Engineered for the most demanding mechanical and environmental applications, EFD valve systems provide reliable dispensing solutions for benchtop applications, machine builders, and cost-effective drop-in retrofit alternatives for automatic production lines.

EFD offers a wide range of valves for dispensing almost any fluid, from thin solvents to thick sealants and braze pastes — in accurate, repeatable amounts.

Our unique valve designs are exceptionally reliable and will provide tens of millions of trouble-free dispensing cycles before maintenance is required.

Features and Benefits
- Reliable, low maintenance
- Fast cycle rates allow production lines to run at optimal speed
- Engineered for the most demanding production environments
- Clean, drip-free cutoffs reduce waste, mess, and cleanup
- Interactive microprocessor-based controllers simplify PLC settings and provide consistent operation
- Cost-effective replacement for older technology valves
General-purpose valve is ideal for dispensing controlled amounts of most low-to-medium viscosity fluids. Wetted components are machined from inert UHMW (Ultra High Molecular Weight) polyethylene, making the 752 Series ideal for use with cyanoacrylates, anaerobic threadlockers and other reactive fluids.

**Features and Benefits**
- Compact size and weight
- Adjustable fluid flow control
- Positive shutoff, no seals
- Low-maintenance design

**Specifications**

752V-UHSS
- Size: 80.7 mm length x 26.9 mm diameter (3.18” x 1.06”)
- Weight: 173.6 g (6.1 oz)
- Actuating air pressure required: 70-90 psi (4.8-6.2 bar)
- Maximum fluid pressure: 70 psi (4.8 bar)
- Fluid inlet thread: 1/8 NPT female
- Fluid outlet thread: 1/4-28 UNF
- Cycle rate: Exceeds 500 per minute
- Air cylinder body:
  - 752V-UHSS: 303 stainless steel
  - 752V-SS: 303 stainless steel
  - 752V-DVD: Aluminum, hard-coat anodized
- Fluid body:
  - UHMW polyethylene, FDA approved
- Fluid body options:
  - Acetal, 303 stainless steel, PTFE
  - Piston and piston rod: 303 stainless steel
- Tip adapter: Polypropylene
- Diaphragm:
  - UHMW polyethylene, FDA approved
  - Diaphragm option: PTFE
- Wetted parts: Fluid body, diaphragm, tip adapter
- All stainless steel parts are passivated

*Ultra High Molecular Weight polyethylene

**BackPack**

Also available with BackPack valve actuator to improve valve cycle time and process control. See Valve Accessories for details.

**ValveMate 8000**

Easily change deposit size settings of the valves with the ValveMate 8000 controller. See Valve Controllers for details.

**752V Series Diaphragm Valve**

For use with:
- Activators
- Anaerobics
- Cyanoacrylates
- Fluxes
- Solvents
- UV-cure & Light-cure Adhesives

**7021428 752V-UHSS Valve**
Air cylinder body assembly is passivated 303 stainless steel. UHMW fluid body and diaphragm. Includes fluid inlet fittings #7021499 and #7007038.

**7021419 752V-SS Valve**
Air cylinder body assembly is passivated 303 stainless steel. Acetal copolymer fluid body and UHMW diaphragm. Includes fluid inlet fittings #7021499 and #7007038.

**7021411 752V-DVD Valve**
Air cylinder body assembly is hard-coat anodized aluminum. Tamper-resist stroke adjustment. UHMW diaphragm and 303 stainless steel fluid body with integral tip adapter. Includes inlet fitting #7021499.

**7021427 752V-UHDVD Valve**
Same as 752V-DVD except fluid body is UHMW with #7021443 tip adapter. Includes inlet fitting #7021499.

**7021285 750V-SS Valve**
Air cylinder body assembly is 303 stainless steel. UHMW fluid body and diaphragm. Includes fluid inlet fitting #7021300.

**7015582 752V-SS-BP Valve**
Air cylinder body assembly is 303 stainless steel. Acetal copolymer fluid body and UHMW diaphragm. Includes fluid fittings and BackPack valve actuator #7015581.

**7015583 752V-UHSS-BP Valve**
Air cylinder body assembly is 303 stainless steel. UHMW fluid body and diaphragm. Includes fluid fittings and BackPack valve actuator #7015581.

"Your 752V-UH valves are just great for cyanoacrylates. We replaced pinch-tube valves with yours, and our problems are gone!"

– Copreci

www.nordsonefd.com/752VSeries
60% smaller and 70% lighter than typical dispense valves, the 702 Series is ideal for applications where space is tight or installation on movable arms where size and weight must be considered.

The 702M-SS applies consistent, precise deposits of dye, UV-cure lacquers, and UV-cure adhesives in the optical media industry.

The 702V is designed for drip-free coating and consistent shot-to-shot bonding of UV-cure adhesives and other low- to medium-viscosity fluids.

**Features and Benefits**
- Unique design eliminates trapped air and bubbles
- Tamper-resist stroke adjustments
- Quick, clean cutoff eliminates drips
- Faster throughput

**Specifications**
- Size: 63.5 mm length x 19.1 mm diameter (2.50” x 0.75”) 
- Weight (less fittings): 49.3 g (1.74 oz)
- Actuating air pressure required: 70-90 psi (4.8-6.2 bar)
- Maximum fluid pressure: 70 psi (4.8 bar)
- Fluid inlet thread: M5 x 0.8
- Mounting: Adjustable mounting block (#7020507)
- Cycle rate: Exceeds 500 per minute
- Air cylinder body: 303 stainless steel
- Fluid body: 303 stainless steel
- Piston: 303 stainless steel
- Diaphragm: FDA approved UHMW* polyethylene or PTFE. Consult Nordson EFD for part number.
- Tip retaining nut: Aluminum

All stainless steel parts are passivated.

*Ultra High Molecular Weight polyethylene

**7020679  702M-SS Valve**
For optical media applications. Air cylinder body and fluid body are made of passivated 303 stainless steel. UHMW diaphragm. Includes sample tip kit of PTFE-coated tips, (4) each of 21 and 23 gauge.

**7020683  702V-SS Valve**
For general industry applications. Air cylinder body and fluid body are made of passivated 303 stainless steel. UHMW diaphragm. Includes 1.5 m (5 ft) input air hose with male quick-connect and fluid inlet fitting, #7020671.

**7020680  702V-A Valve**
For dispensing UV cure, anaerobics, and certain cyanoacrylates. Fluid body is acetal copolymer with a 303 stainless steel air cylinder body. UHMW diaphragm. Acetal copolymer wetted parts are preferred when dispensing UV-cure adhesives, anaerobics, cyanoacrylates, and other fluids that might otherwise react when in contact with stainless steel. Includes 1.5 m (5 ft) input air hose with male quick-connect and fluid inlet fitting, #7020677.

**ValveMate 8000**
Easily change deposit size settings of the valves with the ValveMate 8000 controller. See Valve Controllers for details.

www.nordsonefd.com/702Series
Diaphragm Valves

The 752HF valve system is specifically designed for precise dispensing of UV-cure resins and similar fluids used in media manufacturing of Blu-Ray DVDs, DVDs, and CDs. Unrestricted material flow reduces turbulence and the formation of micro bubbles.

Features and Benefits
- High-flow capability for thicker UV-cure coatings
- Valve open time as short as 15 milliseconds
- Positive shutoff, no seals
- Compact and lightweight

Specifications
- Size: 77.3 mm length x 28.6 mm diameter (3.04" x 1.13")
- Weight (less fittings):
  - 752HF-A: 81 g (2.85 oz)
  - 752HF-SS: 123 g (4.30 oz)
- Actuating air pressure required: 70-90 psi (4.8-6.2 bar)
- Maximum fluid pressure: 70 psi (4.8 bar)
- Fluid inlet thread: 1/8-27 NPT
- Mounting: (1) M5 x 0.8
- Cycle rate: Exceeds 500 per minute
- Air cylinder body: Aluminum, hard-coat anodized
- Fluid body:
  - 752HF-A: Acetal copolymer
  - 752HF-SS: 303 stainless steel
- Piston: 303 stainless steel
- Diaphragm: UHMW polyethylene, FDA approved
- Tip retaining nut: Aluminum
- All stainless steel parts are passivated.

*Ultra High Molecular Weight polyethylene

ValveMate 8000
Easily change deposit size settings of the valves with the ValveMate 8000 controller. See Valve Controllers for details.

“We never expected these valves would work this great and be this reliable! Over 50 million cycles without maintenance!”
— Capitol Records
The 754V aseptic valve features a smooth fluid flow path that is free of any entrapment areas. FDA-compliant wetted parts are made of 316L stainless steel and PTFE, making the valve suitable for CIP (Clean-In-Place) and SIP (Sterilize-In-Place) processes.

**Features and Benefits**
- Accurate, consistent shot size
- Clean cutoff eliminates drips
- Diaphragm life exceeds $1 \times 10^9$
- Positive shutoff, no seals

**Specifications**
- **Size:** 77.5 mm length x 26.9 mm diameter (3.05” x 1.06”)
- **Weight:** 193.3 g (6.82 oz)
- **Actuating air pressure required:** 70-90 psi (4.8-6.2 bar)
- **Maximum fluid pressure:** 70-90 psi (4.8-6.2 bar)
- **Fluid inlet thread:** 5/16-24 UNF
- **Fluid outlet thread:** Male luer lock
- **Mounting:** None
- **Cycle rate:** Exceeds 500 per minute
- **Air cylinder body:** 316L stainless steel
- **Fluid body:** 316L stainless steel
- **Piston and piston rod:** 316L stainless steel
- **Tip adapter:** Integrated, threadless
- **Diaphragm:** PTFE
- **Wetted parts:** Fluid body, diaphragm, tip adapter

**For use with:**
- Food Processing
- Optical Monomers
- Pill Coating
- Saline Solutions
- Solvents
- Vial Filling

**ValveMate 8000**
Easily change deposit size settings of the valves with the ValveMate 8000 controller. See Valve Controllers for details.

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**For Aseptic Spray Valves, see Spray Valves section.**
The 725D Series valve systems consistently dispense a wide range of medium to thick fluids, including greases and silicones.

The 725DA-SS provides stroke adjustment for both fluid flow and snuff-back control. The 725D-SS version is non-adjustable and provides fixed stroke travel.

**Features and Benefits**

- Positive shutoff
- Excellent chemical resistance
- End-of-cycle snuff-back
- Diaphragm life exceeds 50 million cycles

**Specifications**

**725DA-SS (stroke adjustment)**
- Size: 152.4 mm length x 29.5 mm diameter (6.00" x 1.16")
- Weight: 326 g (11.5 oz)
- Actuating air pressure required: 70-90 psi (4.8-6.2 bar)
- Maximum input fluid pressure: 100 psi (7.0 bar)
- Fluid inlet thread: 1/8 NPT female
- Fluid outlet: 1/4 NPT female
- Mounting: (1) 1/8 NPT female blind hole or adjustable mounting block
- Air cylinder body: Aluminum, hard-coat anodized
- Fluid body: 303 stainless steel
- Piston: Aluminum, hard-coat anodized
- Spring: Stainless steel
- Sealing head/diaphragm: UHMW* polymer, FDA-approved
- All stainless steel parts are passivated.

**725D-SS (fixed stroke travel)**
- Size: 127 mm length x 28.4 mm diameter (5.00" x 1.12")
- Weight: 279 g (9.85 oz)
- Actuating air pressure required: 70-90 psi (4.8-6.2 bar)
- Maximum input fluid pressure: 100 psi (7.0 bar)
- Fluid inlet thread: 1/8 NPT female
- Fluid outlet: 1/4 NPT female
- Mounting: (1) 1/8 NPT female blind hole or adjustable mounting block
- Air cylinder body: Aluminum, hard-coat anodized
- Fluid body: 303 stainless steel
- Piston: Aluminum, hard-coat anodized
- Spring: Stainless steel
- Sealing head/diaphragm: UHMW* polymer, FDA-approved
- All stainless steel parts are passivated.

**ValveMate 8000**

Easily change deposit size settings of the valves with the ValveMate 8000 controller. See Valve Controllers for details.

*Ultra High Molecular Weight polyethylene

For use with:
- Braze Pastes
- Epoxies
- Greases
- Paste Fluxes
- RTV/Sealants
- Solder Resists

*Watching EFD valves is boring. And that’s great. They just keep working and working.*
– Peavey Electronics
Dispenses a wide variety of fluids at rates up to 450 ml/second. Use to fill small bottles, vials, and foil packs with lotions, perfumes, and adhesives. Also used for dispensing braze pastes and potting electrical connectors.

**Features and Benefits**
- FDA-compliant wetted parts
- Fully adjustable flow rates
- ±1° repeat fill tolerance
- Low-maintenance design

**Specifications**

**725HF-SS**
- Size: 108.7 mm length x 31.2 mm diameter (4.28" x 1.23")
- Weight: 309 g (10.9 oz)
- Actuating air pressure required: 70-90 psi (4.8-6.2 bar)
- Maximum fluid pressure: 100 psi (7.0 bar)
- Fluid inlet thread: 1/4 NPT
- Fluid outlet thread: 1/4 NPT
- Cycle rate: Exceeds 400 per minute
- Air cylinder body: Aluminum, hard-coat anodized
- Fluid body: 303 stainless steel or acetal copolymer
- Piston: Aluminum, hard-coat anodized
- Spring: Stainless steel
- Sealing head/diaphragm: UHMW* polymer, FDA-approved

**725HF-A**
- Size: 109.2 mm length x 31.2 mm diameter (4.30" x 1.23")
- Weight: 185 g (6.5 oz)
- Actuating air pressure required: 70-90 psi (4.8-6.2 bar)
- Maximum fluid pressure: 100 psi (7.0 bar)
- Fluid inlet thread: 1/4 NPT
- Fluid outlet thread: 1/4 NPT
- Cycle rate: Exceeds 400 per minute
- Air cylinder body: Aluminum, hard-coat anodized
- Fluid body: 303 stainless steel or acetal copolymer
- Piston: Aluminum, hard-coat anodized
- Spring: Stainless steel
- Sealing head/diaphragm: UHMW* polymer, FDA-approved

All stainless steel parts are passivated.

*Ultra High Molecular Weight polyethylene

**ValveMate 8000**

Easily change deposit size settings of the valves with the ValveMate 8000 controller. See Valve Controllers for details.
The xQR41 Series MicroDot™ valve is a pneumatically operated, adjustable, modular valve designed to apply precise micro-deposits of low- to high-viscosity fluids. Ideal for automated assembly processes that require small dispensing tips, the xQR41 valve provides exceptional control as well as the absolute minimum dead fluid volume. Its modular design makes it adaptable to a variety of specific applications.

### Features and Benefits
- 60% smaller form factor
- QR (Quick Release) clasp for fast, easy serviceability
- Exchangeable, modular design
- Consistent microdots as small as 150 μm (0.15 mm) (0.006") diameter
- Optional PEEK® wetted parts resist curing from reactive adhesives

### Specifications
- **Size:** 66 mm length x 23.7 mm diameter (2.60” x 0.930”)
- **Weight:** 141.35 g (5.0 oz)
- **Actuating air pressure required:** 70–90 psi (4.8–6.2 bar)
- **Maximum fluid pressure:** 100 psi (6.9 bar)
- **Fluid inlet thread:** M5
- **Fluid outlet:** Luer taper with retaining nut
- **Mounting:** M4 (BackPack actuator or Mounting Block)
- **Cycle rate:** Exceeds 400 per minute
- **Air cylinder body:** 303 stainless steel
- **Fluid body:** 303 stainless steel or PEEK
- **Piston:** 303 stainless steel
- **Needle:** Nickel- / PTFE-coated 17/4 stainless steel or PEEK
- **SafetyLok collar:** Aluminum, hard-coat anodized

All stainless steel parts are passivated.

* Polyetheretherketone

### xQR41 with BackPack
Includes fluid inlet fittings #7020671 and #7361411

7360817
Includes adjustable stroke control.

7361761
Includes adjustable stroke control and PEEK wetted parts.

7360821
Includes adjustable stroke control and bullet-end needle.

7360819
Includes non-adjustable cap.

7361762
Includes non-adjustable cap and PEEK wetted parts.

### xQR41 with Mounting Block
Includes fluid inlet fittings #7020671 and #7361411

7360824
Includes adjustable stroke control.

7361763
Includes adjustable stroke control and PEEK wetted parts.

7360823
Includes adjustable stroke control and bullet-end needle.

7360825
Includes non-adjustable cap.

7361764
Includes non-adjustable cap and PEEK wetted parts.

### BackPack
Also available with BackPack valve actuator to improve valve cycle time and process control. See Valve Accessories for details.

### Needle Nozzle Cleaning Station
Designed to automate the cleaning of needle valve dispensing tips and Liquidyn jetting nozzles. See Valve Accessories for details.

### ValveMate 8000
Easily change deposit size settings of the valves with the ValveMate 8000 controller. See Valve Controllers for details.
Needle Valves

The xQR41V Series needle valve is a pneumatically operated, adjustable, modular valve designed to apply precise amounts of low- to high-viscosity fluids.

The valve’s 60% smaller form factor and modular design allow for greater customization to meet specific application requirements. Its compatibility with all Nordson EFD dispensing tips make it adaptable to a wide variety of fluid applications.

Features and Benefits

- 60% smaller form factor
- QR (Quick Release) clasp for fast, easy serviceability
- Exchangeable, modular design
- Use with full range of Nordson EFD dispensing tips

Specifications

- Size: 64 mm length x 23.7 mm diameter (2.5” x 0.93”)
- Weight: 115 g (4.1 oz)
- Actuating air pressure required: 70–90 psi (4.8–6.2 bar)
- Maximum fluid pressure: 100 psi (7.0 bar)
- Fluid inlet: M5
- Fluid outlet: Luer taper with retaining nut
- Mounting: M4 (BackPack actuator or Mounting Block)
- Cycle rate: Exceeds 400 per minute
- Air cylinder body: 303 stainless steel
- Fluid body: PEEK*
- Piston: 303 stainless steel
- Needle: 303 stainless steel
- Tip retaining nut: Hard-coated aluminum
- SafetyLok collar: Hard-coated anodized aluminum

All stainless steel parts are passivated.
* Polyetheretherketone

The xQR41V Series needle valve is a pneumatically operated, adjustable, modular valve designed to apply precise amounts of low- to high-viscosity fluids.

xQR41V with BackPack
Includes fluid inlet fittings #7020671 and #7361411.

7362489
Includes adjustable stroke control.

xQR41V with Mounting Block
Includes fluid inlet fittings #7020671 and #7361411.

7362488
Includes adjustable stroke control.

BACKPACK
Also available with BackPack valve actuator to improve valve cycle time and process control. See Valve Accessories for details.

Needle Nozzle Cleaning Station
Designed to automate the cleaning of needle valve dispensing tips and Liquidyn jetting nozzles. See Valve Accessories for details.

ValveMate 8000
Easily change deposit size settings of the valves with the ValveMate 8000 controller. See Valve Controllers for details.

www.nordsonefd.com  info@nordsonefd.com  USA & Canada 800-556-3484  Europe +44 (0) 1582 666334  Asia +86 (21) 3866 9006
The MicroDot valve is a pneumatically operated adjustable needle valve designed to apply very precise deposits down to fractions of a microliter.

Ideal for automated assembly processes, the 741MD-SS valve has an adjustable needle stroke with a unique calibration feature that allows the user to maintain exact deposit size.

**Features and Benefits**
- Zero dead fluid volume
- Easy calibration; short setup time
- Consistent microdots as small as 0.18 mm (0.007") diameter
- Unaffected by entrapped air in fluids

**Specifications**
- Size: 127.5 mm length x 26.9 mm diameter (5.02" x 1.06")
- Weight: 251 g (9.0 oz)
- Actuating air pressure required: 70-90 psi (4.8-6.2 bar)
- Maximum fluid pressure: 100 psi (7.0 bar)
- Fluid inlet thread: 1/8 NPT female
- Fluid outlet: Luer taper with retaining nut
- Mounting: 1/4-28 UNF tapped hole
- Cycle rate: Exceeds 400 per minute
- Air cylinder body: Aluminum, hard-coat anodized
- Fluid body: 303 stainless steel
- Piston: 303 stainless steel
- Needle: 303 stainless steel
- Tip adapter: 303 stainless steel
- EFD SafetyLok collar: Aluminum, hard-coat anodized

All stainless steel parts are passivated.

**BackPack**
Also available with BackPack valve actuator to improve valve cycle time and process control. See Valve Accessories for details.

**Needle Nozzle Cleaning Station**
Designed to automate the cleaning of needle valve dispensing tips and Liquidyn jetting nozzles. See Valve Accessories for details.

**ValveMate 8000**
Easily change deposit size settings of the valves with the ValveMate 8000 controller. See Valve Controllers for details.
Needle Valves

Precision needle valve applies low viscosity fluids in accurate, repeatable amounts. Because the stainless steel needle seats in the tip adapter, there is virtually no dead fluid volume between shots.

Features and Benefits
- Low-maintenance design
- Zero dead fluid volume
- Positive shutoff

Specifications
- Size: 114.6 mm length x 26.9 mm diameter (4.51" x 1.06")
- Weight: 317.5 g (11.2 oz)
- Actuating air pressure required: 70-90 psi (4.8-6.2 bar)
- Maximum input fluid pressure: 300 psi (20.7 bar)
- Fluid inlet thread: 1/8 NPT female
- Fluid outlet: Male luer lock
- Mounting: 1/4-28 UNF tapped hole
- Cycle rate: Exceeds 400 per minute
- Air cylinder body: 303 stainless steel
- Fluid body: 303 stainless steel
- Piston: 303 stainless steel
- Needle: 303 stainless steel
- Tip adapter/needle seat: 303 stainless steel
- SafetyLok collar: Nylon
- Needle packings: PTFE

All stainless steel parts are passivated.

Precision needle valve applies low viscosity fluids in accurate, repeatable amounts. Because the stainless steel needle seats in the tip adapter, there is virtually no dead fluid volume between shots.

Features and Benefits
- Low-maintenance design
- Zero dead fluid volume
- Positive shutoff

Specifications
- Size: 114.6 mm length x 26.9 mm diameter (4.51" x 1.06")
- Weight: 317.5 g (11.2 oz)
- Actuating air pressure required: 70-90 psi (4.8-6.2 bar)
- Maximum input fluid pressure: 300 psi (20.7 bar)
- Fluid inlet thread: 1/8 NPT female
- Fluid outlet: Male luer lock
- Mounting: 1/4-28 UNF tapped hole
- Cycle rate: Exceeds 400 per minute
- Air cylinder body: 303 stainless steel
- Fluid body: 303 stainless steel
- Piston: 303 stainless steel
- Needle: 303 stainless steel
- Tip adapter/needle seat: 303 stainless steel
- SafetyLok collar: Nylon
- Needle packings: PTFE

All stainless steel parts are passivated.

Precision needle valve applies low viscosity fluids in accurate, repeatable amounts. Because the stainless steel needle seats in the tip adapter, there is virtually no dead fluid volume between shots.

Features and Benefits
- Low-maintenance design
- Zero dead fluid volume
- Positive shutoff

Specifications
- Size: 114.6 mm length x 26.9 mm diameter (4.51" x 1.06")
- Weight: 317.5 g (11.2 oz)
- Actuating air pressure required: 70-90 psi (4.8-6.2 bar)
- Maximum input fluid pressure: 300 psi (20.7 bar)
- Fluid inlet thread: 1/8 NPT female
- Fluid outlet: Male luer lock
- Mounting: 1/4-28 UNF tapped hole
- Cycle rate: Exceeds 400 per minute
- Air cylinder body: 303 stainless steel
- Fluid body: 303 stainless steel
- Piston: 303 stainless steel
- Needle: 303 stainless steel
- Tip adapter/needle seat: 303 stainless steel
- SafetyLok collar: Nylon
- Needle packings: PTFE

All stainless steel parts are passivated.

Precision needle valve applies low viscosity fluids in accurate, repeatable amounts. Because the stainless steel needle seats in the tip adapter, there is virtually no dead fluid volume between shots.

Features and Benefits
- Low-maintenance design
- Zero dead fluid volume
- Positive shutoff

Specifications
- Size: 114.6 mm length x 26.9 mm diameter (4.51" x 1.06")
- Weight: 317.5 g (11.2 oz)
- Actuating air pressure required: 70-90 psi (4.8-6.2 bar)
- Maximum input fluid pressure: 300 psi (20.7 bar)
- Fluid inlet thread: 1/8 NPT female
- Fluid outlet: Male luer lock
- Mounting: 1/4-28 UNF tapped hole
- Cycle rate: Exceeds 400 per minute
- Air cylinder body: 303 stainless steel
- Fluid body: 303 stainless steel
- Piston: 303 stainless steel
- Needle: 303 stainless steel
- Tip adapter/needle seat: 303 stainless steel
- SafetyLok collar: Nylon
- Needle packings: PTFE

All stainless steel parts are passivated.
Stainless steel balanced spool valve applies uniform amounts of thick materials like greases and silicones at pressures up to 2500 psi (172 bar).

To keep dots and lines consistent and prevent drooling between shots, the 736HPA-NV valve uses an adjustable stroke control to regulate opening surge and closing snuff-back.

**Features and Benefits**
- Opening surge control
- Adjustable snuff-back cutoff
- Auxiliary air inlet air-assist closure
- Cycle rate exceeds 400/minute

**Specifications**
- Size: 134.4 mm length x 35.1 mm diameter (5.29" x 1.38")
- Weight (less fittings): 544 g (19.2 oz)
- Actuating air pressure required: 70-90 psi (4.8-6.2 bar)
- Maximum fluid pressure: 2500 psi (172 bar)
- Fluid inlet thread: 1/4 NPT female
- Mounting: (1) 5/16-24 UNF tapped hole or adjustable mounting block
- Cycle rate: Exceeds 400 per minute
- Air cylinder body: 303 stainless steel
- Fluid body and outlet cap: 303 stainless steel
- Piston: Aluminum, hard-coat anodized
- Spool: Stainless, hard chrome coated
- Spool seals: Polyester elastomer
- Wetted parts: Spool, spool seals, fluid body, body cap
- All stainless steel parts are passivated.

**ValveMate 8000**
Easily change deposit size settings of the valves with the ValveMate 8000 controller. See Valve Controllers for details.
Auger Valves

The 794 auger valve uses screw feed technology with precision time and pressure controls to dispense accurate, repeatable amounts of particle-filled materials.

The 794 auger valve is available with two motor types. Brush motors are best for lines and stripes and deposit cycle rates under 60-90 shots per minute. Brushless motors are best for high-speed, high cycle rate microdot applications.

Features and Benefits

- Adjustable auger speed
- Two motor types — brush or brushless
- Fixed head version for lines and stripes
- Sliding head/footed tip version maintains consistent dispense gap when dispensing on surfaces with irregular height.

Specifications

Size: 237.5 mm length x 31.8 mm diameter (9.35” x 1.25”)
Weight: 544 g (19.2 oz)
Fluid chamber: 440C hardened stainless steel
Auger: 440C hardened stainless steel
“U” cup: Filled PTFE, spring energized
Liquid feed fitting: 304 stainless steel 10-32 UNF x 5/32 (push-in optional: polypropylene)
Auger speed: 250-500 RPM based on voltage input
Auger pitch: 8 and 16 pitch auger
Input voltage: 12-24 VDC (<10% ripple)
Input air: 0-30 psi (0-2.07 bar) clean, dry and filtered
Maximum acceleration: 2g

All stainless steel parts are passivated.

ValveMate 7194

The 7194 Series controller regulates solder feed pressure, dispense time, and auger speed of the 794 Series valve. See Valve Controllers for details.

794 Series

Auger Valve

For use with:
- Particle-filled Materials
- Silver Epoxies
- Solder Pastes
- Thermal Greases

“We’ve gone from 30 minutes to 4 minutes to solder an assembly. I look like a hero for introducing this.”

— Automotive Assembly

Brushless Motor Style

7029743  794-SB Valve
Auger valve, 8 pitch, brushless motor, sliding head, footed tip.

7029742  794-FB Valve
Auger valve, 8 pitch, brushless motor, fixed head.

7029744  794-SB-16 Valve
Auger valve, 16 pitch, brushless motor, sliding head.

7029463  794-FB-16 Valve
Auger valve, 16 pitch, brushless motor, fixed head.

Brush Motor Style

7021916  794-SR Valve
Auger valve, 8 pitch, brush motor, sliding head, footed tip.

7029745  794-FR Valve
Auger valve, 8 pitch, brush motor, fixed head.

7021917  794-SR-16 Valve
Auger valve, 16 pitch, brush motor, sliding head, footed tip.

7029746  794-FR-16 Valve
Auger valve, 16 pitch, brush motor, fixed head.

Learn more about EFD custom-made solder pastes. See Solder Products for details.

www.nordsonefd.com/794VSeries
The Radial Spinner System applies consistent amounts of adhesives, lubricants, and other production fluids inside cylindrical parts between 10.2 mm (0.4") and 127 mm (5") in diameter.

The system combines a compact air-driven motor with a low maintenance EFD dispense valve and ValveMate controller. The valve dispenses a precisely metered amount of fluid onto a spinning disk attached to the motor. As fluid reaches the edge of the disk, it spins off, forming a neat band inside the part.

**Features and Benefits**
- Applies correct amount on every part
- Applies material in correct location
- Eliminates waste, mess, and rework
- Operates in vertical or horizontal position

**RADIAL SPINNER / DISC ASSEMBLIES**

<table>
<thead>
<tr>
<th>Part</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>7021842</td>
<td>7880-9MM: 9 mm (0.354&quot;) radial spinner/disc</td>
</tr>
<tr>
<td>7021836</td>
<td>7880-12MM: 12 mm (0.473&quot;) radial spinner/disc</td>
</tr>
<tr>
<td>7021838</td>
<td>7880-15MM: 15 mm (0.590&quot;) radial spinner/disc</td>
</tr>
<tr>
<td>7021840</td>
<td>7880-19MM: 19 mm (0.745&quot;) radial spinner/disc</td>
</tr>
</tbody>
</table>

**Dispensing Tips**

<table>
<thead>
<tr>
<th>Part</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>7021846</td>
<td>18 gauge needle – 30 degree bend 20/box</td>
</tr>
<tr>
<td>7021848</td>
<td>21 gauge needle – 30 degree bend 20/box</td>
</tr>
<tr>
<td>7021850</td>
<td>23 gauge needle – 30 degree bend 20/box</td>
</tr>
<tr>
<td>7021844</td>
<td>Tip kit: Includes (2) each of 18, 21, and 23 gauge bent tips</td>
</tr>
<tr>
<td>7021448</td>
<td>Tip adapter: Rotating luer lock tip for 752V valve</td>
</tr>
</tbody>
</table>

**ValveMate 7160RA**
The ValveMate 7160RA controller provides exact control to the radial spinner system. See Valve Controllers for details.

**ValveMate 7160C-RA**
Air Motor Bracket Assembly
Radial spinner motor/bracket assembly. Includes all hoses, #7021844 tip kit and #7021448 rotating luer lock tip adapter.

**7021795 7860C**
Radial spinner air motor only.
Note: Valves purchased separately. We recommend 752V Series Diaphragm Valves for use with the Radial Spinner System.
The 781S Series Low Volume Low Pressure (LVLP) spray systems apply consistent coatings of low- to medium-viscosity fluids exactly where needed.

Microliter to milliliter amounts can be reliably dispensed in round patterns with diameters ranging from 4.3 to 50.8 mm (0.17" to 2.0") and in fan patterns with widths up to 165.1 mm (6.5").

**Features and Benefits**
- Consistent area of coverage
- No clogging, dripping or drying out
- No overspray, no mist, no bounce
- Adjustable nozzle air

**Specifications**
- Size: 104.6 mm length x 26.9 mm diameter (4.12" x 1.06")
- Weight:
  - 781S-SS: 405.3 g (14.2 oz)
  - 781S: 235.3 g (8.2 oz)
- Actuating air pressure required: 70 to 90 psi (4.8-6.2 bar)
- Maximum fluid pressure: 300 psi (20.7 bar)
- Fluid inlet thread: 1/8 NPT female
- Mounting: (1) 1/4-28 UNF tapped hole
- Cycle rate: Exceeds 400 per minute
- Air cylinder body:
  - 781S-SS: 303 stainless steel
  - 781S: Aluminum, hard-coat anodized
- Fluid body:
  - 781S-SS: 303 stainless steel
  - 781S: Aluminum, hard-coat anodized
- Air cap: 303 stainless steel
- Piston: 303 stainless steel
- Needle and nozzle: 303 stainless steel
- Needle packings: PTFE
- All stainless steel parts are passivated.

**ValveMate 8040**
The ValveMate 8040 controller provides Low Volume Low Pressure air to the nozzle of the 781S Series valve for high transfer efficiency. See Valve Controllers for details.

**781S Series General Purpose Spray Valves**

For use with:
- Activators
- Coatings
- Greases
- Inks
- Liquid Fluxes
- Oils
- Silicones
- Solvents

**781S Series**

- **781S-SS Spray Valve**
  - Nozzle size is 1.17 mm (0.046") diameter. Round pattern, narrow angle. All metal parts are passivated 303 stainless steel.

- **781S-SS-TR**
  - Same as 781S-SS, except with tamper-resist stroke.

- **781S-SS-46F**
  - Nozzle size is 1.17 mm (0.046") diameter, fan shape. All metal parts are passivated 303 stainless steel.

- **781S-SS-WF**
  - Same as 781S-SS-46F except wide fan pattern is 2x the width.

- **781S-SS-28**
  - Nozzle size is 0.71 mm (0.028") diameter. Round pattern, narrow angle. All metal parts are passivated 303 stainless steel.

- **781S-SS-28F**
  - Nozzle size is 0.71 mm (0.028") diameter. Round pattern, narrow angle. All metal parts are passivated 303 stainless steel.

- **781S-SS-14**
  - Nozzle size is 0.36 mm (0.014") diameter. Round pattern, narrow angle. All metal parts are passivated 303 stainless steel.

- **781S-SS-14F**
  - Nozzle size is 0.36 mm (0.014") diameter, fan shape. All metal parts are passivated 303 stainless steel.

- **781S-SS-WA**
  - Same as 781S-SS except round pattern is 2x as large.
Spray Valves

The 781Mini™ precision Low Volume Low Pressure (LVLP) spray valve’s innovative design produces an exceptionally more uniform, narrower spray pattern than previously possible.

Its 60% smaller form factor allows it to dispense in tighter, more complex spaces, and to mount more valves per fixture plate for increased throughput.

Features and Benefits
- Improved uniformity for better accuracy and finer edge definition
- Narrower spray patterns as small as 1 mm (0.04") wide
- QR (Quick Release) clasp for tool-free serviceability in seconds
- High transfer efficiency with no overspray

Specifications
- Size: 71.4 mm length x 22.4 mm diameter (2.88" x 0.9")
- Weight: 141 g (5.0 oz)
- Actuating air pressure required: 70 to 90 psi (4.8-6.2 bar)
- Maximum fluid pressure: 100 psi (7.0 bar)
- Fluid inlet thread: M5
- Mounting: M4
- Cycle rate: Exceeds 400 per minute
- Air cylinder body: 303 stainless steel
- Fluid body: 303 stainless steel
- Air cap: 303 stainless steel
- Piston: 303 stainless steel
- Needle: 303 stainless steel
- Needle packings: Double O-rings
- Maximum operating temperature: 102° C (215° F)

All stainless steel parts are passivated.

ValveMate 8040
The ValveMate 8040 controller provides exact control to the 781Mini spray valve, giving it exceptional spray pattern definition. See Valve Controllers for details.

781Mini Series Spray Valve

For use with:
- Activators
- Coatings
- Inks
- Light Greases
- Liquid Fluxes
- Oils
- Silicone Oils
- Solvents

7361625  781Mini-0.01" Valve
Features a 0.254 mm (0.01") nozzle orifice. Round pattern, narrow angle.

7362301  781Mini-0.03" Valve
Features a 0.76 mm (0.03") nozzle orifice. Round pattern.

“Finally, we found a valve that does what the manufacturer said it would. Simple. Compact. Reliable. No waiting or costly downtime for spare parts, either.”
— Oxford International Ltd.
The 787MS-SS precision spray valve uses Low Volume Low Pressure (LVLP) technology to produce uniform spray patterns between 3.3 mm (0.130") and 19.1 mm (0.75") in diameter.

Innovative design uses a small gauge 0.3 mm–0.1 mm (0.013"–0.004") ID disposable dispensing tip in place of a standard spray nozzle. This concentrates the LVLP air used to atomize the coating into uniform spray patterns as small as 3.3 mm (0.130") in diameter — over 30% smaller than EFD’s standard spray valve configuration.

**Features and Benefits**
- High transfer efficiency
- No overspray or mist
- Consistent spray pattern
- Faster throughput

**Specifications**
- Size: 131.6 mm length x 26.9 mm diameter (5.18" x 1.06")
- Weight: 336 g (11.8 oz)
- Actuating air pressure required: 70 to 90 psi (4.8-6.2 bar)
- Maximum fluid pressure: 100 psi (7.0 bar)
- Fluid inlet thread: 1/8 NPT female
- Mounting: 1/4-28 UNF tapped hole
- Cycle rate: Exceeds 400 per minute
- Air cylinder body: 303 stainless steel
- Fluid body: 303 stainless steel
- Piston: 303 stainless steel
- Needle: 303 stainless steel
- Air cap: 303 stainless steel
- Free flow orifice: 33 ga (0.004"; 0.10 mm) to 23 ga (0.013"; 0.33 mm)
- Needle packings: PTFE
- Maximum operating temperature: 102° C (215° F)

All stainless steel parts are passivated.

**ValveMate 8040**
The ValveMate 8040 controller provides exact control to the 787MS-SS valve, giving it exceptional spray pattern definition. See Valve Controllers for details.

**7029409 787MS-SS Valve with Centering Air Cap**
Accommodates Tip Centering Guide. Includes spray tip kit, air hoses, fluid inlet fitting, barrel reservoirs, and adapter assembly for reservoir pressure.

**7012549 787MS-SS Valve**
Does not accept Tip Centering Guide.

**TIP CENTERING GUIDE**
The Tip Centering Guide ensures proper alignment of the dispensing needle in critical spray applications. Order components separately.

<table>
<thead>
<tr>
<th>Part #</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>7027984</td>
<td>Replacement air cap</td>
</tr>
<tr>
<td>7027985</td>
<td>Centering Guide, 27/33ga</td>
</tr>
<tr>
<td>7029405</td>
<td>Centering Guide, 25ga</td>
</tr>
<tr>
<td>7029406</td>
<td>Centering Guide, 25ga</td>
</tr>
<tr>
<td>7029407</td>
<td>Centering Guide, 30ga</td>
</tr>
<tr>
<td>7029408</td>
<td>Centering Guide, 32ga</td>
</tr>
</tbody>
</table>

www.nordsonefd.com  info@nordsonefd.com  USA & Canada 800-556-3484  Europe +44 (0) 1582 666334  Asia +86 (21) 3866 9006
The 781RC MicroMark® Recirculating Spray Marking System produces uniform round patterns and stripes from 5.0 mm to 30.4 mm (0.20” to 1.20”) wide without clogging or overspray.

This unique marking system eliminates the clogging, maintenance, and downtime encountered with standard marking systems by using a recirculating pump to keep pigments in suspension and a programmable air delay after each cycle to clean the spray nozzle.

This MicroMark system can be used to color-code similar components, indicate pass/fail, or show production or test status. It can be activated manually or interfaced with other systems to mark at scheduled intervals.

### Features and Benefits
- No clogging, dripping or drying out
- Keep pigments in suspension
- No mist or overspray
- Consistent size and placement

### Specifications

**Valve**
- Size: 104.6 mm length x 26.9 mm diameter (4.12” x 1.06”)
- Weight: 235.3 g (8.2 oz)
- Actuating air pressure required: 70 to 90 psi (4.8-6.2 bar)
- Maximum fluid pressure: 300 psi (20.7 bar)
- Fluid inlet thread: 1/8 NPT female
- Mounting: (1) 1/4-28 UNF tapped hole
- Oyster rate: Exceeds 400 per minute
- Air cylinder body, fluid body, air cap, piston and needle, and nozzle: 303 stainless steel
- Needle packings: PTFE
- All stainless steel parts are passivated.

**Pump**
- Flow capacity: Up to 88 liters per hour
- Weight: 0.4 kg (13.6 oz)
- Power input: 24 VDC, 2.0 Amp maximum
- Wetted materials:
  - Pump body: 303 stainless steel
  - Gear: PEEK
  - Gasket: PTFE

**Pump Enclosure**
- Cabinet size: 25.4 x 20.3 x 10.2 cm (10 x 8 x 4”)
- Weight: 6.5 kg (14.6 lb)
- Input AC (to power supply): 100-240 VAC, 50/60Hz
- Power requirements: 24 VDC, 2.0 Amp maximum

The complete recirculating spray marking system includes the 781RC-SS spray valve, the ValveMate 8040 controller with single in-line solenoid, recirculation pump enclosure assembly, 1-liter reservoir and all necessary air and fluid hoses with fittings. Available in two nozzle sizes. See below.

**7013915 781RC-SS System 0.014”**
Recirculation spray valve with 0.36 mm (0.014”) diameter nozzle. Round pattern, narrow angle. All metal parts are passivated 303 stainless steel.

**7013769 781RC-SS System 0.028”**
Same as #7013915 recirculation spray valve but with 0.71 mm (0.028”) diameter nozzle. Round pattern, narrow angle. All metal parts are passivated 303 stainless steel.

**7023895 MM781-SYS System**
For fluids not requiring recirculation, select MicroMark System MM781-SYS. Includes spray valve, ValveMate 6040 controller, solenoid valve kit and 1-liter tank reservoir.

“I can’t express how maintenance-free these valves have made our jobs. Thank you.”

– Harman
Spray Valves

Using Low Volume Low Pressure (LVLP) technology, the 784S-SS aseptic spray valve system accurately controls the application of most low- to medium-viscosity fluids. The 784S-SS aseptic spray valve uses a small gauge dispensing tip to produce uniform round spray patterns between 0.130" and 0.75" (3.3 mm and 19.1 mm) in diameter. For a wider area of coverage, the 784S-SS-F with fan air cap is available.

The unique design of the 784S-SS provides a fluid flow path free of any entrapment areas, critical for sterile and aseptic fluid applications. Wetted parts are 316L stainless steel and PTFE, which are suitable for CIP (Clean-In-Place) and SIP (Sterilize-In-Place) processes.

Features and Benefits
- Easy to clean or sterilize in place
- FDA-compliant wetted parts
- Low-maintenance design
- Positive shutoff, no seals

Specifications
Size: 96.3 mm length x 31.5 mm diameter (3.79” x 1.24”)
Weight: 430 g (15.2 oz)
Actuating air pressure required: 70 to 90 psi (4.8-6.2 bar)
Maximum fluid pressure: 25 psi (1.7 bar)
Cycle rate: Exceeds 400 per minute
Air cylinder body: 316L stainless steel
Fluid body: 316L stainless steel
Piston: 316L stainless steel
Needle: 316L stainless steel
Air cap: 316L stainless steel
Maximum operating temperature: Autoclaving 260° C (500° F)
All stainless steel parts are passivated.

ValveMate 8040
The ValveMate 8040 controller provides excellent spray control to the 784S-SS Series valve. See Valve Controllers for details.

784S-SS Series
316L Stainless Steel Aseptic Spray Valve

For use with:
- Saline Solutions
- Silicone Oils
- Solvents
- Stent Coatings

7361024 784S-SS Valve with Centering Air Cap
Accommodates Tip Centering Guide. Includes spray tip kit, air hoses, fluid inlet fitting, barrel reservoirs, and adapter assembly for reservoir pressure.

7012988 784S-SS Valve
Microspray valve with 316L stainless steel parts and round pattern air cap. Does not accept Tip Centering Guide.

7013000 784S-SS-F Valve
Microspray valve with 316L stainless steel parts and fan pattern air cap. Does not accept Tip Centering Guide.

For Aseptic Dispense Valves, see Diaphragm Valves section.

TIP CENTERING GUIDE
The Tip Centering Guide ensures proper alignment of the dispensing needle in critical spray applications. Order components separately.

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<tr>
<td>7361023</td>
<td>Replacement air cap</td>
</tr>
<tr>
<td>7029405</td>
<td>Centering Guide, 23ga</td>
</tr>
<tr>
<td>7029406</td>
<td>Centering Guide, 25ga</td>
</tr>
<tr>
<td>7027085</td>
<td>Centering Guide, 27/33ga</td>
</tr>
<tr>
<td>7029407</td>
<td>Centering Guide, 30ga</td>
</tr>
<tr>
<td>7029408</td>
<td>Centering Guide, 52ga</td>
</tr>
</tbody>
</table>

www.nordsonefd.com/784Series
Radial Spray Valves

Features and Benefits
- Adjustable nozzle air
- High transfer efficiency
- Self-adjusting PTFE packings
- No mist or overspray

Specifications
Size: 174.5 mm length x 53.8 mm diameter (6.87" x 2.12")
Weight: 480.8 g (16.9 oz)
Motor air consumption:
<0.3 SCFM at 80 psi (5.4 bar)
Nozzle air consumption:
1.5 SCFM at 30 psi (2.1 bar)
Actuating air pressure required:
70 to 90 psi (4.8-6.2 bar)
Maximum fluid pressure: 300 psi (20.7 bar)
Fluid inlet thread: 1/8 NPT female
Mounting: 1/4-28 UNF tapped hole
Cycle rate: Exceeds 300 per minute
Air cylinder body: Aluminum, hard-coat anodized
Fluid body: Aluminum, hard-coat anodized
Piston: 303 stainless steel
Needle and nozzle: Stainless steel
Needle packings: PTFE
Rotor: Aluminum, hard-coat anodized
All stainless steel parts are passivated.
US Patent No. D376,376 for 782RA Radial Spray Valve

782RA Series Radial Spray Valve
For use with:
- Accelerators
- Activators
- Lubricants
- Primers
- Solvents

Unique design uses a precision air motor and Low Volume Low Pressure technology to apply a uniform coating of lubricants, primers and other low- to medium-viscosity fluids inside cylinders 25.4 mm to 304.8 mm (1" to 12") in diameter.

ValveMate 7160RA
The ValveMate 7160RA controls the 782RA’s motor speed, valve spray time, and fluid nozzle air at the dispense station. See Valve Controllers for details.

7021649 782RA Radial Spray Valve
Rotor length is 5.59 cm (2.2") and reaches into cylinders with a minimum inner diameter of 2.54 cm (1.0"). Includes fluid inlet fittings #7021499 and #7007038.

Fluid body and rotor are hard-coat anodized aluminum. Each valve can be calibrated with the stroke reference knob for process control. Radial valves include fluid inlet fittings and two 1.5 m (5 ft) control air hoses with fittings to connect the valve to the ValveMate 7160RA controller.

“Your valve did such a good job there’s no reason to look elsewhere. I know it works.”
— DLS Automation
World Leader in Precision Fluid Dispensing

Nordson EFD’s worldwide network of experienced product application specialists are available to discuss your dispensing project and recommend a system that meets your technical requirements and budget. Here are just a few things our customers have to say about working with us:

“We’re producing better-looking parts in half the time.”
— ECM Motor Co.

“Our product is critical. That’s why our choice is EFD equipment.”
— Ethicon Endo Surgery

“Your system has several benefits compared to what we used before. We’re talking about 75% less consumption (of oil).”
— Gestamp Astro

“The quality of their product, as well as their knowledge and support, have been nothing short of excellent.”
— Leak Tool & Automation Inc.

“Better control means over $50,000 in fluid savings annually.”
— Mitsubishi

“It’s not complicated. You set it up and it works.”
— Texas Instruments

“Applications support from Nordson EFD has been exceptional. They are quick to respond & give us the information needed.”
— Preh Italy Automation

“The quality of the packages that we put our products in matters. That’s why we use EFD syringes and cartridges.”
— Dymax

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

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