

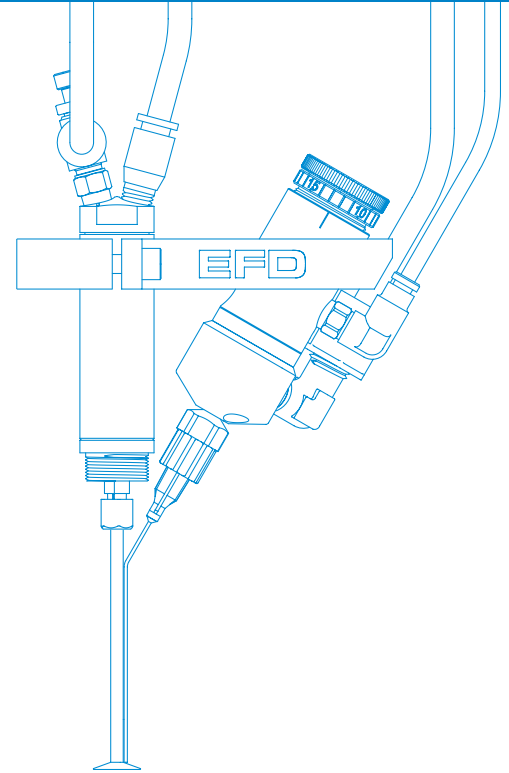
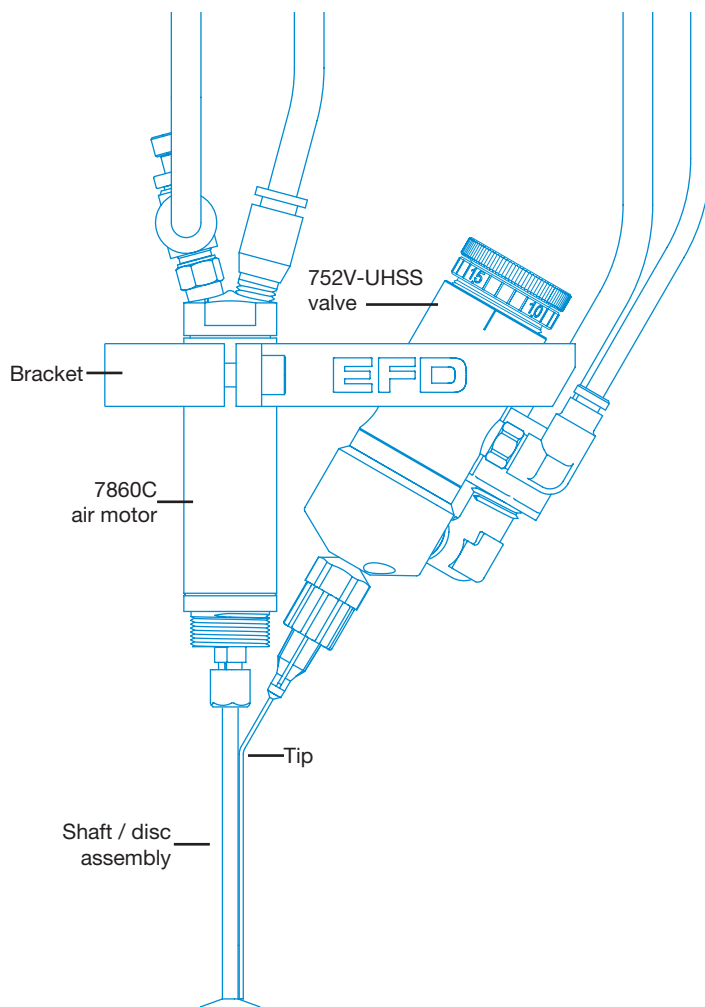
7860C-RS Radial Spinner System

Installation Guide

Introduction

The 7860C-RS radial spinner system is a precision, air-actuated spinner device that produces a narrow radial output band ideal for coating the interior walls of cylindrical shaped parts. Air pressure is released to the colletted air motor to spin the radial disc and shaft assembly. During this radial spin cycle, fluid is dispensed onto the spinning disc, causing it to be distributed in a narrow band-like pattern onto the side wall.

The spinner disc and shaft assembly have a shaft length of 70 mm (2.75"), with disc sizes ranging from 9 mm (0.354"), 12 mm (0.473"), 15 mm (0.590"), and 19 mm (0.745"). The radial spinner system is easy to use and will operate for many millions of cycles without maintenance.



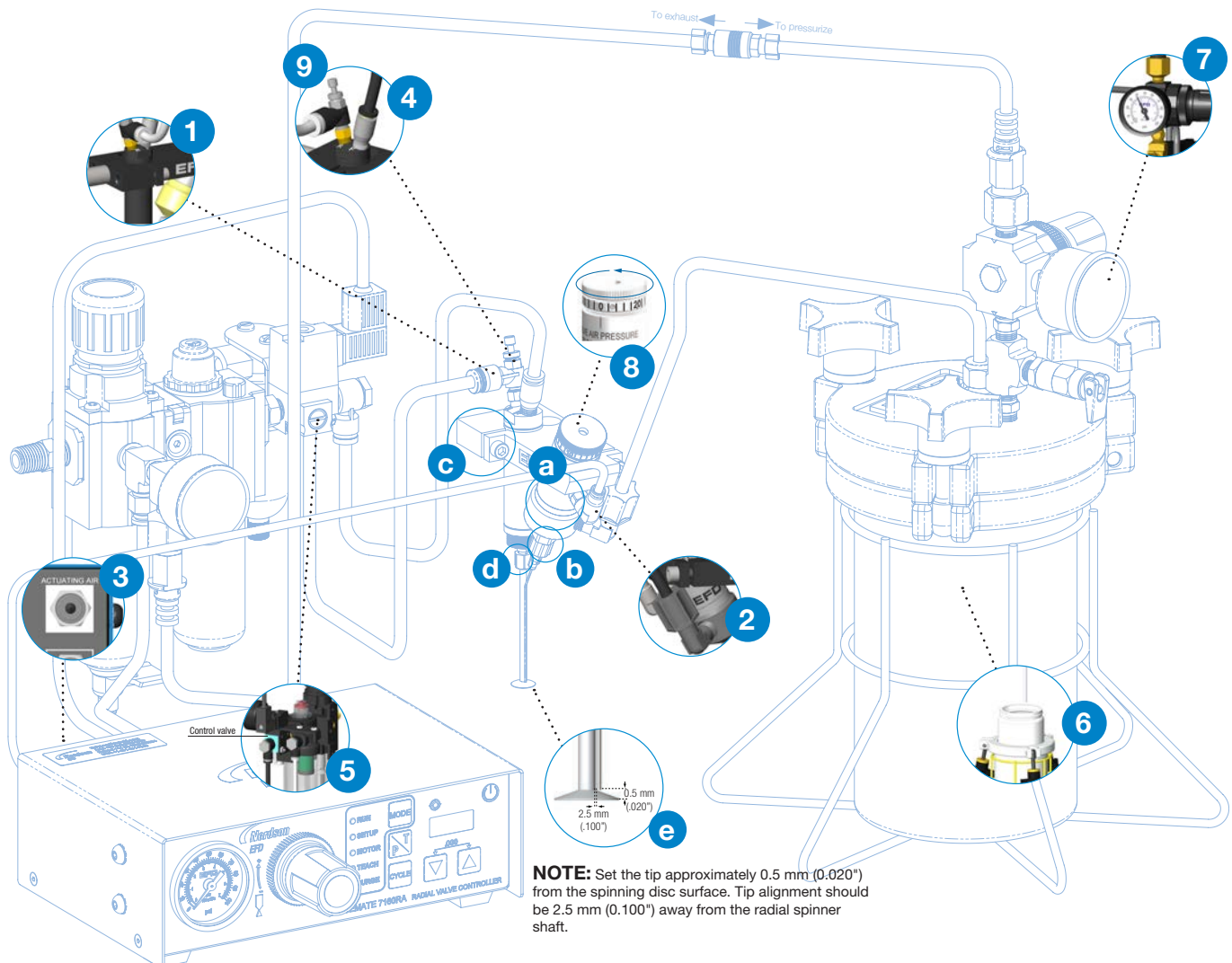
Installation

Prior to installing this system, read the associated reservoir and ValveMate™ 7160RA controller operating manuals to become familiar with the operation of all components of the radial spinner system.

NOTE: Refer to the ValveMate 7160RA controller operating manual for air connection instructions.

1. Mount the radial spinner bracket using the rod provided or bolt it onto an appropriate mounting fixture. Follow these steps to install the radial spinner valve:
 - a. Slide the valve up into the bracket opening until it bottoms out at the actuating air fitting. Secure in place.
 - b. Install the special bent tip in the rotating luer lock adapter. Make sure the tip end is in the vertical position.
 - c. Slide the air motor into the bracket opening. Make sure the motor collet does not make contact at the bend of the dispense tip.
 - d. Insert the shaft into the collet. Set the tip approximately 0.5 mm (0.20") from the spinning disc surface. Tip alignment should be 2.5 mm (0.100") away from the radial spinner shaft.
 - e. Realign the valve and motor in the bracket as needed to achieve recommended clearances.
2. Connect the fluid feed hose to the reservoir outlet and the valve inlet port using the appropriate fittings (supplied).
3. Connect the 4 mm diameter air hose from the valve to the 7160RA controller. The white connector goes to the ACTUATING AIR port. Make sure the nozzle air is OFF and set to 0 bar (0 psi).

NOTE: The NOZZLE AIR port is not used for radial spinner installations.
4. Connect the white and black 6 mm diameter air hoses to the air motor assembly: white connects to the motor speed control and black connects to the F fitting (actual markings on air motor).

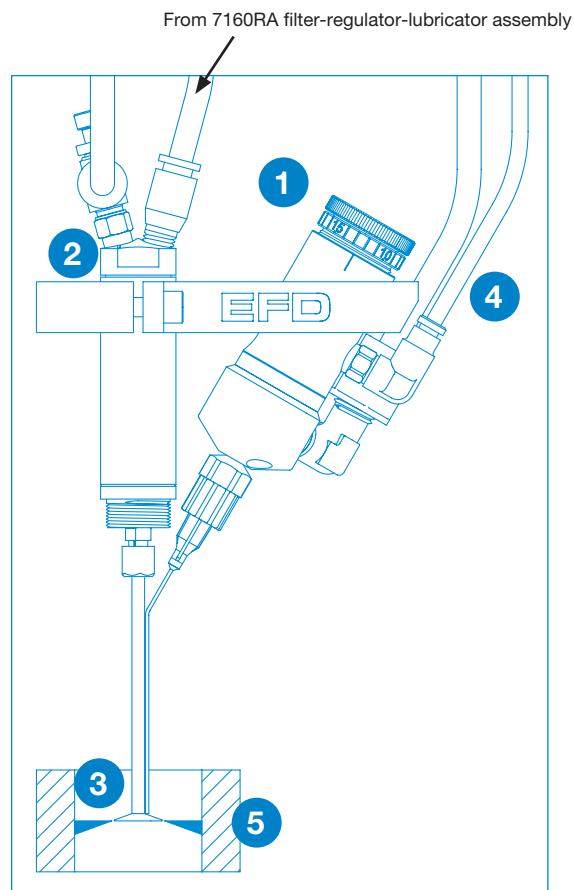


5. Connect the white and black 6 mm diameter hoses to the filter-regulator-lubricator assembly. White connects to the oil recovery bowl and black connects to the control valve.
6. Fill the fluid reservoir. After filling, secure the cover and connect the reservoir air pressure regulator to the air tee using the flexible air line (supplied). Attach the male quick-connect in the air line to the reservoir regulator and then attach the white quick-connect to the air tee. To pressurize the system, slide the shut-off valve in the air line toward the fluid reservoir.
7. Set the reservoir pressure regulator according to fluid viscosity: low for thin fluids [0.07 to 0.2 bar (1 to 3 psi)] and higher for thicker fluids.
8. Set the 752V-UHSS valve (or other appropriate valve model) stroke control to achieve a desired flow rate onto the spinning disc. Set the flow to approximately one drop per second.
9. Adjust the air motor RPM using the speed control knob. Turn the speed control knob clockwise to reduce RPM and counterclockwise to increase RPM.

How the Radial Spinner System Operates

Upon initiation of the 7160RA radial system controller ①, air pressure is released to the air motor assembly ② to begin spinning the radial disc assembly ③. Immediately following, a timed pulse of actuating air is released to the dispense valve ④ to apply fluid onto the spinning disc. The spinning disc causes the radial output to sweep around to apply an even band of fluid to the inner circumference of the cylinder ⑤.

When the timed actuating air from the 7160RA controller shuts off, the dispense valve closes, stopping fluid flow. An adjustable delay after the dispense cycle ensures that all fluid is dispersed after the valve closes, ensuring coating consistency from cycle to cycle. Refer to the ValveMate 7160RA controller operating manual for instructions on increasing / decreasing the delay feature.

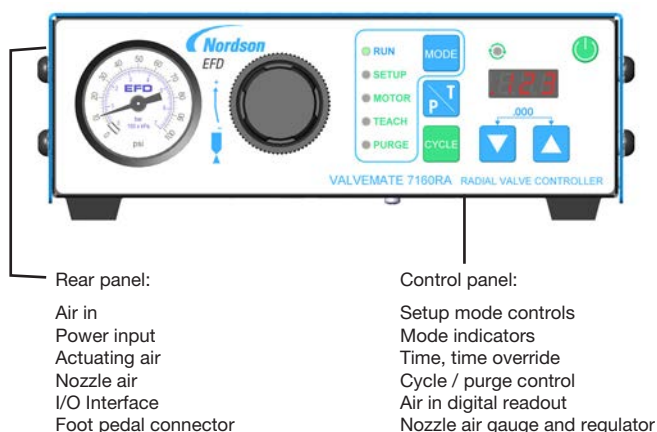


ValveMate Controller Concept

The ValveMate 7160RA radial system controller provides easy adjustment of valve output for maximum end-user convenience and efficiency. Valve open time is the primary control of deposit size. The 7160RA puts push-button adjustment of valve open-time where it needs to be — at the valve and radial spinner assembly.

The controller incorporates unique microprocessor circuitry to provide exact time control and interaction with the host computer.

An initial deposit size can be rapidly programmed by using the 7160RA TEACH mode. Refinements can be made by using the time setup controls.



Specifications

Size: Air motor: 10.5 cm (4.13")
Bracket: 4.7 x 9.5 cm (1.85 x 3.75")

Weight: Air motor: 90.4 g (3.2 oz)
Bracket: 94.5 g (3.3 oz)

Air consumption: <3.2 SCFM at 5.4 bar (80 psi)

Air motor housing: Black anodized aluminum

Shaft: Tool steel

Disc: Passivated Type 303 stainless steel

Air pressure required:
7160RA controller: 4.8 bar (70 psi) minimum
7860C-RS radial spinner: Variable speed control

Mounting: 5/16-24 and 1/4-20

Replacement Parts

7021798: Radial spinner motor / bracket assembly

7021795: Radial spinner air motor only

7021844: Radial spinner tip kit

7021842: 9 mm (0.354") radial spinner / disc

7021836: 12 mm (0.473") radial spinner / disc

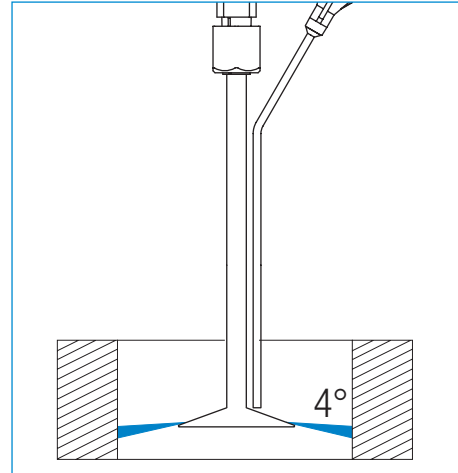
7021838: 15 mm (0.590") radial spinner / disc

7021840: 19 mm (0.745") radial spinner / disc

7021846: 18 ga. tip — 30 degree bend, 20 / box

Radial Spinner Coverage

Radial Spinner distance to inside diameter of cylinder wall should be 0.5 mm (0.020") or more. Choose spinner disc diameter appropriate to cylinder wall I.D.



For consistent dispense valve operation and easy adjustment of valve output, EFD recommends using the ValveMate 7160RA controller on all automatic, semi-automatic and benchtop applications.

Contact the EFD Dispense Valve Systems Group for details.

Safety



For Nordson EFD sales and service in over 40 countries, contact Nordson EFD or go to www.nordsonefd.com.

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