



# Automated Mini-Cuke Packer

The increasing popularity of mini vegetables makes them attractive to growers although packaging can be labour intensive, impacting margins.

The new automated mini-cuke packer manufactured by [CMP Automation](#) (CMP) and designed by CMP in cooperation with [Vineland Research and Innovation Centre](#) (Vineland) benefits greenhouse suppliers by significantly reducing the amount of labour required in loading mini cukes on trays.

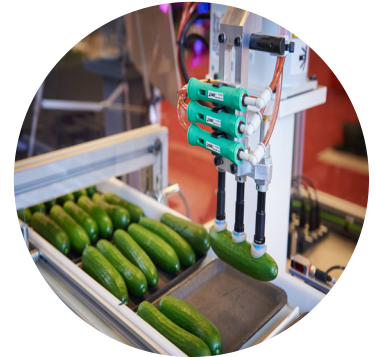
The unit harnesses modern and cost-effective technology including machine vision and pick-and-place robotics, to place mini-cukes on trays while ensuring consistent speed and quality.

## Standard features

- #2S tray magazine with 150-tray capacity
- 300 (six-count) tray per hour per robot (throughput scales with additional robots)
- FDA food grade materials used where needed
- Easy access to internal components for tray loading/cleaning
- Industrial grade components for long life
- Minimal maintenance requirements
- Compact footprint - minimum 44" x 56". Actual size to be determined based on throughput and site requirements
- Minimal power and air requirements

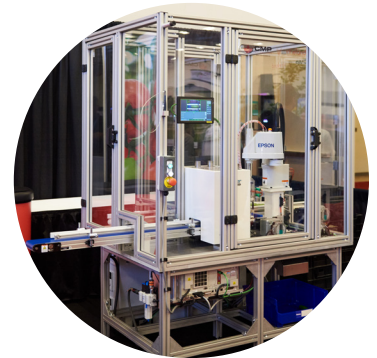
## Options

- Varying tray sizes or materials
- Higher throughput
- Bulk loader/hopper
- Machine vision analysis of length, width and stem/flower ends
- Mini-cuke reject based on user adjustable pass/fail criteria for length, width and curvature
- Touch screen for control and monitoring of vision system



View 1

Automated mini-cuke packer



View 2

Automated mini-cuke packer



Optional bulk loader/hopper



### **Increased scalability and quick payback**

- Scalable in increments of 300 (six-count) trays per hour, the automated mini-cuke packer can be tailored to meet the needs of small to large operations
- Compared to a single, high throughput machine requiring a large initial capital investment, CMP's scalable solution allows for expansion over time
- Payback is typically two years, depending on options and capacity of the unit

### **Leverage existing grader or all-in-one solution**

- For facilities with existing sorters/graders, the unit can be fitted to packing stations. Flexibility is maintained through a hybrid line for:
  - automatic loading of high-running tray sizes at some stations
  - manual hand-packaging of off-grade, low-running tray sizes, bags and boxes at other stations
- A bulk loader/hopper option is available for facilities without an existing grader, or requiring an intermediate accumulation stage. The bulk-loader facilitates dumping of mini-cukes into the hopper which then feed into the packing stage

### **Functionality**

- The direction of curvature of each mini-cuke is identified using machine vision technology. The pick-and-place robot then rotates each cucumber prior to placing it on the tray. With the enhanced vision add-on option, mini-cukes are analyzed for length and diameter with the ability to reject those not meeting specifications
- For mini-cukes without curvature, the stem/flower end of each is identified and may be used to align the mini-cukes on the tray. An optional user-friendly touch screen allows for the setup of pass/fail dimensions and alignment mode and adds the ability to view/recall historical visual, dimensional and pass/fail data

### **Service and reliability**

- Industrial grade components and FDA food grade materials (where necessary) are used in the construction of the unit to ensure a durable and reliable operation
- CMP visits each client facility to conduct an analysis of the packing area and workflow to generate an optimal solution. To ensure compliance with health and safety standards, a pre-start health and safety review (PSHSR) is conducted prior to leaving the factory with a report included on delivery

### **For more information, contact CMP Automation**

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