

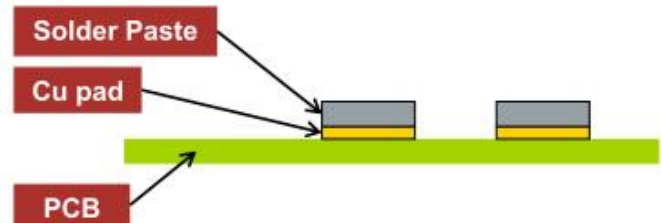
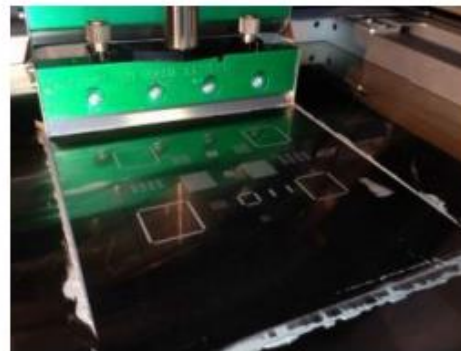
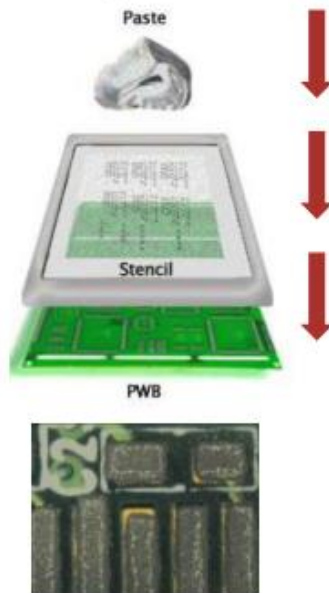


Die Top Printing Overview

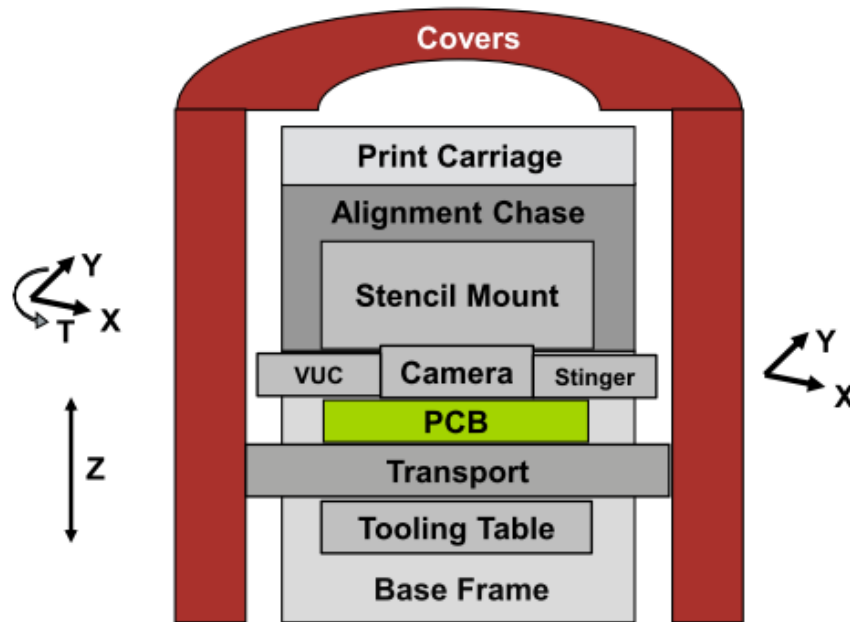
What is stencil/screen Printing?

The Printing Process

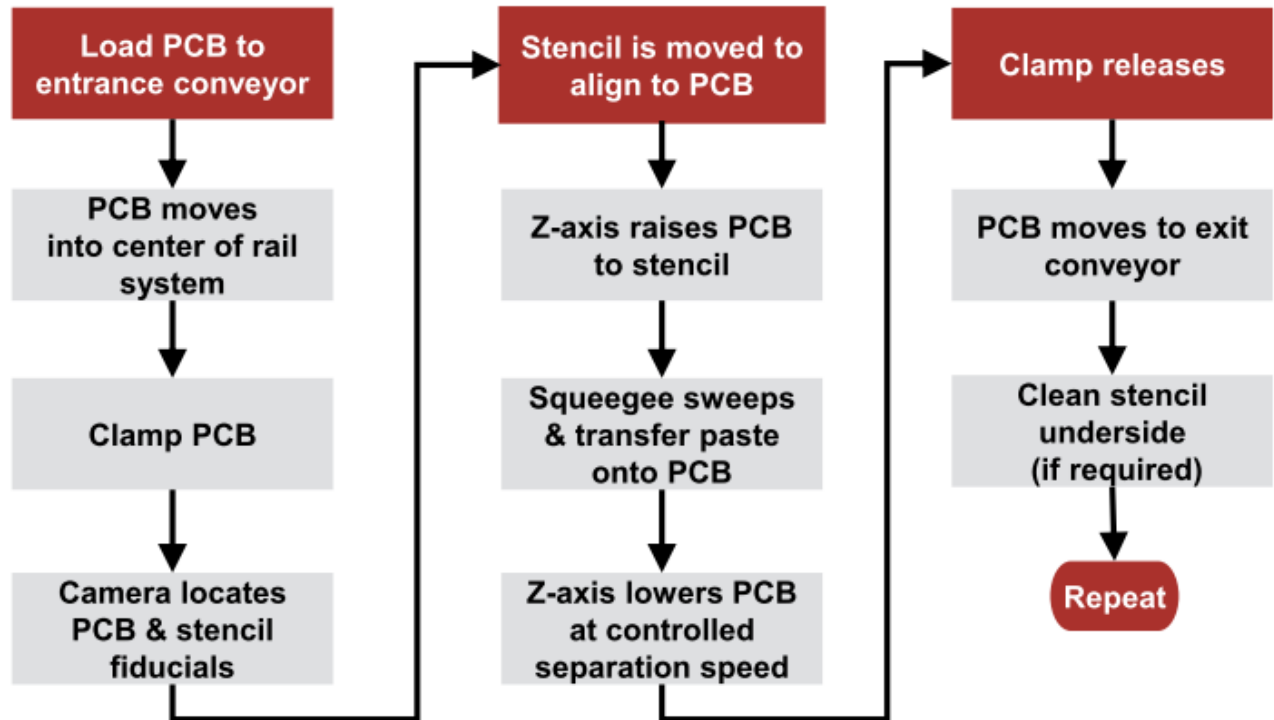
To transfer the specified volume of solder paste to the correct place on the board at the right time



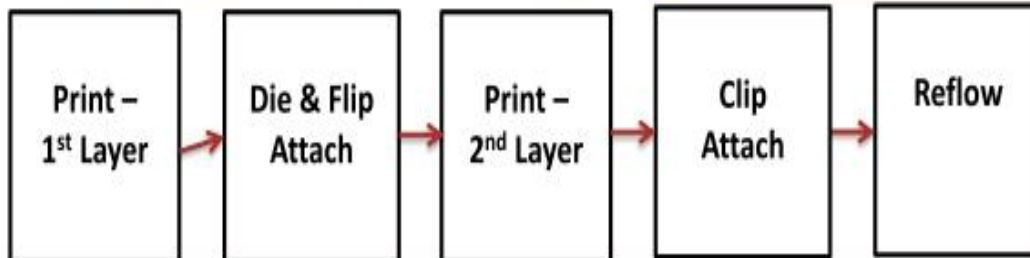
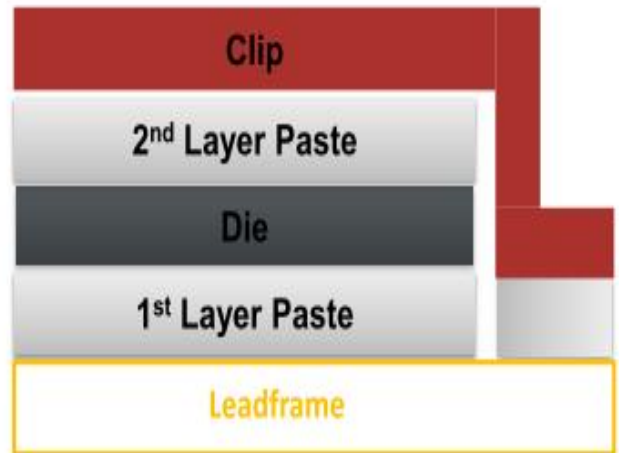
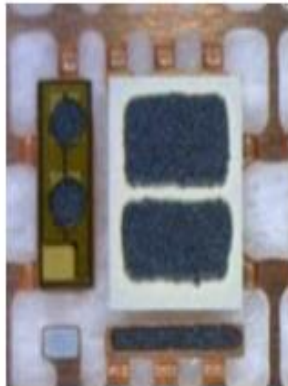
DEK Platform Basic Construction



The typical Print Cycle



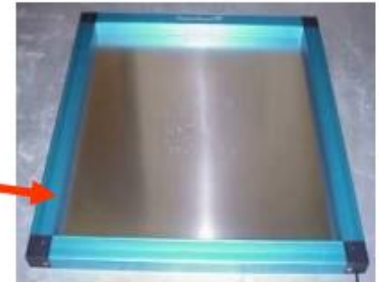
- Dispensing issues with dispense volume consistency, large die volume requirement and low throughput
- 2nd Layer Printing on top of unreflowed 1st layer paste



What is VectorGuard[®] ?

VectorGuard is a two part system

1. A foil that has the image cut into it
2. A reusable frame that the foil goes into during production



Positional Accuracy and Consistency

Planarity of frame

The tubular welded frames are more danger in terms of warpage. (see right)

Warp due to mesh tension and welded frames

- No mesh and no welds in a VectorGuard Frame

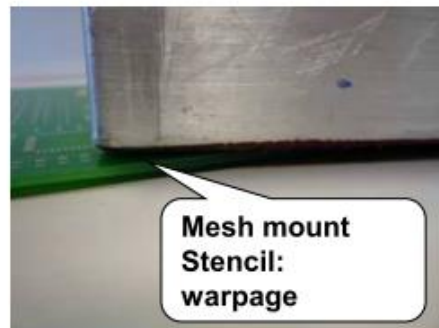
Glue build up on edges of frame

Benefits to customers

Consistency board to board and lot to lot

Resolve the root cause of the failures instead of the symptom of the Mesh mounted drawbacks by using Vector Guard

Tension Consistency



Dedicated Tooling

Up to 100% support

Quick and accurate changeover

Can contain milled out areas for underside components

Can be fitted with vacuum cups

Less expensive than custom tooling

One plate per product ...



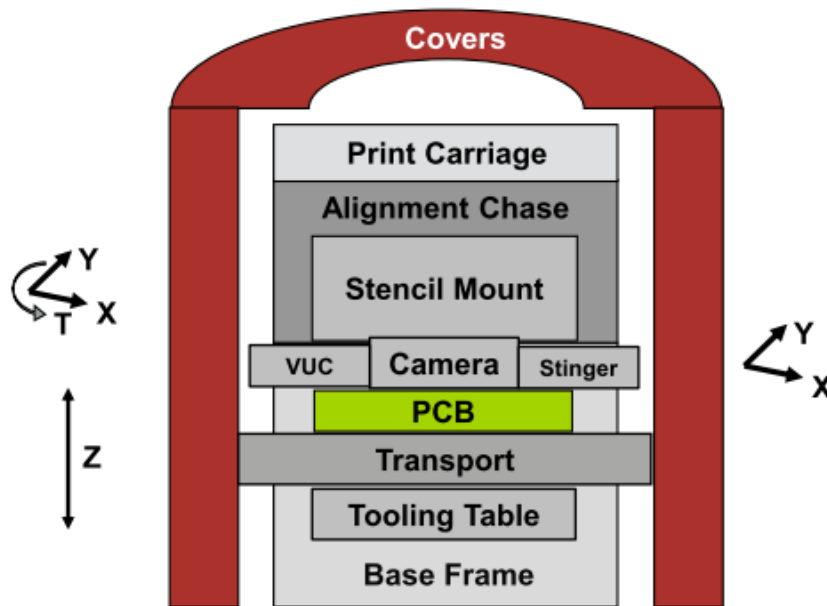
Metal Suqeegee

Shore +200

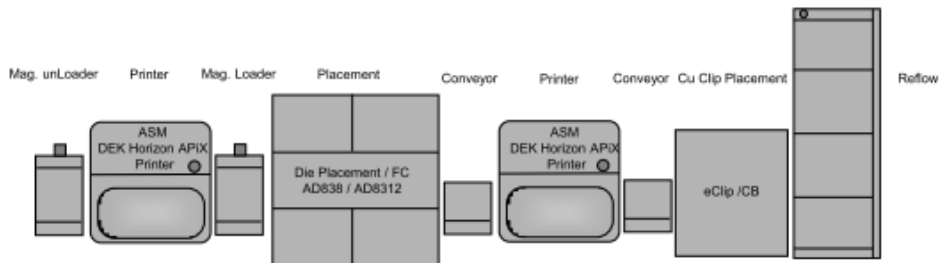
- +Better print quality
- +Wider process window for pressure
- +High pressure will not cause scooping
(but high pressure may cause bridging)



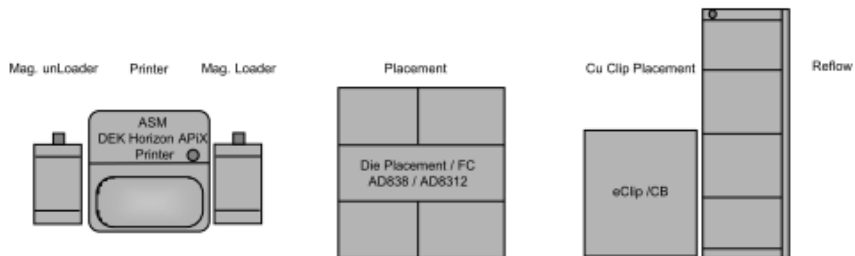
Machine Mechanical and Process Setting



Configurations for Both In-line and Stand-alone (Island Batch)



In-line Configuration for Single Die / Cu Clip Attachment



Stand-alone Configuration for Single Die / Cu Clip Attachment