

# Fancort Depaneling Equipment Selection Guide

## Scored Boards

### Low to Moderate Volume

#### Model NTG

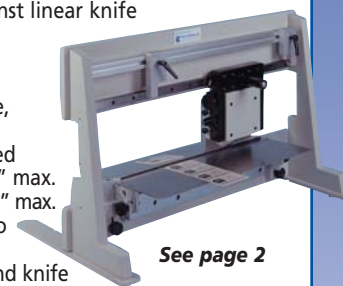
- Two circular knives separate panels up to 15" long
- Manual or motorized models
- Infinitely variable speed motor with reverse
- Unique cutter design for cleaner cut and longer life
- Positive locking guides prevent boards from walking



See page 3

#### Model VPD3-1M

- Manual round knife cutting against linear knife
- Cuts board with components overhanging score line with modified linear knife
- Wide table on both sides of knife, 6.25" x 20"
- Table sides can be raised or angled
- Stops on top to set cut length, 18" max.
- Custom model with cut length to 24" max.
- Cut safely with components up to .030"-.040" from the score line
- Easy adjustment on height of round knife

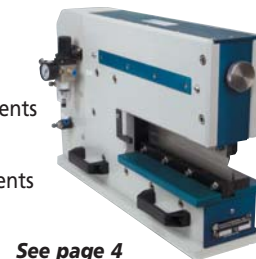


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### High Volume

#### Model VPD5

- Linear knives shear with the pre-score
- No stress to board or adjacent components - up to 0.5mm edge distance
- Operator cannot miss insert PCB
- Substantial clearance for high components
- Easy adjusting upper blade setting
- Two models 10" or 13" capacity



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#### Model VPD3-1

- Motorized version of VPD3-1M
- Easily programmable cut length, up to 18"
- Custom model with cut length to 24" max.
- Foot switch operation with safety light curtain
- Four fixed speeds



See page 2

## Routed Boards

### Low Volume

#### Model NTR-1 & NTR-2

- Single knife machine removes tabs
- Change knives in less than 3 minutes
- Foot switch and scrap tray
- Knives for round boards
- NTR-1 cuts up to .093" thick PCB
- NTR-2 cuts up to .125" thick PCB



See page 5

#### Model NTP-1

- Single knife machine cuts along board edge
- Separates hard to reach tabs
- Cuts board up to .080" thick
- Two locating pins maintain board position
- Rugged C frame design
- Vertical cutting motion
- No scrap



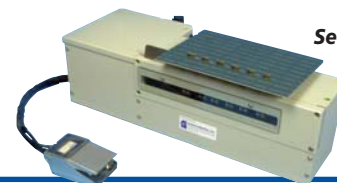
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### Moderate Volume

#### Model PS-MR-1

- Cut up to six tabs at once
- Minimal stress to board or components

- Pneumatic operation
- Easy knife adjustment



See page 7

### High Volume

#### Janome JR 2000 Series

- High production on panels with curved boards or multiple angles
- Programmable with teaching pendant; very easy to set-up & program
- Powerful vacuum system leaves no chips or dust



See page 6

#### PP Series

- Four presses up to 80 tons and working area of 460 x 320mm
- Sliding bottom die for easy loading and unloading
- Cast iron frame for rigidity
- Affordable, high quality tooling



See page 7

# Fancort Depaneling Systems For Every Production Requirement.



VPD3



Janome JR 2000 Series



PS-MR-1



PP-4/8



NTR-1



NTG-4A



VPD5



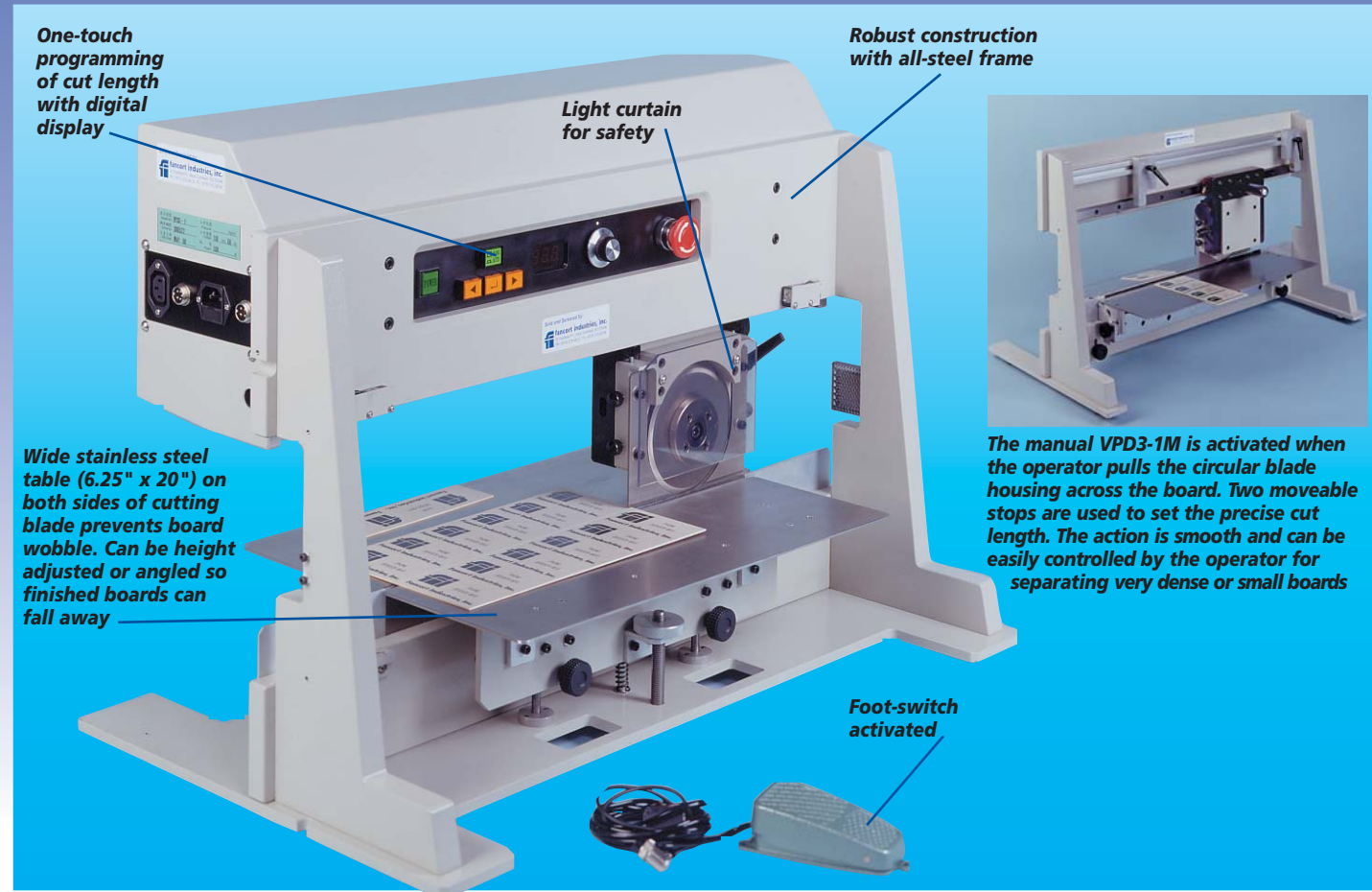
NTP-1

Fancort has your depaneling solution! Not just one or two models, but a complete line of machines for tab-routed and scored-boards to meet every production application and throughput requirement.



## VPD3 Series for Scored Boards

# Advanced Depanelers Process Double-Sided Boards -Even Those With Components That Cross Score Line.



Board assemblers who require a high throughput depaneler will welcome these rugged performers. Combining ease of use with high-precision repeatability, the motorized VPD3-1 and its manually operated sibling, the VPD3-1M, are geared for optimal shift-after shift performance. The motorized version features one-touch programming of cut lengths and variable speed while the selected length appears on the large LCD readout. The cutting motion is initiated by foot switch, and takes place as a moveable circular knife cuts against a linear knife. The knives are flat on

one side to separate boards with components as close as .030"-.040" from the score line. The linear knife can also be modified to handle boards with components on the bottom side that cross the score line. The heavy-duty frame and high quality linear slide maintain the accuracy of knife alignment in both models. Operator convenience and safety is addressed with a light curtain and 6" wide stainless table with adjustments for height and angle to allow finished boards to slide into a receptacle. Another useful option is a conveyor belt for removal of finished boards.

### SPECIFICATIONS: For VPD3-1 (Motorized)

**Max. Separation Length** 18" std., 24" custom

**Max. Component Height to score line:** 1.6"

**Min. Edge Clearance line:** .030"-.040"

### Dimensions: (Motorized) 31"L x 18"W x 22"H

**Weight:**  
VPD3-1: 110 lbs.  
VPD3-1M: 95 lbs.

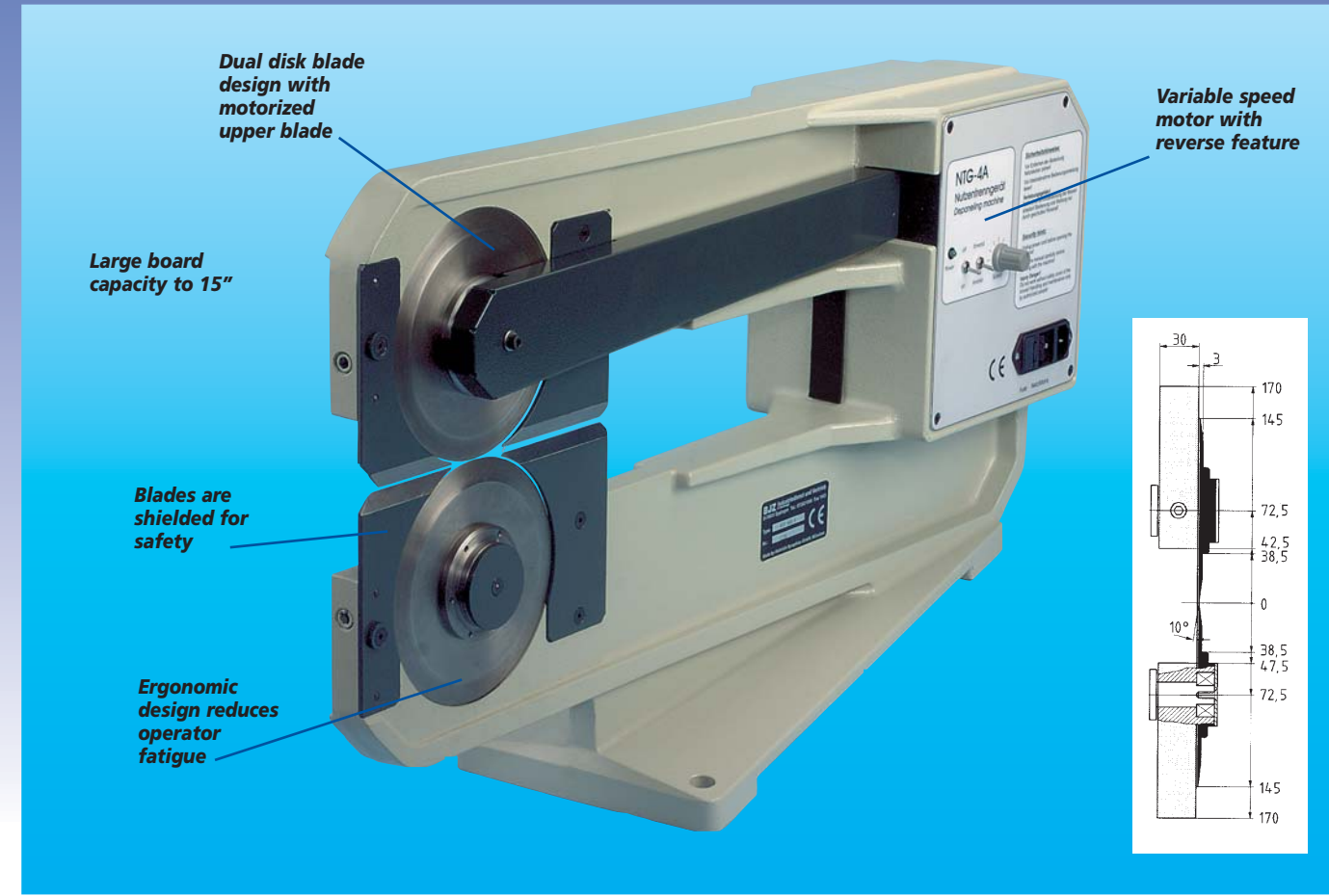
**VPD3-1 Drive:**  
Electrical  
110V

**Option: (VPD3-2)**  
Motorized model  
with output  
conveyor

**SPECIFICATIONS For VPD3-1 & VPD3-1M**  
(manual) are identical except for  
drive & dimensions,  
31"L x 17"W x 19.5"H (VPD3-1M)  
31"L x 18"W x 22"H (VPD3-1)

## NTG-4A for Scored Boards

# Dual Circular Blades Are Height Adjustable; Better Ergonomics Enhances Throughput.



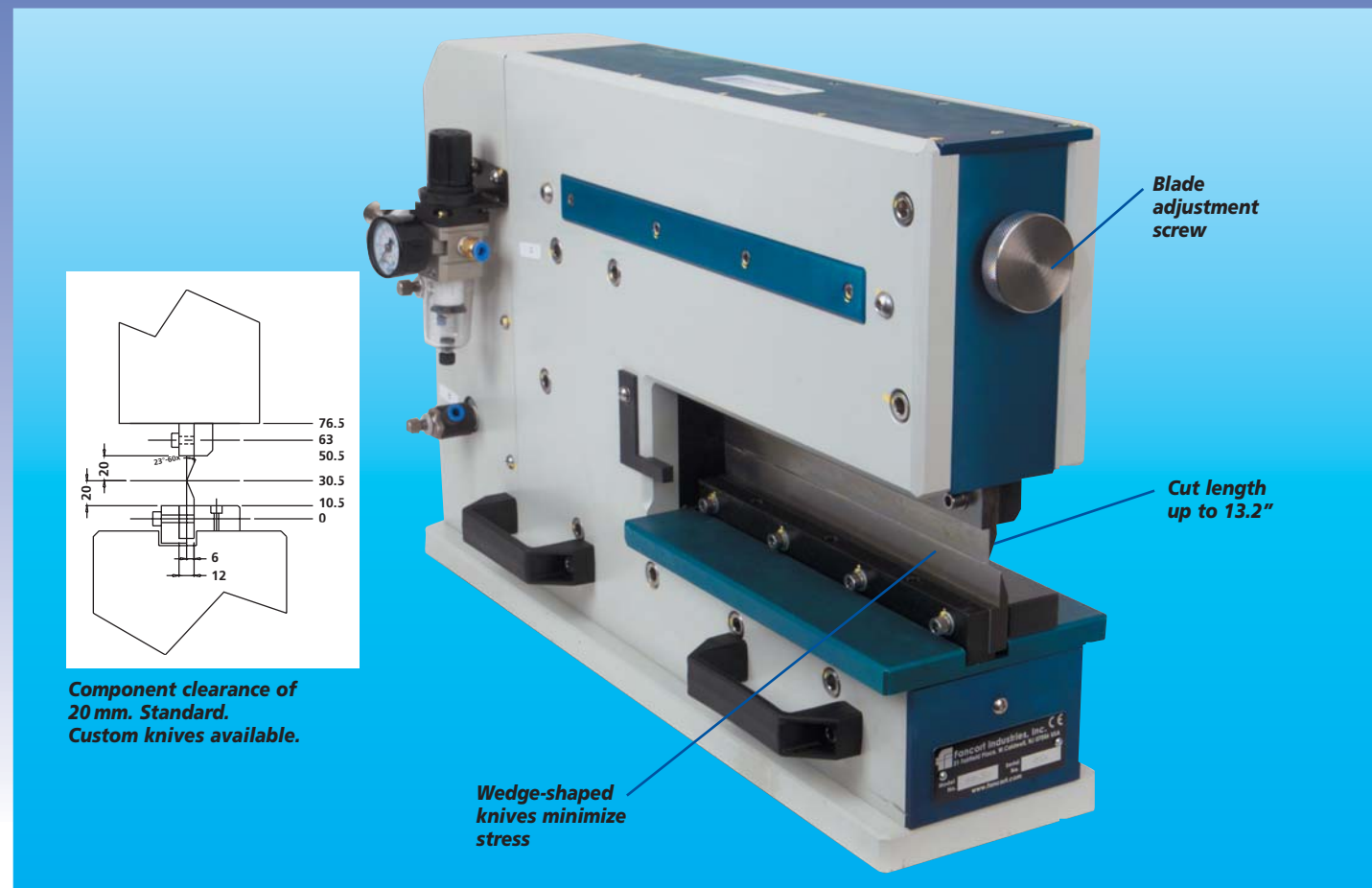
Dual disk blade design combines a motorized upper blade with an inertial lower blade to ensure clean, burr-free cuts while eliminating stress caused by bent boards during depaneling. The slim profile of these vertical superior long-life blades also permits processing of crowded boards — particularly those populated by components right up to the cut line. Once the PCB is aligned, it is automatically transported at user-set variable forward or reverse speeds, without the possibility of tracking outside of the scored grooves. Blades are shielded for safety and are easily

removable for replacement— or quick-turnaround sharpening. Spacing of upper and lower cutting blades is adjustable. Ergonomic design prevents operator fatigue during prolonged usage. Robust construction with heavy cast aluminum frame for exceptional stability and maintenance of upper and lower blade alignment. System requires virtually no maintenance and is capable of handling large boards of up to 15.2".

**SPECIFICATIONS:  
FOR NTG-4A (Motorized)  
& NTG-4 (Manually Operated):**  
**Max. Separation Length:**  
15.2"  
**Max. Component Height:**  
(Up to scoring edge):  
1.88"  
**Dimensions:**  
29" L x 8" W x 17.5"  
**Weight:**  
55 lbs NTG-4 is 46 lbs.  
**Drive:**  
Electrical (NTG-4 is manually operated)  
**Power:**  
(System NTG-4A):  
110V

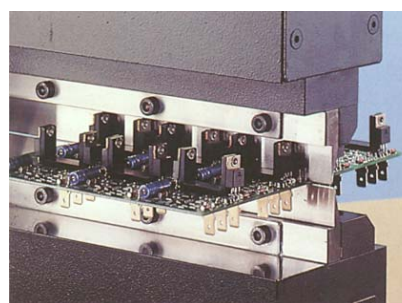
## VPD5 for Scored Boards

# Safely Depanel PCBs Without Stress – Even if Sensitive Components Are .5 mm from the Scoring Line.



Afraid to trust ordinary depanelers with boards housing SMD ceramic capacitors or other sensitive and expensive components, especially those as close as .5mm from the score line? Are you also afraid of operators or machines that have room for error when depaneling scored boards? Looking for the fastest off-line machine to separate scored boards? With the new VPD5 machine, you address all of these concerns. The two horizontal knives are designed with a wedge shape to shear along the score line with almost no stress. The knives are

opened to a gap that only accepts the panel along the score line, preventing the operator from improper insertion. The VPD5 can make single cuts of the entire panel up to 13". Bending or tension stress –



Since blades open to a maximum of 4 mm, there is no safety risk to operator.

even with boards less than 1mm thickness – is virtually eliminated. Both models of the VPD5 are heavy duty production machines that are "goof-proof."

SPECIFICATIONS:	
<b>VPD5-250</b>	<b>VPD5-330</b>
<b>Dimensions:</b> 24.5" x 9.2" x 15.8"	<b>Dimensions:</b> 30" x 9.2" x 15.8"
<b>Weight:</b> Approx. 233 lbs.	<b>Weight:</b> 275 lbs.
<b>Separation Length:</b> 10"	<b>Separation Length:</b> 13.2"

**Power Supply:**  
Compressed Air, Max. 85 psi

## NTR for Tab-Routed Boards

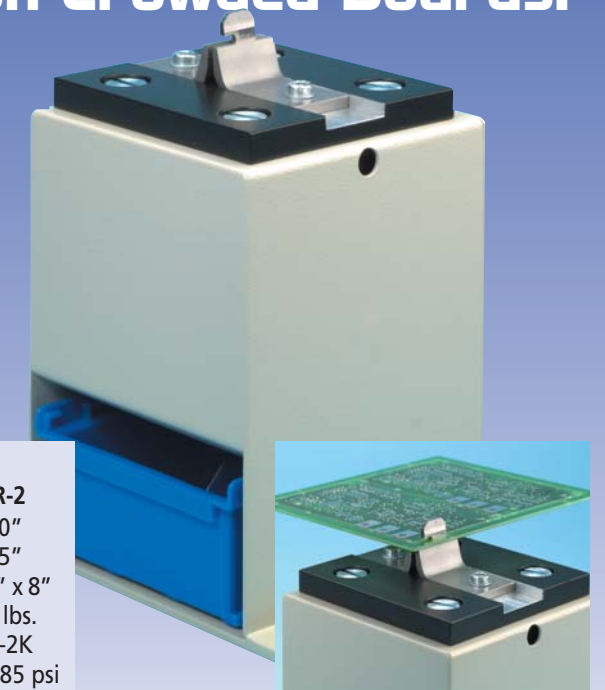
# Low-Cost Benchtop Delivers Precision Cuts Virtually Burr-Free; Works on Crowded Boards.

This low-cost pneumatically powered machine uses a single knife to safely cut without damaging the board or nearby components. Its compact size of 4" x 4" x 7.5"H and light weight (8 lbs.) permits the unit to be easily carried to multiple work sites. Hardened tool steel blades that will last for thousands of burr-free cuts will also process round boards with a minimum radius of 35 mm. Scrap is conveniently collected in a slide-out container. Blades are easily changeable and are

available in customized thicknesses to fit the width of slots. Because of the short bottom die, the machine can be safely used to cut PCBs with components or connection plugs crossing the slot – an added advantage when depaneling crowded boards. (Blades should be ordered .002" (0.05 mm) thinner than the slot width of PCBs.)

### SPECIFICATIONS NTR-1 and NTR-2:

	NTR-1	NTR-2
<b>Max. Cut Length:</b>	.250"	.320"
<b>Max. PCB thickness:</b>	.090"	.125"
<b>Dimensions:</b>	4" x 4" x 8"	4" x 4" x 8"
<b>Weight:</b>	8 lbs.	12.5 lbs.
<b>Blade Part Number:</b>	NTR-1K	NTR-2K
<b>Power:</b>	Compressed Air, Max. 85 psi	



## NTP-1 for Tab-Routed Boards

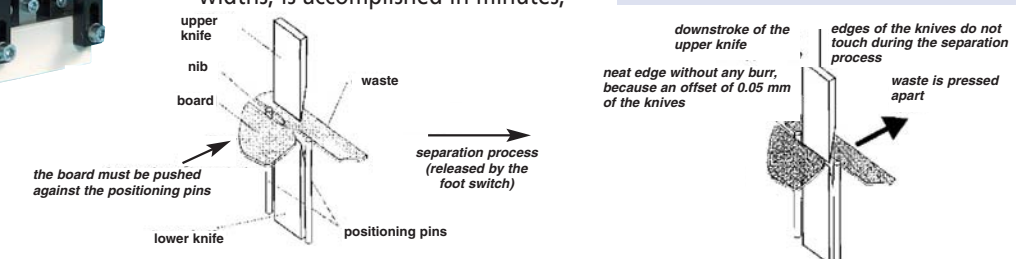
# Dual Cutting Blades – to Shear Hard-to-Reach Tabs – Are Also Ideal for Double-Sided Boards.



The NTP-1 is unrivaled for precise burr-free separation of the PCB from tabs without waste and with virtually no board or component stress. It is ideally suited for applications with tabs in corners, or where the tabs are too close together to use the NTR. This is achieved by two opposing cutting knives which run on ultra-precise linear ball bearing guide bushings. Knife changeover, to enable the NTP-1 to handle different routing widths, is accomplished in minutes,

as is the adjustment of positioning pins. The cutting action is activated by foot switch. The units offers robust construction on a C-frame with torsion resistance. Final position dampers provide smooth and noiseless operation.

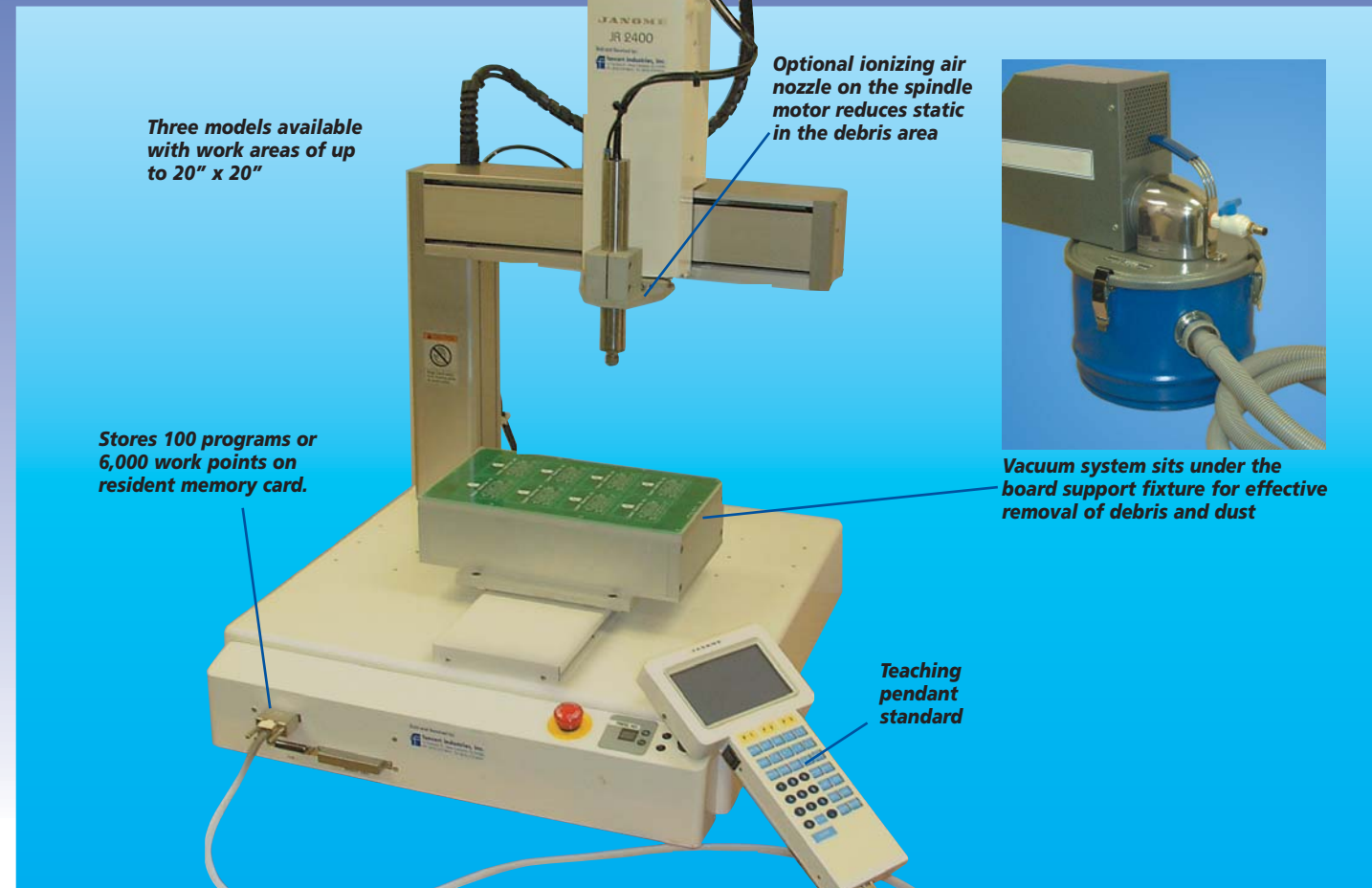
SPECIFICATIONS FOR NTP-1:	
<b>Max. PCB Width:</b>	8.75"
<b>Board Capacity:</b>	9" depth
<b>Board Thickness:</b>	.080" max.
<b>Blade Length:</b>	.312"
<b>Dimensions:</b>	14" x 5.5" x 12.2"
<b>Weight:</b>	26.5 lbs.
<b>Power:</b>	Compressed Air, Max. 85 psi





## The Janome JR 2000 Series for Tab-Routed Boards

# Programmable Routers for Dense, Small, Odd-Shaped or Stress-Susceptible Boards.



Do you process boards that cannot tolerate stress near the edges-where components can fracture? Boards with multiple angles or curves? Thin boards that are prone to damage by ordinary punch and die depanelers? Or very small boards that take too much time to separate? The Janome programmable routers never met a PCB depaneling situation they couldn't handle! These very fast and compact machines boast closed loop DC motors that maintain constant speed under load. Programming is simple with a teaching pendant with its large 7-line screen and optional software that converts programmed data into a spreadsheet format for

storing and editing routing parameters. A powerful vacuum system combined with the vacuum box and fixture draws dust and debris into a sealed reservoir. The optional air ionizer prevents static in the debris

from reaching the work surface. Fancort offers dedicated fixtures or an adjustable fixture. Three models are available to accommodate boards up to 20" x 20".

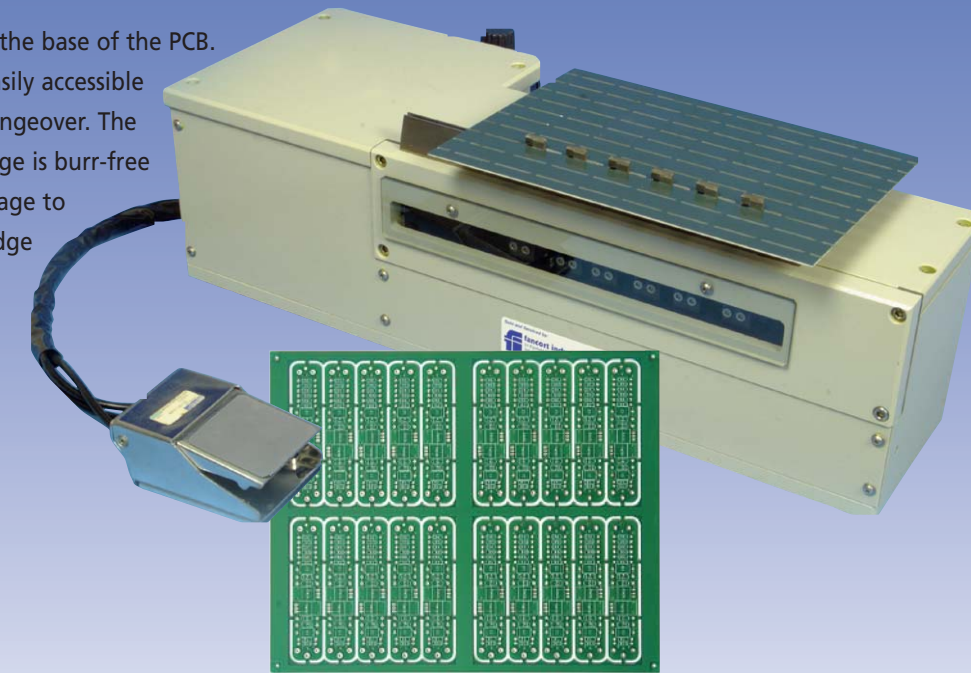
SPECIFICATIONS:				
	JR-2300	JR-2400	JR-2500	
Operating Range:	X axis	12"	15.75"	20"
	Y axis	12.5"	15.75"	20"
	Z axis	4"	6"	6"
Speed:	XY	.3" - 31.5"/sec	3" - 31.5"/sec	.3" - 31.5"/sec
	Z	.125 - 12.5"/sec	.125 - 12.5"/sec	.125 - 12.5"/sec
Repeatable Accuracy: X/Y/Z Axis	±0.01mm			
Program Capacity:	100 Programs			
Data Memory Capacity:	6,000 points or 100 programs			
Program System:	Memory Card			
Dimensions:	22" x 21" x 31.5"	23" x 25" x 33.5"	23" x 25" x 33.5"	
Weight:	77 lbs.	93 lbs.	93 lbs.	

## PS-MR-1 for Tab-Routed Boards

# 'Smart Nibbler' Snips up to 6 Tabs at a Time — Ideal for High-Volume Applications.

Our aptly named "Smart Nibbler" makes fast work of separating routed slot panels. Employing up to six knives, the machine removes as many as six tabs simultaneously. The production sequence takes place with each of the blades adjusted in the longitudinal direction aligned with the position of the tabs, while the narrow position

rails support the base of the PCB. Blades are easily accessible for quick changeover. The separated edge is burr-free with no damage to the PCB or edge components.



### SPECIFICATIONS For PS-MR-1:

Max. PCB Length: 12"  
 Max. PCB Thickness: .080"  
 Number of Blades: 6  
 Power: Compressed air, max 85 psi  
 Dimensions: 24" x 8" x 12"  
 Weight: 58 lbs.

## The PP Series for Tab-Routed Boards

# Pneumatic Punch Press System for High Volume Depaneling with Easy Load/Unload.



This pneumatic punch press with precision tooling separates boards quickly by simultaneously removing all tabs. Semi-automatic sliding base retains the lower die for ease of loading the panel and unloading the separated boards. When operator activates the system the bottom die

slides into place. After cycling, the base slides out for unloading of finished boards. A safety interlock prevents the press from operating unless the bottom die is in position. Four different models with power ranging from 4 to 8 tons.

### SPECIFICATIONS:

**PP-4S:** Pneumatic press, 4 tons output, working area of 160 x 220mm, two hand safety controls, proximity switch for safety activation, easy loading and unloading with moveable lower die, cast iron frame.

**PP-4M:** Pneumatic press, 4 tons output, working area 330 x 240mm. Same specifications as PP-4S

**PP-8M:** Pneumatic press, 8 tons, working area of 330 x 240mm. Same specifications as PP-4S

**PP-8L:** Pneumatic press, 8 tons, working area of 460 x 320mm. Same specifications as PP-4S