

# **ABOUT PTC**

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

A US company, globally renowned for its equipment quality and longevity in the micro-ceramic industry, PTC has a footprint in multilayer ceramic components (MLCC) and multi-chip modules (MCM) industries including High and Low-Temperature Co-fired Ceramics (HTCC & LTCC) and solid-state batteries.

Pacific Trinetics' 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.

#### **CONTACT INFORMATION**

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## **ADDRESS**

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PTC Stacker - SA06001



**Image Caption** 



PTC Stacker - MS10001



**Image Caption** 



## **KEY FEATURES**

#### **OVERVIEW**

Automatic mylar remover for thick and thin tapes

Automatic Load/Unload for up to 10 types of tapes

Automatic vision alignment

#### **SOFTWARE**

PTC Specific state of the art user interface
Universal data communication

#### PTC CUTTING-EDGE

Tape rotation and flipping mechanism

Worldwide technical support

High-pressure hydraulic press (Up to 420 kN)

## **OPTIONS**

Automatic Load / Unload Mechanism

Automatic Mylar Remover

Tape flipping mechanism

Vision alignment system

Multiple tape type stack

## **MODELS**

### PTC LTCC Ceramic Stacking System

ST06001 (Up to 6" Tape) ST08001 (Up to 8" Tape)

### **PTC MLCC Ceramic Stacking System**

SA06001 (Up to 6" Tape) MS08002 (Up to 8" Tape) MS10001 (Up to 10" Tape)

# **SPECIFICATIONS**

Stack Thickness	Up to 500 layers or 20 mm
Sheet Size	Up to 10" Tape
Tacking Pressure	Up to 420 kN
Tacking Temperature	Up to 85 °C
Cycle Time	15 s Layer to layer
Vision Alignment	Dual camera to the servo system
Stacking Accuracy	Up to $\pm$ 0.01 mm
Rotation	0 - 360 Degrees
Tape Flipping	80 Degrees
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PTC's Semi-Automatic Stack and Tack System is engineered and built to meet the demanding requirements for the assembly of today's multilayer ceramic components. Its proprietary software and vision alignment system ensure stacking accuracy of  $\pm$  10  $\mu$  with maximum stacking thickness of 0.4". The touch screen recipe-driven monitor allows the operator to have full control over tacking temperature and cycle time. The green tape is placed onto the Loading Stage. The stacker is equipped with an optional automatic loading mechanism with the number of cartridges specified by the customer.

# PTC STACKER

The automatic loading mechanism also features a Mylar remover, which removes the Mylar without any interference to the ceramic sheet and places the sheet at the vacuum stage for automatic vision alignment for precise layer-to-layer placement. High-speed robotic actuators combined with vacuum technology ensure a fast and smooth operation of the loading mechanism. Fully configurable sequencing of robotic arm picks up from cartridges by touch screen HMI enables the user to place any number of sheets in any of the cartridges with ease. Higher safety mechanisms are also accomplished by additional measures such as static eliminators, raster switches, and other cutting edge technologies.