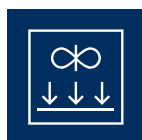


THERMAL SYSTEMS

VisionXS

Reflow convection soldering with flexibility and high throughput

满足灵活性和高产能需求的回流焊接系统



VisionXS
Convection Soldering

Convection Soldering

Without fail to the right quality

Reflow Soldering with Convection Diversity with the VisionXS

多样化VisionXS回流焊接系统

Whether laptop, smartphone or in-car control systems – almost every technical end product contains sensitive electronics. The contacting of the electrical components on the circuit board using high-quality soldering is crucial when it comes to guaranteeing smooth function. Rehm Thermal Systems works to develop reflow soldering systems for your production which can be integrated seamlessly into the manufacturing environment.

Systematically applied technology and superb construction are the features of our convection reflow soldering systems. In the VisionX-Series the soldering process is performed on the basis of convection – that is, the transfer of heat via a flow of gases. Our systems are available in air or nitrogen versions. As an inert, protective gas, nitrogen is the ideal heat transfer medium and prevents disturbing oxidation during the soldering process. The modular system configuration of the VisionXS also offers a high level of flexibility for your production facility.

无论是笔记本、智能手机还是车载控制系统，几乎每一项科技产品都离不开敏感电子元器件，而通过高质量焊接制程保证电路板上元器件的良好接触性对确保科技产品正常工作至关重要。因此，锐德致力于为客户打造高品质回流焊接系统。

锐德VisionXS回流焊系统技术成熟、做工一流，采用对流式设计，通过气流传导热量——空气或氮气两种类型可选。作为一种惰性保护气体，氮气是最理想的热传导介质，还能够在焊接过程中防止发生氧化。模块化设计可以为您的生产线提供最高应用灵活性。

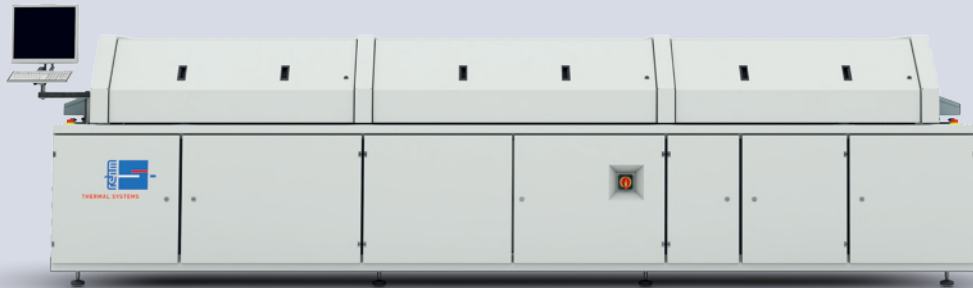
VisionXS

As individual as your production

满足个性化生产需求

Does your production environment need a soldering system which can be adapted optimally to your requirements? Do you process sensitive electronic components which need to correspond to certain temperature conditions? We have a diverse system lengths!

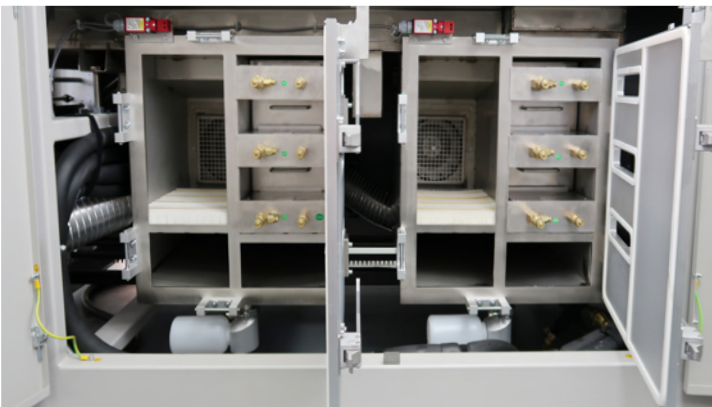
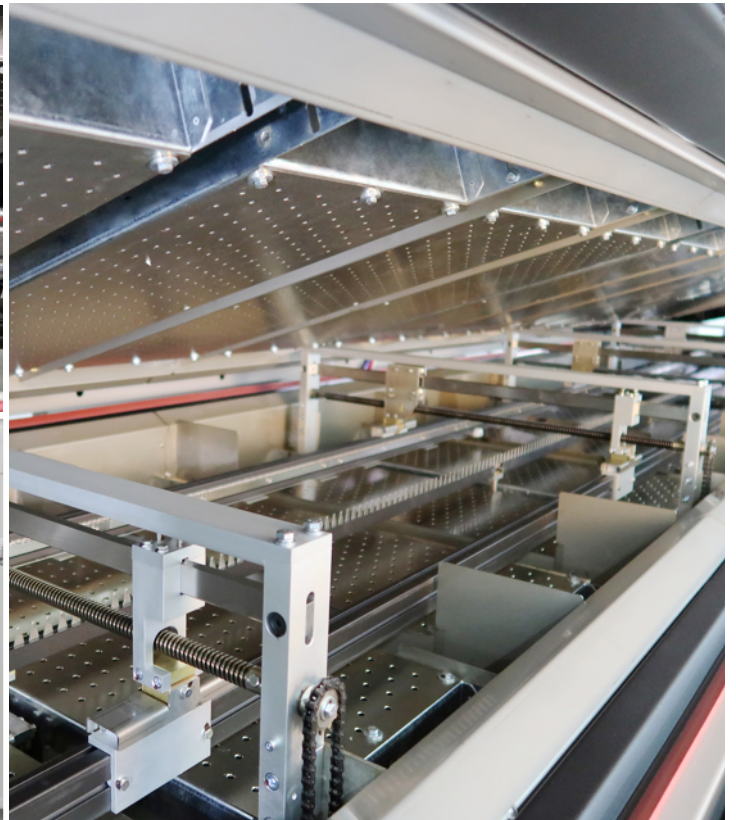
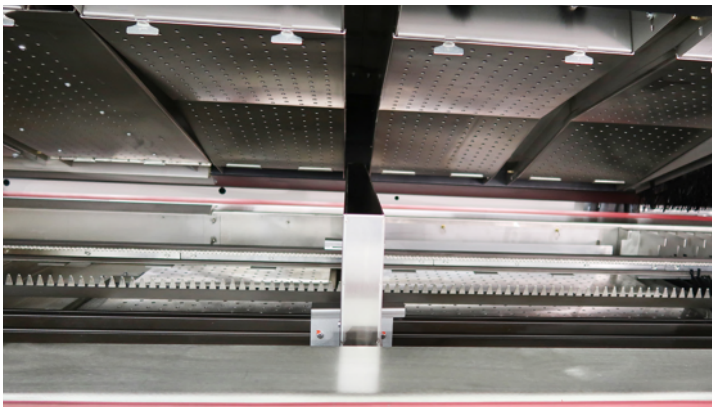
您是否需要可精确匹配您个性化生产需求的焊接系统？您是否需要在特定温度下处理敏感电子元器件？我们可以满足您的所有需求，为您提供多种个性化系统解决方案。



VisionXS

Convection soldering for high-end applications

- › Modular system concept
模块化系统设计
- › Efficient heat transfer
高效的热传导
- › Stable process for lead-free applications
稳定的无铅制程
- › Minimal downtime
最小化停线保养时间
- › Integrated residue management
集成式残渣处理系统
- › User-friendly software tools for process monitoring
用户友好型制程检测软件



The right system for every application

Innovative Solutions from Rehm

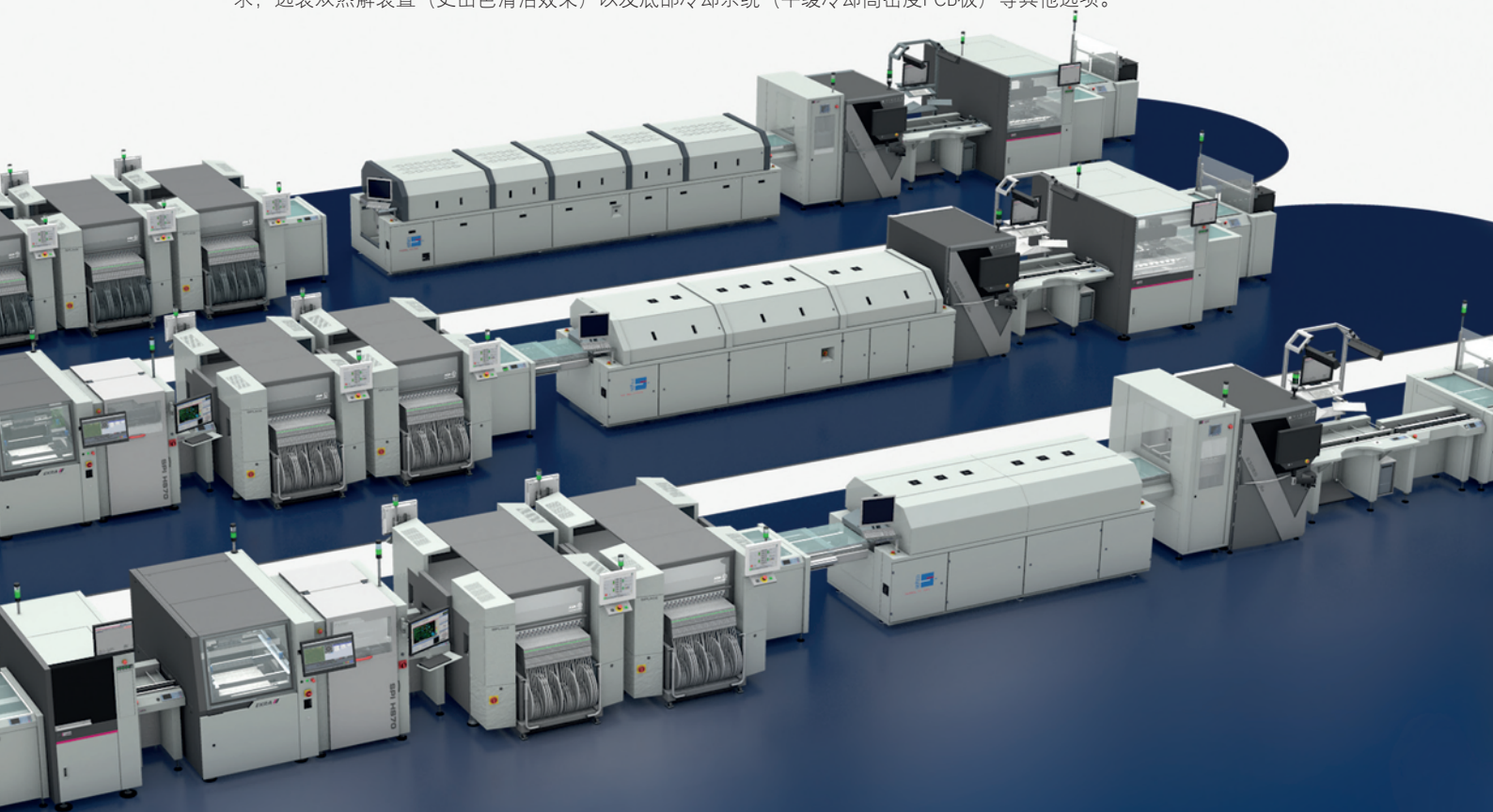
锐德创新解决方案 适用于多种制程应用

Your production department can meet any requirement using manufacturing equipment from Rehm!

With the VisionXS we offer different systems for optimum soldering processes in the most diverse of manufacturing environments. Different process zone lengths are available depending on the type of system. The pre-heating, peak and cooling zones have the same pitch and therefore are constructed in a modular design. Additional features such as double pyrolysis for a better cleaning result or underside cooling for gentle processing of high-mass boards are optionally available and can be added to the system concept seamlessly.

选择锐德，满足您的所有应用需求！

VisionXS可以针对不同生产环境和生产条件提供最佳解决方案，实现最佳焊接制程。根据系统类型，您可以选择不同长度的制程区。此外，预热区、高温区和冷却区拥有相同的节距，支持模块化配置和部署。您还可以根据具体需求，选装双热解装置（更出色清洁效果）以及底部冷却系统（平缓冷却高密度PCB板）等其他选项。



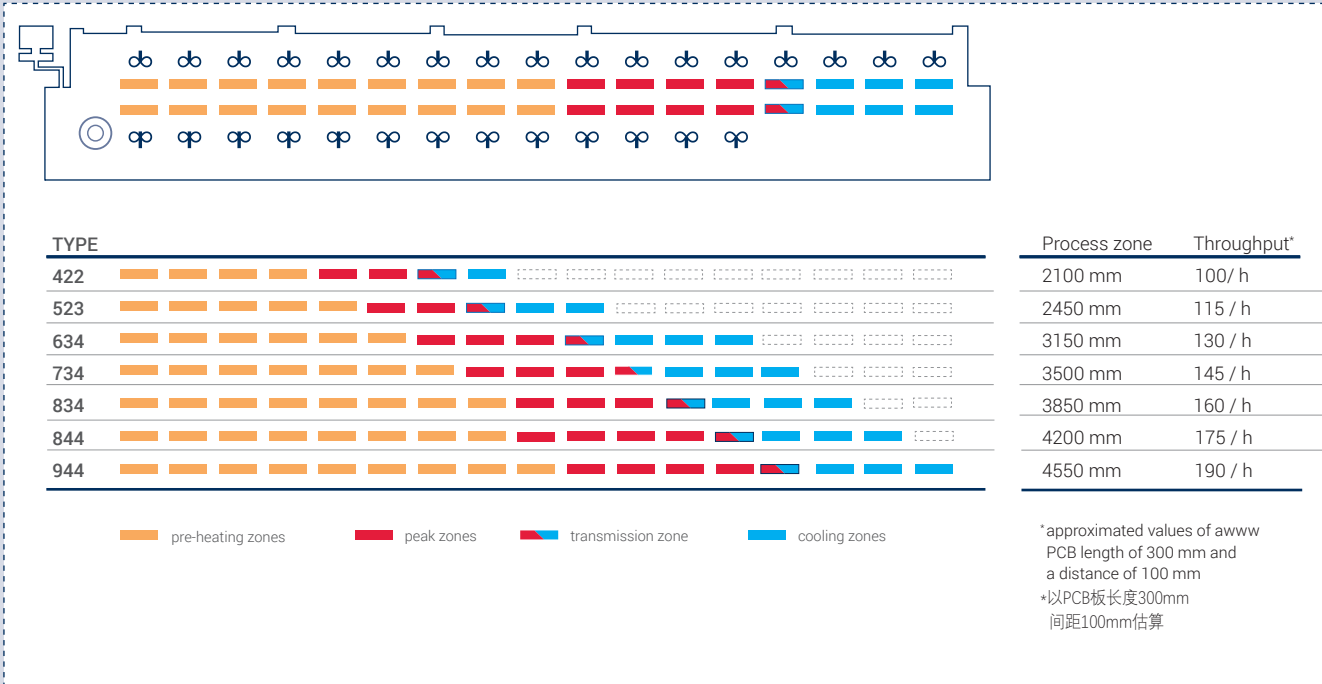
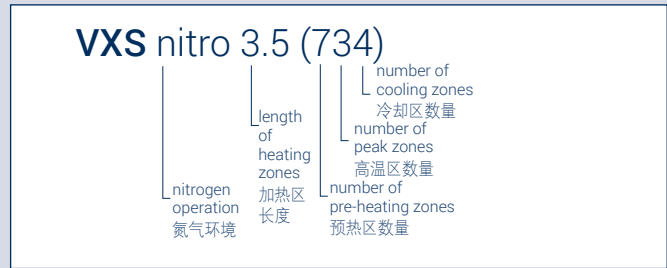
- **Modular, flexible system concept**
模块化灵活系统
- **Energy efficient system with lowest CO₂ emission**
节能高效，最低二氧化碳排放
- **Highest process stability even with lead-free soldering**
稳定的无铅焊接制程
- **Minimum downtime and lowest maintenance effort**
最低停机时间和维护需求
- **Excellent traceability due to smart software tools**
智能软件工具，提供最高可追溯性
- **Lowest "Total Cost of Ownership"**
最低“总拥有成本”

System varieties

using the example of VisionXS nitro:

系统类型

以VisionXS氮气炉为例



Large batch sizes – frequent product changes?

We will find the best system for you!

批量大---产品更换频繁? 我们为您提供最佳方案

Requirements in the field of reflow soldering are as varied as the products produced on an SMD production line. That is why we provide you with intensive guidance before the purchase decision as to which system is the most efficient for the applications you require.

We take all relevant parameters into consideration in the process of this. Take for example the throughput rate, this is one of the most important parameters for determining the optimum process zone length. If frequent product changes and multi-shift operation are added to the equation, additional options will be required that need also be taken into account. After clarifying all the process-relevant parameters, you can rest assured that you will have a reflow soldering system adapted to all your needs, one with which you can manufacture reliably and efficiently. The diverse range of options within the VisionXS means that we have the right system for every manufacturing environment.

SMD生产线在生产不同产品时，对回流焊制程的要求也各不相同，因此我们将为您提供选型指导，帮助您选择最符合您需求的高效系统，做出最明智的决策。

进行系统选型时，我们会考虑与应用相关的所有参数，例如产能，这是确定最佳制程区域长度的一项重要参数。如果涉及到频繁换线和轮班运营，就需要选择额外选项。确定所有制程参数后，您就可以放心选择一套最适合您的回流焊系统，实现可靠、高效的生产运营。VisionXS回流焊系统提供了广泛选项可供选择，确保始终为您提供最佳生产解决方案。

Reliable from A to B with Flexible Transport Systems

灵活可靠的传输系统

Your component will run through various sections of the system during the soldering process: from the preheating zone, through the peak zone to the cooling zone. Secure transportation is a key entity when it comes to continuous processes. Rehm offers flexible systems for this.

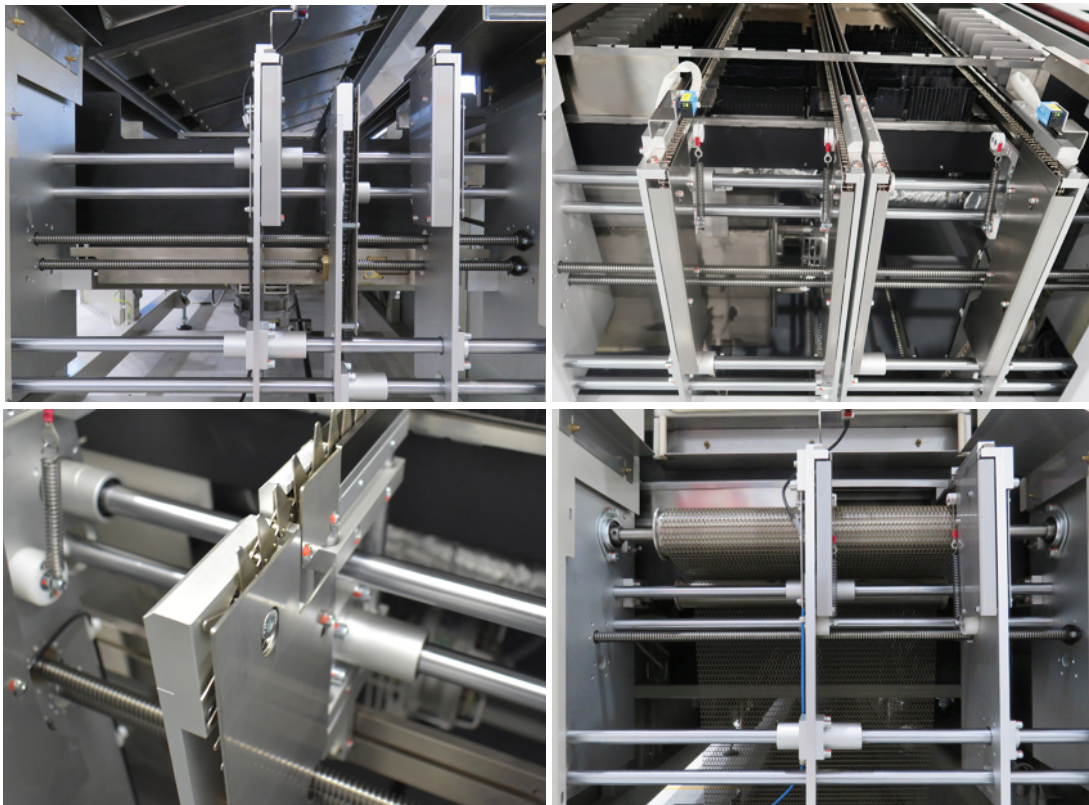
Our transport systems provide the perfect fit for your components regardless of the circuit board geometry. Transport lanes and speeds are variably adjustable and enable parallel soldering processes with synchronous/asynchronous in one reflow system. Depending on the product requirements, you can choose from various transport models such as individual and double track transport, quadruple or multi-track transport, even the mesh-belt transport.

The optional centre support enables even the processing of large circuit boards or boards with a flexible base material with ease and prevents any sagging during the reflow soldering, thus guaranteeing a maximum degree of process stability.

在焊接过程中，电子元器件将依次通过系统的各个区域：从预热区经过高温区再到冷却区。对连续制程而言，安全的组件传输尤为重要。因此，我们为您提供了一套高度灵活的传输系统。

我们的传输系统可以不受电路板几何形状的影响，完美匹配您的组件。此外，传输轨道和传输速度都灵活可调，可以在一个回流焊系统中实现并行双轨焊接（同步/异步）。根据具体需求，您可以选择不同的传输模式，例如单轨和双轨传输、四轨或多轨传输，以及网带传输。

在焊接大型电路板或柔性基材时，中央支撑系统选项可防止组件发生形变，确保最高制程稳定性。



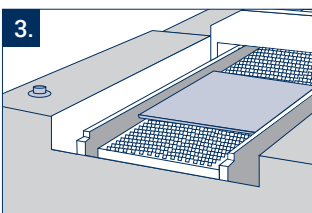
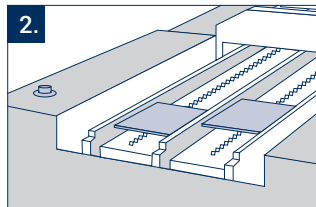
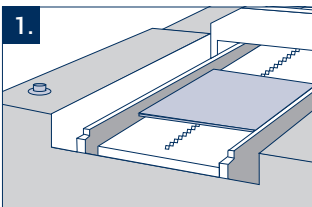
top left: single lane transport, top right: dual lane transport
bottom left: lash chain centre board support bottom right: mesh-belt transport

左上：单轨传输；右上：双轨传输

左下：中央支撑；右下：网带传输



Transport systems | 传输系统



1. Single lane transport

One adjustable chain

单轨传输

一根可调节链条

2. Dual lane transport

Two adjustable chains, synchronous/asynchronous transport speed

双轨传输

两根可调节链条，同步/异步传输速度

3. Mesh belt transport

Width can be customized according to customer demand

网带传输

网带宽度可根据客户需求定制

- **Reliable, failure-free production guaranteed by absolutely parallel transport**
并行传输，实现可靠的无故障生产
- **Precise and repeatable adjustment of the transport width**
传输宽度精确可调
- **No influence of the temperature profile by transport or center board support**
温度曲线不受传输系统或中央支撑板影响
- **Reduced maintenance, transport drive mechanism is outside of the process chamber**
传输系统驱动机构位于炉膛外，维护需求极低
- **Ideal for any application due to various transport systems**
多种传输系统可选，适合所有应用
- **High process reliability by integrated center board support**
集成中央支撑板，具有最高制程可靠性

From Zero to 240 °C due to optimized heat transfer

均匀的热传导性能

Each product has its own requirements in the manufacturing process. Optimized heat transfer over the entire soldering process is the basis for best possible results.

The VisionXS offers flexibly controllable preheating zones within which your PCB is preheated and prepared for the actual soldering process. The individual zones can be controlled independently of each other via fan frequency, and assure best possible processes.

The VisionXS is equipped with special nozzle sheets for optimized heat transfer by means of uniform air flow over the PCBs. Flow speeds in the upper and lower heat zones can be separately controlled, assuring that your PCB is heated up

尽管不同产品具有不同的制程需求，但是，最佳热传导是所有产品实现出色焊接效果的基础。

VisionXS系列回流焊系统配备了可灵活调节的预热区，用于对PCB板进行预加热，使其达到实际焊接所需温度。此外，系统的各个区域均可通过调节风机频率进行独立控制，确保达到最佳效果。

VisionXS配备了特殊的整流板，可确保气流均匀地通过PCB板，实现最佳热传导。另外，您还可以分别调节顶部

through and through – completely and uniformly. This prevents stressing of the material which can disturb the soldering process. In addition, smaller components are not overheated and bigger ones are still heated through enough.

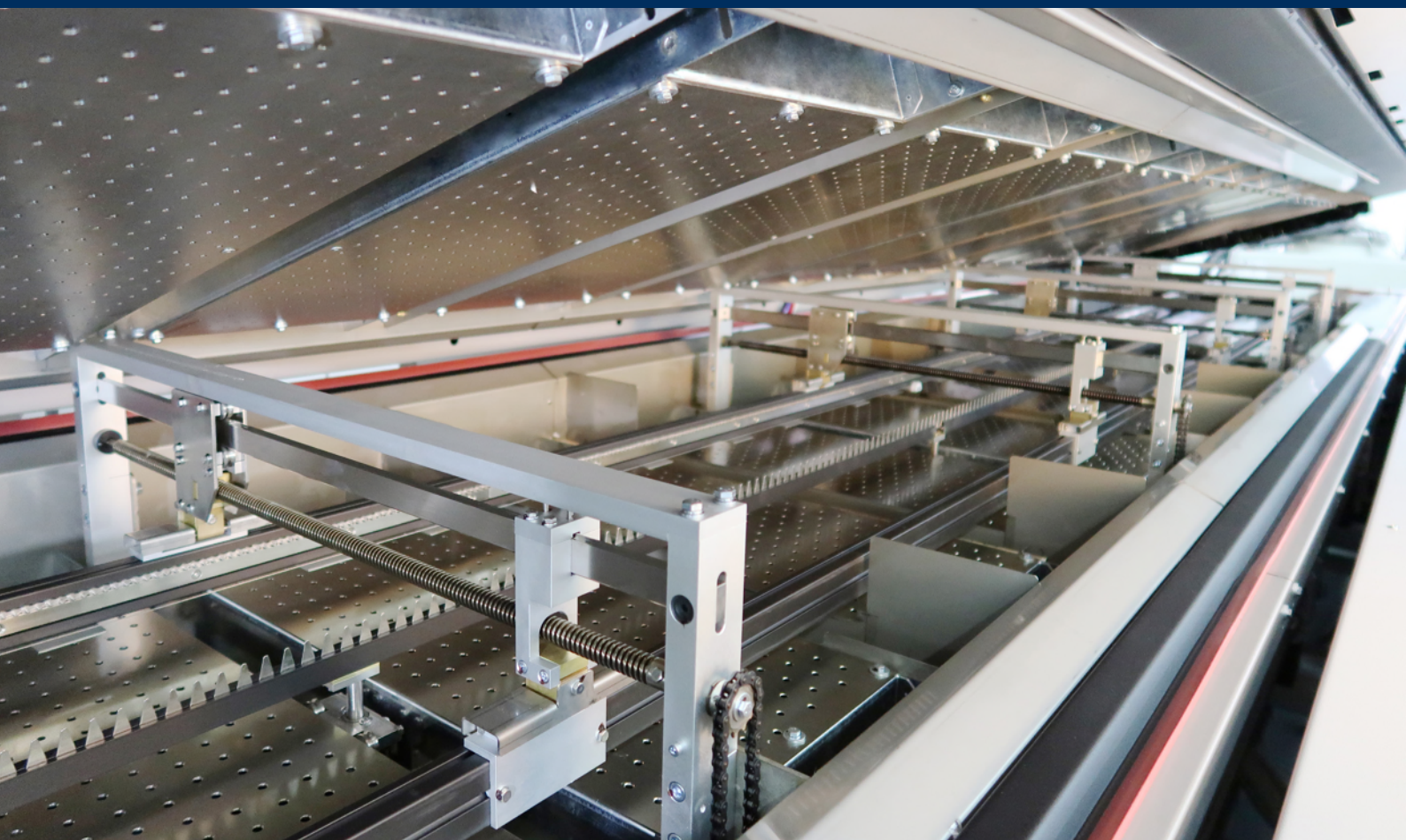
To ensure that the heat flow in the system runs stably and the outward heat radiation is as low as possible, our VisionX systems have optimum insulation between the process chamber and the exterior wall.

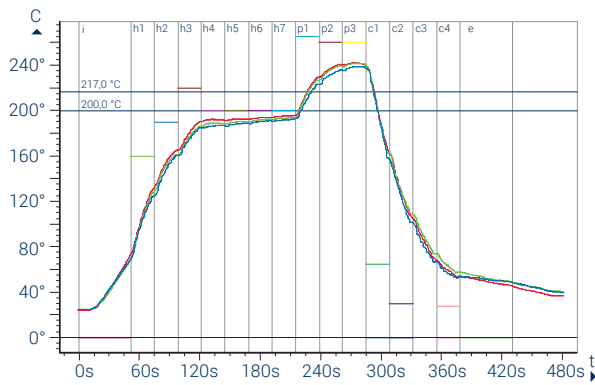
Using precise profiling we can generate precision-reproducible temperature profiles which are tailored to component size, material or process parameters.

和底部加热区的气体流速，使组件完整均匀地受热，防止材料应力对焊接制程产生干扰，同时确保小型部件不会过热，大型部件得到足够彻底的加热。

为使系统中气流稳定，最大限度降低向外的热辐射，VisionXS在炉膛和外壁之间采取了最佳隔热措施。

通过制定精确、可重现的温度曲线，我们的系统可完美契合您的制程要求，匹配您的组件尺寸、材质和其他制程参数。

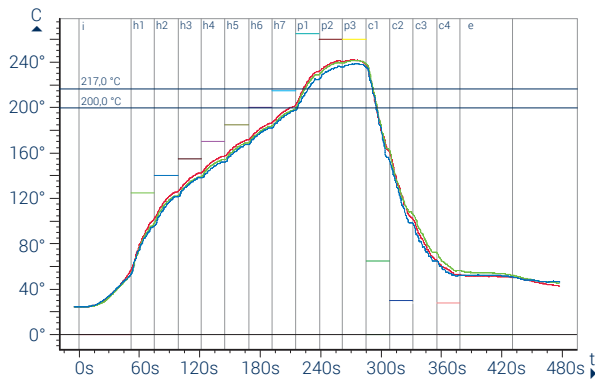




Saddle profile | 马鞍型温度曲线

The component is brought to a temperature of at least 240 °C for soldering. Using a saddle profile the board is gradually heated in line with pre-defined, individual temperature ranges. Even components with differing thermal masses are heated homogeneously and temperature differences minimised.

组件被加热至240°C进行焊接。在马鞍型温度曲线下，PCB板将逐渐加热到预定义温度范围。即使拥有不同热质量的组件也能得到均匀加热，最大限度降低温差。



Linear profile | 线型温度曲线

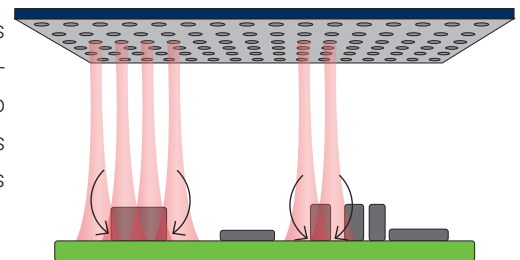
With a linear profile, the component is not heated in a stepped manner during soldering, in fact it is heated along an identical linear temperature gradient. Linear profiles can reduce cycle times and can help to reduce soldering errors such as tombstoning.

使用线型加热曲线时，组件不是以阶梯式加热，而是沿几乎完全相同的温度斜率加热。线型温度曲线可以缩短循环时间，消除元件立碑等焊接错误。

Convection | 对流

The centrepiece of our VisionXS is the stainless steel process chamber with its outstanding heat transfer owing to advanced hole nozzle geometry as well as monitored adjustable overpressure in the heating module, guaranteeing homogeneous and gapless heat transfer to the circuit board. The inert process atmosphere can be assured throughout the entire soldering process and beyond because the closed system ensures that no external air finds its way into the process chamber. The heat flow within the system takes place by means of circulation, i.e. the process gas of the preheating, peak and cooling zones is extracted, cleaned and reinserted into the process at the sides.

VisionXS系列回流焊系统的核心是不锈钢炉膛和先进孔型喷嘴带来的出色热传导性，同时加热模块中受控的可调过压保护也可以确保电路板得到均匀、无间隙的热传递。另外，高密封性炉膛使整个惰性气体焊接制程中无外部空气进入。热气流在系统内循环，预热区、高温区和冷却区的制程气体被抽出、清洁，然后在两侧重新注入炉膛。



Homogenous heat transfer

- **Separately adjustable heating zones**
单独可调的加热区
- **Reproducible temperature profile**
高重复精度的温度曲线
- **Outstanding process stability with the smallest possible ΔT**
出色的制程稳定性，最小 ΔT
- **Homogenous heat input over the entire PCB thanks to specially designed nozzles**
采用特殊设计的喷嘴，对整个PCB板均匀加热
- **Low maintenance effort**
低维护需求



A Clean Machine: Effective Residue Management

清洁型解决方案：高效的残渣管理

It is equipped with MRS (pre-heating zone residue management system) and MARS (cooling zone residue management system) as standard. For higher productivity and better cooling, the second stage MARS is optional.

As is the case with all industrial processes, substances are generated during SMT production which have to be removed from the process cycle because they contaminate the system. Our highly effective residue management function purifies the process gas safely and reliably, and keeps your system clean and dry.

MARS & MRS for Individual Collection in Peak and Pre-heating Agglomerator Technology for more surface in Condensation Process for all residues, liquids or crystalline Tool-free maintenance, Easy Accessible.

In order to make your manufacturing system even more efficient, the VisionXS with optional pyrolysis. Your system's cleaning efficiency is significantly increased. For the process gas and the system chambers will keep clean and dry with very little maintenance and minimal downtime.

标配前置加强回收系统和冷却区回收系统，为了更高的产能和更好的冷却可选配第二段冷却区回收系统。

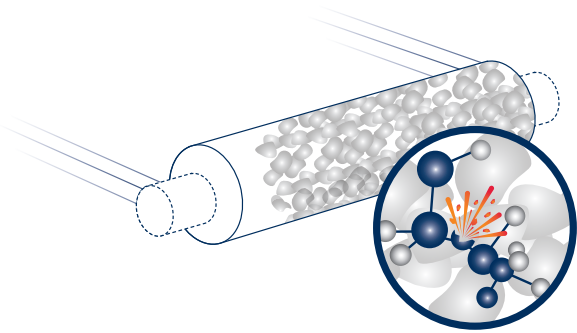
和所有工业制程一样，SMT生产线同样也会产生可能污染系统的残渣，必须及时从制程循环中去除。高效残渣管理系统可以安全、可靠地净化制程气体，保持炉膛内洁净、干燥。

前置加强回收系统和冷却区回收系统分别收集预热区和高温区助焊剂，凝聚器技术具有更多的表面积用于冷凝工艺，灵活的配置和6级过滤系统收集液态或结晶状的所有助焊剂残留物。

为实现更高生产效率，VisionXS可提供热解装置选项，显著提升系统清洁效率，保持炉膛清洁、干燥，同时最大限度降低维护需求和停机时间。

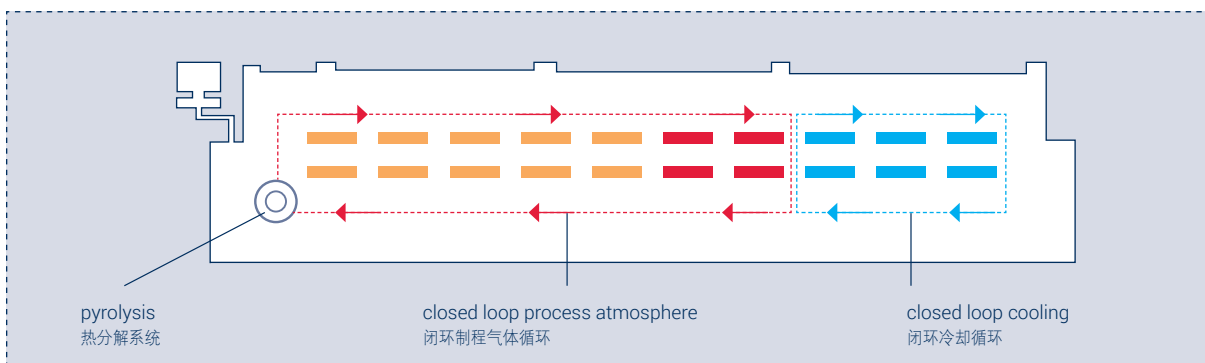


Pyrolysis at 500 °C



Residues are separated with the help of a special granulate during pyrolysis. Long molecular chains are broken down (cracked) into smaller elements by means of thermal fission. Temperatures ranging from 500 to 900 °C are required to this end. Afterwards, the molecular chains are small enough to be taken up by the granulate and removed from the production process. The granulate only needs to be changed once a year, making the pyrolysis unit easy to maintain – and you profit from minimal downtime. Your manufacturing processes continue to run smoothly.

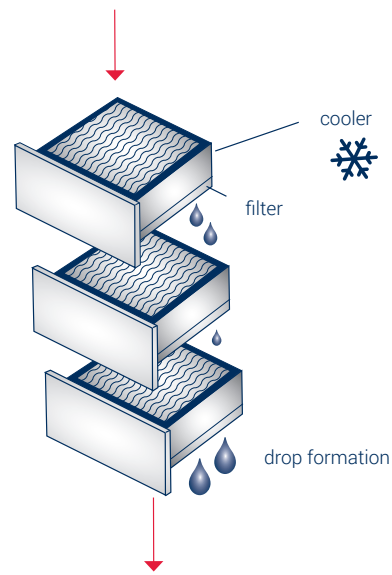
残渣在高温（500°C至900°C）作用下通过一种表面粗糙的特殊颗粒材料，大分子链被拆分为更小的分子（“裂解”）。随后，小分子沉积在颗粒材料表面并从制程中被去除。此颗粒材料每年仅需更换一次，因此热解装置的维护十分便捷，停机时间也大大降低，确保生产稳定进行。



Cold condensation | 冷凝

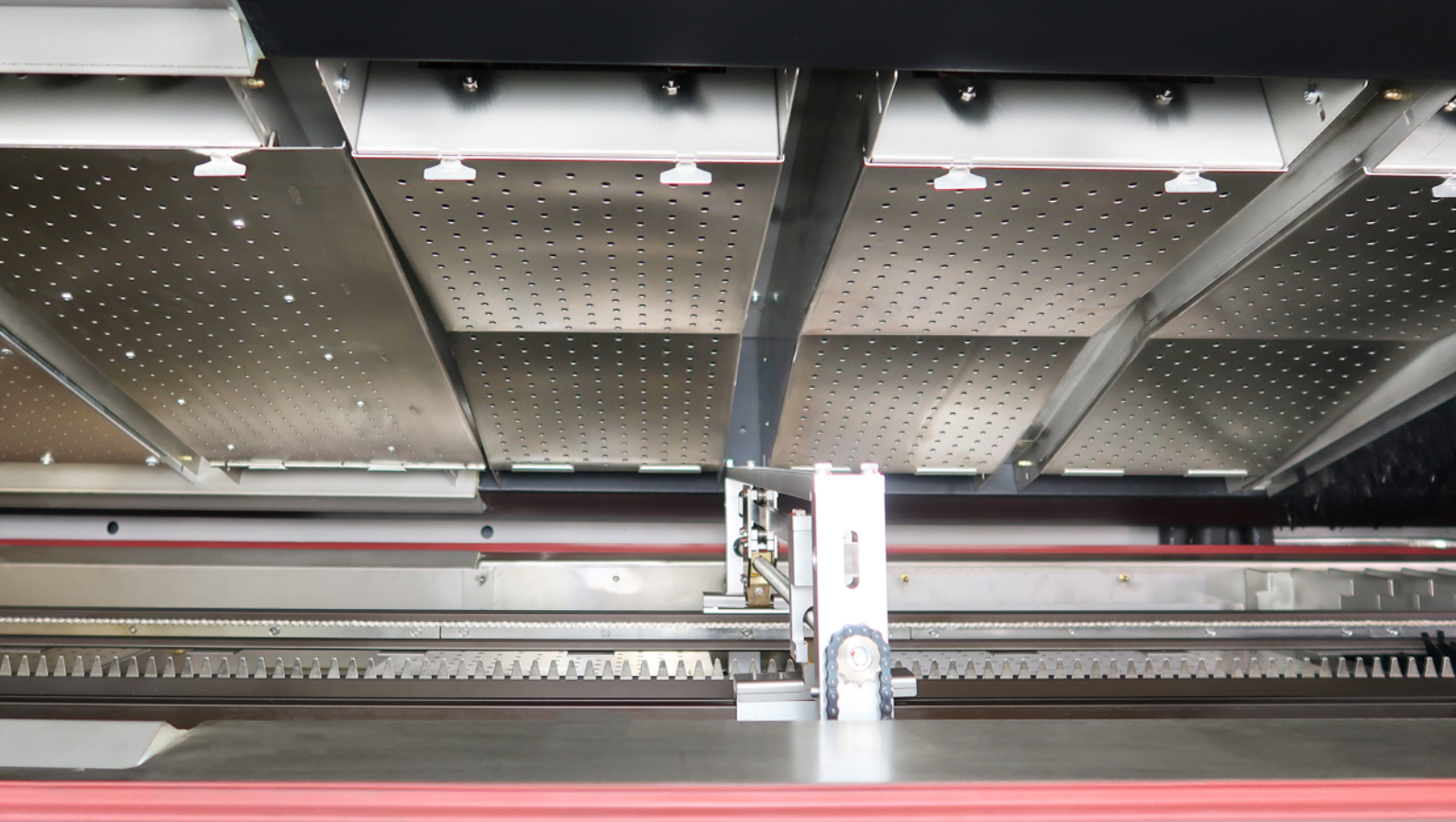
Liquid residues condense above all on the cooling tract's filter units, by which they are then removed. The system is easy to clean. The filters are exchanged in sets at the back of the system. The process chamber doesn't even have to be opened. Optional 7 stages for max efficiency, Filters up to 98% increase process safety.

液体残留物首先在冷却区单元内冷凝过滤，然后被排出。过滤单元易于清洁，过滤器可以通过系统背部直接更换而无需打开炉膛。可选配七段过滤，最高过滤效率高达98%。



- > **Efficient cleaning for a clean and dry process chamber**
高效清洁，保证炉膛清洁、干燥
- > **System integrated solution**
一体化系统解决方案
- > **Reliable, stable process**
可靠、稳定制程
- > **Easy accessibility**
易于操作
- > **Low maintenance effort**
低维护需求

low **maintenance expenses**



Stress-free to below 50 °C with powerful cooling systems

无应力冷却至50C°以下 性能强劲的冷却系统

It is important to have a high-performance cooling tract in order to guarantee optimum soldering results and ensure that modules are cooled gently.

Rehm Thermal Systems offers a wide range of cooling tract variants for reflow convection soldering with VisionXS, which can be precisely fine-tuned to suit any production process. The water-cooled standard solution with heat exchanger and adjustable ventilation system works as an effective "Closed Loop" system. There are several efficient, additional options for large and high-mass boards, primarily a power cooling unit as an extended cooling tract or a bottom cooling system.

为获得最佳焊接结果以及组件得到平缓冷却，需配备高性能冷却系统。

锐德为VisionXS提供了多种冷却系统，并支持精确微调以适应个性化生产制程。带热交换器和可调通风系统的标准水冷解决方案可作为“闭环”系统，实现高效冷却。对于大型高密度PCB板，您可以加装底部冷却系统。

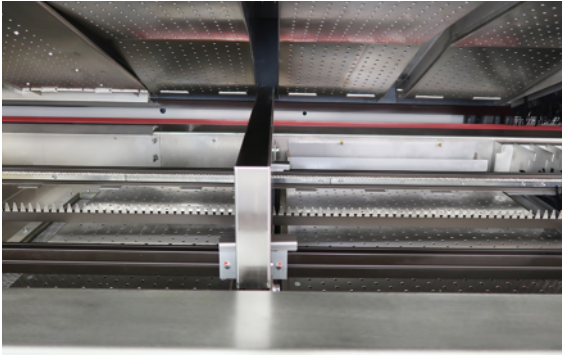
- **Stress-free cooling using individually adjustable ventilators in the classic cooling zones**
利用冷却区中多个可单独调节的风机实现无应力冷却
- **Optimum cooling of large, high-mass boards thanks to additional bottom cooling**
提供底部冷却系统选项，完美冷却大型、高密度组件
- **Flexible combination possibilities through a range of different options**
多种冷却选项。支持灵活配置
- **New, sustainable cooling principle as a result of liquid nitrogen cooling**
创新型可持续液氮冷却技术

Cooling Cell | 冷却模组

The VisionXS transforms the classic cooling tract into a two or four-layer system, cooling cell length 350 mm and recirculation 90°crosswise to transport direction. Individually adjustable ventilators in each of the zones make it possible to precisely control the cooling process and influence the cooling gradient accordingly.

根据具体的生产线条件，VisionXS回流焊系统将冷却区分为2-4个阶段，冷却模组长度350mm和横向90°冷风循环。每个冷却区中的风机可单独调节，从而精确控制冷却制程和冷却梯度。

Bottom Cooling | 底部冷却



Cooling zone with bottom cooling
配备底部冷却的冷却区

Bottom cooling makes it possible to cool high-mass boards easily and effectively. The cold process air is blown onto the board in equal measures from above and below in order to facilitate a particularly homogeneous cooling process and to reduce tension in the material. It is possible to adjust the ventilator speeds for each module. This means additional cooling measures, such as an outfeed belt with ventilators, are unnecessary thanks to the low outlet temperatures. It is predominantly modules with inhomogeneous distribution of the copper positions that will be protected against twisting and warping as a result of bottom cooling.

底部冷却系统能够可靠、高效地冷却重型PCB板：冷空气同时从上方和下方输送到PCB板，实现均匀冷却，降低组件应力影响。每一个模块区域的风机转速都可单独调节。底部冷却系统可以提供应用所需的超低出口温度，因此无需再使用带风机的出口传送带等其他额外部件。此外，底部冷却系统还能够可靠保护铜层分布不均匀的特殊组件，防止其发生扭曲和变形。

Quick Exhaust | 快速排气



Quick exhaust serves to extract process atmosphere rapidly as a means of achieving the desired temperature change. Here the process gas in the cooling line is extracted via the internal exhaust system. Quick exhaust is automatically activated if there is a change of program to a colder profile. As soon as the temperature is within the tolerance range specified by the program, quick exhaust is automatically deactivated. In the case of soldering processes in a nitrogen atmosphere the desired residual oxygen value must then be reset by adding nitrogen.

快速排气选项可快速抽出制程气体，达到所需温度变换。冷却管道内的制程气体通过内部排气系统抽出。如果焊接程序切换到更低温度曲线，则快速排气选项将自动激活，并在温度达到程序设定范围时自动停止。在氮气焊接制程中，此时必须添加氮气以达到所需残余氧气含量。

SSP



In the SSP (Speed Switch Process) the process atmosphere cooling process takes place without impacting the nitrogen level. Extra pipes are installed in the pre-heating and peak zones to serve as an outlet through which the cooler ambient air can be drawn by the internal exhaust system and a fan upon activation of the SSP, serving to achieve the zones' target temperature. Quick exhaust is activated when there is a change of program to a lower temperature profile and is deactivated once the temperature tolerances have been reached.

在快速换线制程 (SSP) 中，制程气体冷却不影响炉膛内氮气含量。激活SSP后，内部排气系统和风扇可通过位于预热和加热区的额外管道进行换气，以达到目标温度。当焊接程序切换至更低温度曲线时，快速排气选项将激活，并在温度达到程序设定范围时自动停止。



New
ViCON

1. Alarms | 警报

The top area of the screen gives you a clear overview where you can view, interpret and edit alarm messages.

屏幕顶部区域提供了清晰的信息概览，您可以在这里查看、了解和编辑警报信息。

2. Favourites bar | 收藏栏

In the favourites bar you can view selected values. This then appears on the main screen and on every page in the defined position.

在收藏栏中您可以查看选中的参数，然后该参数将出现在主屏幕上以及每一页的特定位置。

3. Status bar | 状态栏

Colour-contrasting markings in the status bar provide you with information on the operating mode of the system.

状态栏上不同颜色的标记可以为您提供系统工作模式信息。

4. Machine view | 设备视图

The machine view offers an overview of the modular construction of your system, the current loading situation and the status of the process zones.

设备视图可显示系统的模块化结构、当前负载状态和各制程区域状态。

5. Options | 选项

Machine options can be set depending on the system equipment. For this there are up to ten different options available for your manufacturing process.

设备选项可根据系统设备进行设定——最多可提供10个选项。

6. Display area | 显示区

The display area shows you all profile parameter actual values, e.g. temperature, filter or system power consumption.

显示区可显示所有系统配置的实际数值，例如温度、过滤器或系统能耗。



Innovative Software

User-friendly and easy operation

创新软件 界面明晰易操作

With the ViCON Rehm offers straightforward software for the VisionXS boasting intuitive operation with its touch-screen surface.

All messages, commands and parameters can be viewed at one glance on the main screen using machine view. With a number of features including a freely configurable favourites bar, the structured grouping of parameters or individual process tracking and documentation ViCON provides you with optimum assistance in your production processes.

While developing the software Rehm experts have refined many aspects including product management. The creation of new products or the copying of certain properties in parallel with

锐德为VisionXS回流焊系统研发了简单明了的ViCON软件，通过触摸屏为您提供直观操作体验。

通过主界面上的设备视图，您可以轻松查看所有信息、命令和参数，ViCON提供了多种杰出功能，例如可自由配置的收藏栏、结构化参数分组、独立制程跟踪和归档等，为您的生产过程提供最佳辅助。

在软件研发阶段，锐德专家在包括产品管理在内的很多方面进行了深度改进，例如支持在生产进行的同时创建新产品或复制特定属性。另

production on the machine is enabled. The parameters for new creations are directly selectable, meaning that the production sequence can progress faster and without any disruption.

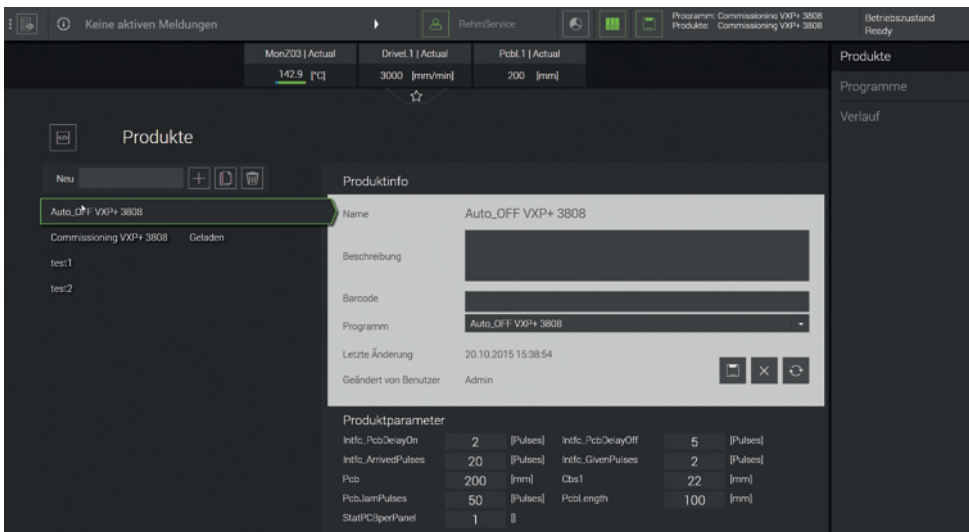
As well as that, you can immediately recognise which action mode the system is in from the operating status. Errors are easier to differentiate and alarm messages can be evaluated quickly and reliably.

Another plus of the ViCON is defining user administration. Through the assignment of specific user roles each user has exactly those rights activated that he or she needs for operation and work on the system – without any rigid hierarchy.

外，创建新产品时可以直接设置参数，这意味着能够更快速地开展生产且不会发生任何中断。

同样，根据工作状态，您可以立刻识别系统工作模式，更快速地发现错误，可靠地评估警报信息。

ViCON软件的另一大优势是支持用户管理。通过灵活分配用户角色，每个用户都可以获得相应的操作权限——无需严格的等级制度。



Clear product management with offline programming
支持离线编程的清晰产品管理

- > **Intuitive software operation with touch-screen surface**
带触摸屏的直观软件操作
- > **Clear product management with offline programming**
支持离线编程的清晰产品管理
- > **Parameter transparency through module groupings**
通过模块分组，实现参数透明
- > **Easy adaption due to favourites bar**
收藏栏，轻松适应不同制程
- > **Multilingual software**
多语言支持



Industry 4.0 Intelligent Software Solutions

工业4.0

智能软件解决方案

Software solutions from Rehm allow the reliable control and monitoring of systems from the VisionXS.

The software components are consisting of monitoring tools and various modules, each of which completes its own individual task. Master software compiles the data and evaluates it, for instance in order to keep the specified parameters constant for the respective manufacturing profile. The modular system can be assembled into individualized packages and matched to the customer's respective requirements. Custom tailored master software is available for each system type.

锐德软件解决方案可以对VisionXS系统进行可靠控制和监控。

锐德智能软件解决方案由监控工具和支持各种任务的多种模块组成。主软件能够编辑和评估数据，例如保持特定参数恒定。我们的模块化系统支持个性化定制以适应客户的独特需求，主软件也可以针对每个系统类型进行定制。

Product management | 产品管理



Clearly structured product management ensures in everyday production that the right reflow program is clearly attributed to the component/item number to be manufactured. Alongside the oven settings, component-specific data can also be saved in product management.

在日常生产中，结构清晰的产品管理可以确保为特定组件/产品选择正确的回流焊程序。除焊炉设置外，特定组件的数据也可以保持到产品管理中。



Optimal tracking

ProCap



ProCap guarantees the process stability of the reflow soldering system for each individual product. The process parameters are automatically stored for the product upon first start-up. Every additional order is compared with the parameters stored for this product. Each individual component is saved

ProCap可确保在回流焊制程中每一件产品的制程稳定性。首次启动时，ProCap将自动保存产品制程参数。对于该产品的每一个追加订单，ProCap都将与已保存参数进行比较。另外，每一个组件参数都将

to the ongoing product and order and, where applicable, order numbers and serial numbers are stored along with these. Process deviations and operator errors are logged too. Gradual changes such as, for example, a clogged filter are reliably detected.

保存到相应产品及其订单中，并在使用时保存订单编号和系列号。最后，ProCap还可以记录制程偏差和操作错误，可靠检测过滤器堵塞等变化。

Traceability and process interlocking | 可追溯性和制程锁定



A variety of packages are possible for the VisionXP+ design series in the field of traceability and process interlocking:

对于可追溯性和制程锁定，VisionXS系统提供了多种功能包：

- › **Traceability / Process traceability via hand-held scanner (order-specific)**
通过手持式扫描仪实现制程可追溯性（订单参数）
- › **Process interlocking via fixed position scanners**
通过定位扫描仪实现制程锁定
- › **Process interlocking and traceability via fixed position scanners**
通过定位扫描仪实现制程锁定和可追溯性

A data set containing the relevant process parameters during the process is generated in a file for each component as a basis for all packages. Depending on the package, the

components can, using the barcode scan, be identified on the component directly or using a routing slip scan (by hand or stationary). If the package contains process interlocking too, the scan is compared with the database and the component is only transported into the oven upon release. With the traceability option, a data set containing the relevant process parameters during the process is generated in a file for each soldered component.

对于每一个组件，都将生成一个包含相关制程参数的数据集文件——数据集文件是所有功能包的基础。根据具体的功能包，可通过直接扫描组件上的条码或通过传送名单扫描（手动或固定）进行识别。如果功能包包含制程锁定，则扫描结果将和数据库进行比较，且组件只有在释放后才被传输进入焊炉。通过可追溯性选项，可生成包含每个已焊接组件相关制程参数的数据集文件。

MES connection and ROI | MES连接和ROI



Long-standing experience with MES connections makes it possible for Rehm to offer an innovative solution for MES master computer connection which meets every known requirement of modern MES systems. Communication here is based on XML logs transmitted via TCP/IP. All data relating to process interlocking, traceability, machine status and other operating data is exchanged here.

锐德长期以来积累了丰富的MES连接经验，可以为MES主计算机连接提供符合现代MES系统要求的创新型解决方案。所有制程锁定、可追溯性、设备状态相关数据以及其它运行数据的通信都通过基于TCP/IP传输XML日志进行。

Technology Center

Soldering process live.

技术中心

请您现场体验锐德焊接制程

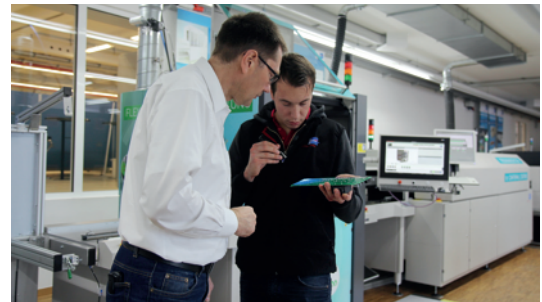
How is it possible to create the ideal temperature profiles? Or which technology is best for avoiding voids in soldered joints? Rehm can answer these questions.

A high-tech applications and demonstration centre was established on an area of 460 m² at the company's headquarters in Blaubeuren and DG demo centre. Here, customers can test modules in direct application of convection, condensation and vacuum soldering processes, create individual temperature profiles and, aided by our applications specialists, define the optimal parameters for the production process. The Technology Center is fitted with a complete state-of-the-art SMT production line and a complete coating line for selective conformal coating demonstrates secure protection of modules from environmental influences. At Rehm, there is also extensive equipment for module testing and for test results analysis.

You are welcome to arrange an appointment with us via applikation@rehm-group.com to visit the Technology Center and experience the soldering process live.

如何创建最佳温度曲线？采用何种技术方案才能避免焊接空洞？锐德给您答案。

锐德在德国布劳博伊伦总部及其中国东莞设立了高科技应用及演示中心。在这里，客户可以直接测试电子组件的对流、凝热及真空焊接制程，创建个性化温度曲线，并在应用专家的帮助下为生产制程设定最佳参数。此外，锐德技术中心还配备了目前最先进的，涵盖从锡膏印刷机到装配系统再到回流焊系统等设备的完整SMT生产线。还拥有一套完整的选择性防护层喷涂产线为您展示如何保证组件不受环境因素影响。最后，锐德技术中心还提供广泛的测试和分析设备，方便您进行组件测试和结果分析。您可以发送邮件至applikation@rehm-group.com进行预约，在我们的技术中心现场体验焊接制程。



MANUFACTURING EQUIPMENT

生产设备

- › **VisionXP+ / Vac, VisionXC, CondensoXS, Protecto and RDS (Line), RDS 1200 UV**
- › **Templates and paste printers**
锡膏印刷模板和锡膏印刷机
- › **Placement system**
装配系统
- › **Handling system**
上/下板系统
- › **Cleaning system**
清洁设备

TEST EQUIPMENT

测试设备

- › **Thermal imaging camera**
热成像仪
- › **X-ray inspection**
X-Ray检测仪
- › **BGA inspector, Fly inspector**
BGA检测仪、飞针测试仪
- › **Rework station**
返修台

Local service

We are there for you worldwide.

本地服务

锐德全球服务中心随时随地为您提供专业支持

The quality levels of our systems are of the highest order. We aim to maintain this high level in our service activities as well. From Blaubeuren via Georgia and Příbor to Szendehely or from Dongguan to Guadalajara – we are there to help for all questions related to sales and service. Anywhere in the world!

Need special advice on our systems, something fitted or a spare part? Our responsibility does not end with the sale! We remain in close contact with our clients and suppliers after they have invested in a Rehm system and make every effort to keep our response times short. We make sure we keep to delivery deadlines, installations and service inspections. And we are also available at any time for questions about applications – ensuring that your production runs smoothly.

锐德追求卓越的产品质量，也致力于提供优质的客户服务。从布劳博伊伦到乔治亚到普日博尔再到森代海伊，或者从东莞到瓜达拉哈拉——我们立志完善销售和服务网络。竭诚为您提供覆盖全球的专业支持！

对于锐德系统、装配或配件，您有什么需要特别咨询的吗？我们的责任不仅仅止步于销售，在购买锐德的产品后，我们还将与您保持最紧密的联系，快速及时地响应您的所有需求。我们将以最大努力确保按时交付，执行最高标准的安装和维护服务。此外，我们的专家全天候24小时为您服务，可以随时为您的应用提供支持，确保生产顺利进行。


24 hours
a day available

Service 
from A to Z

in 24 countries
on site 

Your service contact person

服务中心联络方式

Service-Center:

服务中心：

Mon - Thurs 07:00 – 16:30

Fri 07:00 – 12:15

service@rehm-group.com

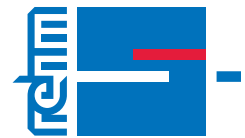
24hr Service Hotline:

24小时服务热线：

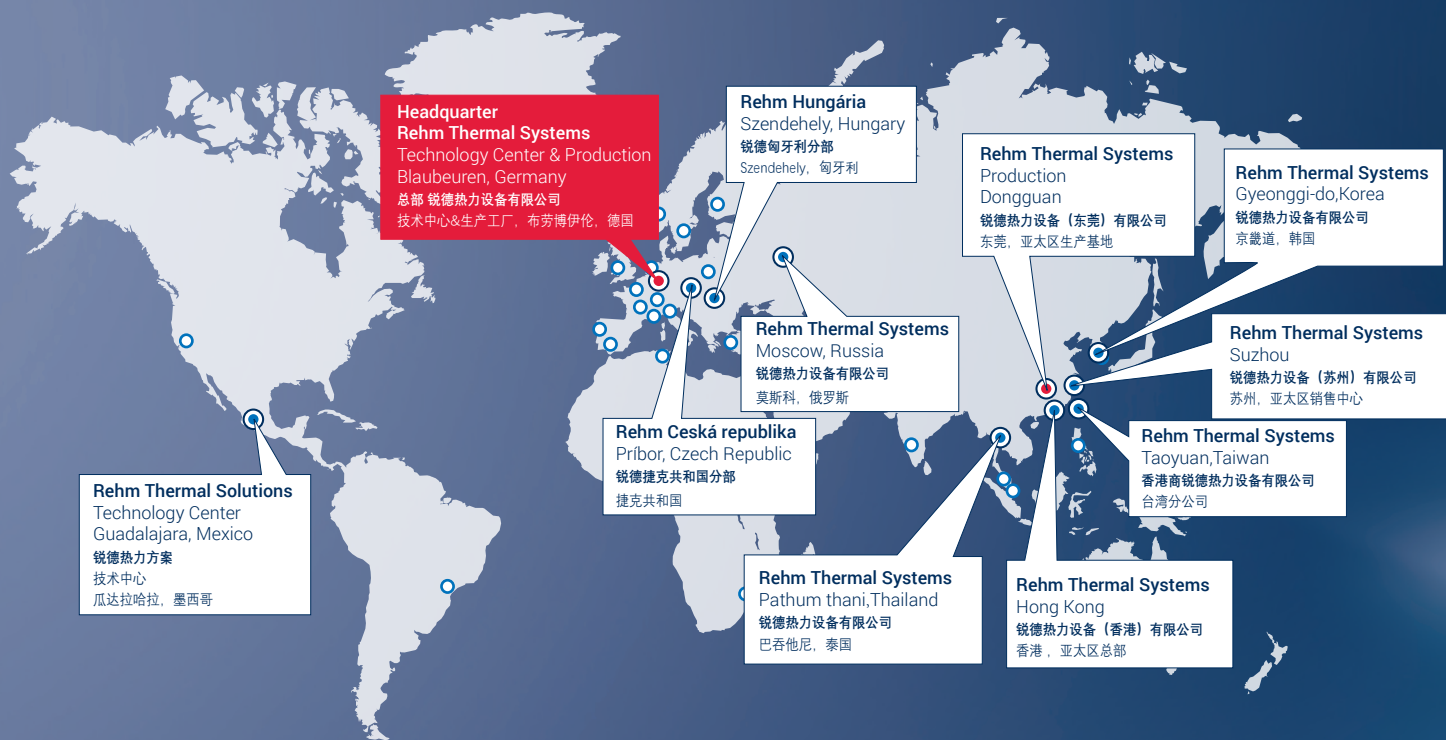
Germany +49 7344 - 9606 511

China +86 769 - 8328 0260

Service Hotline 400 - 812 8069



THERMAL SYSTEMS



Rehm Worldwide 锐德全球

As a leading manufacturer of innovative thermal system solutions, we have customers on every continent. With our own locations in Europe, America and Asia, as well as 26 agencies in 24 countries, we are able to serve the international markets quickly.

作为世界领先的创新型热力系统解决方案制造商, 我们的客户遍布全球每一块大陆。锐德在欧洲、美洲、亚洲均设立了技术中心和生产工厂, 同时还在24个国家和地区拥有26家代理商, 能够快速响应国际市场的各种需求, 为客户提供最出色的现场服务。

- 分公司
- 生产基地
- 服务支持

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