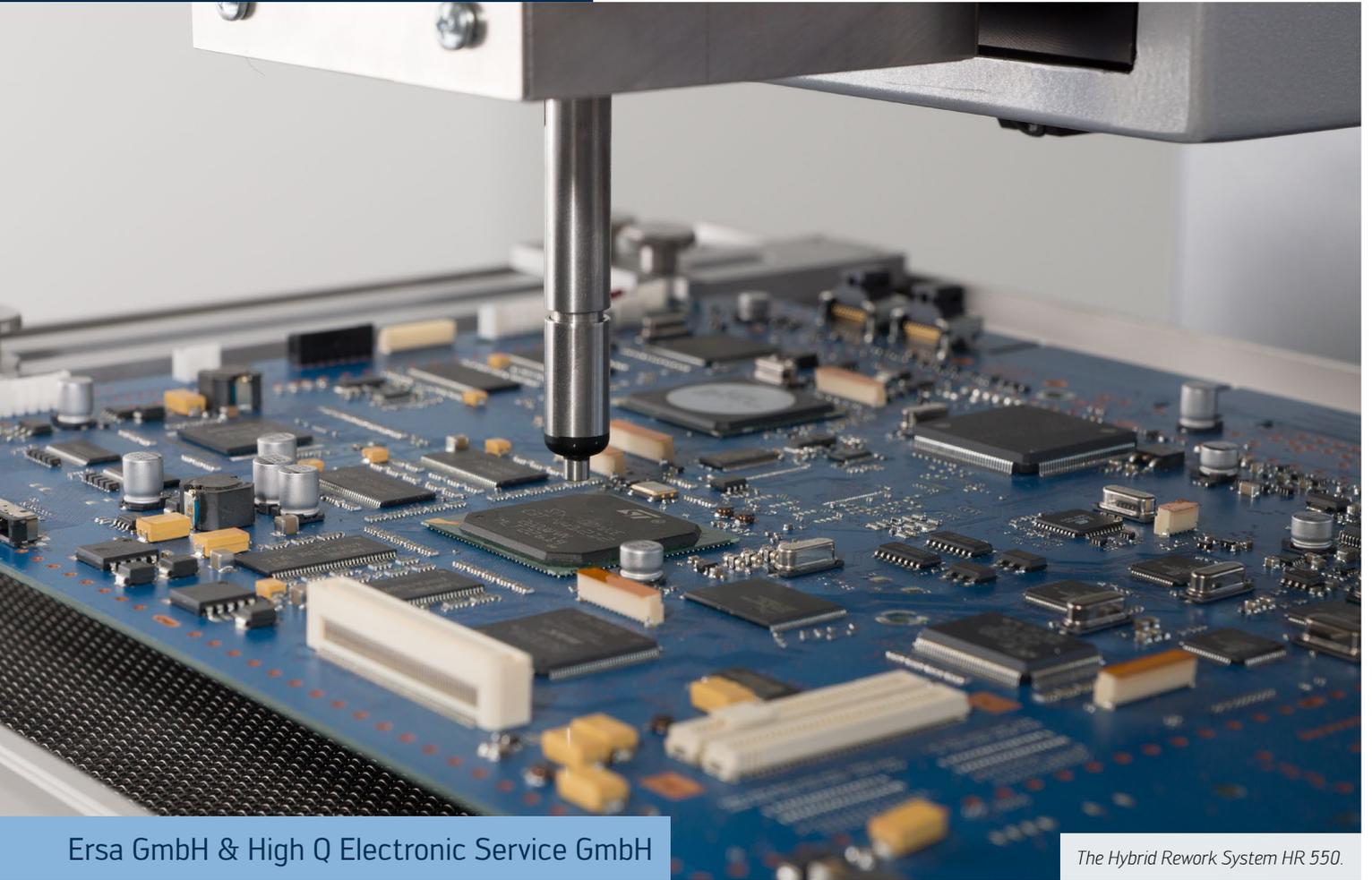


User report | Best practice



Ersa GmbH & High Q Electronic Service GmbH

The Hybrid Rework System HR 550.

Positive conclusion to the pilot phase for Ersa Hybrid Rework System HR 550

Ersa presented the Hybrid Rework System HR 550 to European trade visitors for the first time at the productronica 2015. The Munich-based EMS service provider High Q Electronic Service GmbH was one of the first pilot customers to

test the new rework system in a real manufacturing landscape. At the end of the pilot phase of around nine months, both partners have taken stock and presented a positive result.



The Ersa Hybrid Rework System HR 550.

The HR 550 is a high-performance rework system for demanding tasks. Jörg Nolte, Product Manager at Ersa GmbH, paraphrases the development requirements for the HR 550 as follows: "Our objective was to create a universal rework system that is very easy to operate. Many customers have a large number of variants when repairing assemblies and components, coupled with a number of different users who always have to achieve a good repair result. For this reason, we have developed a system that guides the user through the different working steps like no other."

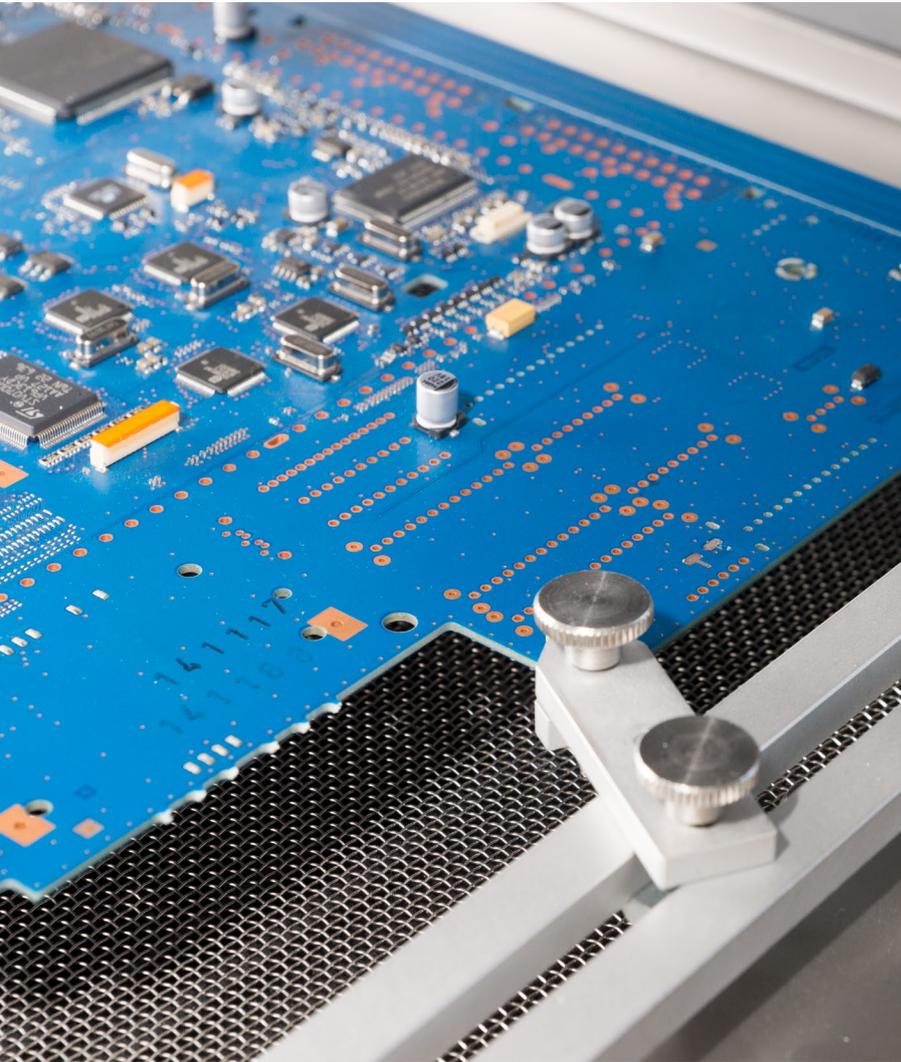
The HR 550 has a 1,500 W hybrid high-power heating element which can be used to solder and desolder SMT components up to a size of 70 x 70 mm. The 2,400 W infrared underside heater in three separately adjustable zones guarantees the homogeneous heating of the entire assembly and goes easy on the overall PCB. A choice of contact-less or contacting temperature recording at the component

and optimised process guidance guarantee an optimum desoldering and soldering process.

The GUI is clearly structured and leads the user through the rework process by means of text messages and pictograms. In addition, the system is equipped with Computer Aided Placement (CAP) which provides optimum support for the working process through one 5 MPix camera, high-contrast false-colour display and switchable optics.

Component removal and component placement are done using a high-precision vacuum pipette which is integrated in the heating head. The exchangeable heating head and the vacuum pipette are controlled by a stepper motor each. An integrated pressure sensor detects the contact to the component and board.

In autumn 2016, High Q Electronic Service GmbH received its HR 550 as a pilot customer. "We regularly receive externally equipped PCBs and have to



"We didn't get that many requests initially, but over time we built up a good reputation for these tasks which led to us being entrusted with more and more demanding orders," Hacklinger reports. It stands to reason that inquiries were sent to High Q that had been rejected by other service providers. "Our main task is not only the standardised desoldering and resoldering of components. Quite often our work saves the entire PCB, enabling our customers to meet their delivery deadlines and avoid unnecessary costs," Hacklinger goes on to explain. "For this reason, the HR 500 came just at the right time, because we have to work at the latest technical standard in this field," he adds.

The intuitive operation of the unit and program-controlled handling had the company convinced. "The amount of work we have to get through in a day means that different employees carry out rework. All our employees are experts in this field, but the HR 550 now permits very comparable final results on a very high level. The standardised and automated workflows make fast order processing possible, though this is still combined with high process reliability," says Hacklinger in conclusion. The production team uses the HR 550 for exchanging BGAs and LGAs, equips fine-pitch components or places special connectors after the SMD process.

The High Q experts found a few potential improvements during the pilot phase which have now been integrated in the HR 550. "For customers like us in particular, who have worked with Ersa lines before, getting used to the new unit is very easy. The HR 550 was immediately very well received by our employees, could be used fully after a short period of training with the first countable results," Hacklinger recalls. Thanks to the new rework performance, High Q has won new customers who have significant amounts of rework orders to be done by the Munich-based EMS service provider. ■

replace faulty or incorrect components on these by the right, functional components. That is part of our day-to-day business," explains Anton Hacklinger, managing partner of the Munich-based EMS service provider. A high level of expertise and modern equipment are an absolute must for the professional handling of rework. The desoldering and soldering of BGAs and QFPs is not the only speciality High Q has to offer. Particularly when special tasks such as package-on-package or the wiring under BGAs are required, finesse, experience and the right technical equipment are crucial.

The company has been doing rework at its base near Munich's Ostbahnhof (East Station) for more than ten years.

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