

# F4000N ELITE Series 3-Axis Robot

Fisnar F4000N Elite 3-axis benchtop robots are designed to offer the highest level of precise automated fluid placement and positioning.

The CCD camera vision system and laser height sensor result in the system being able to automatically adjust for changes in part position/orientation and height.\*

Specifically built for fluid dispensing processes, the F4000 proprietary robot vision software is user friendly and enables the set-up and running of complex dispensing routines to be created easily.

The additional auxiliary camera allows for real-time viewing, image capturing, and recording of the dispense path.

Additional functionality features such as CAD import and an offline measuring tool further improve the users control of the dispensing process.

The F4000 ELITE can be supplied individually or as a complete stand-alone machine by integrating into a safety enclosure.\*\*

*\*Laser Height Sensor included with -IL and -LK models only.*

*\*\*Required to conform to European CE safety regulations (Machinery Directive 2006/42/EC).*



## Features

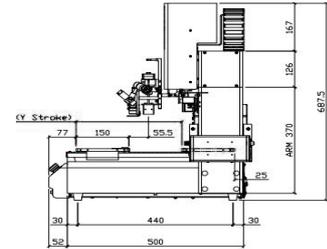
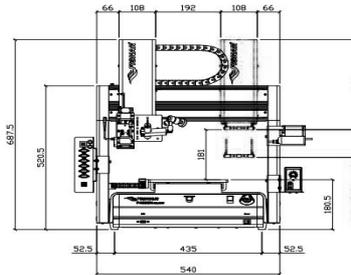
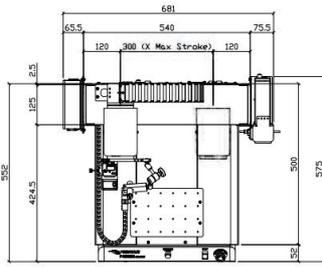
- Dual Linear Guide and ball screw mechanism
- Servomotor drive control with closed loop encoder feedback
- CCD camera vision & PC kit with automated tip-alignment
- Keyence Laser Height Detect Kit (-LK version for detection of transparent or highly reflective surfaces)\*
- Fiducial Recognition System
- Real-time preview & recording of dispense cycle path
- Additional Process Functionality tools - CAD import, measuring & image capture/recording

## Benefits

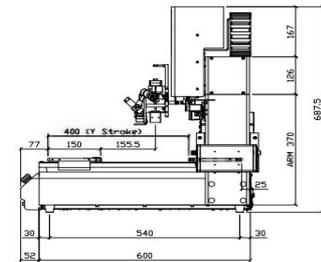
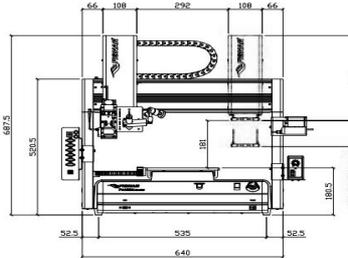
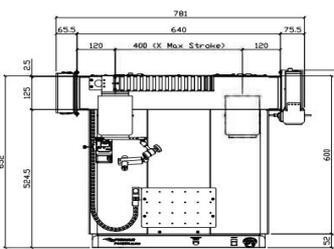
- Highest level of positional repeatability +/-0.003 mm improves dispense results
- Proprietary user-friendly camera vision software ensures a quicker and easier learning curve for users to set-up dispense programs
- Laser Height Sensor scans dispense surface and automatically adjusts height to maintain consistent clearance between dispense tip and substrate\*
- More precise and accurate dispense results regardless of dimensional variations of component parts
- Improved process control and quality due to additional software functionality tools

# F4000N ELITE Series 3-Axis Robot

## F4303N ELITE / F4303N-IL ELITE / F4303N-LK ELITE



## F4403N ELITE / F4403N-IL ELITE / F4403N-LK ELITE



## Specifications

| Item Number          | F4303N ELITE<br>F4303N-IL ELITE<br>F4303N-LK ELITE | F4403N ELITE<br>F4403N-IL ELITE<br>F4403N-LK ELITE |
|----------------------|--|--|
| Working Area (X/Y/Z) | 300 x 300 x 100 mm                                 | 400 x 400 x 100 mm                                 |
| Max Speed (X&Y/Z)    | 800 / 250 mm / secs                                | 800 / 250 mm / secs                                |
| Work Load            | 25 kg (55 lbs)                                     | 25 kg (55 lbs)                                     |
| Tool Load (Z-Axis)   | 6 kg (13 lbs)                                      | 6 kg (13 lbs)                                      |
| Repeatability        | +/- 0.003 mm / axis***                             | +/- 0.003 mm / axis***                             |
| Motion Control       | PTP & CP   | PTP & CP   |
| Drive Mechanism      | Dual linear guide/ ball screw                      | Dual linear guide/ ball screw                      |
| Drive System         | Servo Motor  | Servo Motor  |
| Data Memory          | PC Storage   | PC Storage   |
| I/O Signals (NPN)    | 8 inputs / 8 outputs                               | 8 inputs / 8 outputs                               |
| External Interface   | USB / RS232  | USB / RS232  |
| Power Supply         | Auto-switching AC<br>100 - 240 VAC, 320 watts      | Auto-switching AC<br>100 - 240 VAC, 320 watts      |
| Dimensions (W/D/H)   | 681 x 575 x 687.5 mm<br>(27 x 23 x 27")            | 781 x 675 x 687.5 mm<br>(31 x 26.5 x 27")          |
| Weight               | 49 kg (108 lb)                                     | 54 kg (119 lb)                                     |
| Approvals            | CE, RoHS, WEE                                      | CE, RoHS, WEE                                      |

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\*\*\*Repeatability value will vary depending on measurement method.