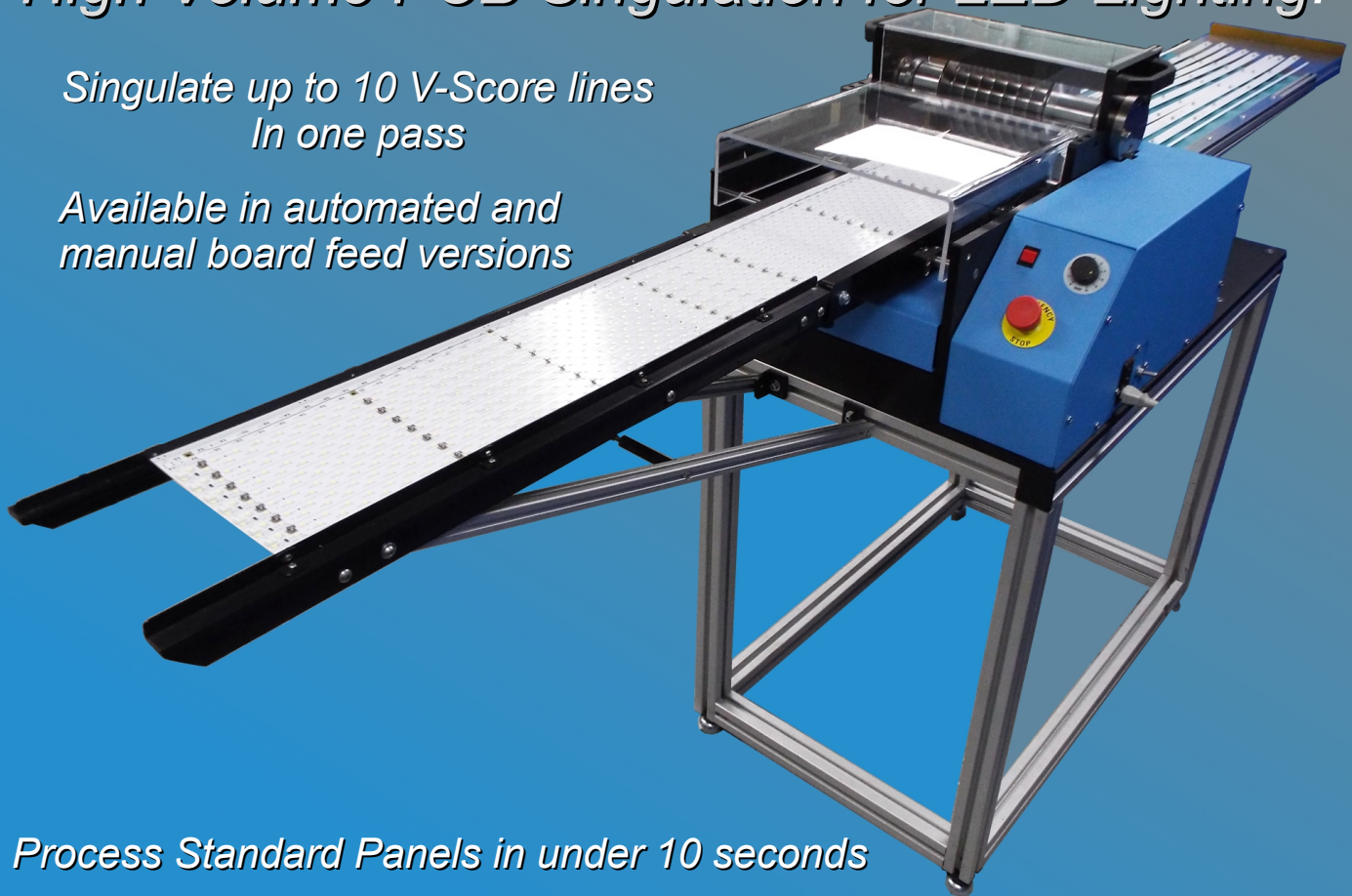


High Volume PCB Singulation for LED Lighting.

*Singulate up to 10 V-Score lines
In one pass*

*Available in automated and
manual board feed versions*



Process Standard Panels in under 10 seconds

The K5000 PCB separator is designed for high volume singulation of pre-scored multiple PCB sheets into individual units. For sheets with a width of up to 11.3" (287 mm), up to 10 sets of circular blades simultaneously separate the PCBs into individual panels. To singulate the panels, the sheet is laid onto the input conveyor and travels between the upper and lower row of blades.

As soon as the rotating blades grip the board, it is drawn into the machine and the panels are separated by pressure on the remaining material in the scoreline. A conveyor belt transports the separated panels out of the machine. These can then be removed by hand or continue on down the assembly line via conveyor.

During manual unloading, a light sensor at the end of the conveyor can detect if any panels have not been removed and stop the conveyor. The edge margin pieces pass underneath the sensor and drop into a container situated at the end of the conveyor belt.

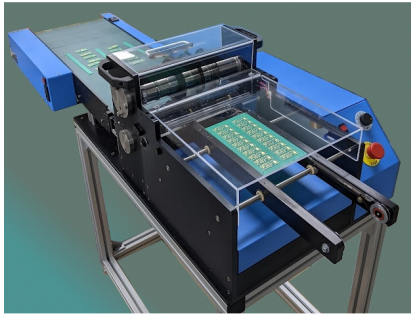
The clearance between the upper and lower blades can be precisely adjusted by moving the upper drive shaft. The upper and lower blade sets are mounted on shafts which are held in a removable cartridge. To change blades for a different production run is done in a short time. Remove and replace the blade holder cartridge with the new one. Reset the input conveyor for the new panel size and the machine is ready to singulate the next run.



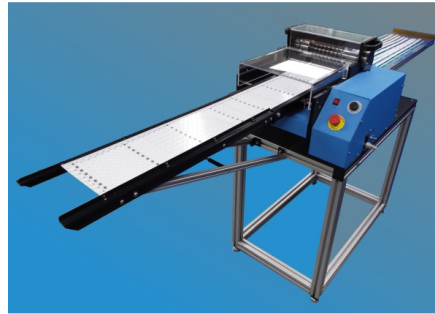
Multiple blade cartridges can be changed out in minutes for quick changeover to different PCB types. Standard cartridges will handle up to 10 blade sets for strip widths of .5" (12.7 mm).

The K5000 A1 in-line depanelizer is a PLC controlled system with SMEMA interface for automatic board hand-off from your re-flow oven. This will singulate panels as fast as they exit the assembly process.

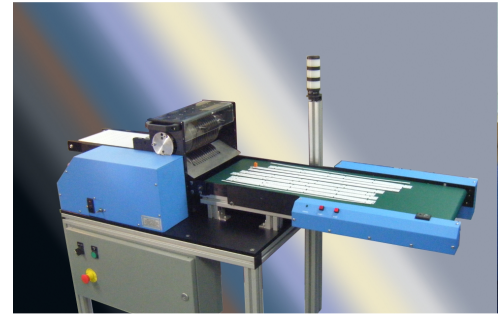
K5000 Variations



Operator fed K5000 with output conveyor. Singulate standard PCBs in under 10 seconds per panel.



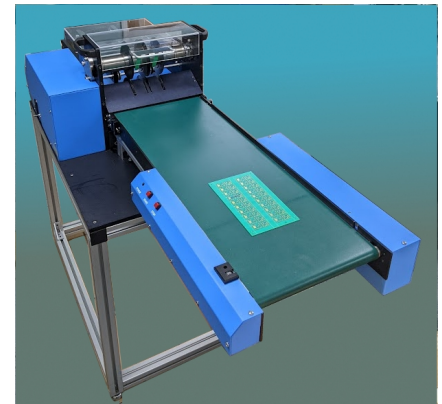
Customized for LED panels, with 42" input support rails and 42" output take-up tray.



In line PLC controlled K5000 accepts PCBs from output conveyor of solder re-flow line via SMEMA interface.

Output Conveyor

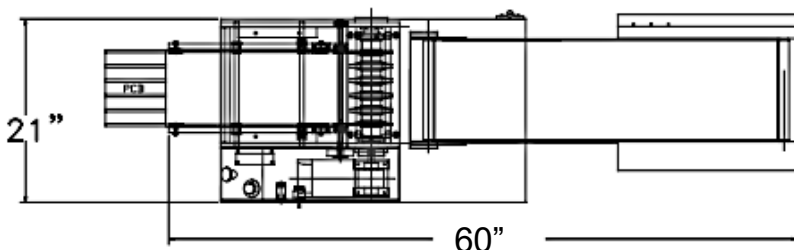
For high volume production, a conveyor belt is available to bring the singulated panels to the right of the machine for unloading by the operator. A light barrier across the end of the conveyor belt will stop the belt for any panels with components on them. Scrap strips will pass underneath the light to be discarded into a waste bin. Upon removal of loaded panels, the conveyor will automatically start again.



Blade Cartridge Change

Blade cartridges can be changed out in minutes. Just remove the positioning screw, open the safety cover to clear the path and pull out the cartridge. Cartridges weigh about 50 Lbs. Replacing the new cartridge is just as simple.

If the new cartridge is for a different panel configuration, re-adjust the input rails to line up the next PCB score-lines to match the blades



Size : HWL 43"x21"x60"
Weight : 320 lbs
Power Supply : Universal 115-220.

Input Power and Control Panel



The operator fed version of the K5000 has a simple control panel with on/off switch, speed control and E stop.

Input power to the K5000 is provided by standard 3 prong power plug, with fuse for 115 or 240 V operation. A forward/reverse switch allows for backing up the panel in case the E stop is activated.

