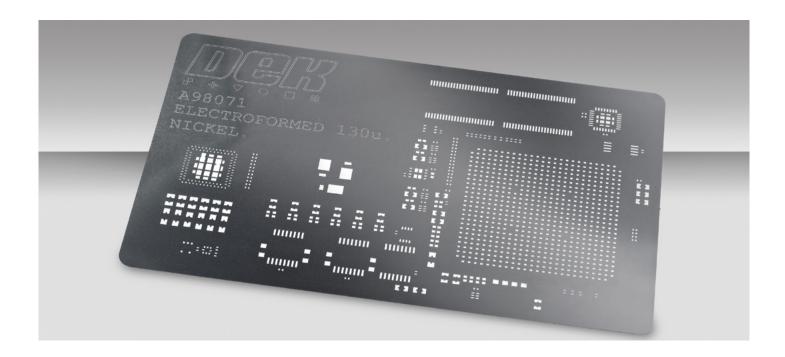


DEK Electroform solutions

Achieve ultimate material volume consistency control for standard SMT, micro-SMT, semiconductor, solar and LED lighting applications with DEK Electroform stencils.



Singapore Center of Competence

To develop new manufacturing processes such as electroplating solutions for stencils, ASMPT operates a center of competence in Singapore with its own nickel electroplating facility. The local team has many years of experience and deep expertise in the production of electroformed stencils and parts for non-SMT components. The stencil designs are developed and tested in the adjacent application center.

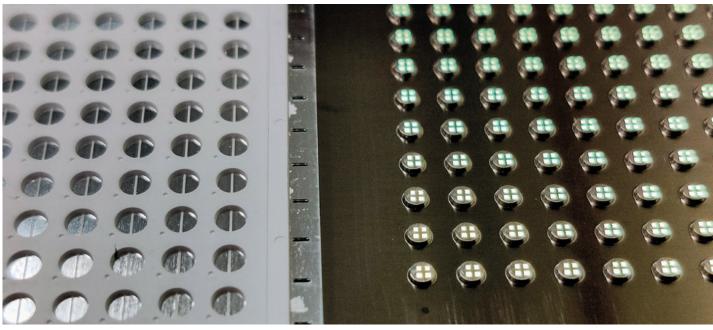
By providing maximum control over the thickness and evenness of stencils, ASMPT's electroforming technology ensures ultimate consistency for many standard SMT, micro SMT, semiconductor, solar and LED applications. With material thicknesses down to 12 microns, the material can be adapted to meet any current and future requirements. In addition, electroforming technology offers the possibility to manufacture specialized components in large volumes, thus reducing their unit cost.

Made with an additive galvanic process, DEK Electroform stencils can be produced with extremely complex designs to enable the printing of exceptionally small deposits in recesses, around components, or on multiple levels. In many applications,

electroformed stencils are clearly superior to stencils produced with traditional dispensing or spray coating techniques by delivering more throughput per hour and improved performance.

Features and benefits:

- Min thickness: 12 µm to 200 µm
- Min stencil size: DEK VectorGuard[™] 584 mm × 584 mm (23" × 23")
- Max stencil size: DEK VectorGuard™ 584 mm × 736 mm (23" × 29") DEK Mesh-mounted frame solution 736 mm × 736 mm (29" × 29")
- No additional costs for large quantities of apertures
- No deformation of stencil like lasering of large quantities of apertures like for wafer bumping
- Test and development support for new projects



3D printing

Applications:

- Semiconductor packaging
 - Wafer and substrate bumping
 - Ball placement
 - Leadframe printing
 - Low-Temperature Co-fired Ceramics (LTCC)
 - Die attach
- LED Printing
 - LED leadframe printing
 - Flux printing for flip-chip mounting
 - Phosphor layer printing on wafer die or over flip chip die
 - Piece parts

- 3D printing on wafers, substrates
- Surface-mount assembly
 - Standard SMT printing
 - VAHT stencils variable height on different apertures
 - 3D stencils print apertures on different levels; cover components and print around the covered area
- Piece Parts
 - Electrical test probes
 - Electro-mechanical parts
 - Multiple other parts such as foils and sieves



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