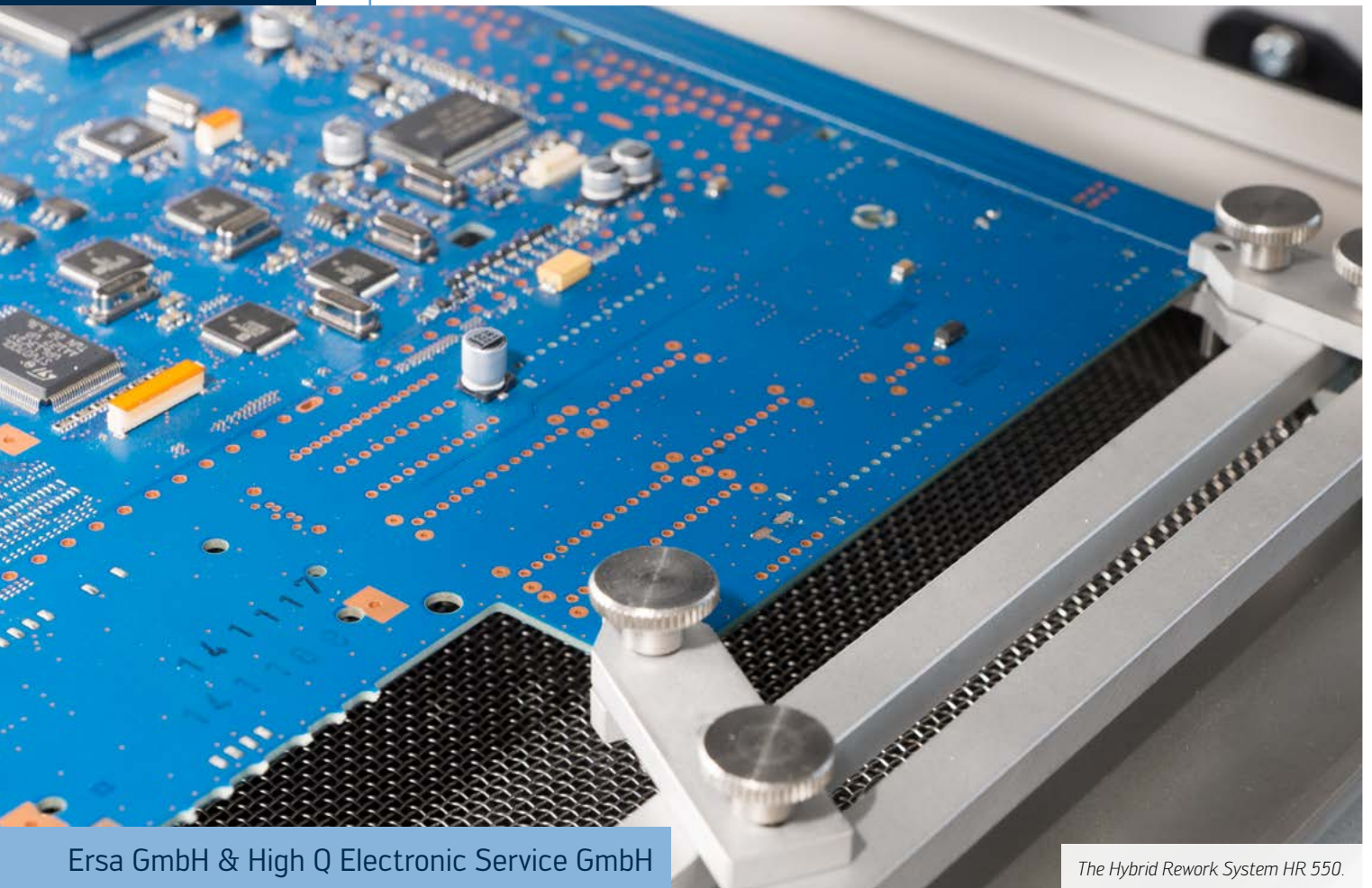


User report



Ersa GmbH & High Q Electronic Service GmbH

The Hybrid Rework System HR 550.

Complete successful pilot phase for Ersa's HR 550 Hybrid Rework System

At productronica 2015, Ersa introduced the HR 550 Hybrid Rework System to the professional European public for the first time. Munich-based EMS service provider High Q Electronic Service GmbH was one

of the first pilot customers to test the new rework system in the real production landscape. The two partners are now drawing a positive balance after a pilot phase of nearly three-quarters of a year.

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 **kurtz ersa**



The Ersa Hybrid Rework System HR 550.

The HR 550 is a high-performance rework system for challenging tasks. Jörg Nolte, product manager at Ersa GmbH, describes the development requirements for the HR 550 as follows: "Our goal was to create a universal, very simple-to-operate rework system. Many customers have a large variety of versions when repairing assemblies and components paired with changing users, who should always arrive at a good repair result. That's why we've developed a system that guides the user like no other through the different work steps."

The HR 550 features a 1 500 W hybrid high-performance heating element with which SMT components of up to 70 mm x 70 mm can be desoldered and soldered. The 2 400 W infra-red underside heater — divided into three separate settable zones — guarantees the entire assembly's homogeneous heating, which has a conserving effect on the entire printed board.

The selectable non-contact or contact temperature monitoring on the component as well as optimized process control guarantees an optimal desoldering and soldering process.

GUIDING THE USER

The operating interface is clearly structured and leads the user through the rework process with text messages and pictograms. Moreover, the system is equipped with computer aided placement (CAP), which optimally supports the work process with a 5 MPix camera, high-contrast false-colour display, and switchable optics. Components are removed or placed using a highly accurate vacuum pipette, which is integrated into the heating head. Stepper motors control the switchable heating head and the vacuum pipette. An integrated force sensor detects contact to component and board.

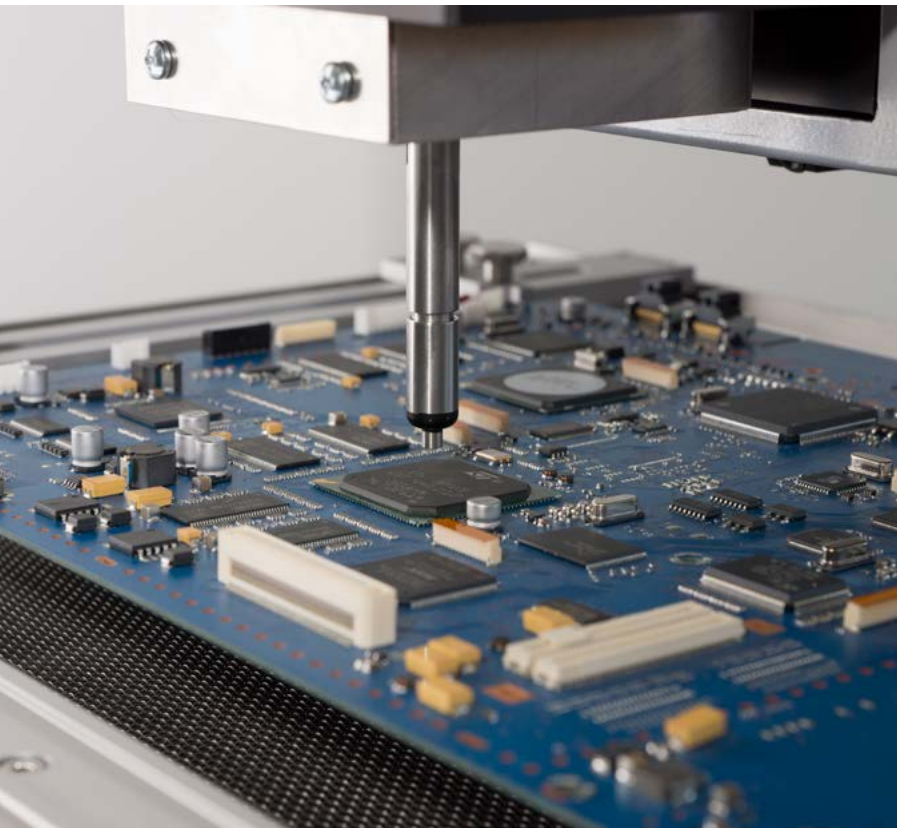
Facts

High Q Electronic Service GmbH

As an owner-managed EMS service provider, High Q Electronic Service GmbH is the technology partner for electronics production in the heart of Munich. The greatest care and precision as well as the highest quality and reliability are a matter of course during the development, production, and testing of electronic products.

High Q Electronic Service advises its customers on the way to the serial product and producing electronics—from the prototypes to start of production.

Products manufactured by High Q Electronic Service are used worldwide, for example in radio communication systems, high-frequency power amplifiers, or in digital telemetry systems.



PROFESSIONAL HANDLING OF REWORKING

As a pilot customer, High Q Electronic Service GmbH received its HR 550 in autumn 2016. Anton Hacklinger, managing director of the Munich-based EMS service provider explained: "We regularly receive printed boards populated elsewhere from which we're expected to exchange faulty or incorrect components with correct, functioning components. This is part of our daily business." Great expertise and modern equipment are absolutely necessary in this connection to handle the rework tasks professionally. Desoldering and soldering BGAs and QFPs is not High Q's only speciality. Intuition, experience and the right technical equipment are crucial, particularly when it comes to special tasks such as package-on-package or wiring under BGAs.

The company from Munich's Ostbahnhof has been conducting rework for more than 10 years. "The requests were manageable at first, but we've developed a

good reputation for these tasks over the years so that we've been entrusted with ever more demanding assignments," says Hacklinger in retrospect. The fact that requests rejected by other service providers are also placed with High Q is obvious. "Our main task is not just standardized desoldering and resoldering of components. We often save the entire printed board with our work, which enables our customers to meet their delivery deadlines and avoid unnecessary costs," continues Hacklinger. "That's why the HR 550 was just right for us. We have to work at the cutting-edge of technology in this area."

Here, the system's intuitive operation and its program-controlled handling were convincing. Hacklinger continues, "Due to the daily workload, different employees take over the rework. All of our employees are experts in this area. The HR 550 now enables very comparable results at a very high level. The standardized and automated processes make rapid order processing possible, combined with a high level of process reliability." The team at High Q uses the HR 550 to exchange BGAs and LGAs, pick-and-place fine-pitch components, and place special connectors after the SMD process.

ONLY A SHORT TRAINING NECESSARY

In the process, High Q's experts have hit upon little improvement possibilities during the pilot phase, which have been incorporated into the HR 550. "The conversion is very simple especially for customers like us, who have already worked with Ersa systems, stated Hacklinger in retrospect. "The HR 550 was immediately well accepted by our employees and was fully operational after a brief training, with the first countable results." The new rework performance has enabled High Q to acquire the first new customers, who have had considerable reworking done by the Munich-based EMS service provider. ■



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