

Shape Memory Tooling - *shaping the future* - today



Ease of Use



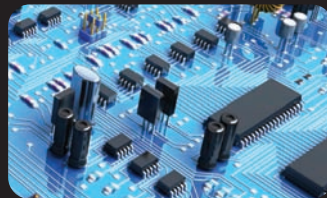

Flexibility



Re Usable



Custom Support



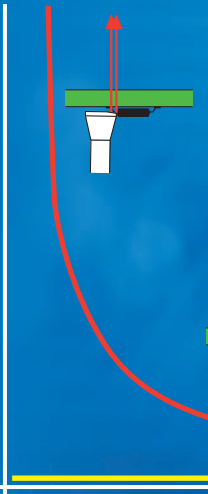
Maintenance Free

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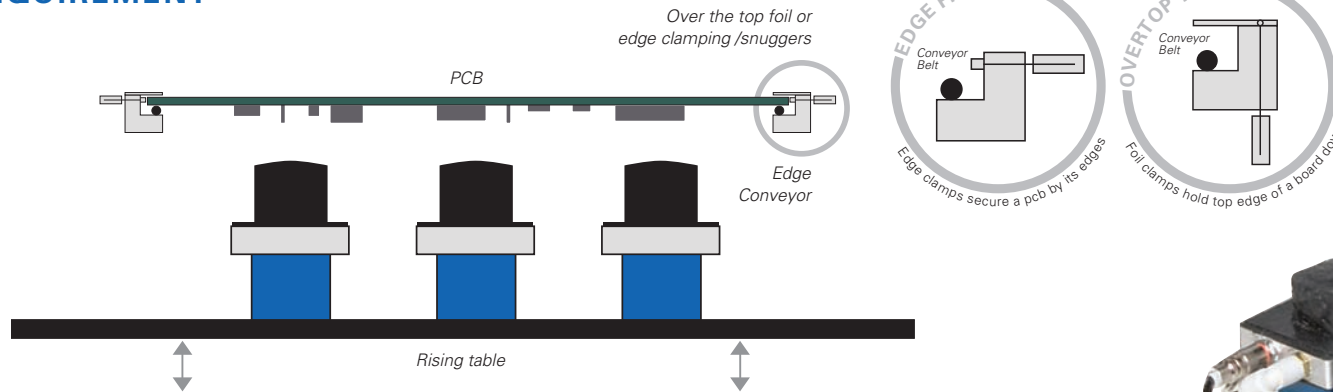
BOARD SUPPORT IS CRITICAL WITHIN ANY PRINTER, DISPENSER AND PICK AND PLACE MACHINE TO RUN A REPEATABLE PROCESS. A CUSTOM DEDICATED MACHINED TOOLING PLATE IS THE IDEAL SOLUTION BUT YOU MUST PLAN WELL AHEAD, HAVE THE PLATE DESIGNED AND THEN MANUFACTURED, EVEN THEN IT'S ONLY A CUSTOM FIT FOR THAT VERSION OF THE BOARD.

Magnetic tooling pin posts and auto pin tooling do offer a flexible solution, but are limited to their pitch, the area they can support and

can cause stress and damage to components when the pins exert pressure on a device leg or body.

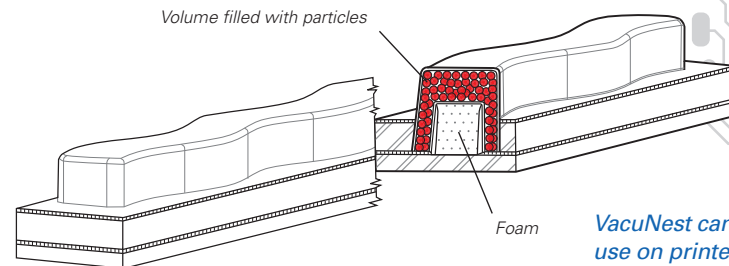


REQUIREMENT

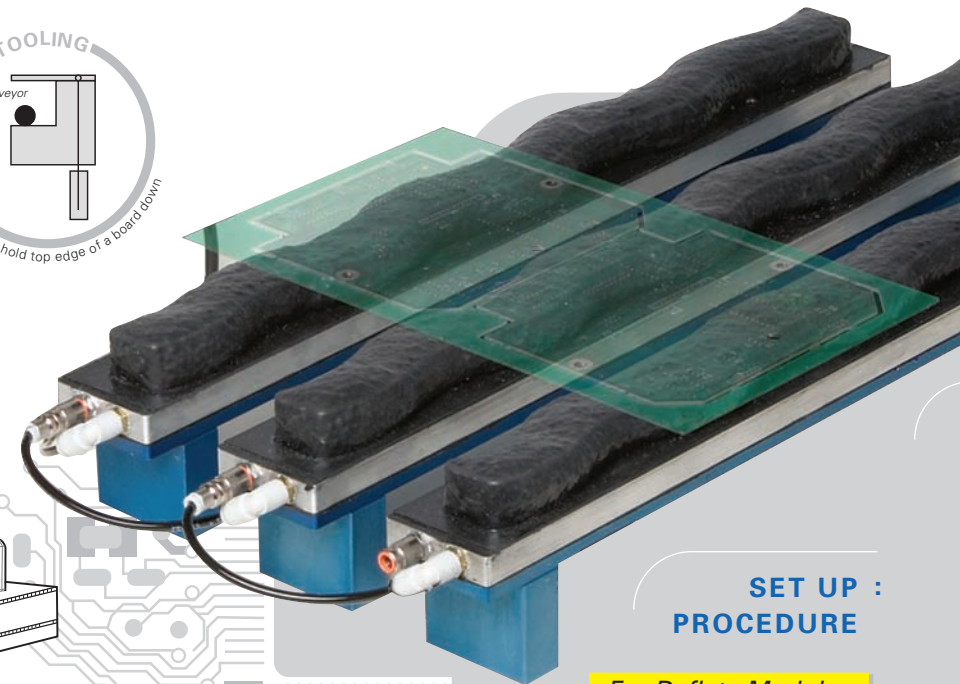


WORKING PRINCIPLE

An antistatic membrane covers a foam former surrounded by polymer granules. Simply place a golden board onto the modules, press down, pull a vacuum, and the memory of the board shape profile is held. Simple, secure and a custom board support within seconds. This shape is then held indefinitely until the vacuum is released after which the modules return to their original form awaiting set up for your next version of board.



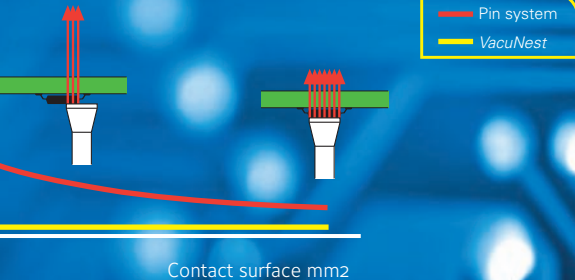
VacuNest can be configured for use on printers, dispensers and pick and place equipment.



**SET UP :
PROCEDURE**

For Deflate Modules

Tooling pins having a fixed pitch exert different transferred forces to component body / legs, VacuNest provides a firm uniform gentle support.



VacuNest combines the benefits of a custom tooling plate with the versatility of pins.

ADVANTAGES :

- Setup in less than 20 seconds
- No risk of damaging a component due to the printing pressure
- ESD safe
- Maintenance free
- Simply wipe down to clean
- Operable on most equipment without machine interface
- Tooling heights available for every make and model printer, dispenser and pick and place system
- Offers extended lateral support for enclosed print heads/squeegee blades
- Reduces stencil wear (tramlines and canning)
- No substrate vibrations during SMT placement

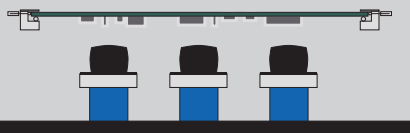
VacuNest can be set up and running in less than 20 seconds.



Supporting the parts pins fail to reach

STEP ONE : Deflate

- Board is clamped
- Modules deflated
- Rising table at load position

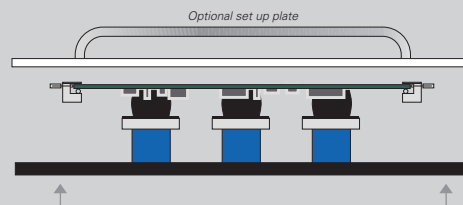


Controller position 'SET UP'



STEP TWO : Set up

- Rising table at working height
- Modules allowed to return to rest position and form around underside components
- PCB is set level and flat between conveyor rails

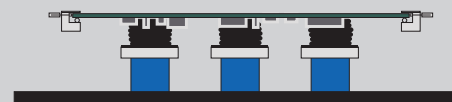


'0'



STEP THREE : Ready for use

- Module shape set
- Perfect underside support for PCB
- Shape now held indefinitely until vacuum is released



'VACUUM'



Modules

Part Description	Part Number	Controller Type	Tooling Height
Deflate Low 100	VNM-DML-100-40-x	A	x= 39 ~ 54mm (159mm)
Deflate Low 366	VNM-DML-366-40-x	A	x= 39 ~ 54mm (159mm)
Deflate Low 466	VNM-DML-466-40-x	A	x= 39 ~ 54mm (159mm)
Deflate Low 470	VNM-DML-470-50-x	A	x= 39 ~ 54mm (159mm)
Deflate Low 570	VNM-DML-570-40-x	A	x= 39 ~ 54mm (159mm)
Deflate 100	VNM-DM-100-40-x	A	x= 55 ~ 159mm
Deflate 366	VNM-DM-366-40-x	A	x= 55 ~ 159mm
Deflate 466	VNM-DM-466-40-x	A	x= 55 ~ 159mm
Deflate 470	VNM-DM-470-50-x	A	x= 55 ~ 159mm
Deflate 570	VNM-DM-570-40-x	A	x= 55 ~ 159mm
Low Profile 100	VNM-LP-100-40-x	B	x= 25 ~ 38mm
Low Profile 366	VNM-LP-366-40-x	B	x= 25 ~ 38mm
Low Profile 466	VNM-LP-466-40-x	B	x= 25 ~ 38mm

VNM - (Type) - (Length mm) - (width mm) - (x height)

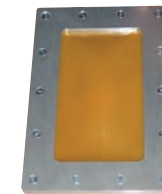


Table Top

Part Description	Controller Type	Part Number
200 x 300mm	B	VNTT-200-300
200/300 set up cover		VNTT-SC-200-300
290 x 290mm	B	VNTT-290-290
290/290 set up cover		VNTT-SC-290-290
400 x 400mm	B	VNTT-400-400
400/400 set up cover		VNTT-SC-400-400



Ever needed a third hand?



Cover -
Optional set up cover

Table Top - A reusable custom support for onbench assembly

Controllers

Part Description	Controller Type	Part Number	Remarks
3 position Switch / Reg	A	VNC-V-RS-DMV-R	Regulated for deflate
3 position Switch / NR	A	VNC-V-RS-DMV-NR	Non regulated for deflate
Footswitch	B	VNC-FS	Connect to house vacuum
Footswitch / Vac / Reg	B	VNC-V-FS-R	No deflate option
2 position Switch / Reg	B	VNC-V-RS-R	Vacuum - regulated
2 position Switch / NR	B	VNC-V-RS-NR	Vacuum - non regulated

3 position VacuNest controllers (A) are hand console operated.
Inbuilt vacuum Venturi generators can be (R) Regulated or (NR) Non Regulated.

2 position VacuNest controllers (B) can be either foot switch or hand console operated.

Set up Plates

Part Description	Part Number	Remarks
Set up Plate	VNSP-450	Plate for foil clamp on rails
Set up Plate	VNSP-450-R	Plate for boards below rails



Ensuring the top surface of a substrate is flat is paramount in any operation. Ergonomic set up plates ensure a flat surface during initial set up. Alternatively in a printer platform this can be achieved using "on contact" with the stencil.



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