
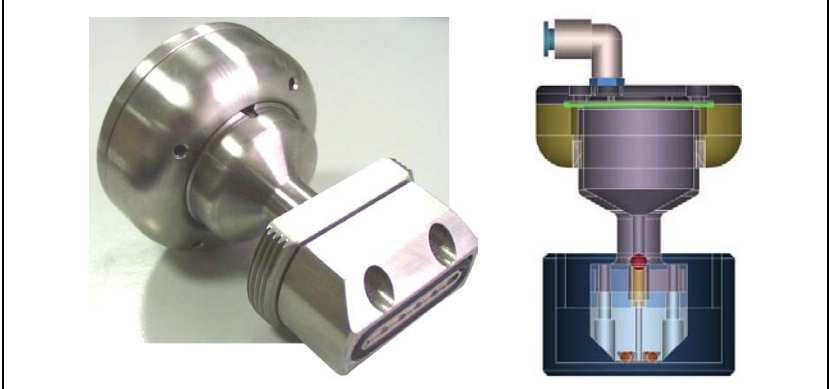


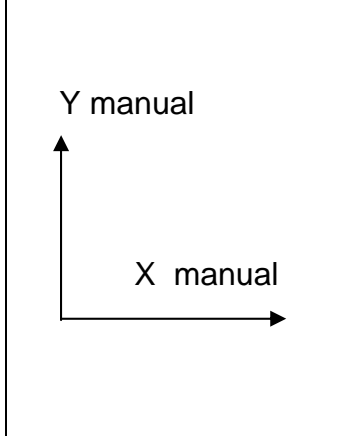
Via Fill Technology Equipment & Paste Options

From simple hand held or table top to full machines
All the X / Y positioning via fill machines are ideal for processing expensive conductive paste. They utilize small via fill heads that can be rapidly removed and stored with paste in a refrigerator or freezer.

MASS

PS300 Hand Held Via Filler
The via fill head (about 2”) is held manually against the surface of the PCB. A diaphragm in the assembly pushes the paste out of the front of the head. The paste pressure is actuated by a foot pedal that releases air pressure onto the diaphragm.




VHF 20 Manual X/Y Positioning Via Filler
The PS300 can be incorporated into this unit. The big advantage is that the head is held always firmly against the PCB surface ensuring that paste travels through the holes and not much paste is lost on the panel surface. Other head and paste delivery designs can be incorporated – for example the standard 6 or 12oz paste tubes can also be used. 3” maximum head size can be used. A heat able head for easier flow of Silver paste is available as an option.

<p>Y motorized</p>  <p>X manual</p>	
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VHF 200 Via Filling Machine with motorized Y axis head

A 6" head (other sizes possible) is moved at a consistent (motor driven) speed in the Y axis with constant paste and head pressure (heated head is optional). The head is moved manually to other X Axis positions. Head pressure, head speed, paste pressure, delay times and head temperature are manually set. A mini-PLC ensures the proper parameter sequence for a via filling stroke.

<p>Y motorized</p>  <p>X motorized</p>	 
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VHF 300 Via Filling Machine with motorized Y axis head

A 6" head (other sizes possible) is moved at a consistent (motor driven) speed in the Y axis with constant paste and head pressure and temperature of the head. The head moves automatically to other X Axis positions. Input of process parameters via touch panel, including length & position of Y-Axis stroke as well as recipe storage.

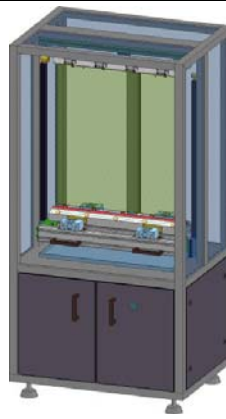
<p>Y motorized</p>  <p>X motorized</p>	 
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VHF 300V Vacuum Via Filling Machine with motorized Y & X axis head

A 6" head (other sizes possible) is moved at a consistent (motor driven) speed in the Y axis with constant paste and head pressure and temperature of the head. The head moves automatically to other X Axis positions. Input of process parameters via touch panel, including all coordinates for required fill areas as well as full recipe storage. Machine is available with vacuum for blind via filling.



ES10 Scavenger
Table top manual unit



ES100 Scavenger
Stand alone manual unit



ES5000 Scavenger
Fully automatic stand-alone unit



VCP5000 series

Vertical filling of panels using one stroke utilizing via fill heads the width of the panel or smaller. Automated scavenging (wipe-off) of paste residues on the panel surface.



SV100 dry sanding machine

A single orbital sanding disk can be controlled at Z-axis height increments of 0.02mil. This allows exact sanding on a planar level which provides excellent mapping of the highs and lows of a PCB. This mapping provides valuable input about where additional sanding must take place in order to avoid going through Cu in high areas.



PM650 Pola & Massa wet orbital sanding machine

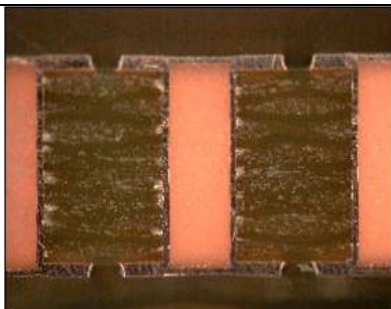
This machine provides high productivity sanding with very good surface topography conformance. The 10 brush arrangement allows rapid productive sanding off of difficult to remove Cu pads, via fill resin and plated pads, with minimal attack of the surface Cu.



Pola & Massa Evolution 3000 wet single head sanding machine

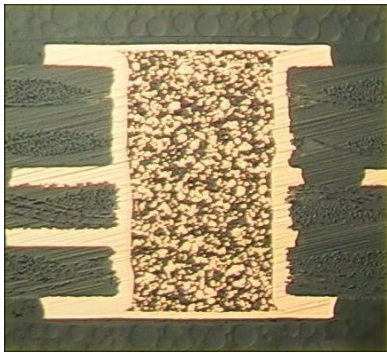
Excellent flexibility for targeting specific areas on a PCB for sanding – single or multiple areas in one program. Also provides great flexibility for sanding thick panels with the “foot ball” effect or panel plated panels with over plated edges.

High Performance Via Fill Pastes for via in pad applications



Sanei non-conductive pastes

Sanei is known as the premier non-conductive paste supplier in the world. Two pastes classes offer all the process & reliability requirements needed. 6P covers virtually all process needs, while the 10F or 10FE is formulated for extreme performance demands.



Tatsuta conductive pastes

The AE3030 Silver coated Cu particle paste has become the standard replacement for CB100. It has excellent performance characteristics and is even listed on the NASA out-gassing website as an approved material. Due to the very small particle sizes, holes of all dimensions can be filled



Paste Packaging

- Sanei pastes are available in 1 Kg containers or 12oz tubes which are compatible with the various via fill machine options.
- Tatsuta AE3030 is available in 100g containers or 6oz tubes that are compatible with the various via fill machine options