



THERMAL SYSTEMS

## Press information

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### Seamless traceability of machine data

**Hermes networking possible with Rehm systems - no data loss at the outlet due to Separo separation module**

In Greek mythology, the messenger of the gods, Hermes, carries the messages of the gods to mortals. With his quick and clever way he moves freely between the two worlds. No wonder that his name was chosen for a new interface communication: "The Hermes Standard". It ensures that important assembly information is transmitted reliably, spontaneously, easily and completely from machine to machine and to higher-level systems - regardless of the machine's manufacturer. The convection soldering systems VisionXP+ and VisionXP+ Vac from Rehm Thermal Systems are also available with "The Hermes Standard" and the Separo separation module.



*The Hermes Standard at VisionXP*

Efficiency and networking are the keywords that characterize today's industry. For the future of industrial production it is essential that the entire production is networked and that the necessary process and assembly data can be accessed at any time. Especially for SMT lines, which consist of systems from different manufacturers, it is important that the networking is also guaranteed manufacturer-independently across the entire line. With "The Hermes Standard" this is possible without any problems.

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### "The Hermes Standard": Horizontal M2M communication

The Hermes Standard directly links the individual machines through horizontal communication. Data is exchanged directly from machine to machine (M2M) on the entire SMT line, the data packets travel through the machine with the printed circuit boards: at the start of the production line there is a scanner that uniquely identifies the PCB. The machine uses this information to create the Hermes data package, which is passed on from machine to machine. However, this is not done via digital signals, but via a network. This new type of interface communication is based on a TCP/IP and XML protocol using standardised cables and data formats. This simplifies the integration process and reduces costs. In addition to the module's barcode, various data is also stored and communicated.



*The Separo separation module*

### With or without scanner at the outlet

Customers of Rehm Thermal Systems can choose between two variants if they want a Hermes interface communication for VisionXP+ or VisionXP+ Vac: Either with a scanner on the outfeed conveyor, or without. Without a scanner at the outfeed conveyor it is not possible to manually reinsert a board (Reinsert). This reduces the risk of losing data or assigning wrong boards. If there is a scanner on the outfeed conveyor, the boards can be removed after the soldering process and re-inserted as required. This is particularly necessary if a manual visual inspection is to be carried out or samples are to be taken for quality assurance processes. An assignment of the data to the correct board remains, however.

### Separation of the boards by Separo

Regardless of whether or not there is a scanner at the outfeed conveyor, the convection soldering systems VisionXP+ and VisionXP+ Vac are available with the Separo separation module. This is part of the machine and therefore fully integrated. If, for example, there is a jam of the assemblies in the cooling zones, the Separo separates the assemblies again at the outfeed to ensure correct and complete data transfer and to prevent loss of data.

The vision systems from Rehm are also ready for CFX. With the CFX interface (IPC-CFX), communication is network-based vertical. While the Hermes standard is mainly used for M2M communication, the CFX is used for data upload and download as well as data analysis. The combination of



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horizontal Hermes communication and vertical CFX communication is absolutely essential for the Smart Factory in the long term and represents a further step towards standardisation.

### **About Rehm Thermal Systems**

As a specialist in the field of thermal system solutions for the electronics and photovoltaic industry, Rehm is one of the technology and innovation leaders in the modern and economical production of electronic assemblies. As a globally active manufacturer of reflow soldering systems with convection, condensation or vacuum, drying and coating systems, function test systems, equipment for the metallization of solar cells as well as numerous customer-specific special systems, we are represented in all relevant growth markets and, as a partner with 30 years of experience in the industry, we realize innovative manufacturing solutions that meet standard requirements.