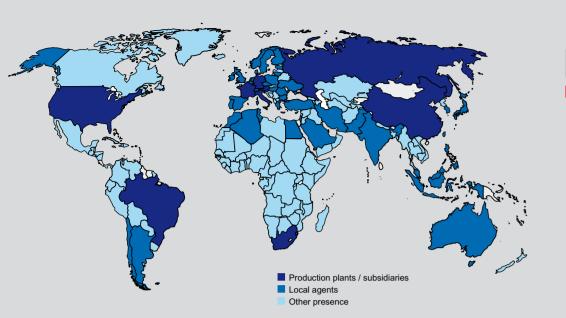
### The World is Kurtz – Present in 135 countries



Kurtz, ELECTRONICS

# **ERSA Production Equipment & Services**

for Manufacturing & Repair of Electronic Assemblies

- Screen Printing
- Rework & Repair
- Reflow Soldering
- Selective Soldering
- Wave Soldering

- Hand Soldering Tools
- Optical Inspection
- Value Added Services

Contact us for complete information:



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# Catalog 2008

Soldering Irons, Soldering / Desoldering Stations, Solder Fume Extraction, Hybrid Rework, Workbench Accessories



# 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.







### **Product Range**



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ANALOG 60



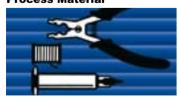
### Antistatic Soldering & **Desoldering Stations**



"CLEAN-AIR"-**Solder Fume Extractions** 



Accessories & **Process Material** 



### Soldering & Desoldering Tips

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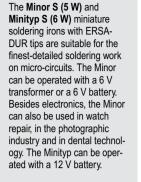
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### **Soldering Irons & Sets**



Today, the soldering irons and sets, high-speed soldering irons and gas powered soldering irons have proven their merit many times over throughout the world, always providing the fitting solution for various applications.





**ERSA Miniature Soldering Irons** 

**ERSA** Microsoldering Irons

012 soldering tip see page 40

Minor S 042 soldering tip series see page 40 Minityp S

CE

| Order no. | Description              | With soldering tip | Rating / Voltage | Heating<br>time | Max. soldering<br>tip temperature | Weight<br>(w/o cable) |
|-----------|--------------------------|--------------------|------------------|-----------------|-----------------------------------|-----------------------|
| 0045BDG   | Minor S soldering iron   | 0042BD, ERSADUR    | 5 W / 6 V        | 12 s            | approx. 440 °C                    | 6 g                   |
| 0015BDH   | Minityp S soldering iron | 0012BD, ERSADUR    | 6 W / 12 V       | 20 s            | approx. 390 °C                    | 7 g                   |

### The ERSA Multitip series covers a wide range of applications. It stands out by its low weight and compact design (short distance between soldering tip and the handle's front part). The handle stays relatively cool while soldering. The Multitip is available for 15 and 25 W and suitable for both micro-soldering joints and medium-sized soldering, as on distributor strips. Long-life and industrially tested PTC heating elements and internally heated soldering tips provide high efficiency and fast heat supply.

Tip 260 is also heated in this especially efficient way. 16 W power and slim design make this soldering iron an ideal aid when working on electronic assemblies in places difficult to access.

### Thanks to its large range of tips, the ERSA Multi-Pro is the ideal soldering iron when great flexibility is required. The device has a heatresistant connecting cable. Internally heated tips provide a high level of efficiency. ERSA 30 S, the best selling and most tried and tested universal soldering iron, is known the world over for its sturdiness and longevity. It can be used in a variety of ways for soldering tasks in handicrafts, service and hobbies. Delivery includes a practical, easily mounted rubber stick-on support disk. The ERSA 30 S is also available with 40 W.

### ERSA Multitip C15 162 soldering tip series (E 🖄 🔂 see page 44 ERSA Multitip C25 172 soldering tip series ( 6 🖓 🚱 see page 44 ERSA To 260 dias Tip 260 162 soldering tip series ( 6 🖓 🚱 see page 44

| Order no. | Description                 | With soldering tip | Rating / voltage | Heating time | Max. soldering<br>tip temperature | Weight<br>(w/o cable) |
|-----------|-----------------------------|--------------------|------------------|--------------|-----------------------------------|-----------------------|
| 0910BD    | Multitip C15 soldering iron | 0162BD, ERSADUR    | 15 W / 230 V     | approx. 60 s | approx. 350 °C                    | 28 g                  |
| 0920BD    | Multitip C25 soldering iron | 0172BD, ERSADUR    | 25 W / 230 V     | approx. 60 s | approx. 450 °C                    | 34 g                  |
| 0260BD    | Tip 260 soldering iron      | 0162BD, ERSADUR    | 16 W / 230 V     | approx. 60 s | approx. 350 °C                    | 40 g                  |

### **ERSA Universal Soldering Irons**



\*also available with heat-resistant cable, order no. 0330KD0028

| Order no. | Description              | With soldering tip | Rating / voltage | Heating time  | Max. soldering<br>tip temperature | Weight<br>(w/o cable) |
|-----------|--------------------------|--------------------|------------------|---------------|-----------------------------------|-----------------------|
| 0930CD    | Multi-Pro soldering iron | 0832CDLF, ERSADUR  | 20 W / 230 V     | approx. 5 min | approx. 430 °C                    | 60 g                  |
| 0330KD*   | ERSA 30 S soldering iron | 0032KD, ERSADUR    | 30 W / 230 V     | approx. 2 min | approx. 380 °C                    | 80 g                  |
| 0340KD    | ERSA 30 S soldering iron | 0032KD, ERSADUR    | 40 W / 230 V     | approx. 2 min | approx. 420 °C                    | 80 g                  |

## **ERSA Standard Soldering Irons** ERSA 50 S 052 soldering tip series see page 43 ERSA 80 S 082 soldering tip series see page 43 ERSA 150 S 152 soldering tip series see page 43

| Order no. | Description               | With soldering tip | Rating / voltage | Heating time  | Max. soldering tip temperature | Weight<br>(w/o cable) |
|-----------|---------------------------|--------------------|------------------|---------------|--------------------------------|-----------------------|
| 0055JD    | ERSA 50 S soldering iron  | 0052JD, ERSADUR    | 50 W / 230 V     | approx. 3 min | approx. 400 °C                 | 160 g                 |
| 0085JD    | ERSA 80 S soldering iron  | 0082JD, ERSADUR    | 80 W / 230 V     | approx. 3 min | approx. 410 °C                 | 220 g                 |
| 0155JD    | ERSA 150 S soldering iron | 0152JD, ERSADUR    | 150 W / 230 V    | approx. 3 min | approx. 450 °C                 | 245 g                 |

### **ERSA Workshop Soldering Irons**



| Order no. | Description                    | With soldering tip    | Rating / voltage | Heating time  | Max. soldering<br>tip temperature | Weight<br>(w/o cable) |
|-----------|--------------------------------|-----------------------|------------------|---------------|-----------------------------------|-----------------------|
| 0200MZ    | ERSA 200 hammer soldering iron | 0202MZ, nickel-plated | 200 W / 230 V    | approx. 5 min | approx. 470 °C                    | 550 g                 |
| 0200MD    | ERSA 200 hammer soldering iron | 0202MD, ERSADUR       | 200 W / 230 V    | approx. 5 min | approx. 470 °C                    | 550 g                 |
| 0300MZ    | ERSA 300 hammer soldering iron | 0302MZ, nickel-plated | 300 W / 230 V    | approx. 5 min | approx. 470 °C                    | 870 g                 |
| 0300MD    | ERSA 300 hammer soldering iron | 0302MD, ERSADUR       | 300 W / 230 V    | approx. 5 min | approx. 470 °C                    | 870 g                 |
| 0550MZ    | ERSA 550 hammer soldering iron | 0552MZ, nickel-plated | 550 W / 230 V    | approx. 7 min | approx. 600 °C                    | 1,770 g               |
| 0550MD    | ERSA 550 hammer soldering iron | 0552MD, ERSADUR       | 550 W / 230 V    | approx. 7 min | approx. 600 °C                    | 1,770 g               |

### Your Guide









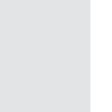
The tried and proven soldering irons of the ERSA 50 S / 80 S / 150 S series are designed for soldering operations with a greater heat requirement, as, for example, on copper conductors with a cross-section of 2.5 mm<sup>2</sup> (ERSA 50 S, 50 W) to 6 mm<sup>2</sup> (ERSA 150 S, 150 W).

The devices are supplied with an angled soldering tip as standard. Thanks to their elaborately generated "protective coating", ERSADUR tips have a much longer service life than their simple mates.

Other areas of application of the ERSA standard soldering irons include soldering thin sheet metal and lead glazing (ERSA 150 S).

The ERSA 200, 300 and 550 hammer soldering iron series are especially suitable for sheet metal processing, installation work and for soldering commutators and copper bus bars.

Hammer soldering irons have also proven their merit in automotive body adjustments and lead glazing.





### The ERSA Multi-Sprint is an extremely light, transformerindependent solder gun with a heat-up rating up to 150 W and an ergonomic design.

In combination with the internally heated ERSADUR longlife soldering tip, the Multi-Sprint's PTC heating element offers especially high performance. The short heat-up time makes it ideal for high-speed series soldering. The Multi-Sprint is heated only as long as the button is pressed.

The large selection of tips of the 832 / 842 series affords a wide range of applications, and not just in service and repairs.



| Order no. | Description             | With soldering tip | Rating / voltage             | Heating time | Max. soldering<br>tip temperature               | Weight<br>(w/o cable) |
|-----------|-------------------------|--------------------|------------------------------|--------------|---|-----------------------|
| 0960ED    | Multi-Sprint solder gun | 0832EDLF, ERSADUR  | 150/75 W / 230 V, 50 - 60 Hz | approx. 20 s | subject to how<br>long the button is<br>pressed | 100 g                 |

### **ERSA** Power Soldering Iron with Temperature Control

The ERSA Multi-TC is a powerful, sturdy, temperaturecontrolled universal soldering iron with a precise temperature sensor located directly under the internally heated soldering tip. This temperature sensor registers the actual temperature in the immediate vicinity of the solder joint. The heating system can then immediately react to the heat loss and reheat extremely fast. The high preheating power with the internal PTC heating element provides unusually fast heating. The high heating efficiency and the large selection of soldering tips and inserts serve both filigree applications in electronics and applications with standard soldering irons with power up to 150 W. Examples are classical lead glazing and Tiffany methods. By dispensing with a heavy transformer and thanks to its heat-resistant connecting cable. the ERSA Multi-TC is especially suitable for mobile use in service, maintenance and repairs.



| Order no. | Description             | With soldering tip | Rating / voltage                      | Heating<br>time | Max. soldering tip temperature | Weight<br>(w/o cable) |
|-----------|-------------------------|--------------------|---------------------------------------|-----------------|--------------------------------|-----------------------|
| 0760CD    | Multi-TC soldering iron | 0842CD, ERSADUR    | 75 W at 350 °C / 230 V,<br>50 - 60 Hz | approx. 34 s    | 250 °C - 450 °C                | 60 g                  |

### **ERSA Independent 75 Gas Soldering Sets**



### Independent 75 Profi-Set

### consisting of

Independent 75 gas soldering iron with soldering tip 0G072KN, 0G072CN, soldering tips 0G072AN and 0G072VN, flame nozzle 0G072BE, hot gas nozzle 0G072HE, hot blade 0G072MN and deflector 0G072RE to shrink heat-shrinkable sleeves, tool holder 0A20, cleaning sponge 0006G and sponge container 0G156 packed in a practical plastic case. G 072 soldering tip series see page 44

| Order no.  | Description                                   | With soldering tips<br>0G072 | Rating    |
|------------|---|------------------------------|-----------|
| 0G07400041 | Independent 75 Basic-Set<br>gas soldering set | KN;CN                        | 15 - 75 W |
| 0G07400141 | Independent 75 Profi-Set<br>gas soldering set | KN;CN;AN;VN;<br>BE;HE;MN;RE  | 15 - 75 W |

### **ERSA Independent 130 Gas Soldering Sets**



### Independent 130 Profi-Set

consisting of

Independent 130 gas soldering iron with soldering tip 0G132KN, soldering tips 0G132CN, 0G132AN and 0G132VN, flame nozzle 0G132BE, hot gas nozzle

0G132HE, hot blade 0G132MN and deflector 0G132RE to shrink heat-shrinkable sleeves, cleaning sponge 0006G and sponge container 0G156 packed in a practical plastic case. G 132 soldering tip series see page 44

| Order no.  | Description                                    | With soldering tips<br>0G132 | Rating     | Heating time             | Max. soldering tip temperature | Weight |
|------------|--|------------------------------|------------|--------------------------|--------------------------------|--------|
| 0G13400041 | Independent 130 Basic-Set<br>gas soldering set | KN;CN                        | 25 - 130 W | approx. 50 s<br>(280 °C) | approx. 580 °C                 | 121 g  |
| 0G13400141 | Independent 130 Profi-Set<br>gas soldering set | KN;CN;AN;VN;<br>BE;HE;MN;RE  | 25 - 130 W | approx. 50 s<br>(280 °C) | approx. 580 °C                 | 121 g  |

### Your Guide



Mobile power – wherever vou



(€≜€

Independent 75 Basic-Set

consisting of Independent 75 gas soldering iron with soldering tips 0G072KN and 0G072CN, holder 0A20, cleaning sponge and sponge container, packed in a practical plastic case.



Heating Max. soldering Weight time tip temperature approx. 46 s approx. 580 °C 73 g (280 °C) approx. 46 s approx. 580 °C 73 g (280 °C)

Independent 130 Basic-Set

ALL NO.

(€≜¢



want! Powerful, with comprehensive and top-quality equipment, small, handy and practically packed. The gas soldering Independent 75 Basic Set and Profi Set will meet your every need! The ergonomic, antistatic gas soldering iron with piezo ignition is ideal for service and maintenance work, especially if there is no power supply available! The continuously adjustable output of 15 - 75 W (compared with electrical soldering irons) allows maximum soldering tip temperatures of up to 580 °C. The Independent is powered by ordinary butane as used in gas lighters. Operating time per gas filling is about 60 min. Both sets come with a practical carrying case. Besides the standard "Basic Set" equipment, the "Profi Set" contains two additional soldering tips, a hot blade for cutting highresistance foam, a hot-gas nozzle, a deflector for heatshrinkable sleeves and a flame nozzle for micro-welding.

device from ERSA, the Independent 130, can be applied wherever demanding soldering tasks have to be performed without a power supply.

uously variable 25 - 130 W (compared with electrical soldering irons) and its comprehensive line of soldering tips allow a wide variety of uses in service, installation, maintenance and repair work. The piezo ignition integrated in the device and powering by ordinary gas lighter butane ensure the easiest possible handling and great reliability. The operating time per gas filling is about 120 minutes, with a maximum soldering tip temperature of about 580 °C.

Like its smaller mate, the Independent 75, the Independent 130 is also available in both set versions, namely as a Basic Set or Profi Set.

# The "big" gas soldering

Its broad range of contin-





### **Solder Baths**

RA 4500 D

0

O

0



Apart from a wide range of static solder baths with different solder capacities ERSA also provides a large selection of dynamic solder baths namely wave and selective soldering systems. The photo shows a solder bath with multiwave module of a VERSAFLOW selective soldering system.







### **ERSA Solder Baths**



| Order no. | Description                   | Rating /<br>Voltage | Temperature | Dimensions in mm<br>(L x W x D) | Capacity        | Weight  | Heating elements |
|-----------|-------------------------------|---------------------|-------------|---------------------------------|-----------------|---------|------------------|
| 0T55      | Solder bath T 50 S            | 65 W / 230 V        | 300 °C      | 28 x 20 x 13                    | approx. 40 g    | 370 g   | 1 pc. 0051T001   |
| 0T56      | Solder bath T 10 S            | 130 W / 230 V       | 340 °C      | 60 x 30 x 25                    | approx. 185 g   | 615 g   | 1 pc. 0151B0     |
| 0T02      | Solder bath T 02              | 240 W / 230 V       | 600 °C      | 25 Ø; 47 D                      | approx. 125 g   | 1,200 g | 1 pc. 0241T0     |
| 0T03      | Solder bath T 03 <sup>2</sup> | 360 W / 230 V       | 430 °C      | 100 x 30/15 <sup>1</sup> x 55   | approx. 1,000 g | 2,300 g | 2 pcs. 05X100    |
| 0T04      | Solder bath T 04              | 400 W / 230 V       | 410 °C      | 52 x 52 x 84                    | approx. 1,900 g | 3,900 g | 4 pcs. 05X100A1  |
| 0T05      | Solder bath T 05              | 500 W / 230 V       | 440 °C      | 86 x 68/20 <sup>1</sup> x 90    | approx. 2,850 g | 3,400 g | 2 pcs. 08X800    |
| 0T06      | Solder bath T 06              | 1,000 W / 230 V     | 560 °C      | 120 x 80 x 60                   | approx. 4,800 g | 5,200 g | 6 pcs. 05X100P2  |
| 0T07      | Solder bathT 07               | 1,200 W / 230 V     | 600 °C      | 90 x 90 x 100                   | approx. 6,400 g | 5,500 g | 4 pcs. 08X800A5  |
| 0T11      | Solder bath T 11              | 1,600 W / 230 V     | 450 °C      | 300 x 60 x 50                   | approx. 7,500 g | 8,000 g | 8 pcs. 05X100A3  |

<sup>1</sup> tapered solder pot; <sup>2</sup> VDE-tested, all other solder baths are produced according to VDE standards

### ERSA RA 4500 D Temperature Regulator



available temperature sensor F008

| Order no. | Description                          | Connected load / voltage    | Tolerance | Temperature<br>range | Switch                            |
|-----------|--------------------------------------|-----------------------------|-----------|----------------------|-----------------------------------|
| 0RA4500D  | Temperature regulator                | 3,000 W / 230 V, 50 - 60 Hz | max. ±2 % | 50 °C - 600 °C       | 2-position with P-characteristics |
| 0F007     | Temperature sensor, 8 mm ø           |                             |           |                      |                                   |
| 0F008     | Long-life temperature sensor, 3 mm ø |                             |           |                      |                                   |

### Your Guide





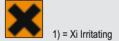
### RA 4500 D

A microprocessor sets new standards with regard to the temperature regulator's functions and provides comfortable operation of the RA 4500 D.

ERSA solder baths are electrically heated melting pots for solders. The high-capacity ceramic heating elements are exchangeable and mounted on the pot. They are thermally insulated from the external sheet metal housing. The T 02, T 03, T 04, T 05, T 06 and T 07 solder baths can be switched to half-power operation. Thanks to the high temperature of approximately 600 °C the T 02 and T 07 baths are especially suitable for tin plating enameled copper wires.

All solder baths are supplied with a 1.5 m connecting cable. To enhance solder quality as well as to reduce oxide formation, and for energy-saving reasons, we recommend the RA 4500 D temperature regulator together with one of the temperature sensors mentioned below.

The T 50 S / T 10 S small solder baths are primarily used for tin-plating stranded wire braids, connecting leads and cable lugs. The heat resistant special color (order no. 4HMFARBE<sup>1</sup>) can be applied to the crucible as a proctection against corrosion and wetting.



The RA 4500 D temperature regulator can be operated with various solder baths. The solder baths can be connected to the regulator through simple plug connectors. With its five operating programs, the RA 4500 D's easy program selection allows the user to change quickly between different solder baths. The station can also be used for simple temperature measurements (Pr5) by means of the temperature sensor (option). Its wide variety of features and great control precision (especially with ERSA solder baths) makes the RA 4500 D especially suitable for production processes with high quality requirements.



### **Soldering & Desoldering Stations**

Soldering Tip Temp Process Window

Solder Joint

t [s]

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High-tech soldering and desoldering, diverse applications and highprecision: easily attained with ERSA top-quality products.

Precise temperature measurement near the soldering tip and a microprocessor controlled heating system will guarantee safe lead-free soldering at low temperatures in the future. The ERSA soldering stations' high capacity ensures superior reheating. Even high-mass soldering can be carried out without problems.

### **ERSA RDS 80 Soldering Station**





### RDS 80

with RT 80 soldering iron, ERSA RESISTRONIC control system 832 and 842 series see page 38 / 39

| Order no. | Description                                      | Rating / Voltage               | Heating time          | Temperature<br>range | Weight<br>(with cable) |
|-----------|--|--------------------------------|-----------------------|----------------------|------------------------|
| 0RDS80    | RDS 80 soldering station complete                | 80 W / 230 V, 50 - 60 Hz /24 V |                       | 150 °C - 450 °C      |                        |
|           | with RT 80 soldering iron 0890CDJ, soldering tip | 105 W (280 °C)                 | approx. 40 s (280 °C) |                      | approx. 130 g          |
|           | 0842CD and tool holder 0A39                      |                                |                       |                      |                        |





Potential equalization socket

Application example



12







Multifunctional display



RT 80: very slim soldering iron featuring a large selection of soldering tips

The ERSA **RDS 80** digital sol-dering station offers ERSA RESISTRONIC temperature control, tried and proven for many years and now with 80 W heating power. The ceramic PTC heating element (positive temperature coefficient) acts as the temperature sensor in this control system and ensures extremely fast heating thanks to the high initial output. The very high heating power and the large selection of soldering tips allow a very wide range of applications. The heating system with the internally heated soldering tips has a high thermal efficiency. The redesigned ergonomic handle, the new housing design and the large, digital multifunctional display don't leave much to be desired. Besides the arbitrary tempe-

rature selection between 150 °C and 450 °C, 3 fixed temperatures or 2 fixed temperatures and one stand-by temperature can be proarammed.

The device also has a calibrating and power-off feature, in addition to a power bar graph display. The potential equalization socket (with an integrated 220 kΩ resistor) allows the soldering tip to be equalized with the workplace potential.

. The RT 80 soldering iron has a sprayed-on, flexible PVC connecting cable; for changing the tips we recommend tip changing tool 3ZT00164 (see page 30).



### The electronically tempera-ture-controlled **ANALOG 60** soldering station is the basic model of the ERSA soldering station series. It has the tried and proven ERSA RESIS-TRONIC temperature control technology, with the ceramic PTC heating element serving as the temperature sensor. The high initial power enables fast heat-up.

The large selection of soldering tips allows a broad range of applications. The internal heating provides high thermal efficiency. A front-installed socket with integrated, highimpedance allows potential equalization between the soldering tip and the workplace.

The device is primarily used for smaller and medium-sized solder joints. The low-voltage operated soldering iron Basic Tool 60 has a highly flexible, heat-resistant connecting cable.

### **ERSA ANALOG 60 Soldering Station**



### ANALOG 60

with Basic Tool 60 soldering iron, ERSA RESISTRONIC control system 832 and 842 soldering tip series see page 38 / 39

| Order no. | Description                                     | Rating / Voltage                | Heating time          | Temperature<br>range | Weight<br>(w/o cable) |
|-----------|---|---------------------------------|-----------------------|----------------------|-----------------------|
| 0ANA60    | ANALOG 60 soldering station complete            | 60 W / 230 V, 50 - 60 Hz / 24 V |                       | 150 °C - 450 °C      |                       |
|           | with Basic Tool 60 soldering iron 0670CDJ, with | 60 W (at 350 °C)                | approx. 60 s (280 °C) |                      | 60 g                  |
|           | soldering tip 0832CDLF and tool holder 0A41     |                                 |                       |                      |                       |





Application example

Application example



ERSA Tip Reactivator



Basic Tool 60 with powerful PTC heating element

### **ERSA ANALOG 60 A Soldering Station**



### ANALOG 60 A

with Ergo Tool soldering iron, ERSA RESISTRONIC control system 832 and 842 soldering tip series see page 38 / 39

| Order no. | Description                                 | Rating / voltage             |
|-----------|---|------------------------------|
| 0ANA60 A  | ANALOG 60 A soldering station complete      | 60 W / 230 V, 50 - 60 Hz / 2 |
|           | with Ergo Tool soldering iron 0680CDJ, with | 60 W (at 350 °C)             |
|           | soldering tip 0832CDLF and tool holder 0A42 |                              |











|   | Heating time          | Temperature<br>range | Weight<br>(w/o. cable) |
|---|-----------------------|----------------------|------------------------|
| V |                       | 150 °C - 450 °C      |                        |
|   | approx. 60 s (280 °C) |                      | 60 g                   |
|   |                       |                      |                        |

Dry sponge for dry tip cleaning



Ergo Tool: slim and ergonomic soldering iron

The electronically temperature-controlled ERSA **ANALOG** 60 A soldering station is antistatic according to the MIL-SPEC / ESA standard and has all the positive features of the ERSA ANALOG 60.

It has the tried and proven ERSA RESISTRONIC temperature control technology based on the ceramic PTC heating element and the fast heat-up characteristics.

Internally heated tips guarantee high thermal efficiency. The unusually wide range of tips allows a varied range of applications. The front-installed potential equalization socket is connected with high impedance to the soldering tip.

The light and slim Ergo Tool soldering iron has a highly flexible, heat-resistant and antistatic connecting cable.

The ANALOG 60 A soldering station is especially suitable for producing small and mediumsized solder joints. For tip changing we recommend the tip exchanger 3ZT00164 with an additional flat nose pliers and side cutter (see p. 30).



Guaranteeing quality in a lead-free environment puts the greatest demands on hand soldering applications.

Today's hand soldering operators expect a great deal from a state-of-the-art hand solder tool: a small and lightweight, ergonomically designed hand tool that does not get too hot during use, maximum power and efficiency for rapid heat-up and recovery during soldering, fast and easy tip change, as well as easy-to-use station operation and programming.

Today's QA and purchasing managers, however, have much different concerns. In order to guarantee guality, soldering stations must be designed for superior performance. The higher working temperatures and smaller process windows for lead-free hand soldering demand precise temperature control of the soldering tip and rapid heat recovery of the heating element in order to prevent cold solder joints. Low-cost, long-life soldering tips are a must from a running cost efficiency standpoint and are the major concern for the purchasing department.

To meet this challenge, ERSA is proud to introduce its newest technology for a state-of-the-art soldering station that has been specifically designed to meet the challenges the industry has been facing since lead-free implementation.

### ERSA *i*-CON1 Soldering Station

PTC CE <u>à</u>

I-CON +

### i-CON1

with i-Tool soldering iron with innovative heating technology 102 soldering tip series see page 36 / 37

| Order no.  | Description   | Rating/<br>Voltage                       | Heating time         | Temperature<br>range | Weight<br>(w/o cable ) |
|------------|---|--|----------------------|----------------------|------------------------|
| 0IC1100A   | i-CON1 electronic station complete with i-Tool soldering iron - 0100CDJ, soldering tip 0102CDLF16, holder 0A50 and dry sponge 0008M   | 80 W / 230 V / 50 Hz,<br>150 W (350 °C)  | approx. 9 s (350 °C) | 150 °C - 450 °C      | approx. 30 g           |
| 0IC2000A   | i-CON2 electronic station complete with<br>i-Tool soldering iron - 0100CDJ, soldering tip<br>0102CDLF16, holder 0A48 and<br>dry sponge with container 0A08MSET                        | 120 W / 230 V / 50 Hz,<br>150 W (350 °C) | approx. 9 s (350 °C) | 150 °C - 450 °C      | approx. 30 g           |
| 0IC1100A0C | ¿CON1 C electronic station with D-Sub connector<br>complete with <i>i</i> -Tool soldering iron - 0100CDJ,<br>soldering tip 0102CDLF16, holder 0A50 and dry<br>sponge 0008M            | 80 W / 230 V / 50 Hz,<br>150 W (350 °C)  | approx. 9 s (350 °C) | 150 °C - 450 °C      | approx. 30 g           |
| 0IC2000A0C | i-CON2 C electronic station with D-Sub connector<br>complete with i-Tool soldering iron - 0100CDJ,<br>soldering tip 0102CDLF16, holder 0A48 and<br>dry sponge with container 0A08MSET | 120 W / 230 V / 50 Hz,<br>150 W (350 °C) | approx. 9 s (350 °C) | 150 °C - 450 °C      | approx. 30 g           |

### Innovative features of this technology

### i-Tool soldering iron with 150 W micro heating element:

New heating technology for ultra fastest heat-up and recovery of the *i*-Tool soldering iron: room temperature of 350 °C in approx. 9 sec., from standby to 350 °C in approx. 3 sec. Tip and heating element designed as two separate pieces.

### Lead-free i-Tips:

The low-cost *i*-Tips are specially plated with the new ERSADUR LF galvanic process lasting 2 to 3 times longer than standard tips!

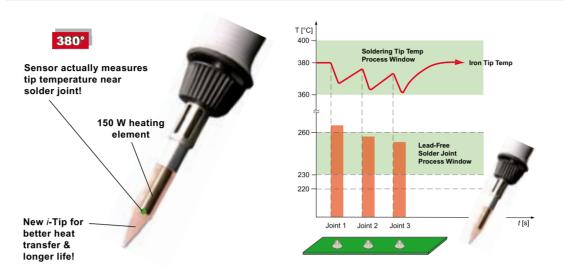
### "One Touch" easy-to-use operation:

User-friendly station software with large, multifunctional display has online help text and easy menu navigator with i-Op control.



i-CON C soldering stations with EA110 plus i solder fume extraction Intelligent filter unit control by means of the soldering stations' STANDBY function filter unit is started as soon as one of the soldering stations is operated

### Safe and Innovative Lead-Free Hand Soldering



The i-Tool recovers so fast that all solder joints can be made with nearly the same temperature. The sensor measures the actual tip temperature very close to the tip extremity. The process window alarm assists the operators in guaranteeing repeatable quality.

### i-Tool calibration:

Unlike other systems, the microprocessor which stores the temperature calibration of the iron is actually located in the PCB which is installed in the handle. This now allows for each individual *i*-Tool to be calibrated independent of the soldering station.

### Automatic stand-by motion sensor:

Recognizes when the iron is being used and automatically goes into a stand-by temperature when the iron is put into its holder.

### Power level settings:

Allows for the use of three different power settings which control the heating element overshoot depending on the heat required. Thus, the operator can choose the right setting for the right job - either more power or more control! Power level "Low" guarantees no overshoot for maximum component safety!

### Process window alarm:

Informs operator with a visual and acoustic signal if the soldering iron tip gets too hot or too cold.



i-Tool soldering iron: ultra light (only 30 grams), ultra short (only 155 mm), and ultra short tip-to-grip (only 45 mm).



The i-Tool has a highly advanced PCB integrated into the handle for a level of intelligence never before seen in a soldering iron.





i-Set Tool (Order no. 0103IST):

This optional item allows for automatic down-

loading of station settings and lockout by act-

ing as a type of USB stick. Simply upload the

station setting from an *i*-CON into the *i*-Set

Tool. The *i*-Set Tool is then plugged into any

other *i*-CON station and all set parameters

ERSA has succeeded in designing one of the smallest, lightest and most powerful soldering irons in the world - the ERSA *i*-Tool. The true value added for our customers lies not only in the fact that it will increase both the hand soldering quality and productivity, but also that it can realize a tremendous reduction in operational costs associated with manual soldering.

ERSA's new technology allows for a similar performance as compared to the soldering irons with expensive heating cartridge tips, but offers a standard low-cost, long-life exchangeable tip!

The ERSA i-CON advanced digital power supply offers ERSA's new "One Touch" easy-to-use operation with the new i-Op Control, as well numerous value added functions.





Today's PCBs are becoming more complex with smaller and more densely compact components. In order to meet these difficult hand soldering touch-up and repair challenges, ERSA continues to be a market leader in supplying special tools for special applications.

i-CON2 offers all the valueadded features of the revolutionary i-CON in a double iron digital station with multiple soldering and / or desoldering tools for maximum flexibility.

The Chip Tool is based on a "Best Seller" in rework tools, but has been re-designed for improved ergonomics and precision repair. This newly designed heated pincette offers a wide range of SMT desoldering tips for safe and fast removal of the smallest chips (0201, 0402, etc.) up to medium size PLCCs. Even large PLCCs up to 84 pins can be safely removed when using the Chip Tool in combination with the IRHP 200 heating plate (see page 28).

The X-Tool is an extremely high powered desoldering iron which has been specifically designed for the toughest through-hole desoldering applications on the heaviest of PCBs. Safe lead-free desoldering is much more challenging due to the higher process temperatures and will require a desoldering Tool which can function effectively at the lowest possible temperature.

The ERSA X-Tool with 120 W can allow operators to conduct through-hole repair at the lowest and safest temperatures possible. The unique "Heat Reservoir" concept guarantees the shortest dwell times and the tip temperature control guarantees the fastest recovery. This unit must be used in combination with the CU vacuum unit.





### Fig. with 0A08MSET

### i-CON2

with i-Tool soldering iron with innovative heating technology and Chip Tool 102 soldering tip series see page 36 / 37, 422 desoldering tip series see page 41



Chip Tool SMT desoldering tweezers for low-temperature, safe SMD soldering



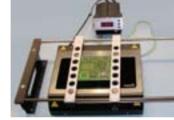


### i-CON2

with i-Tool soldering iron with innovative heating technology and X-Tool 102 soldering tip series see page 36 / 37, 722 desoldering tip series see page 39



X-Tool desoldering iron for high-power, low-temperature, safe through-hole desoldering



IRHP 200 (optional item) Infrared rework heating plate see page 28



High-mass through-hole soldering with the i-Tool

Fig. with 0A08MSET



High-mass through-hole desoldering

### ERSA *i*-CON1 and *i*-CON2: Range of Models



| Technical data     | i-Tool soldering iron   | Chip Tool desoldering pincette  | X-Tool desoldering iron   |
|--------------------|---|---|---|
| Voltage            | 24 V~   | 24 V~   | 24 V~   |
| Max. heating power | 150 W ±10 %<br>(80 W mean)  | PTC 2 x 30 W / 280 °C; 2 x 20 W / 350 °C  | 2 x 60 W at 350 °C  |
| Heating time       | approx. 9 s to 350 °C   | subject to the desoldering tip  | subject to the desoldering tip  |
| Weight             | approx. 30 g (without supply line)  | approx. 75 g (without supply line)  | approx. 240 g (incl. supply line and tip)   |
| Antistatic         | antistatic design suitable for operation<br>in an ESD environment. MIL-SPEC/ESA<br>standard | antistatic design suitable for operation<br>in an ESD environment. MIL-SPEC/ESA<br>standard | antistatic design suitable for operation<br>in an ESD environment. MIL-SPEC/ESA<br>standard |

### Your Guide



Four versions of this new double station are offered standard and differ only in the tool packout:

1. One *i*-Tool soldering iron 2. Two *i*-Tool soldering irons

3. i-Tool and Chip Tool for

SMD removal 4. *i*-Tool and X-Tool for TH desoldering.

The tools are automatically detected when inserted into the station and a predetermined program is started.

For further information please refer to: www.ersa-i-Tool.com





The ERSA DIGITAL 2000 A is a top-class microprocessorcontrolled soldering station distinguished by its flexibility and multifunctionality. It is antistatic according to the MIL-SPEC / ESA standard and is designed for industrial use where high quality is demanded and for repairs and laboratory applications.

The device can alternatively be operated with various soldering and desoldering tools. Besides the Power Tool and Tech Tool universal soldering irons. the Micro Tool microsoldering iron, the Chip Tool desoldering pincette and the X-Tool desoldering iron can be connected.

The tools are automatically detected when inserted and the control characteristics accordingly adapted. The soldering and desoldering tips are therefore always connected with high impedance to the front-installed potential equalization socket.

The station is easy to operate and user-friendly. The desired temperatures, the unit of temperature (°C/°F), the stand-by time of 0 to 60 minutes, a tip offset and calibration feature and a three-character passwordcontrolled lock can all be set with just three buttons and a simple menu guide. The energy feature allows you to influence the heat-up and reheating characteristics.

In addition, the soldering station has 4 programs. Each program can be separately and differently configured with the aforementioned functions.

A fixed program is assigned to each soldering and desoldering tool. The station automatically changes the program in case of a tool change.

If only one tool is used, all programs can also be used. A 5th program slot contains a temperature measuring function. For this purpose the temperature sensor DIG207 is required.



**ERSA DIGITAL 2000 A Soldering Station** 



| 0DIG20A64 | DIGITAL 2000 A electronic station complete with<br>Tech tool soldering iron 0640ADJ,<br>soldering tip 0612ADLF, tool holder 0A42,<br>and dry sponge with container 0A08MSET        | 80 W / 230 V, 50 - 60 Hz / 24 V<br>60 W (350 °C)     |
|-----------|--|--|
| 0DIG20A27 | DIGITAL 2000 A electronic station complete with<br>Micro Tool soldering iron 0270BDJ,<br>with soldering tip 0212BDLF, tool holder 0A42,<br>and dry sponge with container 0A08MSET  | 80 W / 230 V, 50 - 60 Hz / 24 V<br>20 W (350°C)      |
| 0DIG20A45 | DIGITAL 2000 A electronic station complete<br>with Chip Tool desoldering pincette 0450MDJ,<br>desoldering tips 0422MD, tool holder 0A43,<br>and dry sponge with container 0A08MSET | 80 W / 230 V, 50 - 60 Hz / 24 V<br>2 x 20 W (350 °C) |
|           |  |  |



### DIG20A64

with Tech Tool soldering iron and ERSA SENSOTRONIC control system 612 soldering tip series see page 40



DIG20A27 with Micro Tool soldering iron and ERSA RESISTRONIC control system 212 soldering tip series see page 42



DIG20A45 with Chip Tool and ERSA RESISTRONIC control system. 422 desoldering tip series see page 41



|             | Heating time          | Temperature<br>range | Weight<br>(w/o. cable) |
|-------------|-----------------------|----------------------|------------------------|
| 0 Hz / 24 V | approx. 40 s (280 °C) | 50 °C - 450 °C       | approx. 50 g           |
| 0 Hz / 24 V | approx. 12 s (280 °C) | 50 °C - 450 °C       | approx. 50 g           |
| 0 Hz / 24 V | approx. 50 s (280 °C) | 150 °C - 450 °C      | approx. 25 g           |
| 0 Hz / 24 V | subject to tips       | 150 °C - 450 °C      | approx. 75 g           |

The calibration feature allows the actual soldering tip temperature to be precisely adjusted to the temperature shown in the LED display. For this purpose a suitable soldering tip temperature measuring device, such as the ERSA DTM series (see page 29), is required.

The ERSA DIGITAL 2000 A soldering station regulates the temperature through a digital PID algorithm, optimized for very precise and fast temperature control.

All connectable soldering and desoldering devices have enormous power reserves thanks to the PTC heating elements located inside the tips.

At a peak temperature of 280 °C the following power is available, for example: Power Tool – 105 W

- Tech Tool 70 W
- Micro Tool 30 W Chip Tool – 2 x 30 W
- X-Tool 120 W.

These power reserves also ensure safe and top-quality soldering and desoldering results.

All soldering and desoldering tools are operated at the low voltage of 24 V and have a highly flexible, heat-resistant and antistatic connecting cable

For tip changes we recommend the tip exchanger 3ZT00164 with flat nose pliers and side cutter (see page 30).



### This desoldering station is suitable for removing residual solder and for desoldering wired components, even from multilaver PCBs. The station consists of the ERSA DIGITAL 2000 A described on pages 20 and 21, a vacuum unit with the X-Tool desoldering iron and the 0A44 tool holder. The desoldering tip is heated by two PTC heating elements. A thermocouple temperature sensor near the desoldering tip immediately reacts to any heat loss. Practically delayfree reheating is therefore ensured. The vacuum for suctioning the liquefied solder is immediately available when the push-button is pressed. The recesses of the tool holder 0A44 allow exchanging inserted soldering tips, even when hot, without an additional tool.

**ERSA DIGITAL 2000 A Desoldering Station with Vacuum Unit** 



with electronic station 0DIG203A and ERSA SENSOTRONIC control system 722 desoldering tip series see page 39

with optional rack and 0A08MSET \* incl. tip and cable

|           |   |                                 |               |                | inci. up and cab |
|-----------|---|---------------------------------|---------------|----------------|------------------|
| Order no. | Description                                 | Rating / Voltage                | Vacuum        | Temperature    | Weight           |
|           |   |                                 |               | range          |                  |
| 0DIG20AXT | DIGITAL 2000 A desoldering station complete | 80 W / 230 V, 50 - 60 Hz / 24 V |               | 50 °C - 450 °C | 1.25 kg          |
|           | with vacuum unit 0CU103A,                   | 45 W                            | 800 mbar max. |                |                  |
|           | X-Tool desoldering iron 0720EDJ,            | 2 x 60 W (350 °C)               |               |                | approx. 240 g*   |
|           | tip 0722ED1226, holder 0A44                 |                                 |               |                |                  |

### ERSA SMD 8012 and SMD 8013 Tip Holders

The SMD 8012 and SMD 8013 tip holders are equipped with the latest soldering tips or desoldering tip pairs, in particular for SMD technology. Tips can be stored neatly arranged in a space-saving way for quick access.

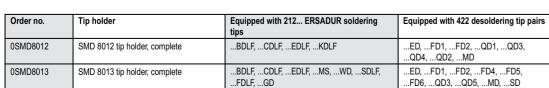
The range of currently available soldering tips and desoldering tip pairs, with the component-specific dimensions, can be found on pages 41 and 42.

All soldering tips and desoldering tip pairs are manufactured according to the ERSADUR process. They have excellent thermal conductance and a long service life.



212 soldering tip series see page 42, 422 desoldering tip series see page 41

### ERSA SMD 8012



HILL HALL

### Flux Cream

A wide range of accessories and consumables, process descriptions on soldering and desoldering are available at: www.ersa.com



ERSA SMD 8013

| soldering tip pairs |
|---------------------|
|                     |

& lock • X-Y PCB board holder (290 mm x 250 mm)



### ERSA HR 100 A Hybrid Rework System



### HR 100 A

with Hybrid Tool rework iron with patent pending heating technology and VacPen vacuum pipette

La CE

| Order no.   | Description  | Rating / Voltage         | Heated area                  | Weight<br>(w/o. cable) |
|-------------|--|--------------------------|------------------------------|------------------------|
| 0IRHR100A   | HR 100 A hybrid rework system complete<br>with Hybrid Tool rework iron - 3IRHR100A-01, VacPen vacuum<br>pipette 0VP020, hybrid adaptors 0IRHR100A-14, -15, -16<br>and adaptor changer 0IRHR100A-24 | 200 W / 230 V / 50-60 Hz | 6 x 6 mm up to<br>20 x 20 mm | 300 g                  |
| 0IRHR-ST050 | Recommended acessories:<br>Hybrid rework tripod complete   |                          |                              |                        |

heating element

Level Access

### Technical Highlights:

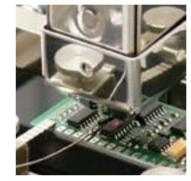
- Hybrid Tool with 200 W heating element; positioning laser in the Hybrid Tool handle
- Three exchangeable Hybrid Adaptors (6 x 6 mm, 10 x 10 mm and 20 x 20 mm)
- Low Noise Rework Blower (below 40dB) Integrated vacuum pump & VacPen, tool
- holder and K-type TC input socket, USB interface, LED display, "Turn & Push" control
- 2 Channel Temperature Recording: TC & IRS; AccuTC and Flexpoint TC holder (optional)
- Hybrid tool holder with axis height adjust for maximum rework safety. For a complete listing of all rework accessories, please refer to our Rework Catalog.

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Rapid, simple and safe hand-held component removal





· 800 W IR heating plate with glass cover: 125 mm x 125 mm high-performance IR Closed Loop Profiles with ERSA IRSoft rework documentation software. User





AccuTC thermocouple (0IR6500-01) and Flexpoint TC holder (0IR5500-35)

The new HR 100 A uses ERSA's revolutionary and patented Hybrid Rework Technology for safe removal and 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 leadfree 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 neighboring areas from blowing away adjacent chips.

The user friendly operation allows for even non-experienced operators to handle the HR 100 A safely and quickly. Advanced operators using the HR/IRHP 100 A complete system can not only set air volume and heating power levels, but they can also run and record profiles! The 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 A can be connected to ERSA's top of the line and well-established rework software, ERSA IRSoft. IRSoft provides multiple functions to operate the system, set and store process parameters and document all soldering or desoldering results.

The HR 100 A has been designed to be used with the IRHP 100 A, 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 closed loop soldering processes with ramp profiles.

The hybrid rework system together with the IR heating plate fulfils all needs of a modern rework system providing highest flexibility at the lowest cost!



### HR 100 A and IRHP 100 A

with Hybrid Tool rework iron with patent pending heating technology, hybrid adapters, IRHP 100 A IR heating plate, Z-axis tool stand, X-Y PCB holder and VacPen vacuum pipette

| Order no.    | Description  | Rating / Voltage         | Heated area    | Weight       |
|--------------|--|--------------------------|----------------|--------------|
|              |  |                          |                | (w/o. cable) |
| 0IRHR100A-HP | HR 100 A hybrid rework system complete                           | 200 W / 230 V / 50-60 Hz |                |              |
|              | with Hybrid Tool - 3IRHR100A-01, VacPen - 0VP020,                |                          | 6 x 6 mm up to | 300 g        |
|              | hybrid adaptors 0IRHR100A-14, -15, -16,                          |                          | 20 x 20 mm     |              |
|              | adaptor changer 0IRHR100A-24,                                    |                          |                |              |
|              | IRHP 100 A heating plate, item no. 0IRHP100A complete with       | 800 W / 230 V / 50-60 Hz | 125 x 125 mm   |              |
|              | tool holder for Hybrid Tool and PCB holder, Flexpoint TC holder, |                          |                |              |
|              | AccuTC thermocouple, USB connection cable and IRSoft 4           |                          |                |              |
|              | software and drivers   |                          |                |              |

### ERSA IRSoft 4 - Unparalleled System Control & Process Documentation for Rework

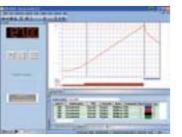
In keeping with our foremost goal of operator satisfaction, we are happy to present our latest update to our renowned software concept.

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 is was literally co-designed by our customers in the field.

Today, with almost 10 years experience and over 5,000 systems installed, we have continually added those features and functions demanded by the market and have provided free updates to the existing user base.



Closed loop ramp profiles with live temperature recording

### **CLEAN-AIR Solder Fume Extractions**



Noxious gases develop during the soldering process due to the use of fluxes. This aspect, together with the fact that condensated flux on the PCB can cause problems, results in an increased requirement to use solder fume extraction systems, also with regard to quality.

ERSA Easy Arm solder fume extractions ensure clean boards and a healthy environment in an efficient and economic way when hand soldering. They clear off an entire working area via large nozzles which are available in different designs.







### Health Protection During Soldering

The breathing zone lies very close to the soldering process during manual soldering. Suspended particles and gases in the work area cannot be prevented from entering the respiratory system. Noxious gases conveyed through the circulatory system may, over longer periods of time, cause damage to other organs like the liver and

The causal relevance of solder fumes to allergic reactions, asthma attacks and chronic bronchitis is medically established.

It must be kept in mind that safeguarding human resources is crucial for any company's success. Risks not detected in due time usually prove more expensive than their prevention would have been. From a health standpoint, neither eating, drinking nor smoking should be permitted in areas where soldering occurs.

As long as lead-containing solder is used, there is a risk of lead traces remaining on hands entering the human organism through food or cigarettes. For this reason, hands should always be carefully washed after soldering work.

Solder waste and used solder fume filters are hazardous waste and must not be discarded with household rubbish.











The new EA 110 plus i filtering device is a compact and efficient system with economical air recirculation. Thanks to the continuously variable suction power, the device can be adapted to any given situation. It can suction the solder fumes from one or two workplaces effectively and economically.

The variable setup and installation options allow use even where space is limited.

The solder fumes are filtered in two stages: first, the particulate filter removes smallest suspended particles from the suctioned air. Harmful gases are then absorbed in the activated carbon filter.

The powerful suction turbine provides a nearly constant suction flow during the filter's entire service life. The filtering action is monitored by means of a time limit and constant monitoring of the suction power. The user is promptly notified of a necessary filter change by visual and acoustic signals.

For protection of the drive motor, the ERSA EA 110 *plus i* has an automatic cut-off feature.

The combination filter can be changed fast and easily without tools after the housing upper part is removed.

Two suction arms, three suction nozzles and a check valve are available for different work conditions.

The plug-in system with its flexible suction arms allows fast adaptation to altered conditions at the soldering workplace.

Especially noteworthy is the low noise level, allowing use of the device not only in production, but also in repairs, engineering and in the lab. The decentralized design requires no extensive pipe system and affords the greatest possible flexibility.

### ERSA EA 110 *plus i* Solder Fume Extraction





Table mounting, order no. 3CA06-9001



EA110 plus i solder fume extraction with i-CON C soldering stations

### EA 110 plus i

Powerful solder fume extraction unit for the workbench for up to 2 extraction arms. Please select the extraction arms and nozzles suitable for your requirements from our wide range of accessories.

| Order no. | Description   | Dimensions (L x W x H) | Rating /<br>Voltage                  | Volume flow /<br>vacuum     | Noise level    | Filter                      |
|-----------|---|------------------------|--------------------------------------|-----------------------------|----------------|-----------------------------|
| 0CA08-002 | ERSA EASY ARM EXTRACTION<br>EA 110 <i>plus i</i> filter unit complete<br>with <i>i</i> -CON interface | 460 x 210 x 470 mm     | 100 W /<br>100 - 250 V<br>50 - 60 Hz | 140 m³/h max. /<br>2,200 Pa | 51 dB (A) max. | HEPA<br>activated<br>carbon |

### Accessories for the EA 110 plus i





Extraction arm with 700 mm flexible hose, incl. connecting hose, table mounting and quick coupling



3CA06-5001 Metallic nozzle, 50 mm ø







3CA06-5002 Antistatic nozzle, plastic, transparent. 190 x 100 mm



3CA06-9006 Stop valve for extraction arm



Nozzle "Plus", plastic, ESD, 215 x 90 mm







The ERSA IRHP 200 is a compact and ergonomically designed heating plate to preheat all SMD components as well as assemblies and substrates during the hand soldering process. It can also be used to reflow solder onesided SMD boards and for reballing BGAs.

The heating plate temperature can be adusted continuously from 50 °C to 600 °C.

The IR emitters' even heat distribution ensures noncontact, gentle heating of the assembly. Thus the IRHP 200 is perfectly suited for leadfree applications.

The control station can be placed independently from the heating plate on the workbench in an ergonomically favourable way.

The device can be used to handle nearly all components,

except MELFs and MiniMELFs.

This tool consists of a nickel-

plated aluminum handle, seal-

ed at the rear end by a plug.

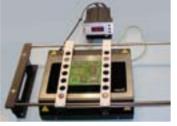
When opened, replacement

tips and suction cups can be

stored here.

Sare The sare

**ERSA IRHP 200 Infrared Rework Heating Plate** 



Electronically temperature-controlled infrared rework Application example with optionally heating plate with integrated thermocouple, incl. control station 0RA4500D available X/Y PCB table 0IR5500-01

| Order no. | Description   | Heated area          | Rating /<br>voltage                | Temperature range                       | Weight       |
|-----------|---|----------------------|------------------------------------|---|--------------|
| 0IRHP200  | IRHP 200 infrared rework heating plate<br>with control station 0RA4500D | 260 x 135 mm (L x W) | max. 800 W /<br>230 V~, 50 - 60 Hz | 50 °C - 600 °C (at the heating element) | approx. 4 kg |

**IRHP 200** 

### **ERSA SVP 100 Vacuum Pipette**

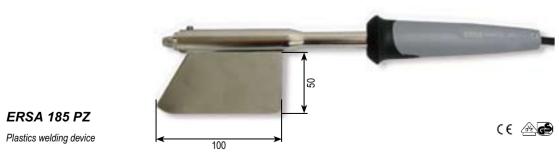


| Order no. | Description  | Length | Housing diameter | Cup diameters       | Weight |
|-----------|--|--------|------------------|---------------------|--------|
| 0SVP100   | SVP 100 vacuum pipette complete with bent tip<br>0SVP12K and 3 silicone cups 0SVP13A | 150 mm | 14 mm            | 4 mm, 6 mm,<br>9 mm | 69 g   |

### **ERSA Special Tools**

ERSA 185 PZ

The ERSA 185 PZ plastics welding device can be used to cut, weld and seal thermoplastic foil, fabric and sealing sections. In cutting plastic cords, the 185 PZ simultaneously welds the ends, to prevent untwisting.



| Order no. | Description   | Rating /<br>Voltage | Heating time  | Temperature<br>range | Weight<br>(w/o cable) |
|-----------|---|---------------------|---------------|----------------------|-----------------------|
| 0185PZ    | ERSA 185 PZ plastics welding device with<br>welding blade 0182PZ004 | 180 W / 230 V       | approx. 5 min | approx. 370°C        | 370 g                 |

### ERSA DTM 50 & DTM 100 Temperature Measuring Devices



The DTM 100 is equipped with a patented sensor unit (K-type) with sensor wires made of chromel and alumel. It provides exact temperatures of even finest soldering tips.

| Order no. | Description   | Measuring range     | Operating<br>temperature | Power supply             | Dimensions (mm)<br>without sensor unit | Weight        |
|-----------|---|---------------------|--------------------------|--------------------------|--|---------------|
| 0DTM050   | DTM 50 temperature measuring device, packed in a plastic case                                     | -50 °C to +1,150 °C | 0 °C to +45 °C           | 9 V flat battery<br>6F22 | 100 x 60 x 26 mm                       | approx. 134 g |
| 0DTM050P  | DTM 50 temperature measuring<br>device with calibration certificate,<br>packed in a plastic case  | -50 °C to +1,150 °C | 0 °C to +45 °C           | 9 V flat battery<br>6F22 | 100 x 60 x 26 mm                       | approx. 134 g |
| 0DTM100   | DTM 100 temperature measuring device, packed in a plastic case                                    | -50 °C to +1,150 °C | 0 °C to +45 °C           | 9 V flat battery<br>6F22 | 100 x 60 x 26 mm                       | approx. 134 g |
| 0DTM100P  | DTM 100 temperature measuring<br>device with calibration certificate,<br>packed in a plastic case | -50 °C to +1,150 °C | 0 °C to +45 °C           | 9 V flat battery<br>6F22 | 100 x 60 x 26 mm                       | approx. 134 g |

### **ERSA Desoldering Devices**



| Order no. | Description                                     | Desoldering tips | Suction capacity     |
|-----------|---|------------------|----------------------|
| 0VAC2     | VAC 2 antistatic desoldering device             | 0VAC22 (2 pcs.)  | 8.9 cm <sup>3</sup>  |
| 0VAC3     | VAC 3 antistatic desoldering device             | 0VAC32 (2 pcs.)  | 10 cm <sup>3</sup>   |
| 0VACX     | VAC X antistatic desoldering device             | 0VACX2 (2 pcs.)  | 11.3 cm <sup>3</sup> |
| 0AS196    | Soldapullt AS 196 antistatic desoldering device | 0LS197           | 34 cm <sup>3</sup>   |

### Your Guide



temperature measuring device with flexible NiCrNi thermocouple (K-type)

In certified businesses and from a quality standpoint, regular checking of the soldering tip temperature is obligatory. Viewed through their entire service life, ERSA soldering stations are extremely temperature-stable depending on the system.

Possible differences between the rated and actual data due to differences in tips or to slight heating element tolerances in the RESISTRONIC control system can be easily ascertained with the DTM 50 and DTM 100 temperature measuring devices and corrected easily and fast on nearly all ERSA soldering stations.

The measurement is practically conducted by cleaning the heated soldering tip with a moist sponge and soaking it in new solder. The soldering tip is then connected to the given temperature sensor and the temperature determined as soon as the display has stabilized.

The VAC 2, VAC 3 and VAC X desoldering devices are distinguished by their high suction power and low-recoil desoldering. The antistatic design of the devices allows desoldering work on electrostatically endangered assemblies.

The long, slim desoldering tips also allow soldering operations on tightly assembled PCBs.

The Soldapullt AS 196 model is distinguished by extremely good recoil damping and has proven its merit many times over in industry.

The dual seal ring system guarantees constant suction power on a high level.



### The ERSA **STR 100** stacking rack can be used for combining two soldering stations, e.g. the DIG 2000 A electronic station with the vacuum unit as required (see adjacent illustration) in a practical and space-saving way. The ERSA **STR 200** stacking rack can be used for combining two *i*-CON soldering stations or one *i*-CON station with any other ERSA soldering station.



### **ERSA STR 100 and STR 200 Stacking Racks**

### STR 100 / STR 200

Stacking racks for a well-organized workplace (Delivery without soldering stations)



| Order no. | Description   |
|-----------|---|
| 0STR100   | STR 100 stacking rack to arrange soldering stations (except <i>i</i> -CON) in a safe and<br>space-saving way at the workbench |
| 0STR200   | STR 200 stacking rack to arrange the ERSA i-CON soldering stations in a safe and<br>space-saving way at the workbench         |

### ERSA SR 100 Solder Wire Dispenser

The ERSA **SR 100** solder wire dispenser is extremely durable and can accept solder wire reels of up to 1,000 g.

Optimal unwinding of different reels is ensured by a conical centering nut.

The flexibly mounted solder wire guide is suitable for all current solder wire diameters and allows unwinding in the desired direction without having to change the location of the SR 100.

Available as an accessory and easily retrofitted, the ERSA **SR 101** kit allows simultaneous use of a second spool.



| Order no. | Description  | Solder wire spools    | Spool receiver diameter |
|-----------|--|-----------------------|-------------------------|
| 0SR100    | SR 100 solder wire dispenser for one spool (without solder wire) | 250 g, 500 g, 1,000 g | 14 mm                   |
| 0SR101    | Kit for 0SR100 for 2nd spool (without solder wire)               | 250 g, 500 g, 1,000 g | 14 mm                   |

### ERSA Tip Exchanger

For changing all internally heated soldering and desoldering tips as well as hot air nozzles, we recommend tip exchanger **3ZT00164** with flat nose pliers and side cutter. These special pliers allow tips to be replaced safely and protectively, even when hot.

| <b>3ZT00164</b><br>ip exchanger with | th flat nose pliers and side cutt | er  |
|--------------------------------------|-----------------------------------|---|
| Order no.                            | Description                       | Application   |
| 3ZT00164                             | Tip exchanger                     | For changing all internally heated ERSA<br>soldering tips and desoldering tips of the 422<br>desoldering tip series and 802 hot air nozzles |

### **ERSA Tool Holders and Cleaning Sponges**



| Order no. | Description                              | for   |
|-----------|--|---|
| 0A04      | Tool holder A 04                         | Soldering irons from 50 W - 150 W output; Isotyp and 0180PZ soldering irons                                 |
| 0A05      | Tool holder A 05                         | Medium-sized and small soldering irons  |
| 0A08MSET  | Dry sponge 0008M with container          | Dry cleaning of soldering tips (especially for lead-free)   |
| 0A17      | Tool holder A 17                         | Soldering irons with an output ranging from 200 W - 550 W   |
| 0A18      | Tool holder A 18                         | Soldering irons of the Multitip series; Tip 260 and TC 65 soldering irons                                   |
| 0A19      | Tool holder A 19                         | Soldering irons of the Multitip series  |
| 0A39      | Tool holder A39                          | RT 80 soldering iron  |
| 0A41      | Tool holder A 41                         | Irons of the Multitip series; Multi-Pro, Multi-TC, Basic Tool 60 / 80 soldering irons                       |
| 0A42      | Tool holder A 42, antistatic             | Tip Tool, Power Tool, Ergo Tool, Micro Tool and Tech Tool soldering irons                                   |
| 0A43      | Tool holder A 43, antistatic             | Chip Tool (fig. see page 20 / 22)   |
| 0A44      | Tool holder A 44, antistatic             | X-Tool desoldering iron (fig. see page 22)  |
| 0A45      | Universal holder A 45                    | 832 soldering tip series (C8 - C18, MD, QD, ZD models),<br>solder wire feed unit and solder fume extraction |
| 0A48      | Tool holder A 48, antistatic             | i-Tool soldering iron   |
| 0A50      | Tool holder A 50, antistatic             | i-Tool soldering iron   |
| 3N194     | Rubber support disk 3 N 194              | Multitip, Multi-Pro, ERSA 30 S soldering irons  |
| 0SH03     | SMD soldering and desoldering tip holder | Soldering and desoldering tips of the 212 and 422 series  |
| 0G156     | Sponge container G156                    | Independent 75 and Independent 130 gas soldering irons  |
| 0003B     | Blue viscose sponge, 55 x 55 mm          | Tool holders 0A09, 10, 13, 16, 24, 25, 28, 29, 30, 34, 35, 36, 39, 41 - 45, 48                              |
| 0004G     | Viscose sponge, 34 x 65 mm               | Tool holders 0A05, 0A21 and 0A26  |
| 0006G     | Sponge, ø 36 mm                          | Sponge container 0G156 for the Independent 75 / 130 gas soldering irons                                     |
| 0007G     | Viscose sponge, 70 x 46 mm               | Tool holder 0A19  |
| 0008M     | Dry sponge 0008M                         | 0A08MSET  |

# Your Guide



Soldering and desoldering devices are heating devices and depending on the application can attain high temperatures during operation. This equipment must never be operated without supervision; during longer interruptions of work they should be switched off and always stored in suitable Tool holders.

Most of the ERSA **Tool holders** are made of metal or heat-resistant duroplastic, and most are antistatic.

Most holders have a viscous sponge for tip cleaning, as well as options for conveniently resting and storing soldering and desoldering tips.



### ERSA bar solder, like solder wire, is recovered from initial melt solder. It is primarily used for filling solder baths. For easier melting, it can be supplied as required in 50 mm sections. In combination with soldering irons of greater power and with suitable flux, bar solder is also used for soldering cable lugs of larger cross-sections and in sheet metal work.



| Order no.          | Alloy            | Melting temperature | Delivered in          |
|--------------------|------------------|---------------------|-----------------------|
| 4LOT230GAG3.5CU0.7 | Sn95.8Ag3.5Cu0.7 | 217 - 218 °C        | Bars of approx. 230 g |
| 4LOT230G64B        | Sn64Pb36         | 183 °C              | Bars of approx. 230 g |

### **ERSA Solder Wire**

Solder wire

wire diameters.

subject to changes

ERSA solder wire consists exclusively of high-quality raw materials. Manufactured on state-of-the-art machines, the wire meets all quality requirements.

It is manufactured in different dimensions and with different alloys, to meet all practical requirements.

Different types of "flux cores" allow individual adaptation to all soldering needs, especially in electronics and the electronics industry.



ATTENTION: According to the EU Directive as of July 1, 2006 lead may no longer be used in electronic assemblies.



| 0-14   |  | Maltin a tanan (90)      |  |
|--|--|--------------------------|--|
| Solder alloy according to<br>DIN EN 29453  | Flux according to DIN EN<br>% flux share                                   | Melting temperature (°C) |  |
| Sn96.5Ag3.0Cu0.5   | 29454 art. 1, type 1.1.3.B, or DIN EN 61190-1-3, ROL 0 3.5 %, halogen-free | 217                      |  |
| Sn96.5Ag3.0Cu0.5   | 29454, type 1.2.3., J-STD-004 RE/LO 1.6 %, halogen-free                    | 217 - 219                |  |
| Sn96.5Ag3.0Cu0.5   | 29454, type 1.2.3., J-STD-004 RE/LO 2.2 %, halogen-free                    | 217 - 219                |  |
| Sn99.3CuNiGe0.7<br>(based on Sn99.3Cu0.7)  | 29454 art. 1, type 1.1.3.B, or DIN EN 61190-1-3, ROL 0 3.5 %, halogen-free | 227                      |  |
| Sn99.3Cu0.7  | 29454, type 1.2.3., J-STD-004 RE/LO, 1.6 %, halogen-free                   | 227                      |  |
| Sn96.5Ag3.5  | 29454 art. 1, type 1.1.3.B, or DIN EN 61190-1-3, ROL 0 3.5 %, halogen-free | 221                      |  |
| Sn96.5Ag3.5  | 29454, type 1.2.3., J-STD-004 RE/LO, 1.6 %, halogen-free                   | 221                      |  |
| Low-residue, halogen-free No-Clean solder wire. Especially adapted to the requirements in electronics production. The flux stands out by high temperature resistance, and it does not spray while melting. The light, solid flux residues are neither corrosive nor electrically conductive. Consequently it is not necessary remove them from the solder joint. |  |                          |  |
| Sn60Pb40   | 29454/1.1.2, 2.2 %   | 183 - 190                |  |
| Sn60Pb40   | 29454/1.2.3, 1.4 %   | 183 - 190                |  |
| Sn60Pb39Cu1  | 29454/1.1.2, 2.2 %   | 183 - 190                |  |
| Sn63Pb37   | 29454/1.1.3, 2,2 %, halogen-free, eutectic                                 | 183                      |  |
| Sn63Pb37   | 29454, type 1.2.3, J-STD-004 RE/LO, 0.9 %, halogen-free                    | 183                      |  |
| Sn63Pb37   | 29454, type 1.2.3, J-STD-004 RE/LO, 0.6 %, halogen-free                    | 183                      |  |
| Sn62Pb36Ag2  | 29454, type 1.2.3, J-STD-004 RE/LO, 0.6 %, halogen-free                    | 178 - 188                |  |

### **ERSA Desoldering Wicks**

Desoldering wicks



| Order no.     | Description                                | Package size         |
|---------------|--|----------------------|
| 0WICKNC1.5/10 | No-Clean wicks, length 1.5 m, width 1.5 mm | 10 pcs.              |
| 0WICKNC1.5/SB | No-Clean wicks, length 1.5 m, width 1.5 mm | single-piece package |
| 0WICKNC2.2/10 | No-Clean wicks, length 1.5 m, width 2.2 mm | 10 pcs.              |
| 0WICKNC2.2/SB | No-Clean wicks, length 1.5 m, width 2.2 mm | single-piece package |
| 0WICKNC2.7/10 | No-Clean wicks, length 1.5 m, width 2.7 mm | 10 pcs.              |
| 0WICKNC2.7/SB | No-Clean wicks, length 1.5 m, width 2.7 mm | single-piece package |
| 0WICKNC4.9/10 | No-Clean wicks, length 1.5 m, width 4.9 mm | 10 pcs.              |
| 0WICKNC4.9/SB | No-Clean wicks, length 1.5 m, width 4.9 mm | single-piece package |

### **ERSA Flux and Flux Remover**







Flux Remover

| Order no.     | Description   | Quantities       | Danger sign |
|---------------|---|------------------|-------------|
| 0FMKANC32-005 | No-Clean flux cream, EN 29454/1.1.3 C   | 5 ml cartridge   | 1); 3)      |
| 0FMKANC32-200 | No-Clean flux cream, EN 29454/1.1.3 C   | 200 ml can       | 1); 3)      |
| 4FMJF8300-005 | Flux gel 8300 for rework, EN 29454-1/1.2.3 C<br>(F-SW33), resinous, halogen-free, low residues  | 5 ml cartridge   | 1); 3)      |
| 4FMJF8001-PEN | Flux-Pen with IF 8001 flux, EN 29454/2.2.3 A<br>(F-SW 34/DIN 8511)  | 7 ml             | 1); 2)      |
| 0FMIF8001-001 | IF 8001 flux, EN 29454/2.2.3A   | 100 ml           | 1); 2)      |
| 4FMJF6000-PEN | Flux-Pen with IF 6000 Flux, for lead-free<br>rework, EN 29454/1.1.3 A, solid 7.5 %  | 7 ml             | 1); 2)      |
| 0FMIF6000-001 | Flux IF 6000 for lead-free rework,<br>EN 29454/1.1.3.A (F-SW 32), resinous,<br>halogen-free, long activation time, low residues,<br>solid 7.5 % | 100 ml           | 1); 2)      |
| 0FMIF2005-002 | IF 2005 M low-solid No-Clean flux<br>EN 29454/2.2.3 A   | 200 ml sprayer   | 1); 2)      |
| 0FR200        | Flux Remover 0FR200, with brush 0FR202 and<br>protective cap 0FR203   | 200 ml cartridge | 1); 2); 3)  |

### **ERSA Tip-Reactivator**

### Tip-Reactivator



| Order no. | Description          |
|-----------|----------------------|
| TR01/SB   | Tip-Reactivator, lea |

### Your Guide



ERSA desoldering wicks

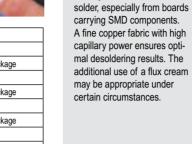
are saturated with halogen-

are suitable for protectively re-

moving excess solder and old

free No-Clean flux. They





ERSA No-Clean Flux and Flux Cream have proven their merit especially in all repair processes in SMD technology. Like all ERSA consumables, they meet the applicable standards and quality requirements. They can be easily and precisely applied by means of the Flux- Pen or cartridge, supplied with plunger and needle.

Excess residue is removed, if necessary, by means of the Flux Remover with the aid of absorbent, non-pulping paper towels or specially offered ESD-safe products.





Danger sign

1)

Quantity

15 g can

The ERSA Tip-Reactivator allows the regeneration of oxidized soldering tips. It is environmentally safe, free of lead and halogens and functions even at low soldering tip temperatures. For this purpose the heated soldering tip is wiped on the surface of the regeneration compound.



### **Soldering and Desoldering Tips**



The ERSA Tip-Reactivator allows the regeneration of oxidized soldering tips. It is environmentally safe, free of lead and halogens and functions even at low soldering tip temperatures. For this purpose the heated soldering tip is wiped on the surface of the regeneration compound.





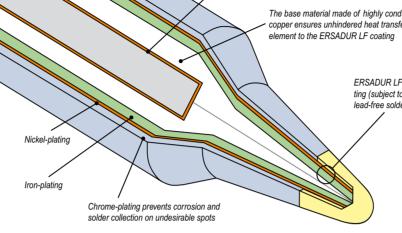








# **ERSADUR Soldering Tips**



Nickel-plating

### **Special Care for Soldering Tips**



### ERSA Dry Sponge

The ERSA Dry Sponge is included as a standard alternative to the wet sponge and can be beneficial especially for lead-free.

Hand soldering operators are happy when their soldering tips last a long time and continue to solder well. Soldering tips that do not allow the solder to melt rapidly due to excess oxidation clearly disrupt productivity! Special care of the soldering tip should be taken in order to solder efficiently.

### Important Facts:

- 1. When a soldering tip remains hot for a long period of time, the tip will oxidize or blacken. An oxidized tip will no longer "wet" or melt solder properly.
- 2. The higher the working temperature of

the soldering tip, the faster this oxidation will take place and tip lifetime will be shorter.

- 3. Soldering irons that automatically go into a lower "stand-by" temperature increase tip life.
- 4. The oxidation of the tip will be very rapid if the tip is left "cooking" without molten solder covering the tip end. It happens, for example, if the tip is not wetted with solder right after cleaning it.
- 5. Excessive mechanical force during soldering will shorten the tip life. 6. Proper care of the tip will greatly in-
- crease tip life.



Conventional soldering tips

The base material made of highly conductive electrolytic copper ensures unhindered heat transfer from the heating

> ERSADUR LF coating (up to 600 micron) of iron-plating (subject to type of tip) is factory pre-tinned with lead-free solder at working end

Cross-section of an ERSADUR soldering tip, non-scale representation

7. Lead-free soldering requires higher temperatures, is more aggressive to the tip and will always lead to shorter tip life.

### Special Care:

- 1. Always clean the tip by wiping on a slightly wet sponge after each use. Alternatively, tips can be dry cleaned using the ERSA dry sponge.
- 2. Always put fresh solder onto the end of the tip BEFORE putting the tip back into the iron holder.
- 3. Always use lowest working temperature possible.
- 4. Never leave an iron "cooking" unattended for some time. Always set iron into automatic stand-by if possible or turn-off when not in use.
- 5. Never use excessive mechanical force when soldering.
- 6. Soldering tip oxidation can be easily removed if detected early. Early detection and removal will greatly increase tip life. 7. Tip oxidation removal or tip refurbishing
- is accomplished in 4 consecutive steps: a. clean on damp sponge, b. clean with wire brush, c. using a tip reactivator chemical, and d. retinning using proper flux cored solder wire.

Dry cleaning of soldering tips offers substantial advantages. The soldering tips are not cooled abruptly and contaminated tips resulting from dirty sponges are avoided. Due to the slightly abrasive properties of the special wire mesh, passive layers that accumulated on the tip can easily be removed. Tip life is thus increased considerably in lead-free hand soldering.



can also be used for leadfree solders. Since lead-free soldering requires higher process temperatures, and due to the fact that lead-free solder is more aggressive to the soldering tip, the tip's service life is shorter. ERSADUR LF soldering tips have an increased layer of iron, which increases tip life. Consequently they are especially suitable for lead-free soldering.

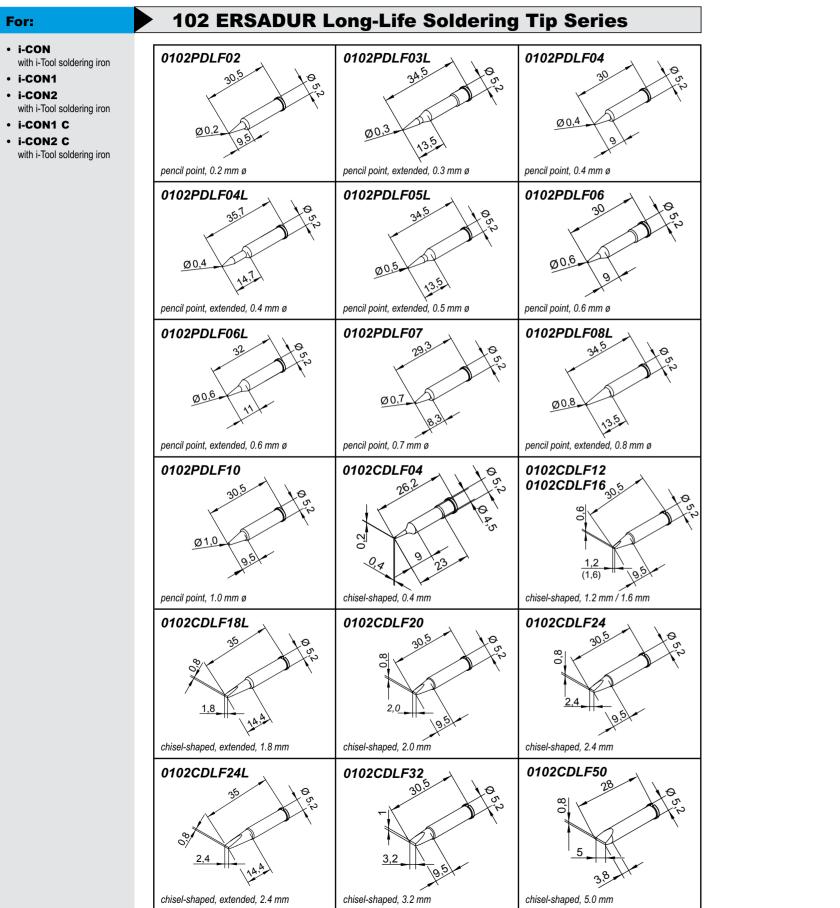


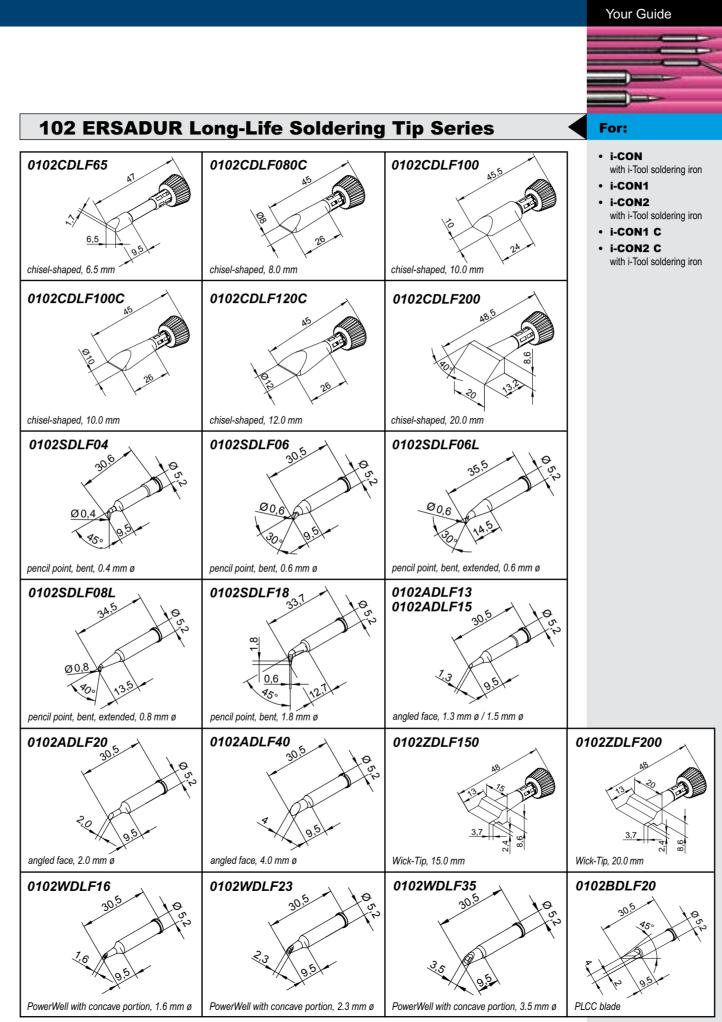
For:

· i-CON1 • i-CON2

• i-CON1 C

• i-CON2 C



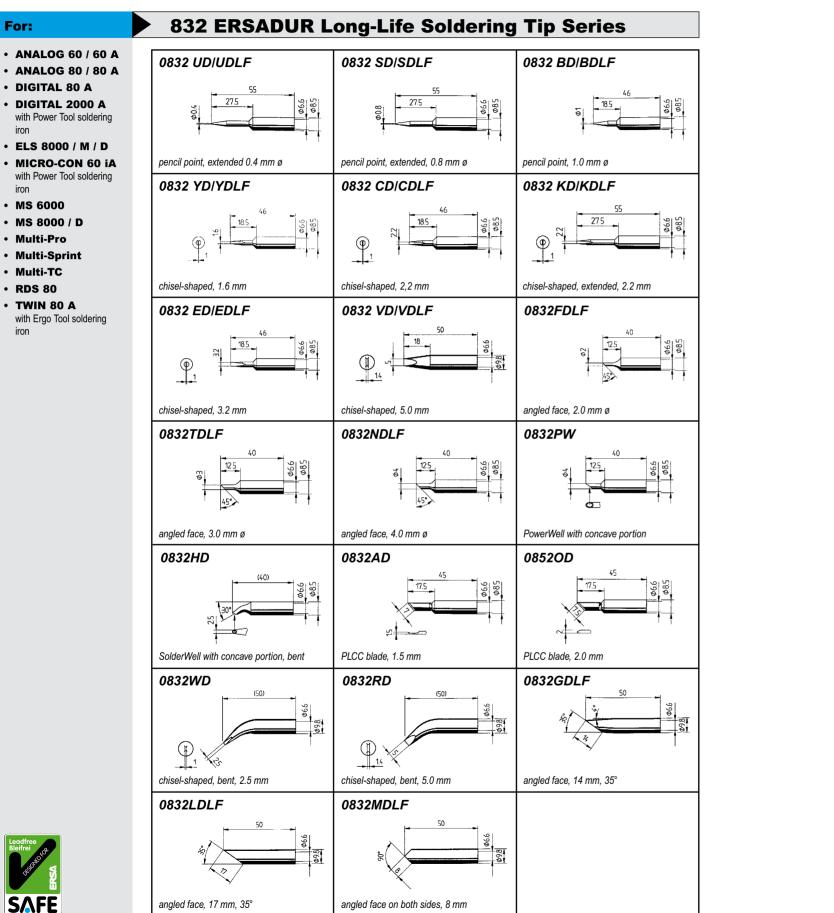




For:

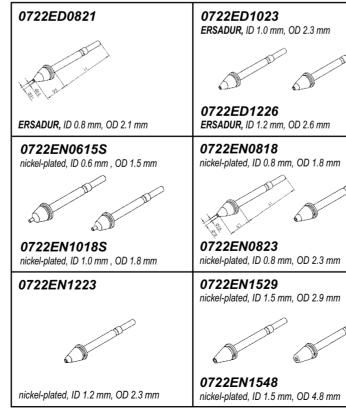
iron

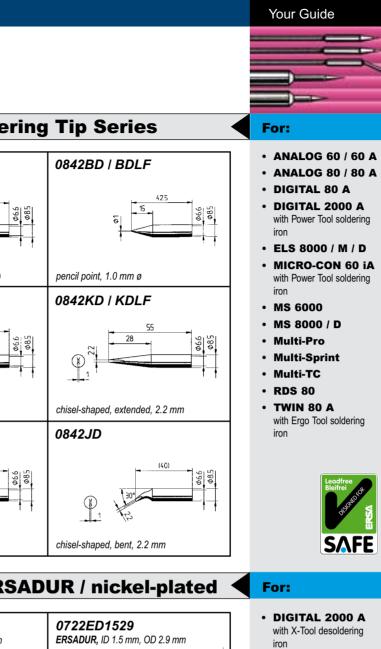
iron



## 842 ERSADUR Long-Life Soldering Tip Series 0842UD / UDLF 0842SD / SDLF pencil point, extended, 0.4 mm ø pencil point, extended, 0.8 mm ø 0842YD / YDLF 0842CD / CDLF chisel-shaped, 1.6 mm chisel-shaped, 2.2 mm 0842ED / EDLF 0842ID chisel-shaped, 3.2 mm pencil point, bent, 0.4 mm ø

### 722 Desoldering Tip Series, ERSADUR / nickel-plated





- XTOOLKIT1 i-CON with X-Tool desoldering iron
- i-CON2 with X-Tool desoldering iron
- 0722EN1020 nickel-plated, ID 1.0 mm, OD 2.0 mm

ERSADUR, ID 2.4 mm, OD 3.8 mm

0722ED2438



0722EN1023 nickel-plated, ID 1.0 mm,OD 2.3 mm

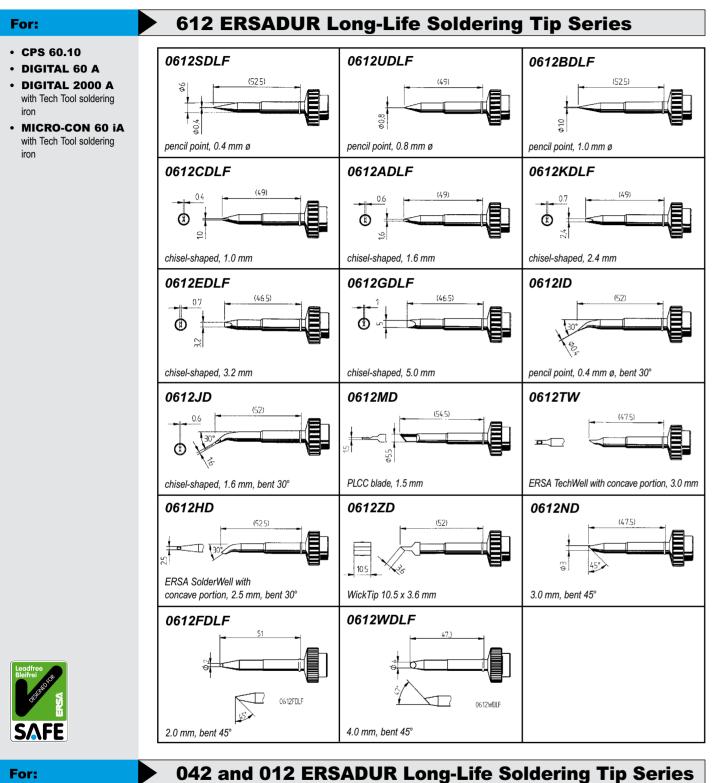
0722EN2332 nickel-plated, ID 2.3 mm, OD 3.2 mm



0722EN2348 nickel-plated, ID 2.3 mm, OD 4.8 mm







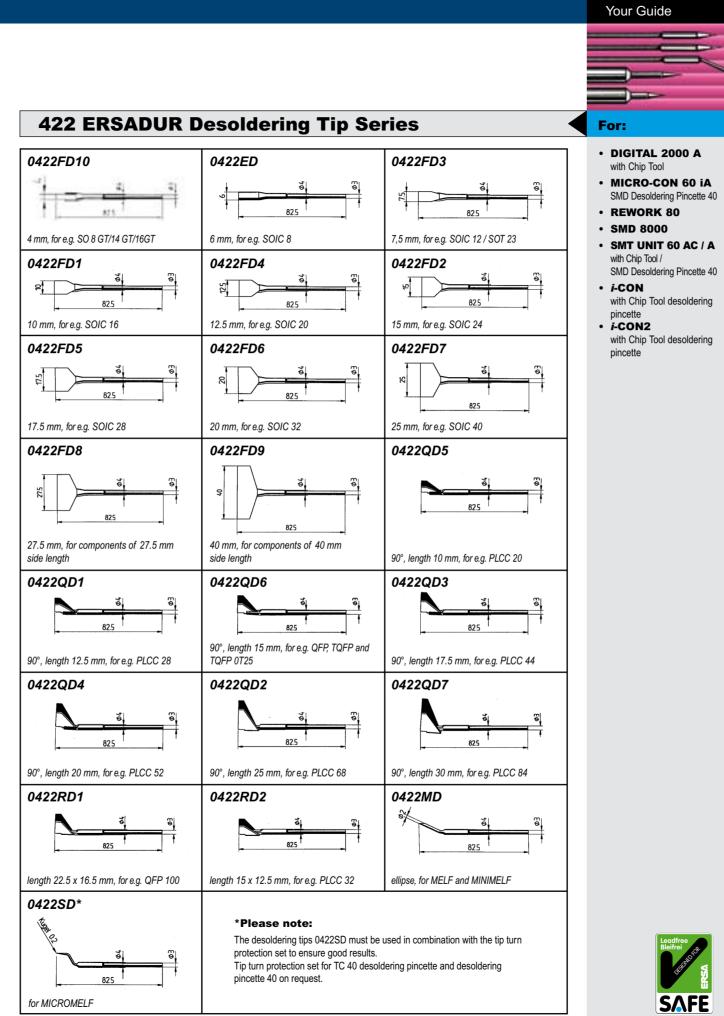




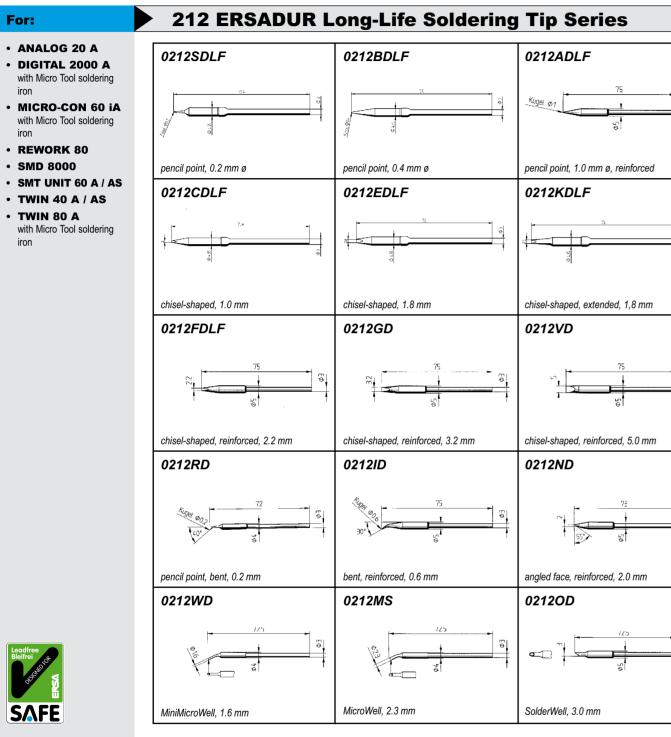
Minityp S (tip 0012BD)



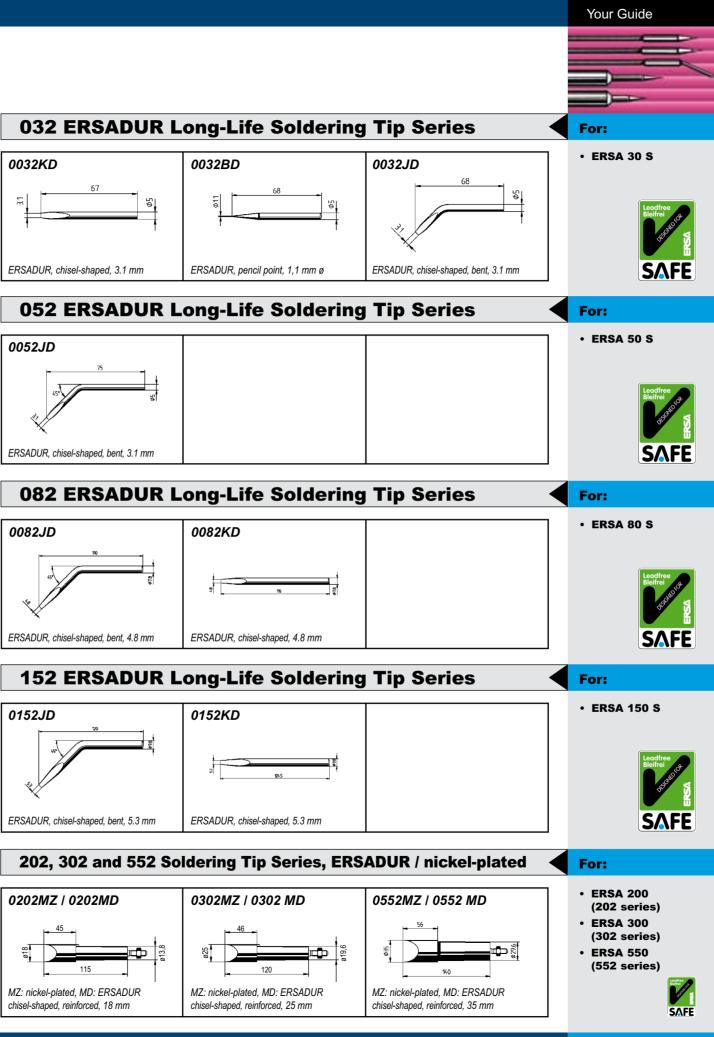
0042BD 0042LD 0012BD pencil point, 0.1 mm ø angled face, 1 mm pencil point







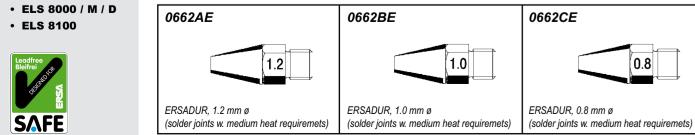
# 0032KD 0032BD ERSADUR, chisel-shaped, 3.1 mm ERSADUR, pencil point, 1,1 mm ø ERSADUR, chisel-shaped, bent, 3.1 mm 0082JD 0082KD ERSADUR, chisel-shaped, 4.8 mm ERSADUR, chisel-shaped, bent, 4.8 mm 0152JD 0152KD



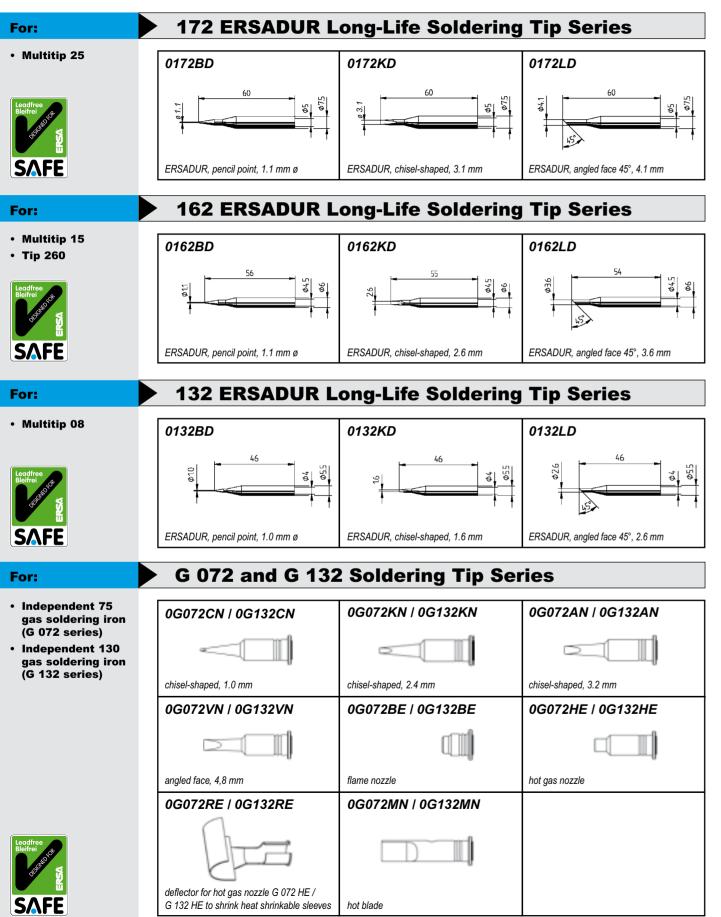
SAFE

For:

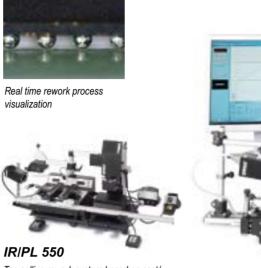
## 662 Desoldering Tip Series







### **ERSA IR Rework Systems**



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IR/PL 650

| Order no. | Description                       | Voltage |
|-----------|-----------------------------------|---------|
| 0IR650A   | IR 650 dynamic IR rework system   | 230 V   |
| 0PL650A   | PL 650 precision placement system | 230 V   |
| 0IR550A   | IR 550 dynamic IR rework system   | 230 V   |
| 0PL550A   | PL 550 precision placement system | 230 V   |

### **ERSA Inspection Systems**

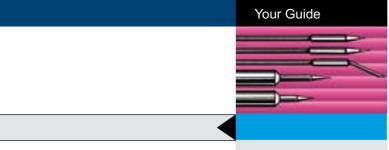


ERSASCOPE 1 - Original 90° viewing capability with high magnification for general inspection of PCBs with all component types



ERSASCOPE 2 plus Designed to handle the low-profile components such as Flip Chips, µBGAs and CSPs

|   | Order no.                        | Description   | Voltage |  |
|---|----------------------------------|---|---------|--|
|   | 0VSSC600*                        | ERSASCOPE 2 plus inspection system                  | 230 V   |  |
|   | 0VSSC070                         | ERSASCOPE 1 - Original with ImageDoc Basic software | 230 V   |  |
| 1 | *Software available as an option |   |         |  |





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