



Stencils manufacturer for over 30 years

ExoKut





## *DB Products in figures:*

15 employees

1200m<sup>2</sup> production unit based North of Lyon (France)

Stencils Department - 3 fiber lasers – 1 marking laser

Tooling Department - HSC computer-controlled machine tool

An ERP dedicated to production and commercial management

A secure, customized online order website [www.dbproducts.fr](http://www.dbproducts.fr)

### **2018**

A consolidated turnover of 2,600,000€

Over 11,000 screens and 8,900 tools manufactured and shipped

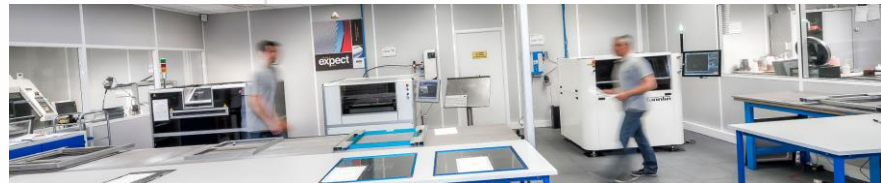
257 existing customers

ASM, Osram, Philips, Vestel, Flextronics, Thales Alenia Space, Continental, Robert Bosch, Airbus Group, Schneider Electric, Safran, Autoliv, Actia, Tronico Alcen, Magneti Marelli, AsteelFlash, Zodiac, Eolane, Thales Group.....

Our largest customer accounts for 4% of our annual turnover

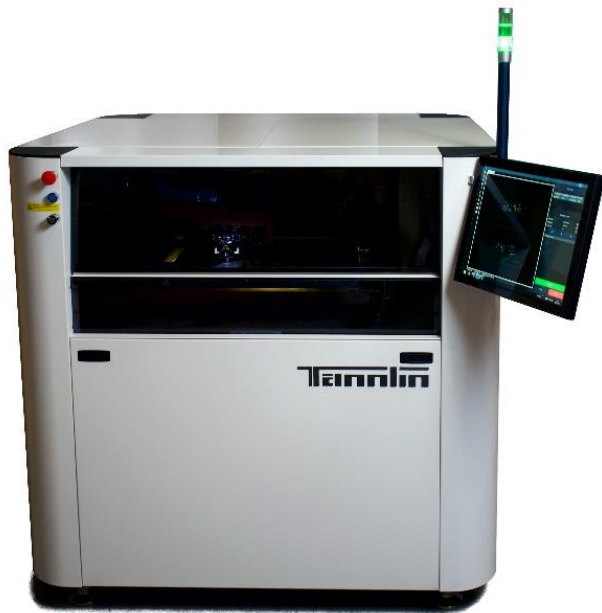
1,000,000€ invested since 2015 (building, software, production and control resources)

5% of the annual turnover allocated to R&D





## ***Stencils Department:***



Three last-generation fiber lasers (TANNLIN) and one marking laser (Technifor)

Automatic control programme integrated to our lasers

Quality Control: Scan and measure Software ScanCad and Vision Engineering

Multi-level stencils manufactured in-house within 24-48h!

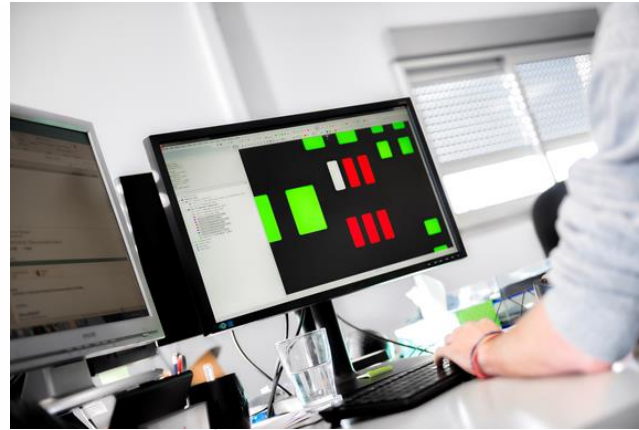




## ***Tolerance and accuracy***

- Dimensional apertures  $\pm 5 \mu\text{m}$
- X and Y positioning  $\pm 1 \mu\text{m}$
- Cutting repeatability  $\pm 1 \mu\text{m}$

Cutting of apertures down to  $20 \mu\text{m}$





### Exclusive range DB Products



stainless steel



Laser Fine Grain



Electroformed



Nickel Laser



ExoCut



Pitch 0.5 mm  
1206-0603

BGA  
Resistance level  
0402

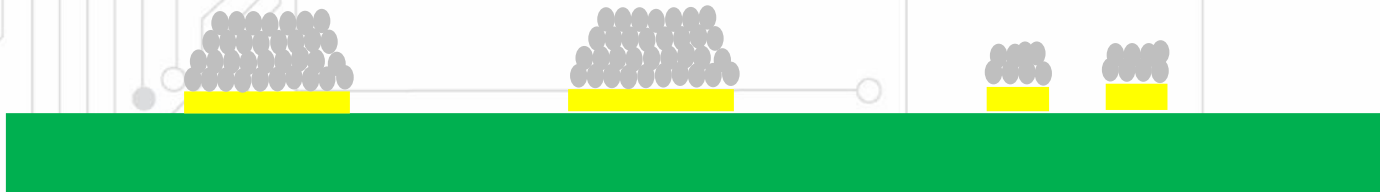
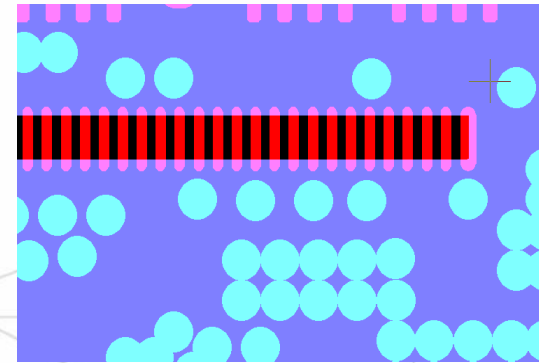
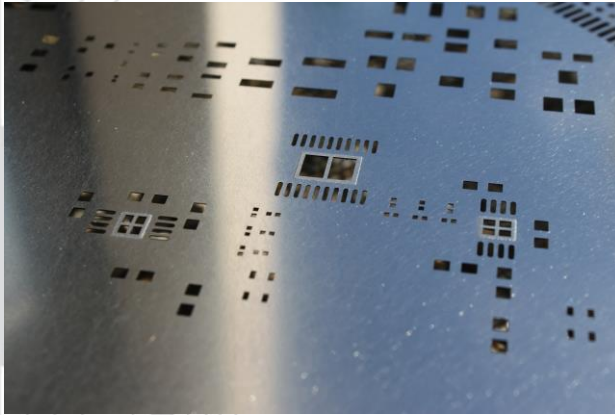
μBGA, QFN, QFP, 01005  
fine pitch 0.4– 0.3– 0.250

Performance  
Improvement



## *Multi-Level Stencils*

The DB Products technologies make it possible to assemble mixed components PCB requiring unequal volumes of solder paste.





### Benefits of additives:

- No material deformation
- Prevents smearing
- Great adaptability of design
- Possible on Top/Bottom
- Adjust the quantity of solder paste to the components requirements

The process allows components to be closer to the additive area

Make it smoother for the blade to spread the solde paste



**Can be implemented on all DB Products:**

Stainless Steel - Nickel - ExaKut



## *Tailor-made manufacturing processes*

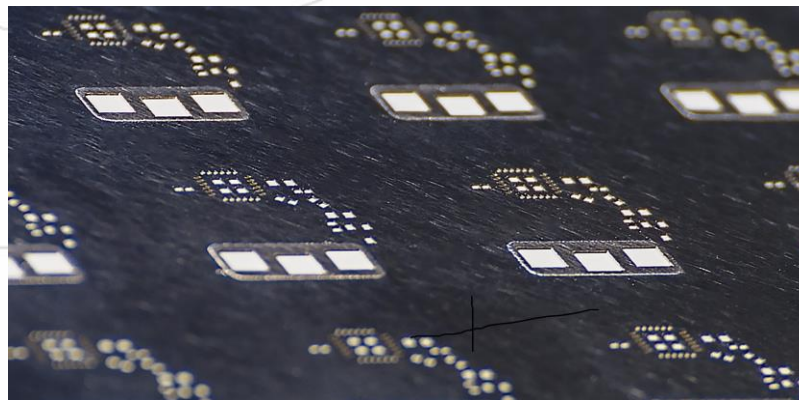
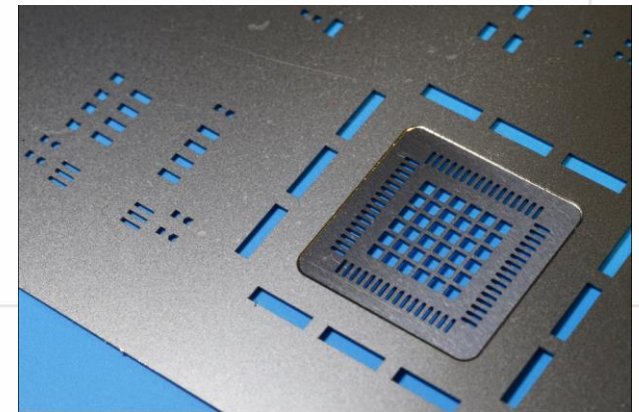
We offer a range of manufacturing processes to adapt your technical constraints and the mounting of your electronic components.

### **Additive Multi-Levels:**

- Electro-deposition
- Laser additive

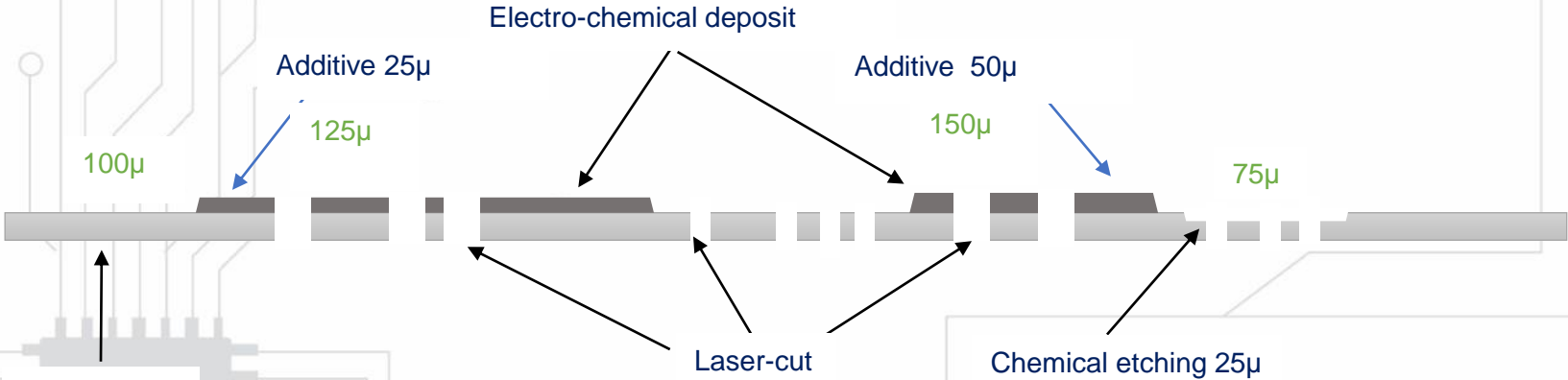
### **Recess Multi-Levels:**

- Chemical etching
- Machining





# Chemical step-up/step down stencil

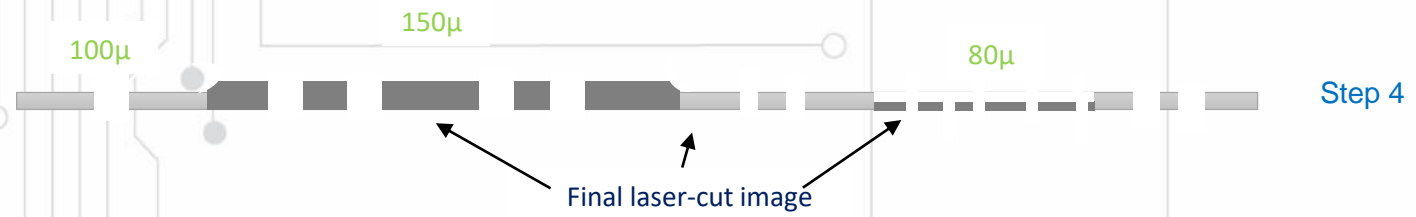
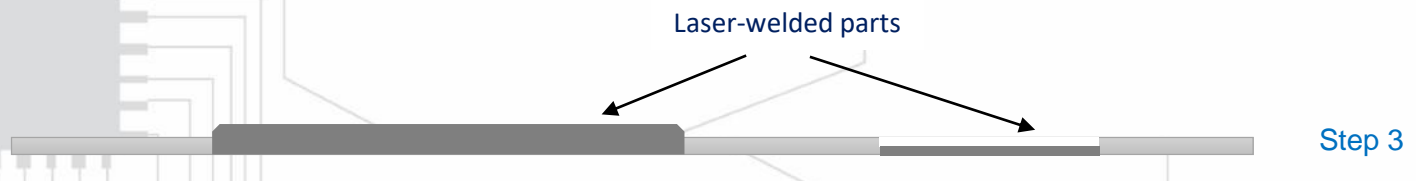
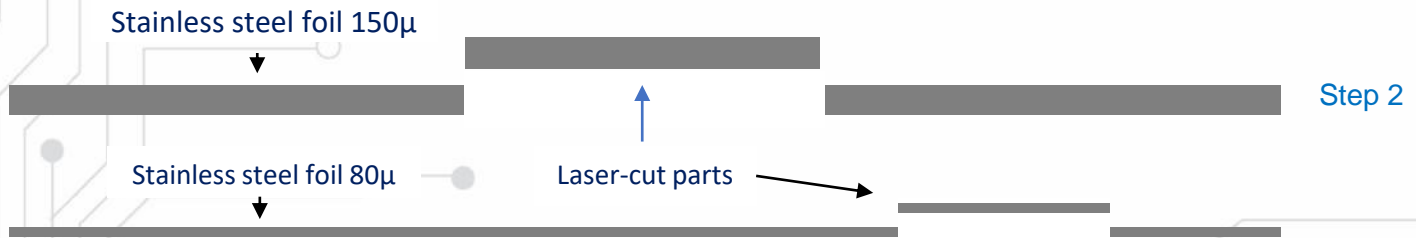


Stencil 100µ

We recommend to add a maximum of 50% of the original thickness. On a 100um stencil we will add up to 50um.

Manufactured in-house: 24h lead-time  
Cost-efficient

# Laser step-up / step-down stencil





***Benefits of laser additives:***

Acceptability Guaranteed: 2% of the thickness.

Larger range of additive thickness: down to 50um and up to 250um.

Manufactured in-house: 24h lead-time

Reasonable cost



*All DB Products options can be implemented on a same stencil*

Example on a 125µm stencil

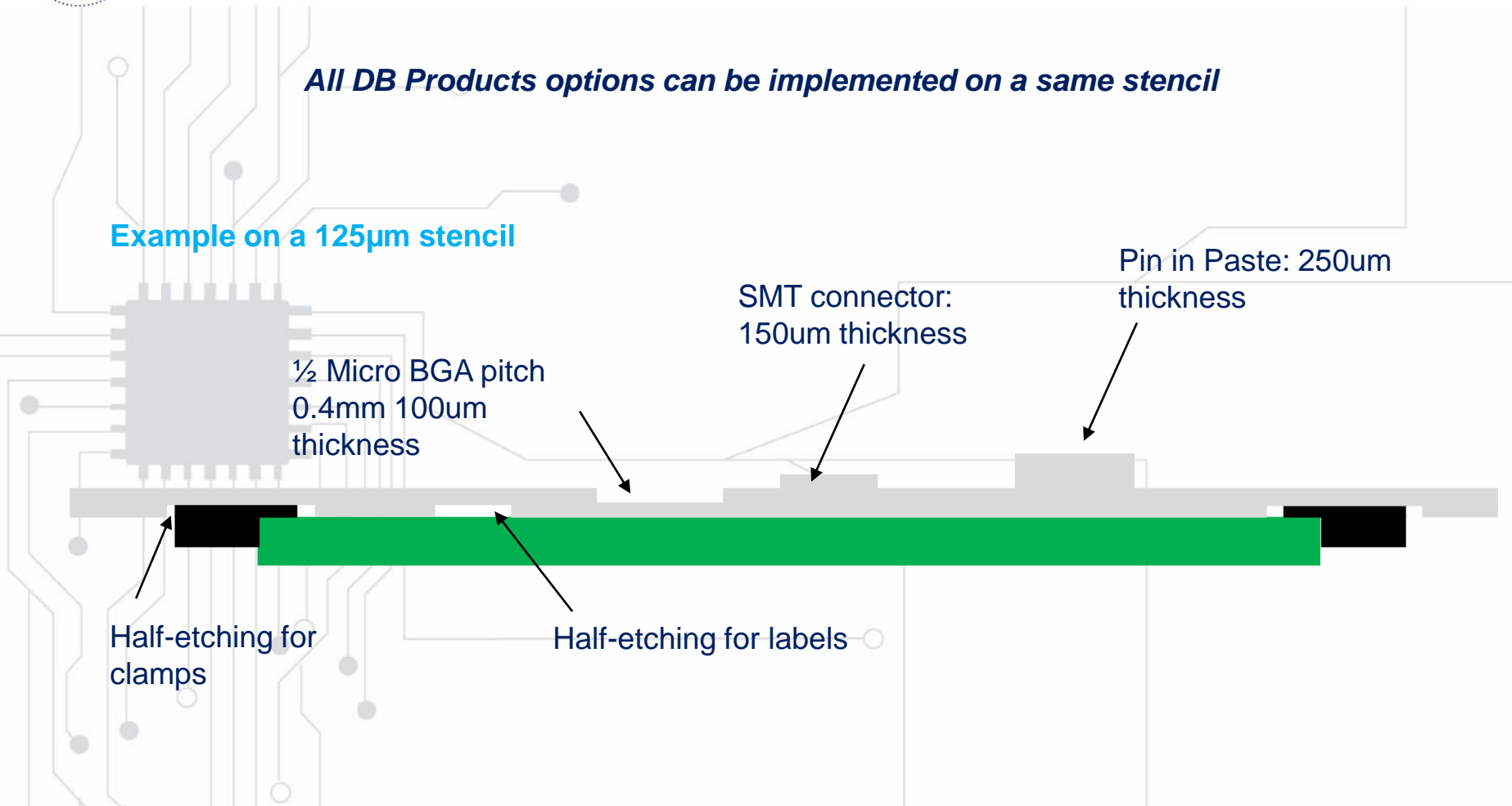
½ Micro BGA pitch  
0.4mm 100µm  
thickness

SMT connector:  
150µm thickness

Pin in Paste: 250µm  
thickness

Half-etching for  
clamps

Half-etching for labels





*Thank you for your attention*



Contact our team: [screens-fr@dbproducts.fr](mailto:screens-fr@dbproducts.fr)

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