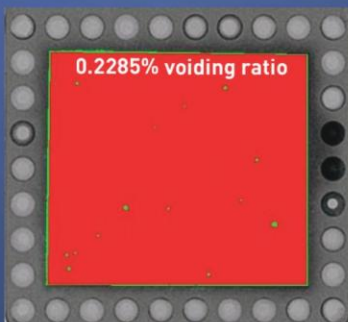
Vac



NEW

Noe available with vacuum option.

The new vacuum module of the VisionXP+ provides for void-free solder joints after convection reflow soldering in a single process. Void rates of less than 2% are made possible by vacuum of down to 2 mbar. The PCBs are forwarded directly from the reflow process to the vacuum module, and from there to the cooling tract. When the PCBs are forwarded directly from the peak zone to the vacuum process, the solder is still in its ideally melted state, which means that voids can be reliably removed during the vacuum process. Due to the fact that the vacuum chamber is isolated from the conveyor, the subsequent cooling process can be individually configured. Shortened, extended and even pulsed cooling processes are possible!



Voiding ratio less than 2 %!