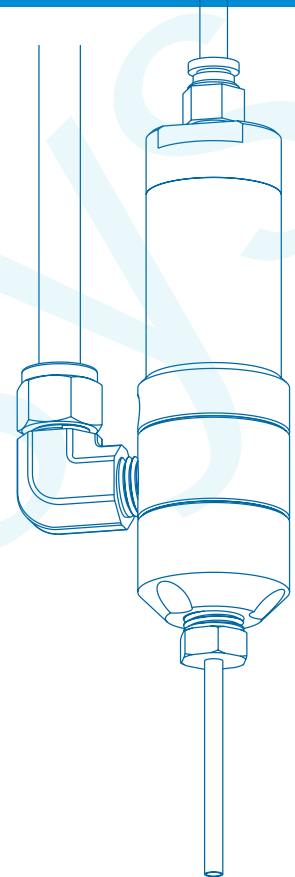
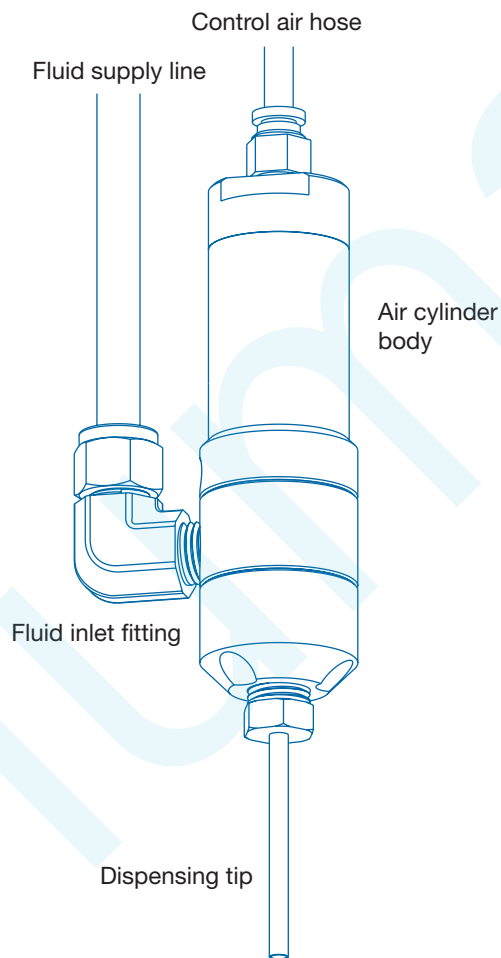


# 736HPA-NV High Pressure Dispense Valve

## Installation Guide

### Introduction

The 736HPA-NV is a normally closed, air-actuated, balanced spool-type valve designed to operate at fluid pressures up to 172 bar (2500 psi). Ideal for consistent dispensing of industrial sealants and greases, the 736HPA-NV valve is simple to use and will operate many millions of cycles without wear or leakage.



# Installation

Prior to installing this valve, please read the associated reservoir and valve controller operating instructions to become familiar with the operation of all components of the dispensing system.

## ⚠ CAUTION

Do not thread fluid inlet fittings too far into the valve. Doing so can obstruct the piston shaft, causing leakage, poor dispensing performance, and damage to the valve.

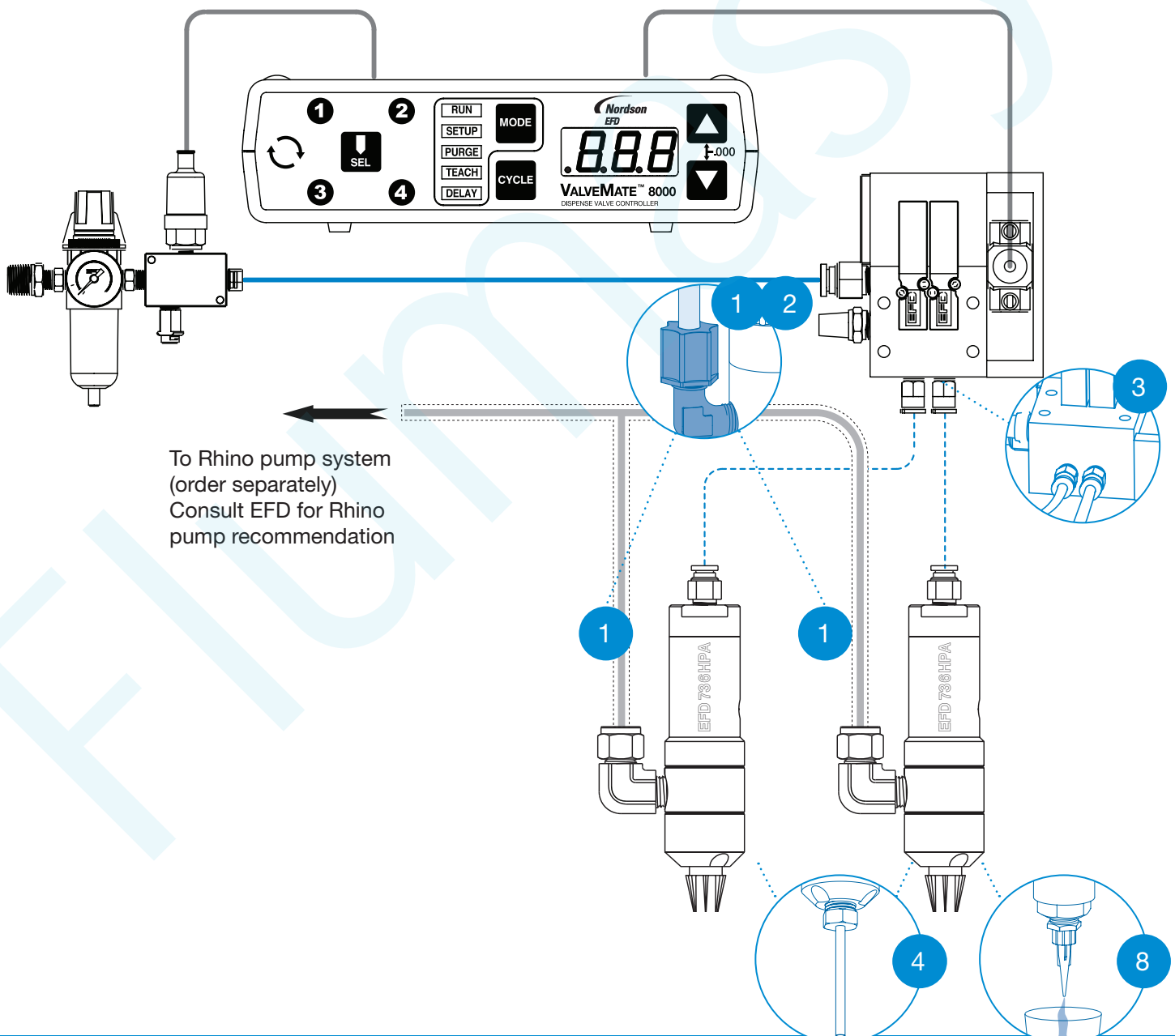
1. Thread the fluid inlet fitting into the fluid inlet hole.

**NOTE:** The fluid inlet fitting and hose must be obtained from the high pressure pump supplier. Ensure that the hose and fitting are rated for the maximum operating pressure of the pump system.

2. Connect the fluid feed hose to the fitting.
3. Connect valve control air hose to ValveMate™ 8000 (solenoid pack) controller used to control valve open-time.
4. Install appropriate threaded nozzle to the valve output or use a dispensing tip adapter (#7016941) with EFD SafetyLok™ dispensing tips.

5. Check to be sure all fluid and air connections are tight.
6. Make sure valve operating pressure is set at 4.8 bar (70 psi).
7. Be sure delivery pump pressure does not exceed 172 bar (2500 psi).
8. Place a cup under the dispensing tip or nozzle and actuate the valve until fluid flows steady.
9. Set desired flow rate by adjusting fluid pressure or changing the outlet tip size.

Important Note: Set desired deposit size by adjusting valve open time. Refer to valve controller operating manual.



## How the Valve Operates

When air pressure at 4.8 bar (70 psi) is applied, the piston shifts the spool **1** to the open position, allowing fluid to flow. At the end of the cycle, spring force on the piston **2** shifts the spool to the closed position, stopping fluid flow. During the closing action, the 736HPA-NV provides snuff-back of fluid for clean cutoff.

The stroke adjustment **3** can be used to regulate snuff-back to an amount appropriate for the fluid being dispensed. Stroke adjustment can also be used to reduce fluid surge when the valve opens to ensure consistent bead widths and dot profiles. The stroke is adjusted by moving the stroke limit stop:

1. To access the stop, first remove the air input hose from the push-in air coupling by pushing down on the release ring while pulling up on the tubing.
2. Insert the 5/64" Allen wrench through the air coupling and engage the stroke limit stop.
3. Adjust the stop toward or away from the piston to vary the stroke. To decrease the amount of opening surge and closing snuff-back, extend the limit stop by turning the wrench clockwise. To increase the amount of surge and snuff-back, retract the limit stop by turning the wrench counterclockwise.

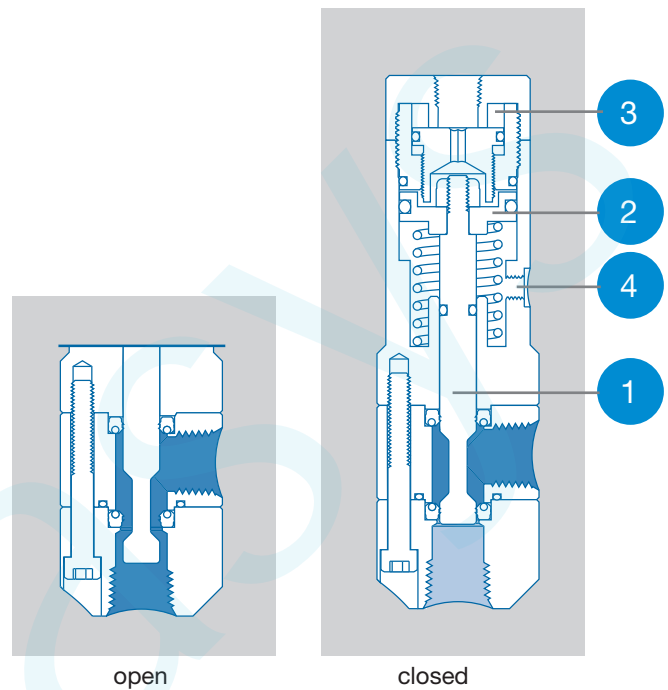
**NOTE:** Adjusting the stroke does not affect the flow rate.

4. Install the air input hose by pushing the hose into the coupling.

**NOTE:** For striping applications, fluid surge can be reduced further by lowering the valve operating air pressure down to, but not below, 2.7 bar (40 psi).

When dispensing very thick fluids at high cycle rates, the double-acting feature ensures rapid closure. A double-actuating air input **4** is provided on the side of the air cylinder to allow double-acting operation using air pressure to both open and close the valve.

The amount of fluid dispensed is determined by valve open-time, fluid pressure, dispensing tip size and fluid viscosity.



## Specifications

### General

**Size:** 116.1 mm length x 34.9 mm diameter  
(4.57 x 1.375")

**Weight:** 537 g (18.9 oz)

**Air cylinder body:** 303 stainless steel

**Fluid body and cap:** 303 stainless steel

**Fluid inlet thread:** 1/4 NPT female

**Output thread:** 1/4 NPT female

**Piston:** Hard-coated aluminum

**Spool:** Hardened stainless, hard-chrome coated

**Spool seals:** Hytrel® (Viton® optional)

**Air pressure required:** 4.8 bar (70 psi)

**Maximum fluid pressure:** 172 bar (2500 psi)

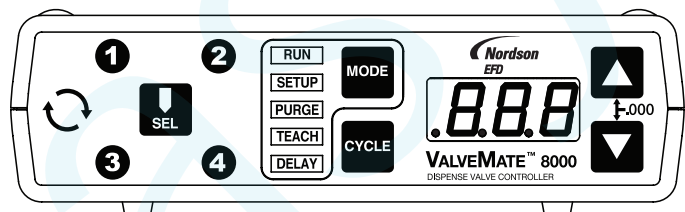
**Mounting hole:** 5/16-24 UNF tapped hole or adjustable mounting block

## ValveMate Concept

The ValveMate 8000 provides easy adjustment of valve output for maximum end-user convenience and efficiency. Valve open time is the primary control of deposit. The 8000 puts push-button adjustment of valve open time where it needs to be—at the valve.

The ValveMate 8000 features micro-processor circuitry for extremely precise control of deposit size. Feed lines can be purged, initial deposit sizes set, and adjustments made quickly and easily at the dispensing station, without stopping the production line.

**NOTE:** Nordson EFD automated dispensing systems integrate with ValveMate controllers for operating all pneumatic and BackPack™ dispense valves.



Important Note: Order your 1, 2, 3 or 4 solenoid manifold block assembly separately. Consult EFD for recommendations.

For consistent dispense valve operation and easy adjustment of valve output, Nordson EFD recommends using the ValveMate 8000 controller on all automatic, semi-automatic and benchtop applications.

Nordson EFD automated dispensing systems integrate with ValveMate controllers for operating all pneumatic and BackPack dispense valves.

Contact Nordson EFD for details.

