Advantages of Laser Cut Stencils

Optimum Stencil Design plays a key role in ensuring outstanding productivity from your process. Control of the aperture characteristics, stencil thickness and accurate fiducial generation are directly related to the volume, alignment and positioning of paste deposited during printing. Correct stencil design, coupled with quality manufacture, makes a significant contribution to end of line yield.

Superior Performance in fine-pitch, high density stencil manufacture is a direct result of the speed and precision of laser cutting. Guaranteed repeatability of aperture dimensions to \pm 2.5 μ m over the entire printable area of the stencil makes for consistent and accurate replication of board features, even with large panels. Laser cutting is fast, allowing us to offer standard 2-day manufacture, with the option of faster turnaround if required, and no compromise in the accuracy or quality of the stencil. Stencils are generated from stainless steel, carefully selected for flatness and uniform thickness - important qualities in a precision stencil.

Intrinsic properties of the laser cutting process result in apertures with a trapezoidal cross-section, which allows excellent paste release. The laser is a uniquely flexible tool; by adjusting the intensity of the laser during manufacturing, we can create high-contrast fiducials on the surface of the stencil with no need for in-filling and with extreme accuracy.