K3000 PCB Depaneler

Singulate scored and skip scored panels up to 24" long

*ESD protective mat on back table*

Adjustable front and back support table

Singulate panels with components up to 2.5" high

Available in 18" blade (standard) or 24" blade (long)

*Optional tool bar for accurate placement of PCB panel.*

Adjustable right and left blade guards for operator safety.
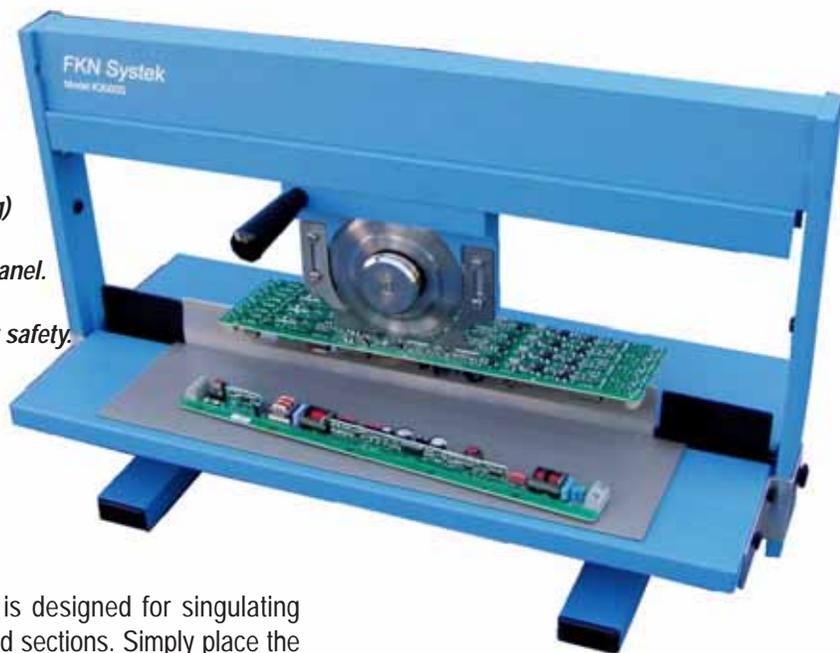
The K3000 manual linear blade depanelizer is designed for singulating longer boards and scored PCBs with skip routed sections. Simply place the scored section on the linear blade and pull the circular blade carriage across the top of the scoreline to split the panels. The top circular blade can be adjusted up and down to provide a cutting gap most suitable for the panel being singulated. Standard setting is to close the gap to the point where a piece of paper placed on the linear blade will cause the circular blade to rotate when traveling across the linear blade.

The K3000 is available in a standard 18" linear blade version and in a long 24" linear blade version for extra long PCB panels. Blades are flat on one side with a tapered profile on the other, as illustrated below. For panels with high components close to the edge of the board, (ie. wire wrap or connector pins), the blades are available in a thin edge version.

Dimensions

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        FKN Systek    K3000
  17"
 431mm

      3000 KS 27"  685mm
      3000 KL 34.5"  876 mm
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    12"
   304 mm
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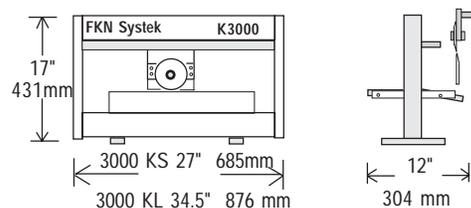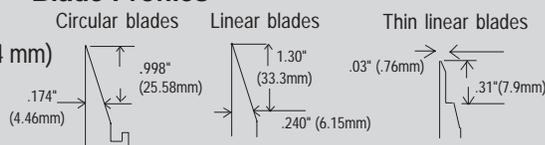
Order Information	Specifications
97-3000KS 18" Linear Blade.	Size: HWD 17" x 27" x 12". (431x685x 304 mm)
97-3000KL 24" Linear Blade.	Weight: K3000 = 45 lbs
97-3000KTB Tooling Bar for K3000.	

Blade Profiles

Circular blades	Linear blades	Thin linear blades
.998" .174" (25.58mm) (4.46mm)	1.30" (33.3mm) .240" (6.15mm)	.03" (.76mm) .31"(7.9mm)

Placement of components to edge.
> .04" (1mm) for standard components
> .08" (2mm) for sensitive components (ie. ceramic chip capacitors.)

Recommended Web Thickness
> .012" < .027" 25° V Score
>.3 mm < .7mm

25°

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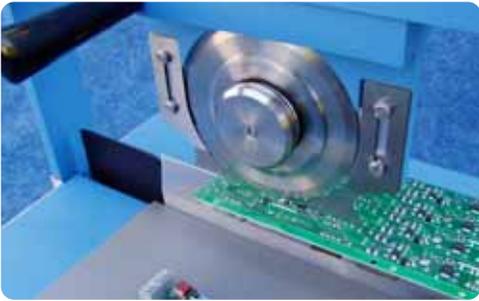
Circular/Linear Blade PCB Singulation

All circular blade depanelizers have an upper blade which can be adjusted for the proper gap to singulate a variety of different panel thicknesses. Adjusting the cutting blade gap takes only a few seconds. Loosen the set screw and turn the dial to the correct spacing for optimal PCB singulation. Recommended remainder thickness for score-lines is between .012" to .027".

K3000L - Singulate 24" Long PCBs

To depanelize boards greater than 18", the K3000 is available in a 24" linear blade model. As with the 18" model, tooling is available to make the job of board alignment easier. All other operating characteristics and procedures are the same. Overall length for the K3000 L is 34.5 inches versus 27 inches for the standard model.
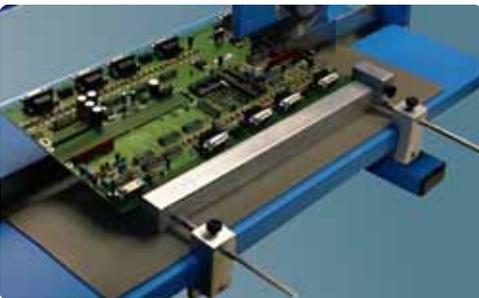
Support Tooling

Placing longer panels to seat the score-line of the board on the linear blade is made easier by use of an adjustable alignment bar which can be mounted on the support table. Setting the edge of the board against the alignment bar will assure proper parallel matching of the scored groove with the edge of the linear blade. Additional tooling can be provided at customer request.
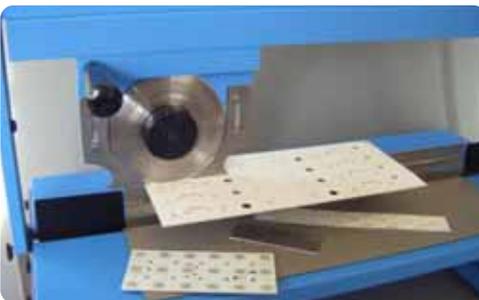
Singulate Pre-Scored Metal Core Panels

Used in the production of led lighting, pre-scored aluminum core panels provide the heat sink characteristics needed to carry away the excess energy from led arrays. These are difficult to separate by the default bend and flex method since they are generally thin and long, and they need to be flexed a number of times to cause metal fatigue at the score line. By offsetting the circular blade of the K3000 slightly and bringing it down past the linear blade to cause a shearing effect, it is possible to use the K3000 to singulate these panels with relative ease.

Blade Guard Adjustment

Blade guards on each side of the circular blade are designed for operator safety and to insure that the printed circuit board score-line will be properly placed on the linear blade. The gap between linear blade and blade guard can be set so that, when properly adjusted, the circular blade will pass over the board only if the panel is seated correctly in the scored groove.