

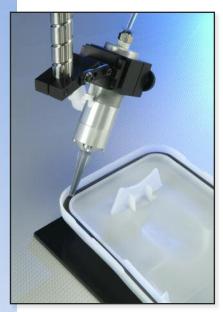
## Robotics



**Dispensing Automation** 

## Index









1 Introducing Advances in Robotics

#### 2-5 Optima Series Benchtop Robots

F7300N 3 & 4 Axes 300 x 300mm Work Area F7400N 3 & 4 Axes 400 x 400mm Work Area F7000NV *Optima* Series Vision System F7900N 3 Axes 200 x 200mm Work Area

#### 6-10 Plus Series Benchtop Robots

F4300N 3 Axes 300 x 300mm Work Area F4400N 3 Axes 400 x 400mm Work Area F4500N 3 Axes 500 x 500mm Work Area F4200N 3 Axes 200 x 200mm Work Area F5200N UNITOP<sup>™</sup> 200 x 200mm Work Area

**11-13** *Exacta* Series Benchtop Robots F3300N 3 & 4 Axes 300 x 300mm Work Area F3400N 3 & 4 Axes 400 x 400mm Work Area F3000N 3 Axes Dual Table

#### 14-17 Lotus Series Benchtop Robots

F2200N 3 & 4 Axes 200 x 200mm Work Area F2300N 3 & 4 Axes 300 x 320mm Work Area F2400N 3 & 4 Axes 400 x 400mm Work Area F2500N 3 & 4 Axes 510 x 510mm Work Area

#### 18-21 Gantry Series Robots

F9300N 3 & 4 Axes 300 x 300mm Work Area F9600N 3 & 4 Axes 600 x 600mm Work Area F9800N 3 & 4 Axes 800 x 600mm Work Area F9250N 3 & 4 Axes - Solar Industry Standard

#### 22-23 Cantilever Series Robots

F8800N 3 & 4 Axes 800 x 600mm Work Area F8100N 3 & 4 Axes 1000 x 800mm Work Area

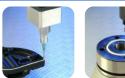
#### 24 SCARA Robot

F2004N 4 Axes 300 x 300 Work Area

#### 25 Benchtop Rotary and Z-Axis Systems

RT404 - Rotary dispense system 0-900° circles Z620 - Z-Axis Dispense System 50mm Vertical Travel

## **Introducing Advances in Robotics**





#### Features

- Dots, lines, circles & arcs
- Simple programming
- Three and four axes models
- Suitable for a wide range of dispensing
- Interpolates in all axes
- CE and RoHS compliant Robots

#### F7000N Benchtop - Optima - Series including Vision System

Introducing the enhanced 32 bit F7000N series with upgraded features. These systems offer improved speed, reliability and performance. F7000N *Optima* robots are available in three and four axes models, together with vision options for three axes systems. Fisnar robots interpolate lines and curves in all axes. Robots are equipped with an easy-to-use teach pendant for simple programming using Fisnar proven user-friendly software, providing simple prompts that enable a program to be operational within minutes.

#### F4000N & F5000N Benchtop - Plus - Series

An excellent value benchtop robot series with a proven record of accuracy and reliability. The *Plus* series includes upgraded components that result in a quieter and more efficient operation. Programs are stored on board and a USB drive is provided for easy program transfer and off-robot storage. F4000N & F5000N robots are equipped with an easy-to-use teach pendant for simple programming using Fisnar proven user-friendly software, providing simple prompts that enable a program to be operational within minutes.

#### F3000N Benchtop - Exacta - Series - Servo Ball Screw Drives - Heavy Duty

Highly accurate, closed-loop positioning robots with ball-screw drives. Manufactured for low vibration and rugged operating efficiency. The new robust F3000N *Exacta* series include proven servo drive technology. Closed-loop technology provides fail safe operation. Programs are stored on board the robot but may be uploaded and downloaded by RS232 port. F3000N robots are equipped with an easy-to-use teach pendant for simple programming using Fisnar proven user-friendly software, providing simple prompts that enable a program to be operational within minutes.

#### F2000N Benchtop - Lotus - Series

The original benchtop series robots offer superior I/O electronics and enhanced programming software. Robots are equipped with a teach pendant for simple programming. Programs are stored on board the robot; alternatively an optional software package allows programming, editing and storage off line. Robots are available in CE and non CE models.

#### F9000N & F8000N Gantry & Cantilever Series

Gantry and Cantilever designs have several distinguishable uses - conveyorized production lines, spray applications and applications requiring heavier dispensing systems such as Meter & Mixing two-part equipment, Hot Melt systems and custom sizes with longer Z axis reach. They are particularly suited to the Solar assembly industry as these robots can be manufactured to any required size. Standard sizes are featured in this brochure. F9000N and F8000N robots are equipped with an easy-to-use teach pendant for simple programming. Optional bar coded identity software is available.

#### F2004N SCARA Robot - Selective Compliance Assembly Robot Arm

A high speed industrial SCARA robot, ideal for high volume dispensing and pick & place applications requiring greater flexibility for automated manufacturing environments, including conveyors and work cells. The F2000N robot is equipped with an easy-to-use teach pendant for simple programming using Fisnar proven user-friendly software, providing simple prompts that enable a program to be operational within minutes.

#### RT404 & Z620 Benchtop Rotary table and Z-Axis Dispense Systems

The RT404 is a rugged semi-automatic, dual-head rotary dispensing table, designed for either foot pedal or hand operated control. Dispensing valves or syringes maybe mounted on the two heads and angled so that they can dispense circular beads either inside or outside an object. The Z620 Z-Aaxis motion system ideal solution for repetitive filling, potting and other dispensing operations requiring a simple up and down operation.

## F7300N - 3 & 4 Axes

# Optima



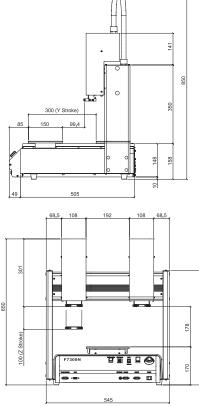


#### Features

- Ideal for form-in-place gaskets, adhesives, potting, coating and filling
- High Resolution 0.001mm
- · Performs continuous path and point-to-point motions
- · Quick fluid-purge button located on front panel
- Software tip alignment routine for quick program offsets when changing dispensing tips
- Step-and-repeat functions program one object only for multiple identical objects
- On board 100 programs, 5 million point memory capacity, 50,000 points per program
- USB connector allows system updates and program interchange between robots
- Available without Teach Pendant for multiple installations.

The model F7300N is a RoHS compliant upgrade to the popular 11.81" x 11.81" (300 x 300mm) benchtop robot. This internationally accepted robot maintains the compact style and functionality of design, providing a precision multiple axis robot ideal for many bench dispensing projects. Resolution is 1 micron and interpolation is in all axes. The F7300N has been engineered to accept a tool weight of up to 5kg and a worktable load of 10kg, making the system tough enough for a wide range of automated dispensing applications.

#### Dimensions



#### Model

F7300N F7304N

#### Accessories (optional)

562008C	External start box
DSP501N	Dispenser
F7000N-WIN	Windows <sup>®</sup> software package

Robot 3-axes 110/220V

Robot 4-axes 110/220V

#### **Specifications**

X/Y/Z Work area (mm):	300 / 300 / 100 4th axis +/- 360°
Worktable load / Tool:	10 kg. / 5 kg.
Max. Speed X&Y / Z:	800 / 320 (mm/sec)
Repeatability:	+/- 0.02mm/ Axis
Resolution:	0.001mm/ Axis
Data Memory:	100 Programs 50,000 points / program
Processor:	32 Bit
Drive Sys. / Stepping motor:	5-phase micro stepping motor
Motion Control:	PTP & CP
Teaching Method:	Teach Pendant
I/O signals:	8 inputs / 8 outputs
External Interface:	USB / RS232
Power Supply:	Auto-switching AC100-240 - 300 Watts
Dimensions (WxDxH):	545 x 554 x 850
Weight:	82.5 lbs (37.5 kg)

508

## F7400N - 3 & 4 Axes







#### Features

- Ideal for form-in-place gaskets, adhesives, potting, coating and filling
- High Resolution 0.001mm
- Performs continuous path and point-to-point motions.
- · Quick fluid-purge button located on front panel
- Software tip alignment routine for quick program offsets when changing dispensing tips
- Step-and-repeat functions program one object only for multiple identical objects
- On board 100 programs, 5 million point memory capacity, 50,000 points per program
- USB connector allows system updates and program interchange between robots
- Available without Teach Pendant for multiple installations



The model F7400N dispensing robot has the largest working area in the F7000N series at 15.75" x 15.75" (400 x 400mm). Fisnar Inc. robots interpolate in all axes for 3D dispensing of adhesives, silicones and UV Cure resins. It is also possible to mount a vacuum pick and place system coupled with automatic dispensing equipment for dispense and place operations. Resolution is 1 micron and interpolation is in all axes. The F7400N has been engineered to accept a tool weight of up to 5kg and a worktable load of 10kg, making the system tough enough for a wide range of automated dispensing applications.

#### Model

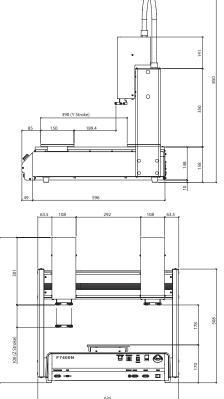
F7400N F7404N Robot 3-axes 110/220V Robot 4-axes 110/220V

#### Accessories (optional)

562008C	External start box
DSP501N	Dispenser
F7000N-WIN	Windows <sup>®</sup> software package

X/Y/Z Work area (mm):	400 / 400 / 100 4th axis +/- 360°
Worktable load / Tool:	10 kg. / 5 kg.
Max. Speed X&Y / Z:	800 / 320 (mm/sec)
Repeatability:	+/- 0.02mm/ Axis
Resolution:	0.001mm/ Axis
Data Memory:	100 Programs 50,000 points / program
Processor:	32 Bit
Drive Sys. / Stepping motor:	5-phase micro stepping motor
Motion Control:	PTP & CP
Teaching Method:	Teach Pendant
I/O signals:	8 inputs / 8 outputs
External Interface:	USB / RS232
Power Supply:	Auto-switching AC100-240 - 300 Watts
Dimensions (WxDxH):	635 x 645 x 850





## F7000NV - Series Vision System

#### With Program Auto Alignment Function

#### **Features**

- · Auto Aligns to within 5mm of workpiece offset
- Ideal for irregular dispensing route per component
- High Resolution 0.001mm
- · Automatic offset of dispensing route
- Precision operation
- Increased production efficiency
- Touch screen programming
- Preview simulation of dispense route
- Auto offset of coordinates after tip change
- · Edit programs directly easy learn fast response
- · CAD DXF and Excel accepted
- Optional LED light accessories for light conditions



#### Model (complete system)

F7300NV F7400NV 3-axes Robot 300x300mm 110/220V CE 3-axes Robot 400x400mm 110/220V CE

#### Accessories (optional)

DSP501N

Dispenser







#### Detail

Touch screen programming with simulation preview.

#### Vision system includes:

- Robot 3 axes optional 300 x 300mm or 400 x 400mm
- Touch screen PC
- Software
- Color camera
- Camera control
- Exlite Cognate in-sight white LED
- CCD conversion ring (5.20.40.60mm)
- CCD fixture, LSC light fixture, control system fixture
- Frame capture dongle USB, extended line, LAN cable

The vision system is supplied complete including the PC, ensuring all components are compatible, thereby eliminating any costly start-up issues and reducing the learning curve.

The system is designed to provide automatic dispensing program offsets when the dispensing path of a component cannot be guaranteed.

Accepts CAD, DXF and Excel formats for dispense paths. Commonly two fiducial points are used to provide program offsets, however one is also possible.

Optional LED's may be required depending on refractive surface.



X/Y/Z Work area (mm):	300 / 300 / 100 or 400 / 400 / 100
Vision Software:	Robot Vision
System Operation:	Touch Screen Computer (All in One)
Camera:	USB Color Camera
Interface Port:	LAN
Frame Grabber:	USB Dongle
Light System:	EXLITE Cognate In-Sight White LED
Lens:	4x, (2x, 3x optional)
CCD Conversion Rings:	5 / 20 / 40 / 60mm
Teaching Method:	1. PC Software, 2. Screen Touch
Software Function:	<ol> <li>Program Edit, 2. Auto Vision Align,</li> <li>Accept DXF Files</li> </ol>

#### (973) 646-5044

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#### Working Area 200 x 200mm

- High resolution 0.02mm
- On board 100 programs, 400,000 point memory capacity, 4,000 points per program
- · Performs continuous path and point-to-point motions
- Quick fluid-purge button located on front panel
- Software tip alignment routine for quick program offsets when changing dispensing tips
- Step-and-repeat functions program one object only for multiple identical objects
- Ideal for form-in-place gaskets, adhesives, potting, coating and filling
- USB connector allows system updates and program interchange between robots by flash memory card
- Available without Teach Pendant for multiple installations

A powerful compact-sized desktop robot with a working area of 7.87" x 7.87" (200 x 200mm). Its reduced benchtop footprint makes it an ideal robot for automating a current manual dispensing application.

Programming is carried out by a teach-pendant (included) using the industry's leading dispensing software that walks the user through step-by-step instructions to create a sophisticated dispensing operation in minutes.

#### Model

F7900N

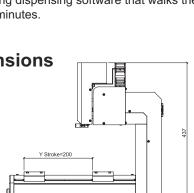
3-axes robot 110/220V

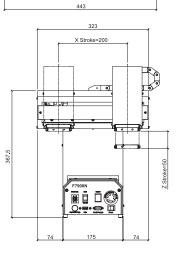
#### Accessories (optional)

562008C	External start box
DSP501N	Dispenser
F7000N-WIN	Windows® software package

X/Y/Z Work area (mm):	200 / 200 / 50
Worktable load / Tool:	3 kg. / 1 kg.
Max. Speed X&Y / Z:	500 / 250 (mm/sec)
Repeatability:	+/- 0.04mm/ Axis
Resolution:	0.02mm/ Axis
Data Memory:	100 Program 4,000 points / program
Drive Sys. / Stepping motor:	3-phase
Motion Control:	PTP & CP
Teaching Method:	Teach Pendant
I/O signals:	4 inputs / 4 outputs
External Interface:	USB / RS232
Power Supply:	AC 95-132V - AC 180-250V
Dimensions (WxDxH):	323 x 443 x 437
Weight:	22 lbs (10 kg)







## F4300N - 3 Axes

## Plus

#### Working Area 300 x 300mm





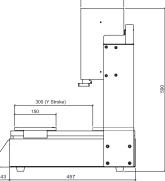
#### Features

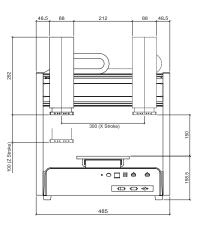
- High resolution 0.001mm
- On board 100 programs, 400,000 point memory capacity, 4,000 points per program
- · Performs continuous path and point-to-point motions
- · Quick fluid-purge button located on front panel
- Software tip alignment routine for quick program offsets when changing dispensing tips
- Step-and-repeat functions program one object only for multiple identical objects
- Ideal for form-in-place gaskets, adhesives, potting, coating and filling
- Available without Teach Pendant for multiple installations
- USB connector allows system updates and program interchange between robots

A powerful compact-sized desktop robot with a working area of 11.81" x11.81" (300 x 300mm). Its reduced benchtop footprint makes it an ideal robot for automating a current manual dispensing application. Programming is carried out by a teach-pendant (included) using the industry's leading dispensing software that walks the user

through step-by-step instructions to create a sophisticated dispensing operation in minutes.

Dimensions





Model F4300N

Robot 3-axes 110/220V

#### Accessories (optional)

562008C
DSP501N
F4000N-WIN

External start box Dispenser Windows<sup>®</sup> software package

X/Y/Z Work area (mm):	300 / 300 / 100
Worktable load / Tool:	10 kg. / 5 kg.
Max. Speed X&Y / Z:	800 / 320 (mm/sec)
Repeatability:	+/- 0.02mm/ Axis
Resolution:	0.001mm/ Axis
Data Memory:	100 Programs 4,000 points / program
Drive Sys. / Stepping motor:	3-phase
Motion Control:	PTP & CP
Teaching Method:	Teach Pendant
I/O signals:	8 inputs / 8 outputs
External Interface:	USB / RS232
Power Supply:	AC 95-132V, AC 180-250V
Dimensions (WxDxH):	485 x 500 x 590
Weight:	66 lbs (30 kg)

## F4400N - 3 Axes

#### Working Area 400 x 400mm







#### Features

- Ideal for form-in-place gaskets, adhesives, potting, coating and filling
- High resolution 0.001mm
- Performs continuous path and point-to-point motions
- Quick fluid-purge button located on front panel
- Software tip alignment routine for quick program offsets when changing dispensing tips
- Step-and-repeat functions program one object only for multiple identical objects
- On board 100 programs, 400,000 point memory capacity, 4,000 points per program
- Available without Teach Pendant for multiple installations
- USB connector allows system updates and program interchange between robots



The model F4400N provides a generous working area of 15.75" x 15.75" (400 x 400mm). Fisnar robots interpolate in all axes for 3D dispensing of adhesives, silicones and UV Cure resins.

Resolution is 1 micron and interpolation is in all axes. The F4400N has been engineered to accept a tool weight of up to 5kg and a worktable load of 10kg, making the system tough enough for a wide range of automated dispensing applications.

#### Model

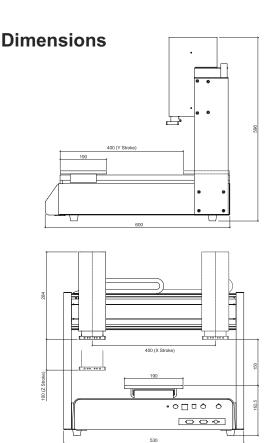
F4400N

Robot 3-axes 110/220V

#### Accessories (optional)

562008C	External start box
DSP501N	Dispenser
F4000N-WIN	$Windows^{\scriptscriptstyle (\! 8\!)}  software  package$

X/Y/Z Work area (mm):	400 / 400 / 100
Worktable load / Tool:	10 kg. / 5 kg.
Max. Speed X&Y / Z:	800 / 320 (mm/sec)
Repeatability:	+/- 0.02mm/ Axis
Resolution:	0.001mm/ Axis
Data Memory:	100 Programs 4,000 points / program
Drive Sys. / Stepping motor:	3-phase
Motion Control:	PTP & CP
Teaching Method:	Teach Pendant
I/O signals:	8 inputs / 8 outputs
External Interface:	USB / RS232
Power Supply:	AC 95-132V, AC 180-250V
Dimensions (WxDxH):	530 x 600 x 596
Weight:	88 lbs (40 kg)



## F4500N - 3 Axes

#### Working Area 500 x 500mm



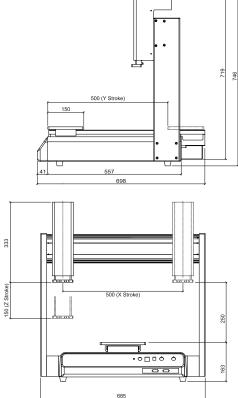


#### Features

- High resolution 0.001mm
- On board 100 programs, 400,000 point memory capacity, 4,000 points per program
- · Performs continuous path and point-to-point motions
- · Quick fluid-purge button located on front panel
- Software tip alignment routine for quick program offsets when changing dispensing tips
- Step-and-repeat functions program one object only for multiple identical objects
- Ideal for form-in-place gaskets, adhesives, potting, coating and filling
- Available without Teach Pendant for multiple installations
- USB connector allows system updates and program interchange between robots

A powerful and optimum sized benchtop robot with a working area of 19.68" x19.68" (500 x 500mm) and extra Z reach of 5.90" (150mm). Ideal for large non contiguous structures and for larger dispensing equipment or apparatus. The F4500N is suitable for plasma treatment applications prior to dispensing. Programming is carried out by a teach-pendant (included) using the industry's leading dispensing software that walks the user through step-by-step instructions to create a sophisticated dispensing operation in minutes.

#### Dimensions



#### Model F4500N

Robot 3-axes 110/220V CE

#### Accessories (optional)

562008C
DSP501N
F4000N-WIN

External start box Dispenser Windows<sup>®</sup> software package

X/Y/Z Work area (mm):	500 / 500 / 150
Worktable load / Tool:	10 kg. / 5 kg.
Max. Speed X&Y / Z:	800 / 320 (mm/sec)
Repeatability:	+/- 0.02mm/ Axis
Resolution:	0.001mm/ Axis
Data Memory:	100 Programs 4,000 points / program
Drive Sys. / Stepping motor:	3-phase
Motion Control:	PTP & CP
Teaching Method:	Teach Pendant
I/O signals:	8 inputs / 8 outputs
External Interface:	USB / RS232
Power Supply:	AC 95-132V, AC 180-250V
Dimensions (WxDxH):	685 x 698 x 746
Weight:	102 lbs (46 kg)

## F4200N - 3 Axes

Working Area 200 x 200mm

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#### Features

- Ideal for form-in-place gaskets, adhesives, potting, coating and filling
- High resolution 0.001mm
- Performs continuous path and point-to-point motions
- · Quick fluid-purge button located on front panel
- Software tip alignment routine for quick program offsets when changing dispensing tips
- Step-and-repeat functions program one object only for multiple identical objects
- On board 100 programs, 400,000 point memory capacity, 4,000 points per program
- · Available without Teach Pendant for multiple installations

The F4200N is a compact and economically priced benchtop robot. Designed for medical and laboratory type environments requiring a streamlined and easily maintained machine. This robot will support most light dispensing applications that require a high performance standard. The bench space reduction is an additional benefit. Programming is simply carried out by a teachpendant (included) using the industry's leading dispensing software that walks the user through step-by-step instructions to create a sophisticated dispensing operation in minutes.

#### Model

F4200N

Robot 3-axes 200x200mm 110/220V

#### Accessories (optional)

562008C	External start box
DSP501N	Dispenser
F4000N-WIN	Windows <sup>®</sup> software package

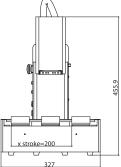
#### Specifications

X/Y/Z Work area (mm):	200 / 200 / 50
Worktable load / Tool:	3 kg. / 1 kg.
Max. Speed X&Y / Z:	500 / 200 (mm/sec)
Repeatability:	+/- 0.02mm/ Axis
Resolution:	0.001mm/ Axis
Data Memory:	100 Programs 4,000 points / program
Drive Sys. / Stepping motor:	3-phase micro stepping motor
Motion Control:	PTP & CP
Teaching Method:	Teach Pendant
I/O signals:	8 inputs / 8 outputs
External Interface:	USB / RS232
Power Supply:	AC 95-132V, AC 180-250V
Dimensions (WxDxH):	327 x 500 x 450
Weight:	33 lbs (14.9 kg)

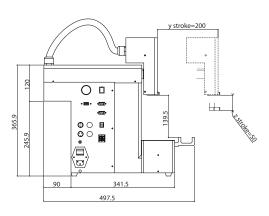


FISNAR

F4200



F4200N



## F5200N - 3 Axes Gantry UNITOP™



Working Area 200 x 200mm



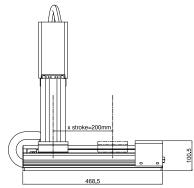
#### **Features**

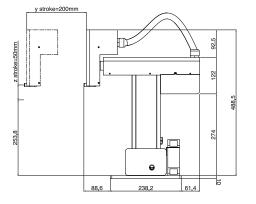
- Ideal for form-in-place gaskets, adhesives, potting, coating and filling
- Place-anywhere UNITOP<sup>™</sup> gantry design, allows flexible operation
- High resolution 0.001mm
- · Performs continuous path and point-to-point motions
- Quick fluid-purge button located on front panel of controller
- Software tip alignment routine for quick program offsets when changing dispensing tips
- Step-and-repeat functions program one object only for multiple identical objects
- On board 100 programs, 400,000 point memory capacity, 4,000 points per program
- Available without Teach Pendant for multiple installations
- USB connector allows system updates and program interchange between robots

The model F5200N is a compact and economically priced gantry robot with all moving axes above the workpiece. The Unitop<sup>™</sup> is suitable for any platform requiring a gantry type mounting providing open access under the robot. The F5200N is also ideal for conveyor fed automation or installed in work cells operating as a slave robot.

Working area is 7.87" x 7.87" (200 x 200mm). Programming is simply carried out by a teach-pendant (included) using the industry's leading dispensing software that walks the user through step-by-step instructions to create a sophisticated dispensing operation in minutes.

#### Dimensions





#### Model

F5200N

Robot UNITOP<sup>™</sup> 3-axes 110/220V CE

#### Accessories (optional)

DSP501N	Dispenser
F4000N-WIN	Windows <sup>®</sup> software package

X/Y/Z Work area (mm):	200 / 200 / 50
Total load - Z axis:	2 kg.
Max. Speed X&Y / Z:	500 / 300 (mm/sec)
Repeatability:	+/- 0.02mm/ Axis
Resolution:	0.001mm/ Axis
Data Memory:	100 Programs 4,000 points / program
Drive Sys. / Stepping motor:	Micro stepping motor
Motion Control:	PTP & CP
Teaching Method:	Teach Pendant
I/O signals:	8 inputs / 8 outputs
External Interface:	USB / RS232
Power Supply:	AC 110 - 220V
Dimensions (WxDxH):	468.5 x 388.2 x 488.5
Weight:	44 lbs (20 kg)

## F3300N - 3 & 4 Axes Servo

Working Area 300 x 300mm







#### Features

- Robust ball-screw servo motor drives
- Ideal for form-in-place gaskets, adhesives, potting, coating and filling
- High resolution 0.001mm
- · Performs continuous path and point-to-point motions
- Quick fluid-purge button located on front panel
- Software tip alignment routine for quick program offsets
   when changing dispensing tips
- Step-and-repeat functions program one object only for multiple identical objects
- On board 100 programs, 1,000 points per program
- Memory capacity, 20,000 steps / 20,000 points



The model F3300N is a RoHS compliant 11.81" x 11.81" (300 x 300mm) benchtop robot. It's servo motor driven ball-screw design enables closed loop operation. A rugged aluminum structure helps prevent vibration while maintaining a compact style and functionality, providing a precision multiple axis robot ideal for many bench dispensing projects. Resolution is 1 micron and interpolation is in all axes. The F3300N has been engineered to accept a tool weight of up to 7kg and 4kg for the 4-axes model with a worktable load of 15 kg, making the system tough enough for a wide range of automated dispensing applications.

#### Model

F3300N F3304N Robot 3-axes 220V Robot 4-axes 220V

#### Accessories (optional)

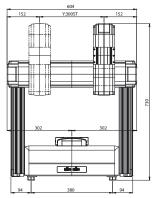
DSP501N

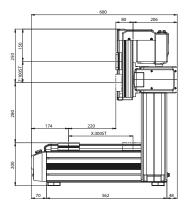
, Dispenser

#### Specifications

X/Y/Z Work area (mm):	300 / 300 / 100	R-axis +/- 360°
Worktable load / Tool:	15 kg. / 7 kg.	R-axis 15 kg. / 4 kg.
Max. Speed X&Y / Z:	500 (mm/sec)	R-axis 360°/sec
Repeatability:	+/- 0.02mm Axis	R-axis +/- 0.11°
Resolution:	0.001mm	
Data Memory:	100 Programs 20,000 step / 20,0	000 pts.
Processor:	Main: 32bit, 1200	Mflops
Drive Sys. / Servo:	3Ø AC Servo Mot	or 16Bit, 40 Mips
Motion Control:	PTP & CP (3D Lir	ne, circle)
Teaching Method:	Teach Pendant	
I/O Signals:	System I/O IN: 4, User I/O IN: 16, C	
External Interface:	RS232-C 2ch	
Power Supply:	AC 220V	
Dimensions (mm) (WxDxH):	604 x 680 x 730	
Weight:	123.2 lbs (56 kg)	

#### Dimensions





## F3400N 3 & 4 - Axes Servo



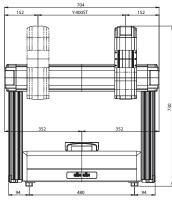


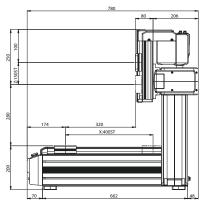
#### **Features**

- · Robust ball-screw servo motor drives
- Ideal for form-in-place gaskets, adhesives, potting, coating and filling
- High resolution 0.001mm
- · Performs continuous path and point-to-point motions
- · Quick fluid-purge button located on front panel
- Software tip alignment routine for quick program offsets when changing dispensing tips
- Step-and-repeat functions program one object only for multiple identical objects
- On board 100 programs, 1,000 points per program
- · Memory capacity, 20,000 steps / 20,000 points

The model F3400N is a RoHS compliant 15.74" x 15.74" (400 x 400mm) benchtop robot. It's servo motor driven ball-screw design enables closed loop operation. A rugged aluminum structure helps prevent vibration while maintaining a compact style and functionality, providing a precision multiple axis robot ideal for many bench dispensing projects. Resolution is 1 micron and interpolation is in all axes. The F3400N has been engineered to accept a tool weight of up to 7kg and 4kg for the 4-axes model with a worktable load of 15 kg, making the system tough enough for a wide range of automated dispensing applications.

#### Dimensions





#### Model

F3400N F3404N

### Robot 4-axes 220V

Robot 3-axes 220V

#### Accessories (optional)

DSP501N

Dispenser

X/Y/Z Work area (mm):	400 / 400 / 150	R-axis +/- 360°
Worktable load / Tool:	15 kg. / 7 kg.	R-axis 15 kg / 4 kg
Max. Speed X&Y / Z:	500 (mm/sec)	R-axis 360°/sec
Repeatability:	+/- 0.02mm Axis	R-axis +/- 0.11°
Resolution:	0.001mm	
Data Memory:	100 Programs 20,000 step / 20,00	00 pts.
Processor:	Main: 32bit, 1200 I	Viflops
Drive Sys. / Servo:	3Ø AC Servo Moto	or 16Bit, 40 Mips
Motion Control:	PTP & CP (3D Line	e, circle)
Teaching Method:	Teach Pendant	
I/O Signals:	System I/O IN: 4, 0 User I/O IN: 16, 0	
External Interface:	RS232-C 2ch	
Power Supply:	AC 220V	
Dimensions (mm) (WxDxH):	704 x 780 x 730	
Weight:	143 lbs (65 kg)	

## F3000N - Dual Station Models







#### Features

- · Dual station operation
- Select from 300mm x 500mm or 400mm x 600mm systems
- · Robust ball-screw servo motor drives
- Ideal for form-in-place gaskets, adhesives, potting, coating and filling
- High resolution 0.001mm
- · Performs continuous path and point-to-point motions
- · Quick fluid-purge button located on front panel
- Software tip alignment routine for quick program offsets when changing dispensing tips
- Step-and-repeat functions program one object only for multiple identical objects
- On board 100 programs, 1,000 points per program
- · Memory capacity, 20,000 steps / 20,000 points



F3000N Exacta 3 axes dual station systems include two independent working areas. Ideal for fast change over of identical parts or two dispensing operations. A servo motor driven ball-screw design enables closed loop operation. A rugged aluminum structure helps prevent vibration while maintaining a compact style and functionality, providing a precision multiple axes robot ideal for many bench dispensing projects. Resolution is 1 micron and interpolation is in all axes. F3000N robots have been engineered to accept a tool weight of up to 7kg and a worktable load of 15 kg, making the F3000N tough enough for a wide range of automated dispensing applications.

#### Model

F3350N	
F3460N	

300 x 500 DS 3-axes 220V 400 x 600 DS 3-axes 220V

Dispenser

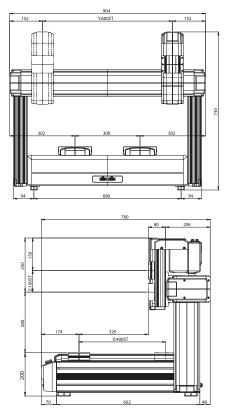
#### Accessories (optional)

DSP501N

#### **Specifications**

W+X/Y/Z Work area (mm):	300 / 300 / 500 / 100 400 / 400 / 600 / 100	
Worktable load / Tool:	15 kg. / 7 kg. + 15	kg. / 7 kg.
Max. Speed All Axes:	500 (mm/sec)	
Repeatability:	+/- 0.02mm Axis	
Resolution:	0.001mm	
Data Memory:	100 Programs 20,000 step / 20,000	) pts.
Processor:	Main: 32bit, 1200 M	flops
Drive Sys. / Servo:	3Ø AC Servo Motor	16Bit, 40 Mips
Motion Control:	PTP & CP (3D Line,	circle)
Teaching Method:	Teach Pendant	
I/O Signals:	System I/O In: 4, Out: 5 User I/O In: 16, Out: 15	
External Interface:	RS232-C 2ch	
Power Supply:	AC 220V	
Dimensions (mm) (WxDxH):	804 x 680 x 730	904 x 780 x 730
Weight:	165 lbs (75 kg)	209 lbs (95 kg)

#### Dimensions (F3460N)



**Dual Operation** 

## F2200N - 3 & 4 Axes



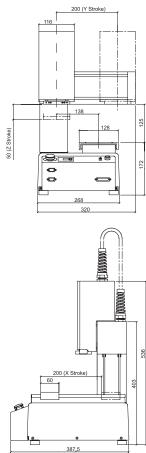


#### Features

- Ideal for form-in-place gaskets, adhesives, potting, coating and filling
- Repeatability 0.006mm for perfect dispensing
- · Performs continuous path and point-to-point motions
- System includes 16 I/O signal interface for connection to tools and controllers
- Software tip alignment routine for quick program offsets when changing dispensing tips
- Step-and-repeat functions program one object only for multiple identical objects
- · On board 255 programs, 30,000 point memory capacity
- · Fast, accurate and reliable 24 hours a day

The model F2200N is extremely economical on bench space, occupying a footprint of only 12.60 x 15.25 inches (320 x 387.5mm). Simple to program using a teach pendant or optional Windows<sup>®</sup> software. This cartesian robot automatically interpolates lines and curves in all axes. The model F2204N also includes a 4th axis for tool rotation. The powerful yet user-friendly software provides simple prompts, allowing programs to be created quickly and easily. It is possible to program and be operational within minutes.

#### Dimensions



#### Model

F2200N-1 F2200N-1CE F2204N-1 F2204N-1CE F2200N-2 F2200N-2CE F2204N-2 F2204N-2 F2204N-2CE Robot 3-axes 110V Robot 3-axes 110V CE Robot 4-axes 110V Robot 4-axes 110V CE Robot 3-axes 220V Robot 3-axes 220V CE Robot 4-axes 220V Robot 4-axes 220V CE

#### Accessories (optional)

DSP501N Dispenser F2000N-WIN Windows<sup>®</sup> software package

-	
X/Y/Z Work area (mm):	200 / 200 / 50 4th axis +/- 360°
Worktable load / Tool:	7 kg. / 3.5 kg.
Max. Speed X&Y / Z:	700 / 250 (mm/sec) 4th axis 600°/sec
Resolution X&Y / Z (mm):	0.005 / 0.0025 4th axis 0.009°
Repeatability:	3-axis: +/- 0.006mm/Axis 4-axis: +/- 0.01mm/Axis, R-axis: 0.004°
Data Memory:	255 Programs, 30,000 Points
PLC:	100 programs, 1000 steps per program
Drive Sys. / Stepping motor:	5-phase stepping motor
Motion Control:	PTP & CP
Teaching Method:	Teach Pendant
I/O signals:	16 inputs / 16 outputs
External Interface:	RS232
Power Supply:	110V: AC 90-132V 220V: AC 180-250V
Dimensions (WxDxH):	3-axis: 320 x 387.5 x 536mm 4-axis: 320 x 387.5 x 655mm
Weight:	3-axis: 39.6 lbs (18 kg) 4-axis: 44 lbs (20 kg)

## F2300N - 3 & 4 Axes







#### Features

- · Ideal for form-in-place gaskets, adhesives, potting, coating and filling
- · Repeatability 0.007mm for perfect dispensing
- · Performs continuous path and point-to-point motions
- System includes 16 I/O signal interface for connection to tools and controllers
- Software tip alignment routine for quick program offsets when changing dispensing tips
- · Step-and-repeat functions program one object only for multiple identical objects
- On board 255 programs, 30,000 point memory capacity
- · Fast, accurate and reliable 24 hours a day



The F2300N is a popular robot in the Cartesian range, with a working area of 11.81 x 12.60 inches (300 x 320mm). The system is easily programmed using a teach pendant or optional Windows® software. This cartesian robot automatically interpolates lines and curves in all axes. The model F2304N also includes a 4th axis for tool rotation. The powerful yet user-friendly software provides simple prompts, allowing programs to be created quickly and easily. It is possible to program and be operational within minutes.

#### Model

F2300N-1 F2300N-1CE F2304N-1 F2304N-1CE F2300N-2 F2300N-2CE F2304N-2 F2304N-2CE

Robot 3-axes 110V Robot 3-axes 110V CE Robot 4-axes 110V Robot 4-axes 110V CE Robot 3-axes 220V Robot 3-axes 220V CE Robot 4-axes 220V Robot 4-axes 220V CE

Windows<sup>®</sup> software package

#### Accessories (optional)

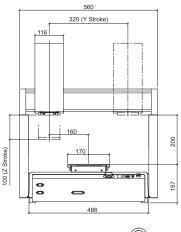
DSP501N F2000N-WIN

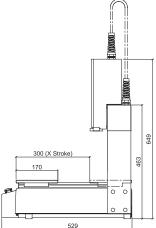
### **Specifications**

•	
X/Y/Z Work area (mm):	300 / 320 / 100 4th axis +/- 360°
Worktable load / Tool:	11 kg. / 6 kg.
Max. Speed X&Y / Z:	800 / 320 (mm/sec) 4th axis 800°/sec
Resolution X&Y / Z (mm):	0.005 / 0.0025 4th axis 0.009°
Repeatability:	3-axis: +/- 0.007mm/Axis 4-axis: +/- 0.01mm/Axis, R-axis: 0.004°
Data Memory:	255 Programs, 30,000 Points
PLC:	100 programs, 1000 steps per program
Drive Sys. / Stepping motor:	5-phase stepping motor
Motion Control:	PTP & CP
Teaching Method:	Teach Pendant
I/O signals:	16 inputs / 16 outputs
External Interface:	RS232
Power Supply:	110V: AC 90-132V 220V: AC 180-250V
Dimensions (WxDxH):	3-axis: 560 x 529 x 649mm 4-axis: 560 x 529 x 840mm
Weight:	3-axis: 77 lbs (35 kg) 4-axis: 79.2 lbs (36 kg)

Dispenser

#### Dimensions





## F2400N - 3 & 4 Axes



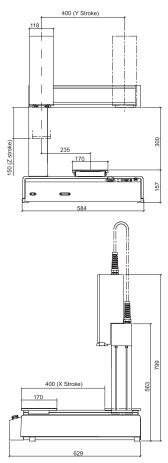


#### Features

- Ideal for form-in-place gaskets, adhesives, potting, coating and filling
- Repeatability 0.007mm for perfect dispensing
- · Performs continuous path and point-to-point motions
- System includes 16 I/O signal interface for connection to tools and controllers
- Software tip alignment routine for quick program offsets when changing dispensing tips
- Step-and-repeat functions program one object only for multiple identical objects
- · On board 255 programs, 30,000 point memory capacity
- · Fast, accurate and reliable 24 hours a day

The F2400N has a work area of 15.75 x 15.75 inches (400 x 400mm), but the footprint is less than 25 inches (629mm) square for mounting on a standard workbench. The system is easily programmed using a teach pendant or optional Windows<sup>®</sup> software. This cartesian robot automatically interpolates lines and curves in all axes. The model F2204N also includes a 4th axis for tool rotation. The powerful yet user-friendly software provides simple prompts, allowing programs to be created quickly and easily. It is possible to program and be operational within minutes.

#### Dimensions



#### Model

F2400N-1 F2400N-1CE F2404N-1 F2404N-1CE F2400N-2 F2400N-2CE F2404N-2 F2404N-2CE Robot 3-axes 110V Robot 3-axes 110V CE Robot 4-axes 110V Robot 4-axes 110V CE Robot 3-axes 220V Robot 3-axes 220V CE Robot 4-axes 220V Robot 4-axes 220V CE

#### Accessories (optional)

DSP501N	Dispenser
F2000N-WIN	Windows <sup>®</sup> software package

#### **Specifications**

X/Y/Z Work area (mm): 400 / 400 / 150 4th axis +/- 360° Worktable load / Tool: 11 kg. / 6 kg. Max. Speed X&Y / Z: 800 / 320(mm/sec) 4th axis 800°/sec 0.005 / 0.0025 4th axis 0.009° Resolution X&Y / Z (mm): 3-axis: +/- 0.007mm/Axis Repeatability: 4-axis: +/- 0.01mm/Axis, R-axis: 0.004° Data Memory: 255 Programs, 30,000 Points PLC: 100 programs, 1000 steps per program Drive Sys. / Stepping motor: 5-phase stepping motor Motion Control: PTP & CP **Teaching Method: Teach Pendant** I/O signals: 16 inputs / 16 outputs RS232 External Interface: 110V: AC 90-132V Power Supply: 220V: AC 180-250V 3-axis: 584 x 629 x 799mm Dimensions (WxDxH): 4-axis: 584 x 629 x 890mm 3-axis: 92.4 lbs (42 kg) 4-axis: 94.6 lbs (43 kg) Weight:

## F2500N - 3 & 4 Axes







#### Features

- · Ideal for form-in-place gaskets, adhesives, potting, coating and filling
- · Repeatability 0.008mm for perfect dispensing
- · Performs continuous path and point-to-point motions
- System includes 16 I/O signal interface for connection to tools and controllers
- Software tip alignment routine for quick program offsets when changing dispensing tips
- · Step-and-repeat functions program one object only for multiple identical objects
- On board 255 programs, 30,000 point memory capacity
- · Fast, accurate and reliable 24 hours a day



The F2500N has a work area of 20.07 x 20.07 inches (510 x 510mm), but the footprint is less than 25 inches (629mm) square for mounting on a standard workbench. The F2500N Cartesian robot is open on one side allowing large objects to be easily handled in and out of the work area. The system automatically interpolates lines and curves in all axes and the model F2504N also includes a 4th axis for tool rotation. The powerful yet user-friendly software provides simple prompts, allowing programs to be created quickly and easily. It is possible to program and be operational within minutes.

#### Model

F2500N-1
F2500N-1CE
F2504N-1
F2504N-1CE
F2500N-2
F2500N-2CE
F2504N-2
F2504N-2CE

Robot 3-axes 110V Robot 3-axes 110V CE Robot 4-axes 110V Robot 4-axes 110V CE Robot 3-axes 220V Robot 3-axes 220V CE Robot 4-axes 220V Robot 4-axes 220V CE

#### Accessories (optional)

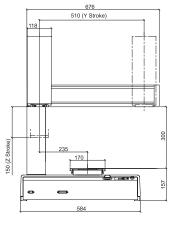
DSP501N F2000N-WIN

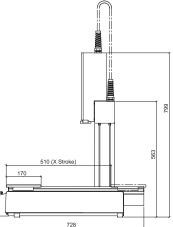
#### Dispenser Windows® software package

#### **Specifications**

X/Y/Z Work area (mm):	510 / 510 / 150 4th axis +/- 360°
Worktable load / Tool:	11 kg. / 6 kg.
Max. Speed X&Y / Z:	800 / 320 (mm/sec) 4th axis 800°/sec
Resolution X&Y / Z (mm):	0.005 / 0.0025 4th axis 0.009°
Repeatability:	3-axis: +/- 0.008mm/Axis 4-axis: +/- 0.01mm/Axis, R-axis: 0.004°
Data Memory:	255 Programs, 30,000 Points
PLC:	100 programs, 1000 steps per program
Drive Sys. / Stepping motor:	5-phase stepping motor
Motion Control:	PTP & CP
Teaching Method:	Teach Pendant
I/O signals:	16 inputs / 16 outputs
External Interface:	RS232
Power Supply:	110V: AC 90-132V 220V: AC 180-250V
Dimensions (WxDxH):	3-axis: 676 x 728 x 799mm 4-axis: 676 x 728 x 890mm
Weight:	3-axis: 94.6 lbs (43 kg) 4-axis: 96.8 lbs (44 kg)

#### **Dimensions**





## F9300N - 3 & 4 Axes Servo Cantilever

# Gantry



Working Area 300 x 300mm



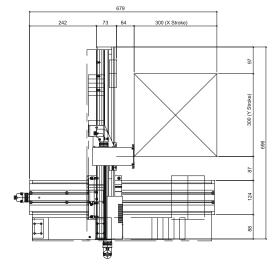


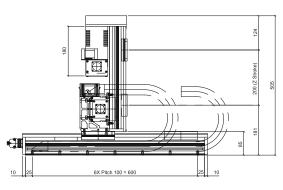
#### **Features**

- Customized sizes available
- · Robust ball-screw servo motor drives
- Ideal for form-in-place gaskets, adhesives, potting, solar junctions, stringers, coating, frame sealing and filling
- Resolution 0.001mm
- · Performs continuous path and point-to-point motions
- · Self contained controller functions
- Software tip alignment routine for quick program offsets when changing dispensing tips
- Step-and-repeat functions program one object only for multiple identical objects
- On board 100 programs
- Max. memory capacity, 20,000 steps / 20,000 points total
- · Optional bar code scanning software

The model F9300N is a RoHS compliant 11.81" x 11.81" (300 x 300mm) gantry cantilever style robot. It's servo motor driven ball-screw design enables closed loop operation. A rugged aluminum structure helps prevent vibration while maintaining a compact style and functionality, providing a precision multiple axis robot ideal for conveyor fed applications, such as solar modules. Many projects also require all moving axes to be above the work station, the F9300N provides that capability. Resolution is 1 micron and interpolation is in all axes. The F9300N has been engineered to accept a tool weight of up to 7kg and 4kg for the 4-axes model.

#### Dimensions





#### Model

F9300N F9304N Robot 3-axes 220V Robot 4-axes 220V

#### Accessories (optional)

DSP501N	Dispenser
F9000N-WIN	Windows® software package

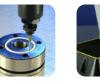
Mounting Supports (two required each side)

Main	Height	Qty
562022-050	50mm	1
562022-100	100mm	1
562022-150	150mm	1

•		
X/Y/Z Work area (mm):	300 / 300 / 200	R-axis +/- 360°
Maximum tool load:	7 kg.	R-axis 1 kg.
Max. Speed X&Y / Z:	1000 / 1000 / 500 R-axis 360°/sec	) (mm/sec)
Repeatability:	+/- 0.02mm/ Axis	R-axis +/- 0.05°
Resolution:	0.001mm	R-axis +/- 0.001°
Data Memory:	100 Programs 20,000 step / 20,0	000 points total
Processor:	Main: 32bit, 900 i	mflops
Drive Sys. / Servo:	3Ø AC Servo Mo	tor 16Bit, 40mips
Motion Control:	PTP & CP (3D Li	ne, circle)
Teaching Method:	Teach Pendant	
I/O Signals:	System I/O IN: 24 User I/O IN: 32, 0	
External Interface:	RS232	
Power Supply:	1Ø AC220V - 50	00VA (600VA)
Dimensions (WxDxH):	679 x 696 x 505	
Weight:	63.8 lbs (29 kg)	

## F9600N - 3 & 4 Axes Servo Gantry







#### **Features**

- Customized sizes available
- · Robust ball-screw servo motor drives
- Ideal for form-in-place gaskets, adhesives, potting, solar junctions, stringers, coating, frame sealing and filling
- Resolution 0.001mm
- · Performs continuous path and point-to-point motions
- Self contained controller functions
- Software tip alignment routine for quick program offsets when changing dispensing tips
- Step-and-repeat functions program one object only for multiple identical objects
- On board 100 programs
- · Max. memory capacity, 20,000 steps / 20,000 points total
- · Optional bar code scanning software

The model F9600N is a RoHS compliant 23.62" x 23.62" (600 x 600mm) gantry style robot. It's servo motor driven ball-screw design enables closed loop operation. A rugged aluminum structure helps prevent vibration while maintaining a compact style and functionality, providing a precision multiple axis robot ideal for conveyor fed applications, such as solar modules. Many projects also require all moving axes to be above the work station, the F9600N provides that capability. Resolution is 1 micron and interpolation is in all axes. The F9600N has been engineered to accept a tool weight of up to 7kg and 4kg for the 4-axes model.

#### Model

F9600NRobot 3-axes 220VF9604NRobot 4-axes 220V

#### Accessories (optional)

DSP501N	Dispenser
F9000N-WIN	Windows <sup>®</sup> software package

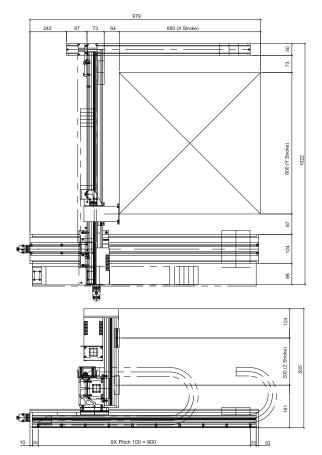
Mounting Supports (two required each side)

Main (Left Side)	Idle (Right Side)	Height	Qty
562022-050	562023-050	50mm	1
562022-100	562023-100	100mm	1
562022-150	562023-150	150mm	1

#### **Specifications**

X/Y/Z Work area (mm):	600 / 600 / 200	R-axis +/- 360°
Maximum tool load:	7 kg.	R-axis 1 kg.
Max. Speed X&Y / Z:	1000 / 1000 / 500 R-axis 360°/sec	(mm/sec)
Repeatability:	+/- 0.02mm/ Axis	R-axis +/- 0.05°
Resolution:	0.001mm	R-axis +/- 0.001°
Data Memory:	100 Programs 20,000 step / 20,00	00 points total
Processor:	Main: 32bit, 900 m	iflops
Drive Sys. / Servo:	3Ø AC Servo Moto	or 16Bit, 40mips
Motion Control:	PTP & CP (3D Lin	e, circle)
Teaching Method:	Teach Pendant	
I/O Signals:	System I/O IN: 24, User I/O IN: 32, O	
External Interface:	RS232	
Power Supply:	1Ø AC220V - 500	)VA (600VA)
Dimensions (WxDxH):	979 x 1022 x 505	
Weight:	81.4 lbs (37 kg)	

#### Dimensions



Working Area 600 x 600mm

## F9800N - 3 & 4 Axes Servo Gantry







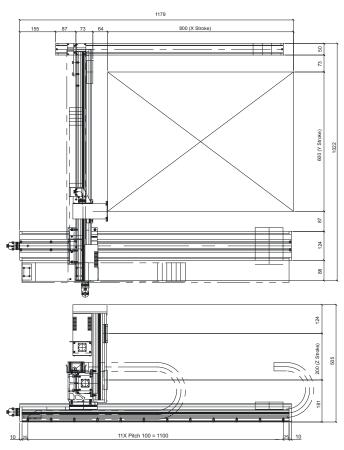


#### **Features**

- Customized sizes available
- · Robust ball-screw servo motor drives
- Ideal for form-in-place gaskets, adhesives, potting, solar junctions, stringers, coating, frame sealing and filling
- Resolution 0.001mm
- · Performs continuous path and point-to-point motions
- · Self contained controller functions
- Software tip alignment routine for quick program offsets when changing dispensing tips
- Step-and-repeat functions program one object only for multiple identical objects
- On board 100 programs
- · Optional bar code scanning software

The model F9800N is a RoHS compliant 31.50" x 23.62" (800 x 600mm) gantry style robot. It's servo motor driven ball-screw design enables closed loop operation. A rugged aluminum structure helps prevent vibration while maintaining a compact style and functionality, providing a precision multiple axis robot ideal for conveyor fed applications, such as solar modules. Many projects also require all moving axes to be above the work station, the F9800N provides that capability. Resolution is 1 micron and interpolation is in all axes. The F9800N has been engineered to accept a tool weight of up to 7kg and 4kg for the 4-axes model.

#### Dimensions



#### Model

F9800N F9804N

Robot 3-axes 220V Robot 4-axes 220V

#### Accessories (optional)

DSP501N	Dispens	ser	
F9000N-WIN	Window	/s <sup>®</sup> softwar	e package
Mounting Sup	ports (three requir	ed each sid	e)
Main (Left Side)	Idle (Right Side)	Height	Qty
562022-050	562023-050	50mm	1

562022-050	562023-050	50mm <i>*</i>	1
562022-100	562023-100	100mm <i>*</i>	1
562022-150	562023-150	150mm <sup>-</sup>	1

X/Y/Z Work area (mm):	800 / 600 / 200	R-axis +/- 360°
Maximum tool load:	7 kg.	R-axis 1 kg.
Max. Speed X&Y / Z:	1000 / 1000 / 500 ( R-axis 360°/sec	(mm/sec)
Repeatability:	+/- 0.02mm/ Axis	R-axis +/- 0.05°
Resolution:	0.001mm	R-axis +/- 0.001°
Data Memory:	100 Programs 20,000 step / 20,00	00 points total
Processor:	Main: 32bit, 900 m	flops
Drive Sys. / Servo:	3Ø AC Servo Moto	or 16Bit, 40mips
Motion Control:	PTP & CP (3D Line	e, circle)
Teaching Method:	Teach Pendant	
I/O Signals:	System I/O IN: 24, User I/O IN: 32, Ou	
External Interface:	RS232	
Power Supply:	1Ø AC220V - 500	)VA (600VA)
Dimensions (mm) (WxDxH):	1179 x 1022 x 505	
Weight:	94.6 lbs (43 kg)	

## F9250N - 3 & 4 Axes Servo Gantry - Solar







Working Area 2500 x 1500mm

#### Features

- · Large Area Customized sizes available up to 7 meters
- · Robust ball-screw servo motor drives
- · Ideal for solar panel fabrication
- · Junctions, stringers, potting, coating, frame sealing, gaskets
- Resolution 0.001mm
- · Performs continuous path and point-to-point motions
- · Self contained controller functions
- Software tip alignment routine for quick program offsets when changing dispensing tips
- Step-and-repeat functions program one object only for multiple identical objects
- On board 100 programs
- · Optional bar code scanning software



The model F9250N is a RoHS compliant 98.42" x 59.05" (2500 x 1500mm) gantry style robot. It's servo motor driven ball-screw design enables closed loop operation. A rugged and reinforced aluminum structure helps prevent vibration while maintaining a compact style and functionality, providing a precision multiple axis robot ideal for conveyor fed applications, such as solar modules. Many projects also require all moving axes to be above the work station, the F9250N provides that capability. Resolution is 1 micron and interpolation is in all axes. The F9250N has been engineered to accept a tool weight of up to 7kg and 4kg for the 4-axes model.

#### Model

 F9250N
 Robot 3-axes 220V

 F9254N
 Robot 4-axes 220V

#### Accessories (optional)

DSP501N	Dispenser
F9000N-WIN	Windows® software package

Mounting Supports (seven required each side)

Main (Left & Right Side)	Height	Qty
562022-050	50mm	1

002022 000	0011111	
562022-100	100mm	1
562022-150	150mm	1

X/Y/Z Work area (mm):	2500 / 1500 / 200	R-axis +/- 360°
Maximum tool load:	7 kg.	R-axis 1 kg.
Max. Speed X&Y / Z:	1000 / 1000 / 500 (m R-axis 360°/sec	nm/sec)
Repeatability:	+/- 0.02mm/ Axis	R-axis +/- 0.05°
Resolution:	0.001mm	R-axis +/- 0.001
Data Memory:	100 Programs 20,000 step / 20,000	points total
Processor:	Main: 32bit, 900 mflo	ops
Drive Sys. / Servo:	3Ø AC Servo Motor	16Bit, 40mips
Motion Control:	PTP & CP (3D Line,	circle)
Teaching Method:	Teach Pendant	
I/O Signals:	System I/O IN: 24, C User I/O IN: 32, Out:	
External Interface:	RS232	
Power Supply:	1Ø AC220V - 500V	A (600VA)
Dimensions (mm) (WxDxH):	3160 x 2420 x 930	
Weight:	335 lbs (152.27 kg)	



## F8800N - 3 & 4 Axes Servo Cantilever

Working Area 800 x 600mm

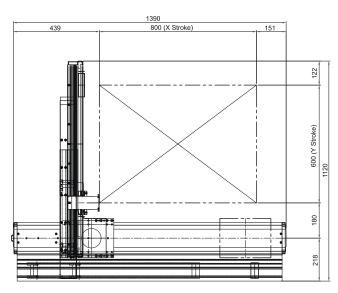


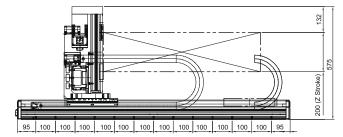
#### Features

- · Compact open access design
- · Highly rigid frame structure
- Ideal for form-in-place gaskets, adhesives, potting, coating and filling
- Positioning repeatability 0.02mm
- · Performs continuous path and point-to-point motions
- AC servo motors and ball-screw design
- Software tip alignment routine for quick program
   offsets when changing dispensing tips
- Step-and-repeat functions program one object only for multiple identical objects
- On board 100 programs
- · Max. memory capacity, 20,000 steps / 20,000 points total

The model F8800N is a RoHS compliant 31.50" x 23.62" (800 x 600mm) cantilever open access style robot. It's servo motor driven ball-screw design enables closed loop operation. A specially ruggedized aluminum structure prevents flexing and vibration while maintaining functionality, providing a precision multiple axis robot ideal for conveyor fed applications. Many projects also require all moving axes to be above the work station, the F8800N provides that capability. Resolution is 1 micron and interpolation is in all axes. The F8800N has been engineered to accept a tool weight of up to 5kg and 2kg for the 4-axes model.

#### Dimensions





#### Model

F8800N F8804N Robot 3-axes 220V Robot 4-axes 220V

#### Mounting Supports (optional)

(three required)

Main	Height	Qty
562024-050	50mm	1
562024-100	100mm	1
562024-150	150mm	1

X/Y/Z Work area (mm):	800 / 600 / 200	R-axis +/- 360°
Maximum Tool Load:	5 kg.	R-axis 2 kg.
Body Frame X-axis:	120mm - 200mm	
Body Frame Y-axis:	90mm - 160mm	
Max. Speed X&Y / Z:	1000 / 1000 / 500 ( R-axis 360°/sec	mm/sec)
Repeatability:	+/- 0.02mm/ Axis	R-axis +/- 0.058°
Resolution:	0.001mm	R-axis +/- 0.001°
Run Out Y-axis:	0.1mm Full Travel	
Data Memory:	100 Programs 20,000 step / 20,00	0 points total
Processor:	Main: 32bit, 900 mi	flops
Servo Output X-axis:	200 watt $\rightarrow$ 800 wa	att
Servo Output Y-axis:	200 watt $\rightarrow$ 400 wa	att
Motion Control:	PTP & CP (3D Line	e, circle)
Teaching Method:	Teach Pendant	
I/O Signals:	System I/O IN: 24, User I/O IN: 32, Ou	
External Interface:	RS232	
Power Supply:	1Ø AC220V - 500V	'A (600VA)
Dimensions (WxDxH):	1110 x 1380 x 565	
Weight:	3-axes: 159 lbs (72 4-axes: 179 lbs (81	

## F8100N - 3 & 4 Axes Servo Cantilever







Working Area 1000 x 800mm

#### Features

- · Compact open access design
- · Highly rigid frame structure
- Ideal for form-in-place gaskets, adhesives, potting, coating and filling
- Positioning repeatability 0.02mm
- · Performs continuous path and point-to-point motions
- AC servo motors and ball-screw design
- Software tip alignment routine for quick program
   offsets when changing dispensing tips
- Step-and-repeat functions program one object only for multiple identical objects
- On board 100 programs
- · Max. memory capacity, 20,000 steps / 20,000 points total

The model F8100N is a RoHS compliant 39.37" x 31.50" (1000 x 800mm) cantilever open access style robot. It's servo motor driven ball-screw design enables closed loop operation. A specially ruggedized aluminum structure prevents flexing and vibration while maintaining functionality, providing a precision multiple axis robot ideal for conveyor fed applications. Many projects also require all moving axes to be above the work station, the F8100N provides that capability. Resolution is 1 micron and interpolation is in all axes. The F8100N has been engineered to accept a tool weight of up to 5kg and 2kg for the 4-axes model.

#### Model

F8100N	Robot 3-axes 220V
F8104N	Robot 4-axes 220V

#### Mounting Supports (optional)

150mm

(four required)

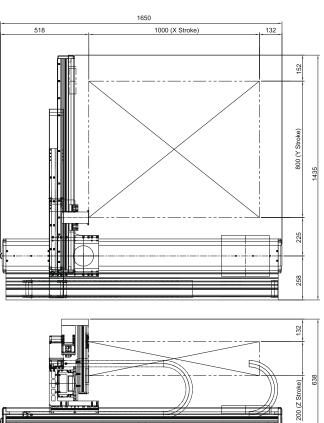
Main 562025-050 562025-100 562025-150

Height	Qty
50mm	1
100mm	1

1

#### Specifications

opoonnoutionio		
X/Y/Z Work area (mm):	1000 / 800 / 200	R-axis +/- 360°
Maximum Tool Load:	5 kg.	R-axis 2 kg.
Body Frame X-axis:	120mm - 200mm	
Body Frame Y-axis:	90mm - 160mm	
Max. Speed X&Y / Z:	1000 / 1000 / 500 ( R-axis 360°/sec	(mm/sec)
Repeatability:	+/- 0.02mm/ Axis	R-axis +/- 0.058°
Resolution:	0.001mm	R-axis +/- 0.001°
Run Out Y-axis:	0.13mm Full Trave	1
Data Memory:	100 Programs 20,000 step / 20,00	00 points total
Processor:	Main: 32bit, 900 m	flops
Servo Output X-axis:	200 watt $\rightarrow$ 800 wa	att
Servo Output Y-axis:	200 watt $\rightarrow$ 400 wa	att
Motion Control:	PTP & CP (3D Line	e, circle)
Teaching Method:	Teach Pendant	
I/O Signals:	System I/O IN: 24, User I/O IN: 32, Ou	
External Interface:	RS232	
Power Supply:	1Ø AC220V - 500\	/A (600VA)
Dimensions (WxDxH):	1425 x 1630 x 628	
Weight:	3-axes: 254 lbs (11 4-axes: 273 lbs (12	



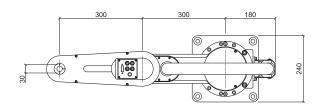
#### **Dimensions**

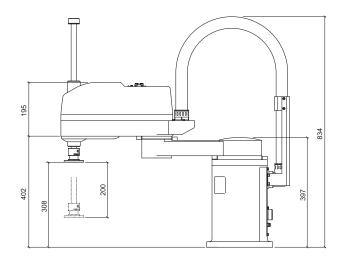
## F2004N - Scara



A 4 axes high-speed industrial SCARA robot ideal for high volume and large area dispensing applications requiring greater flexibility for automated manufacturing environments, including conveyors and work cells. Can also be used for pick & place applications.

#### Dimensions







#### Features

- · Highly rigid frame structure
- Ideal for form-in-place gaskets, adhesives, potting, coating, filling and pick & place procedures
- Positioning repeatability 0.02mm
- · Performs continuous path and point-to-point motions
- AC servo motors
- Software tip alignment routine for quick program offsets when changing dispensing tips
- · Digital servo controlled motors
- Multiple I/O communications
- · High speed movement up to 5000mm/sec

#### Model F2004N

Robot 4-axes 220V

### Accessories (optional)

	(0)0000
DSP501N	Disp
F9000N-WIN	Wine

Dispenser Windows<sup>®</sup> software package

Rated/Max Payload:		2/7 kg
Arm Length:	J1 + J2 arm	300 x 300mm
Repeatability:	J1 + J2 arm	+/- 0.03mm
	J3	+/- 0.02mm
	J4	+/- 0.03°
Operating Range:	J1 arm	+/- 125°
	J2	+/- 125°
	J3	200mm
	J4	+/- 360° R Axis 360°/sec
Max Speed (No Load):	J1 + J2 arm	5.6 m/s
	J3	1 m/s
	J4	720°/s
Allowable Inertia of J4:		0.003 kgf.m.s2
Type of Encoder:		Absolute
Program Capacity:		100 Programs 3,000 step / 3,000 pts.
Drive System / Motor:		Full Digital AC servo
Motion Control:		PTP, CP
Linear/Circular Interpolation:		4-axes
Teaching Method:		Teach Pendant
Processor Main CPU:		32 bit *1 900 Mflops
Processor Servo CPU:		16 bit *2 40 Mips
Data Memory Type:		2MB Battery Backup SRAM
PLC:		10 Programs
I/O Signals:		1,000 pts/program System I/O IN: 24, Out: 6
i/O Olghais.		User I/O IN: 32, Out: 32
External Interface:		RS232C
Power Supply:		1ø AC220V
Dimensions (mm) (WxDxH):	Manipulator	240x828x834
	Controller	368x302x160
Weight:	•	81.6 lbs (37kg)
	Controller	22 lbs (10kg)

## **RT404-FLEXII - Dual Station Rotary Table**







#### Features

- Dispenses in circles from 0-900°
- Adjustable Z-axis including tilt control
- · Variable speed table
- · Simple to set up and operate
- · Fully programmable for perfect dispensing

The RT404-FLEXII rotary table provides an efficient method of dispensing a circular pattern on areas that are difficult to access. The tilting Z-axis allows controlled rotary dispensing on an angle. The RT404-FLEXII dispenses adhesives, silicones, grease and lubricants and is fully adjustable in rotation speed, circle diameter and dispensing time. Dispense from barrels, cartridges or valves mounted on the Z-axis. The Z-axis tilt is easily adjusted to dispense either on a vertical wall within a cylindrical part or on an outside wall. The system is fully programmable to control dispense delay, rotation delay, degree of rotation and wait period before cycling.

#### Model

RT404-FLEXII-110 RT404-FLEXII-220 Rotary Table 110V Rotary Table 220V

#### Accessories (optional)

DSP501N

Dispenser 110/220V



Working Diameter 152mm

#### **Specifications**

Dispenser:	DSP501LF (not included)
Cycle Initiation:	Manual or Automatic
Vertical Travel:	2.00" (50mm) other lengths optional
Rotation Speed:	0-60rpm
Air Input:	70-100 psi (5 - 7 bar)
Air Output:	1-100 psi (0.1 - 7 bar)
Dimensions (WxDxH):	635 x 643 x 850
Weight:	26.5 lbs (43 kg)

## Z620 - Z-Axis Station

The Z620 is an ideal solution for repetitive filling, potting or other dispensing operations requiring z-axis control. The z-axis system will consistently dispense material to a specific height and can be integrated into an automated line or conveyor-fed station. Other features include adjustable tilt, speed and dispense time. The Z620 controller interfaces with the DSP501LF dispenser to complete the system.

#### Model

Z620

Auto-z dispenser 110/220V

#### Accessories (optional)

DSP501LF

Dispenser 110/220V

Power:	Switchable 110V or 220V, 50/60Hz
Stroke:	0.2" - 2.0" (5.08mm - 50mm)
Front to back positioning:	0" - 1.75" (0mm - 45mm)
Air Input:	60-90 psi (4 - 6 bar)
Controller Dimensions (WxDxH):	222 x 222 x 67mm
Unit Dimensions (WxDxH):	258 x 258 x 495mm
Weight:	22 lbs (10 kg)







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