

## MESH Automation Cell

### MACPac Technical Data Sheet



The **MACPac** (MESH Automation Cell for case opening and filling) is a professional grade, pre-engineered, robotic-based flexible automation cell. The **MACPac** is designed for case forming, filling and sealing in a highly flexible manner. Designed for quick change and often push button change overs with good through put and a robust build, perfect for short run production of a wide array of products.

The pre-engineered features and options make for a great value with quick deliveries, while also allowing for easy size and layout customization.

This third generation of design has been fine tuned to provide a service life of greater than 15 years, unparalleled fit and finish, modern globally available hardware, precision design for product repeatability, low process variability and no tool changeovers of less than 10 minutes.

| MODEL                           | MACPac Max   | MACPac Mini                                      |
|---------------------------------|--|--|
| Case size maximum (L x W x H)   | 24" x 18" x 20"  | 14" x 12" x 12"                                  |
| Case size minimum (L x W x H)   | 14" x 12" x 12"  | 6" x 6" x 6" (crush limit of 32#)                |
| Footprint incl top taper        | 144" w x 220" l  | 124" w x 200" l                                  |
| Case feeding                    | Horizontal near the ground forklift accessible, live bottom  | Horizontal with 10 degree slope for gravity feed |
| Case capacity                   | Full pallet of cases 48"   | 40"  |
| Robot payload maximum           | 50kg   | 20kg   |
| Robot brand                     | ABB, Fanuc and Yaskawa   |  |
| Case forming speed max          | 15 cases per minute  |  |
| Case filling max                | 15 round trips per minute. Robot transfer speed is dependent on the product physical characteristics. Unwieldy products may have a slower speed. |  |
| Bottom closure system           | 2.0" wide tape   |  |
| Top closure system              | 2.0" wide tape   |  |
| Changeover                      | No tool, pushbutton recipe driven from the HMI. Bar code scan is optional  |  |
| Changeover speed                | 10 minutes or less with one operator.  |  |
| Operating environment           | Designed for a harsh environment – dusty with occasional fluids present  |  |
| Material handling input         | Configured for belt, roller, or plastic chain conveyor – single or multilane depending on product.   |  |
| Case handling output            | Roller conveyor – minimal back pressure  |  |
| Safety                          | Fully Compliant with ISO 12100 and ANSI/RIA R15.06-2012 safety standards. ABB Safemove II, Fanuc DCS or Yaskawa Motoman FSU                      |  |
| Machine color                   | RAL 9003 or customer spec  |  |
| Guarding Type                   | Mesh fencing with access doors protected by solenoid locking safety switches   |  |
| High Voltage Controls           | Segregated high voltage power distribution panel   |  |
| Low Voltage Controls (Rockwell) | Rockwell MicroLogix, Dual Ethernet, Safety PLC   |  |
| Low Voltage Controls (Siemens)  | Siemens S7 1200F dual Profinet, Safety PLC   |  |
| HMI (Rockwell)                  | PanelView Plus 7, Touch Screen, 10.4 inches  |  |
| HMI (Siemens)                   | SIMATIC TP900, 9 inches  |  |
| Connections                     | Electrical: 460VAC, 30Amp, Pneumatic: 85psi min.   |  |
| Process camera packages         | CCTV camera with TV or industrial monitor mounted to the outside of the cell. Available as an option   |  |
| Industry 4.0 data packages      | Available as an option   |  |
| Random Picking from Conveyor    | Cognex or Keyence 2mp camera to locate a product position for robot picking. Available as an option  |  |
| Custom Material Handling        | Complete conveyor packages for infeed and outfeed. Available as an option  |  |

## ▪ Optional “bolt on” Process Modules

- Slip sheet dispenser with automatic pick and place into opened case
- Insert dispenser with automatic pick and place into opened case
- Ink jet printing
  - Date code only
  - Full feature – bar code and Text
  - Print verification using vision
- Labeling of the filled case
  - Label application
  - Label print and apply
  - Label verification of print
- Servo based push button change-over package

