

# RV Series Automated Dispensing Systems

Easy 4-axis automation for precise fluid application with smart vision



RV Series makes 4-axis dispensing automation more intuitive with proprietary DispenseMotion software.



Smart vision CCD camera verifies workpiece presence and orientation.

Nordson EFD's RV Series 4-axis automated systems are configured for precise fluid dispensing using EFD syringe barrel and valve systems.

Specialized vision-guided DispenseMotion™ software and an integrated CCD smart vision camera make the RV quick to set up and easy to program. True three-dimensional motion control provides easy programming of dots, lines, circles, arcs, compound arcs, and patterns on different planes. The fourth axis allows for dispensing at any angle along the 360° rotation plane.

Other standard features include single point needle adjustment and best-in-class dispense repeatability at  $\pm 8 \mu\text{m}$ . Platforms range from 300 x 300 mm to 620 x 500 mm, making them an ideal solution for batching or critical dispensing applications.

The RV Series can work as a standalone system or as a key part of an automated solution. It is easy to integrate into inline transfer systems, rotary tables, and pallet assembly lines.

## Features

- Simplified setup and programming with EFD's advanced vision-guided DispenseMotion software
- On-screen preview of the dispensing path facilitates programming
- Software wizard simplifies tip-to-camera and tip-to-workpiece offsets
- Dispense tip alignment capability
- Easy USB file upload and download
- 360° rotation for ID and OD dispensing
- Simultaneous X and Y movement during R (rotation) for true point programming

## Benefits

- Market-leading dimensional positioning accuracy and deposit placement repeatability
- Faster cycle and batch times
- Easier to set up and program quickly
- Seamless integration into any manufacturing operation
- Reduced production, material, and ownership costs



more info



## RV Series Specifications

Item / Model	R3V	R4V	R6V
Part # (robot w/ fixed-mount camera)	7363556	7363557	7363558
Part # Europe (robot w/ fixed-mount camera)	7363572	7363573	7363574
Number of axes	4		
Maximum working area (X / Y / Z / R°)	300 / 300 / 150 mm / ±999° (12 / 12 / 6" / ±999°)	400 / 400 / 150 mm / ±999° (16 / 16 / 6" / ±999°)	620 x 500 x 150 mm / ±999° (24 / 20 / 6" / ±999°)
Workpiece payload	10.0 kg (22.0 lb)		
Tool payload	3.0 kg (6.6 lb)		
Maximum speed (XY / Z)*	500 / 320 mm/s (20 / 13"/s)		
Maximum speed (R)*	720°/s		
Weight	50.0 kg (110.2 lb)	55.0 kg (121.3 lb)	61.0 kg (134.5 lb)
Dimensions	645 <sub>W</sub> x 914 <sub>H</sub> x 552 <sub>D</sub> mm (25 <sub>W</sub> x 36 <sub>H</sub> x 22 <sub>D</sub> " )	745 <sub>W</sub> x 914 <sub>H</sub> x 652 <sub>D</sub> mm (29 <sub>W</sub> x 36 <sub>H</sub> x 26 <sub>D</sub> " )	965 <sub>W</sub> x 914 <sub>H</sub> x 752 <sub>D</sub> mm (38 <sub>W</sub> x 36 <sub>H</sub> x 30 <sub>D</sub> " )
Drive system	3-phase micro-stepping motor		
Memory capacity	PC storage		
General purpose I/O	8 inputs / 8 outputs (16 / 16 optional)		
Input AC (to power supply)	100–240 VAC, ±10%, 50/60Hz, 20 Amp maximum, 320 W		
Repeatability (XY / Z)**	±0.008 mm/axis		
Repeatability (R°)**	±0.005°		
Vision	CCD smart camera / optional Rotating-mount camera		
DispenseMotion software	Included		
Tip detection / alignment system	Optional		
Approvals	CE, UKCA, RoHS, WEEE, China RoHS		
Warranty	1 year, limited		

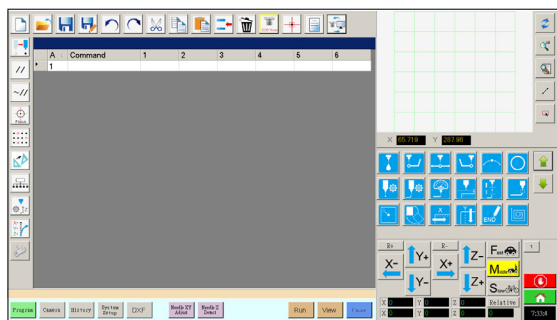
\*Actual travel speed depends on the dispensing path and workpiece / tool payloads.

\*\*Repeatability results may vary depending on the method of measurement.

## Smart Vision

- Precise repeatability with powerful CCD camera
- Higher product quality and throughput

All RV Series systems include a CCD camera that converts pixels to digital values to deliver precise, high-quality images. The software confirms workpiece presence and placement and automatically adjusts as in-process variations occur.



Vision-guided DispenseMotion software makes programming easy.



For Nordson EFD sales and service in over 40 countries, contact Nordson EFD or go to [www.nordsonefd.com](http://www.nordsonefd.com).

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## Free Process Evaluation

Contact Nordson EFD to configure an automated dispensing system that meets your specific needs, with:

- A complimentary process evaluation by experienced fluid dispensing experts
- Samples processed for customer evaluation and approval prior to purchase