

# Multi-axis Dispensing Robots

Adhesives Conformal Coatings Cyanoacrylates Greases Paints Reagents Sealants Solder Pastes



Nordson EFD's extensive line of multi-axis dispensing robots is specifically designed and configured for precise placement and dispensing with EFD syringe barrel and valve systems. Platforms range from 200mm x 200mm all the way to 500mm x 500mm, making them an ideal solution for batch processing or critical dispensing applications.

Specialized PC dispensing software and CAD download capabilities make EFD robots easy to program and quick to set up. True three- and four-dimensional motion control allows easy programming of dots, stripes, arcs, compound arcs and patterns on different planes.

## Features

- Easy to program - Dedicated dispensing software eliminates the need for complex robot language programming
- Programmable interface via teach pendant or PC (dispensing and CAD download software included)
- Rugged, reliable construction
- Wide range of work envelopes
- Small footprint
- Compatible with all EFD syringe, valve and jet dispensing systems
- Ideal for both stand-alone and automated operations
- Complimentary process evaluation by experienced fluid dispensing experts
- Samples processed for customer evaluation and approval prior to purchase
- Compact size and built-in sequencer permit easy integration into automated assembly lines

## Benefits

- Precise fluid placement, accuracy and repeatability
- Higher production yield
- Better product quality and reliability
- Cost-effective automation
- More efficient batch processing
- Frees operators for other tasks

## Applications

- Dots
- Lines
- Potting
- Dam & Filling
- Underfilling
- Encapsulation
- Sealing
- Coating
- Jetting

### Note:

DR2200, DR2400 & DR2500 are configured with the "cantilever" Y axes as shown in illustration.



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## Multi-axis Dispensing Robots

- Rigid Structure** Aluminum die-cast base, extruded aluminum column
- Labyrinth Mechanism** Prevents foreign objects from getting under the work table
- Smooth Movement** Micro-step control system
- Flexible Interface** RS-232C port for PC connection  
RS-422 port for teaching pendant  
I/O (Input 16, Output 16)
- Large Clear Screen** Easily viewable, multiple languages, mm or inches
- Simple Teaching** Software allows user to "teach" robot easily, or create original programs
- Enhanced Memory** Stores up to 255 programs and 30,000 points
- Simple Sequencer** Built-in simple sequencer functions independently, provides up to 1000 steps



## Models

|        |         |                   |
|--------|---------|-------------------|
| DR2203 | 7023147 | 200 X 200, 3 axes |
| DR2204 | 7023151 | 200 X 200, 4 axes |
| DR2303 | 7023155 | 300 x 320, 3 axes |
| DR2304 | 7023159 | 300 x 320, 4 axes |
| DR2403 | 7023163 | 400 x 400, 3 axes |
| DR2404 | 7023167 | 400 x 400, 4 axes |
| DR2503 | 7023171 | 510 x 510, 3 axes |
| DR2504 | 7023175 | 510 x 510, 4 axes |

| Features                | SPECIFICATIONS |                          |                          |                          |                          |
|-------------------------|----------------|--------------------------|--------------------------|--------------------------|--------------------------|
|                         |                | 2200                     | 2300                     | 2400                     | 2500                     |
| Moving Range            | X/Y            | 200/200 mm               | 300/320 mm               | 400/400 mm               | 510/510 mm               |
|                         | Z              | 50 mm                    | 100 mm                   | 150 mm                   | 150 mm                   |
|                         | R              | 360°                     | 360°                     | 360°                     | 360°                     |
| Work Piece Payload      |                | 7 kg                     | 11 kg                    | 11 kg                    | 11 kg                    |
| Tool Payload            |                | 3.5 kg                   | 6 kg                     | 6 kg                     | 6 kg                     |
| Max. Speed              |                | 500 mm/sec               | 800 mm/sec               | 800 mm/sec               | 800 mm/sec               |
| Unit Weight             |                | 18 kg                    | 35 kg                    | 42 kg                    | 42 kg                    |
| Dimensions              | Width          | 320 mm                   | 560 mm                   | 584 mm                   | 584 mm                   |
|                         | Depth          | 377 mm                   | 529 mm                   | 629 mm                   | 629 mm                   |
|                         | Height         | 536 mm                   | 649 mm                   | 799 mm                   | 799 mm                   |
| Drive System            |                | 5-Phase Stepping Motor   | 5-Phase Stepping Motor   | 5-Phase Stepping Motor   | 5-Phase Stepping Motor   |
| Program Capacity        |                | 255                      | 255                      | 255                      | 255                      |
| Point Capacity          |                | 30,000                   | 30,000                   | 30,000                   | 30,000                   |
| General Purpose I/O     |                | 16 Inputs/<br>16 Outputs | 16 Inputs/<br>16 Outputs | 16 Inputs/<br>16 Outputs | 16 Inputs/<br>16 Outputs |
| External Communications |                | RS232-C                  | RS232-C                  | RS232-C                  | RS232-C                  |
| Drive Method            |                | PTP and CP               | PTP and CP               | PTP and CP               | PTP and CP               |
| Dispensing Controller   |                | External                 | External                 | External                 | External                 |
| Current Consumption     |                | 200VA                    | 200VA                    | 200VA                    | 200VA                    |
| Power Source            |                | Multi-voltage            | Multi-voltage            | Multi-voltage            | Multi-voltage            |

## In-line Dispensing Arms

Nordson EFD also offers SCARA in-line robot systems. With similar ease of programming and quick setup, these robots are specifically designed for use with in-line conveyors or products with heavy or high profiles.

- DSR4403 7026786 SCARA, 3 axes
- DSR4404 7025847 SCARA, 4 axes

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