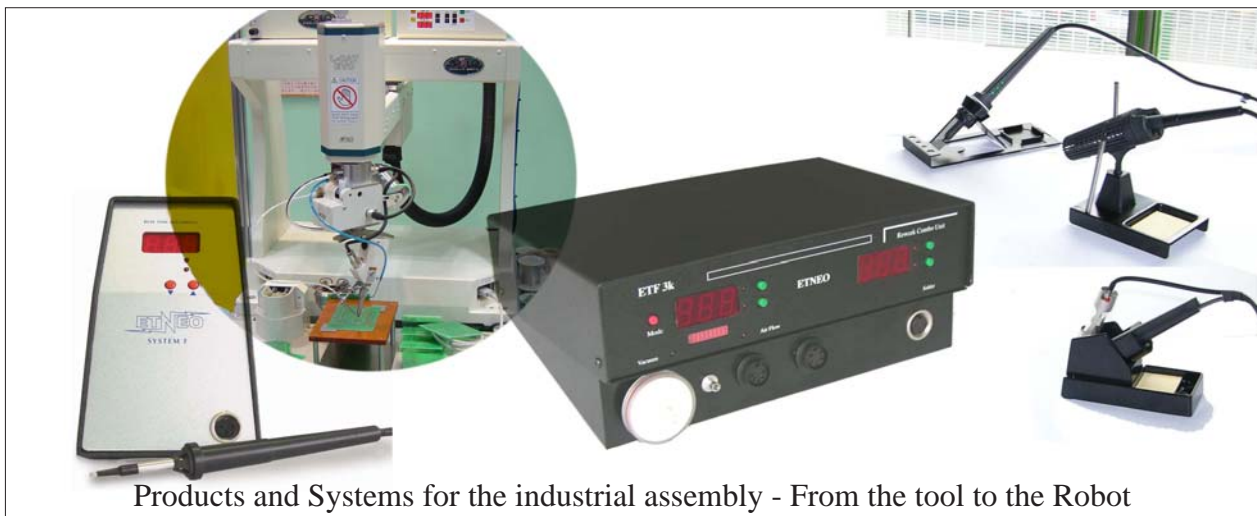


Libro Bianco Etneo Italia
the white book & technical papers



Products and Systems for the industrial assembly - From the tool to the Robot

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Email: info@etneo.com





The Etneo "F" system is one of the most advanced soldering station which is totally programmable by the user. The front panel keys act as a joystick to set the desired features. The unit uses the exclusive Etneo soldering thermoscopes/tips which assure high precision, power and accuracy in real time for any circuitry soldering task.



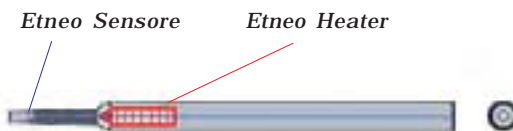
Auto change tip Iron Holder.

Holder caddy type for iron, parts and thermoscopes.

F system™ - the new technologies for the controlled temperature soldering iron



Etneo soldering thermoscopes



Etneo Sensore

Etneo Heater

A perfect Interaction Hardware - Software and Design
Power on demand - only when is needed and where is needed

With the Etneo F soldering station, you can :

- Manage - Customize - Lock - the temperature range - Manage the access password
- Manage the temperature according to the job and to the soldering wire alloy in use (e.g. lead free soldering)
- Manage the Delta Temperature (offset) according to the tip configuration (By program only)
- Perform a software autocalibration with a referring room temperature tip**
- Manage the Stand By sleep time function - Manage the thermal recovery time from one soldering to the next (By Program Only)

** However the Etneo F series soldering station does not require calibration for temperature



Standard F stylus handle

The handle is made in 3 interchangeable parts each of one with special features. Different parts are available to use the stylus in different working conditions, such as:
Heavy duty works generating high temperatures.
Use with Nitrogen source for heavy lead free.

To develop the system, we started from the heater, we developed a micro-heater made ceramic composite, with a power of 90W.



Etneo designed a Temperature Sensor being able to detect the minimal temperature changes. The sensor has been placed in the tip of the heater. The package has been inserted in a special soldering tip, made by pure copper and hardened with multiple materials deposit.



Standard F stylus handle with cartridge



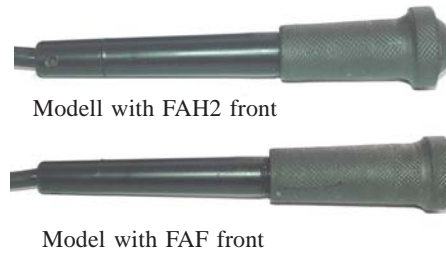
The final package includes the tip, the heater and the connection to the CPU, and moreover dissipates the heat.



Optional tool Parts



High Temperatures handle



LEGENDA

- FAPC - Rear Part holding the connector
- FAP - Rear Central Part
- FAF - Standard front part
- FAH1 - Front Part for high temperatures
- FAH2 - Front Part for high temperatures
- FAHNB - Front Part for N2 Use

F

Model with Front Part for N2 Use



The Soldering Tips, parts of the cartridge assembly, are used in the Robotic environment, they can be considered extended life types.



The tool iron holder contains the sponge to keep the tip clean, the tool part can be rotated 200° to be placed in the most convenient position, and has a special device to change the hot tip without touching it with the Operator hands.



FEATURES

- Continuous Heat Temperature Settings up to 500°C without having to change the tip
- 90 watts heater self adjusting its power delivery to the thermal load required by the joint to be soldered
- Exclusive soldering thermoscope
- Special designed long life tips with fast heat transfer
- Etneo temperature sensor placed into the tip of the tip
- Superb temperature stability and thermal recovery
- Temperature Stand by circuitry to preserve soldering tips life
- User Interface "on board"
- PC Serial Optional Port for Temperature Management software
- ESD Safe design
- Ergonomic micro fine tool design
- Large LED display for Temp reading/setting
- Auto change system for tip/thermoscope



Benefits of the F system:

The F technology allows the use of lower working temperatures - Ideal for Soldering SMT fine - ultra fine pitch components
 Ideal for multi-layers boards with heavy ground planes - Minimizes rework time & increases productivity
 Eliminates: Thermal Stresses and Thermal Shock - Ideal for Lead free soldering - Heat to the joint on demand



APPLICATIONS AND SEGGESTED TIPS

- For SMD from F2116 to F2120
- Pin to Pin from F2123 to F2128
- Heavy duty from F2102 to F2112

SPECIALS APPLICATIONS

- For Automations
 - Series DV2 from F 13D2 to F 50DV2
- For Thermal dissipations
 - Series D from F 60D to F 80D

Cartridge and Special Tips

The System F soldering tips have been designed to assure the maximum possible performance in every situation. They can be considered “extended extra long life”.



Thermal cartridge with interchangeable tip type

Lead Free Soldering

The introduction of soldering alloys without Pb - Lead free soldering - will require more powerful and precise tools as the melting point is reached at higher temperatures, therefore the Etneo F system with its unique technology to manage temperatures and power in real time, according to the thermal load requested by the joint to be soldered, is the ideal solution.

Perfect Interaction Hardware - Software and Design

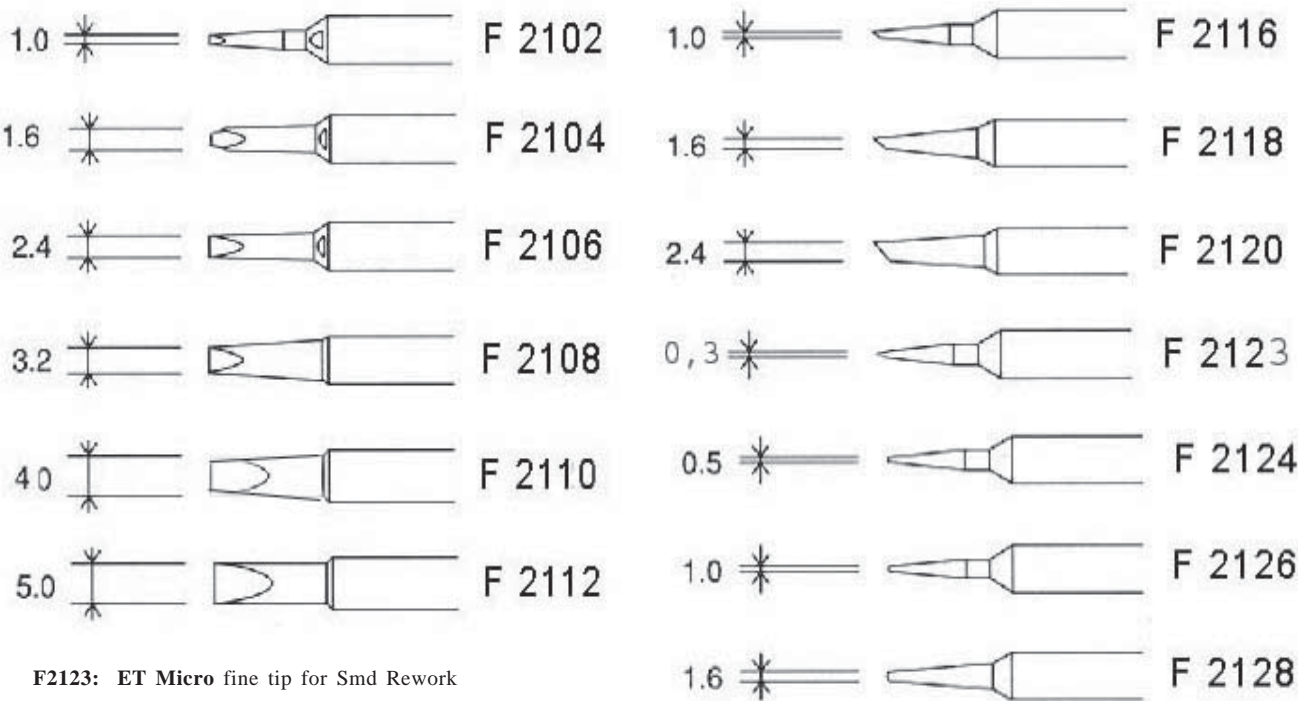
With the optional Management Software, it is possible to manage the working temperatures, such as, to establishe the range (Min and Max Temp. In Celsius °), or fix a working temperature, without the Operator can vary that (the Front Panel Up and Down Keys will be non operative, However the operation can be made on the station itself without concting a PC.



F type thermoscopes and tips

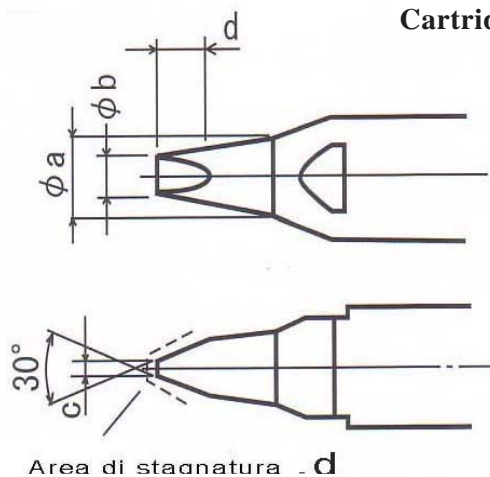
Tips Technology - Thermoscopes

The Etneo F Series soldering tips include in a detachable device, a Smart Heater up to 90 W - a Special Proprietary Temperature Sensor placed in the tip of the tip and a rear easy-pole connector to facilitate the tip assembly change.

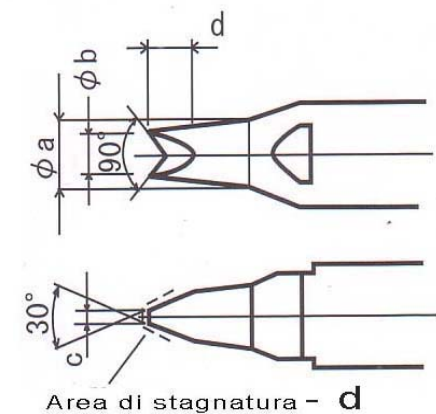


F2123: ET Micro fine tip for Smd Rework

Cartridge and Special tips



Type	a (mm)	b	c	d3s
F 08D	3	0.8	0.3	1.0
F 13D	4	1.3	0.5	2.0
F 20D	4	2.0	0.6	2.0
F 60D	6	6.0	1.3	4.0
F 80D	8	8.0	1.6	4.0



Type	a (mm)	b	c	d3s
F 13DV2	4	1.3	0.5	2.0
F 16DV2	4	1.6	0.6	2.0
F 20DV2	4	2.0	0.6	2.0
F 24DV2	4	2.4	0.8	2.0
F 30DV2	5	3.0	1.0	3.0
F 40DV2	5	4.0	1.0	3.0
F 50DV2	5	5.0	1.3	3.0

F tips selection

System F Evolution

150 W at the tip - 0 to 450°C working temperatures: range can be set or lock according to the needs - Real Time thermal recovery. - Temperature Stand By Interchangeable Soldering thermoscopes with Etneo Heater and Sensor. - For any large mass soldering. -For advanced Lead Free soldering.

The Manual soldering becomes automatic. The Operator does not wait.



The electronics Industry is moving to adoption of lead free solders. This alloys require more powerful tools as per their higher melting point. Therefore for any soldering system, the thermal recovery and power became essential. The Etneo soldering stations, SYSTEM F and EVO, have all the technology and the power needed to use any lead free alloys in the most easy and convenient way. The working Temperature can be set up to 500 °Celsius without having to change the tip/device; the tip heating is instantaneous, the power on demand up to 90 W and 150W; **the temperature set offers high stability and immediate thermal recovery from one point to the next**; the feature of “non calibration” of the system, make the F technology the ideal solution to achieve high performances at extremely low running costs. The possibility to set up the temperature stand by time to preserve the tip/heater, the managing of the min/max temperatures as a value range, the possibility to lock the temperature at the desired value, the setting menu access protected by password, the extended life tips type, the N2 to the Tip option, make the F Series stations one of the best choice today.

Option N2 at the tip - for the System F standard stations -

Benefits of the Nitrogen Option:

- Improve wetting
- Less solder-paste residues = Less contamination & oxidation
- flexibility in solder wire/paste formulation
- better temperature profile management
- improve yield and quality



Kit N2 :Stylus handle parts to be used with Nitrogen source. Flowmeter to adjust the N2 flow amount.

The new ETF housing represents a new platform with multifunctions features that can be configured by the User. The platform has been designed to satisfy the current and future technology trends, which require flexible and powerful precision functions. From the Rhos rules to the ESD ones, the system offers security and outstanding performances. The housing is very compact to occupy small space on the workbench. The circuit logic offers a simple but complete User Interface to set the working tools functions needed (Temperature Range - Pumps speed - Stand by time etc.) We are presenting in this page a machine that include two advanced soldering sections: the classic 90W F system and the high power 150w section with tools and cartridge designed for the big mass and heavy heat sink.n. The two sections can be used simultaneously by two different Operators

The available options are:

N2 Kit for the F90W section

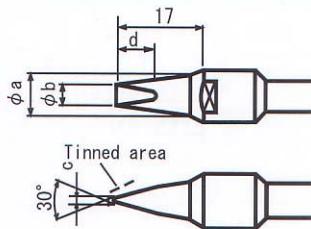
Auto feed Soldering wire for the 90W section.



Model ETF 2F -Double soldering station - 90 and 150W

The 90 W Section uses the tips described in page 4. While the 150W one use the tips here below.

****B-D-2**



Type	a (mm)	b	c	d2-S
**B-16D-2	7	1.6	0.3	1.0
**B-20D-2	7	2.0	0.4	1.5
**B-24D-2	7	2.4	0.5	2.0
**B-30D-2	7	3.0	0.6	2.0
**B-40D-2	8	4.0	0.8	2.5
**B-50D-2	8	5.0	1.0	3.0



Option: Etneo auto soldering machine

The station is equipped with a motor which withdraws the solder wire from an external spool holder and it feeds the required amount to the tip of the soldering stylus by means of a teflon tube at high smoothness, parallel to the stylus main cable. The feeding of the solder is obtained by the operator which releases a switch button placed on the stylus hilt . The machine has an optional adjustable timer circuit from 0 to 20 seconds (as option) to adjust the amount of feeding of the solder wire, suitable for special applications, like robot soldering. The diameter of the tin wire could vary from 0.7 to 1.2 mm, the system adapts itself automatically at each variation of diameter of the wire and therefore it doesn't require manual regulation. The solder spool holder can accommodate a tin roll of maximum 0,5 Kg. The tin feeding speed is 12 mm/sec.

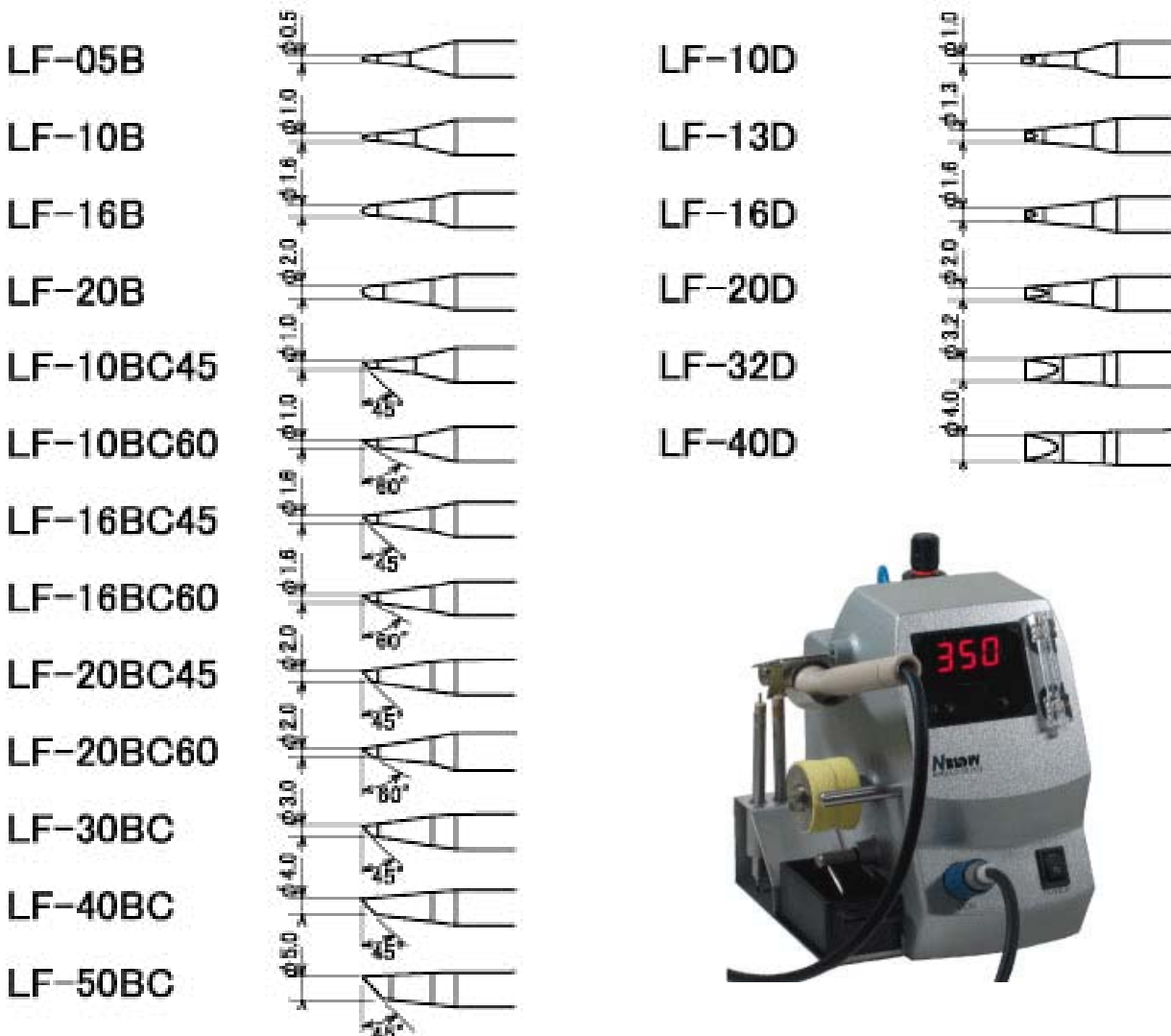
Simply connect the unit to the air source, the air will be transformed into N2 at 99,9% by the inside generator. The N2 will flow through the cartridge heater, it will be heated and will reach the soldering target area. The advantages are several: lower soldering temperature - longer life of the soldering tip - the soldering area will result clean - and any soldering wire alloy (even the most aggressive) will be easy to use.

SPECIFICATIONS

- Roller Motor Sponges for tip cleaning with water reservoir to keep the sponge wet
- Replacement cartridge spares
- Rear Air Input
- Front Flowmeter to adjust N2 flow through the cartridge
- Large Temperature Display with UP and DOWN keys
- User Interface for functions setting
- Large tips selection
- Over 75W tip Power



CARTRIDGE - N2 TIP



Specs NFLOW

Tips N2

SPECIFICATIONS

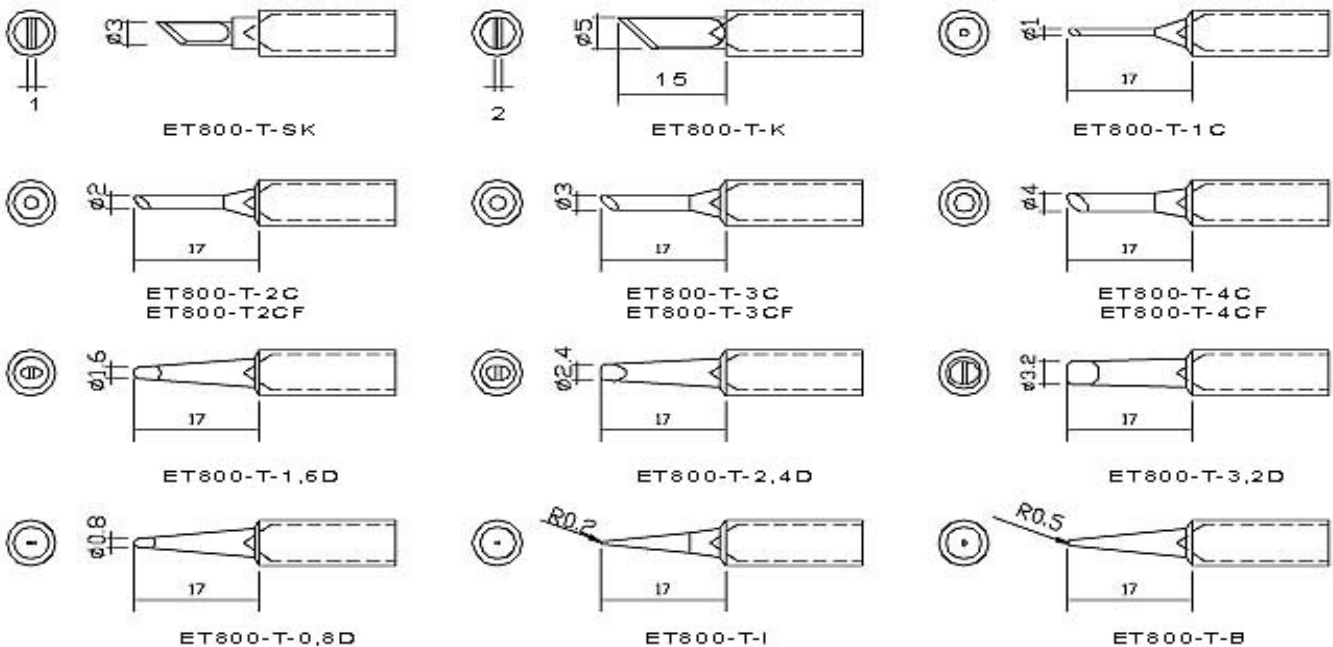
The necessary Power for the new alloys at economical price. Temperature from 200 to 450°C - Power over 80 W .Standard Iron or optional tool that feeds the lead free soldering wire to the tip. High Quality heater that provides fast heat up and fast heat recovery. These heaters have long-life, high power, and are suitable to lead-free solder wire - . 28V low-voltage to guarantee security at work. - Tip to ground Resistance: < 2 Ohm - Tip to ground potential: < 2mV- Housing Surface Impedance: 10 Esp 6 - 10 Esp 10 Ohm (ESD FREE) - Size: 140 x 120 x 90 mm - Weight: 1,6 Kg - Can be used with self feed soldering ETC 80 Feed- Temperature range is between 250°-450° Celsius - A temperature sensor is located close to the soldering iron tip. This product is highly temperature-sensitive, it detects the working temperature and cut power automatically.



The unit is supply with the standard iron. As option can be chose the Feeding wire tool.

Model ETC 80

LEAD FREE FINISHING AVAILABLE TIPS



Soldering stations EX Series with high technical characteristics at convenient price, relating to the quality and performance offered.



Iron ETC 60-24

Etneo Caddy iron & parts holder



Iron EXC 60-24

SPECIFICATIONS

- Fast heating up and thermal recovery.
- Precise Temperature Control by means of a P.I.D.
- Manual Temperature locking.
- Tip cleaner sponge in a drawer
- Iron holder on the top of the unit, left or right
- Optional spare parts/tips & tool holder
- ESD safe
- 60W Ceramic Heater
- Wide and easy read Led display
- Basic solution for LEAD FREE alloys
- Lateral iron connector
- The stations use the tips Series ETX e MSX optimised or the ones describe on page 26

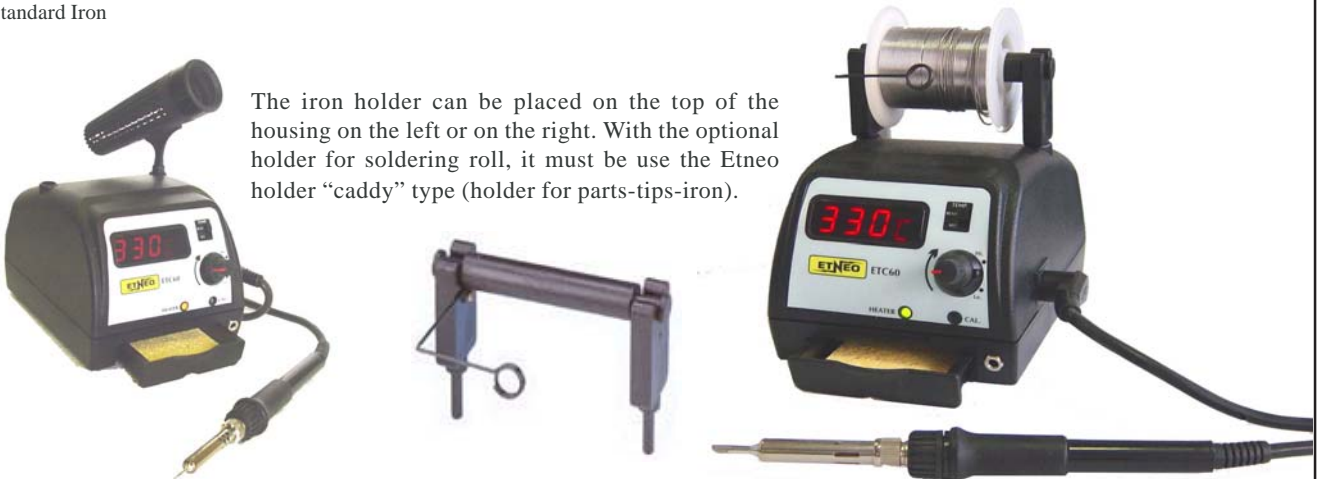
Accessories



TOP 60 Standard Iron

Holder TOP 60/F for fumes Kit

The iron holder can be placed on the top of the housing on the left or on the right. With the optional holder for soldering roll, it must be use the Etneo holder "caddy" type (holder for parts-tips-iron).



Specifications Series E

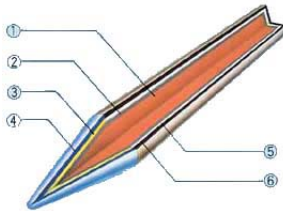
Model EX

Model ETC 60

Special extended life Tips

Since the introduction of the lead free alloys, the soldering tips require more resistant materials and exclusive plating to assure a longer life at higher stressed temperatures. The Etno exclusive thermal treatment associated to high purity materials allow the use of lower temperature to achieve the same quality soldering. We can manufacture Custom tips requiring only a minimum quantity.

STRATIFIED HEAT TREATMENTS ON HIGH QUALITY COPPER

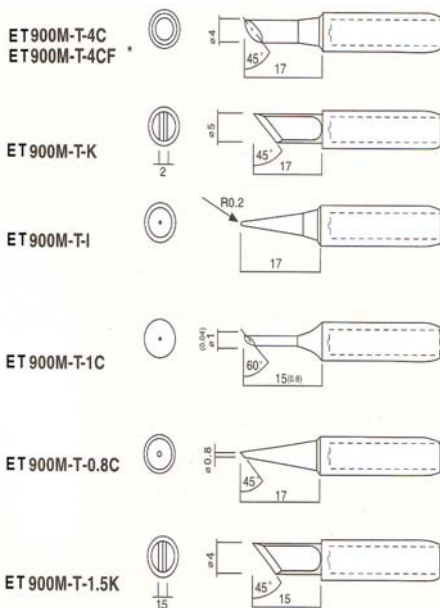
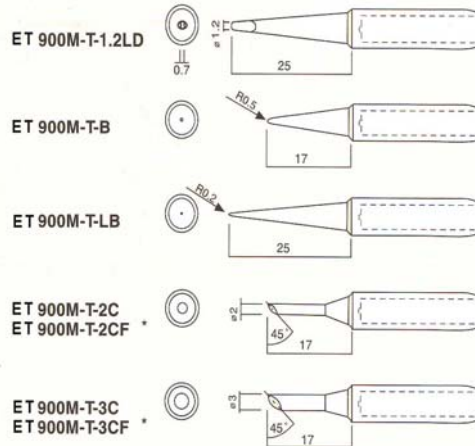
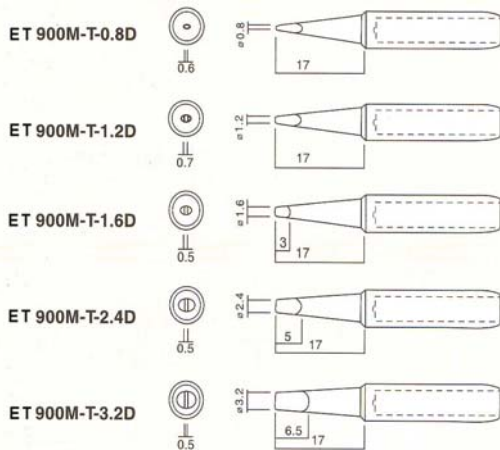


The tips series made with "Black hard chrome" are available for the F Station Series, for the sRobots and Automatic soldering systems and for HEAVY DUTY manual soldering.



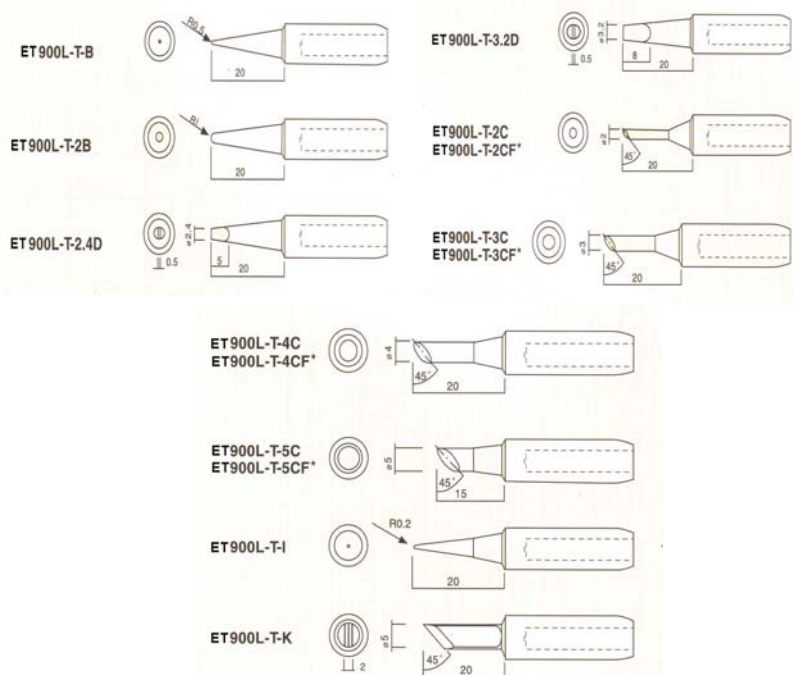
Tips for ETC 60 - EX (Outside diameter 6,5 mm)

Iron Cap to be used , model ET 90M 305 with 7,00 mm diameter



Special High Power tips (Outside Diam. 8,5 mm)

Iron Cap to be used , model ET 90L 304 with 9,00 mm diameter



Ulteriori punte con differenti diametri sono disponibili, contattare l'Ufficio Vendite per modelli e minimi quantitativi ordinabili

SPECIAL TIPS

Holders



Etneo new caddy

Etneo caddy



ET 100W . Pag. 14



ET 100W

Cod. 27200



ETX 50W - Pag. 12



ETX 50W

Cod. 90700

Available at 100W - Cod 90701



MSX - Pag 13



MSX 35W

Cod. 30000



Original tips Pag 10

EXC 60

ETC 60

Sistema F

Stilo sistema F



Cartridges/Original tips Pag 4



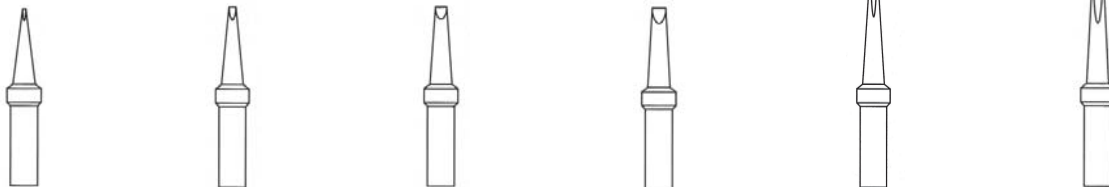
Cod. 55001

Etneo F Thermoscope with micro tip for SMT Rework

Irons for stations

*Soldering tips for 50 W irons
(for use with X- ETX Series stations)*

**SOLDERING
TIPS**



90.000 - 0,8 mm Flat screw type 90.100 - 1,6 mm Flat screw type 90.200 - 2,4 mm Flat screw type 90.005 - 3,2 mm Flat screw type 90.400 - 1,2 mm Screw type long 90.300 - 2,0 mm Screw type long

Etneo - Plato - Weller - cross reference tips table

Etneo	Description	Type (mm)	Model Plato	Model Weller	Note
90000	screwdriver	0,8	EW 301	ETH	see drawing
90100	screwdriver	1,6	EW 303	ETA	see drawing
90200	screwdriver	2,4	EW 305	ETB	see drawing
90005	screwdriver	3,2	EW 307	ETC	see drawing
90400	screwdriver long	1,2	EW 304	ETK	see drawing
90300	screwdriver long	2,0	EW 306	ETL	see drawing
90411	slanting cuts	3,2	EW 517	ETCC	Min. Qty 10 pces
90412	screwdriver	5,0	EW103	ETD	Min. Qty 10 pces
90413	slanting cuts	1,6	EW 513	ETAA	Min. Qty 10 pces
90414	for SMD	0,8	EW 0603	ETMX	Min. Qty 10 pces
90415	screwdriver long	0,3	EW 302	ETJ	Min. Qty 10 pces
90416	micro pin	0,3	EW 4796		Min. Qty 10 pces
90417	slanting cuts	2,4	EW 515	ETBB	Min. Qty 10 pces
90418	for SMD	0,5	EW 602		Min. Qty 10 pces
ET 51	for SMD	3,4	EW 0574		see drawing below

SMD Slide soldering



Model ET 51



Syringe GEL FLUX P/N 27.560
Syringe SOLDER FLUX P/N 27.550

Flow soldering tip for PLCC & SOIC - model ET 51 flow soldering dia. 3,2 mm To be used with the Etneo GEL FLUX or PASTE to reduce shorts risk.

ETX soldering stylus



Stop tip tube
P/N 90.500



Heater 50W P/N 90.600 100W P/N 21.600



antistatic ergonomic handle
P/N 53.501

ETX series soldering tips

Slide soldering

Iron parts

**SOLDERING
TIPS**

*Soldering stations Series EX - ETX
(Tips for MSX- Micro - irons)*



30100 - 0,3 mm Micro pin
30130 - 1,2 mm cut 45° type
30110 - 0,8 mm flat type
30120 - 1,6 mm flat type

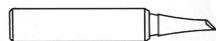


Etneo - Plato - Weller - cross reference tips table

Etneo	Description	Type (mm)	Model Plato	Model Weller	Note
30100	pin type	0,25	DX 4771	MT 1	see drawing
30130	cut 45° type	1,2	DX 5688	MT 4	see drawing
30110	flat type	0,8	DX 2683	MT H	see drawing
30120	flat type	1,6	DX 2684	MT A	see drawing
30140	microtip	0,25	DX 4814	MT 1S	Min. Qty 10 pcs
30141	micro tip	0,4	DX 4977		Min. Qty 10 pcs
ET 55	for SMD	2,4	DX 5550		see drawing

MSX series soldering tips

SMD Slide soldering



Model ET 55



Flow soldering tip for PLCC & SOIC - model ET 55 - diameter. 1,2 mm -To be used with the Etneo GEL FLUX or PASTE to reduce shorts risk.

Slide soldering

MSX soldering iron

MICRO STYLUSES PARTS



Stop tip tube
P/N 30.002



Heater 35W
P/N 30.001



antistatic ergonomic handle
P/N 53.501

Spares for irons ETC/EXC 60



Ceramic Heater - Cap for MSX tip optimised - Cap for ETX tip optimised - Cap for high power tips (pag 26)

Micro styluses parts



The digital soldering station ETX 51D is a fine industrial unit that offers all the necessary features to work on high tech products where antistatic properties and lack of spike free tip voltages are essential. The precise tip temperatures are constantly shown on the LCD display. The fast thermal recovery assures easy soldering joints even in the presence of a large heat dissipative mass.

The unit is supplied with: Control unit 110-230/24V 80W - Soldering stylus ETX 24V 50W - Safety stand caddy -
Optional Micro-stylus model MSX 24V 35W - High power stylus ETX 24V 100W thermal tweezer ETW 24V 70W

The ETX 100, **100 WATTS** soldering station is designed for all applications requiring high power. With its electronic control it provides stable temperatures even in situation of continuous soldering.



The unit is supplied with: Control unit 110-230/24V 100W - Soldering stylus ETX 24V 100W - Safety stand Caddy -
Optional Micro-stylus model MSX 24V 35W, standard stylus ETX 24V 50W and thermal tweezer model ETW 24V 70W.

*High Quality Tip for 100 W
Iron - Model F8LF*



THERMAL TWEEZER STATIONS

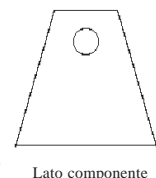
The tool could be used with all the Etneo stations soldering and desoldering, simple and double.

Ergonomic utensil for the removal of SMD components. The tool is supplied with two heating elements of 35W (each) - 24V.
Exempt from ESD
Model ETW 24V 70W



Two sides smd tips

- ETW 25 for resistors and capacitors 2,5 mm side -
- ETW 35 for resistors and capacitors 2,5 mm side -
- ETW 5 for resis. capac.- SOT 8 5,0 mm -
- ETW 10 for SOT.SOJ14/16 - ETW 12,5 for SOT.SOJ 18/20
- ETW 18 for SOT.SOJ 24/28 - ETW 22,5 for SOT.SOJ 32/40



Lato componente

PLCC tips

- ETWS 10 for PLCC 20
- ETWS 12 for PLCC 28
- ETWS 14 for PLCC 44
- ETWS 16 for PLCC 52
- ETWS 18 for PLCC 68
- ETWS 20 for PLCC 84



Example of tip model ETW 18 for PLCC 44 which has a body 30 mm long and row leads length of 22 mm

Auto tin feed soldering station



P/N 26902

P/N 27500 - 50 W
P/N 27400 - 100 W

Easy and fine adjust soldering wire diameter gears

Automation of the soldering process

The model ATX is a soldering station available in two versions, 50 W or 100W. The station is equipped with a motor which withdraws the solder wire from an external spool holder and it feeds the required amount to the tip of the soldering stylus by means of a teflon tube at high smoothness, parallel to the stylus main cable. The feeding of the solder is obtained by the operator which releases a switch button placed on the stylus hilt . The machine has an optional adjustable timer circuit from 0 to 20 seconds (as option) to adjust the amount of feeding of the solder wire, suitable for special applications, like robot soldering. The diameter of the tin wire could vary from 0.7 to 1.2 mm, the system adapts itself automatically at each variation of diameter of the wire and therefore it doesn't require manual regulation. The solder spool holder can accommodate a tin roll of maximum 0,5 Kg. The tin feeding speed is 12 mm/sec. **System configuration:** Control unit 110-230V -50/100W - motor reduction gear - Soldering stylus ATX 24V 50W or 100W- Safety stand AT 100 - Solder spool dispenser - Optional programmable timer

SOLDERING PROCESS AUTOMATION



Tips for the ATX series stations

page 12 for tips Stylus 50W
Model F8LF - 100W



SOLDERING PROCESS AUTOMATION

The right picture is showing an example of process automation made with two Etneo ATX soldering stations. The units are placed on an automatic Z axis. The two station soldering stylus come down to the points to be soldered . The process is controlled by a CU that manage the soldering wire dispenser as well, while the working temperature is set and controlled by the station. Further soldering automations processes can be made with the specific Soldering Robots.

Modello ETX 50: Analogue
Modello ETX 101D: Digital

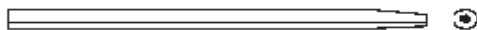


caddy holder stylus EDS

caddy holder stylus FP

The ETX 50 - 101D models desoldering stations are characterized by their long term constant function quality. They are light-weight, easy to use, low maintenance and reliable. The stylus has a patented ergonomic shape "in line" with the working point which is very close to the grip. The suction is generated by a CC driven rotating pump capable to sucking 7 litres of air per minute with a vacuum of 600 mm/Hg. The pump is activated by a push button placed on the desoldering tool. The model ETX 50 has analog regulation, while the 101D model has LCD digital display showing the tip temperature.

Standard package: Control unit 110-230/24V 100W - Desoldering stylus EDS 24V 50W Safety stand: Caddy type. Optional tools FP 24V 100W (SMT desoldering tool) -The thermal tweezer ETW 24V 70W both for conduction rework



Desoldering tips EDS Series

- 31800 45 mm long nozzle inside hole diameter of 0,6 mm
- 31801 45 mm long nozzle inside hole diameter of 1,0 mm
- 31803 45 mm long nozzle inside hole diameter of 1,3 mm
- 31802 45 mm long nozzle inside hole diameter of 1,5 mm



SMD tips - AQP type (4 sides Smd's see page 21 for use with FP tool.

Well balanced tool with the tube and cable weight



P/N 27.300

"Always cold" handle grip with function activation switch

"Look through" tin tank with filter, and anti-drop system.

Desoldering stylus EDS type with "in line" architecture to the joint to be removed to allow a more fluid and direct aspiration of the tin. **ETNEO PATENT**

FP removal tool with ergonomic shape and finger switch to activate the vacuum pick up of the SMD which is lifted slowly and gently without damaging pcb pads and traces.



P/N 27.301

Quick heater placed in the closest joint position. The desoldering tip is inserted into the heater for at least 30 mm.

Real time Heater type to allow an immediate SMD removal.

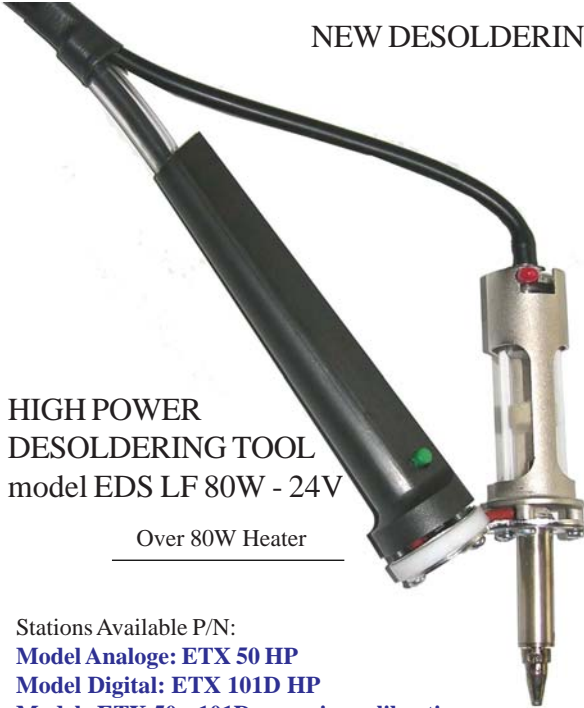
AQP tip type with special suction cup for the automatic vacuum pick up.



New High Power Desoldering tool and Desoldering tips

DESOLDERING PTH & SMT

NEW DESOLDERING TIPS EXTENDED LIFE



HIGH POWER DESOLDERING TOOL
model EDS LF 80W - 24V

Over 80W Heater



The High power rework desoldering tool, uses the Extended life tips, designed for Lead Free, Its high power heater offers an immediate heating minimizing therefore the contact time. The new tool can be used with all NEW Etneo ETF stations. The ETX Series Etneo station can use the new tool - **prior calibration of the units** -, however those stations do not offer all the convenience of the new ETF ones, such Stand By time and functions setting. The tool design is an Etneo Patent (N. 1228254), its allows the Operator to be perpendicular to the joint, allows large view to the parts, the desolderd tin goes to the transparent removable chamber and the Operator grip handle is always cold, offering moreover a perfect balance light weight. The Etneo stations can also use the SMT Removal tool FP type which has an 100W Heater and uses the AQP - AFP tips. The FP tool has a fine desoldering program, it heats up the leads and by a suction action lift ups gently the chip, without damaging the pcb tracks and components leads. For PTH complex packages, on the EDS LF tool can be installed a psecial Kit to blow N2 to the parts, prior to be desoldered. The benefits of the Nitrogen are remakable, such less temperature - non contamination - and better maintenance for the tool.

Stations Available P/N:

Model Analoge: ETX 50 HP

Model Digital: ETX 101D HP

Models ETX 50 - 101D - require calibration

Model ETF Series: best performances



Desoldering Tips series ESL (etneo super life). Innovative tips design featuring screw thread tool fixing with LEAD FREE FINISHING. Available models:

- ESL 10** - Hole diameter 1,0 mm -
- ESL 12** - Hole diameter 1,2 mm -
- ESL 15** Hole diameter 1,5 mm.



FP 24V 100W

ETX 101 D

Tips AQP per SMT - PLCC

ETX 101D HP

The well known Etneo desoldering systems, especially known for their high performances and remarkable reliability, they allow to approach different lead free circuitry with the necessary power and “operative smoothness”, thanks to the new “lead free plated” tips, the new High power heater, and the possibility to apply N2 to the target, making therefore possible the rework and retouch of complex and delicate pcboards and components. The N2 flow action allows the use of much lower temperature even with the most aggressive and strong soldering alloys, than the tool with his vacuum feature , is gently removing the solder without creating damages and stress to the boards and components. The N2 option is particularly suggested for rework of flexible circuits and substrates with high thermal dissipation.

Model digital station: **ETX 101D - HP-N2flow**

Kit composition: Station with pump - Hand Tool **EDS LF -N2flow**

Tips Series - **ESL 10** - inside diameter 1,0 mm - **ESL 12**, ID 1,2 mm -

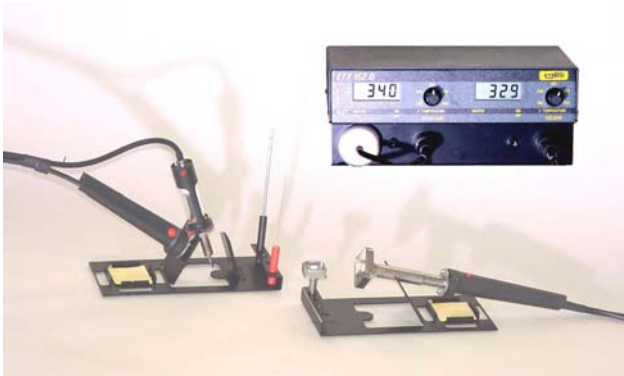
ESL 15, ID 1,5 mm

Precision Flowmeter to connect the tool to your N2 Source.



EDS LF new Desoldering tool for Lead Free applications

N2 Options



Model ETX 150: Analogue Cod. 27050
Model ETX 152D: Digital Cod. 27051

The **ETX 150 series** Rework stations unify into one enclosure the two functions of soldering and desoldering thereby allowing the two most useful tools for rework to be immediate available. The suction is generated by a CC driven rotating pump capable to sucking 7 litres of air per minute with a vacuum of 600 mm/Hg. The pump is activated by a push button placed on the desoldering tool. The model ETX 150 has analogue controls, while the model 152D has LCD digital display showing the tip temperature.

The units are supplied with:

Control unit 110-230/24V 150W - Through hole desoldering stylus - EDS 24V 50W -Soldering stylus ETX 24V 50W - Safety stands : Caddy type

Optional connectable tools: FP 24V 100W (SMD desoldering tool with vacuum) all the soldering stylus from 35W to 100W

Tools you can connect



STYLUS FOR SMT FP 100W 24V MICRO IRON MSX 35W 24V 50W IRON ETX 50W 24V PTH DESOLDERING EDS 50W 24V THERMAL TWEEZER ETW 70W 24V



Desoldering tips EDS Series

31800	45 mm	nozzle hole diameter of	0,6 mm
31801	45 mm	nozzle hole diameter of	1,0 mm
31803	45 mm	nozzle hole diameter of	1,3 mm
31802	45 mm	nozzle hole diameter of	1,5 mm

KIT PTH FOR SERIES ETX 150

Every desoldering station includes the kit with following parts:
3 desoldering nozzles- tip cleaner brush - heater special cleaning brush -hexagonal wrench with screw - tool filter and pump filter - front and rear sealing silicone - glass looking through tin tank.



Cod. 68.501

ETF Platform: HIGH POWER DESOLDERING WITH 21 Liters/minute Pump



Another example of the ETF Platform, is the model **ETK AIR**, that cab supplied as Desoldering for PTH-SMT, here on the picture or as High Power **HOT AIR STATION**, described on page 26.

The Main specifications of the Desoldering Model are:

- High Suction Capacity power
- High Power of the Desoldering tools
- Use the new extended life kind of tips (ESL10 - ESL12 - ESL15)

Finger Switch funtion activation

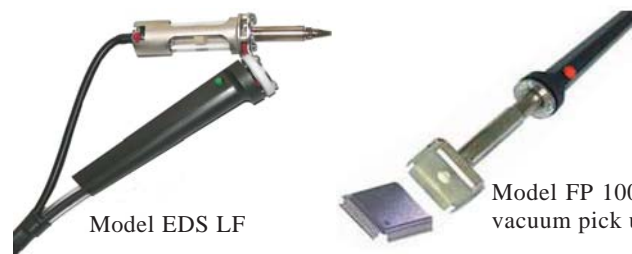
User Interface with following functions setting:

- Temperature Minimal and Maximum (Max 450°C)
- Stand By time tools
- Suction Flow Control

Maximum Initial Flow in decimal seconds

Continuous Final Flow in decimal seconds

Options: Kit **NITROGEN**, that include nozzles and parts to be installed on the PTH tool in order to activate a calibrated N2 Flow on the target and pcb area.



Model EDS LF

Model FP 100W with vacuum pick up



High Performance PTH Desoldering tips



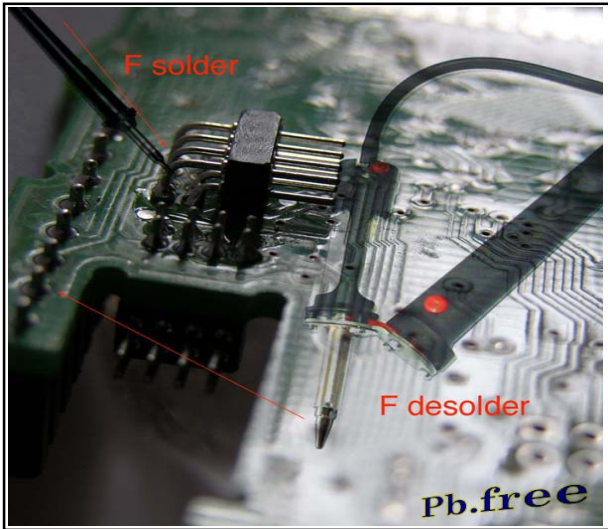
N2 Nozzle for the EDS LF tool

Digital and analog desoldering stations

NEW ETF HIGH POWER DESOLDERING UNIT



Assembly and Rework of Smt - Pth - with F Solder & F Desolder -
Hot Air Virtual Nozzles - N2 Option



The electronics Industry has moved to the adoption of lead free solders. This alloys require more powerful tools as per their higher melting point. Therefore for any soldering system, the thermal recovery and power became essential. The Etneo products have all the technology and the power needed to use any lead free alloys in the most easy and convenient way.



How can you configure the Model ETF 3K

Model	description	standard/option	tips/nozzle
EDS LF 24V 80W	Desoldering PTH	standard supply	Serie ESL
ETH 24V 80W	Hot Air tool	standard supply	Nozzles included
System F tool	Iron F type	standard supply	Choose tip/cartridge
FP 24V 100W	SMT tool	Optional supply	AQP-AFP tips
ETW 24V 70W	SMT Tweezer	Optional supply	ETW S - ETW tips
SPECIALS TOOLS			
EDS LF N2	Desoldering with N2	Option	Series ESL
Iron F N2	Iron F with N2	Option	Choose tip/cartridge

ETF 3k standard unit, includes:

- Tool EDS LF for PTH with tip
- Hot Air tool with 1,5 e 3,0 mm hole nozzles
- F System Iron with cartridge/tip

- Option : FP tool with SMT tips to be chosen
- N2 Kit to connect and to use the soldering - Desoldering PTH tools to the Nitrogen source



N2 Soldering Kit



N2 Desoldering Kit

Platform ETF 3k

ETF 3K Options

Conductive rework tools are generally less expensive than hot air and infrared rework systems. These systems cannot focus heat delivery as well as conductive tools, which focus heat on the leads of the component being removed. Solder ball formation and reflow of adjacent components is a problem may arise with some hot air systems.

The Etneo FP tool offers a remarkable advantages on competitor tools

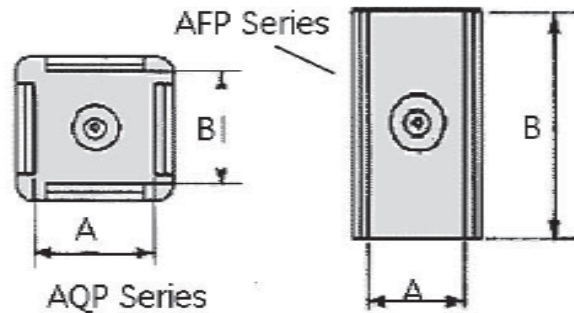
- it is fast
- it delivers heat only to the SMD leads
- does not damage pc board traces and pads
- the tips have a vacuum features that lift up the SMD smoothly and without have to move the tool
- tips range covers several components sizes
- vacuum activation by the unique Etneo key finger control
- interchangeable suction cups
- AQP series for square, rectangular JLEADED and
- GULL WING LEADED devices
- AFP series for any discrete devices



FP Tool

How to select the proper tip

see the following drawing, just check if your component is in the list below, if not measure the A & B sides as indicated in the picture, if not contact us, will make a special tip for your requiremet



AQP SERIES

P/N. - AxB dimensions	to be used with the below SMD (indicative)
AQP001	12,0X12,0 QFP 48/PLCC28
AQP002	12,0X14,5 PLCC32
AQP003	12,7X12,7 QFP 48-44
AQP004	17,0X17,0 QFP 44-52-64-80 PLCC44
AQP005	17,0X23,0 QFP 64-100 RECT
AQP006	19,6X19,6 PLCC52/BQFP 100
AQP007	11,5X11,5 CUSTOM MADE
AQP008	18,0X18,0 CUSTOM MADE
AQP009	16,0X16,0 CUSTOM MADE
AQP010	11,5X12,5 CUSTOM MADE
AQP011	30,3X30,3 QFP120-128-136-144-160-208-PLCC84
AQP012	17,8X17,8 CUSTOM MADE
AQP013	20,2X20,2 QFP 68
AQP014	25,2X25,2 QFP 84/PLCC 68/BQFP 132
AQP015	30,2X30,2 QFP 120-128-136-144-160-208 PLCC84
AQP016	10,0X10,0 PLCC20
AQP017	8,4X13,4 PLCC18
AQP018	13,3X13,3 CUSTOM MADE
AQP019	14,0X14,0 QFP 44-52
AQP020	29,3X29,3 BQFP164
AQP021	16,5X22,5 QFP 64-80-100 RECT
AQP022	35,2X35,2 PLCC100 / BQFP 196
AQP023	41,8X29,6 CUSTOM MADE
AQP024	12,7X15,2 CUSTOM MADE

AFP SERIES

P/N - AxB dimensions	to be used with the below SMD (indicative)
AFP001	6,7X10,7 SO14
AFP002	9,3X13,0 SO18/SOJ 16-18
AFP003	9,3X15,5 S024
AFP004	9,8X18 S028/SOJ 20-28
AFP005	10,5X16 CUSTOM MADE
AFP006	10,2X18,5 SO28/SOJ 24-28
AFP007	11,0X26,5 SO40/SOJ 40
AFP008	10,7X18,0 SO28/SOJ 28
AFP009	8,7X17,5 SO28
AFP010	5,3X10,0 SO14
AFP011	11,8X25,5 SO40
AFP012	13,0X21,0 SOJ 32
AFP013	5,3X6,0 SO16



SMT Components tips



Stand alone professional soldering irons series STAT

The soldering irons of the STAT series have been conceived to replace, for reasons of size and economy the soldering stations without compromise the performance that however a station can guarantee. They are typically used in production lines, or like endowment in the suitcases for the technical maintenance of most disparate electric and electronic products.

Specifications :
 Soldering tools with automatic control of temperature - Circuit Zero Crossing - The standard version comes furnished with pre-setting in factory of the temperature to 400°C. They at request could be set at temperatures between the 180°- 420°C. They finally could be furnished with continuous regulation of the temperature between the 180° and the 500°C. There are available safety transformers 220V/ 24V 50V to feed the STAT irons 50V 24V. All irons can be equipped with fumes extraction device.

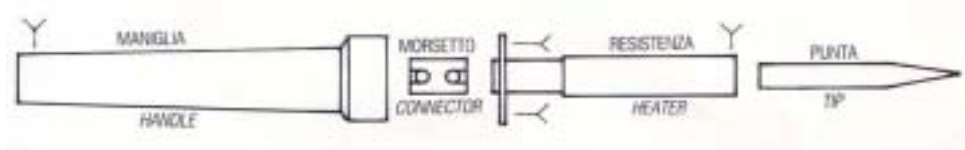
TEMPERATURE ADJUSTABLE SOLDERING IRONS “Made in Italy”

Part Number	Model	Description	Temperature*	Tips Range
83300	STAT X 50	50W - 24Volt	180 - 420°C	Serie 90000
83400	STAT X 50W-50V	50W - 50Volt	180 - 420°C	Serie 90000
83500	STAT X 50W-220V	50W - 220Volt	180 - 420°C	Serie 90000
83600	STAT X 100W-50V	100W - 50Volt	180 - 420°C	Serie 33000
83700	STAT X 100W-220V	100W - 220Volt	180 - 420°C	Serie 33000
84000	STAT X 200W-220V	200W - 220Volt	180 - 420°C	Serie 33000

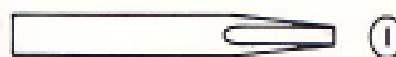
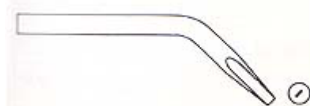
F SERIES SOLDERING IRONS - POWERFULL - LIGHTS - INEXPENSIVE

MODELS AVAILABLE

Model	Power	Volatage	Temperature	Weight	Tips Range
F8	45 W	230 V	420°C	110 gr	Serie 33000P/N 29800
FZ8	70 W	230 V	420°C	150 gr	P/N 29901
F11	100 W	230V	420°C	210 gr	Serie 33000



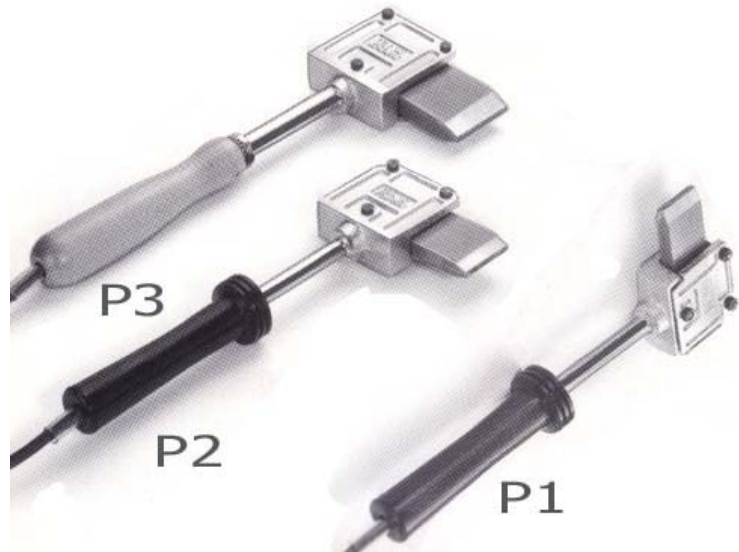
TIPS



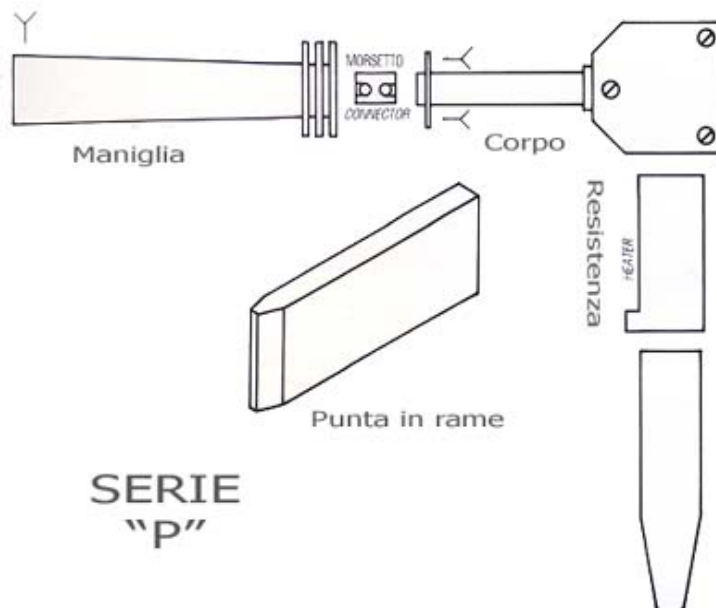
Model F11LF

CLASSICS POWERFULL IRONS SERIES PK

Classisi saldatori elettrici di potenza robustissimi e praticamente indistruttibili. Tecnicamente adeguati alle prerogative funzionali ed antiinfortunistiche attuali. Con la loro incastellatura in ghisa, le resistenze in lamierino inox, la loro proverbiale durata sono gli attrezzi ancor oggi insostituibili in quelle lavorazioni che richiedono grande potenza e continuità di lavoro.



Model	Power	Voltage	Temperature	Weight
P1	200W	230	380°C	660 gr
P2	300W	230	400°C	900 gr
P3	420W	230	420°C	1530 gr



Finally STOP to the dedicated nozzles and “cups”



Etneo Micro H TM - High precision, Pin-Point Hot Air Pencil for any SMT Soldering - rework with unique patented air flow control at the fingers touch. No more nozzles, finally - Unique Virtual nozzle - No need to change nozzle for most sizes components thanks to the Etneo technology. A simple wrist rotation, following the SMD leads allows to remove the component without risking any leads resoldering.



The Etneo Hot Air systems have been designed with the main concept that both the equipment and the process of rework and repair of PCB's should duplicate the initial production reflow processes and equipment as close as possible, and leaving the operator to concentrate on his job without the worrying of continuous re-adjusting the system.

Specifications

- Continuous Heat Temp Settings up to 550°C
- Pump incorporated for easy portable
- Expandable design (Plug In system)
- Microprocessor Electronic Temp Control with Zero Switching
- Fine and quick heater
- Air flow control on the tool (push buttons: plus - minus - go)
- Air volume from 0 to 4 Litres/minute
- Stand by Temperature circuit to preserve Heater life
- ESD Safe design
- Ergonomic tool design
- Large LED display for Temp setting
- Hot bar LEDs for air flow

Benefits

- Ideal for Soldering/Desoldering SMT components
- The operator, thanks to the air tool control can concentrate on his job
- Minimizes rework time & increases productivity
- Eliminates: Thermal Stresses and Thermal Shock
- Inexpensive nozzles
- Non contaminations to the delicate ceramic chip resistors, capacitors, and semi-conductors
- Superb for reflowing the delicate leads of fine pitch gull wing devices as the operator never touch the lead or the pad with the tool
- The best way for touching up and levelling pads

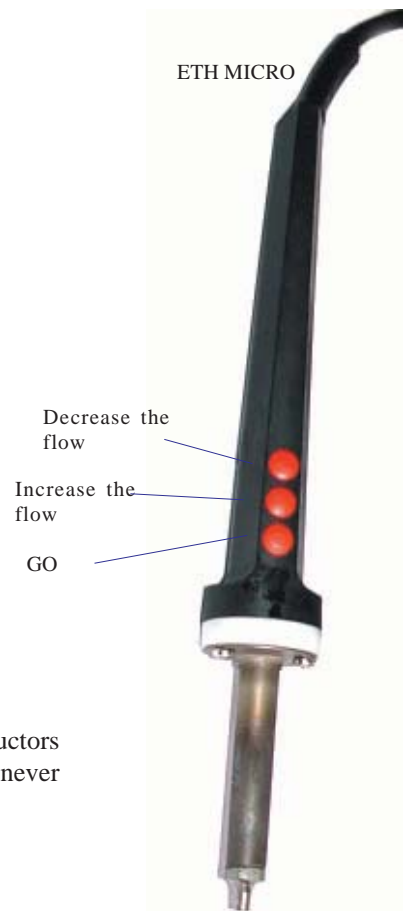
Unique Virtual nozzle

No need to change nozzle for most sizes components thanks to the Etneo technology

- P/N 27543 nozzle with inner diameter 1,50 mm
- P/N 27535 nozzle with inner diameter 3,00 mm



ETH MICRO



Intelligent Hot Air workstation F type

Finally STOP to the dedicated nozzles and “cups”

Hot Air Pencil for any SMT Soldering - rework with unique patented air flow control at the fingers touch. - Unique Virtual nozzle
No need to change nozzle for most sizes components thanks to the Etneo technology. A simple wrist rotation, following the SMD leads allows to remove the component without risking any leads resoldering.



Further example of the new ETF platform with functions that can be set by the Operator, the model ETK AIR, supplied as Hot Air station with High Power tool Heater (150W)

Etneo ETF AIR - Macro H - Hot Air high power - high precision, SMT Soldering with unique air flow control at the fingers touch and interchangeable nozzles

Specifications

- Continuous Heat Temp Settings: 50°C to 500°C
- Pump 21 lit/min incorporated for easy portable
- Microprocessor Electronic Temp Control with Zero Switching
- Fine and quick heater with high power
- Air flow control on the tool (push buttons: plus-minus-go)
- Air volume from 0 to 21 Litres/minute
- Stand by Circuit to lower temperature when “not in Use”
- ESD Safe design
- Large LED display for temp setting - and hot bar LEDs for air flow

Tool with high heating power: ETH 150W 24V



Benefits

- Ideal for soldering/Desoldering SMT large fine - ultra fine pitch components & BGA
- The operator, thanks to the air tool control can concentrate on his job
- Minimizes rework time & increases productivity
- Eliminates: Thermal Stresses and Thermal Shock
- Non contamination to the delicate ceramic smt and cbga



PN 27.539 inside diameter 4,5 mm

Platform ETF - Description of the available configuration - Applications

Model ETF 3K	Soldering - DeSoldering - Hot Air	Rework PTH-SMT-microBga
Model ETF EVO	Soldering Dual - 90w and 150w	Heavy and Standard Soldering
Model ETF 2K	Soldering - DeSoldering	Lead Free advanced
Model ETF 2K AIR	Hot Air - System F Soldering	Rework SMT-microBga
Model ETF K	PTH DeSoldering - Heavy duty	Heat sink joints
Model ETF K AIR	Hot Air SMT-BGA large	Rework large SMT-BGA

High power intelligent Hot Air workstation - desoldering