MPM

Electronic Assembly Equipment

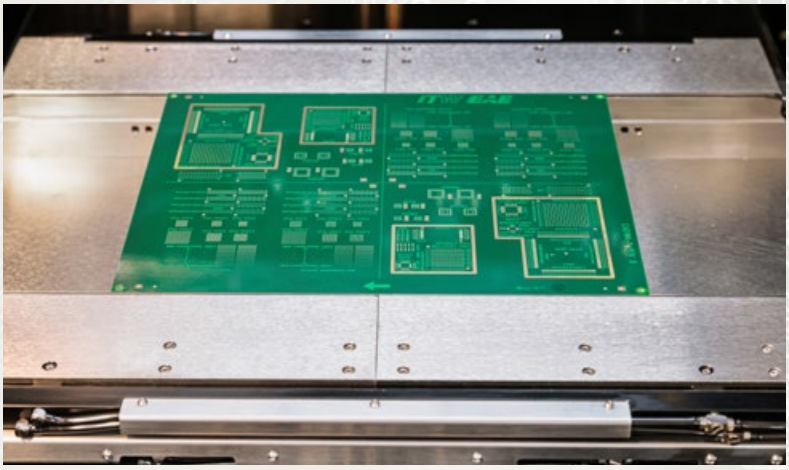
ITW EAE

EdgeLoc™ Board Clamping

The EdgeLoc system securely holds the board during printing using a side snugging technique. This removes the need for top clamps which interfere with the PCB to stencil contact. The result is optimal gasketing and more volumetrically consistent edge-to-edge prints.

EdgeLoc II Board Clamping, Side Only

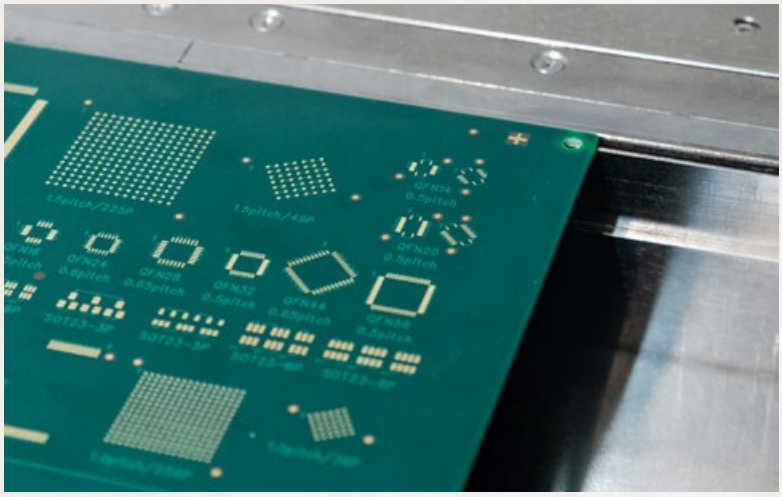
EdgeLoc II secures the PCB by snugging the sides, allowing full contact of the board to the bottom of the stencil. A large, flat squeegee landing area protects the squeegee blade and stencil from damage. Robust flippers engage to secure the board across the top edge to ensure board flatness and remove any warpage. The board is then gripped from the side with software controlled pressure before the flippers move out of the way for printing. This technique delivers the best print quality and is the most adaptable system for the widest range of applications.



More consistent edge-to-edge prints by removing the interference of top clamps and allowing optimal PCB to stencil gasketing

EdgeLoc+ Board Clamping Side and/or Top

EdgeLoc+ board clamping is able to change between edge and top clamping. With a simple software selection you can choose whether you want to use top clamping, side clamping or both. Software-controlled pressure ensures optimal board holding force and automatically adapts to the programmed board thickness, firmly holding the board. Hold thin boards with the top clamps while simultaneously adding light edge clamping force for maximum flexibility.



EdgeLoc™ Board Clamping

Benefits of EdgeLoc

- Eliminates paste volume inconsistency for components near the PCB's edge
- Ensures maximum paste volume repeatability and best print definition
- Improves paste transfer efficiency thus reducing wipe cycle frequency
- Optimal PCB to stencil gasketing, especially for ultra-fine pitch devices; 01005, 0201mm
- Software controlled snugger pressure eliminates time wasted for manual setup and is critical for thin board applications
- Automatically adjusts PCB height to match the programmed board thickness
- Board thickness is adjusted automatically based on the measured thickness and is entered in the software
- Ideal for PCB's with pads near the edge
- Works with all types of support tooling; dedicated, Quick-Tool, universal pins and blocks
- No manual setup
- Available on MPM Edison and Momentum II Elite/HiE

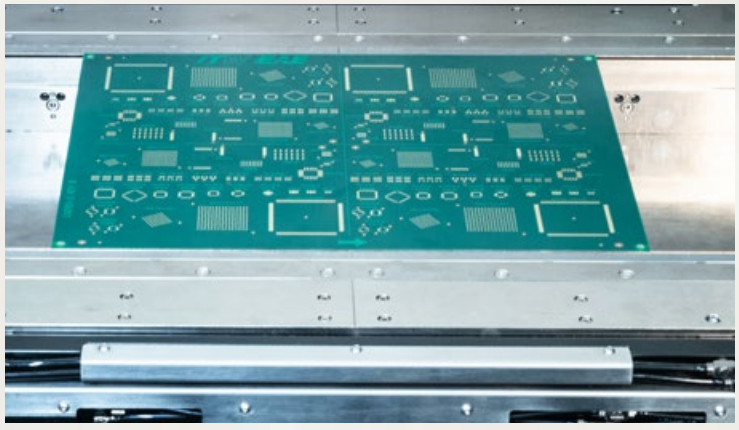
How the EdgeLoc systems works

All EdgeLoc systems operate the same when it comes to snugging the side of the PCB. As the PCB enters the worknest the flippers engage to secure the PCB across the top edge. This ensures PCB planarity and helps remove any warpage, especially after reflow. The Z tower then raises the PCB to the programmed height based on the PCB thickness. Next, the side snugger is automatically adjusted via software-control to clamp the PCB's edge across the entire length of the PCB. The flippers retract, providing full board to stencil contact. The PCB is aligned to the stencil based on the taught fiducials or pads/apertures. The PCB is raised to the stencil and is ready to be printed.

Flippers can alternatively be turned off so they do not engage at any time during the board load or print process. They can also be set to remain engaged throughout the printing of the board with EdgeLoc+.

EdgeLoc + advantages:

- Top and side clamping in one device
- Clamping force programmable, on display
- Clamping mode software switchable
- No manual process involved
- Quicker changeover
- Improved flexibility
- Operator error potential eliminated
- High mix
- Accommodates a variety of board thicknesses



The EdgeLoc systems have an advantage over the Top Clamp in respect to the stability of the process.

ITW EAE is a division of Illinois Tool Works, Inc. It is a consolidation of all of its Electronic Assembly Equipment and Thermal Processing Technology. The group includes world-class products from MPM, Camalot, Electrovert (ITW EAE), Vitronics Soltec and Despatch.

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