STENCILS

LASER CUT STENCILS
Tecnolab, always at the forefront in new technologies, offers its customers laser cut stencils.
Laser cutting is made with a new generation of LPKF G6080 fiber lasers with an accuracy of ± 3 microns. Possible stencils thicknesses are included between 40 μm and 1000 μm.

Thanks to the new laser machines, we can guarantee to our customers the 100% complete pads cutting (RTCP system) and our new standard delivery time of 24/48 hours.

FEATURES:
- Technical process support
- Stencil design with reference IPC-7525B
- Check PASTE RELEASE formula for each job
- TRACEABILITY
- Fast delivery in less than 24 hours

VECTOR GUARD
Tecnolab, licenced by DEK, offers a revolutionary new tensioning system: VECTOR GUARD

Advantages of this system:

TENSIONING SYSTEM
The tension in Vector Guard is given by a system of springs that ensure durability and constancy over time. The air is only used to load springs inside the system.

SAFETY USE
Vector Guard stencil, having a rigid aluminium profile, can be handled easily without any risk for the operator and the stencil too.

EASY TO USE
Tensioning Vector Guard takes only a few seconds. Simply place the stencil on a table, place above it the tensioner and the stencil is tensioned.

EFFICIENCY IN STORAGE
Small size allows easy storage of stencils with the advantage of a reduction of warehouse space.
The continuous technological progress involves the systematic space and components reduction on the PCB. This is the reason why thinner stencils are required with smaller and smaller apertures. **T-SMOOTH** technology ensures a stable production process and a much more repetitive solder paste deposits. The special composition of this material guarantees, during the laser cutting, a lower surface roughness of the walls compared to other materials.

**T-SMOOTH TECHNOLOGY ADVANTAGES**

- **Better solder paste deposit**
- **Longer stencil life**
- **Better geometric accuracy than e-formed stencil**
- **Cleaning cycles reduction**
- **Available in 24 hours**
- **Better quality/price relation**

**T-FOATING**

**T-FOATING** is a special **PERMANENT** coating that dramatically decreases cleaning cycles frequency inside screen printing machine.

**T STEPPED**

**STEP-DOWN**

The **STEP-DOWN** stencils are required when we want to print a “fine pitch” component that requires a thinner thickness that the thickness required by the remaining components.

To realize this type of stencils there are several systems. Our choice, after years of experimentation, has turned to **LASER** technology.

This technology allows us to offer a final product at the best production standards. Fiber laser, a new concept of laser, removes steel from the stencil only in specific areas and at the required thickness. In this way we can obtain differentiated deposits of solder paste taking into consideration the different components.

**STEP-UP**

Otherwise **STEP-UP** stencils are required when a greater quantity of solder paste is needed.

We obtain this result by localized **ELECTROFORMING** process (NICKEL increase). Thanks to this process we can create on the stencil, some areas where thickness is increased as requested. The maximum delta is 100 micron.

**ADVANTAGES OF THIS SYSTEM ARE:**

- **Less stress of material**
- **Possible on both side with different thickness**
- **Chance to be made in 24 hours**
- **Longer lifetime of the stencil**
- **Guaranteed thickness tolerance foil**
- **Smooth edge in order to prevent potential problems with squeegee**
STORAGE CABINET

Tecnolab cabinets are designed to solve problems of stencils and mounted frames storage.

The structure is unique and can be adapted for the storage of stencils or mounted frames only changing shelves or adding stencils bar. They are equipped with 4 wheels making easy to move it within production department.

The back side is closed by a panel that can be removed, in case you want to have a double access. On request you can have the door.

Tecnolab cabinet can house the following sizes:

- **ALL STENCILS SIZES**
  Thanks to our special packaging with hanger
- **VECTOR GUARD 23” x 23” and 23” x 29”**
  N° 147 vector guard without package
  N° 87 vector guard with package
- **VECTOR GUARD 29” x 29”**
  N° 98 vector guard without package
  N° 58 vector guard with package
- **23” x 23” FRAMES**
  N° 42 frames
- **29” x 29” FRAMES**
  N° 30 frames
- **ON DEMAND SPECIAL FRAMES**