



PACIFIC TRINETICS  
CORPORATION

# VIA FILLER



- 3rd generation of a proven superior process
- Via filling by pressure injection
- For fired substrates and/or green tape
- Complete fill of micro vias down to 0.002" (50µM)
- No trapped air in vias
- Excellent registration
- Quick and easy set up

# PTC VIA FILLER

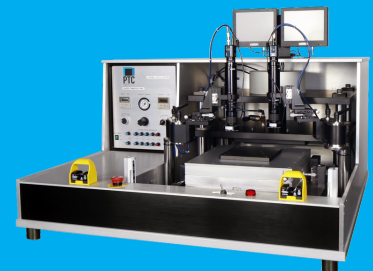
PTC's patented VM Series Injection Via Fill System with its vision alignment system is the most technologically advanced product for filling of via holes. Via holes as small as 0.002" (50µM) are filled uniformly with excellent registration and no overfilling in both green and fired ceramic substrate.

The vision alignment system is utilized for the initial setup of all production runs. Once the initial alignment is completed, the stage is locked into position. The operator begins automatic filling of the substrate using a two-palm button. Via paste (ink) is extruded through a stencil mask directly into via holes in fired substrates or green ceramic tape.

Unlike the screen printing process where repeated print cycles trap air in vias, with pressure via filling the paste is forced through the mask by air pressure. The ink being forced into the holes naturally displaces any trapped air and fills all vias simultaneously before stopping. The via fill paste is contained in a sealed reservoir, therefore maintaining constant viscosity of the paste from the first part to the last.

## FEATURES OVERVIEW

- 3rd generation of a proven superior process
- Via filling by filtered pneumatic pressure injection
- For fired substrates and/or green tape
- Complete fill of micro vias down to 0.002" (50µM)
- Higher aspect ratio compared to screen printing
- No trapped air in vias
- Accurate registration
- Quick and easy set up
- Quick-change mechanism for installation/removal of mask
- Tool-less attachment of mask foil to mask frame
- Fast cycle time (25 sec. typical)
- Low maintenance
- Double Cross microscope vision alignment
- PLC controlled



Model: VM 12001

# MODELS

VM12001

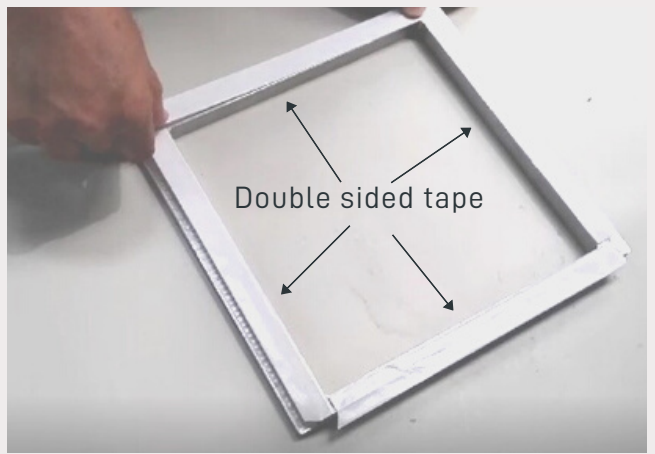
## SPECIFICATIONS

Injection Pressure	0 – 60 psi (0.4 MPa)
Cycle Time	Configurable (Standard 20 s)
Injection Time	0.1 - 99 s Min
Via Size	Min 0.05 mm
Vision System	Microscope CCD
Stage	4 Axis adjustable
Stage Accuracy	±0.0025 mm
Ink Viscosity	500,000 centipoises (lower possible)
Certification	CE

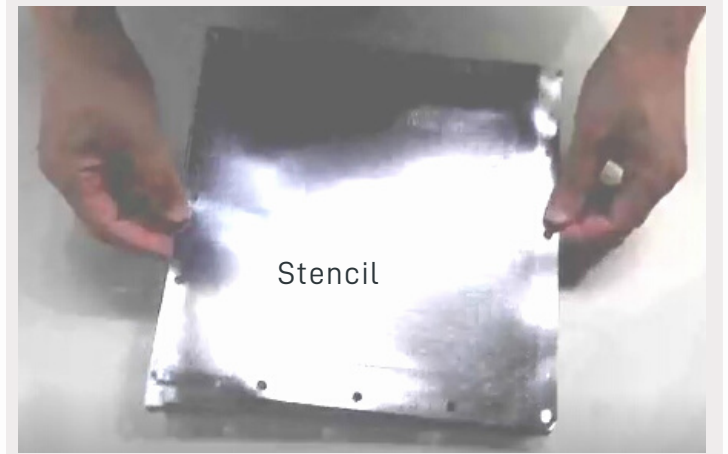
## FACILITIES REQUIREMENTS

Machine Dims.	40.7x43.1x30.9" (1,035x1,095x785 mm)
System Weight	120 Kg (500 Kg w/ support frame)
Electric Power	220VAC 50/60Hz 1 Ph. 10A
Air Supply	100 psi (7Kg/cm^2)
Vacuum	< -20KPa
Operating Humidity	5-75% RH; Non-condensing

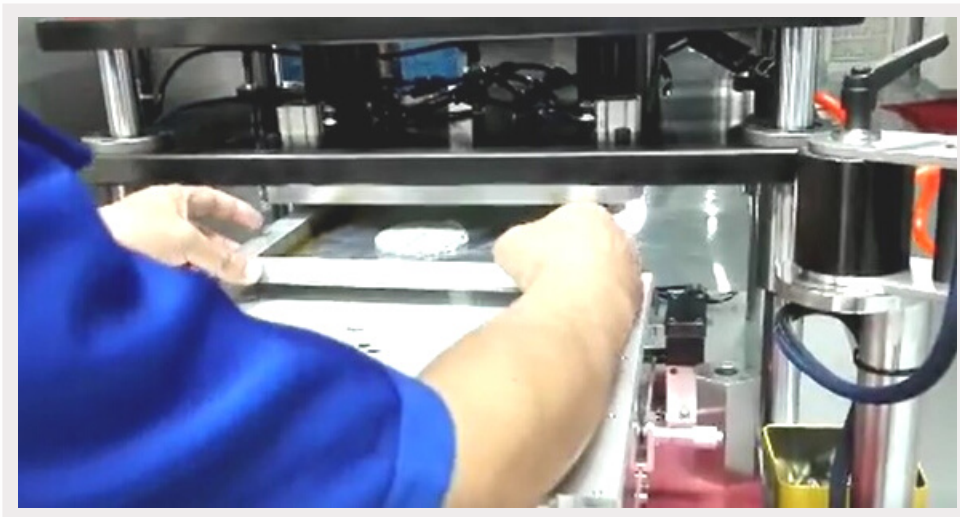
## DETAILED PHOTOS



Double sided adhesive tape is attached to the 4 sides of the frame.



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Frame with stencil is placed in the machine and pulled up with pneumatic cylinders against the machine's upper platen.

# ABOUT US

Pacific Trinetics Corporation (PTC) has been dedicated to providing innovative, state-of-the-art process equipment and automation systems for the electronics industry since 1987.

A U.S. company headquartered in California's Silicon Valley PTC is globally renowned for its equipment quality and durability in the multilayer electronic components industry. From large established names to startups to laboratories in the academia users of our equipment manufacture LTCC, HTCC, MLCC, MLPC, MLI, MLV, and Solid-State Li Batteries.

PTC's Process and Factory Automation Division builds on years of experience, partnering with industry leaders to streamline and automate production facilities towards becoming smart factories. PTC's expertise in automation, IoT and Big Data analysis has helped companies excel in Industry 4.0.

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Information in this datasheet is subject to change without notice. Equipment specifications should be confirmed with the PTC sales team, your local authorized PTC sales representative or distributor, or the factory prior to purchase.