

781RC MicroMark Recirculating Spray Marking System

Quick Start Guide



Electronic pdf files of Nordson EFD manuals are also available at nordsonefd.com

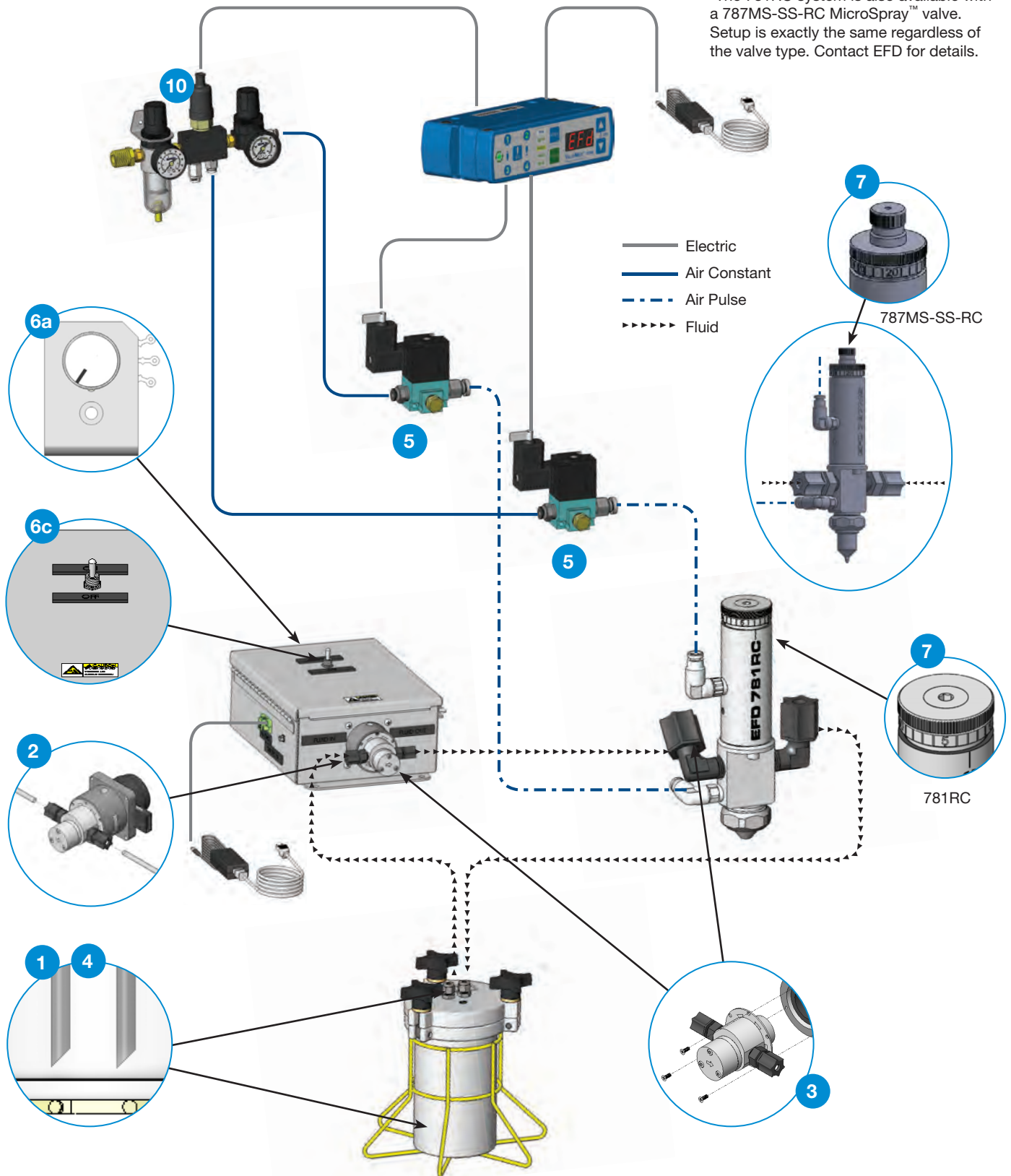
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Prior to installing the MicroMark® Recirculating Spray Marking System, read the associated spray valve and valve controller operating instructions to become familiar with the operation of all components of the spray system.

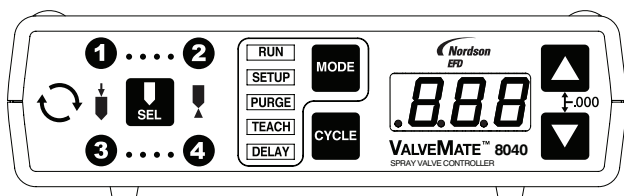
Select an appropriate system setup location for all system components — pump enclosure, 1-liter reservoir, ValveMate™ 8040, and 781RC* spray valve.

Turn the pump enclosure power switch (6c) to OFF and ensure that the speed control (6a) is turned fully counterclockwise to the OFF position.

*The 781RC system is also available with a 787MS-SS-RC MicroSpray™ valve. Setup is exactly the same regardless of the valve type. Contact EFD for details.



1. Cut feed tube hose to desired length and install into tank lid outlet port. Insert tube to bottom of tank liner. Cut tube at slight angle to avoid fluid blockage at bottom of tank.
2. Connect the fluid supply line from tank outlet to pump inlet compression fitting.
3. Connect the fluid line from pump outlet to the 781RC inlet port compression fitting.
4. Cut recirculation feed hose to desired length and install into tank lid recirculation port. Insert recirculation hose to bottom of 1 liter liner.
Cut tube at slight angle to avoid fluid blockage at bottom of tank. Attach other end to 781RC recirculation port outlet compression fitting.
5. Connect the control air hose and the nozzle air hose to corresponding outputs on solenoid block. Reference VM8040 Quick Start Guide.
6. Fill reservoir by pouring fluid directly into tank liner or manufacturer's bottle placed inside reservoir. Secure cover.
 - a. Confirm the speed control knob is OFF by turning fully counterclockwise.
 - b. Set ValveMate 8040 to **PURGE** Mode.
 - c. Turn pump enclosure power switch to ON.
7. Turn 781RC valve stroke to no less than 1/2 turn or more open.



8. Priming the pump (important note: dry running time should be kept to an absolute minimum). During initial startup, keep pump speed low — approximately 9 o'clock position — until fluid reaches the pump.
9. Once 781RC is fully primed, set speed control to approximately 9 o'clock position. ⌚
10. Using the **MODE** button on the ValveMate 8040 controller, place the controller in the **PURGE** mode.
In **PURGE** mode only, channels 1 and 3 can be selected **SEL** independently without nozzle air pressure.

11. Once proper flow is established, press **SEL** until all channels are active.

Depress ValveMate 8040 **CYCLE** button and adjust speed control to set fluid flow rate to one or two drops per second.

NOTE: Flow adjustments should be made with speed control as apposed to reductions of valve needle stroke. Tight valve stroke settings will cause blockage / clogging of valve outlet.

12. Set the nozzle air pressure on the nozzle to 0.7 bar (5 psi) and actuate the controller. Adjust higher as needed to create even spray. The valve will produce a fine spray.

To change fluid flow, use the needle stroke control knob and/or pump speed control. Maintain balanced settings.

NOTE: Do not set stroke too tightly as this will cause nozzle clogging.

To change nozzle air, use the nozzle air pressure regulator. Higher pressures will provide finer spray.

13. Adjusting the spray.
 - a. Set the nozzle air pressure regulator to 0.7 bar (5 psi).
 - b. Press the **PURGE** button and observe the spray pattern.
 - c. Using the spray valve stroke adjustment and pump speed control, increase or decrease settings to arrive at the desired spray pattern.
 - d. Using the **MODE** button, place the controller in **SETUP** mode.
 - e. Press the **SEL** button repeatedly until all valve indicator lights are lit.
 - f. Enter a spray time of 0.050 seconds by pressing the up or down arrow next to the LED screen.
 - g. With a container still under the valves, press the **CYCLE** button to test the deposit amount.
 - h. Increase or decrease the valve open time to arrive at the correct deposit size. To equalize all valves, press the **SEL** button to highlight individual valves and use the valve open time to equalize the output.

Final Checklist

1. Air pressure to solenoid pack is set to 5.5 bar (80 psi).
2. For spray valves, nozzle air regulator is set to 0 bar (0 psi).
3. Solenoids and I/O are wired correctly.
4. Valves and fluid reservoir are properly connected.
5. Power to the ValveMate is on, and indicator lamps and LED are lit.



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