



FROM COMPETENCE TO SOLUTIONS

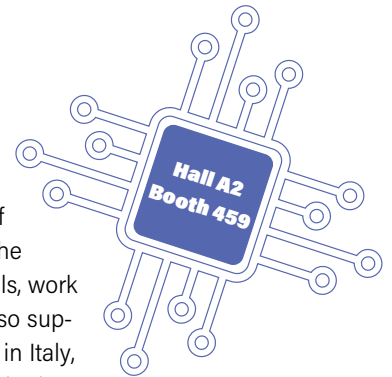
Knowledge and ability, skills and experience are necessary requirements to perform well in the various activities within one's production sector. It is also partly the aptitudes that lead a company to make the right choices in the business field

DARIO GOZZI

"Chase the bright side" is the payoff with which TecnoLab will welcome customers and visitors to productronica 2023. 'Chase the bright side' is not only a textual element that accompanies the company logo and extends its meaning, it is an integral and immutable part of its narrative and makes its identity explicit. It means adopting behaviour that leads to making right and conscious choices, not just for the individual, but from a global perspective. It means being companies that recognise how much their decisions and actions have an enor-

mous impact on society and the world, and have therefore decided to make a commitment in terms of fairness, far-sightedness, care for the planet, management of raw materials, work life balance, welfare policies, but also support for in-house production, made in Italy, quality as the only key to sustainable development, and much more.

TecnoLab, which took its first steps in the electronic market back in 1994 with the production of foils and screen-printing frames, has been committed from the beginning to being a bright company, aware that the road is long and not easily travelled, but believing in the possibility that it can reserve great satisfaction by ploughing it in the right way.





Screen printing foil technology

The historical heart of the company, screen printing foils and related services are an indispensable part of today's production cycles. TecnoLab, which has always been at the forefront in adopting new technologies, offers its customers laser-cut screen printing foils and frames.

Engraving is done with a new-generation fibre laser, with a precision of $\pm 3 \mu\text{m}$.

Sheet thicknesses range from $40 \mu\text{m}$ to $1000 \mu\text{m}$. Thanks to the use of five new, powerful lasers, in addition to 100% quality certainty on aperture cutting, lead times are reduced to 24/48 hours.

Continuous technological progress involves the systematic downsizing of spaces and components on PCBs, which corresponds to ever thinner foils and ever smaller apertures.

The technological solution to this problem is provided by foils made with T-SMOOTH and T-SMOOTH plus technology, which guarantee a stable production process and highly repetitive solder paste deposition.

The special conformation of the material guarantees, during laser cutting, low wall roughness compared to other materials.

By virtue of the fact that quality can always be improved, TecnoLab, always at the forefront of technological solutions, has introduced a special treatment to improve the performance of the scre-



CHASE THE BRIGHT SIDE... BE GREEN!

In the spirit of 'Bright Company', this year TecnoLab has decided to invest part of the marketing budget, usually earmarked for the purchase of gadgets and customised merchandising, in a larger project.

For every company that comes to visit us at the stand, we will adopt 100 square metres of Amazon rainforest, the world's lung, saving it from deforestation. Because important changes need people who believe in them and who try.

We Care...there's no planet B!

In collaborazione con Let It Trees.

en printing frame. T-COATING is a special permanent treatment that is applied to the foil on the bottom side, the side in contact with the printed circuit board.

This special coating increases the surface tension of the material, ensuring that the flux and microspheres in the openings do not leave residue on the face of the foil that is in contact with the PCB. All this makes it possible to drastically reduce the frequency of cleaning cycles within the screen printing machine and to improve the deposition process by avoiding smearing and flux contamination problems.

Added to this are the T-STEPPED differentiated-thickness processes, one of TecnoLab's strengths. They are also manufactured using laser technology, which carries out controlled micro-welding between the areas of different

thicknesses of the frame, producing a final result that conforms to the highest quality standards and guaranteeing minimum tolerances on the various thicknesses.

Opening to the manufacturing universe

TecnoLab is not only laser machining, since 2013 it has entered the market of the distribution of machinery for the SMT manufacturing universe and after a few years it is now one of the main players in the distribution of prestigious representatives such as EKRA, KOH YOUNG, PANASONIC, SMT, COMET YXLON, YLINK, INERTEC up to the recent distribution agreement with the Italian ARCADIA. The brands selected by TecnoLab are all prestigious and internationally recognised for their quality. They are top-of-the-range products capable of making the difference and giving added value to each production line, but also to TecnoLab itself that represents them:

- EKRA automatic screen printers have maintained a high standard of quality for over 35 years. Flexible and easy to use, they are high performance screen printers. They use linear motors for movement, guaranteeing excellent results in terms of alignment repeatability and process capability.

ASK ROBERTO

TecnoLab provides its customers with a Process Engineering dedicated to soldering processes, available for customised advice and courses.

Roberto Crippa, with his training and experience in the field, can make the difference for your production process, helping you to choose the solder paste best suited to your needs, to set the ideal profile for your furnace, and to advise you on the best way to purchase equipment useful to your company:

- vision systems
 - rework systems
 - dry and cooling cabinets
- and much more...

From now on, with Roberto, profiling and soldering will no longer be a problem!



- Founded in 2002, Koh Young has pioneered true smart factory solutions with its optical inspection solutions based on 3D measurements. The company is based in South Korea, but has research and development facilities focused on artificial intelligence and deep learning around the world. In addition to its proven SPI and AOI systems, it has an innovative dispensing process inspection solution, which enables accurate measurement of coating thickness on PCBAs regardless of material type: acrylic, silicone, polyurethane, water-based, UV and hybrid coatings.
- Panasonic offers a range of pick and place machines that, starting from the AM100 modular (all in one) model, characterised by flexibility and versatility, extends to the NPM (Next Production Modular) series, of which NPM-VF is the extremely flexible and customisable back end completion solution, designed to cope with increasing labour costs and the complexity of assembling odd form components (axial and radial).
- The SMT line of remelt furnaces, another historical brand based in Wertheim, Germany, includes systems with and without nitrogen, with and without vacuum. The main feature of SMT furnaces is their high thermal stability with respect to production load, which allows them to excel in highly critical technological situations. The corollary to this hard core of primary production systems is Yjlink laser handling and marking systems, Comet Yxlon X-ray inspection systems, Systronic washing systems and Inertec selective soldering systems. No less important are the equipment, first and foremost the TecnoLab production benches, complemented by Tagarno vision and PDR rework systems, KIC profilers and EMT dry cabinets.

Consumer products include Nihon-Handa solder paste and Ekra cleaning rolls, which are complemented by fluxes and glues, resins, and peel-offs. In addition to the objective and recognised quality

A NEW ENTRY

Arcadia is an Italian company with a collective of engineers with more than 20 years of experience in the sector, holding key roles in design, production, and marketing).

It designs and produces systems to simplify and increase the performance and efficiency of production processes for companies operating in the electronics manufacturing sector.

Since November 2023, TecnoLab has been a reseller of Arcadia products, in particular:

- ARCHIMEDE Smart Storage System - Sensorised vertical warehouse for component storage;
- ARCHIMEDE Smart Cart - Sensorised trolley for component handling;
- GALILEO Incoming System - Automatic component registration system.

Particularly in the case of small and medium-sized production, it is very likely that most of the time is wasted in handling and retrieving components from the warehouse. Intelligent management systems are designed to simplify and automate the handling of components within the company. They reduce media storage time from minutes to seconds, optimise storage space and eliminate machine tooling errors.

of the products, one cannot overlook the importance of the technical support provided by TecnoLab throughout the decision-making process and in the after-sales phase.

Just as important is the well-established collaboration with Simplex Technology, a service company that has been supporting TecnoLab for years for the entire installation and after-sales service part, which is fundamental and not always taken for granted in an effective sales process. Simplex Technology employs eight expert technicians, technically prepared and experienced in the sector, who have been able to transform the direct relationship with the customer into one of collaboration and consolidated trust.

All this is TecnoLab: history, experience, new challenges, and vision.

Chase the bright side.

Chase the bright company.