

Fisnar F4000N ADVANCE Benchtop Dispensing Robots



Description

The **Fisnar F4000 ADVANCE Series of Benchtop Fluid Dispensing Robots** are compact, self-contained and economically priced. They are optimised for dispensing virtually all types of fluid material and can be automated for simple tasks as well as high volume production.

Combined with our [dispensing products](#), the benchtop fluid dispense robots will deliver an accurate, repeatable and consistent application process. 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.

The series includes a range of three-axis, four-axis and five-axis benchtop dispensing robots, which offer varying workspace sizes to meet the requirements of your application. The largest workspace available is 600mm x 500mm offered by the three-axis FISF4603 and four-axis FISF4604.

The modular connectivity design of the **Fisnar F4000 ADVANCE** series offers easy configuration with optional [robot accessories](#) such as [Tip Alignment Kit](#), [Height Sensor](#) and [CCD Camera Vision System](#). We will help you to evaluate and select the most efficient and cost-effective dispensing system for your application and process and support you through integration and training to get you up and running as quickly as possible.

Fisnar F4000N ADVANCE Benchtop Dispensing Robots



We are able to provide complete dispensing systems to include any required [dispensing valves and pumps](#), [material feed reservoirs](#) and [robot safety enclosures](#). Dispensing equipment can be easily integrated with curing or surface preparation equipment to improve your process. [These dispensing systems are examples of such integrations](#). We would be pleased to help you put together an integrated automated dispensing system customised for your particular needs.

Features & Benefits

Fisnar F4000N ADVANCE Benchtop Dispensing Robots



- Fast, accurate and reliable 24/7
- Economic purchase price gives fast return on investment
- Productivity and quality benefits over manual processes
- Dispenses dots, lines, arcs and circles
- Range of [plug and play accessories](#) including [Tip Alignment Kit](#), [Height Sensor](#) and [CCD Vision Kit](#)
- Workspace area up to 600mm x 500mm
- Suitable for adhesives, coatings, gaskets, potting, filling and shielding applications
- Resolution 0.001mm/axis
- Continuous path motion and point to point
- Step & repeat copy functions
- Automatic offset calculations
- Quick "Fluid Purge" button
- No computer skills required
- 100 programs memory, 50,000 points per program
- Software tip alignment routine for quick program offsets when changing dispensing tips
- USB connector allows system updates and program interchange between robots

Applications

- Adhesives
- Form-in-place (FIP) gaskets
- Potting
- Coating
- Filling

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The automation of any manual dispensing application can be easy to justify, with a quick return on investment (ROI).

The Fisnar F4000N ADVANCE series handles dispensing areas from 300mm x 300mm to 600mm x 500mm and is capable of storing up to 100 different programs. Step-by-step intuitive instructions simplify job creation tasks, allowing a program to be entered and running in minutes. A 16-channel I/O interface provides for communication with external devices for secondary applications and multiple dispensing equipment components. A Windows software package with a DXF file converter is available for programming all 3-axis models from a computer. A compact, robust, heavy-duty design (cast construction) provides stability when working to fine tolerances.

The robots are three, four and five-axis design and are capable of interfacing with any [INTERTRONICS dispensing equipment](#). The F4000N ADVANCE series can be used with simple dispensing barrels, controlled by a [pneumatic dispenser](#), or a [dispensing valve](#), fed from some form of reservoir. Please contact us for a full discussion of your requirements.

Programming

Programming is simple with easy to follow English language instructions. Commands are followed and responses entered by a teach pendant. An LCD display prompts the user for a data input and once confirmed, automatically displays the next instruction. By this method a program can be created quickly and simply.

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Accessories

A range of [accessories for the FISNAR Advance Series Robots](#) are available:

- [Camera Vision System](#)
- [Tip Alignment kits](#)
- [Height Sensor](#)
- Auxilliary Rotation Axis
- I/O Expansion Module
- Robot Enclosure

Upgrades

Fisnar F4000N ADVANCE Benchtop Dispensing Robots



For older FISNAR models, upgrade kits are available making them compatible with all of the above accessories. Please [contact a member of our technical sales team](#) for further details on robot upgrades.

Specifications



3-Axis Robots

Fisnar F4000N ADVANCE Benchtop Dispensing Robots



Specification	F4303 ADVANCE	F4403 ADVANCE	F4503 ADVANCE	F4603 ADVANCE
X/Y/Z working area	300 / 300 / 100 mm	400 / 400 / 100 mm	500 / 500 / 150 mm	600 / 500 / 150 mm
Work load	10kg			
Tool load	5kg			
Maximum speed – X&Y	800mm/sec			
Maximum speed – Z	320mm/sec			
Repeatability	+/- 0.008mm per axis *			
Resolution	0.001mm per axis			
Data memory	100 programs; 50,000 points/program			
Drive system	3-phase micro stepping motor			

Fisnar F4000N ADVANCE Benchtop Dispensing Robots



Specification	F4303 ADVANCE	F4403 ADVANCE	F4503 ADVANCE	F4603 ADVANCE
Motion control	PTP (point to point) & CP (continuous path)			
Teaching method	Teach pendant			
I/O signals	8 inputs / 8 outputs			
External interface	USB / RS232			
Power supply	Auto-switching AC100-240 VAC 320 watts			
Dimensions WxDxH	490 x 645 x 517 mm	590 x 645 x 617 mm	690 x 815 x 717 mm	810 x 815 x 717 mm
Weight	21 kg	39.5 kg	44.5kg	47kg
Approvals	CE, RoHS, WEE			

* Repeatability value will vary depending on measurement method

4-Axis Robots

Fisnar F4000N ADVANCE Benchtop Dispensing Robots



Specification	FF4304 ADVANCE	F4404 ADVANCE	F4504 ADVANCE	F4604 ADVANCE
X/Y/Z working area	300 / 300 / 150 mm	400 / 400 / 150 mm	500 / 500 / 150 mm	600 / 500 / 150 mm

Fisnar F4000N ADVANCE Benchtop Dispensing Robots



Specification	FF4304 ADVANCE	F4404 ADVANCE	F4504 ADVANCE	F4604 ADVANCE
R working area	+/- 360°			
Work load	10kg			
Tool load	5kg			
Maximum speed – X&Y	800mm/sec			
Maximum speed – Z	320mm/sec			
Maximum speed – R	720°/sec			
Repeatability	+/- 0.008mm per axis *			
Resolution	0.001mm per axis			
Data memory	100 programs; 50,000 points/program			
Drive system	3-phase micro stepping motor			
Motion control	PTP (point to point) & CP (continuous path)			
Teaching method	Teach pendant			

Fisnar F4000N ADVANCE Benchtop Dispensing Robots



Specification	FF4304 ADVANCE	F4404 ADVANCE	F4504 ADVANCE	F4604 ADVANCE
I/O signals	8 inputs / 8 outputs			
External interface	USB / RS232			
Power supply	Auto-switching AC100-240 VAC 320 watts			
Dimensions WxDxH	540 x 914 x 552 mm	640 x 914 x 652 mm	740 x 914 x 752 mm	860 x 914 x 752 mm
Weight	41 kg	46 kg	48kg	52kg
Approvals	CE, RoHS, WEE			

* Repeatability value will vary depending on measurement method

5-Axis Robots

Fisnar F4000N ADVANCE Benchtop Dispensing Robots



Specification	F4505 ADVANCE
X/Y/Z working area	500 / 500 / 150 mm
R working area	+/- 360°
U working area	+45° – -45°
Work load	10kg

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Specification	F4505 ADVANCE
Tool load	1kg
Maximum speed – X&Y	800mm/sec
Maximum speed – Z	320mm/sec
Maximum speed – R	720°/sec
Maximum speed – U	45°/sec
Repeatability	+/- 0.3mm per axis *
Resolution	0.001mm per axis
Data memory	100 programs; 50,000 points/program
Drive system	3-phase micro stepping motor
Motion control	PTP (point to point) & CP (continuous path)
Teaching method	Teach pendant
I/O signals	8 inputs / 8 outputs
External interface	USB / RS232
Power supply	Auto-switching AC100-240 VAC 320 watts

Fisnar F4000N ADVANCE Benchtop Dispensing Robots



Specification	F4505 ADVANCE
Dimensions WxDxH	860 x 1065 x 752 mm
Weight	48 kg
Approvals	CE, RoHS, WEE

* Repeatability value will vary depending on measurement method

Other Information

See how the **dispensing robots** work as part of a real application in these robotics [Case Studies](#):

Fisnar F4000N ADVANCE Benchtop Dispensing Robots



CASE STUDY

intertronics
adhesives, coatings, sealants & equipment
for your manufacturing and technology applications

FIS F4200N
Benchtop
dispensing robot



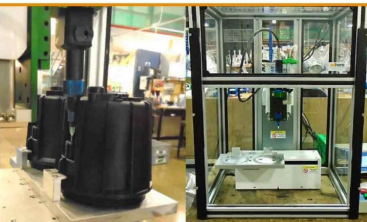
[CEM increases competitiveness with dispensing robot](#)

Integrating a benchtop dispensing robot into flow line assembly for electronics allowed for a continuous production process. This resulted in reduced wastage, increased quality and increased output.

CASE STUDY

intertronics
adhesives, coatings, sealants & equipment
for your manufacturing and technology applications

Fisnar 4200N.1
Benchtop
dispensing robot
Preeflow® eco-
PEN450
Volumetric
dispensing pump



[Precision dispensing helps electrical manufacturer to reduce waste by improving quality and yield](#)

By switching to an automated dispensing system, this electrical manufacturer reduced scrappage and therefore improved quality and yield of their product.

Our [Technical Bulletins & Articles](#) page has links to:

- [Robots in Manufacturing – How the Smaller Machine Provides Automation and Competitiveness](#) – by Peter Swanson

Fisnar F4000N ADVANCE Benchtop Dispensing Robots



Ordering Information

Part number	Description
FISF4303	300 x 300 x 100mm work area benchtop dispensing robot Included: Teach Pendant, Bracket Mounting Plate, I/O Connectors, Operating Manual
FISF4304	300 x 300 x 150mm work area benchtop dispensing robot Included: Teach Pendant, Bracket Mounting Plate, I/O Connectors, Operating Manual
FISF4403	400 x 400 x 100mm work area benchtop dispensing robot Included: Teach Pendant, Bracket Mounting Plate, I/O Connectors, Operating Manual

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Part number	Description
FISF4404	400 x 400 x 100mm work area benchtop dispensing robot Included: Teach Pendant, Bracket Mounting Plate, I/O Connectors, Operating Manual
FISF4503	500 x 500 x 150mm work area benchtop dispensing robot Included: Teach Pendant, Bracket Mounting Plate, I/O Connectors, Operating Manual
FISF4504	500 x 500 x 150mm work area benchtop dispensing robot Included: Teach Pendant, Bracket Mounting Plate, I/O Connectors, Operating Manual
FISF4603	600 x 500 x 150mm work area benchtop dispensing robot Included: Teach Pendant, Bracket Mounting Plate, I/O Connectors, Operating Manual

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Part number	Description
FISF4604	600 x 500 x 150mm work area benchtop dispensing robot Included: Teach Pendant, Bracket Mounting Plate, I/O Connectors, Operating Manual
FISF4505	500 x 500 x 150mm work area benchtop dispensing robot Included: Teach Pendant, Bracket Mounting Plate, I/O Connectors, Operating Manual
Enclosure	A range of safety enclosures are available with light curtains or interlocked doors – benchtop or freestanding.

Next Steps

Our technical team are on hand to discuss your application requirements. [Click here](#) to get in touch.

Find out more information on [how to purchase](#).

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intertronics

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Last updated: June 2020 Version: 1.7

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