

# 741V Series Needle Valve with Backpack™ Valve Actuator

The 741V Series Needle Valve applies low-viscosity fluids like silicone oils, solvents and UV-cure adhesives in accurate, repeatable amounts. Because the stainless steel needle seats in the tip adapter, there is virtually no dead fluid volume between shots.

The Backpack Valve Actuator mounted on the actuating air cylinder maintains constant pressure at the actuating air inlet, for faster response time without the risk of process variations due to a fluctuating plant air supply or different air line lengths. In addition, the Backpack utilizes advanced miniature solenoid technology that makes it possible to achieve valve actuation speeds as short as 5-6 milliseconds, and cycle rates that exceed 60 - 80 Hz.

The Backpack actuator is made of lightweight materials for easy end-of-arm installation, and features a compact, low-profile design that facilitates center-to-center mounting. It is available preinstalled on new valves, and can also be ordered separately to retrofit existing valves.

## Features

- High-speed cycle capability – cycle rate exceeds 60 -80 hertz
- Actuation speed as low as 5-6 milliseconds
- State-of-the-art, fast-acting miniature solenoid technology
- Low-profile, compact design
- Light weight for easy end-of-arm installation

## Benefits

- Smaller deposit size capability due to faster valve actuation
- Minimizes process variation, for better dot-to-dot consistency
- High-speed cycling can create dot-to-dot “stitching” that flows together to form continuous lines



<b>Electrical input:</b>	24 vdc, 4 Watts
<b>Air input:</b>	70-90 psi (4.8-6.2 bar)
<b>Min. actuation time:</b>	5 milliseconds
<b>Max. actuation time:</b>	Continuous ON
<b>Cycling frequency:</b>	60-80 hertz
<b>*BackPack Material:</b>	
<b>Housing:</b>	Anodized aluminum
<b>Mounting bolt:</b>	303SS
<b>O-rings:</b>	Buna-n
<b>*BackPack Dimensions:</b>	
	0.874" deep x 1.05" high x 0.95" wide (22.20mm x 26.7mm x 24.10mm)

### Weight:

<b>BackPack only:</b>	52.635 grams (1.85 oz).
<b>741V-SS-BP:</b>	370.1 grams (13.05 oz)

\*Note: Refer to 741V Installation Guide for complete valve specifications.



# Needle valve systems

The complete system includes the 741V Series valve, ValveMate™ 8000 controller, the fluid reservoir and dispense tip.

Expert technical assistance and high quality standards ensure productive, trouble-free performance. EFD offers a full line of reliable dispensing systems to meet your specific application requirements.

## 741V Series Valves with Backpack Valve Actuator

The 741V Series valves are used with ValveMate 8000 controllers or EFD Robot automation systems for precise, repeatable outputs of low to medium viscosity fluids.

The 741V Series wetted components are 303SS and PTFE. Each valve can be calibrated with the stroke reference knob for process control.

The amount dispensed depends on valve open time, fluid pressure, fluid viscosity, flow adjustment and tip size.

## ValveMate 8000 Controller

Valve open time is the primary control of deposit size.

The ValveMate controller puts push-button adjustment of valve open time where it needs to be – at the valve.

- Multi-valve control- up to (4) valves
- Partner to Programmable Logic Controller (PLC)
- Easy deposit size control
- Increased production output
- End user convenience
- On-the-fly adjustability
- Maximum machine efficiency

## Automation: XYZ & XYZR Robot Dispensing Systems

Nordson EFD offers a wide selection of XYZ and XYZR robot systems that are fully compatible with ValveMate valve controller systems. Consistent, accurate, repeatable and complex dispensing applications can be easily performed with EFD robots, with working envelopes that range from 200 x 200 x 50mm to 510 x 510 x 100mm. Scara robot systems are also available for larger, heavier products or inline dispensing applications.

## Fluid Reservoirs

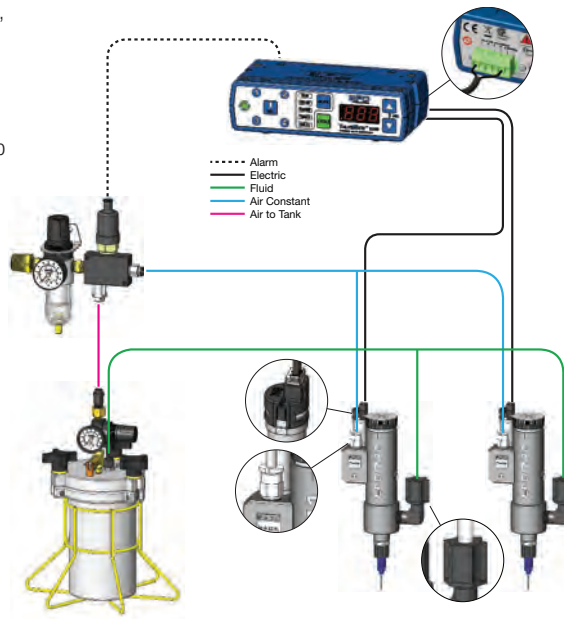
EFD reservoirs are supplied with precision, constant-bleed regulators to ensure consistent fluid pressure to the valve.

Tank reservoirs are available in 1.0, 5.0 and 19.0 liter capacities. Optimum™ Retainer Systems and Cartridges are available from 2.5 to 32 ounces (75cc to 950cc).

Note: The 1.0 liter tank accepts a 1 lb. bottle of cyanoacrylate

## Dispense Tips

Tip selection is critical to achieve optimum valve performance. 741V Series valves are packaged with an Ultra dispensing tip kit for maximum fluid control. The kit includes smooth-flow tapered tips in sizes from 14 to 25 gauge, precision stainless steel tips in sizes from 14 to 21 gauge, and tip caps.



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