Rework Catalogue 2010
SMT, BGA & THT Rework & Repair Solutions
Our Vision

Our competitive lead in technology optimizes quality, costs and delivery service in our customers’ production process.

Our Mission

- We develop and produce high quality machines and systems for the production of electronics.

- We offer services and complete solutions designed to optimize our customers’ production processes.

- We think globally and act locally.

- As a company with tradition, we strive for long-term relationships with our customers, partners and employees.

- Our core focus is to business areas where we can prove to be “Best in Class” as compared to third parties.

- We strive for above average economic success in order to guarantee the continuing development and innovative strength of our company.
Over the past two decades, rework & repair of electronic assemblies has been one of the most exciting and challenging undertakings in the industry. The increasing complexity of the PCBs, as well as the advancements in packages has put additional demands on both rework specialists and their equipment. Applications oriented, innovative solutions are the key to success in this demanding field.

ERSA took on the rework challenge almost ten years ago as it introduced its first patented medium wavelength infra red rework system, the ERSA IR 500. Today, we are proud to boast one of the world’s largest installed equipment bases of over 5,000 systems ranging from smaller bench top units to larger semi-automated machines. ERSA rework systems have proven themselves to be the undisputed leader in handling the largest variety of rework applications. From the smallest 0201 up to the largest SMT connector (120 mm), from SMT Flip Chips to THT Pin Grid Arrays, from BGA on flex circuit to stacked BGAs and from metal shields to plastic processor sockets, the safe IR technology handles it all.

Now recognized as one of the market leaders in the rework field, ERSA is happy to present its most complete range of products in this new Rework Catalogue.
ERSA’s proven Multiple True Closed Loop Selective Rework technology uses the actual temperature of the component and/or PCB to drive the DynamicIR heating system. The non-contact IntelligentIRS infrared sensor offers a comfortable, in-process temperature measurement of the component to be heated and guarantees that it exactly follows the prescribed profile path. The power to the medium wavelength IR heaters is controlled based on the precise temperature gradient of the component required at each specific time point in the profile. Up to four additional AccuTC K-type thermocouples can monitor temperatures at four additional locations in order to prevent the system from undesired overheating of temperature sensitive components.

The DynamicIR heating technology offers a multiple zone, optimized reflow process with either 1,600 W or 4,600 W of total heating power. The RPC Reflow Process Camera offers enhanced safety by visualizing the rework process. Finally, the new IRSoft Control & Documentation Software provides a user-friendly, command & control interface.
APR – Auto Process Repetition

Ultimate Rework Process Stability

Today’s rework operators have many different challenges, sometimes high mix and other times high volumes. Quite often operators must perform completely different removals and replacements on a large mix of different boards. For these applications, ERSA’s Multiple True Closed Loop Process offers the highest degree of safety available on the market. Other times, however, operators must perform the exact same operation on hundreds or thousands (high volumes) of boards and must guarantee safety and repeatability. For these applications, ERSA now introduces the ERSA APR – Auto Process Repetition for automated selective rework.

Similar to how our in-line selective soldering systems function, APR allows the operator to establish the perfect closed loop profile using the multiple sensors provided. The system records the exact power control of the top and bottom heaters and their zones over the entire time cycle of the process. After verifying the optimal profile, the boards for repeated high volume rework can be placed into the system one-by-one and each and every PCB will be subjected to the exact same selective reflow process. Speed, safety and ultimate process repeatability are the added value benefits of this important new rework function.

APR Features:

- Rework Process Stability for high repetition applications
- Multiple sensor, closed loop profiling
- Auto recording of all heating parameters
- Auto repetition of system heating control
- For use with the IR 650 & IR 550 systems
- APR Control via IRSoft

All PCBs follow the exact same temperature profile

User-friendly operating interface
The IR/PL 650 is ERSA’s flagship rework machine and affords the greatest heating power (4,600 W) for large and difficult PCBs. This machine was designed to offer the highest degree of automation in the ERSA rework line. The IR/PL 650 requires the least operator dependence and thus guarantees a stable and repeatable rework process for all applications.

The IR Rework system is broken down into four distinct operational modules:

I. IR 650 Selective Reflow module  
II. RPC 650 Reflow Process Camera module  
III. PL 650 Precision Placement module  
IV. IRSoft Software module (see pages 16 & 17)

Recommended Accessories:
It is recommended to purchase: Split Optic Kit (p. 21) for placing large PQFPs, Component Centering Station (p. 21) for alignment of fine pitch components and the Rework Starter Kit (p. 20). Special desoldering tools, such as the Chip Tool for small SMD removal and the X-Tool for TH desoldering can be used with the solder station integrated into this system. For ordering details, please refer to the ERSA Soldering Tools catalogue or visit www.ersa.com. A complete listing of all rework accessories can be found on pages 20 through 23.
ERSA IR 650
Selective BGA/SMT Reflow Technology for Rework

The IR 650 Selective Reflow Module uses DynamicIR heating technology for fully automatic dynamic control of the top (1,400 W / 60 mm x 120 mm) and bottom (3,200 W / 350 mm x 450 mm) IR heaters. The total available power (4,600 W) to the selective reflow system is spread across 4 separately controllable heating zones on the top and 5 zones on the bottom. Depending on board size, the thermal mass of the substrate, and component size, the DynamicIR technology guarantees that the required heat energy is delivered at the precise time and location in order to ensure that the component and board exactly follow the prescribed temperature profile.

Now combined with the enhanced capability to run an extended or flat peak, this revolutionary technology affords the lowest temperature deltas across the component, the highest degree of process safety and greatly reduces PCB warpage.

**Ordering information:**
0IR650A  IR Rework System IR 650 with RPC 650 Module
(incl. IRSoft, 2 pcs. AccuTC, 1 pc. Flexpoint TC holder, integrated cooling fans & soldering station)

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**IR 650 Module Features:**

- DynamicIR & Multi True Closed Loop controlled selective reflow process with APR
- 5 channel temperature recording:
  - 1 IRS sensor, 4 AccuTC thermocouples (K-type)
- Laser pointer for component ID & PCB positioning
- Motorized reflow head with component lift-off
- 9 programmable heating zones with 4,600 W
- Removable PCB fixing frame with top & bottom side center supports; max. PCB size 560 mm x 460 mm
- Integrated axial top & laminar bottom cooling fans
- Component handling vacuum pen
- Integrated digital soldering station with soldering iron
- PC ready via USB interface using IRSoft
The RPC 650 Module is attached to the IR 650 module and uses a new high-power (up to 300x enlargement) motor zoom camera, a controllable LED ring lighting system, and a movable arm in order to visualize the rework process real time. The reflow process can be viewed from various angles and high magnification on even the smallest of components.

**RPC 650 Module Features (as part of IR 650):**

- CCD camera with 25 x optical and 12 x digital zoom
- Motorized zoom and focus
- LED ring light
- One Push Auto Focus and white balance
- Programmable camera presets
- Multiple angle, movable & fixable arm
- Remote control via mouse or PC using IRSoft
ERSA PL 650

Precision Component Placement

The PL 650 Module is the second generation precision placement system designed for the largest range of components, increased automation, and guaranteed repeatability. A highly sophisticated and fully automated, pressure triggered component placement head drops off the component at the same contact pressure (2 – 3 N) as an in-line Pick & Place machine.

A high-resolution camera with motorized zoom permits highly precise alignment of component leads to lands with up to 300x enlargement. The excellent image quality is supported by a high-contrast, separately controlled 2 colour LED lighting system from four sides. The Auto Pick & Place mode guarantees repeatable and precise results.

PL 650 Module Features:
- CCD camera with 25 x optical and 12 x digital zoom
- Motorized head, prism cassette, zoom and focus
- Pressure triggered head with automatic drop off
- "Auto Pick" & "Auto Place" with +/- 0.010 mm accuracy
- Component handling from 1 x 1 mm to 60 x 60 mm
- 60 x 60 mm beam split optic for large QFPs (optional)
- Four side red / white LED illumination
- One push auto focus, white balance
- Programmable camera presets
- Remote control via PC using IRSoft

"Auto Pick & Place" allows for rapid, precise and repeatable results!

Ordering information:
0PL650A Motorized Precision Placement System PL 650
(PL 650 module attachable to IR 650 and controlled via IRSoft)
ERSA IR/PL 550

The Best Selling Rework System

The IR/PL 550 is one of the best selling and most widespread rework systems in the world and offers the best cost/performance ratio. This system is designed for small to medium size PCBs and has proven itself to be the “Workhorse” in our rework product line. The IR/PL 550 is a unit which offers the greatest flexibility for operators to best interact with their system in order to handle the most complex SMT and THT rework applications.

The IR Rework system is broken down into four basic operational modules:

I. IR 550 Selective Reflow module
II. RPC 550 Reflow Process Camera module
III. PL 550 Precision Placement module
IV. IRSoft Software module (see pages 16 & 17)

Recommended Accessories:

It is recommended to purchase the Process Cooling Fan (p. 21) with the IR 550. When the IR 550 is not used in combination with the PL 550, it is highly recommended to purchase the X-Y Table (p. 23) and the RPC 500 (p. 13). Additionally, it is helpful to purchase the Rework Starter Kit (p. 21). Special desoldering tools, such as the Chip Tool for small SMD removal and the X-Tool for TH desoldering can be connected to the solder station integrated into this system. For ordering details, please refer to the ERSA Tools catalogue. A complete listing of all rework accessories can be found on pages 20 - 23.
The IR 550 is the “Best Seller” in the ERSA rework line with thousands systems sold. This module uses DynamicIR heating technology for fully automatic dynamic control of the top (800 W / 60 mm x 60 mm) and bottom (800 W / 135 mm x 260 mm) IR heaters. Depending on board size, thermal mass of the substrate, and component size, the DynamicIR heaters (total of 1,600 W) guarantee that the required heat energy is delivered at the precise time and location in order to ensure that the component exactly follows the prescribed temperature profile. Combined with the enhanced capability to run a flat peak, this revolutionary technology affords the lowest temperature deltas across the component, and greatly reduces PCB warpage.

**IR 550 Module Features:**

- DynamicIR & Closed Loop selective reflow process
- 2 channel temperature recording:
  - 1 IRS sensor, 1 AccuTC thermocouples (K-type)
- Laser pointer for component ID & PCB positioning
- Manual reflow head with auto component lift-off
- Integrated axial top cooling fan
- Integrated digital soldering station with soldering iron
- Remote control via mouse or PC using IRSoft

**Ordering information:**

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<th>Code</th>
<th>Description</th>
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<tr>
<td>0IR550A</td>
<td>Rework System IR 550 (without X-Y PCB table)</td>
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<tr>
<td></td>
<td>(incl. IRSoft, 1 x AccuTC and soldering station)</td>
</tr>
<tr>
<td>0IR5500-01</td>
<td>X-Y PCB Table (p. 23) (not required with PL 550)</td>
</tr>
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</table>

For best soldering results, ERSA provides the IR 550 since 03/08 with a stainless steel grid as standard bottom radiator cover. Please order material number 0IR5500-33 if for your application a heat resistant glass cover is required (p. 21).
The PL 550 includes the RPC 550 module. This system is both a proven precision placement system designed for the largest range of components and offers reflow process viewing. A pressure triggered component placement head drops off the component at the same contact pressure (1.5 N) as an in-line Pick & Place machine. This Auto Component drop-off guarantees safe and precise results. A high-resolution placement camera with motor zoom permits highly precise alignment of component connections to lands with up to 72 x enlargement. The excellent image quality is supported by a high-contrast, separately controlled 2 colour LED lighting system from two sides.

**Recommended Accessories:**
It is recommended to purchase the Split Optic Kit (p. 21) as well as additional placement nozzles (p. 20).
The RPC 550 module is a part of the PL 550 and uses a new high-power (up to 72 x enlargement) motor zoom camera, a controllable LED ring lighting system, and an extremely robust, movable stand. The reflow process can be viewed real time from multiple angles and high magnification on even the smallest of components.

**PL 550 & RPC 550 Module Features:**

- 2 each High-quality PAL CCD cameras (18 x optical + 4 x digital zoom)
- Manual component handling (from 1 x 1 mm to 40 x 40 mm in size)
- “Auto Component Drop-Off” at 1.5 N (up to +/- 0.010 mm accuracy)
- 40 x 40 mm beam split optic for large QFPs
- Motorized zoom and focus; one push auto focus
- Two side red / white LED illumination
- LED ring light; multiple angle, movable arm

**Ordering information:**

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<tr>
<th>Code</th>
<th>Description</th>
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<tr>
<td>OPL550A</td>
<td>Precision Placement System with Reflow Process Camera</td>
</tr>
<tr>
<td>OPL550AU</td>
<td>Precision Placement System without Reflow Process Camera</td>
</tr>
<tr>
<td>0VSRPC-UKIT2</td>
<td>Reflow Process Camera Upgrade for OPL550AU</td>
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</table>
ERSA RPC 500
Stand Alone Reflow Process Camera

The new RPC 500 unit offers rework process viewing at the lowest cost possible. The 70 x optical magnification, Macro Zoom Lens delivers highest quality and high magnification images of the finest applications. Mounted on its bottom side, the 180° swivel arm carries the camera and provides maximum flexibility of process viewing angles. This unit can be used in combination with the IR 550, the HR 100, the IRHP 100 and any other hand tools.

RPC 500 Module Features:

- High-quality CMOS USB 2.0 camera
- 70 x optical Macro Zoom Lens
- LED Dual Spot Lighting with flexible arms & variable intensity
- Free swivel arm, 180° stable stand
- For use with all bench top rework systems & tools

Ordering information:
0VSRPC500A-LE  Stand alone Reflow Process Camera, complete
The new HR 100 uses ERSA’s revolutionary and patented Hybrid Rework Technology for safe removal & replacement of small SMDs in a lead free environment! Safe, medium wave IR-radiation combined with a gentle hot air stream guarantees optimal energy transfer to the component.

The Hybrid Tool delivers smooth and homogeneous heat to lead free components sizing from 0201s to 20 x 20 mm SMDs and even larger. Exchangeable Hybrid Adaptors focus 200 W of safe hybrid heating power onto the component while protecting neighbouring areas from blowing away adjacent chips.

The user friendly operation allows for even non experienced operators to handle the HR 100 safely and quickly. Advanced operators using the HR/IRHP 100 complete system can not only set air volume and heating power levels, but they can also run & record profiles! ERSA’s ergonomically designed Hybrid Tool handle contains a positioning laser which helps the operator to focus the heat precisely throughout the entire process.

Via the Mini-USB port, the HR 100 can be connected to ERSA’s top of the line and well established rework software, ERSA IRSoft (see pages 16 & 17). The HR 100 has been designed to be used with the IRHP 100, an 800 W IR-heating plate. This complete set provides powerful and safe IR bottom side heating as well as a Z-axis tool stand for the Hybrid Tool and an X-Y PCB board holder. The K-Type thermocouple included monitors PCB temperature and even allows for a closed loop soldering process with ramp profiles.

The HR/IRHP 100 fulfils all needs of a modern Rework System providing highest flexibility at the lowest cost!
Recommended Accessories:
It is recommended to purchase the complete system (IRHR100 A-HP) with an optional Process Cooling Fan (p. 21). When using the HR 100 alone, it is recommended to purchase an AccuTC and Flexpoint TC holder for maximum rework safety. For a complete listing of all rework accessories, see pages 20 through 23.

Ordering information:

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<th>Code</th>
<th>Description</th>
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<td>0IRHR100A-HP</td>
<td>HR 100 &amp; IRHP 100 as complete set</td>
</tr>
<tr>
<td>0IRHR100A</td>
<td>Hybrid Rework System HR 100 with 200 W Hybrid Tool, three Hybrid Adaptors,</td>
</tr>
<tr>
<td></td>
<td>Adaptor changer, VacPen and tool holder</td>
</tr>
<tr>
<td>0IRHP100A</td>
<td>IR Heating Plate IRHP 100 for HR 100</td>
</tr>
<tr>
<td></td>
<td>800 W IR-heating plate with Hybrid tool holder, Flexpoint TC-holder with</td>
</tr>
<tr>
<td></td>
<td>AccuTC thermocouple, USB cable and IRSoft software</td>
</tr>
</tbody>
</table>

HR 100 Module Features:
- Hybrid Tool with 200 W heating element; positioning laser in the Hybrid Tool handle
- Three exchangeable Hybrid Adaptors (6 x 6 mm, 10 x 10 mm and 20 x 20 mm)
- Low Noise Rework Blower (below 40db)
- Integrated vacuum pump & VacPen; tool holder and K-Typ TC input socket; USB interface; LED-display; “Turn & Push” control
- 2 Channel Temp. Recording: TC & IRS; AccuTC and Flexpoint TC holder

IRHP 100 Module Features:
- Hybrid tool holder with Z-axis height adjust & lock
- X-Y PCB board holder (290 mm x 250 mm)
- 800 W IR-heating plate with glass cover: 125 mm x 125 mm high performance IR heating element
- Closed Loop Profiles with ERSA IRSoft Rework Documentation software; User Level Access
With the launch of this new catalogue, ERSA has now rounded off its rework product platform from the hand held HR 100 all the way up to the flagship IR/PL 650. In keeping with our foremost goal of operator satisfaction, we are happy to present our latest update to our renowned software concept. The new IRSoft 4 is a universal, system control, process documentation and process visualization software platform designed for use with all ERSA rework systems, from the smallest to the largest. In this manner, ERSA ensures operators an easy move between systems with hardly any learning curve required.

User Friendly Software designed by Users!
Probably the greatest advantage of the IRSoft rework software platform is that it was literally co-designed by our customers in the field. Today, with 10 years of rework experience and over 5,000 systems installed, we have continually added features and functions which were demanded by the market and have provided free updates to the existing user base. Fast and simple profiling, user level defined steps with access recognition & authorization and finally now the APR Automatic Process Repetition (see p. 5 of this catalogue) are all testimony to the continual advancement of this user oriented software platform.

The latest IRSoft offers new and clearly structured user administration options. A customized Log-In for beginner and advanced operators automatically opens only that rework system and those control options authorized for that specific individual. Additionally, the actual operating condition of all systems on-line is visualized in real time. All process steps are automatically recorded for process repeatability, documentation & traceability purposes.
ERSA IRSoft Features:

- Control software for IR/PL 650, IR 550 and HR 100 (with IRHP 100)
- Easy to use interface with Online Help function
- Visualization of all rework process data with up to 5 channel temperature recording
- Live process video window for both the PL 650, PL 550 and all RPC modules
- Customized user admin rights and library for application & customer based profiles
- Complete Process Documentation and Analysis
- Operating systems – Windows 2000, XP and Vista
- All systems communicate over an ultra fast USB 2.0 cable included

The various functional modules contained in the ERSA rework systems can all be run with the IRSoft 4. In addition to the control of the reflow module with profile setting and temperature monitoring, the software runs the RPC and component placement modules. The explorer based, rework library databank can be customized by customer, application and or rework system.

For Use with All Rework Systems

Controls All Modules
Difficult Applications – No Problem!

ERSA Rework Systems Handle the Most Complex Rework Applications

The purchasing decision for today’s rework equipment goes to that company that can GET THE JOB DONE! Rework applications specialists at ERSA have proven the flexibility of our systems by handling applications where other units failed. Some of the most difficult of these applications include: stacked BGA packages (RAM, DIMM module), top & bottom side shadowed BGAs, mobile phone shield and BGA rework, rework on aluminium composite boards, BGA desoldering with heat sink glued on component, LGA775 THT-socket exchange, BGA on flex circuit, reworkable epoxies, and large plastic BGA processor sockets just to name a few.

Please look closely at the application picture gallery contained on these two pages to fully understand the true versatility of the ERSA rework systems. Finally, do not hesitate to contact ERSA directly for special rework applications assistance and training material.

ERSA IR 550 is IPC’s recommended BGA reballing system (Source IPC 7711)
Heavy mass aluminium carriers, metal plates & shields, ceramic substrates and even plastic components can be safely reworked with ERSA rework heating technology!
As all rework operators know, the key to success comes down to two things: the right equipment and the right technique! ERSA provides all tools and accessories required to perform professional rework operations. On the following pages, the most frequently purchased and highly recommended accessories are listed. Our years of rework experience with several thousand customers have allowed us to compile the most frequently purchased and most useful accessories. In each of the accessory tables below, we have included a column marked as “Starter Kit” which is the recommended Rework Starter Kit. Please consult our General Hand Tools Catalogue for more items and do not hesitate to contact ERSA directly for custom tips and accessories or visit www.ersa.com.

## Placement Nozzles & Suction Cups

Precise Placement & Removal of the Smallest & Largest SMDs

<table>
<thead>
<tr>
<th>Order Number</th>
<th>Name</th>
<th>Description</th>
<th>Technical Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>OPL6500-13</td>
<td>Nozzle 0.8 mm</td>
<td>pick &amp; place of smallest components</td>
<td>outer diameter 0.8 mm</td>
</tr>
<tr>
<td>OPL6500-14</td>
<td>Nozzle 1.2 mm</td>
<td>pick &amp; place of very small components</td>
<td>outer diameter 1.2 mm</td>
</tr>
<tr>
<td>OPL6500-15</td>
<td>Nozzle 3 mm</td>
<td>pick &amp; place of small components</td>
<td>outer diameter 3.0 mm</td>
</tr>
<tr>
<td>OPL6500-16</td>
<td>Nozzle 4 mm</td>
<td>pick &amp; place of medium size components</td>
<td>outer diameter 4.0 mm</td>
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<tr>
<td>OPL6500-17</td>
<td>Nozzle 10 mm</td>
<td>pick &amp; place of large components</td>
<td>outer diameter 10 mm</td>
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<tr>
<td>OPL6500-18</td>
<td>Nozzle 10 mm/rubber lined</td>
<td>pick &amp; place of heavy components</td>
<td>outer diameter 10 mm, rubber lined</td>
</tr>
<tr>
<td>OPL550A-S008</td>
<td>Nozzle 0.8 mm diameter</td>
<td>pick &amp; place of smallest components</td>
<td>outer diameter 0.8 mm</td>
</tr>
<tr>
<td>OPL550A-S012</td>
<td>Nozzle 1.2 mm diameter</td>
<td>pick &amp; place of very small components</td>
<td>outer diameter 1.2 mm</td>
</tr>
<tr>
<td>OPL550A-S003</td>
<td>Nozzle 3 mm diameter</td>
<td>pick &amp; place of small components</td>
<td>outer diameter 3.0 mm</td>
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<tr>
<td>OPL550A-S004</td>
<td>Nozzle 4 mm diameter</td>
<td>pick &amp; place of medium size components</td>
<td>outer diameter 4.0 mm</td>
</tr>
<tr>
<td>OPL550A-S010</td>
<td>Nozzle 10 mm diameter</td>
<td>pick &amp; place of large components</td>
<td>outer diameter 10 mm</td>
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<tr>
<td>0IR5500-40</td>
<td>MicroPickup Type 0510</td>
<td>lifting of smallest components, rigid</td>
<td>outer diameter 1 mm, inner diameter 0.5 mm, brass</td>
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<tr>
<td>0IR5500-41</td>
<td>MicroPickup Type 1020</td>
<td>lifting of small components, rigid</td>
<td>outer diameter 2 mm, inner diameter 1 mm, brass</td>
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<tr>
<td>0IR5500-44</td>
<td>Suction adaptor small</td>
<td>adaptor for suction cups</td>
<td>for cups 2 and 3.5 mm, brass</td>
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<tr>
<td>0IR5500-45</td>
<td>Suction adaptor</td>
<td>adaptor for small suction cups</td>
<td>for cups 5 and 8 mm, stainless steel</td>
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<td>0IR4520-01</td>
<td>Silicone suction cup 8 mm</td>
<td>lifting of large components, flexible</td>
<td>outer diameter 8 mm, silicone</td>
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<tr>
<td>0IR4520-02</td>
<td>Silicone suction cup 5 mm</td>
<td>lifting of medium size components, flexible</td>
<td>outer diameter 5 mm, silicone</td>
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<tr>
<td>0IR4520-03</td>
<td>Silicone suction cup 2 mm</td>
<td>lifting of very small components, flexible</td>
<td>outer diameter 2 mm, silicone</td>
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<tr>
<td>0IR4520-04</td>
<td>Viton® suction cup 8 mm</td>
<td>lifting of large components, flexible</td>
<td>outer diameter 8 mm, Viton®, long life</td>
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<tr>
<td>0IR4520-05</td>
<td>Viton® suction cup 5 mm</td>
<td>lifting of medium size components, flexible</td>
<td>outer diameter 5 mm, Viton®, long life</td>
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<td>0IR4520-06</td>
<td>Viton® suction cup 3.5 mm</td>
<td>lifting of small components, flexible</td>
<td>outer diameter 3.5 mm, Viton®, long life</td>
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Viton® is a registered trademark of Dupont Dow Elastomes
Temperature Sensors

Highly Accurate & Flexible Temperature Measurement

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<th>Name</th>
<th>Description</th>
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<tr>
<td>0IR6500-01</td>
<td>AccuTC sensor with fixture</td>
<td>thermocouple with metallic fixture</td>
<td>Ni-Cr-Ni sheathed thermocouple, diameter 0.5 mm</td>
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<tr>
<td>0IR6500-37</td>
<td>AccuTC sensor w/o fixture</td>
<td>thermocouple w/o metallic fixture</td>
<td>Ni-Cr-Ni sheathed thermocouple, diameter 0.5 mm</td>
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<tr>
<td>0IR4510-02</td>
<td>Thermo couple wire K-type</td>
<td>temperature measurement</td>
<td>Ni-Cr-Ni wire, thermo-plug</td>
</tr>
<tr>
<td>0DIG207</td>
<td>Thermo couple wire K-type</td>
<td>temperature measurement</td>
<td>Ni-Cr-Ni wire, thermo-plug, for solder station in IR 650/550</td>
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<tr>
<td>0IR5500-35</td>
<td>TC holder Flexpoint</td>
<td>adjustable holder for AccuTC</td>
<td>length 210 mm</td>
</tr>
<tr>
<td>0IR5500-36</td>
<td>Extension for Flexpoint holder</td>
<td>extension</td>
<td>length 210 mm</td>
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Additional Equipment

Process Cooling & More

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<tr>
<td>0IR5500-13</td>
<td>Cooling fan with deflector hood</td>
<td>cooling of PCBs after rework</td>
<td>air volume: 160 cbm/h</td>
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<tr>
<td>0IR5500-43</td>
<td>Deflector hood for Cooling fan</td>
<td>direct airflow to the side</td>
<td>aluminium</td>
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<td>0PL500A-SPC</td>
<td>Split Optic cassette</td>
<td>magnified view of component corners</td>
<td>for components with diagonal of 21 - 50 mm</td>
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<tr>
<td>0PL6500-11</td>
<td>Split Optic for PL 650</td>
<td>magnified view of component corners</td>
<td>for components with diagonal of 15 - 55 mm</td>
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<tr>
<td>0PL6500-12</td>
<td>Centering station for PL 650</td>
<td>centering of components</td>
<td>to mount on PL 650</td>
</tr>
<tr>
<td>0DTM050</td>
<td>Digital temperature measuring device</td>
<td>temperature measurement</td>
<td>for K-Typ thermocouples, battery driven</td>
</tr>
<tr>
<td>0IR5500-33</td>
<td>ROBAX® glass plate for IR 550</td>
<td>glass plate cover for heating elements</td>
<td>ROBAX® glass plate</td>
</tr>
</tbody>
</table>
### Consumable Items

**Flux, Solder Wick, Heat Shields & More**

<table>
<thead>
<tr>
<th>Order Number</th>
<th>Name</th>
<th>Description</th>
<th>Technical Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>01MM0250LF02</td>
<td>Solder wire; Sn96.5Ag3.0Cu0.5</td>
<td>1 mm diameter, 250 grams</td>
<td>HR 100 A, IR 550 A, PL 650 A</td>
</tr>
<tr>
<td>0WICK NC 2.2</td>
<td>No Clean Solder Wick</td>
<td>remove solder</td>
<td>IR 550 A, PL 650 A</td>
</tr>
<tr>
<td>0WICK NC 2.7</td>
<td>No Clean Solder Wick</td>
<td>remove solder</td>
<td>IR 550 A, PL 650 A</td>
</tr>
<tr>
<td>4FMJF6000-PEN</td>
<td>Flux Pen, Interflux IF6001</td>
<td>flux &amp; applicator</td>
<td>PL 650 A, Starter Kit: 1</td>
</tr>
<tr>
<td>4FMJF8001-PEN</td>
<td>Flux Pen, Interflux IF8001</td>
<td>flux &amp; applicator with fiberglass brush, refillable, 7 ml</td>
<td>Starter Kit: 1</td>
</tr>
<tr>
<td>0WICK NC 2.2</td>
<td>No Clean Solder Wick</td>
<td>remove solder</td>
<td>IR 550 A, PL 650 A</td>
</tr>
<tr>
<td>0WICK NC 2.7</td>
<td>No Clean Solder Wick</td>
<td>remove solder</td>
<td>IR 550 A, PL 650 A</td>
</tr>
<tr>
<td>4FMJF8300-005</td>
<td>Flux Gel</td>
<td>flux for e.g. solderpad process</td>
<td>Starter Kit: 1</td>
</tr>
<tr>
<td>0IR4500-40</td>
<td>Heat Shielding Tape</td>
<td>heat protection of adjacent components</td>
<td>IR 550 A, PL 650 A</td>
</tr>
<tr>
<td>0IR4500-07</td>
<td>Capton Tape</td>
<td>heat resistant tape</td>
<td>IR 550 A, PL 650 A</td>
</tr>
<tr>
<td>0IR6500-46</td>
<td>PTFE-Glass-Cloth Tape</td>
<td>heat resistant tape to improve IRS reading on reflective surfaces</td>
<td>IR 550 A, PL 650 A</td>
</tr>
<tr>
<td>0TR01/SB</td>
<td>Tip Reactivator</td>
<td>reactivate tips</td>
<td>IR 650 A, PL 650 A</td>
</tr>
<tr>
<td>0FR200</td>
<td>Flux Cleaner</td>
<td>remove flux and clean PCB</td>
<td>IR 650 A, PL 650 A</td>
</tr>
</tbody>
</table>

A complete list of solder wires and solder wick can be found in the ERSA soldering tools catalogue and the related price list (see www.ersa.com).

### Solder Tips

**Special Tips for Rework Applications**

<table>
<thead>
<tr>
<th>Order Number</th>
<th>Name</th>
<th>Description</th>
<th>Technical Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>0612ZD/SB</td>
<td>Wick Tip</td>
<td>remove solder with wick</td>
<td>HR 100 A, IR 550 A, PL 650 A</td>
</tr>
<tr>
<td>0612WDLF/SB</td>
<td>Solder Tip, 4 mm, angle faced</td>
<td>remove solder</td>
<td>IR 650 A, PL 650 A</td>
</tr>
<tr>
<td>0612ND/SB</td>
<td>Solder Tip, 3 mm angle faced</td>
<td>remove solder</td>
<td>IR 550 A, PL 650 A</td>
</tr>
<tr>
<td>0612HD/SB</td>
<td>Solder Tip, Solderwell</td>
<td>soldering QFP, solder well process, remove bridges</td>
<td>IR 650 A, PL 650 A</td>
</tr>
<tr>
<td>0612TW/SB</td>
<td>Solder Tip, Techwell</td>
<td>apply solder</td>
<td>IR 650 A, PL 650 A</td>
</tr>
<tr>
<td>0612MD/SB</td>
<td>Solder Tip, PLCC Blade</td>
<td>PLCC installation</td>
<td>IR 650 A, PL 650 A</td>
</tr>
<tr>
<td>0612ULD/SB</td>
<td>Solder Tip, pencil point</td>
<td>fine SMD soldering</td>
<td>IR 650 A, PL 650 A</td>
</tr>
</tbody>
</table>

A complete list of supplied soldering tips can be found in the ERSA soldering tools catalogue and the related price list (see www.ersa.com).
## PCB Tables & Holders

Board Support Systems for Small, Large & Odd Shaped PCBs

<table>
<thead>
<tr>
<th>Order Number</th>
<th>Name</th>
<th>Description</th>
<th>Technical Data</th>
<th>HR 100 A</th>
<th>IR 500 A</th>
<th>IR 650 A</th>
<th>PL 550 A</th>
<th>PL 650 A</th>
<th>Starter Kit</th>
</tr>
</thead>
<tbody>
<tr>
<td>0IR5500-01</td>
<td>PCB X-Y table</td>
<td>Fixture for PCBs or PCB holders</td>
<td>recommended PCB size 280 x 390 mm</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0PL500A-LP01</td>
<td>Support for PCB holder</td>
<td>Support &amp; fixture to prevent PCB warpage 4 pcs, length 250 mm each, stainless steel</td>
<td>X X X X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0PH360</td>
<td>PCB holder</td>
<td>Fixture and support of medium size PCBs recommended PCB size 270 x 365 mm</td>
<td>X X X X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0PH100</td>
<td>PCB holder</td>
<td>Fixture of small PCBs</td>
<td>recommended PCB size 170 x 170 mm</td>
<td>X X X X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0IR6500-16</td>
<td>PCB holder</td>
<td>Fixture and support of large PCBs</td>
<td>recommended PCB size 460 x 560 mm</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0IR6500-17</td>
<td>PCB holder set</td>
<td>Fixture of odd shaped PCBs</td>
<td>4 pcs, 30 mm adjustable length per clamp, aluminium</td>
<td>X X X X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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